

## AEL & HT koopiate kogu kataloog 20131108

1. Aalto, P. and Kulmala, M. (2000) Using a cloud condensation nuclei counter to study CCN properties and concentrations. *Boreal Environment Research* **5**, 349–359. => AEL3740
2. Aalto, P., Hämeri, K., Becker, E., Weber, R., Salm, J., Mäkelä, J.M., Hoell, C., O'Dowd, C.D., Karlsson, H., Hansson, H.-C., Väkevä, M., Koponen, I., Buzorius, G. and Kulmala, M. (2001) Physical characterization of aerosol particles during nucleation events. *Tellus* **53B**, 344–358. => AEL3894
3. Aalto, P., Hämeri, K., Becker, E., Weber, R., Salm, J., Mäkelä, J.M., Hoell, C., O'Dowd, C.D., Karlsson, H., Hansson, H.-C., Väkevä, M., Koponen, I., Buzorius, G. and Kulmala, M. (2000) Aerosol number and size distribution measurements during BIOFOR. *Report Series in Aerosol Science* **47**, 33–41. => HT1370
4. Aalto, P., Hämeri, K., Becker, E., Weber, R., Salm, J., Mäkelä, J.M., Hoell, C., O'Dowd, C.D., Karlsson, H., Hansson, H.-C., Väkevä, M., Koponen, I., Buzorius, G. and Kulmala, M. (2001) Physical characterization of aerosol particles during nucleation events. *Tellus* **53B**, 344–358. => HT1442
5. Abbatt, J.P.D. (2003) Interactions of atmospheric trace gases with ice surfaces: Adsorption and reaction. *Chemical Reviews* **103**, 4783–4800. => AEL4057
6. Abdou, W.A., Martonchik, J.V., Kahn, R.A., West, R.A. and Diner, D.J. (1997) A modified linear-mixing method for calculating atmospheric path radiances of aerosol mixtures. *J. Geophys. Res. Atmospheres* **102**, 16883–16888. => AEL2024
7. Abdul-Razzak, H. (2000) A parameterization of aerosol activation 2. Multiple aerosol types. *J. Geophys. Res. Atmospheres* **105**, 6837–6844. => AEL3109
8. Abdul-Razzak, H. and Ghan, S.J. (2002) A parameterization of aerosol activation 3. Sectional representation. *J. Geophys. Res. Atmospheres* **107**, AAC1 1–6. => AEL3635
9. Abdul-Razzak, H., Ghan, S.J. and Rivera-Carpio, C. (1998) A parameterization of aerosol activation 1. Single aerosol type. *J. Geophys. Res. Atmospheres* **103**, 6123–6131. => AEL2238
10. Abraham, F.F. (1969) Further considerations on the surface free energy of embryonic droplets in the nucleation of a liquid from the vapor. *The J. Chem. Phys.* **50**, 3977–3985. => AEL0831
11. Abraham, F.F. (1974) *Homogeneous nucleation theory. Advances in Theoretical Chemistry.* Academic Press, New York, London. => AEL1067
12. Abraham, F.F., Lee, J.K. and Barker, J.A. (1974) Physical cluster free energy from liquid-state perturbation theory. *The J. Chem. Phys.* **60**, 246–247. => AEL2918
13. Abu-Allaban, M., Coulomb, W., Gertler, A.W., Gillies, J., Pierson, W.R., Rogers, C.F., Sagebiel, J.C. and Tarnay, L. (2002) Exhaust particle size distribution measurements at the Tuscarora Mountain Tunnel. *Aerosol Sci. Technol.* **36**, 771–789. => AEL3705
14. Ackermann, I.J., Hass, H., Memmesheimer, M., Ebel, A., Binkowski, F.S. and Shankar, U. (1998) Modal aerosol dynamics model for Europe: Development and first applications. *Atmos. Environ.* **32**, 2981–2999. => AEL2924
15. Adachi, M., Kousaka, Y. and Okuyama, K. (1985) Unipolar and bipolar diffusion charging of ultrafine aerosol particles. *J. Aerosol Sci.* **16**, 109–123. => AEL0001
16. Adachi, M., Okuyama, K., Kousaka, Y. and Kitada, N. (1986) Diffusion charging of ultrafine aerosol particles by bipolar ions of unequal concentrations. *J. Chem. Eng. Japan* **19**, 214–. => AEL0002

17. Adachi, M., Okuyama, K., Kousaka, Y., Kozuru, H. and Pui, D.Y.H. (1989) Bipolar diffusion charging of aerosol particles under high particle/ion concentration rates. *Aerosol Sci. Technol.* **11**, 144–156. => AEL0723
18. Adachi, M., Pui, D.Y.H. and Liu, B.Y.H. (1993) Aerosol charge neutralization by a corona ionizer. *Aerosol Sci. Technol.* **18**, 48–58. => AEL1146
19. Adams, A.J., Wennerstrom, D.E. and Mazumder, M.K. (1985) Use of bacteria as model nonspherical aerosol particles. *J. Aerosol Sci.* **16**, 193–200. => AEL0004
20. Adams, D.J. (1976) Calculating the low temperature vapour line by Monte Carlo. *Mol. Phys.* **32**, 647–657. => AEL1135
21. Adams, F., Adriaens, A., Berghmans, P. and Janssens, K. (1993) Surface microanalysis. *Analytica Chimica Acta* **283**, 19–34. => AEL2723
22. Adams, J. (1967) Über die natürliche und künstliche elektrische Aufladung beim Verstäuben von Pflanzenschutzmitteln. *VDI-Zeitschrift* **109**, 846–846. => AEL0003
23. Adams, N.G. and Smith, D. The Selected Ion Flow Tube (SIFT); a technique for studying ion-neutral reactions. *International Journal of Mass Spectrometry and Ion Physics* **21**, 349–359. => AEL0551
24. Adams, N.G., Dean, A.G. and Smith, D. Thermal energy reactions of rare-gas atomic ions with molecular oxygen and nitrogen. *International Journal of Mass Spectrometry and Ion Physics* **10**, 63–76. => AEL0490
25. Adams, P.J. and Seinfeld, J.H. (2002) Predicting global aerosol size distribution in general circulation models. *J. Geophys. Res. Atmospheres* **107**, 4370 doi:10.1029/2001JD001010–2002. => AEL3768
26. Adams, P.J., Seinfeld, J.H., Koch, D., Mickley, L. and Jacob, D. (2001) General circulation model assessment of direct radiative forcing by the sulfate-nitrate-ammonium-water inorganic aerosol system. *J. Geophys. Res. Atmospheres* **106**, 1097–1111. => AEL3296
27. Adlerman, E.J. and Williams, E.R. (1996) Seasonal variation of the global electrical circuit. *J. Geophys. Res. Atmospheres* **101**, 29679–29688. => HT1251
28. *Aerodynamic particle sizer APS-33. Reklamprospekt.* => AEL1265
29. Agarwal, J.K. and Sem, G.J. (1980) Continuous flow, single-particle-counting condensation nucleus counter. *J. Aerosol Sci.* **11**, 343–357. => AEL0906
30. Agrawal, M. and Agrawal, S.B. (1989) Phytomonitoring of air pollution around a thermal power plant. *Atmos. Environ.* **23**, 763–769. => AEL0005
31. Ahlberg, M.S. and Hansson, H.-C. (1983) Equilibrium charge distribution of multiplets of monodisperse latex spheres. *J. Aerosol Sci.* **14**, 499–506. => AEL0006
32. Ahmad, Z., Bhartia, P.K. and Krotkov, N. (2004) Spectral properties of backscattered UV radiation in cloudy atmospheres. *J. Geophys. Res. Atmospheres* **109**, D01201–doi:10.1029/2003JD003395, 2004. => AEL4114
33. Ahnell, J.E. and Koski, W.S. (1975) Ion pair formation in CF<sub>4</sub>. *J. Chem. Phys.* **62**, 4474–4476. => AEL0537
34. Ahonen, T., Aalto, P., Rannik, Ü., Kulmala, M., Nilsson, E.D., Palmroth, S., Ylitalo, H. and Hari, P. (1997) Variations and vertical profiles of trace gas and aerosol concentrations and CO<sub>2</sub> exchange in Eastern Lapland. *Atmos. Environ.* **31**, 3351–3362. => AEL1922
35. Ahr, M., Flossmann, A.I. and Pruppacher, H.R. (1989) On the effect of the chemical composition of atmospheric aerosol particles on nucleation scavenging and the formation of a cloud interstitial aerosol. *J. Atmos. Chem.* **9**, 465–478. => AEL0790

36. Aid, S. (Comp.) (1998). => HT1538
37. Aikin, A.C. (1997) Production of stratospheric HNO<sub>3</sub> by different ion-molecule reaction mechanisms. *J. Geophys. Res. Atmospheres* **102**, 12921–12925. => AEL2003
38. Aikin, A.C., Herman, J.R., Maier, E.J. and McQuillan, C.J. (1982) Atmospheric chemistry of ethane and ethylene. *J. Geophys. Res.* **87**, 3105–3118. => AEL1361
39. Aikin, A.C., McPeters, R.D., Miles, T. and Flynn, L.E. (1996) Intercomparison of UV spectrometer and polarimeter on SMM and Stratospheric Aerosol and Gas Experiment II ozone profiles and trends in the lower mesosphere. *J. Geophys. Res.* **101**, 9023–9029. => AEL1664
40. *Air ions: physical and biological aspects. Olemas lk. 1-70 ja 181-197* (1987) edited by Charry, J.M. and Kavet, R., CRC Press, Boca Raton, Florida. => HT0922
41. *Air quality – Determination of ozone in ambient air – Ultraviolet photometric method* (1998) International Standard,. => AEL2146
42. *Air quality daughter directives. Position paper on lead* (1997) Commission of the European Communities,. => AEL2142
43. *Air/particulate instrumentation and analysis. Olemas lk. 399-416* (1981) edited by Cheremisinoff, P.N., Ann Arbor Science Publishers, Inc., => HT0921
44. Aires, F., Chédin, A. and Nadal, J.-P. (2000) Independent component analysis of multivariate time series: Application to the tropical SST variability. *J. Geophys. Res. Atmospheres* **105**, 17437–17455. => AEL3226
45. Åkerblom, G. and Lindén, A. Predicting the radon concentration in a deep nuclear waste repository. In *Rare gas geochemistry. Applications in Earth and environmental sciences*, edited by Virk, H.S., Guru Nanak Dev University, Amritsar, pp. 241–257. => HT1204
46. Åkerblom, G. and Lindgren, J. (1996) *Mapping of ground water radon potential. Paper presented at the IAEA Technical Committee meeting. Käsikiri.* => HT1153
47. Åkerblom, G. and Mellander, H. Geology and radon. In *Radon measurements by etched track detectors. Applications in radiation protection, earth sciences and the environment*, edited by Durrani, S.A. and Ilić, R., World Scientific, pp. 21–49. => HT1155
48. Åkerblom, G. Ground radon - monitoring procedures in Sweden. *Geoscientist* **4**, 21–27. => HT1154
49. Akeredolu, F. (1989) Atmospheric environment problems in Nigeria - an overview. *Atmos. Environ.* **23**, 783–792. => AEL0007
50. Akerlund, C.-E. (1986) *Comparison of two methods for calculation of potentials in the interelectrode space of wire-plate electrostatic precipitators. Manuscript.* Uppsala. => HT0421
51. Akimoto, H., Mukai, H., Nishikawa, M., Murano, K., Hatakeyama, S., Liu, C.-M., Buhr, M., Hsu, K.J., Jaffe, D.A., Zhang, L., Honrath, R., Merrill, J.T. and Newell, R.E. (1996) Long-range transport of ozone in the East Asian Pacific rim region. *J. Geophys. Res.* **101**, 1999–2010. => AEL1623
52. Alagona, G. and Ghio, C. (1990) Monte Carlo simulation studies of the solvation of ions. 3. The non intramolecularly H-bonded form of glycine zwitterion. *J. Molecular Liquids* **47**, 139–160. => AEL0792
53. Alam, A., Shi, J.P. and Harrison, R.M. (2003) Observations of new particle formation in urban air. *J. Geophys. Res. Atmospheres* **108**, 4093– doi:10.1029/2001JD001417, 2003. => AEL3935
54. Alam, M.K. (1987) The effect of van der Waals and viscous forces on aerosol coagulation. *Aerosol Sci. Technol.* **6**, 41–52. => AEL1478

55. Alasaarela, E., Havu, J., Heikkinen, K. and Weppling, K. (1990) Neutralization of acidified watersources. In *Acidification in Finland*, edited by Kauppi et, al., Springer-Verlag, Berlin, Heidelberg, pp. 1117–1125. => HT1080
56. Alejandre, J., Tildesley, D.J. and Chapela, G.A. (1995) Molecular dynamics simulation of the orthobaric densities and surface tension of water. *J. Chem. Phys.* **102**, 4574–4583. => AEL1483
57. Alekseenko, V.V., Sborshchikov, V.G. and Chudakov, A.E. (1984) Mikrovariatsii intensivnosti kosmicheskikh luchej i elektricheskoe pole atmosfery (in Russian). *Izv. AN SSSR. Seria Fiz.* **48**, 2152–2154. => HT0348
58. Alekseenko, V.V., Sborshchikov, V.G. and Chudakov, A.E. (1984) Mikrovariatsii intensivnosti kosmicheskikh luchej i elektricheskoe pole atmosfery. *Izv. AN SSSR. Seriya Fiz.* **48**, 2152–2154. => HT0377
59. Alexander, M.J., Beres, J.H. and Pfister, L. (2000) Tropical stratospheric gravity wave activity and relationships to clouds. *J. Geophys. Res. Atmospheres* **105**, 22299–22309. => AEL3245
60. Alexeenko, V.V., Chernyaev, A.B., Chudakov, A.E., Khaerdinov, N.S., Ozrokov, S.Kh. and Sborshikov, V.G. (1987) Short perturbations of cosmic ray intensity and electric field in atmosphere. *20th International Cosmic Ray Conference. Conference papers*, Nauka, M, pp. 272–275. => HT0378
61. Alexeyenko, V.V., Chudakov, A.E., Sborshikov, V.G. and Tizengauzen, V.A. (1985) Short perturbations of cosmic ray intensity and electric field in atmosphere. *19th International Cosmic Ray Conference. Conference papers. SH sessions*, La Jolla, **5**, pp. 352–355. => HT0379
62. Alheit, R.R., Flossmann, A.I. and Pruppacher, H.R. (1990) A theoretical study of the wet removal of atmospheric pollutants. Part IV: The uptake and redistribution of aerosol particles through nucleation and impaction scavenging by growing cloud drops and ice particles. *J. Atmos. Sci.* **47**, 870–887. => AEL0810
63. Aliwell, S.R. and Jones, R.L. (1998) Measurements of tropospheric NO<sub>3</sub> at midlatitude. *J. Geophys. Res. Atmospheres* **103**, 5719–5727. => AEL2230
64. Aliwell, S.R., Van Roozendaal, M., Johnston, P.V., Richter, A., Wagner, T., Arlander, D.W., Burrows, J.P., Fish, D.J., Jones, R.L., Tørnkvist, K.K., Lambert, J.-C., Pfeilsticker, K. and Pundt, I. (2002) Analysis for BrO in zenith-sky spectra: An intercomparison exercise for analysis improvement. *J. Geophys. Res. Atmospheres* **107**, ACH10 1–20. => AEL3675
65. Allan, B.J., McFiggans, G., Plane, J.M.C. and Coe, H. (2000) Observations of iodine monoxide in the remote marine boundary layer. *J. Geophys. Res. Atmospheres* **105**, 14363–14369. => AEL3218
66. Allan, B.J., McFiggans, G., Plane, J.M.C., Coe, H. and McFadyen, G.G. (2000) The nitrate radical in the remote marine boundary layer. *J. Geophys. Res. Atmospheres* **105**, 24191–24204. => AEL3252
67. Allan, J.D., Alfarra, M.R., Bower, K.N., Williams, P.I., Gallagher, M.W., Jimenez, J.L., McDonald, A.G., Nemitz, E., Canagaratna, M.R., Jayne, J.T., Coe, H. and Worsnop, D.R. (2003) Quantitative sampling using an Aerodyne mass spectrometer 2. Measurements of fine particulate chemical composition in two UK cities. *J. Geophys. Res. Atmospheres* **108**, 4091–doi:10.1029/2002JD002359, 2003. => AEL3934
68. Allan, J.D., Jimenez, J.L., Williams, P.I., Alfarra, M.R., Bower, K.N., Jayne, J.T., Coe, H. and Worsnop, D.R. (2003) Quantitative sampling using an Aerodyne mass spectrometer 1. Techniques of data interpretation and error analysis. *J. Geophys. Res. Atmospheres* **108**, 4090– doi:10.1029/2002JD002358, 2003. => AEL3933

69. Allen, G., Sioutas, C., Koutrakis, P., Reiss, R., Lurmann, F.W. and Roberts, P.T. (1997) Evaluation of the TEOM® method for measurement of ambient particulate mass in urban areas. *J. Air & Waste Manage. Assoc.* **47**, 682–689. => AEL2124
70. Allen, G., Sioutas, C., Koutrakis, P., Reiss, R., Lurmann, F.W. and Roberts, P.T. (1997) Evaluation of the TEOM® method for measurement of ambient particulate mass in urban areas. *J. Air & Waste Manage. Assoc.* **47**, 682–689. => AEL2992
71. Allen, J. and Gould, R.K. (1981) Mass spectrometric analyzer for individual aerosol particles. *Review of Scientific Instruments* **52**, 804–809. => AEL0406
72. Alliksaar, T. (2000) Application of spherical fly-ash particles to study spatial deposition of atmospheric pollutants in North-Eastern Estonia. *Oil Shale* **14**, 335–349. => AEL3455
73. Almeida, A., Gusev, A.A., Martin, I.M., Pugacheva, G.I., Pankov, V.M. and Spjeldvik, W.N. *Rainfall cycles with bidecadal periods in Brazilian region of the South American continent. Käsikiri.* => HT1416
74. Alofs, D.J. and Balakumar, P. (1982) Inversion to obtain aerosol size distributions from measurements with a differential mobility analyzer. *J. Aerosol Sci.* **13**, 513–527. => AEL0008
75. Alonso, M. and Kousaka, Y. The effect of space charge field on the classification of nano-sized particles in the differential mobility analyzer. *Käsikiri* 1–16. => HT0969
76. Alonso, M. *Conceptual basis for a new differential mobility analyzer applicable to a very wide particle size range. Käsikiri.* => HT1568
77. Alonso, M., Alguacil, F.J. and Kousaka, Y. (1998) *Space-charge effects in the differential mobility analyzer. Käsikiri.* => HT1254
78. Alonso, M., Alguacil, F.J., Watanabe, Y., Nomura, T. and Kousaka, Y. (2000) *Experimental evidence of DMA voltage shift due to space-charge. Käsikiri.* => HT1304
79. Alonso, M., Kousaka, Y. and Hashimoto, T. (1997) *Air ions mobility measurement in a tandem differential mobility analyzer. Käsikiri.* => HT1219
80. Alonso, M., Kousaka, Y., Hashimoto, T. and Hashimoto, N. (1997) Penetration of nanometer-sized aerosol particles through wire screen and laminar flow tube. *Aerosol Sci. Technol.* **27**, 471–480. => AEL1957
81. Alonso, M. and Alguacil, F.J. (2001) *Reduction of the classification mobility band width in the differential mobility analyzer by using a conical rod as inner electrode. Käsikiri.* => HT1365
82. Alpers, M., Gerding, M. and von Zahn, U. (2000) NLC particle properties from a five-color lidar observation at 54° N. *J. Geophys. Res. Atmospheres* **105**, 12235–12240. => AEL3213
83. Altshuller, A.P. (1989) Nonmethane organic compound to nitrogen oxide ratios and organic composition in cities and rural areas. *J. Air Poll. Contr. Assoc.* **39**, 936–943. => AEL0647
84. Amadon, A.S. and Marlow, W.H. (1991) Cluster-collision frequency. I. The long-range intercluster potential. *Physical Review A* **43**, 5483–5492. => AEL1503
85. Amadon, A.S. and Marlow, W.H. (1991) Cluster-collision frequency. II. Estimation of the collision rate. *Physical Review A* **43**, 5493–5499. => AEL1504
86. Amann, M. (1990) Recent and future development of emissions of nitrogen oxides in Europe. *Atmos. Environ.* **24A**, 2759–2765. => AEL2130
87. *Ambient air pollution by particulate matter. Position paper. Executive summary* (1997). => AEL2144
88. Amble, E. (1985) Simulation of the chemical processes in a polluted irradiated atmosphere. *Atmos. Environ.* **19**, 905–910. => AEL0634

89. Amelin, A.G. (1967) *Theory of fog concentration. Ch. 1. General aspects of fog condensation*. IPST, Jerusalem. => HT1404
90. Ames, W.F. (1969) Recent developments in the nonlinear equations of transport processes. *Ind. & Eng. Chem. Fundamentals* **8**, 522–536. => AEL0407
91. Amiranashvili, A.G. and Magradze, G.D. (1989) VIII Mezhdunarodnaya konferentsiya po atmosfernomu elektrichestvu (Upsala, Shvetsiya, 13-16 iyunya 1988 g.) (in Russian). *Izv. AN SSSR. Fizika Atmosfery i Okeana* **25**, 1001–1006. => HT0474
92. Amiry, A.A. and Balazs, N.L. (1991) Clusters in a one-dimensional random walk. *Ann. Phys.* **205**, 206–218. => AEL0706
93. Ammann, M., Hauert, R., Burtscher, H. and Siegmann, H.C. (1993) Photoelectric charging of ultrafine volcanic aerosols: Detection of Cu(I) as a tracer of chlorides in magmatic gases. *J. Geophys. Res.* **98**, 551–556. => AEL1732
94. Ananth, M.S., Gubbins, K.E. and Gray, C.G. (1974) Perturbation theory for equilibrium properties of molecular fluids. *Mol. Phys.* **28**, 1005–1030. => AEL1175
95. Anastasio, C. and McGregor, K.G. (2000) Photodestruction of dissolved organic nitrogen species in fog waters. *Aerosol Sci. Technol.* **32**, 106–119. => AEL3327
96. Ancker, K., Bjurström, R., Göthe, C.-J., Holm, S. and Langworth, S. (1984) Electrostatic charge in office environments. *@IA*, Stockholm, pp. 157–162. => AEL0395
97. Anderson, B.E., Gregory, G.L., Collins, J.E.Jr., Sachse, G.W., Conway, T.J. and Whiting, G.P. (1996) Airborne observations of spatial and temporal variability of tropospheric carbon dioxide. *J. Geophys. Res.* **101**, 1985–1997. => AEL1622
98. Anderson, J.R., Buseck, P.R., Patterson, T.L. and Arimoto, R. (1996) Characterization of the Bermuda tropospheric aerosol by combined individual-particle and bulk-aerosol analysis. *Atmos. Environ.* **30**, 319–338. => AEL2710
99. Anderson, R.V. (1966) Absolute measurements of atmospheric charge density. *J. Geophys. Res.* **71**, 5809–5814. => AEL0009
100. Anderson, R.V. (1966) Absolute measurements of atmospheric charge density. *Journal of Geophysical Research* **71**, 5809–5814. => HT0058
101. Anderson, R.V. (1966) Measurements of total current density above active snowstorms. *Journal of Atmospheric and Terrestrial Physics* **28**, 789–793. => HT0039
102. Anderson, R.V. (1967) Measurement of worldwide diurnal atmospheric electricity variations. *Monthly Weather Review* **95**, 899–904. => HT0111
103. Anderson, R.V. (1972) Atmospheric electricity, turbulence and a pseudo-sunrise effect resulting from a solar eclipse. *Journal of Atmospheric and Terrestrial Physics* **34**, 567–572. => HT0071
104. Anderson, R.V. (1974) Atmospheric electricity in the real world. *Fifth International Conference on Atmospheric Electricity Garmisch-Partenkirchen, September 2-7, 1974*, pp. 1–14+ill. => HT1183
105. Anderson, R.V. and Bailey, J.C. (1990) *Errors in the Gerdien measurement of atmospheric electric conductivity. Manuscript.* => HT0470
106. Anderson, R.V. and Dolezalek, H. (1972) Atmospheric electricity measurements at Waldorf, Maryland during the 7 March 1970 solar eclipse. *Journal of Atmospheric and Terrestrial Physics* **34**, 561–566. => HT0053
107. Anderson, R.V. and Gathman, S.G. (1969) Measurements of the electrical characteristics of snowstorms. *Journal of Atmospheric and Terrestrial Physics* **31**, 171–177. => HT0047

108. Anderson, T.L., Masonis, S.J., Covert, D.S., Charlson, R.J. and Rood, M.J. (2000) In situ measurement of the aerosol extinction-to-backscatter ratio at a polluted continental site. *J. Geophys. Res. Atmospheres* **105**, 26907–26915. => AEL3267
109. Andersson, L., Olsson, J. and Holmlid, L. (1986) Surface ionization at atmospheric pressure: Partial melting of alkali salt particles. *Langmuir* **2**, 594–599. => HT1118
110. Andersson, M.B. and Pettersson, J.B.C. (1995) Collision complex model of molecules scattering from corrugated surfaces. *J. Chem. Phys.* **102**, 4239–4250. => AEL3193
111. Andersson, M.B. and Pettersson, J.B.C. (1995) Collision complex model of molecules scattering from corrugated surfaces. *J. Chem. Phys.* **102**, 4239–4250. => HT0864
112. Andersson, M.B. and Pettersson, J.B.C. (1996) Vibrational excitation of SF<sub>6</sub> scattering from graphite. *Chem. Phys. Lett.* **250**, 555–559. => HT1095
113. Andersson, Y. and Jungström, E. (1989) Gas phase reaction of the NO<sub>3</sub> radical with organic compounds in the dark. *Atmos. Environ.* **23**, 1153–1155. => AEL0668
114. Andersson-Sköld, Y. and Simpson, D. (2001) Secondary organic aerosol formation in northern Europe: A model study. *J. Geophys. Res. Atmospheres* **106**, 7357–7374. => AEL3429
115. Andreae, M.O., Elbert, W., Cai, Y., Andreae, T.W. and Gras, J. (1999) Non-sea-salt sulfate, methanesulfonate, and nitrate aerosol concentrations and size distributions at Cape Grim, Tasmania. *J. Geophys. Res. Atmospheres* **104**, 21695–21706. => AEL3017
116. Andreae, M.O., Ferek, R.J., Bermond, F., Byrd, K.P., Engstrom, R.T., Hardin, S., Houmère, P.D., LeMarrec, F. and Raedmonck, H. (1985) Dimethyl sulfide in the marine atmosphere. *J. Geophys. Res.* **90**, 12891–12900. => AEL1362
117. Andreae, M.O., Talbot, R.W., Andreae, T.W. and Harriss, R.C. (1988) Formic and acetic acid over the central Amazon region, Brazil. 1. Dry season. *J. Geophys. Res.* **93**, 1616–1624. => AEL0640
118. Andreeva, M.I., Ionov, V.V. and Tereshchenkov, V.P. (1986) Spektr elektricheskoi sostavlyayushchei estestvennykh pomekh v diapazone chastot 0.01-25 gerts (in Russian). *VINITI* –. => HT0478
119. Andrés Hernández, M.D., Burkert, J., Reichert, L., Stöbener, D., Meyer-Arneke, J. and Burrows, J.P. (2001) Marine boundary layer peroxy radical chemistry during the AEROSOLS99 campaign: Measurements and analysis. *J. Geophys. Res. Atmospheres* **106**, 20833–20846. => AEL3528
120. Andrews, A.E., Boering, K.A., Daube, B.C., Wofsy, S.C., Loewenstein, M., Jost, H., Podolske, J.R., Webster, C.R., Herman, R.L., Scott, D.C., Flesch, G.J., Moyer, E.J., Elkins, J.W., Dutton, G.S., Hurst, D.F., Moore, F.L., Ray, E.A., Romashkin, P.A. and Strahan, S.E. (2001) Mean ages of stratospheric air derived from in situ observations of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O. *J. Geophys. Res. Atmospheres* **106**, 32295–32314. => AEL3617
121. Andrews, E., Kreidenweis, S.M., Penner, J.E. and Larson, S.M. (1997) Potential origin of organic cloud condensation nuclei observed at marine site. *J. Geophys. Res. Atmospheres* **102**, 21997–22012. => AEL2017
122. Andronache, C. and Chameides, W.L. (1997) Interactions between sulfur and soot emissions from aircraft and their role in contrail formation. 1. Nucleation. *J. Geophys. Res. Atmospheres* **102**, 21443–21451. => AEL2206
123. Andronache, C. and Chameides, W.L. (1998) Interactions between sulfur and soot emissions from aircraft and their role in contrail formation. 2. Development. *J. Geophys. Res. Atmospheres* **103**, 10787–10802. => AEL2260

124. Andronache, C., Chameides, W.L., Davis, D.D., Anderson, B.E., Pueschel, R.F., Bandy, A.R., Thornton, D.C., Talbot, R.W., Kasibhatla, P. and Kiang, C.S. (1997) Gas-to-particle conversion of tropospheric sulfur as estimated from observations in the western North Pacific during PEM-West B. *J. Geophys. Res. Atmospheres* **102**, 28511–28538. => AEL2171
125. Andronache, C., Donner, L.J., Seman, C.J., Ramaswamy, V. and Hemler, R.S. (1999) Atmospheric sulfur and deep convective clouds in tropical Pacific: A model study. *J. Geophys. Res. Atmospheres* **104**, 4005–4024. => AEL2771
126. Aneja, V.P., Nelson, D.R., Roelle, P.A., Walker, J.T. and Battye, W. (2003) Agricultural ammonia emissions and ammonium concentrations associated with aerosols and precipitation in the southeast United States. *J. Geophys. Res. Atmospheres* **108**, 4152–doi:10.1029/2002JD002271, 2003. => AEL3946
127. Angius, S.P., Angelino, E., Castrofino, G., Gianelle, V., Tamponi, M. and Tebaldi, G. (1995) Evaluation of the effects of traffic and heating reduction measures on urban air quality. *Atmos. Environ.* **29**, 3477–3487. => AEL2104
128. Anishtshenko, V.I. and Smirnov, L.M. (1979) Issledovanie vliyaniya razmera aerazolei na formu polidispersnykh indikatrix rasseyaniya (in Russian). *Trudy LIAP*, Leningrad, **1(136)**, pp. 44–47. => HT0602
129. Anisimov, M.P. and Vershinin, S.N. (1988) Spontaneous nucleation rate, sizes and compositions of critical nuclei in many-component supersaturated vapour. *Lect. Notes Phys.* **309**, 393–396. => AEL0717
130. Anisimov, M.P., Hämeri, K. and Kulmala, M. (1994) Construction and test of laminar flow diffusion chamber: Homogeneous nucleation of DBP and n-hexanol. *J. Aerosol Sci.* **25**, 23–32. => AEL2075
131. Anisimov, M.P., Hopke, P.K., Terry, J., Rasmussen, D.H., Shandakov, S.D. and Pinaev, V.A. (1998) Surface topology of the ion-induced vapor nucleation rate. *Aerosol Sci. Technol.* **29**, 547–556. => AEL2855
132. Anisimov, M.P., Koropchak, J.A., Nasibulin, A.G. and Timoshina, L.V. (1998) Critical embryo phase transitions in the nucleated binary glycerin-carbon dioxide system. *J. Chem. Phys.* **109**, 10004–10009. => AEL3869
133. Anisimov, M.P., Nasibulin, A.G. and Shandakov, S.D. (1999) *Experimental detection of nucleation rate surface singularity. Käsikiri.* => AEL3868
134. Anisimov, M.P., Nasibulin, A.G. and Timoshina, L.V. (1997) Binary nucleation in the glycerol-sulfur hexafluoride system in the vicinity of a phase transition line. *Colloid Journal* **59**, 549–555. => AEL3867
135. Anisimov, S.V. and Dmitriev, E.M. Aeroelectrical altitude profile in limit of regular convection. *J. Geophys. Res. Atmospheres. Käsikiri* 7+ill. => HT1098
136. Anisimov, S.V., Bakastov, S.S. and Mareev, E.A. (1994) Spatiotemporal structures of electric field and space charge in the surface atmospheric layer. *Journal of Geophysical Research* **99**, 10603–10610. => AEL3196
137. Anisimov, S.V., Bakastov, S.S. and Mareev, E.A. (1994) Spatiotemporal structures of electric field and space charge in the surface atmospheric layer. *Journal of Geophysical Research* **99**, 10603–10610. => HT0751
138. Anisimov, S.V., Bakastov, S.S. and Mareev, E.A. Spatio-temporal structures of electric field and volume charge in the surface atmospheric layer. *Käsikiri* 1–11. => HT0939
139. Anisimov, S.V., Bakastov, S.S., Borovkov, Yu.E., Dmitriev, E.M. and Anisimova, E.B. *Geomagnetic and aeroelectrical measurements at geophysical observatory "Borok" in Russia. Käsikiri.* => HT1197



140. Anisimov, S.V., Mareev, E.A. and Bakastov, S.S. (1999) On the generation and evolution of electrostatic structures in the surface layer. *J. Geophys. Res. Atmospheres* **104**, 14359–14367. => AEL2989
141. Anisimov, S.V., Mareev, E.A. and Trakhtengerts, V.Yu. (1990) Characteristics of electric noises in the surface atmospheric layer. *Res. Lett. Atmos. Electr.* **10**, 1–10. => HT1082
142. Anisimov, S.V., Mareev, E.A. and Trakhtengerts, V.Yu. (1991) Spektralnye kharakteristiki variatsii atmosfernogo elektricheskogo polya i toka (in Russian). *Geomagnetizm i Aeronomiya* **31**, 669–677. => HT0874
143. Anisimov, S.V., Mareev, E.A. and Trakhtengerts, V.Yu. *Characteristics of electric noises in the surface atmospheric layer. Käsikiri.* => HT1264
144. Annis, B.K., Malinauskas, A.P. and Mason, E.A. (1972) Theory of drag on neutral or charged spherical aerosol particles. *J. Aerosol Sci.* **3**, 55–64. => AEL0241
145. Annis, B.K., Malinauskas, A.P. and Mason, E.A. (1972) Theory of drag on neutral or charged spherical aerosol particles. *Aerosol Sci.* **3**, 55–64. => HT1289
146. Ansari, A.S. and Pandis, S.N. (1998) Response of inorganic PM to precursor concentrations. *Environ. Sci. Technol.* **32**, 2706–2714. => AEL2971
147. Ansmann, A., Wagner, F., Althausen, D., Müller, D., Herber, A. and Wandinger, U. (2001) European pollution outbreaks during ACE 2: Lofted aerosol plumes observed with Raman lidar at the Portuguese coast. *J. Geophys. Res. Atmospheres* **106**, 20725–20733. => AEL3524
148. Ansmann, A., Wagner, F., Müller, D., Althausen, D., Herber, A., von Hoyningen-Huene, W. and Wandinger, U. (2002) European pollution outbreaks during Ace 2: Optical particle properties inferred from multiwavelength lidar and star-Sun photometry. *J. Geophys. Res. Atmospheres* **107**, AAC8 1–14. => AEL3725
149. Anthony, S.E., Onasch, T.B., Tisdale, R.T., Disselkamp, R.S., Tolbert, M.A. and Wilson, J.C. (1997) Laboratory studies of ternary H<sub>2</sub>SO<sub>4</sub>/HNO<sub>3</sub>/H<sub>2</sub>O particles: Implications for polar stratospheric cloud formation. *J. Geophys. Res. Atmospheres* **102**, 10777–10784. => AEL1954
150. Anthony, S.E., Tisdale, R.T., Disselkamp, R.S., Tolbert, M.A. and Wilson, J.C. (1995) FTIR studies of low temperature sulfuric acid aerosols. *Geophys. Res. Lett.* **22**, 1105–1108. => AEL1854
151. Anttila, T. and Kerminen, V.-M. (2002) Influence of organic compounds on the cloud droplet activation: A model investigation considering the volatility, water solubility, and surface activity of organic matter. *J. Geophys. Res. Atmospheres* **107**, 4662  
doi:10.1029/2001JD001482–2002. => AEL3811
152. Anttila, T. and Kerminen, V.-M. (2003) Aerosol formation via aqueous-phase chemical reactions. *J. Geophys. Res. Atmospheres* **108**, 4134– doi:10.1029/2002JD002764, 2003. => AEL3951
153. Anttila, T., Kerminen, V.-M. and Kulmala, M. (2002) A tool for estimating the contribution of water-soluble organic compounds to the particle mass and condensational growth in the atmosphere. *Atmos. Environ.* **36**, 5897–5908. => AEL3818
154. Anyz~, F. (1970) Simple method of membrane filter processing. *J. Geophys. Res.* **75**, 2299–2301. => AEL0012
155. Anyz~, F. (1974) Poznamka ke stanoveni vahove koncentrace aerosolu filtry SYNPOR. *Chemicke` listy* **68**, 310–314. => AEL0010
156. Anyz~, F. (1975) Determination of size of aerosol particles trapped on a fibre filter. *Collect. Czechoslovak Chem. Comm.* 954–958. => AEL0011

157. Aoki, T. and Kato, K. (1954) Ratio of atmospheric ions. *Bulletin of the Electrotechnical Laboratory* **18**, 561–575,628. => HT-F098
158. Apel, E.C., Riemer, D.D., Hills, A., Baugh, W., Orlando, J., Faloona, I., Tan, D., Brune, W., Lamb, B., Westberg, H., Carroll, M.A., Thornberry, T. and Geron, C.D. (2002) Measurement and interpretation of isoprene fluxes and isoprene, methacrolein, and methyl vinyl ketone mixing ratios at the PROPHET site during the 1998 Intensive. *J. Geophys. Res. Atmospheres* **107**, ACH7 1–15. => AEL3630
159. Aplin, K.L. (2003) A novel technique to determine atmospheric ion mobility spectra. In *ICAE 2003 Versailles. Proc. 12th Int. Conf. On Atmospheric Electricity*, edited by Chauzy, S. and Laroche, P., **1**, pp. 357–360. => AEL4045
160. Aplin, K.L. and Harrison, R.G. (2000) A computer-controlled Gerdien atmospheric ion counter. Proof copy. *Review of Scientific Instruments* **71**, 1–5. => HT1461
161. Appenzeller, C., Davies, H.C. and Norton, W.A. (1996) Fragmentation of stratospheric intrusions. *J. Geophys. Res.* **101**, 1435–1456. => AEL1815
162. Arabadzhi, V.I., Prokhorov, E.S. and Epshtein, I.I. (1984) O radioizluchenii grozovykh oblakov (in Russian). *Zhurnal Tekhnicheskoi Fiziki* **54**, 2427–2428. => HT0077
163. Arakaki, T. and Faust, B.C. (1998) Sources, sinks, and mechanism of hydroxyl radical ( $\bullet\text{OH}$ ) photoproduction and consumption in authentic acidic continental cloud waters from Whiteface Mountain, New York: The role of the Fe(r)(r = II, III) photochemical cycle. *J. Geophys. Res. Atmospheres* **103**, 3487–3504. => AEL2221
164. Archer, C.L. and Jacobson, M.Z. (2003) Spatial and temporal distributions of U.S. winds and wind power at 80 m derived from measurements. *J. Geophys. Res. Atmospheres* **108**, 4289–doi:10.1029/2002JD002076, 2003. => AEL4001
165. Arijs, E. (1983) Positive and negative ions in the stratosphere. *Annales Geophysicae* **1**, 149–160. => AEL1105
166. Arijs, E. (1992) Stratospheric ion chemistry: Present understanding and outstanding problems. *Planet. Space Sci.* **40**, 255–270. => AEL1011
167. Arijs, E., Nevejans, D. and Ingels, J. (1980) Unambiguous mass determination of major stratospheric positive ions. *Nature* **288**, 684–686. => AEL1413
168. Arijs, E., Nevejans, D. and Ingels, J. (1982) Stratospheric positive ion composition measurements, ion abundances and related trace gas detection. *J. Atmos. Terr. Phys.* **44**, 43–53. => AEL1359
169. Arijs, E., Nevejans, D., Frederick, P. and Ingels, J. (1981) Negative ion composition measurements in the stratosphere. *Geophys. Res. Lett.* **8**, 121–124. => AEL1363
170. Arijs, E., Nevejans, D., Frederick, P. and Ingels, J. (1982) Stratospheric negative ion composition measurements, ion abundances and related trace gas detection. *J. Atmos. Terr. Phys.* **44**, 681–694. => AEL1358
171. Arijs, E., Nevejans, D., Ingels, J. and Frederick, P. (1985) Recent stratospheric negative ion composition measurements between 22- and 45-km altitude. *J. Geophys. Res.* **90**, 5891–5896. => AEL1008
172. Arimoto, R., Duce, R.A., Savoie, D.L., Prospero, J.M., Talbot, R., Cullen, J.D., Tomza, U., Lewis, N.F. and Ray, B.J. (1996) Relationships among aerosol constituents from Asia and the North Pacific during PEM-West A. *J. Geophys. Res.* **101**, 2011–2023. => AEL1540
173. Arimoto, R., Ray, B.J., Lewis, N.F., Tomza, U. and Duce, R.A. (1997) Mass-particle size distributions of atmospheric dust and the dry deposition of dust to the remote ocean. *J. Geophys. Res. Atmospheres* **102**, 15867–15874. => AEL2006

174. Arimoto, R., Snow, J.A., Graustein, W.C., Moody, J.L., Ray, B.J., Duce, R.A., Turekian, K.K. and Maring, H.B. (1999) Influences of atmospheric transport pathways on radionuclide activities in aerosol particles from over the North Atlantic. *J. Geophys. Res. Atmospheres* **104**, 21301–21316. => AEL3011
175. Ariya, P.A., Sander, R. and Crutzen, P.J. (2000) Significance of HO<sub>x</sub> and peroxides production due to alkene ozonolysis during fall and winter: A modelling study. *J. Geophys. Res. Atmospheres* **105**, 17721–17738. => AEL3227
176. Ariyada, O., Tanji, T., Okino, M. and Mochizuki, S. (1997) Simultaneous measurement of the electrical mobility distribution of atmospheric large ion and radioactive large ion in room air. *J. Atmos. Electr.* **17**, 69–76. => HT1255
177. Arnaut, L.G. and Formosinho, S.J. (1988) Excited-state proton-transfer kinetics: A theoretical model. *J. Phys. Chem.* **92**, 685–691. => AEL0694
178. Arndt, R.L., Carmichael, G.R., Streets, D.G. and Bhatti, N. (1997) Sulfur dioxide emissions and sectorial contributions to sulfur deposition in Asia. *Atmos. Environ.* **31**, 1553–1572. => AEL1933
179. Arnold, F. (1980) Multi-ion complexes in the stratosphere - implications for trace gases and aerosol. *Nature* **284**, 610–611. => AEL0621
180. Arnold, F. (1980) Multi-ion complexes in the stratosphere — implications for trace gases and aerosol. *Nature* **284**, 610–611. => AEL3161
181. Arnold, F. (1982) Ion nucleation - a potential source for stratospheric aerosols. *Nature* **299**, 134–137. => AEL0785
182. Arnold, F. (1982) Ion nucleation — a potential source for stratospheric aerosols. *Nature* **299**, 134–137. => AEL3162
183. Arnold, F. and Henschen, G. (1978) First mass analysis of stratospheric negative ions. *Nature* **275**, 521–522. => AEL1412
184. Arnold, F. and Qiu, S. (1984) Upper stratosphere negative ion composition measurements and inferred trace gas abundances. *Planet. Space Sci.* **32**, 169–177. => AEL1365
185. Arnold, F., Böhringer, H. and Henschen, G. (1978) Composition measurements of stratospheric positive ions. *Geophys. Res. Lett.* **5**, 653–656. => AEL1418
186. Arnold, F., Curtius, J., Sierau, B., Bürger, V., Busen, R. and Schumann, U. (1999) Detection of massive negative chemiions in the exhaust plume of a jet aircraft. *Geophys. Res. Lett.* **26**, 1577–1580. => AEL3163
187. Arnold, F., Curtius, J., Spreng, S. and Deshler, T. (1998) Stratospheric aerosol sulfuric acid: First direct in situ measurements using a novel balloon-based mass spectrometer apparatus. *J. Atmos. Chem.* **30**, 3–10. => AEL2958
188. Arnold, F., Fabian, R., Ferguson, E.E. and Joos, W. (1981) Mass spectrometric measurements of fractional ion abundances in the stratosphere - negative ions. *Planet. Space Sci.* **29**, 195–203. => AEL0630
189. Arnold, F., Heitmann, H. and Oberfrank, K. (1984) First composition measurements of positive ions in the upper troposphere. *Planet. Space Sci.* **32**, 1567–1576. => AEL0620
190. Arnold, F., Henschen, G. and Ferguson, E.E. (1981) Mass spectrometric measurements of fractional ion abundances in the stratosphere - positive ions. *Planet. Space Sci.* **29**, 185–193. => AEL1366

191. Arnold, F., Schneider, J., Gollinger, K., Schlager, H., Schulte, P., Hagen, D.E., Whitefield, P.D. and Velthoven, P.van (1997) Observation of upper tropospheric sulfur dioxide- and acetone-pollution: Potential implications for hydroxyl radical and aerosol formation. *Geophys. Res. Lett.* **24**, 57–60. => AEL1914
192. Arnold, F., Stilp, Th., Busen, R. and Schumann, U. (1998) Jet engine exhaust chemiion measurements: Implications for gaseous SO<sub>3</sub> and H<sub>2</sub>SO<sub>4</sub>. *Atmos. Environ.* **32**, 3073–3077. => AEL2953
193. Arnold, F., Viggiano, A.A. and Schlager, H. (1982) Implications for trace gases and aerosols of large negative ion clusters in the stratosphere. *Nature* **297**, 371–376. => AEL0527
194. Arnold, F., Wohlfrom, K.-H., Klemm, M.W., Schneider, J., Gollinger, K., Schumann, U. and Busen, R. (1998) First gaseous ion composition measurements in the exhaust plume of a jet aircraft in flight: Implications for gaseous sulfuric acid, aerosols, and chemiions. *Geophys. Res. Lett.* **25**, 2137–2140. => AEL2959
195. Arnold, N. and Neubert, T. (2002) Cosmic influences on the atmosphere. *Astronomy and Geophysics* **43**, 6.9–6.12. => HT1464
196. Arola, A., Kalliskota, S., den Outer, P.N., Edvardsen, K., Hansen, G., Koskela, T., Martin, T.J., Matthijsen, J., Meerkoetter, R., Peeters, P., Seckmeyer, G., Simon, P.C., Slaper, H., Taalas, P. and Verdebout, J. (2002) Assessment of four methods to estimate surface UV radiation using satellite data, by comparison with ground measurements from four stations in Europe. *J. Geophys. Res. Atmospheres* **107**, ACL11 1–11. => AEL3680
197. Arola, A., Lakkala, K., Bais, A., Kaurola, J., Meleti, C. and Taalas, P. (2003) Factors affecting short- and long-term changes of spectral UV irradiance at two European stations. *J. Geophys. Res. Atmospheres* **108**, 4549– doi:10.1029/2003JD003447. => AEL4037
198. Arsenin, V.Ya. and Ivanov, V.V. (1968) O reshenii nekotorykh integralnykh uravnenii i roda tipa svertki metodom regulyarizatsii (in Russian). *Zh.Vychis.Mat.i Mat.Fiz.* **8**, 310–321. => HT0265
199. Arsenin, V.Ya. and Ivanov, V.V. (1968) Ob optimalnoi regulyarizatsii (in Russian). *Doklady Akademii Nauk SSSR* **182**, 9–12. => HT0264
200. Arsenin, V.Ya. and Ivanov, V.V. (1968) Ob optimalnoi regulyarizatsii (in Russian). *Doklady AN SSSR* **182**, 9–12. => HT0276
201. Arst, H., Kutser, T., Käärmann, L., Lukk, T., Mäekivi, S. and Laesson, L. Estimation of the quality of Pärnu Bay water by means of optical methods. *Käsikiri* 1–11. => HT1000
202. Arst, H., Kutser, T., Mäekivi, S., Käärmann, L., Kallaste, K. and Möttus, T. Estimation of the composition of aquatic environment by spectral optical measurements. *Käsikiri* 1–6. => HT1003
203. Arstila, H., Korhonen, P. and Kulmala, M. (1999) Ternary nucleation: Kinetics and application to water-ammonia-hydrochloric acid system. *J. Aerosol Sci.* **30**, 131–138. => AEL3752
204. Arvela, H., Voutilainen, A., Mäkeläinen, I., Castren, O. and Winqvist, K. (1988) Comparison of predicted and measured variations of indoor radon concentration. *Radiation Protection Dosimetry* **24**, 231–235. => AEL2514
205. Asatryan, D.G. (1973) Empiritseskii baiesovkii podkhod k zadatse dvukh sovokupnostei (in Russian). *The Third International Symposium on Information Theory. Abstracts Papers*, Moskva-Tallinn, **1**, pp. 11–13. => HT0555
206. Asbury, G.R. and Hill, H.H.Jr. (2000) Using different drift gases to change separation factors ( $\alpha$ ) in ion mobility spectrometry. *Analyt. Chem.* **72**, 580–584. => HT1309

207. Aschmann, S.M., Atkinson, R. and Arey, J. (2002) Products of reaction of OH radicals with  $\alpha$ -pinene. *J. Geophys. Res. Atmospheres* **107**, ACH6 1–7. => AEL3672
208. Aschmann, S.M., Reissell, A., Atkinson, R. and Arey, J. (1998) Products of the gas phase reactions of the OH radical with  $\alpha$ - and  $\beta$ -pinene in the presence of NO. *J. Geophys. Res. Atmospheres* **103**, 25553–25561. => AEL2806
209. Aschwanden, Th., Böttcher, H., Hansen, D., Jungblut, H. and Schmidt, W.F. *Mobility and recombination of ions and the effective ionization coefficient in hexafluoropropene (C3F6)*. => HT1555
210. Asgharian, B. and Anjilvel, S. (1995) Movement and deposition of fibers in an airway with steady viscous flow. *Aerosol Sci. Technol.* **22**, 261–270. => AEL1399
211. Asgharian, B. and Anjilvel, S. (1995) The effect of fiber inertia on its orientation in a shear flow with application to lung dosimetry. *Aerosol Sci. Tehnol.* **23**, 282–290. => AEL1573
212. Asgharian, B., Hofmann, W. and Bergmann, R. (2001) Particle deposition in a multiple-path model of the human lung. *Aerosol Sci. Technol.* **34**, 332–339. => AEL3438
213. Ashbaugh, H.S. (1999) Influence of potential truncation on anisotropic systems. *Molecular Physics* **97**, 433–437. => AEL3880
214. Asking, L., Swietlicki, E. and Garg, M.L. (1987) PIGE analysis of sodium in thin aerosol samples. *Nuclear Instruments and Methods in Physics Research*, Elsevier Science Publishers, North-Holland, Amsterdam, **B22**, pp. 368–371. => AEL1026
215. Aslaksen, T.K. and Havnes, O. (1992) The effects of electrostatic forces and random velocities on dust ring thickness profiles in rings with a dust size distribution. *J. Geophys. Res.* **97**, 19175–19185. => HT1271
216. Asmi, A., Pirjola, L. and Kulmala, M. (2004) A sectional aerosol model for submicron particles in indoor air. *Scand. J. Work Environ. Health* **30**, 63–72. => HT1478
217. Atherton, C.S. and Penner, J.E. (1988) The transformation of nitrogen oxides in the polluted troposphere. *Tellus* **40B**, 380–392. => AEL0636
218. Atherton, C.S. and Penner, J.E. (1990) The effects of biogenic hydrocarbons on the transformation of nitrogen oxides in the troposphere. *J. Geophys. Res.* **95**, 14027–14038. => AEL0446
219. Atkinson, R. (1985) Kinetics and mechanisms of the gas-phase reactions of the hydroxyl radical with organic compounds under atmospheric conditions. *Chem. Reviews* **85**, 69–201. => AEL0973
220. Atkinson, R. (1990) Gas-phase tropospheric chemistry of organic compounds: a review. *Atmos. Environ.* **24A**, 1–41. => AEL0625
221. Atkinson, R. and Arey, J. (2003) Atmospheric degradation of volatile compounds. *Chemical Reviews* **103**, 4605–4638. => AEL4053
222. Atkinson, R. and Carter, W.P.L. (1984) Kinetics and mechanisms of the gas-phase reactions of ozone with organic compounds under atmospheric conditions. *Chem. Rev.* **84**, 437–470. => AEL1419
223. Atkinson, R., Aschmann, S.M., Winer, A.M., Pitts, J.N. and Jr. (1984) "Kinetics of the gas-phase reactions of NO<sub>3</sub>~ radicals with a series of dialkenes, cycloalkenes, and monoterpenes at 29511 K. *Environmental Science and Technology* **18**, 370–375. => AEL0514
224. Atkinson, R., Baulch, D.L., Cox, R.A., Hampson, R.F., Jr., Kerr, J.A. and Troe, J. (1989) Evaluated kinetic and photochemical data for atmospheric chemistry: Supplement III. *International Journal of Chemical Kinetics* **21**, 115–. => AEL0468

225. Atkinson, R., Baulch, D.L., Cox, R.A., Hampson, R.F., Jr., Kerr, J.A. and Troe, J. (1989) Evaluated kinetic and photochemical data for atmospheric chemistry: Supplement III. *Journal of Physical and Chemical Reference Data* **18**, 881–1097. => AEL0477
226. Atkinson, R., Darnall, K.R., Lloyd, A.C., Winer, A.M. and Pitts, J.N.Jr. (1979) Kinetics and mechanisms of the reactions of the hydroxyl radical with organic compounds in the gas phase. *Advances in Photochemistry* **11**, 375–488. => AEL1393
227. Atkinson, R., Perry, R.A., Pitts, J.N. and Jr. (1978) Rate constants for the reactions of the OH radical with (CH<sub>3</sub>)<sub>2</sub>NH, (CH<sub>3</sub>)<sub>3</sub>N, and C<sub>2</sub>H<sub>5</sub>NH<sub>2</sub> over the temperature range 298–426 K. *J. Chem. Phys.* **68**, 1850–1853. => AEL0530
228. Atkinson, R., Tuazon, E.C., Wallington, T.J., Aschmann, S.M., Arey, J., Winer, A.M. and Pitts, J.N.Jr. (1986) Atmospheric chemistry of aniline, N,N-dimethylaniline, pyridine, 1,3,5-triazine, and nitrobenzene. *Environ. Sci. Technol.* **21**, 64–72. => AEL1391
229. Atkinson, R., Winer, A.M. and Pitts, J.N.Jr. (1986) Estimation of night-time N<sub>2</sub>O<sub>5</sub> concentrations from ambient NO<sub>2</sub> and NO<sub>3</sub> radical concentrations and the role of N<sub>2</sub>O<sub>5</sub> in night-time chemistry. *Atmos. Environ.* **20**, 331–339. => AEL1131
230. *Atmospheric Diffusion* edited by Pasquill, F., => HT0663 (226-239)
231. *Atomic and molecular processes. Olemas lk. 643-663* (1962) edited by Bates, D.R., Academic Press., => HT0923
232. Attig, R. and Williams, J.M. (1976) The hydrated proton H<sup>+</sup>(H<sub>2</sub>O)<sub>n</sub>. 6. A neutron diffraction study of the isolated group H<sub>5</sub>O<sub>2</sub><sup>+</sup>·H<sub>2</sub>O in o-sulfobenzoic acid trihydrate. *Inorganic Chemistry* **15**, 3057–3061. => AEL0013
233. Attoui, M.B., Renoux, A. and Boulaud, D. (1998) Intercomparaison of three granulometric methods from 3 to 20 nm. *J. Aerosol Sci.* **29**, S411–S412. => HT1340
234. Aumont, B., Madronich, S., Ammann, M., Kalberer, M., Baltensperger, U., Hauglustaine, D. and Brocheton, F. (1999) On the NO<sub>2</sub> + soot reaction in the atmosphere. *J. Geophys. Res. Atmospheres* **104**, 1729–1736. => AEL2753
235. Aunela, L., Häsänen, E., Kinnunen, V., Larjava, K., Mehtonen, A., Salmikangas, T., Leskelä, J. and Loosaar, J. (1995) Emissions from Estonian oil shale power plants. *Oil Shale* **12**, 165–177. => AEL1942
236. Aurela, A. (1992) New approach to old problems about point discharges in nature. *Report Series University of Turku, Turku*, **4**, pp. 1–14. => HT0670
237. Aurela, A. (1992) Principle of two motives: fundamental problems yielding simultaneously practical results. *Report Series University of Turku, Turku*, **5**, pp. 1–12. => HT0671
238. Avallone, L. and Prather, M.J. (1997) Tracer-tracer correlations: Three-dimensional model simulations and comparisons to observations. *J. Geophys. Res. Atmospheres* **102**, 19233–19246. => AEL2027
239. Avallone, L.M. and Prather, M.J. (1996) Photochemical evolution of ozone in the lower tropical stratosphere. *J. Geophys. Res.* **101**, 1457–1461. => AEL1814
240. Avallone, L.M. and Toohey, D.W. (2001) Tests of halogen photochemistry using in situ measurements of ClO and BrO in the lower polar stratosphere. *J. Geophys. Res. Atmospheres* **106**, 10411–10421. => AEL3459
241. Avallone, L.M., Toohey, D.W., Fortin, T.J., McKinney, K.A. and Fuentes, J.D. (2003) In situ measurements of bromine oxide at two high-latitude boundary layer sites: Implications of variability. *J. Geophys. Res. Atmospheres* **108**, 4089– doi:10.1029/2002JD002843, 2003. => AEL3940

242. Aw J. and Kleeman, M.J. (2003) Evaluating the first-order effect of intraannual temperature variability on urban air pollution. *J. Geophys. Res. Atmospheres* **108**, 4365–doi:10.1029/2002JD002688. => AEL4022
243. Awunor-Renner, E.R.T. (1974) A study of the fluctuations in atmospheric ion density. *Acta Universitatis Upsaliensis. Abstracts of Uppsala Dissertations in Science*, AOffset, Uppsala, **325**, pp. 1–12. => HT0412
244. Ayers, G.P., Gillett, R.W. and Gras, J.L. (1980) On the vapor pressure of sulfuric acid. *Geophys. Res. Lett.* **7**, 433–436. => AEL1781
245. Azad, A.K. and Latham, J. (1967) Electrification associated with the evaporation of water and ionic solutions. *Journal of Atmospheric and Terrestrial Physics* **29**, 1403–1410. => AEL0403
246. Babbin, S. (1967) Utilization of high-speed motion picture photography in aerosol product development. *Aerosol Age* **12**, 22–25. => AEL0014
247. Babich, P., Wang, P.-Y., Allen, G., Siuotas, C. and Koutrakis, P. (2000) Development and evaluation of a Continuous Ambient PM<sub>2.5</sub> Mass Monitor. *Aerosol Sci. Technol.* **32**, 309–324. => AEL3334
248. Bacaloglu, R., Bunton, C.A. and Ortega, F. (1988) Multistep reaction analysis. A numerical approach based on relaxation theory. *International Journal of Chemical Kinetics* **20**, 195–. => AEL0520
249. Bachmeier, A.S., Newell, R.E., Shipham, M.C., Zhu, Y., Blake, D.R. and Browell, E.V. (1996) PEM-West A: Meteorological overview. *J. Geophys. Res.* **101**, 1655–1677. => AEL1790
250. Bäck, L. and Bäck, E. (1986) Summary: Effects of a road construction - highway 98 between Kiruna and Riksgränsen. A study of outdoor life in the mountains of Norrbotten in 1979 - 1985. Töö ise rootsikeelne. *Acta Universitatis Upsaliensis* 167–176. => HT0901
251. Backus, G. and Gilbert, F. (1970) Uniqueness in the inversion of inaccurate gross earth data. *Phil.Trans.Roy.Soc.* **266**, 123–192. => HT0336
252. Bae, G.-N., Lee, C.S. and Park, S.O. (1995) Measurements and control of particle deposition velocity on a horizontal wafer with thermophoretic effect. *Aerosol Sci. Technol.* **23**, 321–330. => AEL1569
253. Bahrmann, C.P. and Saxena, V.K. (1998) Influence of air mass history on black carbon concentrations and regional climate forcing in southeastern United States. *J. Geophys. Res. Atmospheres* **103**, 23153–23161. => AEL2794
254. Bailey, M.R., Birchall, A., Cuddihy, R.G., James, A.C. and Roy, M. (1991) Respiratory tract clearance model for dosimetry and bioassay of inhaled radionuclides. *Radiation Protection Dosimetry* **38**, 153–158. => AEL2446
255. Bair, W.J. (1991) Overview of ICRP respiratory tract model. *Radiation Protection Dosimetry* **38**, 147–152. => AEL2445
256. Bais, A.F., Gardiner, B.G., Slaper, H., Blumthaler, M., Bernhard, G., McKenzie, R., Webb, A.R., Seckmeyer, G., Kjelstad, B., Koskela, T., Kirsch, P.J., Gröbner, J., Kerr, J.B., Kazadzis, S., Leszczynski, K., Wardle, D., Josefsson, W., Brogniez, C., Gillotay, D., Reinen, H., Weihs, P., Svenoe, T., Eriksen, P., Kuik, F. and Redondas, A. (2001) SUSPEN intercomparison of ultraviolet spectroradiometers. *J. Geophys. Res. Atmospheres* **106**, 12509–12525. => AEL3471
257. Baker, A.R., Tunnicliffe, C. and Jickells, T.D. (2001) Iodine speciation and deposition fluxes from the marine atmosphere. *J. Geophys. Res. Atmospheres* **106**, 28743–28749. => AEL3585

258. Baker, M. and Baker, M.B. (1996) A model for the ice-vapor interface at equilibrium. *J. Crystal Growth* **169**, 393–404. => AEL2366
259. Baklanov, A.M., Dubtsov, S.N., Caldow, R., Havlichek, M. and Sem, G. Application of photochemical ultrafine aerosol particles generators for SMPS and DB size resolution testing. *Käsikiri* 1–8. => HT0970
260. Baklanov, A.M., Gorbunov, B.Z., Kakutkina, N.A. and Koutzenogii, K.P. (1980) Studies of silver iodide ice-forming activity II. Influence of aerosol particle size and structure on the ice-forming activity. *J. Aerosol Sci.* **11**, 61–65. => AEL0015
261. Baldocchi, D., Valentini, R., Running, S., Oechel, W. and Dahlman, R. (1996) Strategies for measuring and modelling carbon dioxide and water vapour fluxes over terrestrial ecosystems. *Global Change biology* **2**, 159–168. => AEL4041
262. Baldwin, M. and Vonnegut, B. (1982) Automatic apparatus for nucleation investigations. *Rev. Sci. Instrum.* **53**, 1911–1914. => HT0397
263. Ball, S.M., Hanson, D.R., Eisele, F.L. and McMurry, P.H. (1999) Laboratory studies of particle nucleation: Initial results for H<sub>2</sub>SO<sub>4</sub>, H<sub>2</sub>O, and NH<sub>3</sub> vapors. *J. Geophys. Res. Atmospheres* **104**, 23709–23718. => AEL3024
264. Ballenthin, J.O., Thorn, W.F., Miller, T.M., Viggiano, A.A., Hunton, D.E., Koike, M., Kondo, Y., Takegawa, N., Irie, H. and Ikeda, H. (2003) In situ HNO<sub>3</sub> to NO<sub>y</sub> instrument comparison during SOLVE. *J. Geophys. Res. Atmospheres* **108**, 4188– doi:10.1029/2002JD002136, 2003. => AEL3968
265. Balsiger, F., Kopp, E., Friedrich, M., Torkar, K.M., Wälchli, U. and Witt, G. (1996) Positive ion depletion in a noctilucent cloud. *Geophys. Res. Lett.* **23**, 93–96. => HT1112
266. Baltensperger, U., Gäggeler, H.W., Jost, D.T. and Schmidt-Ott, A. (1989) Mass transfer to diffusion grown agglomerates and their fractal dimension. *Paul Scherrer Institut Annual Report, Aerosol Chemistry* 81–82. => HT0985
267. Baltensperger, U., Gäggeler, H.W., Jost, D.T., Emmenegger, M. and Nägeli, W. (1989) Continuous background aerosol monitoring with the epiphaniometer. *Paul Scherrer Institut Annual Report, Aerosol Chemistry* 83–85. => HT0986
268. Baltensperger, U., Gäggeler, H.W., Jost, D.T., Lugauer, M., Schwikowski, M., Weingartner, E. and Seibert, P. (1997) Aerosol climatology at the high-alpine site Jungfrauoch, Switzerland. *J. Geophys. Res. Atmospheres* **102**, 19707–19715. => AEL2193
269. Baltensperger, U., Gäggeler, H.W., Jost, D.T., Lugauer, M., Schwikowski, M., Weingartner, E. and Seibert, P. (1997) Aerosol climatology at the high-alpine site Jungfrauoch, Switzerland. *J. Geophys. Res. Atmospheres* **102**, 19707–19715. => HT1492
270. Baltensperger, U., Streit, N., Weingartner, E., Nyeki, S., Prévôt, A.S.H., Van Dingenen, R., Virkkula, A., Putaud, J.-P., Even, A., ten Brink, H., Blatter, A., Neftel, A. and Gäggeler, H.W. (2002) Urban and rural aerosol characterization of summer smog events during the PIPAPO field campaign in Milan, Italy. *J. Geophys. Res. Atmospheres* **107**, 8193 doi:10.1029/2001JD001292–2002. => AEL3814
271. Baltzer, P., Görsten, K.G. and Bäcklin, A. (1992) A pulse-counting ionization chamber for measuring the radon concentration in air. *Nuclear Instruments and Methods in Physics Research* 357–364. => AEL2533
272. Baltzer, P., Görsten, K.G. and Bäcklin, A. (1992) A pulse-counting ionization chamber for measuring the radon concentration in air. *Nuclear Instruments & Methods in Physics Research* 357–364. => HT0715
273. Banic, C.M. and Iribarne, J.V. (1986) Observation of ion clusters in ion-induced NH<sub>4</sub>Cl nucleation. *J. Aerosol Sci.* **17**, 95–105. => AEL0659



274. Banks, D.O., Hall, M.S. and Kurowski, G.J. (1983) Numerical determination of electrically enhanced fiber collection efficiency. *J. Aerosol Sci.* **14**, 87–97. => AEL0016
275. Banta, R.M. and White, A.B. (2003) Mixing-height differences between land use types: Dependence on wind speed. *J. Geophys. Res. Atmospheres* **108**, 4321–doi:10.1029/2002JD002748, 2003. => AEL4011
276. Baral, K.N., Scuka, V., Cooray, V. and Namasivayam, S. (1990) A study on the ratio of cloud flashes to ground flashes as observed in Uppsala (Sweden) and Kathmandu (Nepal). *Institute of High Voltage Research. Uppsala University. UURIE* 1–9. => HT0719
277. Barker, J.A. and Henderson, D. (1967) Perturbation theory and equation of state for fluids. II. A successful theory of liquids. *The Journal of Chemical Physics* **47**, 4714–4721. => AEL1176
278. Barker, J.A. and Henderson, D. (1971) Monte Carlo values for the radial distribution function of a system of fluid hard spheres. *Mol. Phys.* **21**, 187–191. => AEL1177
279. Barkot, D.J.Jr., Hurst, J.M., Couch, T.L., Colorado, A., Shepson, P.B., Riemer, D.D., Hills, A.J., Apel, E.C., Hafer, R., Lamb, B.K., Westberg, H.H., Farmer, C.T., Stabenau, E.R. and Zika, R.G. (2001) Intercomparison of automated methodologies for determination of ambient isoprene during the PROPHET 1998 summer campaign. *J. Geophys. Res. Atmospheres* **106**, 24301–24313. => AEL3565
280. Barlow, J.F. and Harrison, R.G. (1998) Turbulent transfer of charged aerosol in the atmospheric surface layer. *J. Aerosol Sci.* **29**, S1019–S1020. => HT1356
281. Barnaba, F. and Gobbi, G.P. (2001) Lidar estimation of tropospheric aerosol extinction, surface area and volume: Maritime and desert-dust cases. *J. Geophys. Res. Atmospheres* **106**, 3005–3018. => AEL3311
282. Barnard, W.R., Andreae, M.O., Watkins, W.E., Bingemer, H. and Georgii, H.-W. (1982) The flux of dimethylsulfide from the oceans to the atmosphere. *J. Geophys. Res.* **87**, 8787–8793. => AEL1425
283. Baron, P.A. and Willeke, K. 3. Gas and particle motion. *Aerosol measurement: principles, techniques and applications*, pp. 23–40. => HT0926
284. Baron, P.A., Gao, P., Deye, G.J. and Maynard, A.C. (1998) Performance of a fiber length classifier. *J. Aerosol Sci.* **29**, S11–S12. => HT1331
285. Barr, J.G., Fuentes, J.D. and Bottenheim, J.W. (2003) Radiative forcing of phytogenic aerosols. *J. Geophys. Res. Atmospheres* **108**, 4466–doi:10.1029/2002JD002978. => AEL4030
286. Barraclough, C.G., McTigue, P.T. and Leung Ng, Y. (1992) Surface potentials of water, methanol and water + methanol mixtures. *J. Electroanal. Chem.* **329**, 9–24. => AEL1045
287. Barreto, E. (1969) Electrical discharges from and between clouds of charged aerosols. *Journal of Geophysical Research* **74**, 6911–6925. => HT0041
288. Barreto, E. (1971) Electrically produced submicroscopic aerosols. *J. Aerosol Sci.* **2**, 219–228. => AEL0017
289. Barreto, E. (1971) Electrically produced submicroscopic aerosols. *Aerosol Science* **2**, 219–228. => HT0022
290. Barrett, J. (1999) First-order correction to classical nucleation theory: A density functional approach. *J. Chem. Phys.* **111**, 5938–5946. => AEL3153
291. Barrett, J.C. (1994) Cluster definitions in nucleation theory. *J. Aerosol Sci.* **25**, 683–688. => AEL1178
292. Barrington-Leigh, C.P., Inan, U.S., Stanley, M. and Cummer, S.A. (1999) Sprites triggered by negative lightning discharges. *Geophys. Res. Lett.* **26**, 3605–3608. => AEL2935

293. Barskii, V.D. and Karpov, A.P. (1976) *Induktivnyi regressionnyi analiz* (in Russian). Sredne-Uralskoe Knizhnoe Izdat., Sverdlovsk. => HT0332
294. Bartell, L.S. (1990) Supplementary analyses in diffraction studies of clusters. Computer modeling of nucleation and growth. *J. Phys. Chem.* **94**, 5102–5109. => AEL0718
295. Barth, M.C. (1994) Numerical modeling of sulfur and nitrogen chemistry in a narrow cold-frontal rainband: The impact of meteorological and chemical parameters. *J. Appl. Meteorol.* **33**, 855–868. => AEL2742
296. Barth, M.C. and Church, A.T. (1999) Regional and global distributions and lifetimes of sulfate aerosols from Mexico City and southeast China. *J. Geophys. Res. Atmospheres* **104**, 30231–30239. => AEL3046
297. Barth, M.C., Hess, P.G. and Madronich, S. (2002) Effect of marine boundary layer clouds on tropospheric chemistry as analyzed in a regional chemistry transport model. *J. Geophys. Res. Atmospheres* **107**, AAC7 1–12. => AEL3657
298. Barth, M.C., Stuart, A.L. and Skamarock, W.C. (2001) Numerical simulations of the July 10, 1996, Stratospheric-Tropospheric Experiment: Radiation, Aerosols, and Ozone (STERAO)-Deep Convection experiment storm: Redistribution of soluble tracers. *J. Geophys. Res. Atmospheres* **106**, 12381–12400. => AEL3470
299. Bartlett, L.M. and Webb, A.R. (2000) Changes in ultraviolet radiation in the 1990s: Spectral measurements from Reading, England. *J. Geophys. Res. Atmospheres* **105**, 4889–4893. => AEL3095
300. Bartlett, M.S. and Macdonald, P.D.M. (1968) "Least-squares" estimation of distribution mixtures. *Nature* **195**, 195–196. => HT0187
301. Barton, N., Rowland, B. and Devlin, J.P. (1993) Infrared spectra of large acid hydrate clusters: Formation conditions of submicron particles of  $\text{HNO}_3 \cdot 2\text{H}_2\text{O}$  and  $\text{HNO}_3 \cdot 3\text{H}_2\text{O}$ . *J. Phys. Chem.* **97**, 5848–5851. => AEL2388
302. Bashurova, V.S., Dreiling, V., Hodgen, T.V., Jaenicke, R., Koutsenogii, K.P., Koutsenogii, P.K., Kraemer, M., Makarov, V.I., Obolkin, V.A., Potjomkin, V.L. and Pusep, A.Y. (1991) Measurements of atmospheric condensation nuclei size distributions in Siberia. Manuscript. *J. Aerosol Sci.* 1–9. => HT0644
303. Bass, L.M. and Jennings, K.L. (1984) Application of statistical phase space theory to some termolecular association reactions of  $\text{CH}_3^+$  and  $\text{CD}_3^+$  ions. *Int. J. Mass Spectrom. Ion Proc.* **58**, 307–327. => AEL1445
304. Bassett, M. and Seinfeld, J.H. (1983) Atmospheric equilibrium model of sulfate and nitrate aerosols. *Atmos. Environ.* **17**, 2237–2252. => AEL2708
305. Bates, D.R. (1982) Recombination of small ions in the troposphere and lower stratosphere. *Planet. Space Sci.* **30**, 1275–1282. => AEL1355
306. Bates, D.R. (1982) Recombination of small ions in the troposphere and lower stratosphere. *Planet. Space Sci.* **30**, 1275–1282. => HT0843
307. Bates, D.R. (1985) Ion-ion recombination in an ambient gas. *Advances in Atomic and Molecular Physics* **20**, 1–40. => AEL0566
308. Bates, D.R. (1985) Temperature dependence of rate coefficients for ter-molecular association. *J. Chem. Phys.* **83**, 4448–4450. => AEL0576
309. Bates, D.R. (1989) Temperature dependence of termolecular association of diatomic ions with diatomic molecules. *J. Chem. Phys.* **90**, 87–90. => AEL0531
310. Bates, D.R. and Mendas, I. (1982) Rate coefficients for ter-molecular ionic recombination. *Chem. Phys. Lett.* **88**, 528–532. => HT0844

311. Bates, T.S., Coffman, D.J., Covert, D.S. and Quinn, P.K. (2002) Regional marine boundary layer aerosol size distributions in the Indian, Atlantic, and Pacific Oceans: A comparison of INDOEX measurements with ACE-1, ACE-2, and Aerosols99. *J. Geophys. Res. Atmospheres* **107**, 8026 doi:10.1029/2001JD001174–2002. => AEL3780
312. Bates, T.S., Kapustin, V.N., Quinn, P.K., Covert, D.S., Coffman, D.J., Mari, C., Durkee, P.A., De Bruyn, W.J. and Saltzman, E.S. (1998) Processes controlling the distribution of aerosol particles in the lower marine boundary layer during the First Aerosol Characterization Experiment (ACE 1). *J. Geophys. Res. Atmospheres* **103**, 16369–16383. => AEL2291
313. Bates, T.S., Kelly, K.C., Johnson, J.E. and Gammon, R.H. (1995) Regional and seasonal variations in the flux of oceanic carbon monoxide to the atmosphere. *J. Geophys. Res.* **100**, 23093–23101. => AEL1716
314. Bates, T.S., Quinn, P.K., Coffman, D.J., Johnson, J.E., Miller, T.L., Covert, D.S., Wiedensohler, A., Leinert, S., Nowak, A. and Neusüss, C. (2001) Regional physical and chemical properties of the marine boundary layer aerosol across the Atlantic during Aerosols99: An overview. *J. Geophys. Res. Atmospheres* **106**, 20767–20782. => AEL3526
315. Bator, A. and Collett, J.L.Jr. (1997) Cloud chemistry varies with drop size. *J. Geophys. Res. Atmospheres* **102**, 28071–28078. => AEL2173
316. Bauman, J.J., Russell, P.B., Geller, M.A. and Hamill, P. (2003) A stratospheric aerosol climatology from SAGE II and CLAES measurements: 1. Methodology. *J. Geophys. Res. Atmospheres* **108**, 4382– doi:10.1029/2002JD002992. => AEL4024
317. Bauman, J.J., Russell, P.B., Geller, M.A. and Hamill, P. (2003) A stratospheric aerosol climatology from SAGE II and CLAES measurements: 2. Results and comparisons. *J. Geophys. Res. Atmospheres* **108**, 4383– doi:10.1029/2002JD002993. => AEL4025
318. Bauman, S., Houmère, P.D. and Nelson, J.W. (1981) Cascade impactor aerosol samples for PIXE and PESA analyses. *Nuclear Instruments and Methods* **181**, 499–502. => AEL2360
319. Baumann, K., Ift, F., Zhao, J.Z. and Chameides, W.L. (2003) Discrete measurements of reactive gases and fine particle mass and composition during the 1999 Atlanta Supersite Experiment. *J. Geophys. Res. Atmospheres* **108**, 8416– doi:10.1029/2001JD001210, 2003. => AEL3984
320. Baumgardner, D. and Clarke, A. (1998) Changes in aerosol properties with relative humidity in the remote southern hemisphere marine boundary layer. *J. Geophys. Res. Atmospheres* **103**, 16525–16534. => AEL2294
321. Baumgardner, D., Raga, G.B., Kok, G., Ogren, J., Rosas, I., Báez, A. and Novakov, T. (2000) On the evolution of aerosol properties at a mountain site above Mexico City. *J. Geophys. Res. Atmospheres* **105**, 22243–22253. => AEL3242
322. Baus, M. and Lovett, R. (1995) The magnitude and location of the surface tension of curved interfaces. *J. Chem. Phys.* **103**, 377–392. => AEL1491
323. Bayes, K.D., Toohey, D.W., Friedl, R.R. and Sander, S.P. (2003) Measurements of quantum yields of bromine atoms in the photolysis of bromoform from 266 to 324 nm. *J. Geophys. Res. Atmospheres* **108**, 4095– doi:10.1029/2002JD002877, 2003. => AEL3941
324. Bazzell, C.C. and Peters, L.K. (1981) The transport of photochemical pollutants to the background troposphere. *Atmos. Environ.* **15**, 957–968. => AEL0018
325. Beard, A.M., Bennett, P.J., Bowsher, B.R. and Brunning, J. (1992) The Falcon programme: Characterisation of multicomponent aerosols in severe nuclear reactor accidents. *J. Aerosol Sci.* **23**, S831–S834. => AEL0925
326. Becker, C. and Reiss, H. (1976) Nucleation in a nonuniform vapor. *The Journal of Chemical Physics* **65**, 2066–2070. => AEL1676

327. Becker, E. and Kaletsch, K. (1993) Function of radon emanation in dosimetric calculations. Correspondence. *Health Phys.* **65**, 103–103. => AEL1232
328. Becker, E.J., O'Dowd, C.D., Hoell, C., Aalto, P., Mäkelä, J.M. and Kulmala, M. (1999) Organic contribution to sub-micron aerosol evolution over a boreal forest — a case study. *Phys. Chem. Chem. Phys.* **1**, 5511–5516. => AEL3175
329. Becker, E.J., O'Dowd, C.D., Hoell, C., Aalto, P., Mäkelä, J.M. and Kulmala, M. (1999) Organic contribution to sub-micron aerosol evolution over a boreal forest - a case study. *Phys. Chem. Chem. Phys.* **1**, 5511–5516. => HT1325
330. Becker, K.H. and Ionescu, A. (1982) Acetonitrile in the lower troposphere. *Geophys. Res. Lett.* **9**, 1349–1351. => AEL1367
331. Becker, R.S., Anderson, V.E., Allen, J.D., Birkhoff, R.D. and Ferrell, T.L. (1980) Electrical image deposition of charges from laminar flow in cylinders. *J. Aerosol Sci.* **11**, 461–466. => HT0204
332. Beckett, J.C. (1961) Air ion measurement. *Proc. International Conference on Ionization of the Air. Sect. III.*, Philadelphia, pp. 1–15. => HT-F052
333. Bedeaux, D., Hermans, L.J.F. and Ytrehus, T. (1990) Slow evaporation and condensation. *Physica A* **169**, 263–280. => AEL0707
334. Behra, P., Sigg, L. and Stumm, W. (1989) Dominating influence of NH<sub>3</sub> on the oxidation of aqueous SO<sub>2</sub>: the coupling of NH<sub>3</sub> and SO<sub>2</sub> in atmospheric water. *Atmos. Environ.* **23**, 2691–2707. => AEL0793
335. Beichert, P. and Schrems, O. (1998) Complexes of sulfuric acid with hydrogen chloride, water, nitric acid, chlorine nitrate, and hydrogen peroxide: An ab initio investigation. *J. Phys. Chem. A* **102**, 10540–10544. => AEL2968
336. Beig, G. (2000) The relative importance of solar activity and anthropogenic influences on the ion composition, temperature, and associated neutrals in the middle atmosphere. *J. Geophys. Res. Atmospheres* **105**, 19841–19856. => AEL3234
337. Beig, G. and Brasseur, G. (1998) Anthropogenic perturbations of tropospheric ion composition. Abstract. *Geophys. Res. Lett.* **26**, 1303–1306. => AEL2867
338. Beig, G. and Brasseur, G. (1999) Anthropogenic perturbations of tropospheric ion composition. *Geophys. Res. Lett.* **26**, 1303–1306. => AEL3177
339. Beig, G. and Brasseur, G.P. (2000) Model of tropospheric ion composition: A first attempt. *J. Geophys. Res. Atmospheres* **105**, 22671–22684. => AEL3247
340. Beig, G. and Brasseur, G.P. (2000) Model of tropospheric ion composition: A first attempt. *J. Geophys. Res. Atmospheres* **105**, 22671–22684. => HT1422
341. Beig, G. and Chakrabarty, D.K. (1988) On modelling stratospheric positive ions. *J. Atmos. Chem.* **6**, 175–183. => AEL1357
342. Beig, G., Walters, S. and Brasseur, G. (1993) A two-dimensional model of ion composition in the stratosphere. *J. Geophys. Res.* **98**, 12767–12773. => AEL0866
343. Beissler, H., Bächmann, K., Raes, F., Petrucci, G.A. and Omenetto, N. (1997) Applicability of gold as an atmospheric aerosol tracer. *Atmos. Environ.* **31**, 2329–2336. => AEL1935
344. Bekki, S. and Pyle, J.A. (1994) A two-dimensional modeling study of the volcanic eruption of Mount Pinatubo. *J. Geophys. Res.* **99**, 18861–18869. => AEL1614
345. Bekki, S., Chipperfield, M.P., Pyle, J.A., Remedios, J.J., Smith, S.E., Grainger, R.G., Lambert, A., Kumer, J.B. and Mergenthaler, J.L. (1997) Coupled aerosol-chemical modeling of UARS HNO<sub>3</sub> and N<sub>2</sub>O<sub>5</sub> measurements in the Arctic upper stratosphere. *J. Geophys. Res. Atmospheres* **102**, 8977–8984. => AEL2333

346. Bekki, S., David, C., Law, K., Smith, D.M., Coelho, D., Thovert, J.-F. and Adler, P.M. (2000) Uptake on fractal particles 2. Applications. *J. Geophys. Res. Atmospheres* **105**, 3917–3928. => AEL3082
347. Bell, N., Hsu, L., Jacob, D.J., Schultz, M.G., Blake, D.R., Butler, J.H., King, D.B., Lobert, J.M. and Maier-Reimer, E. (2002) Methyl iodide: Atmospheric budget and use as a tracer of marine convection in global models. *J. Geophys. Res. Atmospheres* **107**, ACH8 1–12. => AEL3735
348. Beloded, V.V., Kirichewskij, G.A. and Nuzhnyj, V.M. (1989) Condensation coefficient of metastable water. *J. Aerosol Sci.* **20**, 1047–1050. => AEL0780
349. Beloded, V.V., Kirichewskij, G.A. and Nuzhnyj, V.M. (1989) Nucleation rate in supersaturated water vapor. *J. Aerosol Sci.* **20**, 1043–1046. => AEL0759
350. Belokopytov, Yu., A. and Rumyantsev, V.V. (1979) Stabilizatsiya toka koronnogo razryada malogabaritnykh zaryadnykh kamer elektroinduktsionnykh pylemerov (in Russian). *Trudy LIAP, Leningrad*, **1(136)**, pp. 41–44. => HT0603
351. Belyaev, S.P. and Levin, L.M. (1974) Techniques for collection of representative aerosol samples. *J. Aerosol Sci.* **5**, 325–328. => AEL0020
352. Bengtsson, L., Roeckner, E. and Stendel, M. (1999) Why is the global warming proceeding much slower than expected?. *J. Geophys. Res. Atmospheres* **104**, 3865–3876. => AEL2770
353. Bengtsson, T., Snyder, C. and Nychka, D. (2003) Toward a nonlinear ensemble filter for high-dimensional systems. *J. Geophys. Res. Atmospheres* **108**, 8775–doi:10.1029/2002JD002900. => AEL4092
354. Benjamin, I. (1999) Structure, thermodynamics, and dynamics of the liquid/vapor interface of water/dimethylsulfoxide mixtures. *J. Chem. Phys.* **110**, 8070–8079. => AEL3863
355. Bent, R.B. and Hutchinson, W.C.A. (1965) Electric space charges over melting snow on the ground. *J. Atmos. and Terr. Phys.* **27**, 91–99. => HT-F033
356. Berezhkovskii, L.M. and Zitserman, V.Yu. (1995) Direction of the nucleation current through the saddle point in the binary nucleation theory and the saddle point avoidance. *J. Chem. Phys.* **102**, 3331–3336. => AEL1481
357. Berg, J.-E. and Israelsson, S. (1984) On the occurrence of very low frequency (VLF) electromagnetic radiation and its relation to some important physical conditions of the atmosphere. *Archives for Meteorology, Geophysics, and Bioclimatology. Ser. B* **B35**, 113–125. => HT0435
358. Berg, O.H., Swietlicki, E. and Krejci, R. (1998) Hygroscopic growth of aerosol particles in the marine boundary layer over the Pacific and Southern Oceans during the First Aerosol Characterization Experiment (ACE 1). *J. Geophys. Res. Atmospheres* **103**, 16535–16545. => AEL2295
359. Berg, T., Pedersen, U. and Steinnes, E. (1994) Environmental indicators for long-range atmospheric transported heavy metals. Poster presentation. *NILU* **F8**, 1–4. => AEL2108
360. Berg, T., Røyset, O., Steinnes, E. and Vadset, M. (1995) Atmospheric trace element deposition: Principal component analysis of ICP-MS data from moss samples. *Environmental Pollution* **88**, 67–77. => AEL2107
361. Berge, E., Huang, H.-C., Chang, J. and Liu, T.-H. (2001) A study of the importance of initial conditions for photochemical oxidant modeling. *J. Geophys. Res. Atmospheres* **106**, 1347–1363. => AEL3303

362. Bergeron, T. (1978) The life and science of Tor Bergeron. Some autobiographic notes in connection with the ice nucleus theory of precipitation release. *Bulletin of the American Meteorological Society* **59**, 390–392. => HT0010
363. Bergin, M.H., Cass, G.R., Xu, J., Fang, C., Zeng, L.M., Yu, T., Salmon, L.G., Kiang, C.S., Tang, X.Y., Zhang, Y.H. and Chameides, W.L. (2001) Aerosol radiative, physical, and chemical properties in Beijing during June 1999. *J. Geophys. Res. Atmospheres* **106**, 17969–17980. => AEL3492
364. Berglund, R.N. and Liu, B.Y.H. (1973) Generation of monodisperse aerosol standards. *Environmental Science and Technology* **7**, 147–153. => HT0130
365. Berkowitz, C.M., Fast, J.D., Springston, S.R., Larsen, R.J., Spicer, C.W., Doskey, P.V., Hubbe, J.M. and Plastridge, R. (1998) Formation mechanisms and chemical characteristics of elevated photochemical layers over the northeast United States. *J. Geophys. Res. Atmospheres* **103**, 10631–10647. => AEL2259
366. Berliner, L.M. (2003) Physical-statistical modeling in geophysics. *J. Geophys. Res. Atmospheres* **108**, 8776– doi:10.1029/2003JD002865. => AEL4091
367. Bernhard, G. and Seckmeyer, G. (1999) Uncertainty of measurements of spectral solar UV irradiance. *J. Geophys. Res. Atmospheres* **104**, 14321–14345. => AEL2988
368. Bernhard, G., Seckmeyer, G., McKenzie, R.L. and Johnston, P.V. (1998) Ratio spectra as a ratio tool for solar spectral UV measurements. *J. Geophys. Res. Atmospheres* **103**, 28855–28861. => AEL2823
369. Bernigau, N.G. and Luck, H.O. (1986) The principle of the ionization chamber in aerosol measurement techniques - A review. *J. Aerosol Sci.* **17**, 511–515. => HT0562
370. Berntsen, T.K. and Isaksen, I.S.A. (1997) A global three-dimensional chemical transport model for the troposphere. 1. Model description and CO and ozone results. *J. Geophys. Res. Atmospheres* **102**, 21239–21280. => AEL2196
371. Berntsen, T.K. and Karlsdóttir, S. (1999) Influence of Asian emissions on the composition of air reaching the North Western United States. *Geophys. Res. Lett.* **26**, 2171–2174. => AEL2906
372. Berntsen, T.K., Isaksen, I.S.A., Myhre, G., Fuglestedt, J.S., Stordal, F., Larsen, T.A., Freckleton, R.S. and Shine, K.P. (1997) Effects of anthropogenic emissions on tropospheric ozone and its radiative forcing. *J. Geophys. Res. Atmospheres* **102**, 28101–28126. => AEL2174
373. Berresheim, H. and Eisele, F.L. (1998) Sulfur Chemistry in the Antarctic Troposphere Experiment: An overview of project SCATE. *J. Geophys. Res. Atmospheres* **103**, 1619–1627. => AEL2087
374. Berresheim, H., Andreae, M.O., Ayers, G.P., Gillett, R.W., Merrill, J.T., Davis, V.J. and Chameides, W.L. (1990) Airborne measurements of dimethylsulfide, sulfur dioxide, and aerosol ions over the Southern Ocean, south of Australia. *J. Atmos. Chem.* **10**, 341–370. => AEL1130
375. Berresheim, H., Elste, T., Tremmel, H.G., Allen, A.G., Hansson, H.-C., Rosman, K., Dal Maso, M., Mäkelä, J.M., Kulmala, M. and O'Dowd, C.D. (2002) Gas-aerosol relationships of H<sub>2</sub>SO<sub>4</sub>, MSA, and OH: Observations in the coastal marine boundary layer at Mace Head, Ireland. *J. Geophys. Res. Atmospheres* **107**, 8100 doi:10.1029/2000JD000229–2002. => AEL3788
376. Berresheim, H., Huey, J.W., Thorn, R.P., Eisele, F.L., Tanner, D.J. and Jefferson, A. (1998) Measurements of dimethyl sulfide, dimethyl sulfoxide, dimethyl sulfone, and aerosol ions at Palmer Station, Antarctica. *J. Geophys. Res. Atmospheres* **103**, 1629–1637. => AEL2088

377. Berresheim, H., Tanner, D.J. and Eisele, F.L. (1993) Method for the real-time detection of dimethyl sulfone in ambient air. *Anal. Chem.* **65**, 3168–3170. => AEL1194
378. Berresheim, H., Tanner, D.J. and Eisele, F.L. (1993) Real-time measurement of dimethyl sulfoxide in ambient air. *Anal. Chem.* **65**, 84–86. => AEL1191
379. Bershad, N.J (1969) Resolution, optical-channel capacity and information theory. *J. of the Optical Society of America* **59**, 157–163. => HT0249
380. Berthelie, J.J., Grard, R., Laakso, H. and Parrot, M. *The atmospheric electric field experiment on Netlander. Käsikiri.* => HT1295
381. Berthet, G., Renard, J.-B., Chartier, M., Pirre, M. and Robert, C. (2003) Analysis of OBrO, IO, and OIO absorption signature in UV-visible spectra measured at night and at sunrise by stratospheric balloon-borne instruments. *J. Geophys. Res. Atmospheres* **108**, 4161–doi:10.1029/2002JD002284, 2003. => AEL3962
382. Bertman, S.B., Roberts, J.M., Parrish, D.D., Buhr, M.P., Goldan, P.D., Kuster, W.C., Fehsenfeld, F.C., Montzka, S.A. and Westberg, H. (1995) Evolution of alkyl nitrates with air mass age. *J. Geophys. Res.* **100**, 22805–22813. => AEL1634
383. Bertram, A.K. and Sloan, J.J. (1998) Temperature-dependent nucleation rate constants and freezing behavior of submicron nitric acid dihydrate aerosol particles under stratospheric conditions. *J. Geophys. Res. Atmospheres* **103**, 3553–3561. => AEL2222
384. Bertram, A.K. and Sloan, J.J. (1998) The nucleation rate constants and freezing mechanism of nitric acid trihydrate aerosol under stratospheric conditions. *J. Geophys. Res. Atmospheres* **103**, 13261–13265. => AEL2269
385. Bey, I., Aumont, B. and Toupance, G. (2001) A modeling study of the nighttime radical chemistry in the lower continental troposphere 2. Origin and evolution. *J. Geophys. Res. Atmospheres* **106**, 9991–10001. => AEL3458
386. Bey, I., Aumont, B. and Toupance, G. (2001) A modelling study of the nighttime radical chemistry in the lower continental troposphere 1. Development of a detailed chemical mechanism including nighttime chemistry. *J. Geophys. Res. Atmospheres* **106**, 9959–9990. => AEL3457
387. Bey, I., Jacob, D.J., Yantosca, R.M., Logan, J.A., Field, B.D., Fiore, A.M., Li, Q., Liu, H.Y., Mickley, L.J. and Schultz, M.G. (2001) Global modeling of tropospheric chemistry with assimilated meteorology: Model description and evaluation. *J. Geophys. Res. Atmospheres* **106**, 23073–23095. => AEL3557
388. Bhattacharjee, R.C. and Forst, W. (1978) Statistical theory of energy transfer in ion-molecule collisions. *Advances in Mass Spectrometry* **7A**, 229–233. => AEL0507
389. Bhaumik, B.K. and Soundarajan, M. (1990) Statistical evaluation of an optimum radon emanometric technique. *Int. J. Radiat. Appl. Instrum. Part D. Nucl. Tracks Radiat. Meas.* **17**, 503–506. => AEL2406
390. Bhutra, S. and Payatakes, A.C. (1979) Experimental investigation of dendritic deposition of aerosol particles. *J. Aerosol Sci.* **10**, 445–464. => AEL0021
391. Bian, H., Prather, M.J. and Takemura, T. (2003) Tropospheric aerosol impacts on trace gas budgets through photolysis. *J. Geophys. Res. Atmospheres* **108**, 4242–doi:10.1029/2002JD002743, 2003. => AEL3997
392. Biazar, A.P. and McNider, R.T. (1995) Regional estimates of lightning production of nitrogen oxides. *J. Geophys. Res.* **100**, 22861–22874. => AEL1704

393. Biegalski, S.R., Landsberger, S. and Hoff, R. (1997) High bromine aerosol concentrations near Lake Huron from long-range transport from the Arctic during polar sunrise. *J. Geophys. Res. Atmospheres* **102**, 23337–23343. => AEL2014
394. Biermann, A. and Bergman, W. (1984) Measurement of aerosol concentration as a function of size and charge. *Aerosol Sci. Technol.* **3**, 293–304. => AEL0022
395. Biesenthal, T.A., Bottenheim, J.W., Shepson, P.B., Li, S.-M. and Brickell, P.C. (1998) The chemistry of biogenic hydrocarbons at a rural site in eastern Canada. *J. Geophys. Res. Atmospheres* **103**, 25487–25498. => AEL2802
396. Bigg, E.K. (1976) Size distributions of stratospheric aerosols and their variations with altitude and time. *J. Atmos. Sci.* **33**, 1080–1086. => AEL0908
397. Bigg, E.K. (1997) A mechanism for the formation of new particles in the atmosphere. *Atmospheric Research* **43**, 129–137. => AEL1838
398. Bigg, E.K. (1997) An independent evaluation of a South African hygroscopic cloud seeding experiment, 1991-1995. *Atmospheric Research* **43**, 111–127. => AEL1837
399. Bigg, E.K. (2004) Gas emissions from soil and leaf litter as a source of new particle formation. *Atmos. Res.* **70**, 33–42. => AEL4140
400. Bigg, E.K. and Leck, C. (2001) Properties of the aerosol over the central Arctic Ocean. *J. Geophys. Res. Atmospheres* **106**, 32101–32109. => AEL3614
401. Bigg, E.K., Leck, C. and Nilsson, E.D. (1996) Sudden changes in arctic atmospheric aerosol concentrations during summer and autumn. *Tellus* **48B**, 254–271. => AEL1644
402. Bigg, E.K., Leck, C. and Nilsson, E.D. (2001) Sudden changes in aerosol and gas concentrations in the central Arctic marine boundary layer: Causes and consequences. *J. Geophys. Res. Atmospheres* **106**, 32167–32185. => AEL3616
403. Bigu, J. (1985) Radon daughter and thoron daughter deposition velocity and unattached fraction under laboratory-controlled conditions and in underground uranium mines. *J. Aerosol Sci.* **16**, 157–165. => AEL2401
404. Bigu, J. (1986) A method for measuring thoron and radon gas concentrations using solid-state alpha-particle detectors. *Int. J. Radiat. Appl. Instrum. Part A. Appl. Radiat. Isot.* **37**, 567–573. => AEL2403
405. Bigu, J. (1990) Electrical charge characteristics of long-lived radioactive dust. *Health Physics* **58**, 341–350. => AEL2404
406. Bigu, J. and Grenier, M. (1984) Thoron daughter working level measurements by one and two gross alpha count methods. *Nuclear Instruments and Methods in Physics Research* 385–398. => AEL2405
407. Bigu, J., Raz, R., Golden, K. and Dominguez, P. (1984) Design and development of a computer-based continuous monitor for the determination of the short-lived decay products of radon and thoron. *Nuclear Instruments and Methods in Physics Research* 399–406. => AEL2402
408. Bilitza, D. (1999) Science tools on the Internet - access to information, data and models. *J. Atmos. Solar-Terr. Phys.* **61**, 167–180. => HT1314
409. Binder, K. and Stauffer, D. (1976) Statistical theory of nucleation, condensation and coagulation. *Advances in physics* **25**, 343–396. => AEL3888
410. Binek, B. (1965) Probenahme feindisperser Aerosole für ein elektronenmikroskopisches Kornanalysenverfahren. *Staub* **25**, 261–264. => AEL0023



411. Bingen, C. and Fussen, D. (2000) Structure and spectral features of the stratospheric aerosol extinction profiles in the UV-visible range derived from SAGE II data. *J. Geophys. Res. Atmospheres* **105**, 4767–4776. => AEL3089
412. Binkowski, F.S. and Roselle, S.J. (2003) Models-3 Community Multiscale Air Quality (CMAQ) model aerosol component 1. Model description. *J. Geophys. Res. Atmospheres* **108**, 4183– doi:10.1029/2001JD001409, 2003. => AEL3964
413. Biraud, S., Ciais, P., Ramonet, M., Simmonds, P., Kazan, V., Monfray, P., O'Doherty, S., Spain, T.G. and Jennings, S.G. (2000) European greenhouse gas emissions estimated from continuous atmospheric measurements and radon 222 at Mace Head, Ireland. *J. Geophys. Res. Atmospheres* **105**, 1351–1366. => AEL3066
414. Biraud, S., Ciais, P., Ramonet, M., Simmonds, P., Kazan, V., Monfray, P., O'Doherty, S., Spain, G. and Jennings, S.G. (2002) Quantification of carbon dioxide, methane, nitrous oxide and chloroform emissions over Ireland from atmospheric observations at Mace Head. *Tellus* **54B**, 41–60. => AEL3759
415. Biraud, Y. (1969) A new approach for increasing the resolving power by data processing. *Astron. and Astrophys.* **1**, 124–127. => HT0253
416. Birchall, A., Bailey, M.R. and James, A.C. (1991) LUDEP: A lung dose evaluation program. *Radiation Protection Dosimetry* **38**, 167–174. => AEL2448
417. Birmili, W. and Wiedensohler, A. (1998) The influence of meteorological parameters on ultrafine particle production at a continental site. *J. Aerosol Sci.* **29**, S1015–S1016. => HT1354
418. Birmili, W., Stratmann, F., Wiedensohler, A., Covert, D., Russell, L.M. and Berg, O. (1997) Determination of differential mobility analyzer transfer functions using identical instruments in series. *Aerosol Sci. Technol.* **27**, 215–223. => AEL1969
419. Birmili, W., Wiedensohler, A., Heintzenberg, J. and Lehmann, K. (2001) Atmospheric particle number size distribution in central Europe: Statistical relations to air masses and meteorology. *J. Geophys. Res. Atmospheres* **106**, 32005–32018. => AEL3608
420. Biskos, G., Mastorakos, E. and Collings, N. *Monte-Carlo simulation of unipolar diffusion charging for spherical and non-spherical particles. Käsikiri.* => HT1592
421. Björkqvist, D. and Wepling, K. (1987) Liming as a method to neutralize highly acidic drainage waters from sulphate basins in Western Finland. *Proceedings. International Symposium on Acidification and Water Pathways, Bolkesjø, 4.-5. May 1987*, **1**, pp. 365–374. => HT1121
422. Björn, L.O. and Murphy, T.M. (1985) Computer calculation of solar ultraviolet radiation at ground level. *Physiologie Végétale* **23**, 555–561. => AEL2944
423. Bjornholm, S. (1990) Clusters, condensed matter in embryonic form. *Contemporary Physics* **31**, 309–324. => HT0469
424. Blackwood, O. (1920) The existence of homogeneous groups of large ions. *Phys. Rev.* **16**, 85–101. => AEL3383
425. Blades, A.T., Jayaweera, P., Ikonomou, M.G. and Kebarle, P. (1990) "Ion-molecule clusters involving doubly charged metal ions (M<sup>2+</sup>)". *International Journal of Mass Spectrometry and Ion Processes* **102**, 251–267. => AEL0458
426. Blake, D.R., Blake, N.J., Smith, T.W.Jr., Wingenter, O.W. and Rowland, F.S. (1996) Nonmethane hydrocarbon and halocarbon distributions during Atlantic Stratocumulus Transition Experiment/Marine Aerosol and Gas Exchange, June 1992. *J. Geophys. Res.* **101**, 4501–4514. => AEL1762

427. Blake, D.R., Chen, T.-Y., Smith, T.W.Jr., Wang, C.J.-L., Wingenter, O.W., Blake, N.J., Rowland, F.S. and Mayer, E.W. (1996) Three-dimensional distribution of nonmethane hydrocarbons and halocarbons over the northwestern Pacific during the 1991 Pacific Exploratory Mission (PEM-West A). *J. Geophys. Res.* **101**, 1763–1778. => AEL1809
428. Blanc, D., Fontan, J., Huertas, M.-L. and Marty, A.-M. (1968) Mesure de la mobilite et du coefficient de diffusion de particules radioactives ultra-fines. *The Fourth International Conference on the Universal Aspects of Atmospheric Electricity*, Tokyo, pp. 1–15. => HT0550
429. Blanc, D., Fontan, J., Huertas, M.-L. and Marty, A.-M. (1969) Mesure de la mobilite et du coefficient de diffusion des particules radioactives ultrafines. *Ann.Inst.Hydr. et Clim.* **40**, 93–103. => HT0233
430. Blanchard, C.L., Carr, E.L., Collins, J.F., Smith, T.B., Lehrman, D.E. and Michaels, H.M. (1999) Spatial representativeness and scales of transport during the 1995 integrated monitoring study in California's San Joaquin Valley. *Atmos. Environ.* **33**, 4775–4786. => AEL2941
431. Blanchard, D.C. (1978) The life and science of Tor Bergeron. Tor Bergeron and his "Autobiographic notes". *Bulletin of the American Meteorological Society* **59**, 389–390. => HT0010
432. Blanchard, D.C. (1979) Science, success and serendipity. *Weatherwise* **32**, 236–241. => HT0152
433. Blando, J.D. and Turpin, B.J. (2000) Secondary organic aerosol formation in cloud and fog droplets: a literature evaluation of plausibility. *Atmos. Environ.* **34**, 1623–1632. => AEL3064
434. Bleiweiss, M.P., Farmer, W.M., Payne, K.C. and King, T.A. (1994) Stereo passive remote sensing of aerosol transport and diffusion. *IGARSS'94. International Geoscience and Remote Sensing Symposium.*, **4**, pp. 1907–1910. => AEL1548
435. Bletcherly, J.D. and Fisher, R.C. (1957) Use of gamma radiation for the destruction of wood-boring insects. *Nature* **179**, 670–670. => HT-F048
436. Blinov, V.N. and Sholukh, A.V. (1979) Ob opredelenii parametrov spektra aeroionov silnoionizirovannoi atmosfery aspiratsionnym metodom (in Russian). *Trudy LIAP*, Leningrad, **1(136)**, pp. 71–77. => HT0596
437. Bloch, P., Geladi, P., Adams, F., Van Tendeloo, G. and Van Landuyt, J. (1982) Morphological and chemical characterization of individual aerosol particles with transmission electron microscopy. *J. Trace and Microprobe Techn.* **1**, 137–167. => AEL0024
438. Blokhuis, E.M. and Bedeaux, D. (1992) Pressure tensor of a spherical interface. *J. Chem. Phys.* **97**, 3576–3586. => AEL1048
439. Blomquist, B.W., Bandy, A.R. and Thornton, D.C. (1996) Sulfur gas measurements in the eastern North Atlantic Ocean during the Atlantic Stratocumulus Transition Experiment/Marine Aerosol and Gas Exchange. *J. Geophys. Res.* **101**, 4377–4392. => AEL1751
440. Blum, L., Vericat, F. and Bratko, D. (1995) Towards an analytical model of water: The octupolar model. *J. Chem. Phys.* **102**, 1461–1462. => AEL1306
441. Blyth, A.M., Christian, H.J. and Latham, J. (1998) Corona emission thresholds for three types of hydrometeor interaction in thunderclouds. *J. Geophys. Res. Atmospheres* **103**, 13975–13977. => AEL2277
442. Bochert, U.K. and Dannecker, W. (1992) Single particle analysis of aerosols by atomic emission spectrometry. *J. Aerosol Sci.* **23**, S417–S420. => AEL0926

443. Bodas-Salcedo, A., López-Baeza, E., Martínez, F., Mateu, J. and Montes, F. (2003) Spatiotemporal modeling and prediction of solar radiation. *J. Geophys. Res. Atmospheres* **108**, 8777– doi:10.1029/2003JD003903. => AEL4090
444. Bodeker, G.E., Scott, J.C., Kreher, K. and McKenzie, R.L. (2001) Global ozone trends in potential vorticity coordinates using TOMS and GOME intercompared against the Dobson network: 1978-1998. *J. Geophys. Res. Atmospheres* **106**, 23029–23042. => AEL3555
445. Bodhaine, B.A. (1996) Aerosol measurements during the Mauna Loa photochemistry experiment 2. *J. Geophys. Res.* **101**, 14757–14765. => AEL1870
446. Boeck, W.L. *Meteorological consequences of atmospheric krypton-85*. Unclassified paper., => HT0740
447. Boeck, W.L., Shaw, D.T. and Vonnegut, B. (1975) Possible consequences of global dispersion of krypton 85. *Bulletin of the American Meteorological Society* **56**, 527–527. => HT0100
448. Boffa, C.V. and Pfender, E. (1973) Controlled generation of monodisperse aerosols in the submicron range. *J. Aerosol Sci.* **4**, 103–112. => AEL0025
449. Bogdan, A. (1997) Thermodynamics of the curvature effect on ice surface tension and nucleation theory. *J. Chem. Phys.* **106**, 1921–1929. => AEL2037
450. Bogdan, A. and Kulmala, M. (1997) Effect of acids on water vapor uptake by pyrogenic silica. *J. Colloid Interface Sci.* **191**, 95–101. => AEL2048
451. Bogdan, A. and Kulmala, M. (1999) Aerosol silica as a possible candidate for the heterogeneous formation of nitric acid hydrates in the stratosphere. *Geophys. Res. Lett.* **26**, 1433–1436. => AEL2865
452. Bogdan, A. and Kulmala, M. (2002) Finely divided aqueous systems: fundamental and application aspects. *Current Topics in Colloid & Interface Science* **5**, 141–156. => AEL3831
453. Bogdan, A., Kulmala, M., Gorbunov, B. and Kruppa, A. (1996) NMR study of phase transitions in pure water and binary H<sub>2</sub>O/HNO<sub>3</sub> films adsorbed on surface of pyrogenic silica. *J. Colloid Interface Sci.* **177**, 79–87. => AEL2052
454. Bogdan, A., Molina, M.J., Kulmala, M., MacKenzie, A.R. and Laaksonen, A. (2003) Study of finely divided aqueous systems as an aid to understanding the formation mechanism of polar stratospheric clouds: Case of HNO<sub>3</sub>/H<sub>2</sub>O and H<sub>2</sub>SO<sub>4</sub>/H<sub>2</sub>O systems. *J. Geophys. Res. Atmospheres* **108**, 4302– doi:10.1029/2002JD002605, 2003. => AEL4012
455. Bogolubov, N. (1947) On the theory of superfluidity. *Journal of Physics* **11**, 23–32. => AEL3179
456. Bogorodskii, V.V. and Volodin, E.S. (1983) Matritsy oslableniya kristalla geksagonalnogo lida (in Russian). 1233–1234. => HT0609
457. Bohme, D.K., Mackay, G.I. and Tanner, S.D. (1979) An experimental study of the gas-phase kinetics of reactions with hydrated H<sub>3</sub>O<sup>+</sup> ions (n=1-3) at 298 K. *J. Am. Chem. Soc.* **101**, 3724–3730. => AEL1421
458. Böhringer, H. (1985) Third-body-assisted, binary ion-molecule reactions. The reaction NH<sub>3</sub><sup>+</sup> + H<sub>2</sub> -> NH<sub>4</sub><sup>+</sup> + H. *Chem. Phys. Lett.* **122**, 185–189. => AEL1392
459. Böhringer, H. and Arnold, F. (1981) Acetonitrile in the stratosphere - implications from laboratory studies. *Nature* **290**, 321–322. => AEL1414
460. Böhringer, H. and Arnold, F. (1986) Temperature and pressure dependence of the reaction of He<sup>+</sup> ions with H<sub>2</sub>. *J. Chem. Phys.* **84**, 1459–1462. => AEL1389
461. Böhringer, H., Fahey, D.W., Fehsenfeld, F.C. and Ferguson, E.E. (1983) The role of ion-molecule reactions in the conversion of N<sub>2</sub>O<sub>5</sub> to HNO<sub>3</sub> in the stratosphere. *Planet. Space Sci.* **31**, 185–191. => AEL1364

462. Böhringer, H., Fahey, D.W., Fehsenfeld, F.C. and Ferguson, E.E. (1984) Bond energies of the molecules H<sub>2</sub>O, SO<sub>2</sub>, H<sub>2</sub>O<sub>2</sub>, and HCl to various atmospheric negative ions. *J. Chem. Phys.* **81**, 2805–2810. => AEL1390
463. Bojkov, R.D. and Fioletov, V.E. (1997) Changes of the lower stratospheric ozone over Europe and Canada. *J. Geophys. Res. Atmospheres* **102**, 1337–1347. => AEL2306
464. Bokoye, A.I., La Casinière A., de and Cabot, T. (1997) Angström turbidity parameters and aerosol optical thickness: A study over 500 solar beam spectra. *J. Geophys. Res. Atmospheres* **102**, 21905–21914. => AEL2011
465. Bolsaitis, P. and Elliott, J.F. (1990) Thermodynamic activities and equilibrium partial pressures for aqueous sulfuric acid solutions. *Journal of Chemical and Engineering Data* **35**, 69–85. => AEL1786
466. Bolshev, L.N. and Smirnov, N.V. (1983) *Tablitsy matematicheskoi statistiki. Tablitsa 5.3 Raspreделение Puassona (Poisson)*. Nauka, pp. 70-72, 109-110, 306-307. => HT1523
467. Bongiorno, V., Scriven, L.E. and Davis, H.T. (1976) Molecular theory of fluid interfaces. *J. Colloid Interface Sci.* **57**, 462–475. => AEL0851
468. Booker, D.R. and Mitchell, J.P. (1992) The BCR programme to certify polydisperse, spherical reference materials. *J. Aerosol. Sci.* **23**, S293–S296. => AEL0914
469. Booth, F. (1951) Errata: The dielectric constant of water and the saturation effect. *The Journal of Chemical Physics* **19**, 1327–1328. => AEL1046
470. Booth, F. (1951) Erratum: Errata: The dielectric constant of water and the saturation effect. *The Journal of Chemical Physics* **19**, 1615–1615. => AEL1047
471. Booth, F. (1951) The dielectric constant of water and the saturation effect. *The Journal of Chemical Physics* **19**, 391–394. => AEL1040
472. Boothroyd, R.G. (1967) An anemometric isokinetic sampling probe for aerosols. *Journal of Scientific Instruments* **44**, 249–253. => AEL0408
473. Borchert, H. (1986) Aktuelle Probleme und Lösungsbeiträge zum Umweltschutz aus dem Bereich der Luftreinhaltung. *Referate der Fachtagung "Aktuelle Probleme und Lösungsbeiträge zum Umweltschutz"*, Context - Verlag, S. 67–84. => HT0708
474. Borchert, H. (1986) Preliminary results and experiences with a new in-situ measurement system of rainfall acidity in forest aereas of Rheinland-Pfalz / Federal Republic of Germany. *Atmospheric Pollutants in Forest Areas. Ed. by H.-W. Georgii*, D. Reidel Publishing Company, pp. 165–176. => HT0707
475. Borchert, H. (1989) Fortlaufende Messungen von Luftschadstoffen in den Waldgebieten von Rheinland-Pfalz. *AFZ* 945–948. => HT0704
476. Borchert, H. (1989) Kontinuierliche Überwachung der Luftqualität in Stadt und Land. *Beiträge Landespflege Rheinland-Pfalz* 387–407. => HT0709
477. Borchert, H. (1989) Structure, technology and measuring results of an integrated urban and forest air quality monitoring system in Germany. *Monitoring Air Pollution and Forest Ecosystem Research. Proceedings of Workshop*, Bilthoven, pp. 114–136. => HT0703
478. Borchert, H. (1990) Ozone episodes 1988/1989 during special meteorological conditions in Rheinland -Pfalz, F.R.G. *Air Pollution Research Report. Proceedings of a Workshop*, Madrid, **25**, pp. 48–64. => HT0705
479. Borchert, H. and Fuchs, F. *Measurement results and interpretation of ozone transportation into forests of West Germany (Rheinland-Pfalz)*. Manuscript,. => HT0706

480. Boreham, B.W. (1986) Preliminary wind tunnel investigation of the dispersion of pollutant particles in model building wake flows using bipolar space charge. *Atmos. Environ.* **20**, 1523–1536. => AEL0026
481. Borho, K., Polke, R. und Sommer, K. (1980) Fehleranalyse bei der bildanalytischen Auswertung von Partikelgrößenverteilungen. *Staub Reinh. der Luft* **40**, 275–310. => AEL0975
482. Borkowski, J.L. (2000) Homogenization of the Belsk UV-B series (1976-1997) and trend analysis. *J. Geophys. Res. Atmospheres* **105**, 4873–4878. => AEL3093
483. Borodjuk, V.P. and Voshchinin, A.P. (1972) Regressionnyi analiz pri nalichii oshibok v peremennykh (in Russian). *Metody Predstavleniya i Apparaturnyi Analiz. Tr. V Vses. Simp.*, Leningrad-Vilnius, pp. 29–40. => HT0221
484. Borra, J.P., Goldman, A., Goldman, M. and Roos, A. (1992) Modification of the aerosol content and chemical effects induced by vegetation under high electric field condition. *J. Aerosol Sci.* **23**, S945–S948. => AEL0935
485. Borra, J.-P., Goldman, A., Goldman, M. and Roos, A. *Electrical coronas and fields: occurrence and effects*. Poster. => AEL0934
486. Borra, J.P., Goldman, A., Goldman, M. and Roos, A. Electrical coronas & fields in nature. Occurrence & effects. *Käsikiri. Subm. to J. Appl. Phys. D* 1–15. => HT1004
487. Borra, J.-P., Roos, R.A., Renard, D., Lazar, H., Goldman, A. and Goldman, M. (1997) Electrical and chemical consequences of point discharges in a forest during a mist and a thunderstorm. *J. Phys. D: Appl. Phys.* **30**, 84–93. => HT1239
488. Borunova, E.P., Kolerskii, S.V. and Ruzer, L.S. (1979) Ustanovka dlya izmereniya parametrov aeroionov i elektroaerozolei (in Russian). *Trudy LIAP, Leningrad*, **1(136)**, pp. 68–71. => HT0597
489. Borzilov, V.A., Sedunov, Yu.S. and Stepanov, A.S. (1973) Sily induktsii mezhdru ionami vozdukh i kaplei (in Russian). *Fizika Atmosfery i Okeana* **9**, 264–271. => AEL3904
490. Boström, R. and Fahleson, U. Vertical propagation of time-dependent electric fields in the atmosphere and ionosphere. pp. 529–535. => HT0949
491. Bott, A., Sievers, U. and Zdunkowski, W. (1990) A radiation fog model with a detailed treatment of the interaction between radiative transfer and fog microphysics. *J. Atmos. Sci.* **47**, 2153–2166. => HT1300
492. Bottenheim, J.W. and Sirois, A. (1996) Long-term daily mean mixing ratios of O<sub>3</sub>, PAN, HNO<sub>3</sub>, and particle nitrate at a rural location in eastern Canada: Relationships and implied ozone production efficiency. *J. Geophys. Res.* **101**, 4189–4204. => AEL1801
493. Boulaud, D., Madelaine, G., Vigla, D. and Bricard, J. (1977) Experimental study on the nucleation of water vapor sulfuric acid binary system. *The J. Chem. Phys.* **66**, 4854–4860. => AEL1927
- <sup>494</sup>. Bounds, D.G. (1985) A molecular dynamics study of the structure of water around the ions Li<sup>+</sup>, Na<sup>+</sup>, K<sup>+</sup>, Ca<sup>++</sup>, Ni<sup>++</sup> and Cl<sup>-</sup>. *Mol. Phys.* **54**, 1335–1355. => AEL0829
495. Bowden, K. (1995) Reaction constants and reaction mechanism. *Organic Reactivity* **29**, 19–26. => AEL1387
496. Bower, J.S., Broughton, G.F.J., Dando, M.T., Lees, A.J., Stevenson, K.J., Lampert, J.E., Sweeney, B.P., Parker, V.J., Driver, G.S., Waddon, C.J. and Wood, A.J. (1991) Urban NO<sub>2</sub> concentrations in the U.K. in 1987. *Atmos. Environ.* **25B**, 267–283. => AEL2127
497. Bower, K.N. and Choulaton, T.W. (1993) Cloud processing of the cloud condensation nucleus spectrum and its climatological consequences. *Quart. J. Roy. Meteorol. Soc.* **119**, 655–679. => AEL2352

498. Bower, K.N. and Choullarton, T.W. (1993) Cloud processing of the cloud condensation nucleus spectrum and its climatological consequences. *Quart. J. Roy. Meteorol. Soc.* **119**, 655–679. => AEL2750
499. Boylan, R.K. (1931) The mobilities of atmospheric large ions. *Proc. Roy. Irish Acad.* **A40**, 76–84. => AEL3382
500. Bracewell, R. *The Fourier Transform and its Applications*. New York, San Francisco, Toronto, London, Sydney. => HT-F I, HT-F II (P1-126, 299-367)
501. Bracewell, R.N. (1958) Restoration in the presence of errors. *Proceedings of the IRE* 106–111. => HT0246
502. Bracewell, R.N. and Roberts, J.A. (1954) Aerial smoothing in radio astronomy. *Australian Journal of Physics* **7**, 615–640. => HT0262
503. Brach, R.M. and Dunn, P.F. (1998) Models of rebound and capture for oblique microparticle impacts. *Aerosol Sci. Technol.* **29**, 379–388. => AEL2738
504. Brach, R.M. and Dunn, P.F. (1998) Models of rebound and capture for oblique microparticle impacts. *Aerosol Sci. Technol.* **29**, 379–388. => AEL2851
505. Bragin, Yu.A. (1965) Direct measurements of the charged particle concentration in the stratosphere and mesosphere. *Translated from Kosmicheskie Issledovaniya* **3**, 168–171. => HT0312
506. Brankov, E., Rao, S.T. and Porter, P.S. (1998) A trajectory-clustering-correlation methodology for examining the long-range transport of air pollutants. *Atmos. Environ.* **32**, 1525–1534. => AEL2922
507. Brasil, A.M., Farias, T.L. and Carvalho, M.G. (2000) Evaluation of the fractal properties of cluster-cluster aggregates. *Aerosol Sci. Technol.* **33**, 440–454. => AEL3353
508. Brask, M.H. and Soerensen, T. (1994) Correlation between the electric field emitted from winter flashes and the Danish LLP-system. *22nd International Conference on Lightning Protection*, Budapest, pp. 1–8. => HT0778
509. Brasseur, G., Arijs, E., De Rudder, A., Nevejans, D. and Ingels, J. (1983) Acetonitrile in the atmosphere. *Geophys. Res. Lett.* **10**, 725–728. => AEL1368
510. Brasseur, G., Hitchman, M.H., Walters, S., Dymek, M., Falise, E. and Pirre, M. (1990) An interactive chemical dynamical radiative two-dimensional model in the middle atmosphere. *J. Geophys. Res.* **95**, 5639–5655. => AEL1360
511. Brasseur, G.P., Hauglustaine, D.A., Walters, S., Rasch, P.J., Müller, J.-F., Granier, C. and Tie, X.X. (1998) MOZART, a global chemical transport model for ozone and related chemical tracers 1. Model description. *J. Geophys. Res. Atmospheres* **103**, 28265–28289. => AEL2817
512. Brasseur, G.P., Müller, J.-F. and Granier, C. (1996) Atmospheric impact of NO<sub>x</sub> emissions by subsonic aircraft: A three-dimensional model study. *J. Geophys. Res.* **101**, 1423–1428. => AEL1539
513. Bregman, A., van den Broek, M., Carslaw, K.S., Müller, R., Peter, T., Scheele, M.P. and Lelieveld, J. (1997) Ozone depletion in the late winter lower Arctic stratosphere: Observations and model results. *J. Geophys. Res. Atmospheres* **102**, 10815–10828. => AEL1955
514. Bregman, B., Wang, P.-H. and Lelieveld, J. (2002) Chemical ozone loss in the tropopause region on subvisible ice clouds, calculated with a chemistry-transport model. *J. Geophys. Res. Atmospheres* **107**, ACH5 1–12. => AEL3632

515. Breton, J., Breton, V. and Legoff, Y. (1998) Atmospheric ionization patterns at 4 m above ground level in correlation to meteorological events. *J. Geophys. Res. Atmospheres* **103**, 1837–1846. => AEL2096
516. Briant, C.L. and Burton, J.J. (1974) Effective potential for water-ion interactions in prenucleation embryos. *J. Chem. Phys.* **60**, 2849–2855. => AEL0821
517. Briant, C.L. and Burton, J.J. (1976) A molecular model for the nucleation of water on ions. *J. Atmosph. Sci.* **33**, 1357–1361. => AEL0803
518. Briant, C.L. and Burton, J.J. (1976) Molecular dynamics study of the effects of ions on water microclusters. *The J. Chem. Phys.* **64**, 2888–2895. => AEL0767
519. Bricard, J. (1949) L'equilibre ionique de la basse atmosphere. *J. Geophys. Res.* **54**, 39–52. => AEL3397
520. Bricard, J. (1962) La fixation des petits ions atmosphériques sur les aérosols ultra-fins. *Geofisica pura e applicata* **51**, 271–276. => AEL0869
521. Bricard, J., Billard, F., Blanc, D., Cabane, M. and Fontan, J. (1966) Structure de`taille du spectre de mobilite` des petits ions radioactifs dans l`air. *Compt.Rend.Acad.Sci.* **263**, B761–B764. => HT-F030
522. Bricard, J., Billard, F., Blanc, D., Cabane, M. and Fontan.J. (1966) Ionisation des gaz. *C.R.Acad.Sc.Paris* **263**, 761–764. => HT0234
523. Bricard, J., Billiard, F. and Madelaine, G. (1968) Formation and evolution of nuclei of condensation that appear in air initially free of aerosols. *J. Geophys. Res.* **73**, 4487–4496. => AEL0775
524. Bricard, J., Cabane, M. and Madelaine, G. (1968) A study of the mobility of small ions in air by the flight time method. *The Fourth International Conference on the Universal Aspects of Atmospheric Electricity*, Tokyo, pp. 1–7. => HT0551
525. Bricard, J., Cabane, M. and Madelaine, G. (1977) Formation of atmospheric ultrafine particles and ions from trace gases. *J.Colloid and Interface Sci.* **58**, 113–124. => AEL3434
526. Bricard, J., Cabane, M. and Madelaine, G. (1977) Formation of atmospheric ultrafine particles and ions from trace gases. *J.Colloid and Interface Sci.* **58**, 113–124. => HT0207
527. Bricard, J., Cabane, M., Madelaine, G. and Vigla, D. (1970) Spectre de mobilité des petits ions de l'air. *J. de recherches atmosphériques* **4**, 107–118. => AEL3446
528. Bricard, J., Cabane, M., Madelaine, G. and Vigla, D. (1970) Spectre de mobilite des petits ions de l'air. *J.de Recherches Atmospheriques* **4**, 107–113. => HT0224
529. Bricard, J., Cabane, M., Madelaine, G. and Vigla, D. (1971) Etude de la mobilité des ions de l'air. *J. Aerosol Sci.* **2**, 193–199. => AEL0019
530. Bricard, J., Cabane, M., Madelaine, G. and Vigla, D. (1971) Etude de la mobilite des ions de l'air. *Aerosol Sci.* **2**, 193–199. => HT0223
531. Bricard, J., Cabane, M., Madelaine, G. and Vigla, D. (1972) Formation and properties of neutral ultrafine particles and small ions conditioned by gaseous impurities of the air. *J. Colloid Interface Sci.* **39**, 42–58. => AEL0745
532. Bricard, J., Cabane, M., Madeleine, G. and Vigla, D. (1970) Pollution atmosphe'rique. Formation des particules d'origine photolytique dans l'air. *Comptes rendus de l'Academie des Sciences de Paris* 787–790. => AEL0404
533. Bricard, J., Girod, P. and Pradel, J. (1965) I. E`tat de charge des ae`rosols ultra fins en milieu faiblement ionise` application aux gros ions atmosphe`riques. *Le Journal de Physique Appliquet* **26**, 141A–147A. => HT-F035

534. Bricard, J., Madelaine, G.J. and Wajsfelner, R. (1971) Comportement électrique des aérosols submicroniques. *J. Aerosol Sci.* **2**, 165–173. => AEL0027
535. Bricard, J., Madelaine, G.J. and Wajsfelner, R. (1971) Comportement électriques des aerosols submicroniques. *Aerosol Sci.* **2**, 165–173. => HT0225
536. Brilliantov, N. and Valleau, J.P. (1998) Effective Hamilton analysis of fluid criticality and application to the square-well fluid. *J. Chem. Phys.* **108**, 1123–1130. => AEL3151
537. Brilliantov, N. and Valleau, J.P. (1998) Thermodynamic scaling Monte Carlo study of the liquid-gas transition in the square-well fluid. *J. Chem. Phys.* **108**, 1115–1122. => AEL3150
538. Brock, C.A., Schröder, F., Kärcher, B., Petzold, A., Busen, R. and Fiebig, M. (2000) Ultrafine particle size distributions measured in aircraft exhaust plumes. *J. Geophys. Res. Atmospheres* **105**, 26555–26567. => AEL3263
539. Brock, C.A., Trainer, M., Ryerson, T.B., Neuman, J.A., Parrish, D.D., Holloway, J.S., Nicks, D.K.Jr., Frost, G.J., Hübler, G. and Fehsenfeld, F.C. (2003) Particle growth in urban and industrial plumes in Texas. *J. Geophys. Res. Atmospheres* **108**, 4111–doi:10.1029/2002JD002746, 2003. => AEL3943
540. Brock, C.A., Washenfelder, R.A., Trainer, M., Ryerson, T.B., Wilson, J.C., Reeves, J.M., Huey, L.G., Holloway, J.S., Parrish, D.D., Hübler, G. and Fehsenfeld, F. (2002) Particle growth in the plumes of coal-fired power plants. *J. Geophys. Res. Atmospheres* **107**, AAC9 1–14. => AEL3664
541. Brock, J.R. (1967) Experiment and theory for the thermal force in the transition region. *J. Colloid Interface Sci.* **25**, 392–395. => AEL0029
542. Brock, J.R. (1967) The thermal force in the transition region. *J. Colloid Interface Sci.* **23**, 448–452. => AEL0028
543. Brock, J.R. (1970) Aerosol charging: The role of the image force. *J. Appl. Phys.* **41**, 843–844. => AEL0030
544. Brock, J.R. (1970) Noncontinuum unipolar charging of aerosols: The role of external electric fields. *J. Appl. Phys.* **41**, 1940–1944. => AEL0031
545. Brock, J.R. (1972) Comments on theories of aerosol charging. *J. Colloid Interface Sci.* **39**, 418–420. => AEL0032
546. Brock, J.R. and Wu, M.-S. (1970) Unipolar diffusion charging of aerosols and the image force. *J. Colloid Interface Sci.* **3**, 473–474. => AEL0033
547. Brock, J.R. and Wu, M.-S. (1973) Field charging of aerosol particles. *J. Colloid and Interface Sci.* **45**, 106–114. => AEL0034
548. Brock, J.R., Kuhn, P.J. and Zehavi, D. (1986) Condensation aerosol formation and growth in a laminar coaxial jet: experimental. *J. Aerosol Sci.* **17**, 11–22. => AEL1617
549. Broday, D.M. and Georgopoulos, P.G. (2001) Growth and deposition of hygroscopic particulate matter in the human lungs. *Aerosol Sci. Technol.* **34**, 144–159. => AEL3372
550. Brodskaya, E., Lyubartsev, A.P. and Laaksonen, A. (2002) Molecular dynamics simulations of water clusters with ions at atmospheric conditions. *J. Chem. Phys.* **116**, 7879–7892. => AEL3856
551. Brodskaya, E.N. and Rusanov, A.I. (1999) Molecular dynamics computation of solvent contribution to work of ion solvation. *Molecular Physics* **97**, 701–707. => AEL3859
552. Brodskaya, E.N. and Zakharov, V.V. (1995) Computer simulation study of the surface polarization of pure polar liquids. *J. Chem. Phys.* **102**, 4595–4599. => AEL1482



553. Brogniez, C., Bazureau, A., Lenoble, J. and Chu, W.P. (2002) Stratospheric Aerosol and Gas Experiment (SAGE) III measurements: A study on the retrieval of ozone, nitrogen dioxide, and aerosol extinction coefficients. *J. Geophys. Res. Atmospheres* **107**, 4758–doi:10.1029/2001JD001576, 2002. => AEL3914
554. Brogniez, C., Lenoble, M., Herman, M., Lecomte, P. and Verwaerde, C. (1996) Analysis of two balloon experiments in coincidence with SAGE II in case of large stratospheric aerosol amount: Post-Pinatubo period. *J. Geophys. Res.* **101**, 1541–1552. => AEL1795
555. Brokenshire, J. and Pay, N. (1989) Ion mobility spectrometry: a promising technology for environmental measurement. *International Laboratory* 38–41. => HT0333
556. Brokenshire, J. and Pay, N. (1989) Ion mobility spectrometry: A promising technology for environmental measurement. *International Laboratory* 38–41. => HT0487
557. Brönnimann, S., Voigt, S. and Wanner, H. (2000) The influence of changing UVB radiation in near-surface ozone time series. *J. Geophys. Res. Atmospheres* **105**, 8901–8913. => AEL3201
558. Brook, M. and Krehbiel, P. (1975) A fast scanning meteorological radar. *Volume, 16th Radar Meteorology Conf.*, Houston, pp. 26–31. => HT0120
559. Brook, M. and Moore, C.B. (1974) Lightning in volcanic clouds. *J. of Geophysical Research* **79**, 472–475. => HT0109
560. Brook, M., Henderson, R.W. and Pyle, R.B. (1989) Positive lightning strokes to ground. *@JGR* **94**, 13295–13303. => HT0527
561. Brook, M., Rhodes, C., Vaughan, O.H., Orville, R.E. and Vonnegut, B. (1984) Nighttime observations of thunderstorm electrical activity from a high altitude airplane. *NASA Technical Memorandum 86455* 1–27. => HT0180
562. Brooks, I.M. and Saunders, C.P.R. (1994) An experimental investigation of the inductive mechanism of thunderstorm electrification. *Journal of Geophysical Research* **99**, 10627–10632. => HT0750
563. Browell, E.V., Fenn, M.A., Butler, C.F., Grant, W.B., Merrill, J.T., Newell, R.E., Bradshaw, J.D., Sandholm, S.T., Anderson, B.E., Bandy, A.R., Bachmeier, A.S., Blake, D.R., Davis, D.D., Gregory, G.L., Heikes, B.G., Kondo, Y., Liu, S.C., Rowland, F.S., Sachse, G.W., Singh, H.B., Talbot, R.W., Thornton and D.C. (1996) Large-scale air mass characteristics observed over Western Pacific during summertime. *J. Geophys. Res.* **101**, 1691–1712. => AEL1812
564. Browell, E.V., Hair, J.W., Butler, C.F., Grant, W.B., DeYoung, R.J., Fenn, M.A., Brackett, V.G., Clayton, M.B., Brasseur, L.A., Harper, D.B., Ridley, B.A., Klonecki, A.A., Hess, P.G., Emmons, L.K., Tie, X., Atlas, E.L., Cantrell, C.A., Wimmers, A.J., Blake, D.R., Coffey, M.T., Hannigan, J.W., Dibb, J.E., Talbot, R.W., Flocke, F., Weinheimer, A.J., Fried, A., Wert, B., Snow, J.A. and Lefter, B.L. (2003) Ozone, aerosol, potential vorticity, and trace gas trends observed at high-latitudes over North America from February to May 2000. *J. Geophys. Res. Atmospheres* **108**, 8369–doi:10.1029/2001JD001390, 2003. => AEL3959
565. Brown, J.S., Kim, C.S., Reist, P.C., Zeman, K.L. and Bennett, W.D. (2000) Generation of radiolabeled "soot-like" ultrafine aerosols suitable for use in human inhalation studies. *Aerosol Sci. Technol.* **32**, 325–337. => AEL3335
566. Brown, K.A. and Bell, J.N.B. (1986) Vegetation - the missing sink in the global cycle of carbonyl sulphide (COS). *Atmos. Environ.* **20**, 537–540. => AEL0686
567. Brown, R.C. (1990) The charge distribution of spherical conducting particles in low concentration ionised gas. *J. Aerosol Sci.* **21**, 119–121. => HT0647

568. Brown, R.C., Miake-Lie, R.C., Anderson, M.R., Kolb, C.E. and Resch, T.J. (1996) Aerosol dynamics in near-field aircraft plumes. *J. Geophys. Res. Atmospheres* **101**, 22939–22953. => AEL1911
569. Brown, R.C., Miake-Lye, R.C., Anderson, M.R. and Kolb, C.E. (1996) Effect of aircraft exhaust sulfur emissions on near field plume aerosols. *Geophys. Res. Lett.* **23**, 3607–3610. => AEL1853
570. Brown, R.C., Miake-Lye, R.C., Anderson, M.R. and Kolb, C.E. (1997) Aircraft sulfur emissions and the formation of visible contrails. *Geophys. Res. Lett.* **24**, 385–388. => AEL1852
571. Brown, S.S., Stark, H., Ryerson, T.B., Williams, E.J., Nicks, D.K.Jr., Trainer, M., Fehsenfeld, F.C. and Ravishankara, A.R. (2003) Nitrogen oxides in the nocturnal boundary layer: Simultaneous in situ measurements of NO<sub>3</sub>, N<sub>2</sub>O<sub>5</sub>, NO<sub>2</sub>, NO, and O<sub>3</sub>. *J. Geophys. Res. Atmospheres* **108**, 4299– doi:10.1029/2002JD002917, 2003. => AEL4005
572. Brownlee, J.N. (1975) A new approach to atmospheric-ion mobility spectrometry. *J. of Atmospheric and Terrestrial Physics* **37**, 1139–1144. => HT0305
573. Brueckner, K.A. (1964) Ion-ion recombination. *J. Chem. Phys.* **40**, 439–444. => AEL3902
574. Bruins, A.P. (1993) Electrospray, technique and applications. *J. Chim. Phys.* **90**, 1335–1344. => AEL1015
575. Bruno, R.C. (1983) Verifying model of radon decay product behavior indoors. *Health Physics* **45**, 471–480. => AEL2472
576. Bruzzi, L., Mele, R. and Padoani, F. (1992) Evaluation of gamma and alpha doses due to natural radioactivity of building materials. *J. Radiol. Prot.* **12**, 67–76. => AEL2525
577. Buckingham, R.A. (1961) The present status of intermolecular potentials for calculations of transport properties. *Planet. Space Sci.* **3**, 205–216. => AEL0035
578. Buckle, E.R. (1989) Particle formation in supercooled vapours. *Chemistry in Britain* **25**, 57–62. => AEL0877
579. Bufler, U. and Wegmann, K. (1991) Diurnal variation of monoterpene concentrations in open-top chambers and in the Welzheim forest air, F.R.G. *Atmos. Environ.* **25A**, 251–256. => AEL0439
580. Buhr, M., Parrish, D., Elliot, J., Holloway, J., Carpenter, J., Goldan, P., Kuster, W., Trainer, M., Montzka, S., McKeen, S. and Fehsenfeld, F. (1995) Evaluation of ozone precursor source types using principal component analysis of ambient air measurements in rural Alabama. *J. Geophys. Res.* **100**, 22853–22860. => AEL1633
581. Buhr, M.P., Hsu, K.-J., Liu, C.M., Liu, R., Wei, L., Liu, Y.-C. and Kuo, Y.-S. (1996) Trace gas measurements and air mass classification from a ground station in Taiwan during the PEM-West A experiment (1991). *J. Geophys. Res.* **101**, 2025–2035. => AEL1624
582. Buikov, M.V. (1994) The pollution exchange between soil and the near-surface air layer through turbulent transfer, resuspension and dry deposition. *J. Aerosol Sci.* **25**, 859–866. => HT0739
583. Bulatov, A. and Fetisov, V. (1990) Nonstationary nucleation in the supersaturated vapor. *Chem. Phys. Lett.* **172**, 388–392. => AEL0805
584. Bulatov, A. and Fetisov, V. (1990) Relaxation to the quasistationary mode of nucleation. *Chem. Phys. Lett.* **173**, 187–188. => AEL0801
585. Bunce, N.J. and Nakai, J.S. (1989) Atmospheric chemistry of chlorinated phenols. *J. Air Poll. Contr. Assoc.* **39**, 820–823. => AEL0641
586. Bunz, H.P.E. (1988) Investigations of the formation and the structure of microclusters by direct computer simulation. *Lecture Notes on Physics* **309**, 454–457. => AEL1784

587. Burke, E.J., Shuttleworth, W.J., Yang, Z.-L., Mullen, S.L. and Arain, M.A. (2000) The impact of the parameterization of heterogeneous vegetation on the modeled large-scale circulation in CCM3-BATS. *Geophys. Res. Lett.* **27**, 397–400. => AEL3055
588. Burke, R.A., Meyer, J.L., Cruse, J.M., Birkhead, K.M. and Paul, M.J. (1999) Soil-atmosphere exchange of methane in adjacent cultivated and floodplain forest soils. *J. Geophys. Res. Atmospheres* **104**, 8161–8171. => AEL2891
589. Burke, T.P. and Scott, J.A. (1973) The production of condensation nuclei by alpha radiation. *Proceedings of the Royal Irish Academy* **73**, 151–158. => HT0159
590. Burkert, J., Andrés-Hernández, M.-D., Stöbener, D., Burrows, J.P., Weissenmayer, M. and Kraus, A. (2001) Peroxy radical and related trace gas measurements in the boundary layer above the Atlantic Ocean. *J. Geophys. Res. Atmospheres* **106**, 5457–5477. => AEL3425
591. Burkhardt, E. (1935) Die Erzeugung hoher Spannungen mit Hilfe eines monopolar beladenen Luftstromes. *Annalen der Physik, 5. Folge* **23**, 339–370. => HT1525
592. Burtscher, H., Scherrer, L., Siegmann, H.C., Schmidt-Ott, A. and Federer, B. (1982) Probing aerosols by photoelectric charging. *J. Appl. Phys.* **53**, 3787–3791. => AEL0918
593. Bush, B.C. and Valero, F.P.J. (2002) Spectral aerosol radiative forcing at the surface during the Indian Ocean Experiment (INDOEX). *J. Geophys. Res. Atmospheres* **107**, INX2 2 10.1029/2000JD000020. => AEL3778
594. Busi, F., D'Angelantonio, M., Mulazzani, Q.G. and Tubertini, O. (1988) Radiation induced NO<sub>x</sub>~/SO<sub>2</sub>~ emission control for industrial and power plants flue gas. *Radiation Physics and Chemistry* **31**, 101–108. => AEL0409
595. Busigin, A., Van der Vooren, A.W. and Phillips, C.R. (1980) A technique for calculation of aerosol particle size distributions from indirect measurements. *J. Aerosol Sci.* **11**, 359–366. => AEL2407
596. Busigin, A., VAN DER Vooren, A.W. and Phillips, C.R. (1980) A technique for calculation of aerosol particle size distributions from indirect measurements. *J. Aerosol Sci.* **11**, 359–366. => HT0188
597. Busigin, A., Van der Vooren, A.W., Babcock, J.C. and Phillips, C.R. (1981) The nature of unattached RaA(218Po) particles. *Health Physics* **40**, 333–343. => AEL2408
598. Businger, S., Chiswell, S.R., Ulmer, W.C. and Johnson, R. (1996) Balloons as a Lagrangian measurement platform for atmospheric research. *J. Geophys. Res.* **101**, 4363–4376. => AEL1750
599. Butterbach-Bahl, K., Stange, F., Papen, H. and Li, G. (2001) Regional inventory of nitric oxide and nitrous oxide emissions for forest soils of southeast Germany using the biogeochemical model PnET-N-DNDC. *J. Geophys. Res. Atmospheres* **106**, 34155–34166. => AEL3624
600. Butterweck, G., Reineking, A., Kesten, J. and Porstendörfer, J. (1994) The use of the natural radioactive noble gases radon and thoron as tracers for the study of turbulent exchange in the atmospheric boundary layer - case study in and above a wheat field. *Atmospheric Environment* **28**, 1963–1969. => HT0799
601. Butterweck-Dempelwolf, G., Schuler, Ch., Vezzù, G. and Reineking, A. (1999) Improved determination of bimodal size distributions from measurements with diffusional size classification. *Aerosol Sci. Technol.* **31**, 383–391. => AEL3181
602. Butterweck-Dempewolf, G., Schuler, Ch., Vezzù, G., Reineking, A., Huet, C., Tymen, G., Strong, J.C., Knutson, E.O. and Vargas, A. (2000) Intercomparison of approximation algorithms for the determination of the size distribution of the "unattached" fraction of radon progeny. *Aerosol Sci. Technol.* **33**, 261–273. => AEL3351

603. Buzorius, G. (2001) Cut-off sizes and time constants of the CPC TSI 3010 operating at 1-3 lpm flow rates. *Aerosol Sci. Technol.* **35**, 577–585. => AEL3498
604. Buzorius, G., Rannik, Ü., Aalto, P., dal Maso, M., Nilsson, E.D., Lehtinen, K.E.J. and Kulmala, M. (2003) On particle formation prediction in continental boreal forest using micrometeorological parameters. *J. Geophys. Res. Atmospheres* **108**, 4377–doi:10.1029/2002JD002850. => AEL4023
605. Buzorius, G., Rannik, Ü., Aalto, P., dal Maso, M., Nilsson, E.D., Lehtinen, K.E.J. and Kulmala, M. (2003) On particle formation prediction in continental boreal forest using micrometeorological parameters. *J. Geophys. Res. Atmospheres* **108**, 4377–doi:10.1029/2002JD002850. => HT1426
606. Buzorius, G., Rannik, Ü., Mäkelä, J.M., Keronen, P., Vesala, T. and Kulmala, M. (2000) Vertical aerosol fluxes measured by the eddy covariance method and deposition of nucleation mode particles above a Scots pine forest in southern Finland. *J. Geophys. Res. Atmospheres* **105**, 19905–19916. => AEL3236
607. Buzorius, G., Rannik, Ü., Nilsson, D. and Kulmala, M. (2001) Vertical fluxes and micrometeorology during aerosol particle formation events. *Tellus* **53B**, 394–405. => AEL3841
608. Byrne, M.A. and Jennings, S.G. (1993) Scavenging of sub-micrometre aerosol particles by water drops. *Atmos. Environ.* **27A**, 2099–2105. => AEL1921
609. Cabane, M. and Milani, M.R. (1983) Study of the mobility of small ions in air. *Research Letters on Atmospheric Electricity* **3**, 55–59. => AEL0564
610. Cabane, M. and Playe, P. (1980) Mass spectra of negative ions in air-like gas mixtures at atmospheric pressure. *J.Aerosol Sci.* **11**, 475–482. => AEL3435
611. Cabane, M. and Playe, P. (1980) Mass spectra of negative ions in air-like gas mixtures at atmospheric pressure. *J.Aerosol Sci.* **11**, 475–482. => HT0196
612. Cabane, M., Krien, P., Madelaine, G. and Bricard, J. (1976) Mobility spectra of ions created in gases under atmospheric pressure. *J. Colloid Interface Sci.* **57**, 289–300. => AEL0750
613. Cabane, M., Krien, P., Madelaine, G. and Bricard, J. (1976) Mobility spectra of ions created in gases under atmospheric pressure. *J. Colloid and Interface Sci.* **57**, 289–300. => HT0210
614. Cabrol, C., Lopez, A., Chapuis, A. and Fontan, J. (1972) A self-contained automatic and portable apparatus for the counting of particles. *J. Aerosol Sci.* **3**, 281–287. => AEL0036
615. Cacace, F., Attina, M., De Petris, G., Grandinetti, F. and Speranza, M. (1990) Gaseous isomeric  $H_2-N_3^+$  ions. A joint ab initio and mass spectrometric study of protonated hydrazoic acid. *Gazzetta Chimica Italiana* **120**, 691–700. => AEL0455
616. Caceci, M.S. and Cacheris, W.P. (1984) Fitting curves to data. *Byte* 340–362. => AEL0616
617. Cachier, H., Bremond, M.-P. and Buat-Ménard, P. (1989) Determination of atmospheric soot carbon with a simple thermal method. *Tellus* **41B**, 379–390. => AEL2357
618. Cachorro, V.E., Durán, P., Vergaz, R. and de Frutos, A.M. (2000) Columnar physical and radiative properties of atmospheric aerosols in north central Spain. *J. Geophys. Res. Atmospheres* **105**, 7161–7175. => AEL3112
619. Cadle, R.C. (1965) *Particle size. Theory and industrial applications. Olemas lk. 1-15.* Reinhold Publ. Corp., => HT0925
620. Cadle, R.D. (1965) *Particle size. Theory and industrial applications. Olemas I. peatükk -sissejuhatus.* Reinhold Publishing Corporation., => HT1253
621. Cadle, S.H., Countess, R.J. and Kelly, N.A. (1982) Nitric acid and ammonia in urban and rural locations. *Atmos. Environ.* **16**, 2501–2506. => AEL0651

622. Caffrey, P., Hoppel, W., Frick, G., Pasternack, L., Fitzgerald, J., Hegg, D., Gao, S., Leitch, R., Shantz, N., Albrecht, T. and Ambrusko, J. (2001) In-cloud oxidation of SO<sub>2</sub> by O<sub>3</sub> and H<sub>2</sub>O<sub>2</sub>: Cloud chamber measurements and modeling of particle growth. *J. Geophys. Res. Atmospheres* **106**, 27587–27601. => AEL3573
623. Cagniard, L. (1943) Sur le rôle de la ventilation dans les appareils utilisés pour mesurer les conductibilités électriques de l'air atmosphérique. *Compt. Rend.* **217**, 574–576. => HT-F029
624. Cagniard, L. (1944) Sur les principes de la mesure des conductibilités ioniques de l'air à l'aide des appareils de déperdition. *Annales de Géophysique* **1**, 25–36. => HT-F026
625. Cahn, J.W. and Hilliard, J.E. (1958) Free energy of a nonuniform system. I. Interfacial free energy. *The Journal of Chemical Physics* **28**, 258–267. => AEL1141
626. Cai, X. and Griffin, R.J. (2003) Modeling the formation of secondary organic aerosol in coastal areas: Role of the sea-salt aerosol organic layer. *J. Geophys. Res. Atmospheres* **108**, 4440– doi:10.1029/2002JD003053. => AEL4031
627. Caldwell, R., Quant, F.R. and Pöcher, A. (1998) Design of an improved electrostatic classifier. *J. Aerosol Sci.* **29**, S429–S430. => HT1342
628. Caldwell, R., Wright, D. and El-Shall, M.S. (1993) Nucleation on metal ions in supersaturated vapors. *Zeitschrift für Physik D. Atoms, Molecules and Clusters* **26**, \4Suppl, 189–191. => AEL1235
629. Caleman, C. and van der Spoel, D. (2007) Evaporation from water clusters containing singly charged ions. *Phys. Chem. Chem. Phys.* **9**, 5105–5111. => HT1599
630. Callaway, J., Chen, D.P. and Tang, R. The Hubbard model for small clusters. *Zeitschrift für Physik D. Atoms, Molecules and Clusters* **3**, 91–96. => AEL0440
631. Callis, L.B., Natarajan, M., Lambeth, J.D. and Boughner, R.E. (1997) On the origin of midlatitude ozone changes: Data analysis and simulations for 1979–1993. *J. Geophys. Res. Atmospheres* **102**, 1215–1228. => AEL2305
632. Camelot, D.M.A., Borra, J.-P., Marijnissen, J.C.M. and Scarlett, B. (1998) Bipolar coagulation: Charge distribution of coagulated droplets. *J. Aerosol Sci.* **29**, S979–S980. => HT1352
633. Campbell, D., Copeland, S. and Cahill, T. (1995) Measurement of aerosol absorption coefficient from teflon filters using integrating plate and integrating sphere techniques. *Aerosol Sci. Technol.* **22**, 287–292. => AEL1422
634. Cane, H.V., Richardson, I.G. and St. Cyr, O.C. (1999) Correction to “The interplanetary events of January–May, 1997 as inferred from energetic particle data, and their relationship with solar events” by H.V. Cane, I.G. Richardson, and O.C. St. Cyr. *Geophys. Res. Lett.* **26**, 2149–2150. => AEL2903
635. Cantrell, C.A., Davidson, J.A., Shetter, R.E., Anderson, B.A. and Calvert, J.G. (1987) Reactions of NO<sub>3</sub> and N<sub>2</sub>O<sub>5</sub> with molecular species of possible atmospheric interest. *J. Phys. Chem.* **91**, 6017–6021. => AEL0661
636. Cantrell, C.A., Davidson, J.A., Shetter, R.E., Anderson, B.A. and Calvert, J.G. (1987) The temperature invariance of the NO<sub>3</sub> absorption cross section in the 662-nm region. *J. Phys. Chem.* **91**, 5858–5863. => AEL0695
637. Cantrell, C.A., Shetter, R.E., Calvert, J.G., Eisele, F.L. and Tanner, D.J. (1997) Some considerations of the origin of nighttime peroxy radicals observed in MLOPEX 2c. *J. Geophys. Res. Atmospheres* **102**, 15899–15913. => AEL2007

638. Cantrell, C.A., Shetter, R.E., Gilpin, T.M. and Calvert, J.G. (1996) Peroxy radicals measured during Mauna Loa Observatory Photochemistry Experiment 2: The data and first analysis. *J. Geophys. Res.* **101**, 14643–14652. => AEL1896
639. Cantrell, C.A., Shetter, R.E., Gilpin, T.M., Calvert, J.G., Eisele, F.L. and Tanner, D.J. (1996) Peroxy radical concentrations measured and calculated from trace gas measurements in the Mauna Loa Observatory Photochemistry Experiment 2. *J. Geophys. Res.* **101**, 14653–14664. => AEL1897
640. Cantrell, W., Shaw, G. and Benner, R. (1999) Cloud properties inferred from bimodal aerosol number distributions. *J. Geophys. Res. Atmospheres* **104**, 27615–27624. => AEL3040
641. Cantrell, W., Shaw, G., Benner, R. and Veazey, D. (1997) Evidence for sulfuric acid coated particles in the Arctic air mass. *Geophys. Res. Lett.* **24**, 3005–3008. => AEL2952
642. Cantrell, W., Shaw, G., Cass, G.R., Chowdhury, Z., Hughes, L.S., Prather, K.A., Guazzotti, S.A. and Coffee, K.R. (2001) Closure between aerosol particles and cloud condensation nuclei at Kaashidoo Climate Observatory. *J. Geophys. Res. Atmospheres* **106**, 29711–28718. => AEL3583
643. Capaldo, K.P. and Pandis, S.N. (1997) Dimethylsulfide chemistry in the remote marine atmosphere: Evaluation and sensitivity analysis of available mechanisms. *J. Geophys. Res. Atmospheres* **102**, 23251–23267. => AEL2015
644. Capaldo, K.P., Kasibhatla, P. and Pandis, S.N. (1999) Is aerosol production within the remote marine boundary layer sufficient to maintain observed concentrations?. *J. Geophys. Res. Atmospheres* **104**, 3483–3500. => AEL2763
645. Capra, D., Silibello, C. and Queirazza, G. (1994) Influence of ventilation rate on indoor radon concentration in a test chamber. *Radiation Protection Dosimetry* **56**, 15–18. => AEL2502
646. Carleton, K.L., Sonnenfroh, D.M., Rawlins, W.T., Wyslouzil, B.E. and Arnold, S. (1997) Freezing behavior of single sulfuric acid aerosols suspended in a quadrupole trap. *J. Geophys. Res. Atmospheres* **102**, 6025–6033. => AEL2316
647. Carlier, P., Hannachi, H. and Mouvier, G. (1986) The chemistry of carbonyl compounds in the atmosphere - a review. *Atmos. Environ.* **20**, 2079–2099. => AEL0037
648. Carlton, A.G., Turpin, B.J., Johnson, W., Buckley, B.T., Simcik, M., Eisenreich, S.J. and Porcja, R.J. (1999) Microanalysis methods for characterization of personal aerosol exposures. *Aerosol Sci. Technol.* **31**, 66–80. => AEL3114
649. Carmichael, D. and Holmes, W. (1990) Confirmational analysis of chlorofluorocarbons and related impurities using GC-MS. *International Laboratory* 42–45. => HT0672
650. Carmichael, G.R., Hong, M.-S., Ueda, H., Chen, L.-L., Murano, K., Park, J.K., Lee, H., Kim, Y., Kang, C. and Shim, S. (1997) Aerosol composition at Cheju Island, Korea. *J. Geophys. Res. Atmospheres* **102**, 6047–6061. => AEL2318
651. Carmichael, G.R., Peters, L.K. and Kitada, T. (1986) A second generation model for regional-scale transport/chemistry/deposition. *Atmos. Environ.* **20**, 173–188. => AEL1086
652. Carnahan, N.F. and Starling, K.E. (1969) Equation of state for nonattracting rigid spheres. *The Journal of Chemical Physics* **51**, 635–636. => AEL1341
653. Carney, T.A. and Fishman, J. (1986) A one-dimensional photochemical model of the troposphere with a trade-wind boundary-layer parameterization. *Tellus* **38B**, 127–143. => AEL0505
654. Carpenter, G.B., Kupferman, R.A., Coroniti, S.C. and Gassmann, G.J. (1968) VLF amplitude perturbations in the Antarctic due to the nuclear explosion of July 9, 1962. *Journal of Geophysical Research* **73**, 393–403. => HT0075

655. Carpenter, L.J. (2003) Iodine in the marine boundary layer. *Chemical Reviews* **103**, 4953–4962. => AEL4059
656. Carpenter, L.J., Green, T.J., Mills, G.P., Bauguitte, S., Penkett, S.A., Zanis, P., Schuepbach, E., Schmidbauer, N., Monks, P.S. and Zellweger, C. (2000) Oxidized nitrogen and ozone production efficiencies in the springtime free troposphere over the Alps. *J. Geophys. Res. Atmospheres* **105**, 14547–14559. => AEL3221
657. Carpenter, L.J., Liss, P.S. and Penkett, S.A. (2003) Marine organohalogens in the atmosphere over the Atlantic and Southern Oceans. *J. Geophys. Res. Atmospheres* **108**, 4256–doi:10.1029/2002JD002769, 2003. => AEL4008
658. Carpenter, L.J., Monks, P.S., Bandy, B.J., Penkett, S.A., Galbally, I.E. and Meyer, C.P. (1997) A study of peroxy radicals and ozone photochemistry at coastal sites in the northern and southern hemispheres. *J. Geophys. Res. Atmospheres* **102**, 25417–25427. => AEL2214
659. Carpenter, L.J., Sturges, W.T., Penkett, S.A., Liss, P.S., Alicke, B., Hebestreit, K. and Platt, U. (1999) Short-lived alkyl iodides and bromides at Mace Head, Ireland: Links to biogenic sources and halogen oxide production. *J. Geophys. Res. Atmospheres* **104**, 1679–1689. => AEL2752
660. Carrico, J.P., Sickenberger, D.W., Spangler, G.E. and Vora, K.N. (1983) Simple electrode design for ion mobility spectrometer. *J. Phys. E.: Sci. Instrum.* **16**, 1059–1062. => AEL3402
661. Carroll, D.I. and Mason, E.A. The theoretical relationship between ion mobility and mass. – => HT0956
662. Carroll, D.I., Dzidic, I., Stillwell, R.N., Haegele, K.D. and Horning, E.C. (1975) Atmospheric pressure ionization mass spectrometry: Corona discharge ion source for use in liquid chromatograph-mass spectrometer-computer analytical system. *Analytical Chemistry* **47**, 2369–2373. => AEL0571
663. Carroll, J.S. and Hammond, S.B. (1955) The measurement of electrostatic potential attributable to net ion space charge in air. *Communication and Electronics* **16**, 712–715. => HT-F036
664. Carroll, M.A. (1998) Editorial. *J. Geophys. Res. Atmospheres* **103**, 28451–28455. => AEL3444
665. Carsey, T.P., Churchill, D.D., Farmer, M.L., Fischer, C.J., Pszenny, A.A., Ross, V.B., Saltzman, E.S., Springer-Young, M. and Bonsang, B. (1997) Nitrogen oxides and ozone production in the North Atlantic marine boundary layer. *J. Geophys. Res. Atmospheres* **102**, 10653–10665. => AEL1951
666. Carslaw, K.S., Clegg, S.L. and Brimblecombe, P. (1995) A thermodynamic model of the system HCl-HNO<sub>3</sub>-H<sub>2</sub>SO<sub>4</sub>-H<sub>2</sub>O, including solubilities of HBr, from <200 to 328 K. *J. Phys. Chem.* **99**, 11557–11574. => AEL3886
667. Carslaw, K.S., Peter, T. and Clegg, S.L. (1997) Modeling the composition of liquid stratospheric aerosols. *Rev. Geophys.* **35**, 125–154. => AEL2947
668. Carslaw, K.S., Wirth, M., Tsias, A., Lou, B.P., Dörnbrack, A., Leutbecher, M., Volkert, H., Renger, W., Bacmeister, J.T. and Peter, T. (1998) Particle microphysics and chemistry in remotely observed mountain polar stratospheric clouds. *J. Geophys. Res. Atmospheres* **103**, 5785–5796. => AEL2232
669. Carslaw, N., Creasey, D.J., Heard, D.E., Lewis, A.C., McQuaid, J.B., Pilling, M.J., Monks, P.S., Bandy, B.J. and Penkett, S.A. (1999) Modeling OH, HO<sub>2</sub>, and RO<sub>2</sub> radicals in the marine boundary layer 1. Model construction and comparison with field measurements. *J. Geophys. Res. Atmospheres* **104**, 30241–30255. => AEL3047

670. Carslaw, N., Jacobs, P.J. and Pilling, M.J. (1999) Modeling OH, HO<sub>2</sub>, and RO<sub>2</sub> radicals in the marine boundary layer 2. Mechanism reduction and uncertainty analysis. *J. Geophys. Res. Atmospheres* **104**, 30257–30273. => AEL3048
671. Carson, P.G., Johnston, M.V. and Wexler, A.S. (1997) Real-time monitoring of the surface and total composition of aerosol particles. *Aerosol Sci. Technol.* **26**, 291–300. => AEL1916
672. Carter, W.L. and Hasegawa, I. (1975) Fixation of tobacco smoke aerosols for size distribution studies. *J. Colloid Interface Sci.* **53**, 134–141. => AEL0038
673. Carter, W.P.L. and Atkinson, R. (1985) Atmospheric chemistry of alkanes. *J. Atmos. Chem.* **3**, 377–405. => AEL1356
674. Casale, G.R., Meloni, D., Miano, S., Palmieri, S., Siani, A.M. and Cappellani, F. (2000) Solar UV-B irradiance and total ozone in Italy: Fluctuations and trends. *J. Geophys. Res. Atmospheres* **105**, 4895–4901. => AEL3096
675. Castleman, A.W. (1975) *Subcommission IV of the international commission on atmospheric electricity. Ions, aerosols, and radioactivity.* Brookhaven National Laboratory,. => AEL0953
676. Castleman, A.W. (1988) Clusters. Elucidating gas-to-particle conversion processes. *Environmental Science and Technology* **22**, 1265–. => AEL0500
677. Castleman, A.W. and Jr. Experimental studies of ion clustering and their atmospheric implications. *Vlth conference on atmospheric electricity, 28.July - 1.Aug., 1980. Manchester*, **1**, pp. 1–3. => AEL0563
678. Castleman, A.W., Jr., Hsieh, E., Upschulte, B.L., Schelling, F.J., Keesee, R.G. and Holland, P.M. Some considerations of the dynamics of ion molecule cluster reactions. *International Journal of Mass Spectrometry and Ion Physics* **47**, 191–194. => AEL0567
679. Castleman, A.W.Jr (1975) *Ions, aerosols, and radioactivity. Subcommission IV of the International Commission on Atmospheric Electricity.* Brookhaven National Laboratory Associated Universities,. => HT1513
680. Castleman, A.W.Jr. (1979) Nucleation and molecular clustering about ions. *Adv. Coll. Interf. Sci.* **10**, 73–128. => AEL0773
681. Castleman, A.W.Jr. and Keesee, R.G. (1981) Nucleation and growth of stratospheric aerosols. *Ann. Rev. Earth Planet. Sci.* **9**, 227–249. => AEL1060
682. Castleman, A.W.Jr. and Tang, I.N. (1972) Role of small clusters in nucleation about ions. *The J. Chem. Phys.* **57**, 3629–3638. => AEL0774
683. Castleman, A.W.Jr., Holland, P.M. and Keesee, R.G. (1978) The properties of ion clusters and their relationship to heteromolecular nucleation. *J. Chem. Phys.* **68**, 1760–1767. => AEL0782
684. Castleman, A.W.Jr., Holland, P.M. and Keesee, R.G. (1982) Ion association processes and ion clustering: elucidating transitions from the gaseous to the condensed phase. *Radiat. Phys. Chem.* **20**, 57–74. => AEL0784
685. Castleman, A.W.Jr., Holland, P.M., Lindsay, D.M. and Peterson, K.I. (1978) The properties of clusters in the gas phase. 2. Ammonia about metal ions. *J. Am. Chem. Soc.* **100**, 6039–6045. => AEL1420
686. Cattrall, C., Carder, K.L. and Gordon, H.R. (2003) Columnar aerosol single-scattering albedo and phase function retrieved from sky radiance over the ocean: Measurements of Saharan dust. *J. Geophys. Res. Atmospheres* **108**, 4287– doi:10.1029/2002JD002497, 2003. => AEL4004
687. Cavallo, A.J. (1998) Reanalysis of 1973 activity-weighted particle size distribution measurements in active U.S. uranium mines. *Aerosol Sci. Technol.* **29**, 31–38. => AEL2845



688. Caylor, M.J., Dunn, P.F. and Brach, R.M. (1992) Low velocity of electrically charged microspheres with planar surfaces under vacuum conditions. *J. Aerosol Sci.* **23**, 19–22. => HT0646
689. Cederfelt, S.-I., Martinsson, B.G. and Hansson, H.-C. *On the charge limit for crystallizing particles*. Manuscript,. => HT0657
690. Cess, R.D., Potter, G.L., Blanchet, J.P., Boer, G.J., Del Genio, A.D., De'que', M., Dymnikov, V., Galin, V., Gates, W.L., Ghan, S.J., Kiehl, J.T., Lacis, A.A., Le Treut, H., Li, Z.-X., Liang, X.-Z., McAvaney, B.J., Meleshko, V.P., Mitchell, J.F.B. and Morcr (1990) Intercomparison and interpretation of climate feedback processes in 19 atmospheric general circulation models. *J. Geophys. Res.* **95**, 16601–16615. => AEL0445
691. Chabay, I. (1983) The bigger they are, the harder they fall: accurate aerosol size measurements by Doppler shift spectroscopy. *Dahneke B. Measurement of Suspended Particles by Quasi-Elastic Light Scattering*, Wiley Interscience, New York, pp. 361–375. => AEL1005
692. Chakrabarty, D.K., Peshin, S.K., Srivastav, S.K., Shah, N.C. and Pandya, K.V. (2001) Further evidence of total ozone variation during the solar eclipse of 1995. *J. Geophys. Res. Atmospheres* **106**, 3213–3218. => AEL3318
693. Chalmers, Dzh.A. (1974) *Atmosfernyye elektrichestvo* (in Russian). Gidrometeoizdat, Len. => HT0334
694. Chalmers, J.A. (1962) The measurement of the vertical electric current in the atmosphere. *Journal of Atmospheric and Terrestrial Physics* **24**, 297–302. => HT-F015
695. Chalmers, J.A. (1966) The theory of the electrode effect. I. Method and simple example. *Journal of Atmospheric and Terrestrial Physics* **28**, 565–572. => HT-F005
696. Chalmers, J.A. (1966) The theory of the electrode effect. II. Inclusion of condensation nuclei. *Journal of Atmospheric and Terrestrial Physics* **28**, 573–579. => HT-F005
697. Chalmers, J.A. (1966) The theory of the electrode effect. III. Restriction of assumptions. *Journal of Atmospheric and Terrestrial Physics* **28**, 1029–1033. => HT-F011
698. Chalmers, J.A. (1967) The theory of the electrode effect. IV. Variation of ionization with height. *Journal of Atmospheric and Terrestrial Physics* **29**, 217–219. => HT-F018
699. Chamberlain, A.C. (1966) Transport of gases to and from grass and grass-like surfaces. *Proc. Royal Soc. London Ser. A* **290**, 236–265. => AEL1876
700. Chamberlain, A.C. (1967) Transport of Lycopodium spores and other small particles to rough surfaces. *Proc. Royal Soc. London Ser. A* **296**, 45–70. => AEL1877
701. Chamberlain, A.C. (1968) Transport of gases to and from surfaces with bluff and wave-like roughness elements. *Quart. J. Royal Meteorol. Soc.* **94**, 318–332. => AEL1878
702. Chambless, D.A., Dubose, S.S. and Sensintaffar, E.L. (1994) "Exact" and approximate methods for analysis of total error in radiation measurements. Abstract. *Health Phys.* **66**, 313–317. => AEL1231
703. Chambrion, Ph., Jander, H., Petereit, N. and Wagner, H.Gg. (1996) Soot growth in atmospheric C<sub>2</sub>H<sub>4</sub>/air/O<sub>2</sub>-flames. Influence of the fuel carbon density. *Z. Phys. Chem.* **194**, 1–19. => AEL2713
704. Chameides, W.L. and Stedman, D.H. (1977) Tropospheric ozone: Coupling transport and photochemistry. *J. Geophys. Res.* **82**, 1787–1794. => AEL0485
705. Chameides, W.L. and Walker, J.C.G. (1976) A time-dependent photochemical model for ozone near the ground. *J. Geophys. Res.* **81**, 413–420. => AEL0504

706. Chameides, W.L., Luo, C., Saylor, R., Streets, D., Huang, Y. and Bergin, M. (2002) Correlation between model-calculated anthropogenic aerosols and satellite-derived cloud optical depths: Indication of indirect effect?. *J. Geophys. Res. Atmospheres* **107**, AAC2 1–17. => AEL3654
707. Chan, C.K. and Ha, Z. (1999) A simple method to derive the water activities of highly supersaturated binary electrolyte solutions from ternary solution data. *J. Geophys. Res. Atmospheres* **104**, 30193–30200. => AEL3044
708. Chan, C.K., Liang, Z., Zheng, J., Clegg, S.L., Brimblecombe, P. and (1997) Thermodynamic properties of aqueous aerosols to high supersaturation: I – Measurements of water activity of the system  $\text{Na}^+ \text{-Cl}^- \text{-NO}_3^- \text{-SO}_4^{2-} \text{-H}_2\text{O}$  at  $\sim 298.15$  K. *Aerosol Sci. Technol.* **27**, 324–344. => AEL1965
709. Chan, C.Y. and Chan, L.Y. (2000) Effect of meteorology and air pollutant transport on ozone episodes at a subtropical coastal Asian city, Hong Kong. *J. Geophys. Res. Atmospheres* **105**, 20707–20724. => AEL3239
710. Chan, L.Y. and Mohnen, V.A. (1980) Ion nucleation theory. *J. Atmos. Sci.* **37**, 2323–2331. => AEL0980
711. Chan, W.H., Vet, R.J., Lusic, M.A. and Skelton, G.B. (1983) Airborne particulate size distribution measurements in nickel smelter plumes. *Atmos. Environ.* **17**, 1173–1181. => AEL0039
712. Chan, Y.C., McTainsh, G.H., Simpson, R.W., Vowles, P.D., Cohen, D.D. and Bailey, G.M. (2002) Light degrading properties of size-fractionated  $\text{PM}_{10}$  aerosol samples collected from an industrial area in Brisbane, Australia. *Aerosol Sci. Technol.* **36**, 890–898. => AEL3709
713. Chan, Y.C., Simpson, R.W., Mctainsh, G.H., Vowles, P.D., Cohen, D.D. and Bailey, G.M. (1999) Source apportionment of  $\text{PM}_{2.5}$  and  $\text{PM}_{10}$  aerosols in Brisbane (Australia) by receptor modelling. *Atmos. Environ.* **33**, 3251–3268. => AEL2920
714. Chance, K., Traub, W.A., Johnson, D.G., Jucks, K.W., Ciarpallini, P., Stachnik, R.A., Salawitch, R.J. and Michelsen, H.A. (1996) Simultaneous measurements of stratospheric  $\text{HO}_x$ ,  $\text{NO}_x$ , and  $\text{Cl}_x$ : Comparison with a photochemical model. *J. Geophys. Res.* **101**, 9031–9043. => AEL1663
715. Chandra, S. and McFarland, A.R. (1997) Shrouded probe performance: Variable flow operation and effect of free stream turbulence. *Aerosol Sci. Technol.* **26**, 111–126. => AEL1695
716. Chang, C.-L. and Bai, H. (2000) Effects of some geometric parameters on the electrostatic precipitator efficiency at different operation indexes. *Aerosol Sci. Technol.* **33**, 228–238. => AEL3349
717. Chang, D.P.Y. (1980) Sulfur compounds in ambient environments and their simulation in the laboratory. @ GA, @ AA, pp. 299–315. => AEL0389
718. Chang, H. and Choi, Y. (2000) Particulate conversion of  $\text{SO}_2$  by  $\text{NH}_3$  injection in a pulsed corona aerosol reactor. *Aerosol Sci. Technol.* **32**, 268–283. => AEL3333
719. Chang, I.Y., Griffith, W.C., Shyr, L.J., Yeh, H.C., Cuddihy, R.G. and Seiler, F.A. (1991) Software for the draft NCRP respiratory tract dosimetry model. *Radiation Protection Dosimetry* **38**, 193–199. => AEL2452
720. Chang, J.-S. (1980) Aerosol particle charging speed in an atmospheric ion environment of wide pressure range. *Abstracts of the VIth International Conference on Atmospheric Electricity*, Manchester, pp. -. => AEL0420
721. Chang, J.-S. (1992) Diffusion charging of ultrafine particles under external magnetic fields by unipolar ions. *J. Aerosol Sci.* **23**, 89–92. => HT0643

722. Chang, Y., Han, R.-J., Pearson, C.L., Runyan, M.R., Ranade, M.B. and Gentry, J.W. (1988) Application of the log beta distribution to the evolution of aerosol growth. *J. Aerosol Sci.* **19**, 879–882. => AEL2351
723. Chang, Y.H. and Yu, C.P. (1999) A model of ventilation distribution in the human lung. *Aerosol Sci. Technol.* **30**, 309–319. => AEL2861
724. Chang, Y.-S., Carmichael, G.R., Kurita, H. and Ueda, H. (1986) An investigation of the formation of ambient  $\text{NH}_4\text{NO}_3$  aerosol. *Atmos. Environ.* **20**, 1969–1977. => AEL1089
725. Chapman, S. (1937) Carrier mobility spectra of spray electrified liquids. *Phys. Rev.* **52**, 184–190. => AEL3379
726. Chapman, S. (1967) The correction for non-cyclic variation in harmonic analysis. *Journal of Atmospheric and Terrestrial Physics* **29**, 1625–1627. => HT-F087
727. Chapman, S. (1970) Corona point current in wind. *J. Geophys. Res.* **75**, 2165–2169. => AEL0040
728. Chapman, S. (1975) Ion mobility spectra at atmospheric pressure. *Pre-conference Abstracts and Summaries. Symposium on High Atmosphere and Space Problems of Atmospheric Electricity* 1–3. => HT0195
729. Chapter I. Ionic mobility. 1–183. => HT-F VI
730. Charlson, R.J. (1966) A simple noctilucent cloud model. *Tellus* **18**, 451–456. => HT0756
731. Charlson, R.J., Lovelock, J.E., Andreae, M.O. and Warren, S.G. (1987) Oceanic phytoplankton, atmospheric sulphur, cloud albedo and climate. *Nature* **326**, 655–661. => AEL1585
732. Chatterjee, B.K., Tosh, R. and Johnsen, R. (1991) Ion/molecule reactions of atmospheric ions with dimethyl-methylphosphonate. *Int. J. Mass Spectrometry and Ion Processes* **103**, 81–92. => AEL0779
733. Chazette, P., David, C., Lefrère, J., Godin, S., Pelon, J. and Mégie, G. (1995) Comparative lidar study of the optical, geometrical, and dynamical properties of stratospheric post-volcanic aerosols, following the eruptions of El Chichon and Mount Pinatubo. *J. Geophys. Res.* **100**, 23195–23207. => AEL1660
734. Cheah, P.K.P. (1983) A microscope graticule for sizing near-homogeneous particles. *J. Aerosol Sci.* **14**, 47–48. => AEL1074
735. Chein, H. and Lundgren, D.A. (1993) A virtual impactor with clean air core for the generation of aerosols with narrow size distributions. *Aerosol Sci. Technol.* **18**, 376–388. => AEL1145
736. Chein, H. and Lundgren, D.A. (1993) A virtual impactor with clean air core for the generation of aerosols with narrow size distributions. *Aerosol Sci. Technol.* **18**, 376–388. => AEL1254
737. Chein, H. and Lundgren, D.A. (1995) A high-output, size-selective aerosol generator. *Aerosol Sci. Technol.* **23**, 510–520. => AEL1525
738. Chelf, J.H. and Martin, S.T. (1999) Water activity and equilibrium freezing temperatures of aqueous  $\text{NH}_4\text{HSO}_4$  solutions from -30 to 25° C. *Geophys. Res. Lett.* **26**, 2391–2394. => AEL2962
739. Chelf, J.H. and Martin, S.T. (2001) Homogeneous ice nucleation in aqueous ammonium sulfate aerosol particles. *J. Geophys. Res. Atmospheres* **106**, 1215–1226. => AEL3298
740. Chen, B., Chen, J.M., Liu, J., Chan, D., Higuchi, K. and Shashkov, A. (2004) A vertical diffusion scheme to estimate the atmospheric rectifier effect. *J. Geophys. Res. Atmospheres* **109**, D04306– doi:10.1029/2003JD003925, 2004. => AEL4126

741. Chen, B., Siepmann, J.I., Oh, K.J. and Klein, M.L. (2002) Simulating vapor-liquid nucleation of *n*-alkanes. *J. Chem. Phys.* **116**, 4317–4329. => AEL3908
742. Chen, D.-R. and Pui, D.Y.H. (1998) A novel charger for nanometer aerosols. *J. Aerosol Sci.* **29**, S1023–S1024. => HT1358
743. Chen, D.-R., Pui, D.Y.H. and Kaufman, S.L. (1995) Electrospraying of conducting liquids for monodisperse aerosol generation in the 4nm to 1.8 microm diameter range. *J. Aerosol Sci.* **26**, 963–977. => HT0865
744. Chen, D.-R., Pui, D.Y.H. and Liu, B.Y.H. (1995) Optimization of pleated filter designs using a finite-element numerical model. *Aerosol Sci. Technol.* **23**, 579–590. => AEL1515
745. Chen, G., Davis, D., Kasibhatla, P., Bandy, A., Thornton, D. and Blake, D. (1999) A mass-balance/photochemical assessment of DMS sea-to-air flux as inferred from NASA GTE PEM-West A and B observations. *J. Geophys. Res. Atmospheres* **104**, 5471–5482. => AEL2781
746. Chen, R.Y. (1978) Deposition of aerosol particles in a channel due to diffusion and electric charge. *J. Aerosol Sci.* **9**, 253–260. => AEL0041
747. Chen, S.H. (1999) Thermophoretic deposition of a sphere normal to a plane surface. *Aerosol Sci. Technol.* **30**, 364–382. => AEL2863
748. Chen, T.-R., Cheng, Y.-S., Hopke, P.K. and Pourprix, M. *Electrical mobility and size distribution of aged 212Pb clusters in nitrogen gas. Käsikiri.* => HT1224
749. Chen, T.R., Tung, C.J. and Cheng, Y.S. (1998) Nanometer particle size and concentration from thoron radiolysis. *Aerosol Sci. Technol.* **28**, 173–181. => AEL2157
750. Chen, T.S. and Moore Plummer, P.L. (1985) Ab initio MO investigation of the gas phase reaction  $\text{SO}_3 + \text{H}_2\text{O} \rightarrow \text{H}_2\text{SO}_4$ . *J. Phys. Chem.* **89**, 3689–3693. => AEL2703
751. Chen, W., Zhang, Y., Cihlar, J., Smith, S.L. and Riseborough, D.W. (2003) Changes in soil temperature and active layer thickness during the twentieth century in a region in western Canada. *J. Geophys. Res. Atmospheres* **108**, 4696– doi:10.1029/2002JD003355. => AEL4081
752. Chen, X. and Xu, D.Y. (2002) Thermophoresis of a near-wall particle at great Knudsen numbers. *Aerosol Sci. Technol.* **36**, 39–47. => AEL3597
753. Chen, X., Hulbert, D. and Shepson, P.B. (1998) Measurement of the organic nitrate yield from OH reaction with isoprene. *J. Geophys. Res. Atmospheres* **103**, 25563–25568. => AEL2807
754. Cheng, J. (1973) Crystallization of silver iodide. *Bull. of the American Meteorological Society* **54**, 1–1. => HT0150
755. Cheng, K.-H. and Swift, D.L. (1995) Calculation of total deposition fraction of ultrafine aerosols in human extrathoracic and intrathoracic regions. *Aerosol Sci. Technol.* **22**, 194–201. => AEL1344
756. Cheng, K.-H., Cheng, Y.-S., Yeh, H.-C. and Swift, D.L. (1995) Deposition of ultrafine aerosols in the head airways during natural breathing and during simulated breath holding using replicate human upper airway casts. *Aerosol Sci. Technol.* **23**, 465–474. => AEL1534
757. Cheng, R.J. (1970) Water drop freezing: Ejection of microdroplets. *Science* **170**, 1395–1396. => HT0149
758. Cheng, R.J. (1971) Das Gefrieren von Wassertropfen: Ausstossung von Kleintröpfchen. *UMSCHAU - Kurzberichte* **19**, 714–715. => HT0577
759. Cheng, R.J. (1972) Three stages of massive fragmentation of hydrometeors and electrification in the atmosphere. *Paper was presented at the International Conference on Cloud Physics*, London, pp. 1–2. => HT0570

760. Cheng, R.J. (1973) Mekhanizm protsessy razmnozheniya ledyanoi fazy v atmosfere (in Russian). *Volume of Abstracts of VIII International Conference on Nucleation*, Leningrad, pp. 116–117. => HT0160
761. Cheng, R.J. (1973) Photomicroscopical investigation of the fragmentation of hydrometeors in the laboratory. *The Microscope* **21**, 149–160. => HT0148
762. Cheng, R.J. (1973) The multiplication process in the atmosphere. *International Conference on Weather Modification. Book of Abstracts*, Moskva, pp. 119–120. => HT0155
763. Cheng, R.J. (1975) The mechanism of multiplication process of glaciation in the atmosphere. *Proceedings of the VIII International Conference on Nucleation*, Gidrometeoizdat, Moscow, pp. 1–4. => HT0154
764. Cheng, R.J. (1975) The mechanism of multiplication process of glaciation in the atmosphere. *Proc. VIII Int. Conf. on Nucleation*, Gidrometeoizdat, Moscow, pp. -. => HT0983
765. Cheng, R.J. (1989) Sulfate aerosols generation in the marine atmosphere: the evaporation of seawater droplets. *To be presented at Int. Conf. on Global and Regional Environ. Atmos. Chem., May 3-10, 1989, Beijing, China*, pp. -. => HT0979
766. Cheng, R.J. (1992) A new mechanism for the generation of high sulfate enriched aerosols in the marine atmosphere. *To be presented at 9th World Clean Air Congress, Aug. 30-Sept. 4., 1992, Montreal, Quebec*, pp. -. => HT0975
767. Cheng, R.J. (1992) Fragmentation of charged ice particles associated with frost growth. *Subm. to 9th Int. Conf. on Atmospheric Electricity, June 15-19, 1992, St. Petersburg*, pp. -. => HT0977
768. Cheng, R.J. (1992) Generation and multiplication of shell structured particles from evaporation of seawater drops. *Subm. to 11th Int. Conf. on Clouds and Precipitation, Aug. 17-21, 1992, Montreal*, pp. -. => HT0976
769. Cheng, R.J. (1992) Sublimational break-up of secondary ice particles associated with frost growth. *Subm. to 11th Int. Conf. on Clouds and Precipitation, Aug. 17-21, 1992, Montreal*, pp. -. => HT0978
770. Cheng, R.J. (2000) *The micro-world in the atmosphere. Slides of a lecture. Atmospheric Sciences Research Center. State University of New York at Albany, 14 pp.* => HT1524
771. Cheng, R.J. and Hogan, A.W. (1970) Microscopic study of lead iodide-nucleated ice crystals. *The Microscope* **18**, 1–4. => HT0006
772. Cheng, R.J. and Hwu, J.-R. (1989) Catalytic reactivity of fly ash in the formation of acid droplets: a laboratory observation. *To be presented at Int. Conf. on Global and Regional Environ. Atmos. Chem., May 3-10, 1989, Beijing, China*, pp. -. => HT0980
773. Cheng, R.J. Summary of marine aerosol studies. *Käsikiri* 1–10. => HT0971
774. Cheng, R.J. *Thunderball project. "Life Cycle" of a water drop in a convective cloud.* Manuscript,. => HT0571
775. Cheng, R.J., Blanchard, D.C. and Cipriano, R.J. (1988) The formation of hollow sea-salt particles from the evaporation of drops of seawater. *Atmospheric Research* **22**, 15–25. => HT0859
776. Cheng, R.J., Hwu, J.R., Kim, J.T. and Leu, S.-M. (1987) Deterioration of marble structures. The role of acid rain. *Anal. Chem.* **59**, -. => HT0982
777. Cheng, R.J., Mohnen, V.A., Shen, T.T., Current, M. and Hudson, J.B. (1976) Characterization of particulates from power plants. *J. of the Air Pollution Control Association* **26**, 787–790. => HT0144

778. Cheng, Y.S. (1997) Wall deposition of radon progeny and particles in a spherical chamber. *Aerosol Sci. Technol.* **27**, 131–146. => AEL2546
779. Cheng, Y.-S. and Denece, P.B. (1981) Physical properties of electrical mobility classified aerosols. *J. Colloid Interface Sci.* **80**, 284–293. => AEL0042
780. Cheng, Y.S. and Yeh, H.C. (1980) Theory of a screen-type diffusion battery. *J. Aerosol Sci.* **11**, 313–320. => AEL0044
781. Cheng, Y.S. and Yeh, H.C. (1980) Theory of a screen-type diffusion battery. *J. Aerosol Sci.* **11**, 313–320. => HT1544
782. Cheng, Y.S. and Yeh, H.C. (1981) Equilibrium bipolar charge distribution of aerosols consisting of chains of uniform spheres. *J. Colloid Interface Sci.* **84**, 444–450. => AEL0045
783. Cheng, Y.-S. and Yeh, H.-C. (1983) Performance of a screen-type diffusion battery. *Aerosols in the Mining and Industrial Work Environments*, Ann Arbor Science, **3**, pp. 1077–1094. => AEL2412
784. Cheng, Y.S., Keating, J.A. and Kanapilly, G.M. (1980) Theory and calibration of a screen-type diffusion battery. *J. Aerosol Sci.* **11**, 549–556. => AEL0043
785. Cheng, Y.-S., Smith, S.M., Yeh, H.-C., Kim, D.-B., Cheng, K.-H. and Swift, D.L. (1995) Deposition of ultrafine aerosols and thoron progeny in replicas of nasal airways of young children. *Aerosol Sci. Technol.* **23**, 541–552. => AEL1523
786. Cheng, Y.-S., Yamada, Y., Yeh, H.-C. and Swift, D.L. (1988) Diffusional deposition of ultrafine aerosols in a human nasal cast. *J. Aerosol Sci.* **19**, 741–751. => AEL2413
787. Cheng, Y.S., Yu, C.C. and Tu, K.W. (1994) Intercomparison of activity size distributions of thoron progeny by alpha- and gamma-counting methods. *Health Phys.* **66**, 72–79. => AEL1204
788. Cheng, Y.S., Yu, C.C., Tung, C.J. and Hopke, P.K. (1993) Neutralization of thoron progeny in gases. *Käsikiri aj-le Health Physics* 1–21. => AEL2458
789. Cheng, Y.-S., Zhou, Y., Chow, J., Watson, J. and Frazier, C. (2001) Chemical composition of aerosols from kerosene heaters burning jet fuels. *Aerosol Sci. Technol.* **35**, 949–957. => AEL3587
790. Cheng, Y-S (2001) Condensation detection and diffusion size separation techniques (Ch. 19). In *Aerosol measurement*, edited by Baron, P.A. and Willeke, K., Wiley Interscience, pp. 569–601. => HT1506
791. Chentsov, N.N. (1962) Otsenka neizvestnoi plotnosti raspredeleniya po nablyudeniya (in Russian). *Doklady Akademii Nauk SSSR (Matematika)* **147**, 45–48. => HT0218
792. Chetaiev, D.N., Morgonov, V.A., Alexseev, B.M., Shamanin, S.V., Chantladze, I.K. and Papushina, L.B. (1976) Directional analysis of magnetotelluric data. *Geophysical Research Bulletin* **14**, 164–171. => HT0089
793. Cheymol, A. and De Backer, H. (2003) Retrieval of the aerosol optical depth in the UV-B at Uccle from Brewer ozone measurements over a long time period 1984–2002. *J. Geophys. Res. Atmospheres* **108**, 4800– doi:10.1029/2003JD003758. => AEL4104
794. Chiapello, I., Bergametti, G., Chatenet, B., Dulac, F., Jankowiak, I., Liusse, C. and Soares, E.S. (1999) Contribution of the different aerosol species to the aerosol mass load and optical depth over the northeastern tropical Atlantic. *J. Geophys. Res. Atmospheres* **104**, 4025–4035. => AEL2772
795. Chin, M., Rood, R.B., Allen, D.J., Andreae, M.O., Thompson, A.M., Lin, S.-J., Atlas, R.M. and Ardizzone, J.V. (1998) Processes controlling dimethylsulfide over the ocean: Case studies using a 3-D model driven by assimilated meteorological fields. *J. Geophys. Res. Atmospheres* **103**, 8341–8353. => AEL2243

796. Cho, J.Y.N. and Kelley, M.C. (1993) Polar mesosphere summer radar echoes: Observations and current theories. *Rev. Geophys.* **31**, 243–265. => AEL3195
797. Cho, J.Y.N. and Kelley, M.C. (1993) Polar mesosphere summer radar echoes: Observations and current theories. *Rev. Geophys.* **31**, 243–265. => HT1047
798. Cho, J.Y.N. and Röttger, J. (1997) An updated review of polar mesosphere summer echoes: Observation, theory, and their relationship to noctilucent clouds and subvisible aerosols. *J. Geophys. Res. Atmospheres* **102**, 2001–2020. => AEL2182
799. Cho, J.Y.N., Alcalá, C.M., Kelley, M.C. and Swartz, W.E. (1996) Further effects of charged aerosols on summer mesospheric radar scatter. *J. Atmosph. Terr. Phys.* **58**, 661–672. => HT1046
800. Chock, D.P., Song, Q., Hass, H., Schell, B. and Ackermann, I. (2003) Comment on "Control of fossil-fuel particulate black carbon and organic matter, possibly the most effective method of slowing the global warming" by M.Z. Jacobson. *J. Geophys. Res. Atmospheres* **108**, 4769–doi:10.1029/2003JD003629. => AEL4107
801. Choi, W., Grant, W.B., Park, J.H., Lee, K.-M., Lee, H. and Russell, J.M.III (1998) Role of the quasi-biennial oscillation in the transport of aerosols from the tropical stratospheric reservoir to midlatitudes. *J. Geophys. Res. Atmospheres* **103**, 6033–6042. => AEL2234
802. Chow, J.C. (1995) Measurement methods to determine compliance with ambient air quality standards for suspended particles. *Environmental Manager* **1**, 12–15. => AEL2132
803. Chow, J.C., Watson, J.G., Crow, D., Lowenthal, D.H. and Merrifield, T. (2001) Comparison of IMPROVE and NIOSH carbon measurements. *Aerosol Sci. Technol.* **34**, 23–34. => AEL3359
804. Chow, J.C., Watson, J.G., Lowenthal, D.H., Solomon, P.A., Magliano, K.L., Ziman, S.D. and Richards, L.W. (1993) PM<sub>10</sub> and PM<sub>2.5</sub> compositions in California's San Joaquin Valley. *Aerosol Sci. Technol.* **18**, 105–128. => AEL1258
805. Chow, Y.L. and Yovanovich, M.M. (1983) The capacitances of two arbitrary conductors. *Journal of Electrostatics* **14**, 225–234. => HT0444
- <sup>806</sup>Chowdhury, S., Heinis, T., Grimsrud, E.P. and Kebarle, P. (1986) Entropy changes and electron affinities from gas-phase electron-transfer equilibria:  $A^+ + B = A + B^+$ . *J. Phys. Chem.* **90**, 2747–2752. => AEL0662
807. Christen, W., Even, U., Raz, T. and Levine, R.D. (1998) Collisional energy loss in cluster surface impact: Experimental, model, and simulation studies of some relevant factors. *J. Chem. Phys.* **108**, 10262–10273. => AEL3127
808. Christensen, K.A. and Livbjerg, H. (2000) A plug flow model for chemical reactions and aerosol nucleation and growth in an alkali-containing flue gas. *Aerosol Sci. Technol.* **33**, 470–489. => AEL3355
809. Christensen, P.S., Madsen, N.M. and Livbjerg, H. (1992) The formation of aerosols from SO<sub>2</sub> and NH<sub>3</sub> in humid air. *J. Aerosol Sci.* **23**, S261–S264. => AEL0929
810. Christiansen, C. (1913) Elektrizitätserregung beim Zerspritzen von Flüssigkeiten (Balloelektrizität). *Annalen der Physik* **345**, 107–137. => HT1527
811. Chrysikopoulos, C.V., Hildemann, L.M. and Roberts, P.V. (1992) A three-dimensional steady-state atmospheric dispersion-deposition model for emissions from a ground-level area source. *Atmos. Environ.* **26A**, 747–757. => AEL0861
812. Chu, K.-D. and Hopke, P.K. (1988) Neutralization kinetics for polonium-218. *Environ. Sci. Technol.* **22**, 711–717. => HT1146
813. Chu, K.J. and Seinfeld, J.H. (1975) Formulation and initial application of a dynamic model for urban aerosols. *Atmos. Environ.* **9**, 375–402. => AEL2705

814. Chuang, C.C., Penner, J.E., Taylor, K.E., Grossman, A.S. and Walton, J.J. (1997) An assessment of the radiative effects of anthropogenic sulfate. *J. Geophys. Res. Atmospheres* **102**, 3761–3778. => AEL2188
815. Chuang, J.C., Mack, G.A., Kuhlman, M.R. and Wilson, N.K. (1991) Polycyclic aromatic hydrocarbons and their derivatives in indoor air and outdoor air in an eight-home study. *Atmos. Environ.* **25B**, 369–380. => AEL1462
816. Chuang, P.Y. (2003) Measurement of the timescale of hygroscopic growth for atmospheric aerosols. *J. Geophys. Res. Atmospheres* **108**, 4282– doi:10.1029/2002JD002757, 2003. => AEL4003
817. Chuang, P.Y., Duvall, R.M., Bae, M.S., Jefferson, A., Schauer, J.J., Yang, H., Yu, J.Z. and Kim, J. (2003) Observations of elemental carbon and absorption during ACE-Asia and implications for aerosol radiative properties and climate forcing. *J. Geophys. Res. Atmospheres* **108**, 8634– doi:10.1029/2002JD003254. => AEL4074
818. Chubarova, N.YE. and Nezval, YE.I. (2000) Thirty year variability of UV irradiance in Moscow. *J. Geophys. Res. Atmospheres* **105**, 12529–12539. => AEL3217
819. Chughtai, A.R., Brooks, M.E. and Smith, D.M. (1993) Effect of metal oxides and black carbon (soot) on SO<sub>2</sub>/O<sub>2</sub>/H<sub>2</sub>O reaction systems. *Aerosol Sci. Technol.* **19**, 121–132. => AEL1266
820. Chughtai, A.R., Brooks, M.E. and Smith, D.M. (1996) Hydration of black carbon. *J. Geophys. Res.* **101**, 19505–19514. => AEL1883
821. Chung, C. and Chen, C.Y. (1997) Cosmic-ray-induced neutron intensity in Taiwan and its variations during a typhoon. *J. Geophys. Res. Atmospheres* **102**, 29827–29832. => AEL2166
822. Chung, S.H. and Seinfeld, J.H. (2002) Global distribution and climate forcing of carbonaceous aerosols. *J. Geophys. Res. Atmospheres* **107**, 4407 doi:10.1029/2001JD001397–2002. => AEL3772
823. Churchill, S.W., Clark, G.C. and Sliepcevich, C.M. (1960) Light-scattering by very dense monodispersions of latex particles. *Discuss. Faraday Soc.* 192–199. => AEL0046
824. Chylek, P., Henderson, B. and Mishchenko, M. (2003) Aerosol radiative forcing and the accuracy of satellite aerosol optical depth retrieval. *J. Geophys. Res. Atmospheres* **108**, 4764– doi:10.1029/2003JD004044. => AEL4099
825. Chylek, P., Lesins, G.B., Videen, G., Wong, J.G.D., Pinnick, R.G., Ngo, D. and Klett, J.D. (1996) Black carbon and absorption of solar radiation by clouds. *J. Geophys. Res.* **101**, 23365–23371. => AEL1888
826. Ciccioli, P., Brancaleoni, E., Frattoni, M., Di Palo, V., Valentini, R., Tirone, G., Seufert, G., Bertin, N., Hansen, U., Csiky, O., Lenz, R. and Sharma, M. (1999) Emission of reactive terpene compounds from orange orchards and their removal by within-canopy processes. *J. Geophys. Res. Atmospheres* **104**, 8077–8094. => AEL2887
827. Ciccioli, P., Cecinato, A., Brancaleoni, E., Frattoni, M., Zacchei, P., Miguel, A.H. and Vasconcelos, P.deC. (1996) Formation and transport of 2-nitrofluoranthene and 2-nitropyrene of photochemical origin in the troposphere. *J. Geophys. Res.* **101**, 19567–19581. => AEL1887
828. Cicerone, J.D., Shetter, J.D., Stedman, D.H., Kelly, T.J. and Liu, S.C. (1978) Atmospheric N<sub>2</sub>O: Measurements to determine its sources, sinks, and variations. *J. Geophys. Res.* **83**, 3042–3050. => AEL1451
829. Cicerone, R. (1981) Halogens in the atmosphere. *Rev. Geophys. Space Phys.* **19**, 123–139. => AEL1430
830. Cicerone, R.J. and Zellner, R. (1983) The atmospheric chemistry of hydrogen cyanide (HCN). *J. Geophys. Res.* **88**, 10689–10696. => AEL0487



831. Ciobanu, C.V., Ojamäe, L., Shavitt, I. and Singer, S.J. (2000) Structure and vibrational spectra of  $\text{H}^+(\text{H}_2\text{O})_8$ : Is the excess proton in a symmetrical hydrogen bond?. *J. Chem. Phys.* **113**, 5321–5330. => AEL3854
832. Clark, D.K., Gordon, H.R., Voss, K.J., Ge, Y., Broenkow, W. and Trees, C. (1997) Validation of atmospheric correction over the oceans. *J. Geophys. Res. Atmospheres* **102**, 17209–17217. => AEL2353
833. Clark, W.E. and Avol, E.L. (1979) A comparison of the simultaneous response of four electrical aerosol analyzers. @AM, @UFB, Gainesville, pp. 451–457. => AEL0377
834. Clarke, A., Eisele, F., Kapustin, V., Moore, K. and Mauldin, L. (1998) Nucleation in the remote troposphere. *J. Aerosol Sci.* **29**, S1011–S1012. => HT1353
835. Clarke, A.D. (1989) In-situ measurements of the aerosol size distributions, physicochemistry and light absorption properties of Arctic haze. *J. Atmos. Chem.* **9**, 255–266. => AEL0054
836. Clarke, A.D. (1992) Atmospheric nuclei in the remote free-troposphere. *Journal of Atmospheric Chemistry* **14**, 479–488. => AEL1855
837. Clarke, A.D. (1993) Atmospheric nuclei in the Pacific midtroposphere: Their nature, concentration, and evolution. *J. Geophys. Res.* **98**, 20633–20647. => AEL1765
838. Clarke, A.D. and Porter, J.N. (1991) Aerosol size distribution, composition, and  $\text{CO}_2$ -backscatter at Mauna Loa observatory. *J. Geophys. Res.* **96**, 5237–5247. => AEL0426
839. Clarke, A.D., Howell, S., Quinn, P.K., Bates, T.S., Ogren, J.A. and (2002) INDOEX aerosol: A comparison and summary of chemical, microphysical, and optical properties observed from land, ship, and aircraft. *J. Geophys. Res. Atmospheres* **107**, 8033 doi:10.1029/2001JD000572–2002. => AEL3784
840. Clarke, A.D., Kapustin, V.N., Eisele, F.L., Weber, R.J. and McMurry, P.H. (1999) Particle production near marine clouds: Sulfuric acid and predictions from classical binary nucleation. *Geophys. Res. Lett.* **26**, 2425–2428. => AEL2963
841. Clarke, A.D., Porter, J.N., Valero, F.P.J. and Pilewskie, P. (1996) Vertical profiles, aerosol microphysics, and optical closure during the Atlantic Stratocumulus Transition Experiment: Measured and modeled column optical properties. *J. Geophys. Res.* **101**, 4443–4453. => AEL1757
842. Clarke, A.D., Uehara, T. and Porter, J.N. (1996) Lagrangian evolution of an aerosol column during the Atlantic Stratocumulus Transition Experiment. *J. Geophys. Res.* **101**, 4351–4362. => AEL1749
843. Clarke, A.D., Uehara, T. and Porter, J.N. (1997) Atmospheric nuclei and related aerosol fields over the Atlantic: Clean subsiding air and continental pollution during ASTEX. *J. Geophys. Res. Atmospheres* **102**, 25281–25292. => AEL2211
844. Clary, D.C. (1984) Rates of chemical reactions dominated by long-range intermolecular forces. *Mol. Phys.* **53**, 3–21. => AEL1003
845. Clary, D.C. (1985) Calculations of rate constants for ion-molecule reactions using a combined capture and centrifugal sudden approximation. *Molecular Physics* **54**, 605–618. => AEL0959
846. Clegg, N.A. and Toumi, R. (1998) Non-sea-salt-sulphate formation in sea-salt aerosol. *J. Geophys. Res. Atmospheres* **103**, 31095–31102. => AEL2827
847. Clegg, N.A. and Tuomi, R. (1997) Sensitivity of sulphur dioxide oxidation in sea salt to nitric acid and ammonia gas phase concentrations. *J. Geophys. Res. Atmospheres* **102**, 23241–23249. => AEL2016

848. Clegg, S.L. and Brimblecombe, P. (1995) Application of a multicomponent thermodynamic model to activities and thermal properties of 0-40 mol kg<sup>-1</sup> aqueous sulfuric acid from <200 to 238 K. *J. Chem. Eng. Data* **40**, 43–64. => AEL2377
849. Clegg, S.L., Brimblecombe, P. and Wexler, A.S. (1998) Thermodynamic model of the system H<sup>+</sup>-NH<sub>4</sub><sup>+</sup>-SO<sub>4</sub><sup>2-</sup>-NO<sub>3</sub><sup>-</sup>-H<sub>2</sub>O at tropospheric temperatures. *J. Phys. Chem.* **102**, 2137–2154. => AEL3887
850. Clegg, S.L., Brimblecombe, P., Liang, Z. and Chan, C.K. (1997) Thermodynamic properties of aqueous aerosols to high supersaturation: II - A model of the system Na<sup>+</sup>-Cl<sup>-</sup>-NO<sub>3</sub><sup>-</sup>-SO<sub>4</sub><sup>2-</sup>-H<sub>2</sub>O at 298.15 K. *Aerosol Sci. Technol.* **27**, 345–366. => AEL1964
851. Clegg, S.L., Carslaw, K.S. and Brimblecombe, P. (1998) Comment on “Vapor pressures in the ternary system water-nitric acid-sulphuric acid at low temperature: A reexamination” by T.-E. Taleb, J.-L. Ponche, and P. Mirabel: Part 2. *J. Geophys. Res. Atmospheres* **103**, 16291–16294. => AEL2290
852. Clement, C.F. and Ford, I.J. (1989) The homogeneous nucleation of aerosols. *J. Aerosol Sci.* **20**, 1015–1018. => AEL0804
853. Clement, C.F. and Ford, I.J. (1998) Analytic models for atmospheric aerosols based on nucleation bursts. *J. Aerosol Sci.* **29**, S1123–S1124. => HT1360
854. Clement, C.F. and Ford, I.J. (1999) Gas-to-particle conversion in the atmosphere: II. Analytical models of nucleation bursts. *Atmos. Environ.* **33**, 489–499. => AEL2925
855. Clement, C.F. and Ford, I.J. (1999) Gas-to-particle conversion in the atmosphere: I. Evidence from empirical atmospheric aerosols. *Atmos. Environ.* **33**, 475–487. => AEL2940
856. Clement, C.F. and Harrison, R.G. (1982) The charging of radioactive aerosols. *J. Aerosol Sci.* **23**, 481–504. => AEL0868
857. Clement, C.F. and Harrison, R.G. (1992) The charging of radioactive aerosols. *J. Aerosol Sci.* **23**, 481–504. => HT1237
858. Clement, C.F. and Harrison, R.G. (1998) Charging of radioactive aerosols with depleted ion concentrations. *J. Aerosol Sci.* **29**, S465–S466. => HT1343
859. Clement, C.F., Calderbank, D.M.J. and Harrison, R.G. (1994) Radioactive aerosol charging with spatially varying ion concentrations. *J. Aerosol Sci.* **25**, 623–637. => HT0754
860. Clement, C.F., Clement, R.A. and Harrison, R.G. Charge distributions and coagulation of radioactive aerosols. *Käsikiri* 1–26. => HT0930
861. Clement, C.F., Kulmala, M. and Vesala, T. (1996) Theoretical consideration on sticking probabilities. *J. Aerosol Sci.* **27**, 869–882. => AEL2046
862. Clement, F. and Harrison, R.G. (1990) Radioactivity and atmospheric electricity. *AERE* 1–24. => HT1241
863. Clement, R.E., Koester, C.J. and Eiceman, G.A. (1993) Environmental analysis. *Anal. Chem.* **65**, 85R–109R. => AEL1202
864. Clench-Aas, J., Larssen, S., Bartonova, A., Aarnes, M.J., Myhre, K., Christensen, C.C., Neslein, I.L., Thomassen, Y. and Levy, F. (1991) The health effects of traffic pollution as measured in the Vålerenga area of Oslo. Summary report. *NILU OR* 1–112. => AEL2149
865. Clifford, R.H., Ishii, I., Montaser, A. and Meyer, G.A. (1990) Dual-beam, light-scattering interferometry for simultaneous measurements of droplet-size and velocity distributions of aerosols from commonly used nebulizers. *Anal. Chem.* **62**, 390–394. => AEL1132
866. Cobb, W.E. (1968) Ion losses in the Gerdien condenser intake system. *J. of Applied Meteorology* **7**, 456–458. => HT0185

867. Cobb, W.E. and Wells, H.J. (1970) The electrical conductivity of oceanic air and its correlation to global atmospheric pollution. *J. Atmos. Sci.* **27**, 814–819. => AEL3159
868. Cocker, D.R.III, Whitlock, N.E., Flagan, R.C. and Seinfeld, J.H. (2001) Hygroscopic properties of Pasadena, California aerosol. *Aerosol Sci. Technol.* **35**, 637–647. => AEL3502
869. Coe, H., Williams, P.I., McFiggans, G., Gallagher, M.W., Beswick, K.M., Bower, K.N. and Choularton, T.W. (2000) Behavior of ultrafine particles in continental and marine air masses at a rural site in the United Kingdom. *J. Geophys. Res. Atmospheres* **105**, 26891–26905. => AEL3266
870. Coelho, D., Bekki, S., Thovert, J.-F. and Adler, P.M. (2000) Uptake on fractal particles 1. Theoretical framework. *J. Geophys. Res. Atmospheres* **105**, 3905–3916. => AEL3081
871. Coffman, D.J. and Hegg, D.A. (1995) A preliminary study of the effect of ammonia on particle nucleation in the marine boundary layer. *J. Geophys. Res.* **100**, 7147–7160. => AEL1592
872. Cohan, D.S., Schultz, M.G., Jacob, D.J., Heikes, B.G. and Blake, D.R. (1999) Convective injection and photochemical decay of peroxides in the tropical upper troposphere: Methyl iodide as a tracer of marine convection. *J. Geophys. Res. Atmospheres* **104**, 5717–5724. => AEL2787
873. Cohen, A.C. (1967) Estimation in mixtures of two normal distributions. *Technometrics* **9**, 15–28. => HT0186
874. Cohen, E. and Jenkins, O. (1960) The corona discharge and its application to voltage stabilization. *The Proceeding of the Institution of Electrical Engineers. Part B.*, **107**, pp. 285–294. => HT-F093
875. Cohen, R.E. (1970) The accuracy of the approximations in classical nucleation theory. *J. Stat. Phys.* **2**, 147–152. => AEL1477
876. Colacicco, G. (1988) Electrical potential of the water surface. *Chemica Scripta* **28**, 141–144. => AEL0920
877. Colbeck, I. and Harrison, R.M. (1985) The concentrations of specific C<sub>2</sub>–C<sub>6</sub> hydrocarbons in the air of NW England. *Atmos. Environ.* **19**, 1899–1904. => AEL0550
878. Colcord, L.J., Park, Y.O., Anderson, P. and Gentry, J.W. (1980) Polydispersity: its effects on aerosol size distribution measurements. *Aerosols in science, medicine and technology*, pp. 124–130. => AEL0061
879. Collé, R., Hutchinson, J.M.R. and Unterweger, M.P. (1990) The NIST primary Radon-222 measurement system. *Journal of Research of the National Institute of Standards and Technology* **95**, 155–165. => AEL2411
880. Collin, H.L., Groom, K.N. and Higazi, K.A. (1966) The "memory" of the atmosphere. *Journal of Atmospheric and Terrestrial Physics* **28**, 695–697. => HT-F022
881. Collins, C.B., Chen, Z., Gyls, V.T., Jahani, H.R., Pouvesle, J.M. and Stevefelt, J. (1986) The importance of three-body processes to reaction kinetics at atmospheric pressures I. Archetype reactions of He species with N<sub>2</sub>. *IEEE J. Quantum Electronics* **QE-22**, 38–46. => AEL1471
882. Collins, D.R., Flagan, R.C. and Seinfeld, J.H. (2002) Improved inversion of scanning DMA data. *Aerosol Sci. Technol.* **36**, 1–9. => AEL3596
883. Collins, F.C. and Kimball, G.E. (1949) Diffusion-controlled reaction rates. *Journal of Colloid Science* **4**, 425–437. => AEL1831
884. Collins, J.E.Jr., Sachse, G.W., Anderson, B.E., Harriss, R.C., Bartlett, K.B., Sandholm, S., Wade, L.O., Burney, L.G. and Hill, G.F. (1996) Airborne nitrous oxide observations over the western Pacific Ocean: September-October 1991. *J. Geophys. Res.* **101**, 1975–1984. => AEL1621

885. Collins, W.D., Rasch, P.J., Eaton, B.E., Fillmore, D.W., Kiehl, J.T., Beck, C.T. and Zender, C.S. (2002) Simulation of aerosol distributions and radiative forcing for INDOEX: Regional and climate impacts. *J. Geophys. Res. Atmospheres* **107**, 8028 doi:10.1029/2001JD000032–2002. => AEL3781
886. Colmsjö, A.L., Zebühr, Y.U. and Östman, C.E. (1986) Polynuclear aromatic compounds in flue gases and ambient air in the vicinity of a municipal incineration plant. *Atmos. Environ.* **20**, 2279–2282. => AEL0683
887. *Comments on thunderball project*. Manuscript,. => HT0572
888. *Commission proposes new air quality limit values* (1997) Brussels. => AEL2143
889. Cooke, W.F. and Wilson, J.J.N. (1996) A global black carbon aerosol model. *J. Geophys. Res.* **101**, 19395–19409. => AEL1891
890. Cooke, W.F., Jennings, S.G. and Spain, T.G. (1997) Black carbon measurements at Mace Head, 1989–1996. *J. Geophys. Res. Atmospheres* **102**, 25339–25346. => AEL2213
891. Coolbaugh, M.T. and Garvey, J.F. (1992) Magic numbers in molecular clusters: A probe for chemical reactivity. *Chemical Society Reviews* **21**, 163–169. => AEL1925
892. Coolbaugh, M.T., Peifer, W.R. and Garvey, J.F. (1990) Novel size-dependent chemistry within ionized van der Waals clusters of 1,1-difluoroethane. *J. Phys. Chem.* **94**, 1619–1624. => AEL0781
893. Cooper, D.W. (1982) On the products of lognormal and cumulative lognormal particle size distributions. *J. Aerosol Sci.* **13**, 111–120. => AEL0060
894. Cooper, D.W. and Spielman, L.A. (1976) Data inversion using nonlinear programming with physical constraints: aerosol size distribution measurement by impactors. *Atmos. Environ.* **10**, 723–729. => AEL2410
895. Cooper, D.W. and Wu, J.J. (1990) The inversion matrix and error estimation in data inversion: application to diffusion battery measurements. *J. Aerosol Sci.* **21**, 217–226. => AEL2409
896. Cooper, O.R., Moody, J.L., Parrish, D.D., Trainer, M., Ryerson, T.B., Holloway, J.S., Hübler, G., Fehsenfeld, F.C. and Evans, M.J. (2002) Trace gas composition of midlatitude cyclones over the western North Atlantic Ocean: A conceptual model. *J. Geophys. Res. Atmospheres* **107**, ACH1 1–14. => AEL3646
897. Cooperman, P. (1971) A new theory of precipitator efficiency. *Atmos. Environ.* **5**, 541–551. => AEL0055
898. Cooperman, P. (1971) A new theory of precipitator efficiency. *Atmospheric Environment Pergamon Press* **5**, 541–551. => HT0199
899. Cooperman, P. and Cooperman, G.D. (1982) Precipitator efficiency for log-normal distributions. *Atmos. Environ.* **16**, 307–313. => AEL0056
900. Cooray, V. and Orville, R.E. (1989) LORAN-C timing errors caused by propagation over finitely conducting ground. *Radio Science* **24**, 179–182. => HT0529
901. Corbett, J.J., Fischbeck, P.S. and Pandis, S.N. (1999) Global nitrogen and sulfur inventories for oceangoing ships. *J. Geophys. Res. Atmospheres* **104**, 3457–3470. => AEL2761
902. Córdoba, C., Aguirre de Cárcer, I., Pérez, A., Sanz, A., Angulo, C., Vila, P., Monroy, E., Muñoz, E. and Jaque, F. (2000) UV-B irradiance at Madrid during 1996, 1997, and 1998. *J. Geophys. Res. Atmospheres* **105**, 4903–4906. => AEL3097
903. Cornell, S., Mace, K., Coeppicus, S., Duce, R., Huebert, B., Jickells, T. and Zhuang, L.-Z. (2001) Organic nitrogen in Hawaiian rain and aerosol. *J. Geophys. Res. Atmospheres* **106**, 7973–7983. => AEL3431

904. Cornwell, P.B., Crook, L.J. and Bull, J.O. (1957) Lethal and sterilizing effects of gamma radiation on insects infesting general commodities. *Nature* **179**, 670–672. => HT-F048
905. Coroniti, S.C., Parziale, A.J., Callahan, R.C. and Patten, R. (1952) Effect of aircraft charge on airborne conductivity measurements. *J. Geophys. Res.* **57**, 197–205. => HT-F086
906. Corradini, C. and Tonna, G. (1979) On the reliability of the parameterization of microphysics in fog models. *Journal of Applied Meteorology* **18**, 487–494. => AEL0433
907. Covert, D., Wiedensohler, A. and Russell, L. (1997) Particle charging and transmission efficiencies of aerosol charge neutralizers. *Aerosol Sci. Technol.* **27**, 206–214. =>
908. Covert, D.S. and Heintzenberg, J. (1993) Size distributions and chemical properties of aerosol at Ny Ålesund, Svalbard. *Atmos. Environ.* **27A**, 2989–2997. => AEL4122
909. Covert, D.S., Kapustin, V.N., Quinn, P.K. and Bates, T.S. (1992) New particle formation in the marine boundary layer. *J. Geophys. Res.* **97**, 20581–20589. => AEL1016
910. Covert, D.S., Kapustin, V.N., Quinn, P.K. and Bates, T.S. (1992) New particle formation in the marine boundary layer. *J. Geophys. Res.* **97**, 20581–20589. => AEL1590
911. Covert, D.S., Wiedensohler, A., Aalto, P., Heintzenberg, J., McMurry, P.H. and Leck, C. (1996) Aerosol number size distributions from 3 to 500 nm diameter in the arctic marine boundary layer during summer and autumn. *Tellus* **48B**, 197–212. => AEL1697
912. Cowles, M.K. and Zimmermann, D.L. (2003) A Bayesian space-time analysis of acid deposition data combined from two monitoring networks. *J. Geophys. Res. Atmospheres* **108**, 9006– doi:10.1029/2003JD004001. => AEL4095
913. Cox, A.L. and McDaniel, M.L. (1967) Colloidal ion power converter and thruster for lunar and planetary missions. *J. of Spacecraft and Rockets* **4**, 86–94. => AEL0057
914. Cox, R.A. (1999) Ozone and peroxy radical budgets in the marine boundary layer: Modeling the effect of NO<sub>x</sub>. *J. Geophys. Res. Atmospheres* **104**, 8047–8056. => AEL2886
915. Cox, R.A. (2003) Chemical kinetics and atmospheric chemistry: Role of data evaluation. *Chemical Reviews* **103**, 4533–4548. => AEL4049
916. Cox, R.A., Bloss, W.J., Jones, R.L. and Rowley, D.M. (1999) OIO and the atmospheric cycle of iodine. Abstract. *Geophys. Res. Lett.* **26**, 1857–1860. => AEL2899
917. Cox, R.M., Self, D.E. and Plane, J.M.C. (2001) A study of the reaction between NaHCO<sub>3</sub> and H: Apparent closure on the chemistry of mesospheric Na. *J. Geophys. Res. Atmospheres* **106**, 1733–1739. => AEL3309
918. Crawford, J., Davis, D., Chen, G., Bradshaw, J., Sandholm, S., Gregory, G., Sachse, G., Anderson, B., Collins, J., Blake, D., Singh, H., Heikes, B., Talbot, R. and Rodriguez, J. (1996) Photostationary state analysis of the NO<sub>2</sub>-NO system based on airborne observations from the western and central North Pacific. *J. Geophys. Res.* **101**, 2053–2072. => AEL1627
919. Creasey, D.J., Evans, G.E., Heard, D.E. and Lee, J.D. (2003) Measurements of OH and HO<sub>2</sub> concentrations in the Southern Ocean marine boundary layer. *J. Geophys. Res. Atmospheres* **108**, 4475– doi:10.1029/2002JD003206. => AEL4029
920. Creasey, D.J., Heard, D.E. and Lee, J.D. (2002) Eastern Atlantic Spring Experiment 1997 (EASE97) 1. Measurements of OH and HO<sub>2</sub> concentrations at Mace Head, Ireland. *J. Geophys. Res. Atmospheres* **107**, ACH3 1–17. => AEL3651
921. Crescentini, G., Mangani, F., Mastrogiacomo, A.R., Cappiello, A. and Bruner, F. (1986) Discussion on the tropospheric concentrations of FC21. *Atmos. Environ.* **20**, 215–217. => AEL0684
922. Crilly, P.B. (1987) Numerical deconvolution of gas chromatograph peaks using Jansson's method. *Journal of Chemometrics* **1**, 79–90. => AEL0597

923. Crone, G.C., Dinar, N., van Dop, H. and Verver, G.H.L. (1999) A Lagrangian approach for modelling turbulent transport and chemistry. *Atmos. Environ.* **33**, 4919–4934. => AEL2942
924. Cronn, D.R., Rasmussen, R.A., Robinson, E. and Harsch, D.E. (1977) "Halogenated compound identification and measurement in the troposphere and lower stratosphere. *J. Geophys. Res.* **82**, 5935–5944. => AEL0484
925. Cros, B., Delon, C., Affre, C., Marion, T., Druilhet, A., Perros, P.E. and Lopez, A. (2000) Sources and sinks of ozone in savanna and forest areas during EXPRESSO: Airborne turbulent flux measurements. *J. Geophys. Res. Atmospheres* **105**, 29347–29358. => AEL3286
926. Crosley, D.R. (1996) NO<sub>y</sub> Blue Ribbon panel. *J. Geophys. Res.* **101**, 2049–2052. => AEL1626
927. Crosley, D.R. (1997) 1993 Tropospheric OH Photochemistry Experiment: A summary and perspective. *J. Geophys. Res. Atmospheres* **102**, 6495–6510. => AEL2330
928. Crowe, C.T., Troutt, T.R., Chung, J.N., Davis, R.W. and Moore, E.F. (1995) A turbulent flow without particle mixing. Technical note. *Aerosol Sci. Technol.* **22**, 135–138. => AEL1297
929. Crozier, W.D. (1965) Atmospheric electrical profiles below three meters. *J. Geophys. Res.* **70**, 2785–2792. => AEL2747
930. Crozier, W.D. (1965) Atmospheric electrical profiles below three meters. *J. Geophys. Res.* **70**, 2785–2792. => HT1294
931. Crozier, W.D. (1965) Atmospheric electrical profiles below three meters. *J. Geophys. Res.* **70**, 2785–2792. => HT-F014
932. Crozier, W.D. and Biles, N. (1966) Measurements of radon 220 (thoron) in the atmosphere below 50 centimeters. *J. Geophys. Res.* **71**, 4735–4741. => HT1299
933. Crump, J.G. and Seinfeld, J.H. (1982) A new algorithm for inversion of aerosol size distribution data. *Aerosol Sci. Technol.* **1**, 15–34. => AEL1080
934. Crump, J.G. and Seinfeld, J.H. (1982) Further results on inversion of aerosol size distribution data: Higher-order Sobolev spaces and constraints. *Aerosol Sci. Technol.* **1**, 363–369. => AEL0059
935. Crump, J.G., Jones, C.L. and Biswas, P. (1985) Computer program and algorithm review. INVERSE. *Aerosol Sci. Technol.* **4**, 123–123. => AEL0058
936. Cruz, C.N. and Pandis, S.N. (1999) Condensation of organic vapors on an externally mixed aerosol population. *Aerosol Sci. Technol.* **31**, 392–407. => AEL3182
937. Cuculeanu, V. and Lupu, A. (2001) Deterministic chaos in atmospheric radon dynamics. *J. Geophys. Res. Atmospheres* **106**, 17961–17968. => AEL3504
938. Cuculeanu, V. and Mihaila, B. (1991) On the definition of the deposition for radioisotopes without precursor. *Meteorology and Hydrology* **21**, 31–35. => AEL2460
939. Cuculeanu, V. and Mihaila, B. (1992) Constant deposition model for radioisotopes with precursor. *Meteorology and Hydrology* **22**, 15–20. => AEL2461
940. Cuculeanu, V., Mihaila, B. and Sonoc, S. *Models for interpreting the deposition measurements for 222Rn and 220Rn daughters.* *Käsikiri.* => AEL2459
941. Cullum, J. (1971) Numerical differentiation and regularization. *SIAM J.Numer.Anal.* **8**, 254–265. => HT0235
942. Cummins, K.L., Murphy, M.J., Bardo, E.A., Hiscox, W.L., Pyle, R.B. and Pifer, A.E. (1998) A combined TOA/MDF technology upgrade of the U.S. National Lightning Detection Network. *J. Geophys. Res. Atmospheres* **103**, 9035–9044. => AEL2255

943. Curren, K., Gillespie, T., Steyn, D., Dann, T. and Wang, D. (1998) Biogenic isoprene in the Lower Fraser Valley, British Columbia. *J. Geophys. Res. Atmospheres* **103**, 25467–25477. => AEL2800
944. Curtius, J. and Arnold, F. (2001) Measurement of aerosol sulfuric acid 1. Experimental setup, characterization, and calibration of a novel mass spectrometric system. *J. Geophys. Res. Atmospheres* **106**, 31965–31974. => AEL3606
945. Curtius, J., Froyd, K.D. and Lovejoy, E. (2001) Cluster ion thermal decomposition (I): Experimental kinetics study and *ab initio* calculations for  $\text{HSO}_4^-(\text{H}_2\text{SO}_4)_x(\text{HNO}_3)_y$ . *J. Phys. Chem. A* **105**, 10867–10873. => AEL3758
946. Curtius, J., Sierau, B., Arnold, F., Baumann, R., Busen, R., Schulte, P. and Schumann, U. (1998) First direct sulfuric acid detection in the exhaust plume of a jet aircraft in flight. *Geophys. Res. Lett.* **25**, 923–926. => AEL2957
947. Curtius, J., Sierau, B., Arnold, F., de Reus, M., Ström, J., Scheeren, H.A. and Lelieveld, J. (2001) Measurement of aerosol sulfuric acid 2. Pronounced layering in the free troposphere during the second Aerosol Characterization Experiment (ACE 2). *J. Geophys. Res. Atmospheres* **106**, 31975–31990. => AEL3607
948. Cutshall, N.H., Larsen, I.L. and Olsen, C.R. (1983) Direct analysis of  $^{210}\text{Pb}$  in sediment samples: self-absorption corrections. *Nucl. Instrum. Meth.* **206**, 309–312. => HT1207
949. Cziczo, D.J. and Abbatt, J.P.D. (1999) Deliquescence, efflorescence, and supercooling of ammonium sulfate aerosols at low temperature: Implications for cirrus cloud formation and aerosol phase in the atmosphere. *J. Geophys. Res. Atmospheres* **104**, 13781–13790. => AEL2983
950. da Cruz, A.C. and Munz, R.J. (2001) Nucleation with simultaneous chemical reaction in the vapor-phase synthesis of AlN ultrafine powders. *Aerosol Sci. Technol.* **34**, 499–511. => AEL3496
951. Dahneke, B.E. (1973) Slip correction factors for nonspherical bodies. III. The general law. *J. Aerosol Sci.* **4**, 163–170. => AEL0063
952. Dahneke, B.E. (1975) Kinetic theory of the escape of particles from surfaces. *J. Colloid Interface Sci.* **50**, 89–107. => AEL0062
953. Dahneke, B.E. and Flachsbart, H. (1972) An aerosol beam spectrometer. *Aerosol Sci.* **3**, 345–349. => AEL0064
954. Daisey, J.M. (1992) Potential for ion-induced nucleation of volatile organic compounds by radon decay in indoor environments. *Energy Research Abstracts* **17**, 12519–12519. => AEL1233
955. Daisey, J.M. and Hopke, P.K. (1993) Potential for ion-induced nucleation of volatile organic compounds by radon decay in indoor environments. *Aerosol Sci. Technol.* **19**, 80–93. => AEL0983
956. Dal Maso, M., Kulmala, M., Lehtinen, K.E.J., Aalto, P.P. and Kerminen, V.-M. (2003) Nucleation events in Hyytiälä and Värriö in 1999: Formation and growth rates. *Report Series in Aerosol Sci.* **59**, 143–146. => HT1436
957. Dal Maso, M., Kulmala, M., Lehtinen, K.E.J., Mäkelä, J.M., Aalto, P. and O'Dowd, C.D. (2002) Condensation and coagulation sinks and formation of nucleation mode particles in coastal and boreal forest boundary layers. *J. Geophys. Res. Atmospheres* **107**, PAR 2 doi:10.1029/2001JD001053–2002. => AEL3786
958. Dalfovo, F., Giorgini, S., Pitaevskii, L.P. and Stringari, S. (1999) Theory of Bose-Einstein condensation in trapped gases. *Reviews of Modern Physics* **71**, 463–512. => AEL3178

959. Dalgarno, A. (1961) Intermolecular potentials for ionic systems. *Planet. Space Sci.* **3**, 217–220. => AEL0065
960. Damian, D., Sampson, P.D. and Guttorp, P. (2003) Variance modeling for nonstationary spatial processes with temporal replications. *J. Geophys. Res. Atmospheres* **108**, 8778–doi:10.1029/2002JD002864. => AEL4098
961. Damrauer, R. and Krempp, M. (1990) Gas-phase ion-molecule chemistry of methoxy-substituted silanes: Collision-induced decomposition of siloxide ions leading to anions of silaacetaldehyde and methyl silaformate. *Organometallics* **9**, 999–1004. => AEL0464
962. Daniel, J.H. and Brackett, F.S. (1951) An electrical method for investigating the nature and behavior of small, airborne, charged particles. *J. Appl. Phys.* **22**, 542–554. => HT-F060
963. Danilin, M.Y., Ko, M.K.W., Froidevaux, L., Santee, M.L., Lyjak, L.V., Bevilacqua, R.M., Zawodny, J.M., Sasano, Y., Irie, H., Kondo, Y., Russell III, J.M., Scott, C.J. and Read, W.G. (2002) Trajectory hunting as an effective technique to validate multiplatform measurements: Analysis of the MLS, HALOE, SAGE-II, ILAS, and POAM-II data in October–November 1996. *J. Geophys. Res. Atmospheres* **107**, 4420 doi:10.1029/2001JD002012–2002. => AEL3802
964. Danilin, M.Y., Rodriguez, J.M., Ko, M.K.W., Weisenstein, D.K., Brown, R.C., Miake-Lye, R.C. and Anderson, M.R. (1997) Aerosol particle evolution in an aircraft wake: Implications for the high-speed civil transport fleet impact on ozone. *J. Geophys. Res. Atmospheres* **102**, 21453–21463. => AEL2207
965. Das, M. and Husain, L. (1999) Photochemical and dynamical processes affecting gaseous H<sub>2</sub>O<sub>2</sub> concentrations in the lower troposphere. *J. Geophys. Res. Atmospheres* **104**, 21367–21383. => AEL3013
966. Dasgupta, P.K. (1991) Determination of trace atmospheric gases by ion chromatography. *Abstr. of Papers of Amer. Chem. Soc.* **201**, \4Apr, N.81–N.81. => AEL1350
967. Dash, J.G., Mason, B.L. and Wettlaufer, J.S. (2001) Theory of charge and mass transfer in ice-ice collisions. *J. Geophys. Res. Atmospheres* **106**, 20395–20402. => AEL3520
968. Dassau, T.M., Sumner, A.L., Koeniger, S.L., Shepson, P.B., Yang, J., Honrath, R.E., Cullen, N.J., Steffen, K., Jacobi, H.-W., Frey, M. and Bales, R.C. (2002) Investigation of the role of the snowpack on atmospheric formaldehyde chemistry at Summit, Greenland. *J. Geophys. Res. Atmospheres* **107**, 4394 doi:10.1029/2002JD002182–2002. => AEL3774
969. Dastoor, A.P. and Pudykiewicz, J. (1996) A numerical global meteorological sulfur transport model and its application to Arctic air pollution. *Atmos. Environ.* **30**, 1501–1522. => AEL1937
970. *Datataker enclosures. Technical specifications* Data Electronics (Aust) Pty. Ltd., => HT1199
971. Davidovits, P., Hu, J.H., Worsnop, D.R., Zahniser, M.S. and Kolb, C.E. (1995) Entry of gas molecules into liquids. *Faraday Discussions* **100**, 65–82. => AEL1905
972. Davidson, A. (1994) The Los Angeles Aerosol Characterization and Source Apportionment Study: A meteorological-air quality analysis. *Aerosol Sci. Technol.* **21**, 269–282. => AEL1323
973. Davidson, C.I. and Chu, L. (1981) Scanning electron microscope study of iron-containing particles on foxtail. *Environ. Sci. and Technol.* **15**, 198–201. => AEL0047
974. Davidson, C.I., Miller, J.M. and Pleskow, M.A. (1982) The influence of surface structure on predicted particle dry deposition to natural grass canopies. *Water, Air, and Soil Pollution* **18**, 25–43. => AEL1875
975. Davidson, J.A., Fehsenfeld, F.C. and Howard, C.J. (1977) The heats of formation of NO<sub>3</sub><sup>-</sup> and NO<sub>3</sub><sup>-</sup> association complexes with HNO<sub>3</sub> and HBr. *Int. J. Chem. Kinetics* **9**, 17–29. => AEL1469



976. Davidsson, K. (1996) *Akali metal release from biomass fuels and coal during pyrolysis. B. Sc. thesis in chemistry*. Göteborg University,. => HT1129
977. Davies, C.N. (1966) Contents. *Aerosol Science*, Academic Press, London - New York, pp. 5–18. => HT0701
978. Davies, C.N. (1967) Aerosol sampling related to inhalation. *Assessment of airborne radioactivity*, Vienna, pp. 3–20. => AEL0048
979. Davies, C.N. (1972) An algebraical model for the deposition of aerosols in the human respiratory tract during steady breathing. *J. Aerosol Sci.* **3**, 297–306. => AEL0049
980. Davies, C.N. (1973) Diffusion and sedimentation of aerosol particles from Poiseuille flow in pipes. *J. Aerosol Sci.* **4**, 317–328. => AEL0050
981. Davies, C.N. (1974) Report of meeting. Fibrous materials for the filtration of gases. *J. Aerosol Sci.* **5**, 401–401. => AEL0052
982. Davies, C.N. (1974) Size distribution of atmospheric particles. *J. Aerosol Sci.* **5**, 293–300. => AEL0051
983. Davies, C.N. (1979) Coagulation of aerosols by Brownian motion. *J. Aerosol Sci.* **10**, 151–161. => AEL0053
984. Davies, C.N. (1983) Filtration of aerosols. *J. Aerosol Sci.* **14**, 147–161. => AEL0066
985. Davis, D., Chen, G., Bandy, A., Thornton, D., Eisele, F., Mauldin, L., Tanner, D., Lenschow, D., Fuelberg, H., Huebert, B., Heath, J., Clarke, A. and Blake, D. (1999) Dimethyl sulfide oxidation in the equatorial Pacific: Comparison of model simulations with field observations for DMS, SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub>(g), MSA(g), MS, and NSS. *J. Geophys. Res. Atmospheres* **104**, 5765–5784. => AEL2788
986. Davis, D., Chen, G., Kasibhatla, P., Jefferson, A., Tanner, D., Eisele, F., Lenschow, D., Neff, W. and Berresheim, H. (1998) DMS oxidation in the Antarctic marine boundary layer: Comparison of model simulations and field observations of DMS, DMSO, DMSO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub>(g), MSA(g), and MSA(p). *J. Geophys. Res. Atmospheres* **103**, 1657–1678. => AEL2091
987. Davis, D., Crawford, J., Liu, S., McKeen, S., Bandy, A., Thornton, D., Rowland, F. and Blake, D. (1996) Potential impact of iodine on tropospheric levels of ozone and other critical oxidants. *J. Geophys. Res.* **101**, 2135–2147. => AEL1630
988. Davis, D.D., Crawford, J., Chen, G., Chameides, W., Liu, S., Bradshaw, J., Sandholm, S., Sachse, G., Gregory, G., Anderson, B., Barrick, J., Bachmeier, A., Collins, J., Browell, E., Blake, D., Rowland, S., Kondo, Y., Singh, H., Talbot, R., Heikes, B., Merrill, J., Rodriguez, J., Newell and R.E. (1996) Assessment of ozone photochemistry in the western North Pacific as inferred from PEM-West A observations during the fall 1991. *J. Geophys. Res.* **101**, 2111–2134. => AEL1631
989. Davis, E.J. (1997) Erratum to “A history of single aerosol particle levitation by E. James Davis. *Aerosol Sci. Technol.* **26**, 471–481. => AEL1974
990. Davis, E.J. and Liao, S.C. (1975) The growth kinetics and polydispersity of condensational aerosols. *J. Colloid Interface Sci.* **50**, 488–502. => AEL0708
991. Davis, E.J. and Ray, A.K. (1978) Submicron droplet evaporation in the continuum and noncontinuum regimes. *J. Aerosol Sci.* **9**, 411–422. => AEL0067
992. Davis, J.E. (1997) A history of single aerosol particle levitation. *Aerosol Sci. Technol.* **26**, 212–254. => AEL1789

993. Davison, B., Hewitt, C.N., O'Dowd, C.D., Lowe, J.A., Smith, M.H., Schwikowski, M., Baltensperger, U. and Harrison, R.M. (1996) Dimethyl sulfide, methane sulfonic acid and physicochemical aerosol properties in Atlantic air from the United Kingdom to Halley Bay. *J. Geophys. Res.* **101**, 22855–22867. => AEL1848
994. Davison, S., Liu, C.S., Brouns, D. and Gentry, J.W. (1983) Size and electrostatic charge distribution for ultrafine aerosols. *J. Aerosol Sci.* **14**, 271–276. => AEL0870
995. Davison, S.W. and Gentry, J.W. (1985) Differences in diffusion charging of dielectric and conducting ultrafine aerosols. *Aerosol Sci. Technol.* **4**, 157–163. => AEL0068
996. Davison, S.W., Hwang, S.Y., Wang, J. and Gentry, J.W. (1985) Unipolar charging of ultrafine particles by diffusion of ions: Theory and experiment. *Langmuir* 150–158. => AEL0069
997. Dawson, G.A. and Farmer, J.C. (1984) Highly soluble atmospheric trace gases in the southwestern United States 1. Inorganic species: NH<sub>3</sub>, HNO<sub>3</sub>, SO<sub>2</sub>. *J. Geophys. Res.* **89**, 4779–4787. => AEL1438
998. de Gouw, J.A., Krishnamurthy, M., Bierbaum, V.M. and Leone, S.R. (1997) Measured and calculated mobilities of cluster ions drifting in helium and in nitrogen. *Int. J. Mass Spectrom. Ion Processes* **167/168**, 281–289. => AEL3760
999. de Gouw, J.A., Warneke, C., Parrish, D.D., Holloway, J.S., Trainer, M. and Fehsenfeld, F.C. (2003) Emission sources and ocean uptake of acetonitrile (CH<sub>3</sub>CN) in the atmosphere. *J. Geophys. Res. Atmospheres* **108**, 4329– doi:10.1029/2002JD002897, 2003. => AEL4017
1000. De Jong, J.J.M. and Klaassen, W. (1997) Simulated dry deposition of nitric acid near forest edges. *Atmos. Environ.* **31**, 3681–3691. => AEL1930
1001. de la Mora, F., Liedtke, K., Schmidt-Ott, A. and de Juan, L. (2001) *Characterizing particles in the nanometer range by means of a mobility analyzer impactor combination.* *Käsikiri.* => HT1372
1002. de la Mora, J.F. (1999) *Flow acceleration versus resolution in converging differential mobility analyzers.* *Käsikiri.* => HT1296
1003. de la Mora, J.F., de Juan, L., Eichler, T. and Rosell, J. (1998) Differential mobility analysis of molecular ions and nanometer particles. *Trends in Analytical Chemistry* **17**, 328–339. => HT1285
1004. de Laat, A.T.J. and Lelieveld, J. (2000) Diurnal ozone cycle in the tropical and subtropical marine boundary layer. *J. Geophys. Res. Atmospheres* **105**, 11547–11559. => AEL3207
1005. de Leeuw, G., Kunz, G.J., Buzorius, G. and O'Dowd, C.D. (2002) Meteorological influences on coastal new particle formation. *J. Geophys. Res. Atmospheres* **107**, 8102 doi:10.1029/2001JD001478–2002. => AEL3790
1006. De Leeuw, G., Neele, F.P., Hill, M., Smith, M.H. and Vignati, E. (2000) Production of sea spray aerosol in the surf zone. *J. Geophys. Res. Atmospheres* **105**, 29397–29409. => AEL3289
1007. de Reus, M., Ström, J., Curtius, J., Pirjola, L., Vignati, E., Arnold, F., Hansson, H.C., Kulmala, M., Lelieveld, J. and Raes, F. (2000) Aerosol production and growth in the upper free troposphere. *J. Geophys. Res. Atmospheres* **105**, 24751–24762. => AEL3274
1008. de Reus, M., Ström, J., Hoor, P., Lelieveld, J. and Schiller, C. (1999) Particle production in the lowermost stratosphere by convective lifting of the tropopause. *J. Geophys. Res. Atmospheres* **104**, 23935–23940. => AEL3025

1009. de Reus, M., Ström, J., Kulmala, M., Pirjola, L., Lelieveld, J., Schiller, C. and Zöger, M. (1998) Airborne aerosol measurements in the tropopause region and the dependence of new particle formation on preexisting particle number concentration. *J. Geophys. Res. Atmospheres* **103**, 31255–31263. => AEL2835
1010. de Reus, M., Ström, J., Kulmala, M., Pirjola, L., Lelieveld, J., Schiller, C. and Zöger, M. (1998) Airborne aerosol measurements in the tropopause region and the dependence of new particle formation on preexisting particle number concentration. *J. Geophys. Res. Atmospheres* **103**, 31255–31263. => HT1301
1011. De Rudder, A., Larsen, N., Tie, X., Brasseur, G.P. and Granier, C. (1996) Model study of polar stratospheric clouds and their effect on stratospheric ozone. *J. Geophys. Res. Atmospheres* **101**, 12567–12574. => AEL1909
1012. De Souza, L.E.S. and Ben-Amotz, D. (1994) Hard fluid model for molecular solvation free energies. *J. Chem. Phys.* **101**, 9858–9863. => AEL1310
1013. de Zafra, R. and Smyshlyaev, S.P. (2001) On the formation of HNO<sub>3</sub> in the Antarctic mid to upper stratosphere in winter. *J. Geophys. Res. Atmospheres* **106**, 23115–23125. => AEL3558
1014. Debenedetti, P.G. and Reiss, H. (1998) Reversible work of formation of an embryo of a new phase within a uniform macroscopic mother phase. *J. Chem. Phys.* **108**, 5498–5505. => AEL3122
1015. Debenedetti, P.G. and Reiss, H. (1999) Response to “Comment on ‘Reversible work of formation of an embryo of a new phase within a uniform macroscopic mother phase’ ” [ *J. Chem. Phys.* **111**, 3769 (1999) ]. *J. Chem. Phys.* **111**, 3771–3772. => AEL3123
1016. Debiesse, J. and Klein, S. (1966) Flame ionization and magneto-hydrodynamics. *Nature* **212**, 1405–1408. => AEL0070
1017. Degani, D.D. and Tardos, G.I. (1981) Inertial deposition of small particles on a sphere at intermediate and high Reynolds numbers: A time dependent study. *JAPCA* **31**, 981–. => AEL0945
1018. Degreve, L. and Quintale, C.Jr. (1994) From ionic aqueous solvation shell to bulk fluid: a structural-energetic stability problem. *J. Chem. Phys.* **101**, 2319–2328. => AEL1174
1019. Degünther, M. and Meerkötter, R. (2000) Influence of inhomogeneous surface albedo on UV irradiance: Effect of a stratus cloud. *J. Geophys. Res. Atmospheres* **105**, 22755–22761. => AEL3249
1020. Dekermenjian, M., Allen, D.T., Atkinson, R. and Arey, J. (1999) FTIR analysis of aerosol formed in the ozone oxidation of sesquiterpenes. *Aerosol Sci. Technol.* **30**, 349–363. => AEL2862
1021. Del Negro, L.A., Fahey, D.W., Donnelly, S.G., Gao, R.S., Keim, E.R., Wamsley, R.C., Woodbridge, E.L., Dye, J.E., Baumgardner, D., Gandrud, B.W., Wilson, J.C., Jonsson, H.H., Loewenstein, M., Podolske, J.R., Webster, C.R., May, R.D., Worsnop, D.R., Tabazadeh, A., Tolbert, M.A., Kelly, K.K. and Chan, K.R. (1997) Evaluating the role of NAT, NAD, and liquid H<sub>2</sub>SO<sub>4</sub>/H<sub>2</sub>O/HNO<sub>3</sub> solutions in Antarctic polar stratospheric cloud aerosol: Observations and implications. *J. Geophys. Res. Atmospheres* **102**, 13255–13282. => AEL2005
1022. Delale, C.F. and Meier, G.E.A. (1993) A semiphenological droplet model of homogeneous nucleation from the vapor phase. *J. Chem. Phys.* **98**, 9850–9858. => AEL2969
1023. Delene, D.J., Deshler, T., Wechsler, P. and Vali, G.A. (1998) A balloon-borne cloud condensation nuclei counter. *J. Geophys. Res. Atmospheres* **103**, 8927–8934. => AEL2252

1024. DeLorey, D.C., Cronn, D.R. and Farmer, J.C. (1988) Tropospheric latitudinal distributions of CF<sub>2</sub>~Cl<sub>2</sub>~, CFCl<sub>3</sub>~, N<sub>2</sub>~O, CH<sub>3</sub>~CCl<sub>3</sub>~ and CCl<sub>4</sub>~ over the remote Pacific Ocean. *Atmos. Environ.* **22**, 1481–1494. => AEL0542
1025. Demokritou, P., Gupta, T. and Koutrakis, P. (2002) A high volume apparatus for the condensational growth of ultrafine particles for inhalation toxicological studies. *Aerosol Sci. Technol.* **36**, 1061–1072. => AEL3713
1026. Demokritou, P., Kavouras, I.G., Ferguson, S.T. and Koutrakis, P. (2001) Development and laboratory performance evaluation of a personal multipollutant sampler for simultaneous measurements of particulate and gaseous pollutants. *Aerosol Sci. Technol.* **35**, 741–752. => AEL3507
1027. DeMott, P.J., Rogers, D.C. and Kreidenweis, S.M. (1997) The susceptibility of ice formation in upper tropospheric clouds to insoluble aerosol components. *J. Geophys. Res. Atmospheres* **102**, 19575–19584. => AEL2191
1028. Denning, D.E. (1980) Secure statistical databases with random sample queries. *ACM Transactions on Database Systems* **5**, 291–315. => HT0193
1029. Dennis, W.L. (1960) The growth of hygroscopic drops in a humid air stream. *Discuss. Faraday Soc.* 78–85. => AEL0071
1030. DeNoyer, L.K. and Dodd, J.G. (1990) Maximum likelihood smoothing of noisy data. *International Laboratory* 16–24. => HT0506
1031. *Deposition both wet and dry* (1984) edited by Hicks, B.B., Butterworth Publishers,. => AEL2145
1032. Derjaguin, B.V., Bakanov, S.P. and Kurghin, I.S. (1960) The influence of a foreign film on evaporation of liquid drops. *Discuss. Faraday Soc.* 96–99. => AEL0072
1033. Derrick, P.J. (1978) Recent developments and current trends in field ionization and field desorption mass spectrometry. *Advances in Mass Spectrometry* **7A**, 143–148. => AEL0511
1034. Derwent, R.G., Middleton, D.R., Field, R.A., Goldstone, M.E., Lester, J.N. and Perry, R. (1995) Analysis and interpretation of air quality data from an urban roadside location in Central London over the period from July 1991 to July 1992. *Atmos. Environ.* **29**, 923–946. => AEL1919
1035. Deshler, D., Adriani, A., Gobbi, G.P., Hofmann, D.J., Di, Donfrancesco., G. and Johnson, B.J. (1992) Volcanic aerosol and ozone depletion within the Antarctic polar vortex during the austral spring of 1991. *Geophys. Res. Lett.* **19**, 1819–1822. => AEL1766
1036. Deshler, T., Hervig, M.E., Hofmann, D.J., Rosen, J.M. and Liley, J.B. (2003) Thirty years of in situ stratospheric aerosol size distribution measurements from Laramie, Wyoming (41°N), using balloon-borne instruments. *J. Geophys. Res. Atmospheres* **108**, 4167–  
doi:10.1029/2002JD002514, 2003. => AEL3961
1037. Deshpande, C.G. and Kamra, A.K. (2001) Diurnal variations of the atmospheric electric field and conductivity at Maitri, Antarctica. *J. Geophys. Res. Atmospheres* **106**, 14207–14218. => AEL3477
1038. Deshpande, C.G. and Kamra, A.K. Extension of atmospheric aerosols over ocean around peninsular India in the southwest monsoon season. *Käsikiri* 1–11. => HT0783
1039. Dessler, A.E., Hintsä, E.J., Weinstock, E.M., Anderson, J.G. and Chan, K.R. (1995) Mechanisms controlling water vapor in the lower stratosphere: "A tale of two stratospheres". *J. Geophys. Res.* **100**, 23167–23172. => AEL1544
1040. Deuser, F. (1953) Unipolare elektrische Aufladung von Inhalationsnebeln. 218–223. => AEL0958

1041. Deuzé, J.L., Bréon, F.M., Devaux, C., Goloub, P., Herman, M., Lafrance, B., Maignan, F., Marchand, A., Nadal, F., Perry, G. and Tanré, D. (2001) Remote sensing of aerosols over land surfaces from POLDER-ADEOS-1 polarized measurements. *J. Geophys. Res. Atmospheres* **106**, 4913–4926. => AEL3421
1042. Devara, P.C.S. and Raj, P.E. (1989) Technical note. Remote sensing of atmospheric NO<sub>2</sub> concentration in the surface layer using the argon ion lidar system at Pune. *Atmos. Environ.* **23**, 875–877. => AEL0073
1043. Devitofrancesco, G. and Conte, C. (1987) The formation of particulate pollutants: conversion of sulfur dioxide to sulfate in the atmosphere. *Durability of Building Materials* **5**, 155–166. => AEL1234
1044. Dhaniyala, S. and Wexler, A.S. (1996) Numerical schemes to model condensation and evaporation of aerosols. *Atmos. Environ.* **30**, 919–928. => AEL2707
1045. Dhanorkar, S. and Kamra, A.K. (1991) Measurement of mobility spectrum and concentration of all atmospheric ions with a single apparatus. *J. Geophys. Res.* **96**, 18671–18678. => AEL1403
1046. Dhanorkar, S. and Kamra, A.K. (1992) Relation between electrical conductivity and small ions in the presence of intermediate and large ions in the lower atmosphere. *J. Geophys. Res.* **97**, 20345–20360. => AEL0867
1047. Dhanorkar, S. and Kamra, A.K. (1993) Diurnal variations of the mobility spectrum of ions and size distribution of fine aerosols in the atmosphere. *J. Geophys. Res.* **98**, 2639–2650. => AEL0974
1048. Dhanorkar, S. and Kamra, A.K. (1993) Diurnal variations of the mobility spectrum of ions and size distribution of fine aerosols in the atmosphere. *J. Geophys. Res.* **98**, 2639–2650. => HT0819
1049. Dhanorkar, S. and Kamra, A.K. (1994) Diurnal variation of ionization rate close to ground. *J. Geophys. Res.* **99**, 18523–18526. => AEL1424
1050. Dhanorkar, S. and Kamra, A.K. (1994) Diurnal variation of ionization rate close to ground. *J. Geophys. Res. Atmospheres* **99**, 18523–18526. => HT1315
1051. Dhanorkar, S. and Kamra, A.K. (1997) Calculation of electrical conductivity from ion-aerosol balance equations. *J. Geophys. Res. Atmospheres* **102**, 30147–30159. => AEL2160
1052. Dhanorkar, S. and Kamra, A.K. (1998) Effect of coagulation on the aerosol charge distribution. *J. Aerosol Sci.* **29**, S973–S974. => HT1351
1053. Dhanorkar, S. and Kamra, A.K. (1999) *Effect of coagulation on the particle charge distribution and air conductivity. Käsikiri.* => HT1401
1054. Dhanorkar, S. and Kamra, A.K. (2000) *Effect of coagulation on the particle charge distribution and air conductivity.* => HT1305
1055. Dhanorkar, S. and Kamra, A.K. (2001) Effect of coagulation on the particle charge distribution and air conductivity. *J. Geophys. Res. Atmospheres* **106**, 12055–12065. => AEL3465
1056. Dhanorkar, S. and Kamra, A.K. (2003) Effect of coagulation on the asymmetric charging of aerosols. *Atmos. Res.* **66**, 159–173. => AEL3815
1057. Dhanorkar, S.S., Deshpande, C.G. and Kamra, A.K. (1989) Observations of some atmospheric electrical parameters in the surface layer. *Atmos. Environ.* **23**, 839–841. => AEL0074
1058. Di Iorio, T., di Sarra, A., Junkermann, W., Cacciani, M., Fiocco, G. and Fuá, D. (2003) Tropospheric aerosols in the Mediterranean: 1. Microphysical and optical properties. *J. Geophys. Res. Atmospheres* **108**, 4316– doi:10.1029/2002JD002815, 2003. => AEL4013

1059. Diaz Pena, M., Pando, C. and Renuncio, J.A.R. (1982) Combination rules for intermolecular potential parameters. I. Rules based on approximations for the long-range dispersion energy. *J. Chem. Phys.* **76**, 325–339. => AEL0075
1060. Díaz, S., Nelson, D., Deferrari, G. and Camilión, C. (2003) A model to extend spectral and multiwavelength UV irradiances time series: Model development and validation. *J. Geophys. Res. Atmospheres* **108**, 4150– doi:10.1029/2002JD002134, 2003. => AEL3952
1061. Dibb, J.E., Talbot, R.W. and Scheuer, E.M. (2000) Composition and distribution of aerosols over the North Atlantic during the Subsonic Assessment Ozone and Nitrogen Oxide Experiment (SONEX). *J. Geophys. Res. Atmospheres* **105**, 3709–3717. => AEL3077
1062. Dibb, J.E., Talbot, R.W., Klemm, K.I., Gregory, G.L., Singh, H.B., Bradshaw, J.D. and Sandholm, S.T. (1996) Asian influence over the western North Pacific during the fall season: Inferences from lead 210, soluble ionic species and ozone. *J. Geophys. Res.* **101**, 1779–1792. => AEL1808
1063. Dibb, J.E., Talbot, R.W., Scheuer, E.M., Blake, D.R., Blake, N.J., Gregory, G.L., Sachse, G.W. and Thornton, D.C. (1999) Aerosol chemical composition and distribution during the Pacific Exploratory Mission (PEM) Tropics. *J. Geophys. Res. Atmospheres* **104**, 5785–5800. => AEL2789
1064. Dick, W.D., Saxena, P. and McMurry, P.H. (2000) Estimation of water uptake by organic compounds in submicron aerosols measured during the Southeastern Aerosol and Visibility Study. *J. Geophys. Res. Atmospheres* **105**, 1471–1479. => AEL3068
1065. Dickerson, R.R. (1984) Measurements of reactive nitrogen compounds in the free troposphere. *Atmos. Environ.* **18**, 2585–2593. => AEL0681
1066. Dickinson, A.S. (1968) The mobility of  $\text{He}^+$  ions in He. *J. Phys. B* **1.Ser.2**, 387–394. => AEL0076
1067. Diendorfer, G., Schulz, W., Hofbauer, F. and Stimmer, A. (1994) Results of a performance analysis of the Austrian Lightning Location Network ALDIS. *22nd International Conference On Lightning Protection*, Budapest, **R1b-01**, pp. 1–5. => HT0725
1068. Dilling, W.L., Gonsior, S.J., Boggs, G.U. and Mendoza, C.G. (1988) "Organic photochemistry. 20. A method for estimating gas-phase rate constants for reactions of hydroxyl radicals with organic compounds from their relative rates of reaction with hydrogen peroxide under photolysis in 1,1,2-trichlorotrifluoroethane soluti. *Environmental Science and Technology* **22**, 1447–. => AEL0498
1069. Dillmann, A. and Meier, G.E.A. (1989) Homogeneous nucleation of supersaturated vapors. *Chem. Phys. Lett.* **160**, 71–74. => AEL0728
1070. Dillmann, A. and Meier, G.E.A. (1991) A refined droplet approach to the problem of homogeneous nucleation from the vapor phase. *J. Chem. Phys.* **94**, 3872–3884. => AEL1036
1071. Dillner, A.M., Stein, C., Larson, S.M. and Hitzenberger, R. (2001) Measuring the mass extinction efficiency of elemental carbon in rural aerosol. *Aerosol Sci. Technol.* **35**, 1009–1021. => AEL3590
1072. Dillon, M.B., Lamanna, M.S., Schade, G.W., Goldstein, A.H. and Cohen, R.C. (2002) Chemical evolution of the Sacramento urban plume: Transport and oxidation. *J. Geophys. Res. Atmospheres* **107**, ACH3 1–15. => AEL3639
1073. Dinges, H. (1962) Ein verallgemeintetes Spiegelungsprinzip für den Prozess der Brownschen Bewegung. *Zeitschrift für Wahrscheinlichkeitstheorie und verwandte Gebiete* **1**, 177–196. => AEL1744

1074. Disselkamp, R.S., Anthony, S.E., Prenny, A.J., Onasch, T.B. and Tolbert, M.A. (1996) Crystallization kinetics of nitric acid dihydrate aerosols. *J. Phys. Chem.* **100**, 9127–9137. => AEL2389
1075. Disselkamp, R.S., Carpenter, M.A., Cowin, J.P., Berkowitz, C.M., Chapman, E.G., Zaveri, R.A. and Laulainen, N.S. (2000) Ozone loss in soot aerosols. *J. Geophys. Res. Atmospheres* **105**, 9767–9771. => AEL3204
1076. Dixkens, J. and Fissan, H. (1999) Development of an electrostatic precipitator for off-line particle analysis. *Aerosol Sci. Technol.* **30**, 438–453. => AEL3063
1077. Dixkens, J., Fissan, H. and Dose, T. (1993) A new particle sampling technique for direct analysis using total-reflection X-ray fluorescence spectrometry. *Spectrochimica Acta* **48B**, 231–238. => AEL2136
1078. Djikaev, Y.S. and Donaldson, D.J. (1999) Thermodynamics of heterogeneous binary condensation on insoluble nuclei. *J. Geophys. Res. Atmospheres* **104**, 14283–14292. => AEL2985
1079. Djikaev, Y.S. and Donaldson, D.J. (2001) Activation barrier for multicomponent droplet formation on partially soluble nuclei. *J. Geophys. Res. Atmospheres* **106**, 14447–14463. => AEL3484
1080. Djikaev, Y.S. and Tabazadeh, A. (2003) Effect of adsorption on the uptake of organic trace gas by cloud droplets. *J. Geophys. Res. Atmospheres* **108**, 4689– doi:10.1029/2003JD003741. => AEL4087
1081. Djikaev, Y.S. and Teichmann, J. (1999) On the equilibrium distribution in the binary nucleation theory. *J. Aerosol Sci.* **30**, 587–596. => AEL3155
1082. Dlugokencky, E.J. and Howard, C.J. (1988) Laboratory studies of NO<sub>3</sub> radical reactions with some atmospheric sulfur compounds. *J. Phys. Chem.* **92**, 1188–1193. => AEL0669
1083. Dlugokencky, E.J., Steele, L.P., Lang, P.M. and Masarie, K.A. (1995) Atmospheric methane at Mauna Loa and Barrow observatories: Presentation and analysis of in situ measurements. *J. Geophys. Res.* **100**, 23103–23113. => AEL1717
1084. Dod, R.L., Giauque, R.D., Novakov, T., Weihan, S., Quipeng, Z. and Wenshi, S. (1986) Sulfate and carbonaceous aerosols in Beijing, China. *Atmos. Environ.* **20**, 2271–2275. => AEL0077
1085. Doi, M., Fujimoto, K., Kobayashi, S. and Yonehara, H. (1994) Spatial distribution of thoron and radon concentrations in the indoor air of a traditional Japanese wooden house. Abstract. *Health Phys.* **66**, 43–49. => AEL1224
1086. Dolezalek, H. (1960) Zur Methodik luftelektrischer Messungen VI: Das Ersatzschaltbild für den radioaktiven Kollektor zur Messung der luftelektrischen Feldstärke. *Gerl. Beitr. Geophys.* **69**, 87–94. => HT-F003
1087. Dolezalek, H. (1960) Zur Methodik luftelektrischer Messungen VII: Die Anschaltung des Mesinstruments an den als Vierpol aufgefasten radioaktiven Kollektor. *Gerl. Beitr. Geophys.* **69**, 175–180. => HT-F002
1088. Dolezalek, H. (1962) On the measurement of mobility and conductivity in the mesosphere. *Zeitschrift für Geophysik* **28**, 239–243. => HT0003
1089. Dolezalek, H. (1968) *How Precisely do mobility spectrometers - installed in airplanes, balloons, rockets or under parachutes - describe the ambient ion mobility spectrum of the atmosphere? Manuscript.* => HT0341

1090. Dolezalek, H. (1969) Discussion of a letter by A.L.Oster and S.C.Coroniti, "A method of measuring electron and ion densities in the region of 40-80 kilometers". *J.of Geophysical Research* **74**, 405–407. => HT0238
1091. Dolezalek, H. (1970) *Atmospheric electricity. A Report on the State of the Art.* => HT0340
1092. Dolezalek, H. (1971) Atmospheric electricity. *Transact. Amer. Geophys. Union* **52**, 351–368. => AEL0078
1093. Dolezalek, H. (1972) Discussion of the fundamental problem of atmospheric electricity. *Pure and Applied Geophysics* **100**, 8–43. => HT0073
1094. Dolezalek, H. (1975) Some hints for experiments concerning atmospheric electric influences on biological specimen. *Manuscript*, pp. 1–14. => HT0307
1095. Dolezalek, H. (1976) Draft of a letter to the editor of "Science". *Manuscript*, pp. 1–4. => HT0309
1096. Dolezalek, H. (1977) Some hints for experiments concerning atmospheric electric influences on biological systems. *Manuscript*, pp. 1–26. => HT0308
1097. Dolezalek, H. (1980) Discussion of a new system of nomenclature for atmospheric electricity? Appendix I. *Manuscript. Submitted to The VIIth International Conf. on Atmospheric Electricity, Manchester*, pp. -. => HT0471
1098. Dolezalek, H. (1985) Part A. Remarks on the physics of atmospheric ions (natural and artificial). *International Journal of Biometeorology* **29**, 211–221. => HT0513
1099. Dolezalek, H. (1985) Remarks on the physics of atmospheric ions (natural and artificial). *Int. J. Biometeorol.* **29**, 211–221. => AEL3324
1100. Dolezalek, H. (1986) Atmospheric electricity, ions, and pseudoscience. *The Skeptical Inquirer* **11**, 56–60. => HT0515
1101. Dolezalek, H. (1988) Atmospheric electrical system science. *Submitted to the Eighth International Conference on Atmospheric Electricity, Uppsala, Sweden, 12 to 17 June 1968*, pp. 1–7. => HT0510
1102. Dolezalek, H. (1988) Discussion on the Earth's net electric charge. *Meteorology and Atmospheric Physics* **38**, 240–245. => HT0366
1103. Dolezalek, H. (1989) *Gedanken zur geistig-politischen Lage Nordamerikas im 18. Jahrhundert.* Alexandria. => HT0486
1104. Dolezalek, H. (1990) Arbeitslos und Arbeitslust im Sozialismus. *Epoche* **14**, 85–86. => HT0483
1105. Dolezalek, H. (1990) Das unaufhebbare Recht auf Freiheit und die geistigen Grundlagen der Demokratie. *Epoche* **14**, 89–92. => HT0484
1106. Dolezalek, H. (1990) Menschenrechte - Freiheit - Eigentum. Die geistesgeschichtlichen Wurzeln. *Epoche* **14**, 72–75. => HT0483
1107. Dolezalek, H. (1991) Appendix I. Notes about atmospheric electricity global circuit stations in Europe. *The world data centre for atmospheric electricity and global change monitoring*, pp. -. => HT0463
1108. Dolezalek, H. (1991) Appendix II. Points for station descriptions and histories. *The world data centre for atmospheric electricity and global change monitoring*, pp. -. => HT0463
1109. Dolezalek, H. (1991) Appendix III. Selection of data for collecting or application (or the "fair-weather hour syndrome"). *The world data centre for atmospheric electricity and global change monitoring*, pp. -. => HT0463



1110. Dolezalek, H. (1991) Appendix IV. Suggestion for a pioneer station on global circuit atmospheric electricity measurements centered at world data center/atm. electr. *The world data centre for atmospheric electricity and global change monitoring*, pp. –. => HT0463
1111. Dolezalek, H. (1991) Discussion of an atmospheric electricity ten-year program. *Publs. Inst. Geophys. Pol. Acad. Sci.* **D35**, 17–20. => HT1185
1112. Dolezalek, H. (1991) Sicherheit durch Demokratie. *Epoche* **15**, 94–95. => HT0485
1113. Dolezalek, H. (1995) On the holocaust and German attitudes. *Köne. Völjatrükk* 1–24. => HT0963
1114. Dolezalek, H. (1999) Reinhold Reiter 1920–1998. *BAMS* **80**, 1927–1931. => HT1589
1115. Dolezalek, H. (Comp.) (1989) *Discussion of an Atmospheric Electricity Ten-Year Program. Technical Report No.D-2, Contract Nonr N00014-66-C0303, AD 692092.* => HT0514
1116. Dolezalek, H. (Comp.) (1991) *The world data centre atmospheric electricity and global change monitoring.* => HT0463
1117. Dolezalek, H. and Dolezalek, L. (1995) The theory of democracy. A calling for ideas for an international seminar. *Völjatrükk* 1–36. => HT0964
1118. Dolezalek, H. and Oster, A.L. (1966) Ion-spektrometer for the terrestrial mesosphere and the atmosphere of Mars. *Zeitschrift für Geophysik* **32**, 163–172. => HT0004
1119. Dolezalek, H. and Oster, A.L. (1966) Mobility measurements in the upper atmosphere. *J. de Recherches Atmospheriques* 407–409. => HT0156
1120. Dolezalek, H. und Oster, A.L. (1966) Messung des Beweglichkeitsspektrums von Ionen in der oberen Troposphäre und Stratosphäre. *Die Naturwissenschaften* **53**, 357–358. => HT0001
1121. Dolezalek, H., Reiter, R. and Kröling, P. (1985) Basic comments on the physics, occurrence in the atmosphere, and possible biological effects of air ions. *International Journal of Biometeorology* **29**, 207–242. => HT0513
1122. Dolezalek, H., Tammet, H., Latham, J. and Uman, M.A. (1994) Atmospheric electricity. *CRC Handbook of Chemistry and Physics*, CRC Press, Boca Raton, **74**, pp. 14.23–14.30. => AEL0979
1123. Dolinskii, Yu.M. and Klimenko, B.V. (1969) Opredelenie variatsionnykh metodami provodimostei mezhdru polyusami s osevoi simmetriei (in Russian). *Elektrichestvo* 87–88. => HT0215
1124. Dombrowski, N. and Neale, N.D. (1974) Formation of streams of uniform drops from fan spray pressure nozzles. *J. Aerosol Sci.* **5**, 551–555. => AEL0079
1125. Dommen, J., Prévôt, A.S.H., Hering, A.M., Staffelbach, T., Kok, G.L. and Schillawski, R.D. (1999) Photochemical production and aging of an urban air mass. *J. Geophys. Res. Atmospheres* **104**, 5493–5506. => AEL2782
1126. Donahue, N.M. (2003) Reaction barriers: Origin and evolution. *Chemical Reviews* **103**, 4593–4604. => AEL4052
1127. Donaldson, D.J., Tuck, A.F. and Vaida, V. (2003) Atmospheric photochemistry via vibrational overtone absorption. *Chemical Reviews* **103**, 4717–4729. => AEL4055
1128. Donnell, E.A., Fish, D.J., Dicks, E.M. and Thorpe, A.J. (2001) Mechanisms for pollutant transport between the boundary layer and the free troposphere. *J. Geophys. Res. Atmospheres* **106**, 7847–7856. => AEL3430
1129. Dorko, W.D. and Hughes, E.E. (Comp.) (1987) *Special calibration systems for reactive gases and other difficult measurements.* Philadelphia. => AEL0424

1130. Dorn, W., Dethloff, K., Rinke, A. and Botzet, M. (2000) Distinct circulation states of the Arctic atmosphere induced by natural climate variability. *J. Geophys. Res. Atmospheres* **105**, 29659–29668. => AEL3292
1131. Dorofejuk, A.A. (1971) Algoritmy avtomaticheskoi klassifikatsii (obzor literatury) (in Russian). *Sbornik Trudov Instituta Problem Upravleniya*, **1**, pp. 15–16. => HT0220
1132. Dorrian, M.-D. and Chilton, D. (1997) Particle size distributions of radioactive aerosols in the environment. *Radiat. Prot. Dosimetry* **69**, 117–132. => HT1206
1133. Doskey, P.V. and Andren, A.W. (1986) Particulate- and vapor-phase n-alkanes in the northern Wisconsin atmosphere. *Atmos. Environ.* **20**, 1735–1744. => AEL1103
1134. Dotan, I., Albritton, D.L., Lindinger, W. and Pahl, M. (1976) Mobilities of  $\text{CO}_2^+$ ,  $\text{N}_2\text{H}^+$ ,  $\text{H}_3\text{O}^+\cdot\text{H}_2\text{O}$ , and  $\text{H}_3\text{O}^+\cdot(\text{H}_2\text{O})_2$  ions in  $\text{N}_2$ . *The Journal of Chemical Physics* **65**, 5028–5030. => AEL1148
1135. Dötsch, E. und Friedrichs, H.-A. (1970) Zur Theorie der elektrischen Aufladung eines Aerosols. *Staub - Reinhalt. Luft* **30**, 156–159. => AEL0080
1136. Dötsch, E., Friedrichs, H.-A., Knacke, O. und Krahe, J. (1969) Zur Kinetik der elektrischen Aufladung eines Aerosols. *Staub - Reinhalt. Luft* **29**, 282–286. => AEL0081
1137. Douglass, A.R., Weaver, C.J., Rood, R.B. and Coy, L. (1996) A three-dimensional simulation of the ozone annual cycle using winds from a data assimilation system. *J. Geophys. Res.* **101**, 1463–1474. => AEL1813
1138. Dowling, J.J. and Haughey, C.J. (1922) On the electrification of phosphorus smoke nuclei. *Proc. Roy. Irish Acad.* **A36**, 50–59. => HT-F071
1139. Doyle, G.J. (1961) Self-nucleation in the sulfuric acid-water system. *The Journal of Chemical Physics* **35**, 795–799. => AEL1288
1140. Drdla, K., Pueschel, R.F., Strawa, A.W., Cohen, R.C. and Hanisco, T.F. (1999) Microphysics and chemistry of sulphate aerosols at warm stratospheric temperatures. *J. Geophys. Res. Atmospheres* **104**, 26737–26751. => AEL3031
1141. Drozin, V.G. (1955) The electrical dispersion of liquids as aerosols. *J. Colloid Sci.* **10**, 158–164. => AEL0082
1142. Drozin, V.G. and La Mer, V.K. (1959) The determination of the particle size distribution of aerosols by precipitation of charged particles. *J. Colloid Sci.* **14**, 74–90. => AEL0083
1143. Drozin, V.G. and La Mer, V.K. (1959) The determination of the particle size distribution of aerosols by precipitation of charged particles. *J. Colloid Sci.* **14**, 74–90. => HT-F045
1144. Du Q., Superfine, R., Freisz, E. and Shen, Y.R. (1993) Vibrational spectroscopy of water at the vapor/water interface. *Phys. Rev. Lett.* **70**, 2313–2316. => AEL3861
1145. Dua, S.K. and Hopke, P.K. (1996) Hygroscopic growth of assorted indoor aerosols. *Aerosol Sci. Technol.* **24**, 151–160. => AEL1508
1146. Dua, S.K. and Kotrappa, P. (1976) Calculation of equilibrium electrostatic charge distribution on aerosols of given size distribution. *Government of India Atomic Energy Commission* 1–16. => AEL0084
1147. Dua, S.K., Kotrappa, P. and Gupta, P.C. (1983) Influence of relative humidity on the charged fraction of decay products of radon and thoron. *Health Phys.* **45**, 152–157. => AEL1212
1148. Dubovik, V.M., Markovski, B.L., Soroko, L.M. and Strizh, T.A. (1971) Opređenje informacionnoi oblasti spektra pri analize eksperimentalnykh dannykh metodom fure (in Russian). *Soobshcheniya Obedinennogo Instituta Yadernykh Issledovaniy* 3–17. => HT0277

1149. Dubovik, V.M., Markovski, B.L., Soroko, L.M. and Strizh, T.A. (1971) Opredelenie breitvignerovskikh shirin rezonansov s pomoshchyu algoritma Fure (in Russian). *Soobcheniya OIYaI R2-5659*, Dubna, pp. 3–23. => HT0338
1150. Dubrovský, M. (2000) Analysis of UV-B irradiances measured simultaneously at two stations in the Czech Republic. *J. Geophys. Res. Atmospheres* **105**, 4907–4913. => AEL3098
1151. Dubtsov, S.N. and Baklanov, A.M. (1996) Design and testing of a photochemical aerosol generator for calibrating aerosol measuring instruments in the submicrometer region. *Aerosol Sci. Technol.* **25**, 67–72. => AEL1827
1152. Dubtsov, S.N., Baklanov, A.M., Mäkelä, J.M. and Augustin, J. Verification of the performance of the photochemical aerosol generator at 2-5 nm. *Käsikiri* 1–9. => HT0968
1153. Duce, R.A., Mohnen, V.A., Zimmerman, P.R., Grosjean, D., Cautreels, W., Chatfield, R., Jaenicke, R., Ogren, J.A., Pellizzari, E.D. and Wallace, G.T. (1983) Organic material in the global troposphere. *Rev. Geophys. Space Phys.* **21**, 921–952. => AEL1455
1154. Duft, D., Achtzehn, T., Müller, R., Huber, B.A. and Leisner, T. (2003) Rayleigh jets from levitated microdroplets. *Nature* **421**, 128. => HT1573
1155. Duke, B.J. and Gibb, T.C. (1967) Numerical estimation of Mössbauer spectra parameters. *J.Chem.Soc.* 1478–1483. => HT0314
1156. Dukowicz, J.K. (1970) Mobility of  $\text{NO}^+$  ions in air. *AIAA Journal* **8**, 827–829. => AEL0085
1157. Dulzon, A.A. and Rakov, V.A. (1990) Spatial inhomogeneity in thunderstorm activity: Some possible explanations. *20th International Conference on Lightning Protection*, **1.6P**, pp. 1–3. => HT0535
1158. Duncan, B.N. and Chameides, W.L. (1998) Effects of urban emission control strategies on the export of ozone and ozone precursors from the urban atmosphere to the troposphere. *J. Geophys. Res. Atmospheres* **103**, 28159–28179. => AEL2816
1159. Dunker, A.M. (1986) The reduction and parameterization of chemical mechanisms for inclusion in atmospheric reaction-transport models. *Atmos. Environ.* **20**, 479–486. => AEL0581
1160. Dunkin, D.B., Fehsenfeld, F.C., Schmeltekopf, A.L. and Ferguson, E.E. (1968) Ion-molecule reaction studies from 300 to 600 K in a temperature-controlled flowing afterglow system. *J. Chem. Phys.* **49**, 1365–1371. => AEL0613
1161. Dunning, W.J. I. Nucleation; homogeneous and heterogeneous. Nucleation processes and aerosol formation. pp. 9–18. => AEL0761
1162. Dunsikii, V.F. and Kitaev, A.V. (1960) Osazhdenie unipolyarno zaryazhennogo aerolya v zakrytom pomeshchenii (in Russian). *Akademiya Nauk Soyuz Ssr Kolloidnyi Zhurnal* **22**, 159–167. => HT0078
1163. Dupuy, M.J. (1958) Effet de couronne et champs ionises. *Revue Generale de L`electricite* **67**, 85–104. => HT-F019
1164. Dutton, J.F. and Barron, E.J. (2000) Intra-annual and interannual ensemble forcing of a regional climate model. *J. Geophys. Res. Atmospheres* **105**, 29523–29538. => AEL3291
1165. Dvortsov, V.L., Geller, M.A., Solomon, S., Schauffler, S.M., Atlas, E.L. and Blake, D.R. (1999) Rethinking reactive halogen budgets in the midlatitude lower stratosphere. *Geophys. Res. Lett.* **26**, 1699–1702. => AEL2898
1166. Dynarowicz, P., Paluch, M. and Szlachcic, D. (1990) A study on the interactions between chloral hydrate and ethyl alcohol at the water/air surface. *J. Coll. Interf. Sci.* **135**, 147–153. => AEL1012
1167. Dzhidic, I. and Kebarle, P. (1970) Hydration of the alkali ions in the gas phase. Enthalpies and entropies of reactions  $\text{M}^+(\text{H}_2\text{O})_{n-1} + \text{H}_2\text{O} = \text{M}^+(\text{H}_2\text{O})_n$ . *The J. Phys. Chem.* **74**, 1466–1474. => AEL0742

1168. Dzidic, I., Carroll, D.I., Stillwell, R.N. and Horning, E.C. (1976) "Comparison of positive ions formed in nickel-63 and corona discharge ion sources using nitrogen, argon, isobutane, ammonia and nitric oxide as reagents in atmospheric pressure ionization mass spectrometry. *Analytical Chemistry* **48**, 1763–1768. => AEL0577
1169. Dzidic, I., Carroll, D.I., Stillwell, R.N., Horning, M.G. and Horning, E.C. (1978) Studies of negative ions by atmospheric pressure ionization mass spectrometry. *Advances in Mass Spectrometry* **7B**, 359–366. => AEL0512
1170. Easter, R.C. and Peters, L.K. (1994) Binary homogeneous nucleation: Temperature and relative humidity fluctuations, nonlinearity, and aspects of new particle production in the atmosphere. *J. Applied Meteorol.* **33**, 775–784. => AEL2344
1171. Eatough, D.J., Eatough, N.L., Obeidi, F., Pang, Y., Modey, W. and Long, R. (2001) Continuous determination of PM<sub>2.5</sub> mass, including semi-volatile species. *Aerosol Sci. Technol.* **34**, 1–8. => AEL3357
1172. Eckert, E.R.G. (1957) *Vvedenie v teoriyu teplo- I massoobmena*. Gosenergoizdat, M.-L. => HT1585
1173. Edgal, U.F., Boukahil, A. and Huber, D.L. (1995) Equation of state for classical hard-particlelike fluids. *J. Chem. Phys.* **103**, 5027–5030. => AEL1496
1174. Edgerton, S.A., Kenny, D.V. and Joseph, D.W. (1989) Determination of amines in indoor air from steam humidification. *Environ. Sci. Technol.* **23**, 484–488. => AEL0917
1175. Edneral, V.F., Kryukov, A.P. and Rodionov, A.Ya. (1983) *Yazyk analiticheskikh vychislenii REDUCE* (in Russian). Izdatel'stvo Moskovskogo universiteta,. => HT1211
1176. Edney, E.O., Driscoll, D.J., Weathers, W.S., Kleindienst, T.E., Conner, T.S., McIver, C.D. and Li, W. (2001) Formation of polyketones in irradiated toluene/propylene/NO<sub>x</sub>air mixtures. *Aerosol Sci. Technol.* **35**, 998–1008. => AEL3589
1177. Eerme, K., Veismann, U. and Koppel, R. (2002) Estonian total ozone climatology. *Annales Geophysicae* **20**, 247–255. => AEL3973
1178. Eerme, K., Veismann, U. and Koppel, R. (2002) Variations of erythemal ultraviolet irradiance and dose at Tartu/Tõravere, Estonia. *Climate Research* **22**, 245–253. => AEL3974
1179. Eerme, K., Veismann, U. and Koppel, R. (2003) Comparison of ground-level-measured and satellite-derived erythemal ultraviolet doses in Estonia. *Proc. Estonian Acad. Sci. Phys. Math.* **52**, 221–235. => AEL3975
1180. Ehara, K., Hagwood, C. and Coakley, K.J. (1996) Novel method to classify aerosol particles according to their mass-to-charge ratio - aerosol particle mass analyser. *J. Aerosol Sci.* **27**, 217–234. => HT1013
1181. Ehara, K., Mulholland, G.W. and Hagwood, R.C. (2000) Determination of arbitrary moments of aerosol size distributions from measurements with a differential mobility analyzer. *Aerosol Sci. Technol.* **32**, 434–452. => AEL3336
1182. Ehhalt, D.H. and Rohrer, F. (2000) Dependence of the OH concentration on solar UV. *J. Geophys. Res. Atmospheres* **105**, 3565–3571. => AEL3076
1183. Ehhalt, D.H., Rohrer, F., Kraus, A.B., Prather, M.J., Blake, D.R. and Rowland, F.S. (1997) On the significance of regional trace gas distributions as derived from aircraft campaigns in PEM-West A and B. *J. Geophys. Res. Atmospheres* **102**, 28333–28351. => AEL2218
1184. Eiber, H. (1963) Über das Verhalten negativer und positiver Ionen in reinem Sauerstoff und in Sauerstoff-Wasserdampfgemischen. *Z.für Angewandte Physik* **15**, 103–112. => HT0222
1185. Eiceman, G.A. (1990) Sensing of hazardous airborne vapors by ion mobility spectrometry. *Abstr. of Papers of the Amer. Chem. Soc.* **199**, \4Apr, N.46-. => AEL1351

1186. Eiceman, G.A., Snyder, A.P. and Blyth, D.A. (1990) Monitoring of airborne organic vapors using ion mobility spectrometry. *Intern. J. Environ. Anal. Chem.* **38**, 415–425. => AEL1346
1187. Eiceman, G.A., Snyder, A.P. and Blyth, D.A. (1992) Ch. 2. Continuous atmospheric monitoring of organic vapors by ion mobility spectrometry. *Instrumentation For Trace Organic Monitoring*, Lewis Publishers, Boca Raton, pp. 13–25. => AEL1017
1188. Eiceman, G.A., Vandiver, V.J., Chen, T. and Rico-Martinez, G. (1989) Electrical parameters in drift tubes for ion mobility spectrometry. *Anal. Instrum.* **18**, 227–242. => AEL0624
1189. Eichborn, J.L.v. (1949) Physikalische und physiologisch-biologische Effekte und Anwendungsmöglichkeiten unipolar geladener wässriger Aerosole. *Kolloid-Zeitschrift* **115**, 169–184. => AEL0086
1190. Eichler, T., de Juan, L. and Fernandez de la Mora, J. (1998) Improvement of the resolution of TSI's 3071 DMA via redesigned sheath air and aerosol inlets. *Aerosol Sci. Technol.* **29**, 39–49. => AEL2846
1191. Eichmeier, J. (1967) Beweglichkeitsspektren natürlicher atmosphärischer Ionen im Klein- und Mittelionenberg. *Z. angew. Physik* **23**, 256–260. => AEL3166
1192. Eichmeier, J. (1967) Beweglichkeitsspektren natürlicher atmosphärischer Ionen im Klein- und Mittelionenberg. *Zeitschrift für angewandte Physik* **23**, 256–260. => HT0460
1193. Eichmeier, J. (1967) Beweglichkeitsspektren natürlicher atmosphärischer Ionen in Klein- und Mittelionenberg. *Z. angew. Phys.* **23**, 256–260. => HT-F075
1194. Eichmeier, J. (1968) Beitrag zum Problem der Struktur der atmosphärischen Kleinionen. *Zeitschrift für Geophysik* **34**, 297–322. => HT0457
1195. Eichmeier, J. (1968) Beitrag zum Problem der Struktur der atmosphärischen Kleinionen. *Zeitschrift für Geophysik* **34**, 297–322. => AEL3171
1196. Eichmeier, J. (1968) Beitrag zum Problem der Struktur der atmosphärischen Kleinionen. *Z. Geophys.* **34**, 297–322. => HT-F076
1197. Eichmeier, J. (1968) Die theoretischen Grundlagen und das Auflösungsvermögen von Aspirations-Beweglichkeitsspektrographen für atmosphärische Ionen. *Zeitschrift für Geophysik* **34**, 69–86. => AEL3325
1198. Eichmeier, J. (1968) Die theoretischen Grundlagen und das Auflösungsvermögen von Aspiration - Beweglichkeitsspektrographen für atmosphärische Ionen. *Z. Geophys.* **34**, 69–86. => HT-F078
1199. Eichmeier, J. (1969) Das Verhalten der natürlichen Klein- und Grossionen — konzentration in geschlossenen Räumen. *Int. J. Biometeorol.* **13**, 51–60. => AEL3164
1200. Eichmeier, J. (1969) Das Verhalten der natürlichen Klein- und Grossionenkonzentration in geschlossenen Räumen. *Int. J. Biometeor.* **13**, 51–60. => HT0459
1201. Eichmeier, J. (1969) Grenzbeweglichkeiten und Auflösungsvermögen eines Ionenbeweglichkeitsspektrometers mit plattenförmigem Aspirationskondensator. *Z.für Geophysik* **35**, 413–417. => HT0227
1202. Eichmeier, J. (1969) Grenzbeweglichkeiten und Auflösungsvermögen eines Ionenbeweglichkeitsspektrometers mit plattenförmigem Aspirationskondensator. *Zeitschrift für Geophysik* **35**, 413–417. => HT0455
1203. Eichmeier, J. (1970) Ionenbahnen in einem platten- und zylinderförmigen Aspirationskondensator bei ebenem bzw. parabolischem Luftgeschwindigkeitsprofil. *Z.für Geophysik* **36**, 753–762. => HT0228

1204. Eichmeier, J. (1970) Ionenbahnen in einem platten- und zylinderförmigen Aspirationskondensator bei ebenem bzw. parabolischem Luftgeschwindigkeitsprofil. *Zeitschrift für Geophysik* **36**, 753–762. => HT0450
1205. Eichmeier, J. (1971) Die Erzeugung von Kleinionen, Großionen und Kondensationskernen durch verschiedene technische Teilchenquellen in einem abgeschlossenen Raum. *Archiv für Meteorologie Geophysik und Bioklimatologie Ser. B* **19**, 69–86. => AEL3174
1206. Eichmeier, J. (1971) Die Erzeugung von Kleinionen, Grossionen und Kondensationskernen durch verschiedene technische Teilchenquellen in einem abgeschlossenen Raum. *Arch. Met. Geoph. Biokl. Ser. B* **19**, 69–86. => HT0449
1207. Eichmeier, J. (1972) Vergleich der Beweglichkeitsspektren von "natürlichen" Luftionen und der verwendeten Meßverfahren (Comparison of mobility spectra of "natural" air ions and of the methods of measurement). *Zeitschrift für Geophysik* **38**, 915–923. => AEL3533
1208. Eichmeier, J. (1972) Vergleich der Beweglichkeitsspektren von "natürlichen" Luftionen und der verwendeten Messverfahren. *Z.für Geophysik* **38**, 915–923. => HT0232
1209. Eichmeier, J. (1972) Vergleich der Beweglichkeitsspektren von "natürlichen" Luftionen und der verwendeten Messverfahren. *Zeitschrift für Geophysik* **38**, 915–923. => HT0453
1210. Eichmeier, J. (1986) Die theoretischen Grundlagen und das Auflösungsvermögen von Aspirations-Beweglichkeitsspektrographen für atmosphärische Ionen. *Zeitschrift für Geophysik* **34**, 69–86. => HT0458
1211. Eichmeier, J. und Braun, W. (1972) Beweglichkeitsspektrometrie atmosphärischer Ionen. *Meteorol. Rdsch.* **25**, 14–19. => AEL3541
1212. Eichmeier, J. und Braun, W. (1972) Beweglichkeitsspektrometrie atmosphärischer Ionen. *Meteorol.Rdsch.* **25**, 14–19. => HT0229
1213. Eichmeier, J. und Braun, W. (1972) Beweglichkeitsspektrometrie atmosphärischer Ionen. *Meteorologische Rundschau* **25**, 14–19. => HT0462
1214. Eichmeier, J. und Herden, P. (1968) Beweglichkeitsspektren künstlich erzeugter atmosphärischer Ionen im Klein- und Mittelionenbereich. *Z. angew. Physik* **24**, 360–364. => AEL3165
1215. Eichmeier, J. und Herden, P. (1968) Beweglichkeitsspektren künstlich erzeugter atmosphärischer Ionen im Klein- und Mittelionenbereich. *Zeitschrift für angewandte Physik* **24**, 360–364. => HT0461
1216. Eichmeier, J. und Scholler, P. (1969) Über einen elektronischen Kondensationskernzähler mit Nockenwellensteuerung und MOSFET-Messwertspeicherschaltung. *Archiv für technisches Messen V* **656**, 75–80. => HT0456
1217. Eichmeier, J., Nützel, G. und Braun, V. (1970) Messung des Beweglichkeitsspektrums atmosphärischer Ionen mit einem modifizierbaren Aspirationskondensator. *Archiv für technisches Messen* **656**, 251–254. => AEL3392
1218. Eichmeier, J., Nützel, G. und Braun, V. (1970) Messung des Beweglichkeitsspektrums atmosphärischer Ionen mit einem modifizierbaren Aspirationskondensator. *ATM V* **656**, 251–254. => HT0230
1219. Eichmeier, J., Nützel, G. und Braun, V. (1970) Messung des Beweglichkeitsspektrums atmosphärischer Ionen mit einem modifizierbaren Aspirationskondensator. *(ATM) Archiv für technisches Messen V* **656**, 251–254. => HT0454
1220. Eichmeier, J., Ryssel, H. und Arm, R. (1972) Messung der Kleinionen-, Großionen- und Kernkonzentration in unterirdisch gelegenen klimatisierten Räumen. *Archiv für Meteorologie Geophysik und Bioklimatologie Ser. B* **20**, 89–99. => AEL3173

1221. Eichmeier, J., Ryssel, H. und Arm, R. (1972) Messung der Kleinionen-, Grossionen- und Kernkonzentration in unterirdisch gelegenen klimatisierten Räumen. *Arch. Met. Geoph. Biokl. Ser. B* **20**, 89–99. => HT0451
1222. Eichmeier, J.A. and von Berckheim, C.Ph. (1979) Measurement of atmospheric-electric field strength and air-ion concentration at varying distances from the coast with a mobile measuring station. *Archiv für Meteorologie Geophysik und Bioklimatologie Ser. A* **28**, 107–109. => AEL3172
1223. Eichmeier, J.A. and von Berckheim, C.Ph. (1979) Measurement of atmospheric-electric field strength and air-ion concentration at varying distances from the coast with a mobile measuring station. *Arch. Met. Geoph. Biokl. Ser. A* **28**, 107–109. => HT0452
1224. Eiguren-Fernandez, A., Miguel, A.H. and Jaques, P.A. (2003) Evaluation of a denuder-MOUDI-PUF sampling system to measure the size distribution of semi-volatile polycyclic aromatic hydrocarbons in the atmosphere. *Aerosol Sci. Technol.* **37**, 201–209. => AEL3763
1225. Eisele, F. and Bradshaw, J.D. (1993) The elusive hydroxyl radical. Measuring OH in the atmosphere. *Anal. Chem.* **65**, 972A–939A. => AEL1193
1226. Eisele, F.L. (1983) Direct tropospheric ion sampling and mass identification. *Int. J. Mass Spectrometry and Ion Processes* **54**, 119–126. => AEL0619
1227. Eisele, F.L. (1986) Identification of tropospheric ions. *J. Geophys. Res.* **91**, 7897–7906. => AEL0605
1228. Eisele, F.L. (1988) First tandem mass spectrometric measurement of tropospheric ions. *J. Geophys. Res.* **93**, 716–724. => AEL1139
1229. Eisele, F.L. (1989) Natural and anthropogenic negative ions in the troposphere. *J. Geophys. Res.* **94**, 2183–2196. => AEL0480
1230. Eisele, F.L. (1989) Natural and anthropogenic negative ions in the troposphere. *J. Geophys. Res.* **94**, 2183–2196. => AEL1342
1231. Eisele, F.L. (1989) Natural and anthropogenic negative ions in the troposphere. *J. Geophys. Res.* **94**, 2183–2196. => HT0821
1232. Eisele, F.L. (1989) Natural and transmission line produced positive ions. *J. Geophys. Res.* **94**, 6309–6318. => AEL1343
1233. Eisele, F.L. (1989) Natural and transmission line produced positive ions. *J. Geophys. Res.* **94**, 6309–6318. => HT0820
1234. Eisele, F.L. and Hanson, D.R. (2000) First measurement of pre-nucleation molecular clusters. *J. Phys. Chem. A* **104**, 830–836. => AEL3326
1235. Eisele, F.L. and McDaniel, E.W. (1986) Mass spectrometric study of tropospheric ions in the northeastern and southwestern United States. *J. Geophys. Res.* **91**, 5183–5188. => AEL0560
1236. Eisele, F.L. and Tanner, D.J. (1991) Ion-assisted tropospheric OH measurements. *J. Geophys. Res.* **96**, 9295–9308. => AEL0977
1237. Eisele, F.L. and Tanner, D.J. (1993) Measurement of the gas phase concentration of H<sub>2</sub>SO<sub>4</sub> and methane sulfonic acid and estimates of H<sub>2</sub>SO<sub>4</sub> production and loss in the atmosphere. *J. Geophys. Res.* **98**, 9001–9010. => AEL0865
1238. Eisele, F.L., Mount, G.H., Tanner, D., Jefferson, A., Shetter, R., Harder, J.W. and Williams, E.J. (1997) Understanding the production and interconversion of the hydroxyl radical during the Tropospheric OH Photochemistry Experiment. *J. Geophys. Res. Atmospheres* **102**, 6457–6465. => AEL2329

1239. Eisele, F.L., Tanner, D.J., Cantrell, C.A. and Calvert, J.G. (1996) Measurements and steady state calculations of OH concentrations at Mauna Loa Observatory. *J. Geophys. Res.* **101**, 14665–14679. => AEL1895
1240. Eisner, H.S., Quince, B.W. and Slack, C. (1960) The stabilization of water mists by insoluble monolayers. *Discuss. Faraday Soc.* 86–95. => AEL0087
1241. El Golli, S., Bricard, J., Turpin, P.Y. and Arnaud, G. (1972) Etude de l'évaporation de gouttelettes liquides volatiles en suspension dans un écoulement turbulent. *J. Aerosol Sci.* **3**, 255–274. => AEL0088
1242. Elbern, H. and Schmidt, H. (2001) Ozone episode analysis by four-dimensional variational chemistry data assimilation. *J. Geophys. Res. Atmospheres* **106**, 3569–3590. => AEL3414
1243. *Electrical aerosol detector.* => HT-F095
1244. *Electrical aerosol size analyzer. 3030 TSI.* => HT-F095
1245. *Electrostatic classifier.* => HT-F095
1246. Eliassen, A. (1978) The life and science of Tor Bergeron. Tor Bergeron, 1891-1977. *Bulletin of the American Meteorological Society* **59**, 387–389. => HT0010
1247. Ellerby, H.M. and Reiss, H. (1992) Toward a molecular theory of vapor-phase nucleation. II. Fundamental treatment of the cluster distribution. *J. Chem. Phys.* **97**, 5766–5772. => AEL1066
1248. Ellerby, H.M., Weakliem, C.L. and Reiss, H. (1991) Toward a molecular theory of vapor-phase nucleation. I. Identification of the average embryo. *J. Chem. Phys.* **95**, 9209–9218. => AEL1313
1249. Ellett, W.H., Fabrikant, J.I. and Cooper, R.D. (1988) BEIR IV Committee estimates of lung cancer mortality associated with exposure to radon progeny. *Radiation Protection Dosimetry* **24**, 445–449. => AEL2516
1250. Ellis, H.W., McDaniel, E.W., Albritton, D.L., Viehland, L.A., Lin, S.L. and Mason, E.A. (1978) Transport properties of gaseous ions over a wide energy range. Part II. *Atomic Data and Nuclear Data Tables* **22**, 179–217. => AEL3198
1251. Ellis, H.W., Pai, R.Y., McDaniel, E.W., Mason, E.A. and Viehland, L.A. (1976) Transport properties of gaseous ions over a wide energy range. *Atomic Data and Nuclear Data Tables* **17**, 177–210. => AEL3197
1252. Ellis, H.W., Thackston, M.G., McDaniel, E.W. and Mason, E.A. (1984) Transport properties of gaseous ions over a wide energy range. Part III. *Atomic Data and Nuclear Data Tables* **31**, 113–151. => AEL3199
1253. Ellison, G.B., Tuck, A.F. and Vaida, V. (1999) Atmospheric processing of organic aerosols. *J. Geophys. Res. Atmospheres* **104**, 11633–11641. => AEL2977
1254. El-Shall, M.S., Rabeony, M.H. and Reiss, H. (1989) Photoinduced nucleation in supersaturated isoprene vapor: the mechanism of photopolymerization. *J. Chem. Phys.* **91**, 7925–7935. => AEL0800
1255. Emardson, T.R., Elgered, G. and Johansson, J.M. (1998) Three months of continuous monitoring of atmospheric water vapor with a network of Global Positioning System receivers. *J. Geophys. Res. Atmospheres* **103**, 1807–1820. => AEL2095
1256. Emersleben, O. (1959) Die elektrostatische Energie einer Raumladung. *Hochfrequenztechnik und Elektroakustik* **68**, 111–118. => AEL0089
1257. Emi, H., Shintani, E., Namiki, N. and Otani, Y. (1998) Measurement of the ions mobility distribution at a new ion mobility analyzer with separation in axial direction to the flow. *J. Aerosol Sci.* **29**, S1247–S1248. => HT1364



1258. Endo, Y., Fukushima, N., Tashiro, S. and Kousaka, Y. (1997) Performance of a scanning differential mobility analyzer. *Aerosol Sci. Technol.* **26**, 43–50. => AEL1606
1259. Enfield, C.G., Bengtsson, G. and Lindqvist, R. (1989) Influence of macromolecules on chemical transport. *Environ. Sci. Technol.* **23**, 1278–1286. => AEL0642
1260. *Engineering meteorology. Fundamentals of meteorology and their application to problems in environmental and civil engineering. Olemas lk. 88-124 ja 319-369* (1982) edited by Plate, E.J., Elsevier Sci. Publ. Comp., => HT0919
1261. Ereifej, H.N., Doster, G.J., Schmitt, J.L. and Story, J.G. (1999) Extreme sensitivity in trace element detection. *Applied Physics B* **68**, 141–144. => AEL3881
1262. Eriksson, P. (2000) Analysis and comparison of two linear regularization methods for passive atmospheric observations. *J. Geophys. Res. Atmospheres* **105**, 18157–18167. => AEL3232
1263. Erin, T. and Hendricks, C.D. (1968) Uniform charged solid particle production. *Rev. Sci. Instr.* **39**, 1269–1271. => AEL0090
1264. Erlick, C. and Frederick, J.E. (1998) Effects of aerosols on the wavelength dependence of atmospheric transmission in the ultraviolet and visible 2. Continental and urban aerosols in clear skies. *J. Geophys. Res. Atmospheres* **103**, 23275–23285. => AEL2796
1265. Erlick, C., Frederick, J.E., Saxena, V.K. and Wenny, B.N. (1998) Atmospheric transmission in the ultraviolet and visible: Aerosols in cloudy atmospheres. *J. Geophys. Res. Atmospheres* **103**, 31541–31556. => AEL2838
1266. Erlick, C., Russell, L.M. and Ramaswamy, V. (2001) A microphysics-based investigation of the radiative effects of aerosol-cloud interactions for two MAST Experiment case studies. *J. Geophys. Res. Atmospheres* **106**, 1249–1269. => AEL3300
1267. Ermakov, V.I., Bazilevskaya, G.A., Pokrevsky, P.E. and Stozhkov, Y.I. (1997) Ion balance equation in the atmosphere. *J. Geophys. Res. Atmospheres* **102**, 23413–23419. => AEL2013
1268. Escobedo, F.A. (1998) Novel pseudoensembles for simulation of multicomponent phase equilibria. *J. Chem. Phys.* **108**, 8761–8772. => AEL3149
1269. Eskinazi, D., Cichanowich, J.E., Linak, W.P. and Hall, R.E. (1989) Stationary combustion NO<sub>x</sub> control. A summary of the 1989 symposium. *J. Air Poll. Contr. Assoc.* **39**, 1131–1139. => AEL0700
1270. Esler, J.G. (2003) An integrated approach to mixing sensitivities in tropospheric chemistry: A basis for the parametrization of subgrid-scale emissions for chemistry transport models. *J. Geophys. Res. Atmospheres* **108**, 4632– doi:10.1029/2003JD003627. => AEL4068
1271. Esler, J.G., Haynes, P.H., Law, K.S., Barjat, H., Dewey, K., Kent, J., Schmitgen, S. and Brough, N. (2003) Transport and mixing between air masses in cold frontal regions during Dynamics and Chemistry of Frontal Zones (DCFZ). *J. Geophys. Res. Atmospheres* **108**, 4142– doi:10.1029/2001JD001494, 2003. => AEL3953
1272. Etheridge, D.M., Steele, L.P., Langenfels, R.L., Francey, R.J., Barnola, J.-M. and Morgan, V.I. (1996) Natural and anthropogenic changes in atmospheric CO<sub>2</sub> over the last 1000 years from air in Antarctic ice and firn. *J. Geophys. Res.* **101**, 4115–4128. => AEL1806
1273. Evangelakis, G.A., Rizos, J.P., Lagaris, I.E. and Demetropoulos, I.N. (1987) MERLIN - a portable system for multidimensional minimization. *Computer Phys. Commun.* **46**, 401–415. => AEL0611
1274. Evans, G.T. (1998) Viscosity coefficients of nematic hard particle fluids. *J. Chem. Phys.* **108**, 1089–1093. => AEL3146

1275. Evans, M.J., Jacob, D.J., Atlas, E., Cantrell, C.A., Eisele, F., Flocke, F., Fried, A., Mauldin, R.L., Ridley, B.A., Wert, B., Talbot, R., Blake, D., Heikes, B., Snow, J., Walega, J., Weinheimer, A.J. and Dibb, J. (2003) Coupled evolution of BrO<sub>x</sub>-ClO<sub>x</sub>-HO<sub>x</sub>-NO<sub>x</sub> chemistry during bromine-catalyzed ozone depletion events in the arctic boundary layer. *J. Geophys. Res. Atmospheres* **108**, 8368– doi:10.1029/2002JD002732, 2003. => AEL3958
1276. Evans, R. (1979) The nature of the liquid-vapour interface and other topics in the statistical mechanics of non-uniform, classical fluids. *Advances in Physics* **28**, 143–200. => AEL1166
1277. Evans, R.D. Engineers' guide to the elementary behavior of radon daughters. pp. 230–251. => HT1145
1278. Evdokimov, V.I., Gusev, V.A. and Popov, B.I. (1976) Mnogotsilindrovye induktsionnye izmeritelnye kamery (in Russian). *Trudy LIAP*, Leningrad, **103**, pp. 30–35. => HT0587
1279. Fabian, P., Borchers, R., Krüger, B.C. and Lal, S. (1987) CF<sub>4</sub> and C<sub>2</sub>F<sub>6</sub> in the atmosphere. *J. Geophys. Res.* **92**, 9831–9835. => AEL0532
1280. Facchini, M.C., Fuzzi, S., Zappoli, S., Andracchio, A., Gelencsér, A., Kiss, G., Krivácsy, Z., Mészáros, E., Hansson, H.-C., Alsberg, T. and Zebühr, Y. (1999) Partitioning of the organic aerosol component between fog droplets and interstitial air. *J. Geophys. Res. Atmospheres* **104**, 26821–26832. => AEL3034
1281. Faddeev, D.K. and Faddeeva, V.N. (1974) K voprosu o reshenii lineinykh algebraicheskikh sistem (in Russian). *Zh. Vychis.Mat. i Mat.Fiz.* **14**, 539–559. => HT0325
1282. Fadeev, V.V., Podolskii, A.A. and Logvinov, L.M. (1979) Eksperimentalnoe issledovanie malogabaritnogo zaryadnogo ustroystva (ZU) tipa "igla-tsilinder" (in Russian). *Trudy LIAP*, Leningrad, **1(136)**, pp. 48–53. => HT0601
1283. Fahey, D.W., Böhringer, H., Fehsenfeld, F.C. and Ferguson, E.E. (1982) Reaction rate constants for O<sub>2</sub><sup>-</sup>(H<sub>2</sub>O)<sub>n</sub> ions n=0 to 4, with O<sub>3</sub>, NO, SO<sub>2</sub>, and CO<sub>2</sub>. *J. Chem. Phys.* **76**, 1799–1805. => AEL1378
1284. Fahey, K.M. and Pandis, S.N. (2003) Size-resolved aqueous-phase atmospheric chemistry in a three-dimensional chemical transport model. *J. Geophys. Res. Atmospheres* **108**, 4690– doi:10.1029/2003JD003564. => AEL4088
1285. Fairall, C.W. and Larsen, S.E. (1984) Dry deposition, surface production and dynamics of aerosols in the marine boundary layer. *Atmos. Environ.* **18**, 69–77. => AEL1065
1286. Faith, L.E., Bustany, S.N., Hanson, D.N. and Wilke, C.R. (1967) Particle precipitation by space charge in tubular flow. *Ind. & Eng. Chem. Fundamentals* **6**, 519–526. => AEL0091
1287. Falbe-Hansen, H., Sørensen, S., Jensen, N.R., Pedersen, T. and Hjorth, J. (2000) Atmospheric gas-phase reactions of dimethylsulphoxide and dimethylsulphone with OH and NO<sub>3</sub> radicals, Cl atoms and ozone. *Atmos. Environ.* **34**, 1543–1551. => AEL3119
1288. Falconer, R.E. (1970) Air pollution and the temperature inversion. *The N.Y. State Conservationist* 1–7. => HT0162
1289. Falk, R., Hagberg, N., Mjönes, L., Nyblom, L. and Swedjemark, G.A. (1994) Standards, calibration and quality assurance of <sup>222</sup>Rn measurements in Sweden. *Nucl. Instrum. Meth Phys. Res. A* **339**, 254–263. => HT1150
1290. Falk, R., Mellander, H. and Östergren, I. (1995) A field diffusion sampler for sizing the radon progeny aerosols in indoor air. *Poster at NRE VI June 5-9, 1995, Montreal, Canada.* => HT1142
1291. Falk, R., Mellander, H., Nyblom, L. and Östergren, I. (1995) Retrospective assessment of radon exposure by measurements of <sup>210</sup>Po embedded in surfaces using an alpha track detector technique. *Käsikiri.* => HT1140

1292. Falk, R., Mellander, H., Nyblom, L. and Östergren, I. *Individual radon exposure history measured by an alpha track detector technique. Käsikiri.* => HT1156
1293. Falk, R., Möre, H. and Nyblom, L. (1992) Measurements of  $^{220}\text{Rn}$  in air using a flow-through Lucas cell and multiple time analysis of recorded pulse events. *Radiat. Protect. Dosim.* **45**, 111–113. => HT1131
1294. Falk, R., Möre, H. and Nyblom, L. *Measuring techniques for environmental levels of radon-220 in air using flow-through Lucas cell and multiple time analysis of recorded pulse events. Käsikiri.* => HT1151
1295. Fall, R. (2003) Abundant oxygenates in the atmosphere: A biochemical perspective. *Chemical Reviews* **103**, 4941–4951. => AEL4058
1296. Fall, R. and Wildermuth, M.C. (1998) Isoprene synthase: From biochemical mechanism to emission algorithm. *J. Geophys. Res. Atmospheres* **103**, 25599–25609. => AEL2809
1297. Faloon, I., Tan, D., Brune, W., Hurst, J., Barkot, D.Jr., Couch, T.L., Shepson, P., Apel, E., Riener, D., Thornberry, T., Carroll, M.A., Sillman, S., Keeler, G.J., Sagady, J., Hooper, D. and Paterson, K. (2001) Nighttime observations of anomalously high levels of hydroxyl radicals above a deciduous forest canopy. *J. Geophys. Res. Atmospheres* **106**, 24315–24333. => AEL3566
1298. Fan, B., McFarland, A.R. and Anand, N.K. (1992) Aerosol particle losses in isokinetic sampling probe inlets. *Environ. Sci. Technol.* **26**, 390–394. => AEL2137
1299. Fan, B.J., Cheng, Y.S. and Yeh, H.C. (1996) Gas collection efficiency and entrance flow effect of an annular diffusion denuder. *Aerosol Sci. Technol.* **25**, 113–120. => HT1540
1300. Fancer, G.A. (1958) A study of air flow in a large-ion chamber. *J. Atm. and Terr. Phys.* **12**, 288–292. => HT-F062
1301. Farmer, G., Barthelmie, R.J., Davies, T.D., Brimblecombe, P. and Kelly, P.M. (1987) Relationships between concentration and deposition of nitrate and sulphate in precipitation. *Nature* **328**, 787–789. => AEL0664
1302. Farrell, B.F. and Ioannou, P.J. (2000) Perturbation dynamics in atmospheric chemistry. *J. Geophys. Res. Atmospheres* **105**, 9303–9320. => AEL3203
1303. Fehsenfeld, F.C. and Ferguson, E.E. (1974) Laboratory studies of negative ion reactions with atmospheric trace constituents. *The Journal of Chemical Physics* **61**, 3181–3193. => AEL1406
1304. Fehsenfeld, F.C., Crutzen, P.J., Schmeltekopf, A.L., Howard, C.J., Albritton, D.L., Ferguson, E.E., Davidson, J.A. and Schiff, H.I. (1976) Ion chemistry of chlorine compounds in the troposphere and stratosphere. *J. Geophys. Res.* **81**, 4454–4460. => AEL0486
1305. Fehsenfeld, F.C., Howard, C.J. and Schmeltekopf, A.L. (1975) Gas phase ion chemistry of  $\text{HNO}_3$ . *J. Chem. Phys.* **63**, 2835–2841. => AEL0556
1306. Feichter, J., Sausen, R., Graßl, H. and Fiebig, M. (2003) Comment on "Control of fossil-fuel particulate black carbon and organic matter, possibly the most effective method of slowing the global warming" by M.Z. Jacobson. *J. Geophys. Res. Atmospheres* **108**, 4767–doi:10.1029/2002JD003223. => AEL4105
1307. Feingold, G. and Morley, B. (2003) Aerosol hygroscopic properties as measured by lidar and comparison with in situ measurements. *J. Geophys. Res. Atmospheres* **108**, 4327–doi:10.1029/2002JD002842, 2003. => AEL4018
1308. Feingold, G., Frost, G.J. and Ravishankara, A.R. (2002) Role of  $\text{NO}_3$  in sulfate production in the wintertime northern latitudes. *J. Geophys. Res. Atmospheres* **107**, 4640 doi:10.1029/2002JD002288–2002. => AEL3809

1309. Feingold, G., Kreidenweis, S.M. and Zhang, Y. (1998) Stratocumulus processing of gases and cloud condensation nuclei 1. Trajectory ensemble model. *J. Geophys. Res. Atmospheres* **103**, 19527–19542. => AEL2301
1310. Feingold, G., Tzivion, S. and Levin, Z. (1988) Evolution of raindrop spectra. Part I: Solution to the stochastic collection/breakup equation using the method of moments. *Journal of Atmospheric Sciences* **45**, 3387–3399. => HT0477
1311. Felder, R.M. and Arce-Medina, E. (1984) Calculation of voltage and space charge distributions in a wire-plate electrostatic precipitator. *Journal of Electrostatics* **15**, 3–13. => HT0446
1312. Fellgett, P. (1958) A propos de la theorie du spectrometre interferentiel multiplex. *Le Journal de Physique et le Radium* **19**, 187–191. => HT0263
1313. Fenn, J.B. (1993) Ion formation from charged droplets: roles of geometry, energy, and time. *J. Amer. Soc. Mass Spectrom.* **4**, 524–535. => AEL0978
1314. Ferek, R.J., Hegg, D.A., Hobbs, P.V., Durkee, P. and Nielsen, K. (1998) Measurements of ship-induced tracks in clouds off the Washington coast. *J. Geophys. Res. Atmospheres* **103**, 23199–23206. => AEL2795
1315. Ferguson, E.E. (1973) Rate constants of thermal energy binary ion-molecule reactions of aeronomic interest. *Atomic Data and Nuclear Data Tables* **12**, 159–178. => AEL0438
1316. Ferguson, E.E. and Arnold, F. (1981) Ion chemistry of the stratosphere. *Accts. Chem. Res.* **14**, 327–334. => AEL1010
1317. Ferguson, E.E., Fehsenfeld, F.C. and Schmeltekopf, A.L. (1969) Flowing afterglow measurements of ion-neutral reactions. *Adv. Atom. Mol. Phys.* **5**, 1–56. => AEL1443
1318. Ferguson, S.A., Collins, R.L., Ruthford, J. and Fukuda, M. (2003) Vertical distribution of nighttime smoke following a wildland biomass fire in boreal Alaska. *J. Geophys. Res. Atmospheres* **108**, 4743– doi:10.1029/2002JD003324. => AEL4078
1319. Ferm, M. (1979) Method for determination of atmospheric ammonia. *Atmos. Environ.* **13**, 1385–1393. => AEL0666
1320. Ferm, M. (1986) A Na<sub>2</sub>CO<sub>3</sub>-coated denuder and filter for determination of gaseous HNO<sub>3</sub> and particulate NO<sub>3</sub><sup>-</sup> in the atmosphere. *Atmos. Environ.* **20**, 1193–1201. => AEL0648
1321. Ferm, M. and Rodhe, H. (1997) Measurements of air concentrations of SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> at rural and remote sites in Asia. *J. Atmos. Chem.* **27**, 17–29. => AEL2114
1322. Ferm, M., Areskoug, H., Hanssen, J.-E., Hilbert, G. and Lättilä, H. (1988) Field intercomparison of measurement techniques for total NH<sub>4</sub><sup>~+</sup> and total NO<sub>3</sub><sup>~-</sup> in ambient air. *Atmos. Environ.* **22**, 2275–2281. => AEL0454
1323. Fernandez de la Mora, J. (1995) On the outcome of the Coulombic fission of a charged isolated group. *Subm. to J. Colloid and Interface Sci.* 1–19. => HT0962
1324. Fernandez de la Mora, J. and de Juan, L. *On the relation between size and mobility for nanometer particles. Käsikiri.* => HT1225
1325. Fernández Díaz, J.M., Rodríguez Braña, M.A., Arganza García, B. and García Nieto, P.J. (1998) A flux-based characteristics method to solve particle condensational growth. *Atmos. Environ.* **32**, 3027–3037. => AEL2706
1326. Fernández-Díaz, J.M., Rodríguez Braña, M.A., Arganza García, B., González-Pola Muñoz, C. and García Nieto, P.J. (1999) Analytic solution of the aerosol rigorous general dynamic equation without coagulation in multidimension. *Aerosol Sci. Technol.* **31**, 3–16. => AEL3113
1327. Few, A.A. and Weinheimer, A.J. (1986) Factor of 2 error in balloon-borne atmospheric conduction current measurements. *J. Geophys. Res.* **91**, 10937–10948. => AEL0092

1328. Few, A.A. and Weinheimer, A.J. (1986) Factor of 2 error in balloon-borne atmospheric conduction current measurements. *J. Geophys. Res.* **91**, 10937–10948. => HT0812
1329. Fews, A.P. and Henshaw, D.L. (1983) Alpha-particle autoradiography in CR-39: a technique for quantitative assessment of alpha-emitters in biological tissue. *Phys. Med. Biol.* **28**, 459–474. => HT1023
1330. Fews, A.P. and Henshaw, D.L. (1998) A novel aerosol detector for personal monitoring or fixed location use. *J. Aerosol Sci.* **29**, S861–S862. => HT1349
1331. Fews, A.P., Henshaw, D.L., Keitch, P.A., Close, J.J. and Wilding, R.J. (1999) Increased exposure to pollutant aerosols under high voltage power lines. *Int. J. Radiat. Biol.* **75**, 1505–1521. => HT1307
1332. Fews, A.P., Henshaw, D.L., Wilding, R.J. and Keitch, P.A. (1999) Corona ions from powerlines and increased exposure to pollutant aerosols. *Int. J. Radiat. Biol.* **75**, 1523–1531. => HT1306
1333. Fews, A.P., Holden, N.K. and Keitch, P.A. (2003) *A novel high resolution small ion spectrometer. Käsikiri.* => HT1495
1334. Fews, A.P., Lamb, M.J. and Savage, M. (1992) Thermonuclear particle imaging by maximum entropy. *Optics Communications* **94**, 259–272. => AEL3690
1335. Fiedler, F., Bischoff-Gauß, I., Kalthoff, N. and Adrian, G. (2000) Modeling of the transport and diffusion of a tracer in the Freiburg-Schauinsland area. *J. Geophys. Res. Atmospheres* **105**, 1599–1610. => AEL3070
1336. Field, D. (1972) CNDO calculations on some negative hydrocarbon ions and reactions. *J. Mol. Structure* **12**, 451–464. => AEL0093
1337. Field, R.A., Goldstone, M.E., Lester, J.N. and Perry, R. (1992) The sources and behaviour of tropospheric anthropogenic volatile hydrocarbons. *Atmospheric Environment* **26A**, 2983–2996. => AEL1199
1338. Filippov, A.V. (1992) Ionic charging of aerosol particle in the transition regime. *J. Aerosol Sci.* **23**, 87–88. => HT0641
1339. Filippov, A.V. and Burtscher, H. (1994) Bipolar charging of aerosol particles in electropositive gas of high purity. *Aerosol Sci. Technol.* **21**, 37–45. => AEL1320
1340. Filippov, A.V. and Burtscher, H. (1994) Bipolar charging of aerosol particles in electropositive gas of high purity. *Aerosol Sci. Technol.* **21**, 37–45. => HT0870
1341. Filippov, A.V. and Schmidt-Ott, A. (1992) Photoelectric current from aerosol particles. *J. Aerosol Sci.* **23**, 83–86. => HT0645
1342. Fioletov, V.E., Bodeker, G.E., Miller, A.J., McPeters, R.D. and Stolarski, R. (2002) Global and total ozone variations estimated from ground-based and satellite measurements: 1964–2000. *J. Geophys. Res. Atmospheres* **107**, 4647 doi:10.1029/2001JD001350–2002. => AEL3817
1343. Fioletov, V.E., Kerr, J.B., Hare, E.W., Labow, G.J. and McPeters, R.D. (1999) An assessment of the world ground-based total ozone network performance from the comparison with satellite data. *J. Geophys. Res. Atmospheres* **104**, 1737–1747. => AEL2754
1344. Fioletov, V.E., McArthur, L.J.B., Kerr, J.B. and Wardle, D.I. (2001) Long-term variations of UV-B irradiance over Canada estimated from Brewer observations and derived from ozone and pyranometer measurements. *J. Geophys. Res. Atmospheres* **106**, 23009–23027. => AEL3554

1345. Fiore, A.M., Jacob, D.J., Logan, J.A. and Yin, J.H. (1998) Long-term trends in ground level ozone over the contiguous United States, 1980-1995. *J. Geophys. Res. Atmospheres* **103**, 1471–1480. => AEL2084
1346. Fischer, H.-J. und Mühleisen, R. (1972) Variationen des Ionosphärenpotentials und der Weltgewittertätigkeit im 11jährigen solaren Zyklus. *Meteorol. Rdsch.* **25**, 6–10. => AEL1603
1347. Fisenne, I.M. (1993) Initial study of <sup>210</sup>Pb in indoor air. *Health Phys.* **64**, 423–425. => AEL1213
1348. Fisher, D.R. (1993) Conceptual basis for calculations of absorbed-dose distributions. Abstract. *Health Phys.* **64**, 328–329. => AEL1226
1349. Fisher, D.R., Hui, T.E. and James, A.C. (1991) Model for assessing radiation dose to epithelial cells of the human respiratory tract from radon progeny. *Radiation Protection Dosimetry* **38**, 73–80. => AEL2444
1350. Fisher, G.L. (1980) Size-related chemical and physical properties of power plant fly ash. @ GA, @ AA, pp. 203–214. => AEL0388
1351. Fisher, M.E. (1967) The theory of condensation and the critical point. *Physics* **3**, 255–283. => AEL0826
1352. Fisher, R.J., Schnetzer, G.H., Thottappillil, R., Rakov, V.A., Uman, M.A., Jordan, D.M. and Sumi, S. (1992) Some properties of triggered negative lightning flashes in Florida and Alabama. *ICAE '92. Käsikiri*, pp. 1–5. => HT0994
1353. Fishman, J. and Crutzen, P.J. (1977) A numerical study of tropospheric photochemistry using a one-dimensional model. *J. Geophys. Res.* **82**, 5897–5906. => AEL0589
1354. Fissan, H., Hummes, D., Stratmann, F., Büscher, P., Neumann, S., Pui, D.Y.H. and Chen, D. (1996) Experimental comparison of four differential mobility analyzers for nanometer aerosol measurements. *Aerosol Sci. Technol.* **24**, 1–13. => AEL1518
1355. Fister, V., von Rheinbaben, H. and Zundl, T. (1994) Analysis of the 1992 and 1993 lightning data in South Germany. *22nd International Conference On Lightning Protection*, Budapest, **R1b-06**, pp. 1–6. => HT0729
1356. Fite, W.L. and Rutherford, J.A. (1964) Negative ions in afterglows in atmospheric gases. *Disc. Faraday Soc.* **37**, 192–202. => AEL0966
1357. Fitzgerald, J.W. (1975) Approximation formulas for the equilibrium size of an aerosol particle as a function of its dry size and composition and the ambient relative humidity. *J. Appl. Meteorol.* **14**, 1044–1049. => AEL0991
1358. Fitzgerald, J.W. (1991) Marine aerosols: A review. *Atmos. Environ.* **25A**, 533–545. => AEL4123
1359. Fitzgerald, J.W., Hoppel, W.A. and Gelbard, F. (1998) A one-dimensional sectional model to simulate multicomponent aerosol dynamics in the marine boundary layer. 1. Model description. *J. Geophys. Res. Atmospheres* **103**, 16085–16102. => AEL2284
1360. Fitzgerald, J.W., Marti, J.J., Hoppel, W.A., Frick, G.M. and Gelbard, F. (1998) A one-dimensional sectional model to simulate multicomponent aerosol dynamics in the marine boundary layer. 2. Model application. *J. Geophys. Res. Atmospheres* **103**, 16103–16117. => AEL2285
1361. Fjeld, R.A., Gauntt, R.O. and McFarland, A.R. (1980) Electrical charge acquisition by submicrometer aerosol exposed to unequal bipolar ions. *AIChE Symposium Series* **76**, 158–161. => AEL0095

1362. Fjeld, R.A., Gauntt, R.O. and McFarland, A.R. (1981) Aerosol charging by bipolar ions of unequal current densities: Experiments in low electric fields. *J. Colloid Interface Sci.* **83**, 82–89. => AEL0094
1363. Fjeld, R.A., Heinsohn, R.J. and Levine, S.H. (1977) Nonequilibrium bipolar charging of aerosol particles: Theory and experiment. *J. Colloid Interface Sci.* **62**, 69–80. => AEL0096
1364. Flagan, R.C. (1998) History of electrical aerosol measurements. *Aerosol Sci. Technol.* **28**, 301–380. => AEL2883
1365. Flagan, R.C. (1998) History of electrical aerosol measurements. *Aerosol Sci. Technol.* **28**, 301–380. => HT1511
1366. Flagan, R.C. (1999) On Differential Mobility Analyzer resolution. *Aerosol Sci. Technol.* **30**, 556–570. => AEL3060
1367. Flagan, R.C. (2001) Electrical techniques (Ch. 18). In *Aerosol measurement*, edited by Baron, P.A. and Willeke, K., Wiley Interscience, pp. 537–568. => HT1505
1368. Flagan, R.C., Wang, S.-C., Yin, F., Seinfeld, J.H., Reischl, G., Winklmayr, W. and Karch, R. (1991) Electrical mobility measurements of fine-particle formation during chamber studies of atmospheric photochemical reactions. *Environ. Sci. Technol.* **25**, 883–890. => AEL1353
1369. Flagan, R.C., Wang, S.-C., Yin, F., Seinfeld, J.H., Reischl, G., Winklmayr, W. and Karch, R. (1991) Electrical mobility measurements of fine-particle formation during chamber studies of atmospheric photochemical reactions. *Environ. Sci. Technol.* **25**, 883–890. => AEL1771
1370. Flapper, S.D.P. and Vertogen, G. (1981) Equation of state for nematics having a cylindrical hard core. *Phys. Rev. A* **24**, 2089–2092. => AEL1117
1371. Flapper, S.D.P. and Vertogen, G. (1981) The equation of state for nematics revisited. *J. Chem. Phys.* **75**, 3599–3607. => AEL0839
1372. Flatoy, F. and Hov, O. (1997) NO<sub>x</sub> from lightning and the calculated chemical composition of the free troposphere. *J. Geophys. Res. Atmospheres* **102**, 21373–21381. => AEL2203
1373. Flatoy, F. and Hov, O. (1996) Three-dimensional model studies of the effect of NO<sub>x</sub> emissions from aircraft on ozone in the upper troposphere over Europe and the North Atlantic. *J. Geophys. Res.* **101**, 1401–1422. => AEL1538
1374. Flessa, H., Dörsch, P. and Beese, F. (1995) Seasonal variation of N<sub>2</sub>O and CH<sub>4</sub> fluxes in differently managed arable soils in southern Germany. *J. Geophys. Res.* **100**, 23115–23124. => AEL1718
1375. Fletcher, N.H. (1968) Surface structure of water and ice II. A revised model. *Phil. Mag.* **18**, 1287–1300. => AEL0832
1376. Flood, H. (1934) Tröpfchenbildung in übersättigten Äthylalkohol-Wasserdampfgemischen. *Z. für physikalische Chemie* **A170**, 286–294. => AEL1401
1377. Flynn, M.J., Bower, K.N., Choulaton, T.W., Wobrock, W., Mäkelä, J.M., Martinsson, B., Frank, G., Hansson, H.-C., Karlsson, H. and Laj, P. (2000) Modelling cloud processing of aerosol during the ACE-2 HILLCLOUD experiment. *Tellus* **52B**, 779–800. => AEL3849
1378. Flyvbjerg, H. and Petersen, H.G. (1989) Error estimates on averages of correlated data. *J. Chem. Phys.* **91**, 461–466. => AEL0493
1379. Fok, M.V. (1972) Razdelenie slozhnykh spektrov na individualnye polosy pri pomoshchi obobshchennogo metoda alentseva (in Russian). *Tr. Fiz. Inst. im. P.N.Lebedeva AN SSSR* **59**, 3–24. => HT0283
1380. Foltescu, V.L., Selin Lindgren, E., Isakson, J., Öblad, M., Pacyna, J.M. and Benson, S. (1996) Gas-to-particle conversion of sulphur and nitrogen compounds as studied at marine stations in Northern Europe. *Atmos. Environ.* **30**, 3129–3140. => AEL1932

1381. Fomichev, S.V., Trotsenko, N.M. and Zagnit'ko, A.V. (1997) Aerosol chargers using ionizing radiation and electric field collinear to flow: simulation and experiment for fine particle charging in electronegative air and electropositive nitrogen. *Aerosol Sci. Technol.* **26**, 21–42. => AEL1607
1382. Fontan, J., Billard, F., Blanc, D., Bricard, J., Huertas, M.-L. and Marty, A.-M. (1966) Etude de la mobilité des ions radioactifs formés sur les atomes de recul provenant de la désintégration du thoron dans l'air et différents gaz. *Compt. Rend. Acad. Sci.* **262**, B1315–B1317. => HT-F031
1383. Forbes, J.M. (1982) Temperature and solar zenith angle control of D-region positive ion chemistry. *Planetary Space Science* **30**, 1065–1072. => AEL0570
1384. Ford, I.J. (1995) Further reparametrisation of the Dillmann-Meier theory of homogeneous nucleation. *AEA-TPD-470. Subm. to J. Chem. Phys.* 1–6. => AEL1599
1385. Ford, I.J. (1997) Virial/Fisher models of molecular cluster populations. *J. Chem. Phys.* **106**, 9734–9741. => AEL3132
1386. Ford, I.J. and Clement, C.F. (1989) The effects of temperature fluctuations in homogeneous nucleation theory. *Journal of Physics A: Math. Gen.* **22**, 4007–4018. => AEL1659
1387. Ford, I.J., Laaksonen, A. and Kulmala, M. (1993) Modification of the Dillmann-Meier theory of homogeneous nucleation. *J. Chem. Phys.* **99**, 764–765. => AEL1338
1388. Ford, I.J., Laaksonen, A. and Kulmala, M. (1993) Modification of the Dillmann-Meier theory of homogeneous nucleation. *J. Chem. Phys.* **99**, 764–765. => AEL1600
1389. Formenti, P., Andreae, M.O., Andreae, T.W., Ichoku, C., Schebeske, G., Kettle, J., Maenhaut, W., Cafmeyer, J., Ptasiński, J., Karnieli, A. and Lelieveld, J. (2001) Physical and chemical characteristics of aerosols over the Negev Desert (Israel) during summer 1996. *J. Geophys. Res. Atmospheres* **106**, 4871–4890. => AEL3420
1390. Forney, L.J. and Spielman, L.A. (1974) Deposition of coarse aerosols from turbulent flow. *J. Aerosol Sci.* **5**, 257–271. => AEL0097
1391. Forrer, J., Rüttimann, R., Schneiter, D., Fischer, A., Buchmann, B. and Hofer P. (2000) Variability of trace gases at the high-Alpine site Jungfraujoch caused by meteorological transport processes. *J. Geophys. Res. Atmospheres* **105**, 12241–12251. => AEL3214
1392. Forster P.M. de, F. and Shine, K.P. (1999) Stratospheric water vapour changes as a possible contributor to observed stratospheric cooling. *Geophys. Res. Lett.* **26**, 3309–3312. => AEL2917
1393. Forster, C., Wandler, U., Wotawa, G., James, P., Mattis, I., Althausen, D., Simmonds, P., O'Doherty, S., Jennings, S.G., Kleefeld, C., Schneider, J., Trickl, T., Kreipl, S., Jäger, H. and Stohl, A. (2001) Transport of boreal forest fire emissions from Canada to Europe. *J. Geophys. Res. Atmospheres* **106**, 22887–22906. => AEL3552
1394. Förster, D. (1986) On the scale dependence, due to thermal fluctuations, of the elastic properties of membranes. *Physics Letters* **114A**, 115–120. => AEL1330
1395. Förster, M., Namgaladze, A.A. and Yurik, R.Y. (1999) Thermospheric composition changes deduced from geomagnetic storm modeling. *Geophys. Res. Lett.* **26**, 2625–2628. => AEL2914
1396. Forsyth, B., Liu, B.Y.H. and Romay, F.J. (1998) Particle charge distribution measurement for commonly generated laboratory aerosols. *Aerosol Sci. Technol.* **28**, 489–501. => AEL2842
1397. Foster, W.W. (1959) Deposition of unipolar charged aerosol particles by mutual repulsion. *British J. Appl. Phys.* **10**, 206–213. => AEL3404



1398. Fowler, S.W., Buat-Menard, P., Yokoyama, Y., Ballestra, S., Holm, E. and Van Nguyen, H. (1987) Rapid removal of Chernobyl fallout from Mediterranean surface waters by biological activity. *Nature* **329**, 56–58. => AEL0697
1399. Fox, D.L. (1993) Air pollution. *Anal. Chem.* **65**, R156–R170. => AEL0847
1400. Fox, L.E., Worsnop, D.R., Zahniser, M.S. and Wofsy, S.C. (1995) Metastable phases in polar stratospheric aerosols. *Science* **267**, 351–355. => AEL1841
1401. Frahm, R.A., Winningham, J.D., Sharber, J.R., Link, R., Crowley, G., Gaines, E.E., Chenette, D.L., Anderson, B.J. and Potemra, T.A. (1997) The diffuse aurora: A significant source of ionization in the middle atmosphere. *J. Geophys. Res. Atmospheres* **102**, 28203–28214. => AEL2167
1402. Frank, H., Frank, W. and Neves, H.J.C. (1991) Airborne C1~ and C2~-halocarbons at four representative sites in Europe. *Atmos. Environ.* **25A**, 257–261. => AEL0441
1403. Frank, N., Hirano, S. and Kawamura, K. (1988) Ebara electron beam process for flue gas cleanup: Plant test results and future development. *Radiat. Phys. Chem.* **31**, 57–82. => AEL0098
1404. Franken, D. and Sievert, U. (1999) *An integral measurement method for the determination of aerosol particle size distributions.* *Käsikiri.* => HT1407
1405. Franzblau, E., Burton, C.S. and Hidy, G.M. (1984) Aerosol particle formation from ozone-terminal olefin reactions. *Aerosol Sci. Technol.* **3**, 167–176. => AEL0725
1406. Fraser, M.P., Grosjean, D., Grosjean, E., Rasmussen, R.A. and Cass, G.A. (1996) Air quality model evaluation data for organics. 1. Bulk chemical composition and gas/particle distribution factors. *Environ. Sci. Technol.* **30**, 1731–1743. => AEL2121
1407. Fraser, P.J.B. and Pearman, G.I. (1978) Atmospheric halocarbons in the Southern Hemisphere. *Atmos. Environ.* **12**, 839–844. => AEL0545
1408. Fraser, R.P. (1961) Liquid atomisation. *J. Royal Aeronautical Soc.* **65**, 749–755. => AEL0099
1409. Freeman, D.L. and Doll, J.D. (1985) Quantum Monte Carlo study of the thermodynamic properties of argon clusters: The homogeneous nucleation of argon in argon vapor and "magic number" distributions in argon vapor. *J. Chem. Phys.* **82**, 462–471. => AEL0705
1410. Frenkel, Ya.I. (1949) Teoriya balloelektricheskikh yavlenii (in Russian). *Teoriya yavlenii atmosfernogo elektrichestva*, Gos. Izd. Tekhniko-Teoreticheskoi Literatury, pp. 68–75. => HT1528
1411. Frenklach, M. and Harris, S.J. (1987) Aerosol dynamics modeling using the method of moments. *J. Colloid Interface Sci.* **118**, 252–261. => AEL2370
1412. Frick, G.M. and Hoppel, W.A. (1993) Airship measurements of aerosol size distributions, cloud droplet spectra, and trace gas concentrations in the marine boundary layer. *Bull. Amer. Meteorol. Soc.* **74**, 2195–2202. => AEL1239
1413. Frick, G.M. and Hoppel, W.A. (1993) Airship measurements of aerosol size distributions, cloud droplet spectra, and trace gas concentrations in the marine boundary layer. *Bulletin of the American Meteorological Society* **74**, 2195–2202. => HT0789
1414. Fridlind, A.M. and Jacobson, M.Z. (2000) A study of gas-aerosol equilibrium and aerosol pH in the remote marine boundary layer during the First Aerosol Characterization Experiment (ACE 1). *J. Geophys. Res. Atmospheres* **105**, 17325–17340. => AEL3225
1415. Fridlind, A.M. and Jacobson, M.Z. (2003) Point and column aerosol radiative closure during ACE 1: Effects of particle shape and size. *J. Geophys. Res. Atmospheres* **108**, 4094–doi:10.1029/2001JD001553, 2003. => AEL3936

1416. Fridlind, A.M., Jacobson, M.Z., Kerminen, V.-M., Hillamo, R.E., Ricard, V. and Jaffrezo, J.-L. (2000) Analysis of gas-aerosol partitioning in the Arctic: Comparison of size-resolved equilibrium model results with field data. *J. Geophys. Res. Atmospheres* **105**, 19891–19903. => AEL3235
1417. Fried, A., McKeen, S., Sewell, S., Harder, J., Henry, B., Goldan, P., Kuster, W., Williams, E., Baumann, K., Shetter, R. and Cantrell, C. (1997) Photochemistry of formaldehyde during the 1993 Tropospheric OH Photochemistry Experiment. *J. Geophys. Res. Atmospheres* **102**, 6283–6296. => AEL2321
1418. Frieden, B.R. (1972) Restoring with maximum likelihood and maximum entropy. *J. Opt.Soc.Am.* **62**, 511–518. => HT0251
1419. Frieden, B.R. and Burke, J.J. (1972) Restoring with maximum entropy.II:Superresolution of photographs of diffraction-blurred impulses. *J. Opt.Soc.Am.* **62**, 1202–1210. => HT0252
1420. Friedlander, S.K. (1970) The characterization of aerosols distributed with respect to size and chemical composition. *Aerosol Sci.* **1**, 295–307. => HT0197
1421. Friedlander, S.K. (1971) The characterization of aerosols distributed with respect to size and chemical composition. II. Classification and design of aerosol measuring devices. *Aerosol Science* **2**, 331–340. => AEL1272
1422. Friedlander, S.K. (1971) The characterization of aerosols distributed with respect to size and chemical composition -II. Classification and Design of Aerosol Measuring Devices. *Aerosol Sci.* **2**, 331–340. => HT0198
1423. Friedlander, S.K. (1978) A note on new particle formation in the presence of an aerosol. *J. Coll. Interface Sci.* **67**, 387–388. => AEL1688
1424. Friedlander, S.K. (1983) Dynamics of aerosol formation by chemical reaction. *Ann. New York Acad. Sci.* **404**, 354–364. => AEL1238
1425. Friedlander, S.K. and Wang, C.S. (1966) The self-preserving particle size distribution for coagulation by Brownian motion. *J. Colloid Interface Sci.* **22**, 126–132. => AEL1262
1426. Friedlander, S.K. *Smoke, dust and haze. Fundamentals of aerosol behavior. Olemas lk. 182-187.* John Wiley & Sons., => HT0924
1427. Friend, J.P., Leifer, R. and Trichon, M. (1973) On the formation of stratospheric aerosols. *Journal of the Atmospheric Sciences* **30**, 465–479. => AEL1683
1428. Frimescu, M. Some electrification aspects of the atmosphere in connexion with fog occurrence and lifting, snowstorms, and intensive snowmelt. pp. 17–21. => HT1240
1429. Frodl, P. and Dietrich, S. (1992) Bulk and interfacial properties of polar and molecular fluids. *Phys. Rev. A* **45**, 7330–7354. => AEL1160
1430. Fromm, M., Alfred, J. and Pitts, M. (2003) A unified, long-term, high-latitude stratospheric aerosol and cloud database using SAM II, SAGE II, and POAM II/III data: Algorithm description, database definition, and climatology. *J. Geophys. Res. Atmospheres* **108**, 4366–doi:10.1029/2002JD002772. => AEL4020
1431. Frost, G.J., Goss, L.M. and Vaida, V. (1996) Measurements of high-resolution ultraviolet-visible absorption cross sections at stratospheric temperatures 1. Nitrogen dioxide. *J. Geophys. Res.* **101**, 3869–3877. => AEL1668
1432. Frost, G.J., Goss, L.M. and Vaida, V. (1996) Measurements of high-resolution ultraviolet-visible absorption cross sections at stratospheric temperatures 2. Chlorine dioxide. *J. Geophys. Res.* **101**, 3879–3884. => AEL1669

1433. Frost, G.J., Trainer, M., Mauldin R.L., III, Eisele, F.L., Prevot, A.S.H., Flocke, S.J., Madronich, S., Kok, G., Schillawski, R.D., Baumgardner, D. and Bradshaw, J. (1999) Photochemical modeling of OH levels during the First Aerosol Characterization Experiment (ACE1). *J. Geophys. Res. Atmospheres* **104**, 16041–16052. => AEL2998
1434. Frouin, R. and Iacobellis, S.F. (2002) Influence of phytoplankton on the global radiation budget. *J. Geophys. Res. Atmospheres* **107**, 4377 doi:10.1029/2001JD000562–2002. => AEL3777
1435. Früh, B., Eckstein, E., Trautmann, T., Wendisch, M., Fiebig, M. and Feister, U. (2003) Ground-based measured and calculated spectra of actinic flux density and downward UV irradiance in cloudless conditions and their sensitivity to aerosol microphysical properties. *J. Geophys. Res. Atmospheres* **108**, 4509– doi:10.1029/2002JD002933. => AEL4035
1436. Fuchs, N. (1934) Über die Stabilität und Aufladung der Aerosole. *Zeitschrift für Physik* **89**, 736–743. => AEL2727
1437. Fuchs, N. und Petrjanov, I. (1935) Über die Stabilität und Aufladung der Aerosole II. Experimenteller Teil. Unipolare Aufladung. *Acta Physicochimica U.R.S.S.* **3**, 827–838. => AEL1990
1438. Fuchs, N.A. (1963) On the stationary charge distribution on aerosol particles in a bipolar ionic atmosphere. *Geofis. pura e appl.* **56**, 185–193. => AEL0102
1439. Fuchs, N.A. (1963) On the stationary charge distribution on aerosol particles in a bipolar ionic atmosphere. *Geofis. pura e appl.* **56**, 185–193. => HT1445
1440. Fuchs, N.A. (1964) Excerpt. In *The Mechanics of Aerosols*, Pergamon Press, Oxford, pp. 160–169. => HT1512
1441. Fuchs, N.A. (1969) Comments on the theory of charging of aerosol particles by unipolar ions in the absence of an applied electric field. *J. Colloid Interface Sci.* **29**, 176–177. => AEL0100
1442. Fuchs, N.A. (1986) Methods for determining aerosol concentration. *Aerosol Sci. Technol.* **5**, 123–143. => AEL0101
1443. Fuchs, N.A. and Sutugin, A.G. (1971) High-dispersed aerosols. In *Topics in current aerosol research*, edited by Hidy, G.M. and Brock, J.R., Pergamon Press, pp. 1–60. => HT1259
1444. Fuchs, P., Roth, B., Schwing, U., Angele, H. and Gottstein, J. (1988) Removal of NO<sub>x</sub> and SO<sub>2</sub> by the electron beam process. *Radiat. Phys. Chem.* **31**, 45–56. => AEL0103
1445. Fuentes, J.D., Wang, D., Neumann, H.H., Gillespie, T.J., Den Hartog, G. and Dann, T.F. (1996) Ambient biogenic hydrocarbons and isoprene emissions from a mixed deciduous forest. *J. Atmos. Chem.* **25**, 67–95. => AEL2877
1446. Fuhrer, K., Neftel, A., Anklin, M., Staffelbach, T. and Legrand, M. (1996) High-resolution ammonium ice core record covering a complete glacial-interglacial cycle. *J. Geophys. Res.* **101**, 4147–4164. => AEL1804
1447. Fujioka, N., Tsunoda, Y., Sugimura, A. and Arai, K. (1983) Influence of humidity on variation of ion mobility. *IEEE Transactions on Power Apparatus and Systems* **PAS-102**, 911–917. => AEL1587
1448. Fukaya, T. and Tachiya, M. (1991) Modified treatment of heterogeneous nucleation rates. *J. Chem. Phys.* **94**, 822–823. => AEL0719
1449. Fuks, N.A. (1964) O statsionarnom raspredelenii zaryadov aerzolnykh chastits v bipolyarnoionozirovannoi atmosfere (in Russian). *Izv. AN SSSR* 579–586. => HT-F025
1450. Fuks, N.A. and Stechkina, I.B. (1962) K teorii voloknistykh aerzolnykh filtrov (in Russian). *Doklady AN SSSR* **147**, 1444–1446. => HT-F023

1451. Fuks, N.A. and Stechkina, I.B. (1963) Soprotivlenie gazoobraznoi sredy dvizheniyu chastits s razmerom, sravnimym so srednei dlinoi svobodnogo puti gazovykh molekul (in Russian). *Zhurnal Tekhnicheskoi Fiziki* **33**, 132–135. => HT-F008
1452. Füllekrug, M., Fraser-Smith, A.C., Bering, E.A. and Few, A.A. *On the hourly contribution of global lightning activity to the atmospheric electric field in the Antarctic during December 1992. Käsikiri.* => AEL3169
1453. Füllekrug, M., Fraser-Smith, A.C., Bering, E.A. and Few, A.A. *On the hourly contribution of global lightning activity to the atmospheric electric field in the Antarctic during December 1992. Käsikiri.* => HT1258
1454. Furman, A.M. (1960) Raspredelenie po podvizhnosti i kontsentratsii legkikh i srednikh ionov v atmosfere (in Russian). *Trudy GGO* **97**, 106–116. => AEL3476
1455. Fussen, D. (1998) A critical analysis of the Stratospheric Aerosol and Gas Experiment II spectral inversion algorithm. *J. Geophys. Res. Atmospheres* **103**, 8455–8464. => AEL2248
1456. Fussen, D., Arijs, E., Leclere, F., Nevejans, D. and Bingen, C. (1997) Tomography of the Earth's atmosphere by the spaceborne radiometer ORA: Spatial inversion algorithm. *J. Geophys. Res. Atmospheres* **102**, 4357–4365. => AEL1985
1457. Gabriel, R., von Glasow, R., Sander, R., Andreae, M.O. and Crutzen, P.J. (2002) Bromide content of sea-salt aerosol particles collected over the Indian Ocean during INDOEX 1999. *J. Geophys. Res. Atmospheres* **107**, 8032 doi:10.1029/2001JD001133–2002. => AEL3783
1458. Gadsden, M. and Schröder, W. (1989) *Noctilucent clouds. Olemas lk. 56-149.* Springer-Verlag,. => HT0918
1459. *GAEM consulting committee on definitions, standards, measurement systems (established at and by the Madralin-Workshop 10-16 September). I. Task and suggested mode of operation (1990) F455-05-01,.* => HT1266
1460. *GAEM consulting committee on definitions, standards, measurement systems (established at and by the Madralin-Workshop 10-16 September). II. Survey and general remarks on problem areas to be attacked (1990) F455-06-01,.* => HT1267
1461. *GAEM consulting committee on definitions, standards, measurement systems (established at and by the Madralin-Workshop 10-16 September). III. Terminology for data assessment in global circuit measurements (1990) F455-07-01,.* => HT1268
1462. Gäggeler, H.W., Baltensperger, U., Emmenegger, M., Jost, D.T., Schmidt-Ott, A., Haller, P. and Hofmann, M. (1989) The epiphaniometer, a new device for continuous aerosol monitoring. *J. Aerosol Sci.* **20**, 557–564. => AEL1879
1463. Gäggeler, H.W., Baltensperger, U., Emmenegger, M., Jost, D.T., Schmidt-Ott, A., Haller, P. and Hofmann, M. (1989) The epiphaniometer, a new device for continuous aerosol monitoring. *J. Aerosol Sci.* **20**, 557–564. => HT1284
1464. Gair, A.J. and Penkett, S.A. (1995) The effects of wind speed and turbulence on the performance of diffusion tube samplers. *Atmos. Environ.* **29**, 2529–2533. => AEL2109
1465. Gair, A.J., Penkett, S.A. and Oyola, P. (1991) Development of a simple passive technique for the determination of nitrogen dioxide in remote continental locations. *Atmos. Environ.* **25A**, 1927–1939. => AEL2112
1466. Galera, S., Lluch, J.M., Oliva, A. and Bertran, J. (1988) An AM1 study of the preferential solvation of ammonium ion in ammonia-water mixtures. *J. Mol. Struct. (Theochem)* **163**, 101–110. => AEL0646

1467. Gallagher, M.W., Beswick, K.M., Duyzer, J., Westrate, H., Choularton, T.W. and Hummelshøj, P. (1997) Measurements of aerosol fluxes to Speulder forest using a micrometeorological technique. *Atmos. Environ.* **31**, 359–373. => AEL1936
1468. Gallagher, M.W., Nemitz, E., Dorsey, J.R., Fowler, D., Sutton, M.A., Flynn, M. and Duyzer, J. (2002) Measurements and parameterizations of small aerosol deposition velocities to grassland, arable crops, and forest: Influence of surface roughness length on deposition. *J. Geophys. Res. Atmospheres* **107**, AAC8 1–10. => AEL3665
1469. Gälli, M., Guazzotti, S.A. and Prather, K.A. (2001) Improved particle size limit for aerosol time-of-flight mass spectrometry. *Aerosol Sci. Technol.* **34**, 381–385. => AEL3437
1470. Gallis, M.A., Rader, D.J. and Torczynski, J.R. (2002) Thermophoresis in rarefied gas flows. *Aerosol Sci. Technol.* **36**, 1099–1117. => AEL3714
1471. Gambling, W.A. and Edels, H. (1954) The high-pressure glow discharge in air. *British J. Appl. Phys.* **5**, 36–39. => AEL0104
1472. Gamero-Castaño, M. and de la Mora, J.F. (2000) Modulations in the abundance of salt clusters in electrosprays. *Analyt. Chem.* **72**, 1426–1429. => HT1313
1473. Gamero-Castaño, M. and de la Mora, J.F. (1999) A condensation nucleus counter (CNC) sensitive to singly charged sub-nanometer particles. *Käsikiri. J. Aerosol Sci.* => HT1286
1474. Gamero-Castaño, M. and de la Mora, J.F. (1999) Mechanisms of electrospray ionization of singly and multiply charged salt clusters. *Analytica Chimica Acta* 1–25. => HT1287
1475. Gamlen, P.H., Lane, B.C., Midgley, P.M. and Steed, J.M. (1986) The production and release to the atmosphere of CCl<sub>3</sub>F and CCl<sub>2</sub>F<sub>2</sub> (chlorofluorocarbons CFC 11 and CFC 12). *Atmos. Environ.* **20**, 1077–1085. => AEL0689
1476. Gan, W., Dai, S., Liu, Y., Liu, Z., Zhang, Q., Zhou, X., Su, S., Liu, X., Zhu, R., Fu, X. and Cheng, R. (1989) Simulation investigations of the marble deterioration by sulfur dioxide. *To be presented at Int. Conf. on Global and Regional Environ. Atmos. Chem., May 3-10, 1989, Beijing, China*, pp. -. => HT0981
1477. Gang, Z.C. (1988) Irreversible thermodynamics of nucleation. *J. Colloid Interface Sci.* **124**, 262–268. => AEL0795
1478. Ganitshev, A.P., Zorina, E.N., Neiman, L.A. and Rumyantsev, V.V. (1979) Izmeritelnaya sistema dlya kontrolya zapylennosti vozdukh (in Russian). *Trudy LIAP, Leningrad*, **1(136)**, pp. 54–56. => HT0600
1479. Ganor, E., Levin, Z. and Van Grieken, R. (1998) Composition of individual aerosol particles above the Israelian Mediterranean coast during the summer time. *Atmos. Environ.* **32**, 1631–1642. => AEL2951
1480. Gantner, L., Winkler, P. and Köhler, U. (2000) A method to derive long-term time series and trends of UV-B radiation (1969-1997) from observations at Hohenpeissenberg (Bavaria). *J. Geophys. Res. Atmospheres* **105**, 4879–4888. => AEL3094
1481. Ganzeveld, L.N., Lelieveld, J., Dentener, F.J., Krol, M.C. and Roelofs, G.-J. (2002) Atmosphere-biosphere trace gas exchanges simulated with a single-column model. *J. Geophys. Res. Atmospheres* **107**, ACH8 1–21. => AEL3683
1482. Ganzeveld, L.N., Lelieveld, J., Dentener, F.J., Krol, M.C., Bowman, A.J. and Roelofs, G.-J. (2002) Global soil-biogenic NO<sub>x</sub> emissions and the role of canopy processes. *J. Geophys. Res. Atmospheres* **107**, ACH9 1–17. => AEL3684
1483. Gao, D., Stockwell, W.R. and Milford, J.B. (1995) First-order sensitivity and uncertainty analysis for a regional-scale gas-phase chemical mechanism. *J. Geophys. Res.* **100**, 23153–23166. => AEL1719

1484. Gao, S., Hegg, D.A., Frick, G., Caffrey, P.F., Pasternack, L., Cantrell, C., Sullivan, W., Ambrusko, J., Albrecht, T. and Kirchstetter, T.W. (2001) Experimental and modeling studies of secondary organic aerosol formation and some applications to the marine boundary layer. *J. Geophys. Res. Atmospheres* **106**, 27619–27634. => AEL3575
1485. Gao, W. and Wesely, M.L. (1994) Numerical modeling of the turbulent fluxes of chemically reactive trace gases in the atmospheric boundary layer. *J. Appl. Meteorol.* **33**, 835–847. => AEL2740
1486. Garcia, N.G. and Torroja, J.M.S. (1981) Monte Carlo calculation of argon clusters in homogeneous nucleation. *Phys. Rev. Lett.* **47**, 186–190. => AEL0766
1487. García-Nieto, P.J. (2002) Study of visibility degradation due to coagulation, condensation, and gravitational settling of the atmospheric aerosol. *Aerosol Sci. Technol.* **36**, 814–827. => AEL3706
1488. Gardner, R.L. *Electromagnetic terrorism. A real danger. Käsikiri.* => HT1243
1489. Garger, E.K. (1994) Air concentrations of radionuclides in the vicinity of Chernobyl and the effects of resuspension. *J. Aerosol Sci.* **25**, 745–753. => HT0738
1490. Garrett, T.J., Russell, L.M., Ramaswamy, V., Maria, S.F. and Huebert, B.J. (2003) Microphysical and radiative evolution of aerosol plumes over the tropical North Atlantic Ocean. *J. Geophys. Res. Atmospheres* **108**, 4022– doi:10.1029/2002JD002228, 2003. => AEL3924
1491. Gasche, R. and Papen, H. (1999) A 3-year continuous record of nitrogen trace gas fluxes from untreated and limed soil of a N-saturated spruce and beech forest ecosystem in Germany 2. NO and NO<sub>2</sub> fluxes. *J. Geophys. Res. Atmospheres* **104**, 18505–18520. => AEL3002
1492. Gathman, S. (1968) Guarded double field meter. *The Review of Scientific Instruments* **39**, 43–47. => HT0134
1493. Gathman, S. and Trent, E.M. (1968) Space charge over the open ocean. *Journal of the Atmospheric Sciences* **25**, 1075–1079. => HT0038
1494. Gathman, S.G. (1972) A field mill for tethered balloons. *The Review of Scientific Instruments* **43**, 1751–1754. => HT0106
1495. Gathman, S.G. and Anderson, R.V. (1965) Improved field meter for electrostatic measurements. *The Review of Scientific Instruments* **36**, 1490–1493. => HT0107
1496. Gathman, S.G. and Anderson, R.V. (1969) Instrumentation for electrical measurements in snowstorms. *Journal of Atmospheric and Terrestrial Physics* **31**, 165–170. => HT0023
1497. Gathman, S.G. and Anderson, R.V. (1977) Aircraft measurements of the geomagnetic latitude effect on air-earth current density. *Journal of Atmospheric and Terrestrial Physics* **39**, 313–316. => HT0052
1498. Gathman, S.G. and Hoppel, W.A. (1970) Electrification processes over Lake Superior. *Journal of Geophysical Research* **75**, 1041–1048. => HT0048
1499. Gathman, S.G. and Hoppel, W.A. (1970) Surf electrification. *Journal of Geophysical Research* **75**, 4525–4529. => HT0051
1500. Gear, C.W. (1971) The automatic integration of ordinary differential equations. *Communications of the ACM* **14**, 36–39. => AEL0600
1501. Gelbard, F. and Seinfeld, J.H. (1978) Numerical solution of the dynamic equation for particulate systems. *J. Computational Phys.* **28**, 357–375. => AEL0859
1502. Gelbard, F. and Seinfeld, J.H. (1979) The general dynamic equation for aerosols. Theory and application to aerosol formation and growth. *J. Coll. Interface Sci.* **68**, 363–382. => AEL1689

1503. Gelbard, F. and Seinfeld, J.H. (1980) Simulation of multicomponent aerosol dynamics. *J. Colloid Interface Sci.* **78**, 485–501. => AEL1730
1504. Gelbard, F., Fitzgerald, J.W. and Hoppel, W.A. (1998) A one-dimensional sectional model to simulate multicomponent aerosol dynamics in the marine boundary layer. 3. Numerical methods and comparisons with exact solutions. *J. Geophys. Res. Atmospheres* **103**, 16119–16132. => AEL2286
1505. Gelbard, F., Tambour, Y. and Seinfeld, J.H. (1980) Sectional representations for simulating aerosol dynamics. *J. Colloid Interface Sci.* **76**, 541–556. => AEL0853
1506. Geleyn, J.-F. (1988) Interpolation of wind, temperature and humidity values from model levels to the height of measurement. *Tellus* **40A**, 347–351. => AEL3977
1507. Geller, M.D., Kim, S., Misra, C., Sioutas, C., Olson, B.A. and Marple, V.A. (2002) A methodology for measuring size-dependent chemical composition of ultrafine particles. *Aerosol Sci. Technol.* **36**, 748–762. => AEL3704
1508. Gelpke, V. and Künsch, H.R. (2001) Estimation of motion from sequences of images: Daily variability of Total Ozone Mapping Spectrometer ozone data. *J. Geophys. Res. Atmospheres* **106**, 11825–11834. => AEL3462
1509. *General information (The Surface and Aerosol Science Group)*. => HT1123
1510. Gensdarmes, F., Boulaud, D. and Renoux, A. (1998) Aerosol charging under gamma irradiation. *J. Aerosol Sci.* **29**, S851–S852. => HT1348
1511. Gensdarmes, F., Boulaud, D. and Renoux, A. (2000) *Comparaison of theoretical models with new experiments on the electrical charging of radioactive aerosols*. *Käsikiri*. => HT1412
1512. Gentry, J.W. (1972) Charging of aerosol by unipolar diffusion of ions. *J. Aerosol Sci.* **3**, 65–76. => AEL0105
1513. Gentry, J.W. (1972) Charging of aerosol by unipolar diffusion of ions. *Aerosol Sci.* **3**, 65–76. => HT0203
1514. Gentry, J.W. (1978) Applications of the four-parameter distribution to electrostatic charge and particle size distribution. *Powder Technol.* **20**, 115–126. => AEL0106
1515. Gentry, J.W. and Brock, J.R. (1967) Unipolar diffusion charging of small aerosol particles. *J. Chem. Phys.* **47**, 64–69. => AEL0107
1516. Gentry, J.W., Paur, H.-R., Mätzing, H. and Baumann, W. (1988) A modelling study on the dose rate effect on the efficiency of the EBDS-process (ES-Verfahren). *Radiat. Phys. Chem.* **31**, 95–100. => AEL0108
1517. Gentry, J.W., Spurny, K.R., Boose, C. and Schörmann, J. (1985) Electrical enhancement of filtration in nuclepore filters. I: Experimental design and measurements with spherical particles. *J. Aerosol Sci.* **16**, 379–389. => AEL0110
1518. Gentry, J.W., Spurny, K.R., Schörmann, J., Weiss, G. and Opiela, H. (1980) Collection of ultrafine aerosols by nuclepore filters. *Aerosols in science, medicine and technology*, pp. 172–177. => AEL0111
1519. George, A.C. (1990) An overview of instrumentation for measuring environmental radon and radon progeny. *IEEE Transactions on Nuclear Science* **37**, 892–900. => AEL2414
1520. George, A.C. and Knutson, E.O. (1992) Radon progeny deposition in the nasal and tracheobronchial regions of the respiratory tract. *Radiation Protection Dosimetry* **45**, 689–693. => AEL2468
1521. George, A.C. and Knutson, E.O. (1994) Particle size of unattached radon progeny in filtered room air. *Radiation Protection Dosimetry* **56**, 119–121. => AEL2507

1522. George, L.A., Hard, T.M. and O'Brien, J. (1999) Measurement of free radicals OH and HO<sub>2</sub> in Los Angeles smog. *J. Geophys. Res. Atmospheres* **104**, 11643–11655. => AEL2978
1523. Gerasimova, M.N. (1939) K metodike izmereniya sodержaniya ionov v atmosfere i o novom schetchike ionov (in Russian). *Tr. GGO* 86–112. => HT-F072
1524. Gerber, H.E. (1971) On the performance of the Goetz aerosol spectrometer. *Atmos. Environ.* **5**, 1009–1031. => AEL0112
1525. Gerber, H.E., Stilling, R.K., Buser, R.G. and Rhode, R.S. Laser transmission through concentrated aerosol. *Radiation Symposium*, Garmisch-Partenkirchen, **1976**, pp. 1–3. => HT0138
1526. Gerber, H.E., Stilling, R.K., Buser, R.G. and Rohde, R.S. (1976) Laser transmission through concentrated aerosol. *Radiation Symposium*, Garmisch-Partenkirchen, pp. 1–3. => AEL0949
1527. Gerber, H.E., Stilling, R.K., Buser, R.G. and Rohde, R.S. *Definition of the propagation environment with a portable long-baseline transmissometer*. => AEL0948
1528. Gerber, H.E., Stilling, R.K., Buser, R.G. and Rohde, R.S. *Definition of the propagation environment with a portable long-baseline transmissometer*. Manuscript. => HT0566
1529. Geyer, A., Alicke, B., Ackermann, R., Martinez, M., Harder, H., Brune, W., di Carlo, P., Williams, E., Jobson, T., Hall, S. and Shetter R. Stutz, J. (2003) Direct observations of daytime NO<sub>3</sub>: Implications for urban boundary layer chemistry. *J. Geophys. Res. Atmospheres* **108**, 4368– doi:10.1029/2002JD002967. => AEL4071
1530. Geyer, A., Alicke, B., Konrad, S., Schmitz, T., Stutz, J. and Platt, U. (2001) Chemistry and oxidation capacity of the nitrate radical in the continental boundary layer near Berlin. *J. Geophys. Res. Atmospheres* **106**, 8013–8025. => AEL3432
1531. Geyer, A., Bächmann, K., Hofzumahaus, A., Holland, F., Konrad, S., Klüpfel, T., Pätz, H.-W., Perner, D., Mihelcic, D., Schäfer, H.-J., Volz-Thomas, A. and Platt, U. (2003) Nighttime formation of peroxy and hydroxyl radicals during the BERLIOZ campaign: Observations and modeling studies. *J. Geophys. Res. Atmospheres* **108**, 8249– doi:10.1029/2001JD000656, 2003. => AEL3945
1532. Ghan, S.J., Chuang, C.C. and Penner, J.E. (1993) A parameterization of cloud droplet nucleation part I: single aerosol type. *Atmos. Res.* **30**, 197–221. => AEL1638
1533. Ghan, S.J., Easter, R.C., Chapman, E.G., Abdul-Razzak, H., Zhang, Y., Leung, L.R., Laulainen, N.S., Saylor, R.D. and Zaveri, R.A. (2001) A physically based estimate of radiative forcing by anthropogenic sulfate aerosol. *J. Geophys. Res. Atmospheres* **106**, 5279–5293. => AEL3422
1534. Ghan, S.J., Leung, L.R. and Hu, Q. (1997) Application of cloud microphysics to NCAR community climate model. *J. Geophys. Res. Atmospheres* **102**, 16507–16527. => AEL2022
1535. Gheno, F. and Fitaire, M. (1987) Association of N<sub>2</sub> with NH<sub>4</sub><sup>+</sup> and H<sub>3</sub>O<sup>+</sup>(H<sub>2</sub>O)<sub>n</sub>, n=1,2,3. *J. Chem. Phys.* **87**, 953–958. => AEL0602
1536. Giaque, W.F., Hornung, E.W., Kunzler, J.E. and Rubin, T.R. (1960) The thermodynamic properties of aqueous sulfuric acid solutions and hydrates from 15 to 300°K. *Journal of the American Chemical Society* **82**, 62–70. => AEL1785
1537. Gidhagen, L., Johansson, C., Langner, J. and Olivares, G. (2004) Simulation of NO<sub>x</sub> and ultrafine particles in a street canyon in Stockholm, Sweden. *Atmos. Environ.* **38**, 2029–2044. => AEL4138
1538. Giles, K. and Grimsrud, E.P. (1992) The kinetic ion mobility mass spectrometer: Measurements of ion-molecule reaction rate constants at atmospheric pressure. *J. Phys. Chem.* **96**, 6680–6687. => AEL0846



1539. Giles, K. and Grimsrud, E.P. (1993) Measurements of equilibria and reactivity of cluster ions at atmospheric pressure: Reactions of  $\text{Cl}(\text{CHCl}_3)_{0-2}$  with  $\text{CH}_3\text{Br}$  and  $\text{CH}_3\text{I}$ . *J. Phys. Chem.* **97**, 1318–1323. => AEL0855
1540. Gille, J.C., Massie, S.T. and Mankin, W.G. (1996) Preface. *J. Geophys. Res.* **101**, 9539–9540. => AEL1868
1541. Gille, J.C., Russell J.M.III Bailey, P.L., Remsberg, E.E., Gordley, L.L., Evans, W.F.J., Fischer, H., Gandrud, B.W., Girard, A., Harries, J.E. and Beck, S.A. (1984) Accuracy and precision of the nitric acid concentrations determined by the limb infrared monitor of the stratosphere experiment on NIMBUS 7. *J. Geophys. Res.* **89**, 5179–5190. => AEL1431
1542. Gillespie, T. and Langstroth, G.O. (1952) An instrument for determining the electric charge distribution in aerosols. *Can. J. Chem.* **30**, 1056–1068. => HT-F068
1543. Gilli, J.M., Kamaye, M. and Sixou, P. (1990) Biphases, blue phases, and shapes of nucleation. *Colloque de Physique* **51**, 183–188. => AEL0432
1544. Girshick, S.L. (1997) Theory of nucleation from the gas phase by a sequence of reversible chemical reactions. *J. Chem. Phys.* **107**, 1948–1952. => AEL2380
1545. Girshick, S.L. and Chiu, C.-P. (1990) Kinetic nucleation theory: a new expression for the rate of homogeneous nucleation from an ideal supersaturated vapor. *J. Chem. Phys.* **93**, 1273–1277. => AEL0749
1546. Girshick, S.L., Chiu, C.-P. and McMurry, P.H. (1990) Time-dependent aerosol models and homogeneous nucleation rates. *Aerosol Sci. Technol.* **13**, 465–477. => AEL1120
1547. Glaze, L.S. and Baloga, S.M. (1996) Sensitivity of buoyant plume heights to ambient atmospheric conditions: Implications for volcanic eruption columns. *J. Geophys. Res.* **101**, 1529–1540. => AEL1796
1548. Gleason, J.F., Sinha, A. and Howard, C.J. (1987) Kinetics of the gas-phase reaction  $\text{HOSO}_2 + \text{O}_2 \rightarrow \text{HO}_2 + \text{SO}_3$ . *J. Phys. Chem.* **91**, 719–724. => AEL0912
1549. Gleitman, Y., Lifshitz, C. and Yinon, J. (1978) Negative-ion mass spectrometry for monitoring of air pollutants. *Advances in Mass Spectrometry* **7A**, 374–379. => AEL0510
1550. Gleitsmann, G. and Zellner, R. (1998) A modeling study of the formation of cloud condensation nuclei in the jet regime of aircraft plumes. *J. Geophys. Res. Atmospheres* **103**, 19543–19555. => AEL2302
1551. Glosik, J., Skalsky, V. and Lindinger, W. (1994) Observations of Arrhenius behaviour over 56 decades: dissociation of  $\text{N}_4^+$  ions. *Int. J. Mass Spectrom. Ion Proc.* **134**, 67–71. => HT1017
1552. Glosik, J., Skalsky, V., Praxmarer, C., Smith, D., Freysinger, W. and Lindinger, W. (1994) Dissociation of  $\text{Kr}_2^+$ ,  $\text{N}_2\text{Ar}^+$ ,  $(\text{CO})_2^+$ ,  $\text{CH}_5^+$ , and  $\text{C}_2\text{H}_5^+$  ions drifting in He. *J. Chem. Phys.* **101**, 3792–3801. => HT1018
1553. Glueckauf, E. (1964) Heats and entropies of ions in aqueous solution. *Trans. Faraday Soc.* **60**, 572–577. => AEL0981
1554. Gmitro, J.I. and Vermeulen, T. (1964) Vapor-liquid equilibria for aqueous sulfuric acid. *A.I.Ch.E. Journal* **10**, 740–746. => AEL1987
1555. Gobbi, G.P. and Adriani, A. (1993) Mechanisms of formation of stratospheric clouds observed during the antarctic late winter of 1992. *Geophys. Res. Lett.* **20**, 1427–1430. => AEL1673
1556. Goldan, P., Kuster, W.C. and Fehsenfeld, F.C. (1997) Nonmethane hydrocarbon measurements during the Tropospheric OH Photochemistry Experiment. *J. Geophys. Res. Atmospheres* **102**, 6315–6324. => AEL2322

1557. Goldan, P.D., Trainer, M., Kuster, W.C., Parrish, D.D., Carpenter, J., Roberts, J.M., Yee, J.E. and Fehsenfeld, F.C. (1995) Measurements of hydrocarbons, oxygenated hydrocarbons, carbon monoxide, and nitrogen oxides in an urban basin in Colorado: Implications for emission inventories. *J. Geophys. Res.* **100**, 22771–22783. => AEL1702
1558. Goldberg, R.A., Kopp, E., Witt, G. and Swartz, W.E. (1993) An overview of NLC-91: A rocket/radar study of the polar summer mesosphere. *Geophys. Res. Lett.* **20**, 2443–2446. => HT1102
1559. Goldman, A., Haug, R. and Latham, R.V. (1976) A repulsive-field technique for obtaining the mobility spectra of the ion species created in a corona discharge. *J. Appl. Phys.* **47**, 2418–2423. => AEL1373
1560. Goldstein, A.H., Goulden, M.L., Munger, J.W., Wofsy, S.C. and Geron, C.D. (1998) Seasonal course of isoprene emissions from a midlatitude deciduous forest. *J. Geophys. Res. Atmospheres* **103**, 31045–31056. => AEL2825
1561. Golombek, A. and Prinn, R.G. (1986) A global three-dimensional model of the circulation and chemistry of CFC13~, CF2~Cl2~, CH3~CCl3~, CCl4~, and N2~O. *J. Geophys. Res.* **91**, 3985–4001. => AEL0568
1562. Golub, G. (1965) Numerical methods for solving linear least squares problems. *Numerische Mathematik* **7**, 206–216. => HT0244
1563. Goncharenko, A.N., Kopvillem, U.Kh. and Nikitin, A.Yu. (1991) *Osobennosti povedeniya komponenty elektricheskogo polya atmosfery nad okeanom. Manuscript* (in Russian). => HT0448
1564. Gong, S.L. and Barrie, L.A. (2003) Simulating the impact of sea salt on global nss sulphate aerosols. *J. Geophys. Res. Atmospheres* **108**, 4516– doi:10.1029/2002JD003181. => AEL4034
1565. Gong, S.L. and Jarvis, R.E. (1995) A discrete theory for ion-molecule cluster formation in the gas phase. *J. Chem. Phys.* **103**, 7081–7085. => AEL1680
1566. Gong, S.L., Barrie, L.A. and Blanchet, J.-P. (1997) Modeling sea-salt aerosols in the atmosphere. 1. Model development. *J. Geophys. Res. Atmospheres* **102**, 3805–3818. => AEL2189
1567. Gong, S.L., Barrie, L.A. and Lazare, M. (2002) Canadian Aerosol Module (CAM): A size-segregated simulation of atmospheric aerosol processes for climate and air quality models 2. Global sea-salt aerosol budgets. *J. Geophys. Res. Atmospheres* **107**, 4779– doi:10.1029/2001JD002004, 2002. => AEL3915
1568. Gong, S.L., Barrie, L.A., Blanchet, J.-P., von Salzen, K., Lohmann, U., Lesins, G., Spacek, L., Zhang, L.M., Girard, E., Lin, H., Leitch, R., Leighton, H., Chylek, P. and Huang, P. (2003) Canadian Aerosol Module: A size-segregated simulation of atmospheric aerosol processes for climate and air quality models 1. Module development. *J. Geophys. Res. Atmospheres* **108**, 4007– doi:10.1029/2001JD002002, 2003. => AEL3923
1569. Gong, S.L., Barrie, L.A., Prospero, J.M., Savoie, D.L., Ayers, G.P., Blanchet, J.-P. and Spacek, L. (1997) Modeling sea-salt aerosols in the atmosphere. 2. Atmospheric concentrations and fluxes. *J. Geophys. Res. Atmospheres* **102**, 3819–3830. => AEL2190
1570. Gonzalez, A.J. (1994) Biological effects of low doses of ionizing radiation: a fuller picture. *IAEA Bulletin* 37–45. => AEL2464
1571. Gonzalez, C. and Schlegel, H.B. (1989) An improved algorithm for reaction path following. *J. Chem. Phys.* **90**, 2154–2161. => AEL0492
1572. Gonzalez, C.R., Veefkind, J.P. and de Leeuw, G. (2000) Aerosol optical depth over Europe in August 1997 derived from ATSR-2 data. *Geophys. Res. Lett.* **27**, 955–958. => AEL3059

1573. Goo, J.H. and Lee, J.W. (1996) Monte-Carlo simulation of turbulent deposition of charged particles in a plate-plate electrostatic precipitator. *Aerosol Sci. Technol.* **25**, 31–45. => AEL1829
1574. Good, R.J. (1957) Surface entropy and surface orientation of polar liquids. *The J. Phys. Chem.* **61**, 810–813. => AEL1038
1575. Gorbatenko, V.P., Dulson, A.A. and Alikina, T.V. (1994) Spatial inhomogeneity of thunderstorm distribution. *22nd International Conference On Lightning Protection*, Budapest, **R1b-02**, pp. 1–2. => HT0726
1576. Gorbunov, B.Z., Kakutkina, N.A., Koutzenogii, K.P., Makarov, V.I. and Sakharov, V.M. (1978) Studies of silver iodide ice-forming activity. I. Influence of the aerosol particle size on the ice-forming activity at  $-20^{\circ}$  C. *J. Aerosol Sci.* **9**, 483–487. => AEL0113
1577. Gorbunov, B.Z., Zapadinsky, E.L., Sabelfeld, K.K. and Ataev, M. (1993) Influence of inhomogeneity and fluctuations of supersaturation on heterogeneous nucleation. *Chem. Phys. Lett.* **215**, 31–34. => AEL1731
1578. Gordon, G.E. (1988) Receptor models. *Environ. Sci. Technol.* **22**, 1132–1142. => AEL2362
1579. Gordon, G.E., Pierson, W.R., Daisey, J.M., Liou, P.J., Cooper, J.A., Watson, J.G.Jr. and Cass, G.R. (1984) Considerations for design of source apportionment studies. *Atmos. Environ.* **18**, 1567–1582. => AEL2129
1580. Gosline, A. (2005) Thunderbolts from space. *New Scientist* **7 May**, 30–34. => HT1588
1581. Gotoh, A., Ikazaki, F. and Horiuchi, Y. *A new concept for a multi-electrode differential mobility analyzer.* => HT1226
1582. Gouronnec, A.M., Goutelard, F., Montassier, N., Boulaud, D., Renoux, A. and Tymen, G. (1996) Behavior of radon and its daughters in a basement: Model-experiment comparison. *Aerosol Sci. Technol.* **25**, 73–89. => AEL1826
1583. Goyer, G.G. and Pidgeon, F.D. (1956) Production and characteristics of submicron water aerosols. *J. Coll. Sci.* **11**, 697–703. => AEL0114
1584. Goyer, G.G., Gruen, R. and LaMer, V.K. (1954) Filtration of monodisperse electrically charged aerosols. *J. Phys. Chem.* **58**, 137–142. => AEL0115
1585. Grachev, I.D., Salahov M, H. and Fishman, I.S. (1983) Obrabotka dvumernykh raspredelenii eksperimentalnykh spektroskopicheskikh dannykh metodom staticheskoi regulyaryzatsii (in Russian). *Optika i Simtr.* **54**, 923–925. => HT0173
1586. Graedel, T.E. (1979) Terpenoids in the atmosphere. *Revs. Geophys. Space Phys.* **17**, 937–947. => AEL1078
1587. Graedel, T.E. and McRae, J.E. (1982) Total organic component data: a study of urban atmospheric patterns and trends. *Atmos. Environ.* **16**, 1119–1132. => AEL1448
1588. Graedel, T.E. and Weschler, C.J. (1981) Chemistry within aqueous atmospheric aerosols and raindrops. *Rev. Geophys. and Space Phys.* **19**, 505–539. => AEL0653
1589. Graedel, T.E., Farrow, L.A. and Weber, T.A. (1975) The influence of aerosols on the chemistry of the troposphere. *Int. J. Chem. Kinet.* **7**, 641–594. => AEL0672
1590. Graeffe, G., Ihalainen, H., Lehtimäki, M., Miettinen, K. and Salmi, H. (1974) The ions in the air in the Sauna. *Manuscript (VI International Sauna Congress)*, Helsinki, pp. 1–9. => HT0303
1591. Graeffe, G., Keskinen, J. and Lehtimäki, M. (1989) Small ion concentration in houses with enhanced radon concentration. *Environment International* **15**, 309–313. => AEL0892
1592. Graeffe, G., Keskinen, J. and Lehtimäki, M. (1989) Small ion concentration in houses with enhanced radon concentration. *Environment International* **15**, 309–313. => AEL1882

1593. Graeffe, G., Keskinen, J. and Lehtimäki, M. (1989) Small ion concentration in houses with enhanced radon concentration. *Environment International* **15**, 309–313. => AEL2534
1594. Graeffe, G., Keskinen, J. and Lehtimäki, M. (1989) Small ion concentration in houses with enhanced radon concentration. *Environment International* **15**, 309–313. => HT0504
1595. Graham, B., Guyon, P., Maenhaut, W., Taylor, P.E., Ebert, M., Matthias-Maser, S., Mayol-Bracero, O.L., Godoi, R.H.M., Artaxo, P., Meixner, F.X., Moura, M.A.L., Rocha C.H.E.D. Van Grieken R. Glovsky, M.M., Flagan, R.C. and Andreae, M.O. (2003) Composition and diurnal variability of the natural Amazonian aerosol. *J. Geophys. Res. Atmospheres* **108**, 4765– doi:10.1029/2003JD004049. => AEL4100
1596. Graham, B., Guyon, P., Taylor, P.E., Artaxo, P., Maenhaut, W., Glovsky, M.M., Flagan, R.C. and Andreae, M.O. (2003) Organic compounds present in the natural Amazonian aerosol: Characterization by gas chromatography - mass spectrometry. *J. Geophys. Res. Atmospheres* **108**, 4766– doi:10.1029/2003JD003990. => AEL4101
1597. Graham, S.C. and Homer, J.B. (1973) Coagulation of molten lead aerosols. *Faraday Symposia of the Chemical Society* **7**, 85–96. => AEL1236
1598. Graham, S.C. and Robinson, A. (1976) A comparison of numerical solutions to the self-preserving size distribution for aerosol coagulation in the free-molecule regime. *J. Aerosol Sci.* **7**, 261–273. => AEL1246
1599. Grahn, R. (1962) Stability of the hydronium ion,  $\text{H}_3\text{O}_4^+$ , studied by theoretical methods. *Arkiv för fysik* **21**, 13–34. => AEL0116
1600. Grandt, C. (1991) *Global thunderstorm monitoring by using the ionospheric propagation of VLF lightning pulses (sferics) with applications to climatology*. Rheinisch Friedrich-Wilhelms-Universität, Bonn. => HT0720
1601. Granger, C.W.J. (1969) Investigating causal relations by econometric models and cross-spectral methods. *Econometrica* **37**, 424–438. => AEL2725
1602. Granin, L.D., Kozashtenko, V.I. and Neiman, L.A. (1976) Povyshenie porogovoi tshustvitelnosti elektronno-indutsionnogo metoda izmereniya kontsentratsiii dispersnoi fazy aerolya (in Russian). *Trudy LIAP, Leningrad*, **103**, pp. 65–68. => HT0584
1603. Grant, R.H. and Gao, W. (2003) Diffuse fraction of UV radiation under partly cloudy skies as defined by the Automated Surface Observation System (ASOS). *J. Geophys. Res. Atmospheres* **108**, 4046– doi:10.1029/2002JD002201, 2003. => AEL3929
1604. Grant, W.B., Browell, E.V., Long, C.S., Stowe, L.L., Grainger, R.G. and Lambert, A. (1996) Use of volcanic aerosols to study the tropical stratospheric reservoir. *J. Geophys. Res.* **101**, 3973–3988. => AEL1807
1605. Grard, R. (1998) Electrostatic charging processes of balloon and gondola surfaces in the Earth atmosphere. *J. Geophys. Res. Atmospheres* **103**, 23315–23320. => AEL2799
1606. Gras, J.L. (1993) Condensation nucleus size distribution at Mawson, Antarctica: seasonal cycle. *Atmos. Environ.* **27A**, 1417–1425. => AEL1018
1607. Green, A.E.S. (1983) The penetration of ultraviolet radiation to the ground. *Physiologia Plantarum* **58**, 351–359. => AEL2943
1608. Green, J.M. (1996) A practical guide to analytical method validation. *Analytical Chemistry News & Features* **A**, 305–309. => AEL2123
1609. Gregory, G.L., Anderson, B.E. and Browell, E.V. (1996) Influence of lower tropospheric ozone on total column ozone as observed over the Pacific Ocean during the PEM-West A expedition. *J. Geophys. Res.* **101**, 1919–1930. => AEL1619

1610. Gregory, G.L., Bachmeier, A.S., Blake, D.R., Heikes, B.G., Thornton, D.C., Bandy, A.R., Bradshaw, J.D. and Kondo, Y. (1996) Chemical signatures of aged Pacific marine air: Mixed layer and free troposphere as measured during PEM-West A. *J. Geophys. Res.* **101**, 1727–1742. => AEL1792
1611. Gregory, G.L., Westberg, D.J., Shipham, M.C., Blake, D.R., Newell, R.E., Fuelberg, H.E., Talbot, R.W., Heikes, B.G., Atlas, E.L., Sachse, G.W., Anderson, B.A. and Thornton, D.C. (1999) Chemical characteristics of Pacific tropospheric air in the region of the Intertropical Convergence Zone and South Pacific Convergence Zone. *J. Geophys. Res. Atmospheres* **104**, 5677–5696. => AEL2786
1612. Gremillion, M.S. and Orville, R.E. (1999) Thunderstorm characteristics of cloud-to-ground lightning at the Kennedy Space Center, Florida: A study of lightning initiation signatures as indicated by the WSR-88D. *Weather and Forecasting* **14**, 640–649. => HT1322
1613. Grenet, G. (1934) Sur la mesure des variations brusques du champ électrique. *C. R. Congr. Soc. Savantes*, Paris, pp. 232–236. => HT-F010
1614. Grenfell, J.L., Harrison, R.M. and Allen, A.G. (1998) Towards developing a predictive capacity for rapid nanoparticle formation events in the boundary layer. *J. Aerosol Sci.* **29**, S1061–S1062. => HT1359
1615. Grenfell, J.L., Harrison, R.M., Allen, A.G., Shi, J.P., Penkett, S.A., O'Dowd, C.D., Smith, M.H., Hill, M.K., Robertson, L., Hewitt, C.N., Davison, B., Lewis, A.C., Creasey, D.J., Heard, D.E., Hebestreit, K., Alicke, B. and James, J. (1999) An analysis of rapid increases in condensation nuclei concentrations at a remote coastal site in western Ireland. *J. Geophys. Res. Atmospheres* **104**, 13771–13780. => AEL2982
1616. Grennfelt, P. (1980) Investigation of gaseous nitrates in an urban and a rural area. *Atmos. Environ.* **14**, 311–316. => AEL0538
1617. Griffin, R.J., Cocker, D.R.III, Flagan, R.C. and Seinfeld, J.H. (1999) Organic aerosol formation from the oxidation of biogenic hydrocarbons. *J. Geophys. Res. Atmospheres* **104**, 3555–3567. => AEL2765
1618. Griffin, R.J., Dabdub, D. and Seinfeld, J.H. (2002) Secondary organic aerosol 1. Atmospheric chemical mechanism for production of molecular constituents. *J. Geophys. Res. Atmospheres* **107**, AAC3 1–26. => AEL3730
1619. Griffin, R.J., Dabdub, D., Kleeman, M.J., Fraser, M.P., Cass, G.R. and Seinfeld, J.H. (2002) Secondary organic aerosol 3. Urban/regional scale model of size- and composition-resolved aerosols. *J. Geophys. Res. Atmospheres* **107**, AAC5 1–14. => AEL3732
1620. Griffiths, W.D. (1988) Evaluation of samplers for airborne agricultural dusts. *J. Aerosol Sci.* **19**, 1461–1463. => AEL0118
1621. Griffiths, W.D. (1988) The shape selective sampling of fibrous aerosols. *J. Aerosol Sci.* **19**, 703–713. => AEL0117
1622. Griffiths, W.D. and Vaughan, N.P. (1986) The aerodynamic behaviour of cylindrical and spheroidal particles when settling under gravity. *J. Aerosol Sci.* **17**, 53–65. => AEL1843
1623. Griffiths, W.D. and Vaughan, N.P. (1986) The aerodynamic behaviour of cylindrical and spheroidal particles when settling under gravity. *@JAS* **17**, 53–65. => HT0399
1624. Griffiths, W.D. and Vaughan, N.P. (1987) Report of the inaugural meeting of the aerosolsociety. *@JAS* **18**, 467–468. => HT0391
1625. Griffiths, W.D., Iles, P.J. and Vaughan, N.P. (1986) Calibration of the APS 33 aerodynamic particle sizer and its usage. *TSI Journal of Particle Instrumentation* **1**, 3–9. => HT0400

1626. Griffiths, W.D., Iles, P.J. and Vaughan, N.P. (1986) The behaviour of liquid droplet aerosols in an APS 3300. @*JAS* **00**, 1–10. => HT0373
1627. Griffiths, W.D., Kenny, L.C. and Chase, S.T. (1985) The electrostatic separation of fibres and compact particles. *J. Aerosol Sci.* **16**, 229–243. => AEL0119
1628. Griffiths, W.D., Patrick, S. and Rood, A.P. (1984) An aerodynamic particle size analyser tested with spheres, compact particles and fibres having a common settling rate under gravity. @*JAS* **15**, 491–502. => HT0403
1629. Grime, G.W. and Dawson, M. (1994) A PC-based data acquisition package for nuclear microbeam systems. *Nuclear Instruments and Methods in Physics Research B* **89**, 223–228. => AEL2718
1630. Grime, G.W., Dawson, M., Marsh, M., McArthur, I.C. and Watt, F. (1991) The Oxford submicron nuclear microscopy facility. *Nuclear Instruments and Methods in Physics Research* **B54**, 52–63. => AEL2359
1631. Gringel, W., Käselau, K.H. and Mühleisen, R. (1978) Recombination rates of small ions and their attachment to aerosol particles. @*PAGEOPH* **116**, 1101–1113. => AEL0522
1632. Grinman, I.G. and Bakhtaev, Sh.A. (1967) Eksperimentalnoe issledovanie koronnogo razryada na tonkikh provolokakh (in Russian). *Izvestija AN Kazahskoi SSR* 72–77. => HT0213
1633. Groblicki, P.J. (1979) Comments on aerosol measurement. @*AM*, @UFB, Gainesville, pp. 488–491. => AEL0381
1634. Gröbner, J., Albold, A., Blumthaler, M., Cabot, T., De la Casiniere, A., Lenoble, J., Martin, T., Masserot, D., Müller, M., Philipona, R., Pichler, T., Pougatch, E., Rengarajan, G., Schmucki, D., Seckmeyer, G., Sergent, C., Touré, M.L. and Weihs, P. (2000) Variability of spectral solar ultraviolet irradiance in an Alpine environment. *J. Geophys. Res. Atmospheres* **105**, 26991–27003. => AEL3270
1635. Gropen, O., Huzinaga, S. and McLean, A.D. (1980) Model potential SCF calculations on Cl<sub>2</sub>, Br<sub>2</sub>, and I<sub>2</sub>. *J. Chem. Phys.* **73**, 402–406. => AEL0120
1636. Grosjean, D. (1982) Formaldehyde and other carbonyls in Los Angeles ambient air. *Environ. Sci. Technol.* **16**, 254–262. => AEL1408
1637. Grosjean, D. (1988) Aldehydes, carboxylic acids and inorganic nitrate during NSCMS. *Atmos. Environ.* **22**, 1637–1648. => AEL1437
1638. Grosjean, D. (1990) Atmospheric chemistry of toxic contaminants 1. Reaction rates and atmospheric persistence. *Journal of Air Waste Management Association* **40**, –1402. => AEL0428
1639. Grosjean, D. (1990) Atmospheric chemistry of toxic contaminants 2. Saturated aliphatics: acetaldehyde, dioxane, ethylene glycol ethers, propylene oxide. *Journal of Air Waste Management Association* **40**, –1531. => AEL0429
1640. Grosjean, D. and Grosjean, E. (1995) Carbonyl products of the ozone-unsaturated alcohol reaction. *J. Geophys. Res.* **100**, 22815–22820. => AEL1635
1641. Grosjean, D. and Seinfeld, J.H. (1989) Parameterization of the formation potential of secondary organic aerosols. *Atmos. Environ.* **23**, 1733–1747. => AEL0818
1642. Grosjean, D., Grosjean, E. and Williams, E.L.II (1994) Atmospheric chemistry of olefins: A product study of the ozone-alkene reaction with cyclohexane added to scavenge OH. *Environ. Sci. Technol.* **28**, 186–196. => AEL0881
1643. Grosjean, D., Miguel, A.H. and Tavares, T.M. (1990) Urban air pollution in Brazil: acetaldehyde and other carbonyls. *Atmos. Environ.* **24B**, 101–106. => AEL0444

1644. Gross, D.S., Gälli, M.E., Silva, P.J., Wood, S.H., Liu, D.-Y. and Prather, K.A. (2000) Single particle characterization of automobile and dieseltruck emissions in the Caldecott tunnel. *Aerosol Sci. Technol.* **32**, 152–163. => AEL3329
1645. Gross, L.G. and Voszhayev, V.D. (1971) K raschetu preobrazovatelya elektrostatischeeskogo polya s setkoi i vibriruyushchim elektrodom (in Russian). *Acta et comm. Univ. Tartuensis* **5**, 190–198. => HT0008
1646. Gross, L.G., Petrov, Yu.A., Fadeeva, G.A. and Sushentsova, R.A. (1967) Neitralizatsiya zaryadov staticheskogo elektrichestva pri proizvodstve kinoplenki (in Russian). *Tekhnika, Kino i Televideniya* 30–38. => HT0085
1647. Grossenbacher, J.W., Couch, T., Shepson, P.B., Thornberry, T., Witmer-Rich, M., Carroll, M.A., Faloon, I., Tan, D., Brune, W., Ostling, K. and Bertman, S. (2001) Measurement of isoprene nitrates above a forest canopy. *J. Geophys. Res. Atmospheres* **106**, 24429–24438. => AEL3569
1648. Grzybowski, P. and Gradoń, L. (1992) Analysis of motion and deposition of fibrous aerosol particles flowing around a single filter element: the electrostatic effect. *Chemical Engineering Science* **47**, 1453–1459. => AEL2138
1649. Gubichev, V.A. (1955) Izmerenie ionnogo spektra v vozdukh g. Rostova n/D (in Russian). *Uch. zap. Rostovskogo Gos. un-ta* **32**, 183–189. => AEL3384
1650. Gucker, F.T. and Rowell, R.L. (1960) The angular variation of light scattered by single dioctyl phtalate aerosol droplets. *Discuss. Faraday Soc.* 185–191. => AEL0122
1651. Gucker, F.T., Tuma, J., Lin, H.-M., Huang, C.-M., Ems, S.C. and Marshall, T.R. (1973) Rapid measurement of light-scattering diagrams from single particles in an aerosol stream and determination of latex particle size. *J. Aerosol Sci.* **4**, 389–404. => AEL0121
1652. Gudmundsson, A., Schneider, T., Petersen, O.H., Vinzents, P.S., Bohgard, M. and Akselsson, K.R. (1991) Experimental determination of particle deposition onto the human eye. *NOSA and IV Finnish Aerosol Symposium*, pp. 1–4. => HT0674
1653. Guelle, W., Balkanski, Y.J., Dibb, J.E., Schulz, M. and Dulac, F. (1998) Wet deposition in a global size-dependent aerosol transport model. 2. Influence of the scavenging scheme on  $^{210}\text{Pb}$  vertical profiles, surface concentrations, and deposition. *J. Geophys. Res. Atmospheres* **103**, 28875–28891. => AEL2824
1654. Guelle, W., Balkanski, Y.J., Schulz, M., Dulac, F. and Monfray, P. (1998) Wet deposition in a global size-dependent aerosol transport model. 1. Comparison of a 1 year  $^{210}\text{Pb}$  simulation with ground measurements. *J. Geophys. Res. Atmospheres* **103**, 11429–11445. => AEL2265
1655. Guenther, A., Zimmerman, P., Klinger, L., Greenberg, J., Ennis, C., Davis, K., Pollock, W., Westberg, H., Allwine, G. and Geron, C. (1996) Estimates of regional natural volatile organic compound fluxes from enclosure and ambient measurements. *J. Geophys. Res.* **101**, 1345–1359. => AEL1820
1656. Guerra, L. (1988) A new instrument for the measurement of air ions. *Int. J. Biometeorol.* **32**, 11–16. => AEL0123
1657. Guggenheim, E.A. (1965) Variations on van der Waals' equation of state for high densities. *Mol. Phys.* **9**, 199–200. => AEL1037
1658. Guidetti, G.P., Marchetti, E. and Zannetti, R. (1983) Granulometria di lattici mediante microscopia elettronica e analisi automatica dell'immagine. *La chimica e l'industria* **65**, 749–752. => AEL1083
1659. Gumbel, J., Siskind, D.E., Witt, G., Torkar, K.M. and Friedrich, M. (2003) Influences of ice particles on the ion chemistry of the polar summer mesosphere. *J. Geophys. Res. Atmospheres* **108**, 8436– doi:10.1029/2002JD002413, 2003. => AEL3993

1660. Gunn, R. (1965) Improved apparatus for the measurement of atmospheric electrical conductivity. *Rev. Scient. Instrum.* **36**, 594–598. => HT-F089
1661. Günteröth, H. (1968) Ein künstlich erzeugtes Aerosol für Nassentstaubungsversuche im halbtechnischen Massstab. *Staub - Reinhalt. Luft* **28**, 496–500. => AEL0124
1662. Guo, Q., Shimo, M., Ikebe, Y. and Minato, S. (1992) The study of thoron and radon progeny concentrations in dwellings in Japan. *Radiation Protection Dosimetry* **45**, 357–359. => AEL2521
1663. Guo, Y., Barthakur, N.N. and Bhartendu, S. (1996) The spectral relationships between atmospheric electrical conductivity and air pollution in urban conditions. *J. Geophys. Res.* **101**, 6971–6977. => AEL1869
1664. Guo, Y., Barthakur, N.N. and Bhartendu, S. (1996) The spectral relationships between atmospheric electrical conductivity and air pollution in urban conditions. *J. Geophys. Res. Atmospheres* **101**, 6971–6977. => HT1105
1665. Guo, Y., Barthakur, N.N. and Bhartendu, S. (1996) Using atmospheric electrical conductivity as an urban air pollution indicator. *J. Geophys. Res.* **101**, 9197–9203. => AEL1543
1666. Gupta, A. and McMurry, P.H. (1989) A device for generating singly charged particles in the 0.1-1.0- $\mu\text{m}$  diameter range. *Aerosol Sci. Technol.* **10**, 451–462. => AEL3319
1667. Gurciullo, C., Lerner, B., Sievering, H. and Pandis, S.N. (1999) Heterogeneous sulfate production in the remote marine environment: Cloud processing and sea-salt particle contributions. *J. Geophys. Res. Atmospheres* **104**, 21719–21731. => AEL3018
1668. Gurciullo, C.S. and Pandis, S.N. (1997) Effect of composition variations in cloud droplet populations on aqueous-phase chemistry. *J. Geophys. Res. Atmospheres* **102**, 9375–9385. => AEL1949
1669. Gurkov, T.D. and Kralchevsky, P.A. (1990) Surface tension and surface energy of curved interfaces and membranes. *Colloids and surfaces* **47**, 45–68. => AEL4146
1670. Gusev, A.A., Martin, I.M., Pugacheva, G.I., Pankov, V.M. and Spjeldvik, W.N. *The 22 year solar-cycle-induced meteorological variations in the Brazilian region of the South America continent. Käsikiri.* => HT1411
1671. Gusev, V.A., Evdokimov, V.I. and Popov, B.I. (1976) Pryamougolnye induktsionnye izmeritelnye kamery (in Russian). *Trudy LIAP, Leningrad*, **103**, pp. 36–40. => HT0586
1672. Gussmann, R.A., Kenny, L.C., Labickas, M. and Norton, P. (2002) Design, calibration, and field test of cyclone for  $\text{PM}_{10}$  ambient air sampling. *Aerosol Sci. Technol.* **36**, 361–365. => AEL3695
1673. Haaf, W. (1980) Accurate measurements of aerosol size distribution - I. Theory of a plate condenser for bipolar mobility analysis. *J. Aerosol Sci.* **11**, 189–200. => HT0189
1674. Haaf, W. (1980) Accurate measurements of size distribution - II. Construction of a new plate condenser electric mobility analyzer and first results. *J. Aerosol Sci.* **11**, 201–212. => HT0190
1675. Haberland, H. and Langosch, H. (1986) Mass spectroscopic study of some novel water clusters:  $(\text{H}_2\text{O})_n^+$ ;  $n > 3$ . *Z. Phys. D. Atoms, Molecules and Clusters* **2**, 243–247. => AEL0702
1676. Haberman, H. (1960) Eesti NSV Teaduste Akadeemia bioloogia ja meditsiiniteaduste osakond vabariigi 20. aastapäeva lävel (in Estonian). *Eesti NSV Teaduste Akadeemia Toimetised. Bioloogiline Seeria* **9**, 180–188. => HT0017
1677. Hafemeister, D. (1996) Resource letter BELFEF-1: Biological effects of low-frequency electromagnetic fields. *Am. J. Phys.* **64**, 974–980. => HT1110



1678. Hagen, D.E., Whitefield, P.D. and Schlager, H. (1996) Particulate emissions in the exhaust plume from commercial jet aircraft under cruise conditions. *J. Geophys. Res.* **101**, 19551–19557. => AEL1847
1679. Hagen, D.E., Yue, P.C. and Kassner, J.L.Jr. (1975) Mobility of intermediate sized aqueous ions in a neutral gas. *J. Colloid Interface Sci.* **52**, 526–537. => AEL3396
1680. Hagen, D.E., Yue, P.C. and Kassner, J.L.Jr. (1975) Mobility of intermediate sized aqueous ions in a neutral gas. *J. Colloid and Interface Sci.* **52**, 526–537. => HT0817
1681. Häger, B. and Niessner, R. (1997) On the distribution of nicotine between the gas and particle phase and its measurement. *Aerosol Sci. Technol.* **26**, 163–174. => AEL1694
1682. Hagwood, C., Coakley, K., Negiz, A. and Ehara, K. (1995) Stochastic modeling of a new spectrometer. *Aerosol Sci. Technol.* **23**, 611–627. => AEL1505
1683. Hagwood, C., Coakley, K., Negiz, A. and Ehara, K. (1995) Stochastic modeling of a new spectrometer. *Aerosol Sci. Technol.* **23**, 611–627. => HT1012
1684. Hagwood, C., Sivathanu, Y. and Mulholland, G. (1999) The DMA transfer function with Brownian motion. A trajectory/Monte Carlo approach. *Aerosol Sci. Technol.* **30**, 40–61. => AEL2857
1685. Hahn, D.W. and Lunden, M.M. (2000) Detection and analysis of aerosol particles by laser-induced breakdown spectroscopy. *Aerosol Sci. Technol.* **33**, 30–48. => AEL3340
1686. Haile, J.M., Gubbins, K.E. and Gray, C.G. (1976) Vapor-liquid interfacial density-orientation profiles for fluids with anisotropic potentials. *The J. Chem. Phys.* **64**, 1852–1853. => AEL1159
1687. Häkkinen, E. and Raunemaa, T. (1991) *Elixair 200, Elixair 400 ja Ufox IPS II-huoneilmanpuhdistimien otsonintuotto. Loppuraportti.* Ilmafysiikan ja -kemian Laboratorio, The University of Kuopio. => HT0915
1688. Häkkinen, E., Raunemaa, T. and Tarhanen, J. (1991) *Desmoker-ilmanpuhdistusjärjestelmän erotustehokkuus. Loppuraportti.* Ilmanfysiikan ja -kemian Laboratorio, The University of Kuopio. => HT0914
1689. Hakola, H., Laurila, T., Lindfors, V., Hellén, H., Gaman, A. and Rinne, J. (2001) Variation of the VOC emission rates of birch species during the growing season. *Boreal Environment Research* **6**, 237–249. => AEL3751
1690. Hale, B.N. and Kathmann, S.M. (1996) Monte Carlo simulations of small H<sub>2</sub>SO<sub>4</sub>-H<sub>2</sub>O clusters. In *Nucleation and atmospheric aerosols*, edited by Kulmala, M. and Wagner, P.E., Pergamon, pp. 30–33. => HT1174
1691. Hale, B.N. Scaled models for nucleation. pp. –. => AEL1106
1692. Hale, L.C. (1994) Coupling of ELF/ULF energy from lightning and MeV particles to the middle atmosphere, ionosphere, and global circuit. *J. Geophys. Res. Atmospheres* **99**, 21089–21096. => HT1106
1693. Halicioglu, T. and Sinanoglu, O. (1969) Solvent effects on cis-trans azobenzene isomerization: A detailed application of a theory of solvent effects on molecular association. *Ann. New York Acad. Sci.* **158**, 308–317. => AEL1057
1694. Hall, C. (1991) Chaos as an alternative analysis tool for sounding rocket turbulence data: An introduction. *Proceedings 10th ESA Symposium on European Rocket and Balloon Programmes and Related Research*, Mandelieu-Cannes, pp. 115–120. => HT0649
1695. Hall, C., Thrane, E.V. and Blix, T.A. (1991) Attractor dimensionality for mesospheric turbulence. *Proceedings 10th ESA Symposium on European Rocket and Balloon Programmes and Related Research*, Mandelieu-Cannes, pp. 121–125. => HT0648

1696. Hallberg, A., Ogren, J.A., Noone, K.J., Heintzenberg, J., Berner, A., Solly, I., Kruisz, C., Reischl, G., Fuzzi, S., Facchini, M.C., Hansson, H.-C., Wiedensohler, A. and Svenningsson, I.B. (1992) Phase partitioning for different aerosol species in fog. *Tellus* **44B**, 545–555. => AEL1642
1697. Hamaker, H.C. (1937) The London-van der Waals attraction between spherical particles. *Physica* **4**, 1058–1072. => AEL1499
1698. Hämeri, K. (1999) *Biofor meeting 25.-26.4.1999. Notes.* => HT1409
1699. Hämeri, K. and Kulmala, M. (1996) Homogeneous nucleation in a laminar flow diffusion chamber: The effect of temperature and carrier gas on dibutyl phthalate vapor nucleation rate at high supersaturations. *J. Chem. Phys.* **105**, 7696–7704. => AEL2041
1700. Hämeri, K., Charlson, R. and Hansson, H.-C. (2002) Hygroscopic properties of mixed ammonium sulfate and carboxylic acids particles. *AIChE Journal* **48**, 1309–1316. => AEL3827
1701. Hämeri, K., Koponen, I.K., Aalto, P.P. and Kulmala, M. (2002) The particle detection efficiency of the TSI-3007 condensation particle counter. *J. Aerosol Sci.* **33**, 1463–1469. => HT1454
1702. Hämeri, K., Kulmala, M., Aalto, P., Leszczynski, K., Visuri, R. and Hämeikoski, K. (1996) The investigations of aerosol particle formation in urban background area of Helsinki. *Atmos. Res.* **41**, 281–298. => AEL2042
1703. Hämeri, K., Kulmala, M., Aalto, P., Leszczynski, K., Visuri, R. and Hämeikoski, K. (1996) The investigations of aerosol particle formation in urban background area of Helsinki. *Atmospheric Research* **41**, 281–298. => AEL1836
1704. Hämeri, K., Kulmala, M., Krissinel', E. and Koden'yov, G. (1996) Homogeneous nucleation in a laminar flow diffusion chamber: The operation principles and possibilities for quantitative rate measurements. *J. Chem. Phys.* **105**, 7683–7695. => AEL2047
1705. Hämeri, K., Laaksonen, A., Väkevä, M. and Suni, T. (2001) Hygroscopic growth of ultrafine sodium chloride particles. *J. Geophys. Res. Atmospheres* **106**, 20749–20757. => AEL3525
1706. Hämeri, K., O'Dowd, C.D. and Hoell, C. (2002) Evaluating measurements of new particle concentrations, source rates, and spatial scales during coastal nucleation events using condensation particle counters. *J. Geophys. Res. Atmospheres* **107**, 8101 doi:10.1029/2001JD000411–2002. => AEL3789
1707. Hämeri, K., Väkevä, M., Hansson, H.-C. and Laaksonen, A. (2000) Hygroscopic growth of ultrafine ammonium sulphate aerosol measured using an ultrafine tandem differential mobility analyzer. *J. Geophys. Res. Atmospheres* **105**, 22231–22242. => AEL3241
1708. Hamill, P., Kiang, C.S. and Cadle, R.D. (1977) The nucleation of H<sub>2</sub>SO<sub>4</sub>-H<sub>2</sub>O solution aerosol particles in the stratosphere. *J. Atmos. Sci.* **34**, 150–162. => AEL1336
1709. Hamill, P., Stauffer, D. and Kiang, C.S. (1974) Nucleation theory: Fisher's droplet picture and microscopic surface tension. *Chem. Phys. Lett.* **28**, 209–212. => AEL0743
1710. Hamill, P., Toon, O.B. and Turco, R.P. (1990) Aerosol nucleation in the winter Arctic and Antarctic stratospheres. *Geophys. Res. Lett.* **17**, 417–420. => AEL1315
1711. Hamill, P., Turco, R.P., Kiang, C.S., Toon, O.B. and Whitten, R.C. (1982) An analysis of various nucleation mechanisms for sulfate particles in the stratosphere. *J. Aerosol Sci.* **13**, 561–585. => AEL1286
1712. Hamlin, A.J. and Honrath, R.E. (2002) A modeling study of the impact of winter-spring arctic outflow on the NO<sub>x</sub> and O<sub>3</sub> budgets of the North Atlantic troposphere. *J. Geophys. Res. Atmospheres* **107**, ACH12 1–16. => AEL3687

1713. Hamm, S., Helas, G. and Warneck, P. (1989) Acetonitrile in the air over Europe. *Geophys. Res. Lett.* **16**, 483–486. => AEL0701
1714. Hampl, V. and Spurny, K. (1967) Analytical methods for determination of aerosols by means of membrane ultrafilters. X. Comparison of methods used for the determination of the mean radius and the pore distribution curve. *Collect. Czechoslovak Chem. Commun.* **32**, 4181–4189. => AEL0125
1715. Hamshere, J.L. (1929) The mobility distribution and rate of formation of negative ions in air. *Proc. Camb. Phil. Soc.* **25**, 205–218. => AEL3540
1716. Hamshere, J.L. (1929) The mobility distribution and rate of formation of negative ions in air. *Proc. Camb. Phil. Soc.* **25**, 205–218. => HT-F069
1717. Han, B., Lenggoro, I.W., Choi, M. and Okuyama, K. (2003) Measurement of cluster ions and residue nanoparticles from water samples with an Electrospray/Differential Mobility Analyzer. *Analytical Sciences* **9**, 843–851. => HT1600
1718. Han, B., Shimada, M., Choi, M. and Okuyama, K. (2003) Unipolar charging of nanosized aerosol particles using soft X-ray photoionization. *Aerosol Sci. Technol.* **37**, 330–341. => AEL3765
1719. Han, R.J. and Gentry, J.W. (1992) Evolution of charge distribution of non-spherical particles undergoing unipolar charging. *Abstracts of Conference on Visibility and Fine Particles*, Vienna, pp. 1–1. => HT0675
1720. Han, R.J. and Gentry, J.W. (1993) Field and combined diffusional and field charging of fibrous aerosols. *Aerosol Sci. Technol.* **18**, 165–179. => AEL1256
1721. Han, R.J., Moss, O.R. and Wong, B.A. (1996) Dielectric force calculation for a cylindrical fiber of finite length by the energy displacement method. *Aerosol Sci. Technol.* **25**, 174–184. => AEL1822
1722. Hand, J.L. and Kreidenweis, S.M. (2002) A new method for retrieving particle refractive index and effective density from aerosol size distribution data. *Aerosol Sci. Technol.* **36**, 1012–1026. => AEL3712
1723. Hankins, D., Moskowitz, J.W. and Stillinger, F.H. (1970) Water molecule interactions. *J. Chem. Phys.* **53**, 4544–4554. => AEL0126
1724. Hannan, J.R., Fuelberg, H.E., Thompson, A.M., Bieberbach, G.Jr., Knabb, R.D., Kondo, Y., Anderson, B.E., Browell, E.V., Gregory, G.L., Sachse, G.W. and Singh, H.B. (2000) Atmospheric chemical transport based on high-resolution model-derived winds: A case study. *J. Geophys. Res. Atmospheres* **105**, 3807–3820. => AEI3078
1725. Hansel, A. and Wisthaler, A. (2000) A method for real-time detection of PAN, PPN and MPAN in ambient air. *Geophys. Res. Lett.* **27**, 895–898. => AEL3058
1726. Hansel, A., Jordan, A., Holzinger, R., Prazeller, P., Vogel, W. and Lindinger, W. (1995) Proton transfer reaction mass spectrometry: on-line trace gas analysis at the ppb level. *Int. J. Mass Spectrometry and Ion Processes* **149/150**, 609–619. => AEL3194
1727. Hansel, A., Jordan, A., Holzinger, R., Prazeller, P., Vogel, W. and Lindinger, W. (1995) Proton transfer reaction mass spectrometry: on-line trace gas analysis at the ppb level. *Int. J. Mass Spectrometry and Ion Processes* **149/150**, 609–619. => HT1015
1728. Hansen, A.D.A., Rosen, H. and Novakov, T. (1984) The aethalometer - an instrument for the real-time measurement of optical absorption by aerosol particles. *Sci. Total Environ.* **36**, 191–196. => AEL2712

1729. Hansen, A.D.A., Schnell, R.C. and Polissar, A.V. (1992) Aerosol measurements aboard a Russian aircraft over the East Siberian Sea. *Abstracts of Conference on Visibility and Fine Particles*, Vienna, pp. 1–1. => HT0676
1730. Hansen, G. and Zahn U., von (1994) Simultaneous observations of noctilucent clouds and mesopause temperatures by lidar. *J. Geophys. Res. Atmospheres* **99**, 18989–18999. => HT1108
1731. Hanson, D.R. (2003) Reactivity of BrONO<sub>2</sub> and HOBr on sulfuric acid solutions at low temperatures. *J. Geophys. Res. Atmospheres* **108**, 4239– doi:10.1029/2002JD002519, 2003. => AEL3996
1732. Hanson, D.R. and Eisele, F. (2000) Diffusion of H<sub>2</sub>SO<sub>4</sub> in humidified nitrogen: Hydrated H<sub>2</sub>SO<sub>4</sub>. *J. Phys. Chem. A* **104**, 1715–1719. => AEL3846
1733. Hanson, D.R. and Eisele, F.L. (2002) Measurement of prenucleation molecular clusters in the NH<sub>3</sub>, H<sub>2</sub>SO<sub>4</sub>, H<sub>2</sub>O system. *J. Geophys. Res. Atmospheres* **107**, AAC10 1–18. => AEL3668
1734. Hanson, D.R., Eisele, F.L., Ball, S.M. and McMurry, P.M. (2002) Sizing small sulfuric acid particles with an ultrafine particle condensation nucleus counter. *Aerosol Sci. Technol.* **36**, 554–559. => AEL3700
1735. Hanson, D.R., Ravishankara, A.R. and Lovejoy, E.R. (1996) Reaction of BrONO<sub>2</sub> with H<sub>2</sub>O on submicron sulfuric acid aerosol and the implications for the lower stratosphere. *J. Geophys. Res.* **101**, 9063–9069. => AEL1662
1736. Hanson, R.J. (1971) A numerical method for solving Fredholm integral equations of the first kind using singular values. *SIAM J.Numer.Anal.* **8**, 616–622. => HT0241
1737. Hanssen, N.A.H., van Mansom, D.F.M., van der Jagt, K., Harssema, H. and Hoek, G. (1997) Mass concentration and elemental composition of airborne particulate matter at street and background locations. *Atmos. Environ.* **31**, 1185–1193. => AEL2126
1738. Hansson, H.-C. Particle formation and transformation in continental air masses. *Käsikiri* 1–2. => HT0932
1739. Hansson, H.-C., Rood, M.J., Koloutsou-Vakakis, S., Hämeri, K., Orsini, D. and Wiedensohler, A. (1998) NaCl aerosol particle hygroscopicity dependence on mixing with organic compounds. *J. Atmos. Chem.* **31**, 321–346. => AEL2873
1740. Hansson, H.C., Svenningsson, B., Martinsson, B.G. and Wiedensohler, A. (1990) Influence of the chemical composition of the atmospheric particles on fog and cloud formation. *The EUROTRAC Annual Report*, pp. 28–31. => HT0697
1741. Hansson, T. and Pettersson, J.B.C. (1992) Rate constants for thermal cesium ion desorption on clean and graphite-covered iridium studied by laser-induced desorption. *Surface Science* **269/270**, 189–194. => HT1078
1742. Hansson, T., Pettersson, J.B.C. and Holmlid, L. (1991) Rate constants for cesium ion and atom desorption on iridium with graphite islands: Parallel processes studied by field reversal. *Surface Science* **253**, 345–352. => HT1079
1743. Hara, K., Nakae, S. and Miura, K. (1997) Properties of ion nucleation in the atmosphere. *J. Atmos. Electr.* **17**, 53–58. => HT1256
1744. Hara, K., Nakae, S. and Miura, K. (1998) Properties of ion-induced nucleation obtained from mobility measurements. *J. Aerosol Sci.* **29**, S139–S140. => HT1335
1745. Hara, K., Osada, K., Matsunaga, K., Sakai, T., Iwasaka, Y. and Furuya, K. (2002) Concentration trends and mixing states of particulate oxalate in Arctic boundary layer in winter/spring. *J. Geophys. Res. Atmospheres* **107**, 4399 doi:10.1029/2001JD001584–2002. => AEL3771

1746. Hara, K., Yamagata, S., Yamanouchi, T., Sato, K., Herber, A., Iwasaka, Y., Nagatani, M. and Nakata, H. (2003) Mixing states of individual aerosol particles in spring Arctic troposphere during ASTAR 2000 campaign. *J. Geophys. Res. Atmospheres* **108**, 4209– doi:10.1029/2002JD002513, 2003. => AEL3980
1747. Hare, F.K. (1985) Carbon dioxide and environment. *Pontif. acad. sci. scr. var.* **56**, 443–441. => AEL0690
1748. Hari, P., Raunemaa, T. and Hautojärvi, A. (1986) The effects on forest growth of air pollution from energy production. *Atmos. Environ.* **20**, 129–137. => AEL0667
1749. Harley, J.H. (1992) Measurement of <sup>222</sup>Rn: a brief history. *Radiation Protection Dosimetry* **45**, 13–18. => AEL2465
1750. Harley, J.H. (1993) Quality of radon measurements. *Health Phys.* **64**, 551–551. => AEL1218
1751. Harley, P., Fridd-Stroud, V., Greenberg, J., Guenther, A. and Vasconcellos, P. (1998) Emission of 2-methyl-3-buten-2-ol by pines: A potentially large natural source of reactive carbon to the atmosphere. *J. Geophys. Res. Atmospheres* **103**, 25479–25486. => AEL2801
1752. Harrington, D. and Kreidenweis, S.M. (1998) Simulations of sulfate aerosol dynamics - I. Model description. *Atmos. Environ.* **32**, 1691–1700. => AEL2949
1753. Harrington, D.Y. and Kreidenweis, S.M. (1998) Simulations of sulfate aerosol dynamics -I. Model description. *Atmos. Environ.* **32**, 1691–1700. => AEL2961
1754. Harris, J.L. (1964) Resolving power and decision theory. *J. of the Optical Society of America* **54**, 606–611. => HT0248
1755. Harris, J.M., Dlugokencky, E.J., Oltmans, S.J., Tans, P.P., Conway, T.J., Novelli, P.C., Thoning, K.W. and Kahl, J.D.W. (2000) An interpretation of trace gas correlations during Barrow, Alaska, winter dark periods, 1986-1997. *J. Geophys. Res. Atmospheres* **105**, 17267–17278. => AEL3224
1756. Harrison, R.G. (1995) A null method for electric field measurements. (Presented at 9th Int. Conf. on Electrostatics, York, 2-5 April 1995). *Inst. Phys. Conf. Ser.* 319–322. => HT1227
1757. Harrison, R.G. (1995) A portable picoammeter for atmospheric electrical use. (Presented at 9th Int. Conf. on Electrostatics, York, 2-5 April 1995). *Inst. Phys. Conf. Ser.* 223–226. => HT1232
1758. Harrison, R.G. (1996) An atmospheric electrical voltmeter follower. *Rev. Sci. Instr.* **67**, 2636–2638. => HT1229
1759. Harrison, R.G. (1997) A noise-rejecting current amplifier for surface atmospheric flux measurements. *Rev. Sci. Instr.* **68**, 3563–3565. => HT1231
1760. Harrison, R.G. (1997) An antenna electrometer system for atmospheric electrical measurements. *Rev. Sci. Instr.* **68**, 1599–1603. => HT1230
1761. Harrison, R.G. (1997) New directions. Climate change and the global atmospheric electrical system. *Atmos. Environ.* **31**, 3483–3484. => AEL3168
1762. Harrison, R.G. (1997) New directions. Climate change and the global atmospheric electrical system. *Atmos. Environ.* **31**, 3483–3484. => HT1233
1763. Harrison, R.G. (1997) New directions. Climate change and the global atmospheric electrical system. *Atmos. Environ.* **31**, 3483–3484. => HT1312
1764. Harrison, R.G. (1998) *Meteorology and atmospheric electricity at Reading*. <http://www.met.rdg.ac.uk/~swshargi>,. => HT1245
1765. Harrison, R.G. (2001) *Radiolytic particle production in the atmosphere*. *Käsikiri ajakirjale Atmospheric Environment*. => HT1497

1766. Harrison, R.G. (2003) Twentieth-century atmospheric electrical measurements at the observatories of Kew, Eskdalemuir and Lerwick. *Weather* **58**, 11–19. => AEL3978
1767. Harrison, R.G. (2004) Long-range correlations in measurements of the global atmospheric electric circuit. *J. Atmos. Solar-Terrestrial Phys.* **66**, 1127–1133. => HT1591
1768. Harrison, R.G. (2004) Long-term measurements of the global atmospheric electric circuit at Eskdalemuir, Scotland, 1911-1981. *Atmos. Res.* **70**, 1–19. => AEL4139
1769. Harrison, R.G. (2004) Long-term measurements of the global atmospheric electric circuit at Eskdalemuir, Scotland, 1911-1981. *Atmos. Res.* **70**, 1–19. => HT1494
1770. Harrison, R.G. and Aplin, K.L. (2000) Femtoampere current reference stable over atmospheric temperatures. *Rev. Sci. Instr.* **71**, 1–2. => HT1413
1771. Harrison, R.G. and Aplin, K.L. (2001) Atmospheric condensation nuclei formation and high energy radiation. *J. Atmos. Solar-Terr. Phys.* **63**, 1811–1819. => HT1373
1772. Harrison, R.G. and Aplin, K.L. (2001) Multimode electrometer for atmospheric ion measurements. Proof copy. *Review of Scientific Instruments* **72**, 1–3. => HT1462
1773. Harrison, R.G. and Aplin, K.L. (2003) Nineteenth century Parisian smoke variations inferred from Eiffel Tower atmospheric electrical observations. *Atmos. Environ.* **37**, 5319–5324. => HT1501
1774. Harrison, R.G. and Aplin, K.L. (2007) Water vapour changes and atmospheric cluster ions. *Atmos. Res.* **85**, 199–208. => HT1593
1775. Harrison, R.G. and Aplin, K.L. *Water vapour changes and atmospheric cluster ions. Käsikiri.* => HT1567
1776. Harrison, R.G. and ApSimon, H.M. (1994) Krypton-85 pollution and atmospheric electricity. *Atmospheric Environment* **28**, 637–648. => AEL3191
1777. Harrison, R.G. and ApSimon, H.M. (1994) Krypton-85 pollution and atmospheric electricity. *Atmospheric Environment* **28**, 637–648. => HT0757
1778. Harrison, R.G. and Carslaw, K.S. (2003) Ion-aerosol-cloud processes in the lower atmosphere. *Reviews of Geophysics* **41**, doi:10.1029/2002RG000114. => HT1498
1779. Harrison, R.G. and Stephenson, D.B. (2006) Empirical evidence for a nonlinear effect of galactic cosmic rays on clouds. *Proc. Roy. Soc. A* **462**, 1221–1233. => HT1565
1780. Harrison, R.G. *Electrical properties of surface atmospheric air at Eskdalemuir, 1909-1911. Käsikiri.* => HT1566
1781. Harrison, R.G. *Two daily smoke maxima in eighteenth century London air. Manuscript.* => HT1551
1782. Harrison, R.M. and Allen, A.G. (1990) Measurements of atmospheric HNO<sub>3</sub>-, HCl and associated species on a small network in Eastern England. *Atmos. Environ.* **24A**, 369–376. => AEL0471
1783. Harrison, R.M. and Pio, C. (1983) An investigation of the atmospheric HNO<sub>3</sub>-NH<sub>3</sub>-NH<sub>4</sub>NO<sub>3</sub> equilibrium relationship in a cool, humid climate. *Tellus* **35B**, 155–159. => AEL0658
1784. Harrison, R.M. and Pio, C.A. (1981) Apparatus for simultaneous size-differentiated sampling of optical and suboptical aerosols: Application to analysis of nitrates and sulfates. *J. Air Poll. Contr. Assoc.* **31**, 784–787. => AEL0127
1785. Harrison, R.M., Grenfell, J.L., Savage, N., Allen, A., Clemitshaw, K.C., Penkett, S., Hewitt, C.N. and Davison, B. (2000) Observations of new particle production in the atmosphere of a moderately polluted site in eastern England. *J. Geophys. Res. Atmospheres* **105**, 17819–17832. => AEL3228

1786. Harrison, R.M., Peak, J.D. and Collins, G.M. (1996) Tropospheric cycle of nitrous acid. *J. Geophys. Res.* **101**, 14429–14439. => AEL1898
1787. Harrison, R.M., Peak, J.D. and Kaye, A.D. (1996) Atmospheric aerosol major ion composition and cloud condensation nuclei over the northeast Atlantic. *J. Geophys. Res.* **101**, 4425–4434. => AEL1755
1788. Hartog de, J.J., Hoek, G., Peters, A., Timonen, K.L., Ibald-Mulli, A., Brunekreef, B., Heinrich, J., Tiittanen, P., van Wijnen, J.H., Kreyling, W., Kulmala, M. and Pekkanen, J. (2003) Effects of fine and ultrafine particles on cardiorespiratory symptoms in elderly subjects with coronary heart disease. *American Journal of Epidemiology* **157**, 613–623. => AEL3830
1789. Hartquist, T.W., Havnes, O. and Morfill, G.E. (1992) The effects of dust on the dynamics of astronomical and space plasmas. *Fundamentals of Cosmic Physics* **15**, 107–142. => HT0882
1790. Häsänen, E., Markkanen, K. and Brjukhanov, P. (1989) Aerosolinäytteen alkuaikainen pitoisuus Itämerellä. *Ilmanpilaantumisen Itämeren alueella epäpuhtauksien kulkeutumisen ja niiden vaikutus ympäristöön.*, Gidrometeoizdat, Leningrad, pp. 39–48. => AEL1077
1791. Hasse, L. and Liss, P.S. (1980) Gas exchange across the air-sea interface. *Tellus* **32**, 470–481. => AEL1109
1792. Hassett, C.C. (1956) Current status of insect control by radiation. *Science* **124**, 1011–1012. => HT-F047
1793. Hassett, C.C. and Jenkins, D.W. (1952) Use of fission products for insect control. *Nucleonics* **10**, 42–46. => HT-F049
1794. Hatakeyama, S., Izumi, K. and Akimoto, H. (1985) Yield of SO<sub>2</sub> and formation of aerosol in the photo-oxidation of DMS under atmospheric conditions. *Atmos. Environ.* **19**, 135–141. => AEL0878
1795. Hatzialekou, U., Henshaw, D.L. and Fewes, A.P. (1988) Automated image analysis of alpha-particle autoradiographs of human bone. *Nuclear Instruments and Methods in Physics Research A* **263**, 504–514. => HT1022
1796. Hauglustaine, D.A., Brasseur, G.P., Walters, S., Rasch, P.J., Müller, J.-F., Emmons, L.K. and Carroll, M.A. (1998) MOZART, a global chemical transport model for ozone and related chemical tracers 2. Model results and evaluation. *J. Geophys. Res. Atmospheres* **103**, 28291–28335. => AEL2818
1797. Hauglustaine, D.A., Madronich, S., Ridley, B.A., Flocke, S.J., Cantrell, C.A., Eisele, F.L., Shetter, R.E., Tanner D.J., Ginoux, P. and Atlas, E.L. (1999) Photochemistry and budget of ozone during the Mauna Loa Observatory Photochemistry Experiment (MLOPEX 2). *J. Geophys. Res. Atmospheres* **104**, 30275–30307. => AEL3049
1798. Havens, O. (1993) Collective effects on the structure and dynamics of systems with charged dust. Manuscript. *In print. Adv. Space Res.* 1–29. => HT0652
1799. Havens, O., Aanesen, K. and Melandsö, F. (1990) On dust charges and plasma potentials in a dusty plasma with dust size distribution. *Journal of Geophysical Research* **95**, 6581–6585. => HT0640
1800. Haverkamp, H., Wilhelm, S., Sorokin, A. and Arnold, F. (2004) Positive and negative ion measurements in jet aircraft engine exhaust: concentrations, sizes and implications for aerosol formation. *Atmos. Environ.* **38**, 2879–2884. => AEL4134
1801. Havnes, O., Aslaksen, T., Melandsö, F. and Nitter, T. (1992) Collisionless braking of dust particles in the electrostatic field of planetary dust rings. *Physica Scripta* **45**, 491–496. => HT0653

1802. Havnes, O., Melandsø, F., La Hoz, C., Aslaksen, T.K. and Hartquist, T. (1992) Charged dust in the Earth's mesopause; effects on radar backscatter. *Physica Scripta* **45**, 535–544. => HT1272
1803. Havnes, O., Morfill, G.E. and Melandsø, F. (1992) Effects of electromagnetic and plasma drag forces on the orbit evolution of dust in planetary magnetospheres. *Icarus* **98**, 141–150. => HT1270
1804. Havránek, V., Maenhaut, W., Ducastel, G. and Hanssen, J.E. (1996) Mass size distributions for atmospheric trace elements at the Zeppelin background station in Ny Ålesund, Spitzbergen. *Nuclear Instruments and Methods in Physics Research B* **109/110**, 465–470. => AEL2719
1805. Haward, R.N. (1966) Modified van der Waals equation for liquids. *Trans. Faraday Soc.* **62**, 828–837. => AEL0833
1806. Hawkins, L.H. and Morris, L. (1984) Air ions and the sick building syndrome. @IA, Stockholm, pp. 197–200. => AEL0402
1807. Hawthorne, S.B., Miller, D.J., Langenfeld, J.J. and Krieger, M.S. (1992) PM-10 high-volume collection and quantitation of semi- and nonvolatile phenols, methoxylated phenols, alkanes, and polycyclic aromatic hydrocarbons from winter urban air and their relationship to wood smoke emissions. *Environ. Sci. Technol.* **26**, 2251–2262. => AEL2134
1808. Hayashi, K., Gao, D. and Yamamoto, Y. (1991) Radiation-induced condensation of formaldehyde and urea. *Radiat. Phys. Chem.* **37**, 103–106. => AEL0787
1809. Hayden, K.L., Anlauf, K.G., Hastie, D.R. and Bottenheim, J.W. (2003) Partitioning of reactive atmospheric nitrogen oxides at an elevated site in southern Quebec, Canada. *J. Geophys. Res. Atmospheres* **108**, 4603– doi:10.1029/2002JD003188. => AEL4065
1810. Haye, M.J. and Bruin, C. (1994) Molecular dynamics study of the curvature correction to the surface tension. *J. Chem. Phys.* **100**, 556–559. => AEL1049
1811. Hayes, S.R. and Moore, G.E. (1986) Air quality model performance: A comparative analysis of 15 model evaluation studies. *Atmos. Environ.* **20**, 1897–1911. => AEL1084
1812. Hayhurst, C.J., Watts, P. and Wilders, A. (1992) Studies on gas-phase negative ion/molecule reactions of relevance to ion mobility spectrometry: mass analysis and ion identification of the negative reactant ion peak in "clean" air. *Int. J. Mass Spectrom. Ion Processes* **121**, 127–139. => AEL1152
1813. Hayhurst, C.J., Watts, P. and Wilders, A. (1993) Erratum. *Int. J. Mass Spectrom. Ion Processes* **124**, 169–169. => AEL1153
1814. Hayhurst, C.J., Watts, P. and Wilders, A. (1993) Erratum. *Int. J. Mass Spectrom. Ion Processes* **124**, 173–173. => AEL1154
1815. Haywood, J.M. and Ramaswamy, V. (1998) Global sensitivity studies of the direct radiative forcing due to anthropogenic sulfate and black carbon aerosols. *J. Geophys. Res. Atmospheres* **103**, 6043–6058. => AEL2235
1816. He F. and Hopke, P.K. (1993) Experimental study of ion-induced nucleation by radon decay. *J. Chem. Phys.* **99**, 9972–9978. => AEL1169
1817. He F. and Hopke, P.K. (1995) SO<sub>2</sub> oxidation and H<sub>2</sub>O-H<sub>2</sub>SO<sub>4</sub> binary nucleation by radon decay. *Aerosol Sci. Technol.* **23**, 411–421. => AEL1510
1818. He F. and Hopke, P.K. (1996) Experimental study of ion-induced nucleation of volatile organic compounds by radon decay. In *Nucleation and atmospheric aerosols*, edited by Kulmala, M. and Wagner, P.E., Pergamon, pp. 50–53. => HT1169



1819. He S. and Carmichael, G.R. (1999) Sensitivity of photolysis rates and ozone production in the troposphere to aerosol properties. *J. Geophys. Res. Atmospheres* **104**, 26307–26324. => AEL3029
1820. Head, M. and Higgins, C. (1990) LIMS and chromatography data systems. *International Laboratory* 49–51. => HT0488
1821. Headley, A.D. (1987) Substituent effects on the basicity of dimethylamines. *J. American Chem. Soc.* **109**, 2347–2348. => AEL0673
1822. Heard, D.E. and Pilling, M.J. (2003) Measurement of OH and HO<sub>2</sub> in the troposphere. *Chemical Reviews* **103**, 5163–5198. => AEL4061
1823. Heath, J.R. and Saykally, R.J. (1991) The structure of the C<sub>4</sub>~ cluster radical. *J. Chem. Phys.* **94**, 3271–3273. => AEL0452
1824. Heber, B., Ferrando, P., Raviart, A., Wibberenz, G., Müller-Mellin, R., Kunow, H., Sierks, H., Bothmer, V., Posner, A., Paizis, C. and Potgieter, M.S. (1999) Differences in the temporal variations of galactic cosmic ray electrons and protons: Implications from Ulysses at solar minimum. *Geophys. Res. Lett.* **26**, 2133–2136. => AEL2902
1825. Hegg, D.A. (1990) Heterogeneous production of cloud condensation nuclei in the marine atmosphere. *Geophys. Res. Lett.* **17**, 2165–2168. => AEL0714
1826. Hegg, D.A. and Jonsson, H. (2000) Aerosol number-to-volume relationship and relative humidity in the eastern Atlantic. *J. Geophys. Res. Atmospheres* **105**, 1987–1995. => AEL3072
1827. Hegg, D.A. and Kaufman, Y.J. (1998) Measurements of the relationship between submicron aerosol number and volume concentration. *J. Geophys. Res. Atmospheres* **103**, 5671–5678. => AEL2229
1828. Hegg, D.A. and Larson, T.V. (1990) The effects of microphysical parameterization on model predictions of sulfate production in clouds. *Tellus* **42B**, 272–284. => AEL2030
1829. Hegg, D.A. and Russell, L.M. (2000) An analysis of processes determining the number-to-volume relationship for submicron aerosol in the eastern Atlantic. *J. Geophys. Res. Atmospheres* **105**, 15321–15328. => AEL3223
1830. Hegg, D.A., Covert, D.S. and Kapustin, V.N. (1992) Modeling a case of particle nucleation in the marine boundary layer. *J. Geophys. Res.* **97**, 9851–9857. => AEL1597
1831. Hegg, D.A., Ferek, R.J. and Hobbs, P.V. (1993) Aerosol size distributions in the cloudy atmospheric boundary layer of the North Atlantic Ocean. *J. Geophys. Res.* **98**, 8841–8846. => AEL1763
1832. Hegg, D.A., Livingston, J., Hobbs, P.V., Novakov, T. and Russell, P. (1997) Chemical apportionment of aerosol column optical depth off the mid-Atlantic coast of the United States. *J. Geophys. Res. Atmospheres* **102**, 25293–25303. => AEL2212
1833. Hegg, D.A., Radke, L.F. and Hobbs, P.V. (1990) Particle production associated with marine clouds. *J. Geophys. Res.* **95**, 13917–13926. => AEL0425
1834. Hegg, D.A., Radke, L.F. and Hobbs, P.V. (1991) Measurements of Aitken nuclei and cloud condensation nuclei in the marine atmosphere and their relation to the DMS-cloud-climate hypothesis. *J. Geophys. Res.* **96**, 18727–18733. => HT0840
1835. Heiche, G. and Mason, E.A. (1970) Ion mobilities with charge exchange. *J. Chem. Phys.* **53**, 4687–4696. => AEL0128
1836. Heiden, A.C., Kobel, K., Komenda, M., Koppmann, R., Shao, M. and Wildt, J. (1999) Toluene emissions from plants. *Geophys. Res. Lett.* **26**, 1283–1286. => AEL2869
1837. Heidt, L.E., Vedder, J.F., Pollock, W.H., Lueb, R.A. and Henry, B.E. (1989) Trace gases in the Antarctic atmosphere. *J. Geophys. Res.* **94**, 11599–11611. => AEL0586

1838. Heikes, B.G., Kok, G.L., Walega, J.G. and Lazrus, A.L. (1987) H<sub>2</sub>O<sub>2</sub>, O<sub>3</sub> and SO<sub>2</sub> measurements in the lower troposphere over the eastern United States during fall. *J. Geophys. Res.* **92**, 915–931. => AEL1294
1839. Heikes, B.G., Lee, M., Bradshaw, J., Sandholm, S., Davis, D.D., Crawford, J., Rodriguez, J., Liu, S., McKeen, S., Thornton, D., Bandy, A., Gregory, G., Talbot, R. and Blake, D. (1996) Hydrogen peroxide and methylhydroperoxide distributions related to ozone and odd hydrogen over the North Pacific in the fall of 1991. *J. Geophys. Res.* **101**, 1891–1905. => AEL1654
1840. Heinloo, A., Heinloo, O. and Sildvee, H. (1996) Historical overview of instrumental-seismical observations in Estonia. *Bull. of the Geological Survey of Estonia* **6**, 34–38. => HT1192
1841. Heintzenberg, J. (1975) Determination in situ of the size distribution of the atmospheric aerosol. *J. Aerosol Sci.* **6**, 291–303. => AEL0129
1842. Heintzenberg, J. (1994) Properties of log-normal particle size distribution. *Aerosol Sci. Technol.* **21**, 46–48. => HT0871
1843. Heintzenberg, J. (1994) Properties of the log-normal particle size distribution. *Aerosol Sci. Technol.* **21**, 46–48. => AEL1321
1844. Heintzenberg, J. and Covert, D.S. (1990) On the distribution of physical and chemical particle properties in the atmospheric aerosol. *Journal of Atmospheric Chemistry* **10**, 383–397. => AEL1271
1845. Heintzenberg, J., Müller, K., Birmili, W., Spindler, G. and Wiedensohler, A. (1998) Mass-related aerosol properties over the Leipzig basin. *J. Geophys. Res. Atmospheres* **103**, 13125–13135. => AEL2267
1846. Heintzenberg, J., Okada, K. and Luo, B.P. (2002) Distribution of optical properties among atmospheric submicrometer particles of given electrical mobilities. *J. Geophys. Res. Atmospheres* **107**, AAC2 1–10. => AEL3655
1847. Heist, R.H. and Reiss, H. (1974) Hydrates in supersaturated binary sulfuric acid-water vapor. *The Journal of Chemical Physics* **61**, 573–581. => AEL1285
1848. Heitmann, H. and Arnold, F. (1983) Composition measurements of tropospheric ions. *Nature* **306**, 747–751. => AEL0554
1849. Helfrich, W. (1973) Elastic properties of lipid bilayers: Theory and possible experiments. *Z. Naturforsch.* **28c**, 693–703. => AEL1400
1850. Helfrich, W. (1985) Effect of thermal undulations on the rigidity of fluid membranes and interfaces. *Journal de Physique* **46**, 1263–1268. => AEL1316
1851. Helfrich, W. (1986) Size distributions of vesicles: the role of the effective rigidity of membranes. *Journal de Physique* **47**, 321–329. => AEL1317
1852. Helm, H., Stephan, K., Märk, T.D. and Huestis, D.L. (1981) Double ionization of van der Waals dimers: NeXe and ArXe. *J. Chem. Phys.* **74**, 3844–3851. => AEL0610
1853. Helmig, D., Greenberg, J., Guenther, A., Zimmerman, P. and Geron, C. (1998) Volatile organic compounds and isoprene oxidation products at a temperate deciduous forest site. *J. Geophys. Res. Atmospheres* **103**, 22397–22414. => AEL2791
1854. Helmig, D., Pollock, W., Greenberg, J. and Zimmerman, P. (1996) Gas chromatography mass spectrometry analysis of volatile organic trace gases at Mauna Loa Observatory, Hawaii. *J. Geophys. Res.* **101**, 14697–14710. => AEL1892
1855. Helmstrom, C.W. X. Signal resolution. 267–288. => HT0553
1856. Helmstrom, C.W. X. Signal resolution. 337–352. => HT0552

1857. Helsdon, J.H., Farley, R.D. and Kopp, F.J. *A simulation of ion-induced storm electric field reversal at Langmuir lab. Manuscript.* => HT0520
1858. Helsdon, J.H.Jr., Gattaleerapadan, S., Farley, R.D. and Waits, C.C. (2002) An examination of the convective charging hypothesis: Charge structure, electric fields, and Maxwell currents. *J. Geophys. Res. Atmospheres* **107**, 4630 doi:10.1029/2001JD001495–2002. => AEL3805
1859. Helsdon, J.H.Jr., Wojcik, W.A. and Farley, R.D. (2001) An examination of thunderstorm-charging mechanisms using a two-dimensional storm electrification model. *J. Geophys. Res. Atmospheres* **106**, 1165–1192. => AEL3297
1860. Helstrom, C.W. (1969) Detection and resolution of incoherent objects by a background-limited optical system. *J. Opt. Soc. Am.* **59**, 164–175. => HT0257
1861. Helstrom, C.W. (1970) Resolvability of objects from the standpoint of statistical parameter estimation. *J. Opt. Soc. Am.* **60**, 659–666. => HT0258
1862. Helstrom, C.W. (1972) Linear restoration of incoherently radiating objects. *J. of the Optical Society of America* **62**, 416–423. => HT0250
1863. Hendricks, C.D.Jr. (1962) Charged droplet experiments. *J. Coll. Sci.* **17**, 249–259. => AEL0130
1864. Hendricks, J., Lippert, E., Petry, H. and Ebel, A. (1999) Heterogeneous reactions on and in sulfate aerosols: Implications for the chemistry of the midlatitude tropopause region. *J. Geophys. Res. Atmospheres* **104**, 5531–5550. => AEL2784
1865. Henning, S., Weingartner, E., Schmidt, S., Wendisch, M., Gäggeler, H.W. and Baltensperger, U. (2002) Size-dependent aerosol activation at the high-alpine site Jungfraujoch (3580 m asl). *Tellus* **54B**, 82–95. => AEL3762
1866. Henning, S., Weingartner, E., Schwikowski, M., Gäggeler, H.W., Gehrig, R., Hinz, K.-P., Trimborn, A., Spengler, B. and Baltensperger, U. (2003) Seasonal variation of water-soluble ions of the aerosol at the high-alpine site Jungfraujoch (3580 m asl). *J. Geophys. Res. Atmospheres* **108**, 4030– doi:10.1029/2002JD002439, 2003. => AEL3927
1867. Henry, F. and Ariman, T. (1981) The effect of neighbouring fibers on the electric field in a fibrous filter. *J. Aerosol Sci.* **12**, 137–149. => AEL0131
1868. Henry, R.C., Lewis, C.W., Hopke, P.K. and Williamson, H.J. (1984) Review of receptor model fundamentals. *Atmos. Environ.* **18**, 1507–1515. => AEL0132
1869. Henschel, D.B. (1994) Analysis of radon mitigation techniques used in existing US houses. *Radiation Protection Dosimetry* **56**, 21–27. => AEL2503
1870. Henshaw, D.L., Allen, J.E., Keitch, P.A. and Randle, P.H. (1994) Spatial distribution of naturally occurring  $^{210}\text{Po}$  and  $^{226}\text{Ra}$  in children's teeth. *Int. J. Radiat. Biol.* **66**, 815–826. => HT1025
1871. Henshaw, D.L., Allen, J.E., Keitch, P.A., Salmon, P.L. and Oyedepo, C. (1994) The microdistribution of polonium-210 with respect to bone surfaces in adults, children and fetal tissues at natural exposure levels. *Health effects of internally deposited radionuclides: emphasis on radium and thorium. Proc. Int. Sem., Heidelberg, 18-21 April, 1994*, World Scientific, pp. 1–4. => HT1024
1872. Henshaw, D.L., Keitch, P.A. and James, P.R. (1995) Lead-210, polonium-210, and vehicle exhaust pollution. *The Lancet* **345**, 324–325. => HT1026
1873. Henshaw, D.L., Ross, A.N., Fewes, A.P. and Preece, A.W. (1996) Enhanced deposition of radon daughter nuclei in the vicinity of power frequency electromagnetic fields. *Int. J. Radiat. Biol.* **69**, 25–38. => HT0818

1874. Herber, A., Thomason, L.W., Gernandt, H., Leiterer, U., Nagel, D., Schulz, K.-H., Kaptur, J., Albrecht, T. and Notholt, J. (2002) Continuous day and night aerosol optical depth observations in the Arctic between 1991 and 1999. *J. Geophys. Res. Atmospheres* **107**, AAC6 1–14. => AEL3650
1875. Hering, S.V. and Stolzenburg, M.R. (1995) On-line determination of particle size and density in the nanometer size range. *Aerosol Sci. Technol.* **23**, 155–173. => AEL1507
1876. Herman, J.R., Bhartia, P.K., Torres, O., Hsu, C., Seftor, C. and Celarier, E. (1997) Global distribution of UV-absorbing aerosols from Nimbus 7/TOMS data. *J. Geophys. Res. Atmospheres* **102**, 16911–16922. => AEL4042
1877. Herman, J.R., Krotkov, N., Celarier, E., Larko, D. and Labow, G. (1999) Distribution of UV radiation at the Earth's surface from TOMS-measured UV-backscattered radiances. *J. Geophys. Res. Atmospheres* **104**, 12059–12076. => AEL2980
1878. Herman, J.R., Larko, D., Celarier, E. and Ziemke, J. (2001) Changes in the Earth's UV reflectivity from the surface, clouds, and aerosols. *J. Geophys. Res. Atmospheres* **106**, 5353–5368. => AEL3423
1879. Herman, J.R., Piacentini, R.D., Ziemke, J., Celarier, E. and Larko, D. (2000) Interannual variability of ozone and UV-B ultraviolet exposure. *J. Geophys. Res. Atmospheres* **105**, 29189–29193. => AEL3280
1880. Hermann, M., Heintzenberg, J., Wiedensohler, A., Zahn, A., Heinrich, G. and Brenninkmeijer, C.A.M. (2003) Meridional distributions of aerosol particle number concentrations in the upper troposphere and lower stratosphere obtained by Civil Aircraft for Regular Investigation of the Atmosphere Based on an Instrument Container (CARIBIC) flights. *J. Geophys. Res. Atmospheres* **108**, 4114– doi:10.1029/2001JD001077, 2003. => AEL3937
1881. Herrmann, H. (2003) Kinetics of aqueous phase reactions relevant for atmospheric chemistry. *Chemical Reviews* **103**, 4691–4716. => AEL4054
1882. Hervig, M. and Deshler, T. (2002) Evaluation of aerosol measurements from SAGE II, HALOE, and balloonborne optical particle counters. *J. Geophys. Res. Atmospheres* **107**, AAC3 1–12. => AEL3633
1883. Hervig, M.E., Deshler, T. and Russell, J.M.III (1998) Aerosol size distributions obtained from HALOE spectral extinction measurements. *J. Geophys. Res. Atmospheres* **103**, 1573–1583. => AEL2086
1884. Hess, M., Koepke, P. and Schult, I. (1998) Optical Properties of Aerosols and Clouds: The software package OPAC. *Bull. Amer. Meteorol. Soc.* **79**, 831–844. => AEL2946
1885. Hester, N.E., Stephens, E.R. and Taylor, O.C. (1975) Fluorocarbon air pollutants II. *Atmos. Environ.* **9**, 603–606. => AEL1464
1886. Hetsroni, G., Cuttler, J.M. and Sokolov, M. (1968) Measurements of velocity and droplets concentration in two-phase flows. *ASME* -. => AEL0937
1887. Hewitt, C.N. and Harrison, R.M. (1985) Tropospheric concentrations of the hydroxyl radical - a review. *Atmospheric Environment* **19**, 545–554. => AEL1293
1888. Hewitt, G.W. (1957) The charging of small particles for electrostatic precipitation. *AIEE Transactions* **76**, 300–306. => AEL0133
1889. Hewitt, G.W. (1957) The charging of small particles for electrostatic precipitation. *Commun. and Electronics* **31**, 300–306. => HT-F039

1890. Hewlett, C.W. (1914) Investigation of certain causes responsible for uncertainty in the measurement of atmospheric conductivity by the Gerdien conductivity apparatus. *Terr. Magn.* **19**, 219–233. => HT-F VIII
1891. Heyder, J. and Porstendörfer, J. (1974) Comparison of optical and centrifugal aerosol spectrometry: Liquid and nonspherical particles. *J. Aerosol Sci.* **5**, 387–400. => AEL0134
1892. Heyder, J., Gebhart, J. and Stahlhofen, W. (1980) Inhalation of aerosols. Particle deposition and retention. @ GA, @ AA, pp. 65–103. => AEL0384
1893. Heyes, D.M. and Aston, P.J. (1992) Square-well and square-shoulder fluids: Simulation and equations of state. *J. Chem. Phys.* **97**, 5738–5748. => AEL1064
1894. Hicks, B.B., Baldocchi, D.D., Meyers, T.P., Hosker, R.P.Jr. and Matt, D.R. (1987) A preliminary multiple resistance routine for deriving dry deposition velocities from measured quantities. *Water, Air, and Soil Pollution* **36**, 311–330. => AEL0852
1895. Hicks, C.P. and Young, C.L. (1977) Theoretical prediction of phase behaviour at high temperatures and pressures for non-polar mixtures. *J. Chem. Soc. Faraday Trans.* **73**, 597–612. => AEL0842
1896. Hidy, G.M. and Brock, J.R. (1965) Some remarks about the coagulation of aerosol particles by Brownian motion. *J. Colloid Sci.* **20**, 477–491. => AEL0135
1897. Hidy, G.M. and Brock, J.R. (1970) *The dynamics of aerocolloidal systems. Olemas 9. ja 10. peatiikk.* Pergamon Press,. => HT1252
1898. Hienola, J., Kulmala, M. and Laaksonen, A. (2003) Model studies on the effect of nitric acid vapour on cirrus cloud activation. *Atmos. Res.* **65**, 235–250. => AEL3829
1899. Hierl, P.M., Ahrens, A.F., Henchman, M., Viggiano, A.A. and Paulson, J.F. (1987) Rate constants and product distributions as functions of temperature for the reaction of OH(H<sub>2</sub>O)<sub>0,1,2</sub> with CH<sub>3</sub>CN. *Int. J. Mass Spectrom. Ion Proc.* **81**, 101–122. => AEL0970
1900. Hignett, E.T. (1967) Particle-charge magnitudes in electrostatic precipitation. *Proc. Instr. Electr. Engrs.* **114**, 1325–1328. => AEL0936
1901. Hildemann, L.M., Mazurek, M.A., Cass, G.R. and Simoneit, B.R.T. (1994) Seasonal trends in Los Angeles ambient organic aerosol observed by high-resolution gas chromatography. *Aerosol Sci. Technol.* **20**, 303–317. => AEL1276
1902. Hill, H.H.Jr., Siems, W.F., St.Louis, R.H. and McMinn, D.G. (1990) Ion mobility spectrometry. *Anal. Chem.* **62**, 1201A–1209A. => AEL1197
1903. Hill, M.L. (1972) Introducing the electrostatic autopilots. *Astronautics and Aeronautics* 22–31. => HT0140
1904. Hillamo, R., Kerminen, V.-M., Aurela, M., Mäkelä, T., Maenhaut, W. and Leck, C. (2001) Modal structure of chemical mass size distribution in the high Arctic aerosol. *J. Geophys. Res. Atmospheres* **106**, 27555–27571. => AEL3571
1905. Hillamo, R.E., Aurela, M., Mäkelä, T., Kerminen, V.-M. and Leck, C. (1998) Mass size distributions of major ionic species during AOE-96. *J. Aerosol Sci.* **29**, S681–S682. => HT1345
1906. Hilst, G.R. (1998) Segregation and chemical reaction rates in air quality models. *Atmos. Environ.* **32**, 3891–3895. => AEL2730
1907. Hinds, W. and Reist, P.C. (1972) Aerosol measurement by laser doppler spectroscopy. I. Theory and experimental results for aerosols homogeneous. *J. Aerosol Sci.* **3**, 501–514. => AEL0136
1908. Hinds, W.C. (1980) Dry-dispersion aerosol generators. @ GA, @ AA, pp. 171–187. => AEL0387

1909. Hinds, W.C. 4. Physical and chemical changes in the particulate phase. *Aerosol measurement: principles, techniques and applications*, pp. 41–53. => HT0927
1910. Hinds, W.C. and Kennedy, N.J. (2000) An ion generator for neutralizing concentrated aerosols. *Aerosol Sci. Technol.* **32**, 214–220. => AEL3331
1911. Hinds, W.C., Ashley, A., Kennedy, N.J. and Bucknam, P. (2002) Conditions for cloud settling and Rayleigh-Taylor instability. *Aerosol Sci. Technol.* **36**, 1128–1138. => AEL3715
1912. Hinkle, B.L., Orr, C. and DallaValle, J.M. (1954) A new method for the measurement of aerosol electrification. *J. Colloid Sci.* **9**, 70–80. => HT-F044
1913. Hinz, K.-P., Kaufmann, R. and Spengler, B. (1996) Simultaneous detection of positive and negative ions from single airborne particles by real-time laser mass spectrometry. *Aerosol Sci. Technol.* **24**, 233–242. => AEL1823
1914. Hirabayashi, A., Takada, Y., Kambara, H., Umemura, Y., Ohta, H., Ito, H. and Kuchitsu, K. (1992) Ion/molecule reaction and ion evaporation in atmospheric pressure spray ionization. *Int. J. Mass Spectrom. Ion Proc.* **120**, 207–216. => AEL1157
1915. Hiraoka, K. (1987) A determination of the stabilities of  $H_3^+(H_2)_n$  with  $n=1-9$  from measurements of the gas-phase ion equilibria  $H_3^+(H_2)_{n-1} + H_2 = H_3^+(H_2)_n$ . *J. Chem. Phys.* **87**, 4048–4055. => AEL1386
1916. Hiraoka, K. (1989) *Temperature dependence of reactions of  $N_4^{+}$  and  $N_3^{+}$  with  $O_2$  in the range 552-64 KJJ.* *Chem. Phys.* => AEL0497
1917. Hiraoka, K. and Kebarle, P. (1975) Temperature dependence of third order ion molecule reactions. The reaction  $H_3^{+}+2H_2=H_5^{+}+H_2$ . *J. Chem. Phys.* **63**, 746–749. => AEL0519
1918. Hiraoka, K. and Nakajima, G. (1988) A determination of the stabilities of  $N_2^+(N_2)_n$  and  $O_2^+(N_2)_n$  with  $n=1-11$  from measurements of the gas-phase ion equilibria. *J. Chem. Phys.* **88**, 7709–7714. => AEL1379
1919. Hirota, K., Mäkelä, J. and Tokunaga, O. (1996) Reactions of sulfur dioxide with ammonia: dependence on oxygen and nitric oxide. *Ind. Eng. Chem. Res.* **35**, 3362–3368. => AEL2044
1920. Hirschfeld, T. and Wyntjes, G. (1973) Fourier transform vs Hadamard transform spectroscopy. *Applied Optics* **12**, 2876–2880. => HT0245
1921. Hirschfelder, J.O. (1974) Kinetics of homogeneous nucleation on many-component systems. *The Journal of Chemical Physics* **61**, 2690–2694. => AEL1686
1922. Hirsikko, A., Paatero, J., Hatakka, J. and Kulmala, M. *The  $^{222}Rn$  activity concentration, external radiation dose rate and air ion production rate in a boreal forest in Finland between March 2000 and June 2006.* *Käsikiri.* => HT1596
1923. Hitznerberger, R. and Puxbaum, H. (1993) Comparisons of the measured and calculated specific absorption coefficients for urban aerosol samples in Vienna. *Aerosol Sci. Technol.* **18**, 323–345. => AEL1255
1924. Hitznerberger, R., Berner, A., Dusek, U. and Alabashi, R. (1997) Humidity-dependent growth of size-segregated aerosol samples. *Aerosol Sci. Technol.* **27**, 116–130. => AEL2545
1925. Hoare, M.R. (1979) Structure and dynamics of simple microclusters. *Adv. Chem. Phys.* **40**, 49–135. => AEL1473
1926. Hobbs, P.C.D., Gross, V.P. and Murray, K.D. (1990) Suppression of particle generation in a modified clean room corona air ionizer. *J. Aerosol Sci.* **21**, 463–465. => HT0835
1927. Hobza, P. and Sauer, J. (1984) Minimal basis set MINI-1 - powerful tool for calculating of molecular interactions. I. Neutral complexes. *Theor. Chim. Acta* **65**, 279–290. => AEL0137

1928. Hochrainer, D. (1985) Measurement methods for electric charges on aerosols. *Ann. Occup. Hyg.* **29**, 241–249. => AEL0919
1929. Hochrainer, D., Hidy, G.M. and Zebel, G. (1969) Creeping motion of charged particles around a cylinder in an electrical field. *J. Colloid Interface Sci.* **30**, 553–567. => AEL0138
1930. Hock, A. (1967) Mesgeräte zur Bestimmung der Verteilung atmosphärischer Kleinionen und Kondensationskerne in bodennahen Schichten der Atmosphäre. *Arch. Techn. Messen* **373**, 29–34. => HT-F032
1931. Hock, A. (1967) Meßgeräte zur Bestimmung der Verteilung atmosphärischer Kleinionen und Kondensationskerne in bodennahen Schichten der Atmosphäre. *Archiv für technisches Messen* **656**, 29–34. => AEL3393
1932. Hock, A. and Schmeer, H. (1962) Über ein Gerät zur störfeldfreien Luftionenmessung und einen Impulzzähler zur direkten Anzeige der Windgeschwindigkeit. *Z. angew. Physik* **14**, 398–404. => AEL3380
1933. Hockstader, L. (1996) Baltic states look toward the West. *The Washington Post* **119**, A22–A22. => HT1215
1934. Hodanish, S., Sharp, D., Collins, W., Paxton, C. and Orville, R.E. (1997) A 10-yr monthly lightning climatology of Florida: 1986-95. *Weather and Forecasting* **12**, 439–448. => HT1091
1935. Hodgson, A.W. (1984) Homogeneous nucleation. *Advances in Colloid and Interface Science* **21**, 303–. => AEL0435
1936. Hoegl, A. (1963) Messung von Konzentration und Beweglichkeit atmosphärischen Ionen. *Z. angew. Physik* **16**, 252–258. => AEL3381
1937. Hoell, J.M., Davis, D.D., Liu, S.C., Newell, R., Shipham, M., Akimoto, H., McNeal, R.J., Bendura, R.J. and Drewry, J.W. (1996) Pacific Exploratory Mission-West A (PEM-West A) September-October 1991. *J. Geophys. Res.* **101**, 1641–1653. => AEL1793
1938. Hoffman, T., O'Dowd, C.D. and Seinfeld, J.H. (2001) Iodine oxide homogeneous nucleation: An explanation for coastal new particle production. Eeltrüki eksemplar. *Geophys. Res. Lett.* **0**, 1–4. => AEL3891
1939. Hoffmann, M.R. (1986) On the kinetics and mechanism of oxidation of aquated sulfur dioxide by ozone. *Atmos. Environ.* **20**, 1145–1154. => AEL0691
1940. Hoffmann, T., Bandur, R., Marggraf, U. and Linscheid, M. (1998) Molecular composition of organic aerosols formed in the  $\alpha$ -pinene/O<sub>3</sub> reaction: Implications for new particle formation processes. *J. Geophys. Res. Atmospheres* **103**, 25569–25578. => AEL2808
1941. Hoffmann, W. und Seemann, F.W. (1960) Die Oberflächenspannung von Schwefelsäure-Wasser Gemischen im Temperaturbereich von 15 bis 25° C. *Zeitschrift für Physikalische Chemie Neue Folge* **24**, 300–306. => AEL3898
1942. Hofmann, D.J., Rosen, J.M., Pepin, T.J. and Pinnick, R.G. (1975) Stratospheric aerosol measurements I. Time variations at northern midlatitudes. *J. Atmos. Sci.* **32**, 1446–1456. => AEL0911
1943. Hofmann, M. and von Ragué Schleyer, P. (1994) Acid rain: *Ab initio* investigation of the H<sub>2</sub>O•SO<sub>3</sub> complex and its conversion into H<sub>2</sub>SO<sub>4</sub>. *J. Amer. Chem. Soc.* **116**, 4947–4952. => AEL2392
1944. Hofmann, W. (1994) Lung cancer risk at low doses: What can cellular radiobiology tell us?. *Radiation Protection Dosimetry* **56**, 99–103. => AEL2506
1945. Hogan, A. and Winters, W. (1975) A portable aerosol detector of high sensitivity. *J. of Applied Meteorology* **14**, 39–45. => HT0097
1946. Hogan, A.W. (1975) Antarctic aerosols. *J. of Applied Meteorology* **14**, 550–559. => HT0103

1947. Hogan, A.W. (1975) Collection of drifting snow by a track-roughened surface. *J. of Applied Meteorology* **14**, 428–429. => HT0102
1948. Hogan, A.W. (1975) Summer ice crystal precipitation at the South Pole. *J. of Applied Meteorology* **14**, 246–249. => HT0098
1949. Hogan, A.W. (1976) Aerosols of the trade wind region. *J. of Applied Meteorology* **15**, 611–619. => HT0099
1950. Hogan, A.W. (1977) A simplified aerosol coagulation model. *J. of the Air Pollution Control Association* **27**, 759–762. => HT0132
1951. Hogan, A.W. and Hickman, J.R. (1965) Small ion concentrations in and near clouds and fogs. *Pure and Applied Geophysics* **60**, 176–182. => HT0036
1952. Hogan, A.W., Mohnen, V.A. and Schaefer, V.J. (1973) Comments on "Oceanic aerosol levels deduced from measurements of the electrical conductivity of the atmosphere". *J. of Atmospheric Sciences* **30**, 1455–1460. => HT0110
1953. Hogg, A.R. (1939) The intermediate ions of the atmosphere. *Proceedings of the Physical Society of London* **51**, 1014–1027. => AEL1245
1954. Hogg, A.R. (1941) The intermediate ions of the atmosphere (selle kohta). *Z. Geophys. Braunschweig* **16**, 1486–1487. => AEL1269
1955. Hok, G., Spencer, N.W. and Dow, W.G. (1953) Dynamic probe measurements in the ionosphere. *J. Geophys. Res.* **58**, 235–242. => HT-F017
1956. Holben, B.N., Tanré, D., Smirnov, A., Eck, T.F., Slutsker, I., Abuhassan, N., Newcomb, W.W., Schafer, J.S., Chatenet, B., Lavenue, F., Kaufman, Y.J., Vande Castle, J., Setzer, A., Markham, B., Clark, D., Frouin, R., Halthore, R., Karneli, A., O'Neill, N.T., Pietras, C., Pinker, R.T., Voss, K. and Zibordi, G. (2001) An emerging ground-based aerosol climatology: Aerosol optical depth from AERONET. *J. Geophys. Res. Atmospheres* **106**, 12067–12097. => AEL3466
1957. Holland, P.M. and Castleman, A.W.Jr. (1980) A model for the formation and stabilization of charged water clathrates. *J. Chem. Phys.* **72**, 5984–5990. => AEL1371
1958. Holland, P.M. and Castleman, A.W.Jr. (1982) Thomson equation revisited in light of ion-clustering experiments. *J. Phys. Chem.* **86**, 4181–4188. => AEL0802
1959. Holmlid, L. and Wall, S. (1988) Atmospheric surface ionization of alkali salt aerosols: Particles of inorganic salts and of a micelle forming salt. *J. Aerosol Sci.* **19**, 1219–1222. => HT1115
1960. Holmlid, L. and Wall, S. (1989) Surface ionization at atmospheric pressure. 2. Particles of inorganic alkali salts and of sodium dodecyl sulfate. *Langmuir* **5**, 1170–1175. => HT1116
1961. Holopainen, E. (1991) The greenhouse effect. *XXV fysiikan päivät 21. - 23.3.1991. Energia ja ympäristö. Abstraktit*, Oulu, pp. 7–7. => HT0505
1962. Holsen, T.M., Noll, K.E., Fang, G.-C., Lee, W.-J., Lin, J.-M. and Keeler, G.J. (1993) Dry deposition and particle size distributions measured during the Lake Michigan urban air toxics study. *Environ. Sci. Technol.* **27**, 1327–1333. => AEL0848
1963. Holub, R.F. Turbulent plateout of radon daughters. *Radiation Protection Dosimetry* **7**, 155–158. => AEL2416
1964. Holub, R.F., Raes, F., Van Dingenen, R. and Vanmarcke, H. (1988) Deposition of aerosols and unattached radon daughters in different chambers; theory and experiment. *Radiation Protection Dosimetry* **24**, 217–220. => AEL2513



1965. Holzer-Popp, T., Schroedter, M. and Gesell, G. (2002) Retrieving aerosol optical depth and type in the boundary layer over land and ocean from simultaneous GOME spectrometer and ATSR-2 radiometer measurements 2. Case study application and validation. *J. Geophys. Res. Atmospheres* **107**, 4770– doi:10.1029/2002JD002777, 2002. => AEL3918
1966. Holzworth, R.H., Suvorov, E.V., Trakhtengerts, V.Y. and Goldberg, R.A. (1994) Middle atmosphere electrodynamics and composition, a STEP workshop: Preface. *J. Geophys. Res. Atmospheres* **99**, 21057–21058. => HT1113
1967. Homma, K., Kawai, K. and Nozaki, K. (1980) Metal-fume generation and its application to inhalation experiments. @ GA, @ AA, pp. 361–377. => AEL0391
1968. Honrath, R.E., Guo, S., Peterson, M.C., Dziobak, M.P., Dibb, J.E. and Arsenault, M.A. (2000) Photochemical production of gas phase  $\text{NO}_x$  from ice crystal  $\text{NO}_3^-$ . *J. Geophys. Res. Atmospheres* **105**, 24183–24190. => AEL3251
1969. Hood, G.C. and Reilly, C.A. (1957) Ionization of strong electrolytes. V. Proton magnetic resonance in sulfuric acid. *J. Chem. Phys.* **27**, 1126–1128. => AEL3893
1970. Hood, L.L. and Zhou, S. (1998) Stratospheric effects of 27-day solar ultraviolet variations: An analysis of UARS MLS ozone and temperature data. *J. Geophys. Res. Atmospheres* **103**, 3629–3638. => AEL2224
1971. Hopke, P.K. (1989) The initial behavior of  $^{218}\text{Po}$  in indoor air. *Environment International* **15**, 299–308. => AEL2470
1972. Hopke, P.K. (1993) Harmonization of radon jargon and units. Editorial. *Health Phys.* **64**, 459–459. => AEL1228
1973. Hopke, P.K. and Ramamurthi, M. (1988) Production of ultrafine particles by radon radiolysis. *J. Aerosol Sci.* **19**, 1323–1325. => HT0848
1974. Hopke, P.K. Ch. 12. The initial atmospheric behavior of radon decay products. Kay, J.G., Keller, G.E., Miller, J.F. *Indoor air pollution*, Lewis Publishers, pp. 141–169. => AEL0887
1975. Hopke, P.K., Jensen, B. and Montassier, N. (1994) Evaluation of several air cleaners for reducing indoor radon progeny. *J. Aerosol Sci.* **25**, 395–405. => AEL2522
1976. Hopke, P.K., Jensen, B., Montassier, N. and Wasiolek, P. (1994) Evaluation of room air cleaners for the reduction of exposure and dose to indoor radon progeny. *Radiation Protection Dosimetry* **56**, 55–60. => AEL2504
1977. Hopke, P.K., Montassier, N. and Wasiolek, P. (1993) Evaluation of the effectiveness of several air cleaners for reducing the hazard from indoor radon progeny. *Subm. to Aerosol Science and Technology* 1–13. => AEL2475
1978. Hopke, P.K., Xie, Y., Raunemaa, T., Biegalski, S., Landsberger, S., Maenhaut, W., Artaxo, P. and Cohen, D. (1997) Technical note. Characterization of the Gent stacked filter unit  $\text{PM}_{10}$  sampler. *Aerosol Sci. Technol.* **27**,. => AEL1947
1979. Hoppel, W., Fitzgerald, J., Frick, G., Caffrey, P., Pasternack, L., Hegg, D., Gao, S., Leitch, R., Shantz, N., Cantrell, C., Albrechtski, T., Ambrusko, J. and Sullivan, W. (2001) Particle formation and growth from ozonolysis of  $\alpha$ -pinene. *J. Geophys. Res. Atmospheres* **106**, 27603–27618. => AEL3574
1980. Hoppel, W., Pasternack, L., Caffrey, P., Frick, G., Fitzgerald, J., Hegg, D., Gao, S., Ambrusko, J. and Albrechtski, T. (2001) Sulfur dioxide uptake and oxidation in sea-salt aerosol. *J. Geophys. Res. Atmospheres* **106**, 27575–27585. => AEL3572
1981. Hoppel, W.A. (1970) Measurement of the mobility distribution of tropospheric ions. *Pure Appl. Geophys.* **81**, 230–245. => AEL3185

1982. Hoppel, W.A. (1970) Measurement of the mobility distribution of tropospheric ions. *Pageoph* **81**, 230–245. => HT0330
1983. Hoppel, W.A. (1975) Growth of condensation nuclei by heteromolecular condensation. *J. Rech. Atmos.* **9**, 167–180. => AEL1561
1984. Hoppel, W.A. (1975) Growth of condensation nuclei by heteromolecular condensation. *Journal de Recherches Atmospheriques* **9**, 167–180. => AEL1839
1985. Hoppel, W.A. (1977) Ion-aerosol attachment coefficients and the diffusion charging of aerosols. In *Electrical processes in atmospheres*, edited by Dolezalek, H., Steinkopff, Darmstadt, pp. 60–69. => AEL3761
1986. Hoppel, W.A. (1981) Measurement of the aerosol size distribution with NRL's mobility analyzer. *J. Rech. Atmos.* **15**, 313–319. => AEL0148
1987. Hoppel, W.A. (1981) The use of differential mobility analyzers of second order in determining the aerosol size distribution. *J. Aerosol Sci.* **12**, 55–57. => AEL0140
1988. Hoppel, W.A. (1981) The use of differential mobility analyzers of second order in determining the aerosol size distribution. *@JAS* **12**, 55–57. => HT0392
1989. Hoppel, W.A. (1985) Bipolar model of the electrical environment of high-voltage direct current power line. *@JGR* **90**, 5945–5949. => HT0381
1990. Hoppel, W.A. (1985) Ion-aerosol attachment coefficients, ion depletion, and the charge distribution on aerosols. *J. Geophys. Res.* **90**, 5917–5923. => AEL2417
1991. Hoppel, W.A. (1985) Ion-aerosol attachment coefficients, ion depletion, and the charge distribution on aerosols. *Journal of Geophysical Research* **90**, 5917–5923. => HT0795
1992. Hoppel, W.A. (1987) Nucleation in the MSA-water vapor system. *Atmos. Environ.* **21**, 2703–2709. => AEL1240
1993. Hoppel, W.A. (1987) Nucleation in the MSA-water vapor system. *Atmos. Environ.* **21**, 2703–2709. => AEL1563
1994. Hoppel, W.A. (1987) Nucleation in the MSA-water vapor system. *Atmospheric Environment* **21**, 2703–2709. => HT0792
1995. Hoppel, W.A. and Alofs, D.J. (1986) Comments on the paper "Heterogeneous nucleation of water vapor on monodisperse Ag and NaCl particles with diameters between 6 and 18 nm". *@AST* **5**, 487–490. => HT0393
1996. Hoppel, W.A. and Frick, G.M. (1986) Ion-aerosol attachment coefficients and the steady-state charge distribution on aerosols in a bipolar ion environment. *Aerosol Sci. Technol.* **5**, 1–21. => AEL1243
1997. Hoppel, W.A. and Frick, G.M. (1986) Ion-aerosol attachment coefficients and the steady-state charge distribution on aerosols in a bipolar ion environment. *Aerosol Sci. Technol.* **5**, 1–21. => AEL1556
1998. Hoppel, W.A. and Frick, G.M. (1986) Ion-aerosol attachment coefficients and the steady-state charge distribution on aerosols in a bipolar ion environment. *Aerosol Science and Technology* **5**, 1–21. => HT0796
1999. Hoppel, W.A. and Frick, G.M. (1986) Ion-aerosol attachment coefficients and the steady-state charge distribution on aerosols in a bipolar ion environment. *Aerosol Sci. Technol.* **5**, 1–21. => HT0815
2000. Hoppel, W.A. and Frick, G.M. (1989) Comment on the comparison of measured and calculated values of ion aerosol attachment coefficients. *Aerosol Sci. Technol.* **11**, 254–258. => AEL0726

2001. Hoppel, W.A. and Frick, G.M. (1989) Comment on the comparison of measured and calculated values of ion aerosol attachment coefficients. *Aerosol Sci. Technol.* **11**, 254–258. => AEL1554
2002. Hoppel, W.A. and Frick, G.M. (1989) Comment on the comparison of measured and calculated values of ion aerosol attachment coefficients. *Aerosol Sci. Technol.* **11**, 254–258. => AEL2749
2003. Hoppel, W.A. and Frick, G.M. (1989) Comment on the comparison of measured and calculated values of ion aerosol attachment coefficients. *Aerosol Science and Technology* **11**, 254–258. => HT0791
2004. Hoppel, W.A. and Frick, G.M. (1990) Submicron aerosol size distributions measured over the Tropical and South Pacific. *Atmos. Environ.* **24A**, 645–659. => AEL1242
2005. Hoppel, W.A. and Frick, G.M. (1990) Submicron aerosol size distributions measured over the Tropical and South Pacific. *Atmospheric Environment* **24A**, 645–659. => HT0794
2006. Hoppel, W.A. and Frick, G.M. (1990) The nonequilibrium character of the aerosol charge distributions produced by neutralizers. *Aerosol Sci. Technol.* **12**, 471–496. => AEL1549
2007. Hoppel, W.A. and Frick, G.M. (1990) The nonequilibrium character of the aerosol charge distributions produced by neutralizers. *Aerosol Sci. Technol.* **12**, 471–496. => AEL2748
2008. Hoppel, W.A. and Frick, G.M. (1990) The nonequilibrium character of the aerosol charge distributions produced by neutralizers. *Aerosol Science and Technology* **12**, 471–496. => HT0787
2009. Hoppel, W.A. and Gathman, S.G. (1970) Charge transport through an aerosol cloud. *J. Appl. Phys.* **41**, 1971–1977. => AEL0139
2010. Hoppel, W.A. and Gathman, S.G. (1970) Charge transport through an aerosol cloud. *J. of Applied Physics* **41**, 1971–1977. => HT0133
2011. Hoppel, W.A. and Gathman, S.G. (1971) Determination of eddy diffusion coefficients from atmospheric electrical measurements. *Journal of Geophysical Research* **76**, 1467–1477. => HT0049
2012. Hoppel, W.A. and Gathman, S.G. (1972) Experimental determination of the eddy diffusion coefficient over the open ocean from atmospheric electric measurements. *J. Physical Oceanography* **2**, 248–254. => AEL3170
2013. Hoppel, W.A. and Gathman, S.G. (1972) Experimental determination of the eddy diffusion coefficient over the open ocean from atmospheric electric measurements. *Journal of Physical Oceanography* **2**, 248–254. => HT0046
2014. Hoppel, W.A. and Kraakevik, J.A. (1965) The mobility of tropospheric ions above the exchange layer. *J. Atmos. Sci.* **22**, 509–517. => HT-F021
2015. Hoppel, W.A., Fitzgerald, J.W., Frick, G.M., Larson, R.E. and Mack, E.J. (1990) Aerosol size distributions and optical properties found in the marine boundary layer over the Atlantic Ocean. *J. Geophys. Res.* **95**, 3659–3686. => AEL1562
2016. Hoppel, W.A., Fitzgerald, J.W., Frick, G.M., Larson, R.E. and Mack, E.J. (1990) Aerosol size distributions and optical properties found in the marine boundary layer over the Atlantic Ocean. *Journal of Geophysical Research* **95**, 3659–3686. => HT0790
2017. Hoppel, W.A., Frick, G.M. and Fitzgerald, J.W. (2002) Surface source function for sea-salt aerosol and aerosol dry deposition to the ocean surface. *J. Geophys. Res. Atmospheres* **107**, 4382 doi:10.1029/2001JD002014–2002. => AEL3770
2018. Hoppel, W.A., Frick, G.M. and Larson, R.E. (1986) Effect of nonprecipitating clouds on the aerosol size distributions in the marine boundary layer. *Geophys. Res. Lett.* **13**, 125–128. => AEL1241

2019. Hoppel, W.A., Frick, G.M. and Larson, R.E. (1986) Effect of nonprecipitating clouds on the aerosol size distribution in the marine boundary layer. *Geophysical Research Letters* **13**, 125–128. => HT0394
2020. Hoppel, W.A., Frick, G.M. and Larson, R.E. (1986) Effect of nonprecipitating clouds on the aerosol size distribution in the marine boundary layer. *Geophysical Research Letters* **13**, 125–128. => HT0793
2021. Hoppel, W.A., Frick, G.M., Fitzgerald, J.W. and Larson, R.E. (1994) Marine boundary layer measurements of new particle formation and the effects nonprecipitating clouds have on aerosol size distribution. *J. Geophys. Res.* **99**, 14443–14459. => AEL1613
2022. Hoppel, W.A., Frick, G.M., Fitzgerald, J.W. and Wattle, B.J. (1994) A cloud chamber study of the effect that nonprecipitating water clouds have on the aerosol size distribution. *Aerosol Sci. Technol.* **20**, 1–30. => AEL1092
2023. Hoppel, W.A., Frick, G.M., Fitzgerald, J.W. and Wattle, B.J. (1994) A cloud chamber study of the effect that nonprecipitating water clouds have on the aerosol size distribution. *Aerosol Science and Technology* **20**, 1–30. => HT0788
2024. Hoppel, W.A., Larson, R. and Vietti, M.A. (1984) Aerosol size distributions at a site on the east coast of the United States. *Atmos. Environ.* **18**, 1613–1621. => AEL0147
2025. Horbatsch, M. (1991) A semiclassical independent electron model for ion-atom collisions. *Comp. Phys. Commun.* **63**, 115–125. => AEL0789
2026. Horie, O. and Moortgat, G.K. (1991) Decomposition pathways of the excited Criegee intermediates in the ozonolysis of simple alkenes. *Atmos. Environ.* **25A**, 1881–1896. => AEL1436
2027. Horning, E.C., Horning, M.G., Carroll, D.I., Dzidic, I. and Stillwell, R.N. (1973) New picogram detection system based on a mass spectrometer with an external ionization source at atmospheric pressure. *Anal. Chem.* **45**, 936–943. => AEL1410
2028. Horning, E.C., Horning, M.G., Carroll, D.I., Stillwell, R.N. and Dzidic, I. (1973) Nicotine in smokers, non-smokers and room air. *Life Sciences* **13**, 1331–1346. => AEL1474
2029. Hörrak, U. and Salm, J. Keskmiste aeroioonide probleem (in Estonian). *Käsitlused, 1996.a. füüsikapäevade stendiettekanne?* 1–4. => HT0935
2030. Hörrak, U., Aalto, P.P., Salm, J., Mäkelä, J.M., Laakso, L. and Kulmala, M. (2005) Characterization of air ions in boreal forest air during BIOFOR III campaign. *Atmos. Chem. Phys. Discuss.* **5**, 2749–2790. => HT1564
2031. Hörrak, U., Iher, H., Luts, A., Salm, J. and Tammet, H. (1994) Mobility spectrum of air ions at Tahkuse observatory. *Journal of Geophysical Research* **99**, 10697–10700. => HT0746
2032. Hörrak, U., Mirme, A., Salm, J., Tamm, E. and Tammet, H. *Interpretation of air ion mobility spectra in terms of aerosol particle sizes. Arutelu.* => HT1598
2033. Hörrak, U., Salm, J. and Tammet, H. (1998) Bursts of intermediate ions in atmospheric air. *J. Geophys. Res. Atmospheres* **103**, 13909–13915. => AEL2274
2034. Hörrak, U., Salm, J., Tamm, E. and Tammet, H. (1996) Derivation of the size spectrum of aerosol particles from a mobility spectrum. In *Nucleation and atmospheric aerosols*, edited by Kulmala, M. and Wagner, P.E., Pergamon, pp. 562–565. => HT1161
2035. Horstmann, M. and McLachlan, M.S. (1996) Evidence of a novel mechanism of semivolatile organic compound deposition in coniferous forests. *Environ. Sci. Technol.* **30**, 1794–1796. => HT1242
2036. Horton, K.D. and Mitchell, J.P. (1992) Development of a number-concentration standard for micron-sized particles. *J. Aerosol Sci.* **23**, S341–S344. => AEL0930

2037. Horton, R.L., Franklin, J.L. and Mazzeo, B. (1975) Ion clustering reactions in carbon monoxide. *J. Chem. Phys.* **62**, 1739–1746. => AEL0607
2038. Hosker, R.P.Jr. and Lindberg, S.E. (1982) Review: Atmospheric deposition and plant assimilation of gases and particles. *Atmos. Environ.* **16**, 889–910. => AEL1118
2039. Hounslow, M.J., Ryall, R.L. and Marshall, V.R. (1988) A discretized population balance for nucleation, growth, and aggregation. *AIChE Journal* **34**, 1821–1832. => AEL2391
2040. Hov, O. and Hjollo, B.A. (1994) Transport distance of ammonia and ammonium in Northern Europe 2. Its relation to emissions of SO<sub>2</sub> and NO<sub>x</sub>. *J. Geophys. Res.* **99**, 18749–18755. => AEL1546
2041. Hov, O., Schjoldager, J. and Wathne, B.M. (1983) Measurement and modeling of the concentrations of terpenes in coniferous forest air. *J. Geophys. Res.* **88**, 10679–10688. => AEL0675
2042. Hov, O., Schmidbauer, N. and Oehme, M. (1989) Light hydrocarbons in the Norwegian Arctic. *Atmos. Environ.* **23**, 2471–2482. => AEL0588
2043. Howard, C.J. (1980) Kinetic study of the equilibrium HO<sub>2</sub>+NO<-->OH+NO<sub>2</sub> and the thermochemistry of HO<sub>2</sub>. *J. Am. Chem. Soc.* **102**, 6937–6941. => AEL1369
2044. Howell, S.G. and Huebert, B.J. (1998) Determining marine aerosol scattering characteristics at ambient humidity from size-resolved chemical composition. *J. Geophys. Res. Atmospheres* **103**, 1391–1404. => AEL2081
2045. Hoyt, J.J. (1990) The continuum theory of nucleation in multicomponent systems. *Acta metall. mater.* **38**, 1405–1412. => AEL0786
2046. Hu H. and Holzworth, H. (1997) An inertial wave-driven stratospheric horizontal electric field: New evidence. *J. Geophys. Res. Atmospheres* **102**, 19717–19727. => AEL2194
2047. Huang, D.D. and Seinfeld, J.H. (1988) On the relation between binary diffusivity and mean free path. *J. Colloid and Interface Sci.* **125**, 733–735. => AEL1537
2048. Huang, D.D., Seinfeld, J.H. and Marlow, W.H. (1990) BGK equation solution of coagulation for large Knudsen number aerosols with a singular attractive contact potential. *J. Colloid Interface Sci.* **140**, 258–276. => AEL0713
2049. Huang, D.D., Seinfeld, J.H. and Marlow, W.H. (1990) BGK equation solution of coagulation for large Knudsen number aerosols with a singular attractive contact potential. *J. Colloid Interface Sci.* **140**, 258–276. => HT1438
2050. Huang, D.D., Seinfeld, J.H. and Okuyama, K. (1991) Image potential between a charged particle and an uncharged particle in aerosol coagulation - enhancement in all size regimes and interplay with van der Waals forces. *J. Colloid and Interface Sci.* **141**, 191–198. => AEL1173
2051. Hudson, J.G. and Da, X. (1996) Volatility and size of cloud condensation nuclei. *J. Geophys. Res.* **101**, 4435–4442. => AEL1756
2052. Huebert, B.J. (1996) Introduction to the ASTEX/MAGE special issue. *J. Geophys. Res.* **101**, 4317–4317. => AEL1745
2053. Huebert, B.J., Bates, T., Russell, P.B., Shi, G., Kim, Y.J., Kawamura, K., Carmichael, G. and Nakajima, T. (2003) An overview of ACE-Asia: Strategies for quantifying the relationships between Asian aerosols and their climatic impacts. *J. Geophys. Res. Atmospheres* **108**, 8633–doi:10.1029/2003JD003550. => AEL4079
2054. Huebert, B.J., Phillips, C.A., Zhuang, L., Kjellström, E., Rodhe, H., Feichter, J. and Land, C. (2001) Long-term measurements of free-tropospheric sulfate at Mauna Loa: Comparison with global model simulations. *J. Geophys. Res. Atmospheres* **106**, 5479–5492. => AEL3426
2055. Huebert, B.J., Pszenny, A. and Blomquist, B. (1996) The ASTEX/MAGE experiment. *J. Geophys. Res.* **101**, 4319–4329. => AEL1746

2056. Huebert, B.J., Zhuang, L., Howell, S., Noone, K. and Noone, B. (1996) Sulfate, nitrate, methanesulfonate, chloride, ammonium, and sodium measurements from ship, island and aircraft during the Atlantic Stratocumulus Transition Experiment/Marine Aerosol Gas Exchange. *J. Geophys. Res.* **101**, 4413–4423. => AEL1754
2057. Huertas, M.L. and Fontan, J. (1975) Evolution times of tropospheric positive ions. *Atmos. Environ.* **9**, 1018–1026. => AEL0603
2058. Huertas, M.L. and Fontan, J. (1980) On the nature of tropospheric negative ions and on the influence of various polluting gases on the nature of tropospheric positive and negative ions. *Abstracts of the VIth International Conference on Atmospheric Electricity*, Manchester, pp. –. => AEL0422
2059. Huertas, M.L. and Fontan, J. (1982) Formation of stable positive and negative small ions of tropospheric interest. *Atmos. Environ.* **16**, 2521–2527. => AEL0562
2060. Huertas, M.L. and Marengo, A. (1986) Positive ion clustering with acetonitrile. *Atmos. Environ.* **20**, 1647–1649. => AEL0652
2061. Huertas, M.L., Fontan, J. and Gonzalez, J. (1978) Evolution times of tropospheric negative ions. *Atmos. Environ.* **12**, 2351–2362. => AEL0604
2062. Huertas, M.L., Marty, A.M. and Fontan, J. (1974) On the nature of positive ions of tropospheric interest and on the effect of polluting organic vapors. *J. Geophys. Res.* **79**, 1737–1743. => AEL0552
2063. Huertas, M.L., Marty, A.M., Fontan, J., Alet, I. and Duffa, G. (1971) Measurement of mobility and mass of atmospheric ions. *Aerosol Sci.* **2**, 145–150. => HT0209
2064. Huertas, M.L., Marty, A.M., Fontan, J., Lanegrasse, L. and Blanc, D. (1970) A method of measuring the mobility of radioactive ions. *The Review of Scientific Instruments* **41**, 1567–1569. => HT0630
2065. Huet, C., Tymen, G. and Boulaud, D. (2001) Long-term measurements of equilibrium factor and unattached fraction of short-lived radon decay products in a dwelling - comparison with Praddo model. *Aerosol Sci. Technol.* **35**, 553–563. => AEL3497
2066. Huffines, G.R. and Orville, R.E. (1999) Lightning ground flash density and thunderstorm duration in the continental United States: 1989-96. *J. Appl. Meteorol.* **38**, 1013–1019. => HT1320
2067. Hughes, L.S., Cass, G.R., Gone, J., Ames, M. and Olmez, I. (1998) Physical and chemical characterization of atmospheric ultrafine particles in the Los Angeles area. *Environ. Sci. Technol.* **32**, 1153–1161. => AEL2965
2068. Hughmark, G.H. (1969) Momentum, heat, and mass transfer analogy for turbulent flow in circular pipes. *Ind. & Eng. Chem. Fundamentals* **8**, 31–35. => AEL0146
2069. Huntrieser, H., Feigl, C., Schlager, H., Schröder, F., Gerbig, C., van Velthoven, P., Flatøy, F., Théry, C., Petzold, A., Höller, H. and Schumann, U. (2002) Airborne measurements of NO<sub>x</sub>, tracer species, and small particles during the European Lightning Nitrogen Oxides Experiment. *J. Geophys. Res. Atmospheres* **107**, ACH5 1–27. => AEL3660
2070. Hurd, F.K. and Mullins, J.C. (1962) Aerosol size distribution from ion mobility. *J. Coll. Sci.* **17**, 91–100. => AEL0145
2071. Hurd, F.K. and Mullins, J.C. (1962) Aerosol size distribution from ion mobility. *J. of Colloid Science* **17**, 91–100. => HT0143

2072. Hurst, J.M., Barket, D.J.Jr., Herrera-Gomez, O., Couch, T.L., Shepson, P.B., Faloona, I., Tan, D., Brune, W., Westberg, H., Lamb, B., Biesenyhal, T., Young, V., Goldstein, A., Munger, J.W., Thornberry, T. and Carroll, M.A. (2001) Investigation of the nighttime decay of isoprene. *J. Geophys. Res. Atmospheres* **106**, 24335–24346. => AEL3567
2073. Husain, L., Rattigan, O.V., Dutkiewicz, V., Das, M., Judd, C.D., Khan, A.R., Richter, R., Balasubramanian, R., Swami, K. and Walcek, C.J. (2000) Case studies of the SO<sub>2</sub>+H<sub>2</sub>O<sub>2</sub> reaction in clouds. *J. Geophys. Res. Atmospheres* **105**, 9831–9841. => AEL3206
2074. Husar, R.B., Macias, E.S. and Dannevik, W.P. (1976) Measurement of dispersion with a fast response aerosol detector. *3rd Symposium of Atmospheric Turbulent Diffusion and Air Quality*, Boston, Mass., pp. 293–298. => AEL0410
2075. Husar, R.B., Prospero, J.M. and Stowe, L.L. (1997) Characterization of tropospheric aerosols over the oceans with the NOAA advanced very high resolution radiometer optical thickness operational product. *J. Geophys. Res. Atmospheres* **102**, 16889–16909. => AEL2023
2076. Hussain, N., Church, T.M., Véron, A.J. and Larson, R.E. (1998) Radon daughter disequilibria and lead systematics in the western North Atlantic. *J. Geophys. Res. Atmospheres* **103**, 16059–16071. => AEL2283
2077. Hussin, A., Scheibel, H.G., Becker, K.H. and Porstendörfer, J. (1983) Bipolar diffusion charging of aerosol particles. I. Experimental results within the diameter range 4–30 nm. *J. Aerosol Sci.* **14**, 671–677. => AEL1136
2078. Hutchins, D.K. and Mazumder, M.K. (1983) Measurement of diffusion diameter distribution on a single-particle basis by use of dual-beam laser Doppler velocimetry. *Dahneke B. Measurement of Suspended Particles by Quasi-Elastic Light Scattering*, Wiley Interscience, New York, pp. 343–359. => AEL1004
2079. Hutchins, D.K., Harper, M.H. and Felder, R.L. (1995) Slip correction measurements for solid spherical particles by modulated dynamic light scattering. *Aerosol Sci. Technol.* **22**, 202–218. => AEL1300
2080. Hutchins, D.K., Harper, M.H. and Felder, R.L. (1995) Slip correction measurements for solid spherical particles by modulated dynamic light scattering. *Aerosol Sci. Technol.* **22**, 202–218. => HT0825
2081. Huuskonen, H., Juutilainen, J. and Komulainen, H. (1993) Effects of low-frequency magnetic fields on fetal development in rats. *Bioelectromagnetics* **14**, 205–213. => HT0772
2082. Huzinaga, S., Klobukowski, M. and Sakai, Y. (1984) Model potential method in molecular calculations. *J. Phys. Chem.* **88**, 4880–4888. => AEL0143
2083. Hwang, J. and Daily, J.W. (1992) A study of particle charging for electric field enhanced deposition. *Aerosol Sci. Technol.* **16**, 113–125. => HT0856
2084. Hwang, N.-M., Jeon, I.-D. and Kim D., I. (2000) Charged cluster model as a new paradigm of crystal growth. *J. Ceramic Processing Research* **1**, 34–44. => HT1440
2085. Hwang, S.-Y., Gentry, J.W. and Davison, S.W. (1986) Unipolar charging of ultrafine aerosols. *J. Aerosol Sci.* **17**, 117–127. => AEL0144
2086. Ibragimov, A. (1990) *Taina "Displeinoi Bolezni"* (in Russian). Manuscript, Frunze. => HT0634
2087. Ibragimov, A.A. (1988) O neobkhodimosti dalneishego razvitiya prikladnoi aeroionologii (in Russian). *Voprosy Kurortologii Fizioterapii i Lechebnoi Fizicheskoi Kultury* 7–10. => HT0885
2088. Ichitsubo, H., Alonso, M. and Kousaka, Y. (1996) The effect of alpha source to aerosol distance on the performance of a diffusion charger. *Aerosol Sci. Technol.* **24**, 255–262. => AEL1738

2089. Ichitsubo, H., Alonso, M. and Kousaka, Y. (1996) The effect of alpha source to aerosol distance on the performance of a diffusion charger. *Aerosol Sci. Technol.* **24**, 255–262. => AEL1824
2090. Ichitsubo, H., Hashimoto, T., Alonso, M. and Kousaka, Y. (1996) Penetration of ultrafine particles and ion clusters through wire screens. *Aerosol Sci. Technol.* **24**, 119–127. => AEL1522
2091. Idone, V.P. (1990) Length bounds for connecting discharges in triggered lightning subsequent strokes. @*JGR* **95**, 20409–20416. => HT0530
2092. Idone, V.P. and Orville, R.E. (1982) Lightning return stroke velocities in the thunderstorm research international program (TRIP). *J. of Geophysical Research* **87**, 4903–4915. => HT0141
2093. Idone, V.P. and Orville, R.E. (1984) Three unusual strokes in a triggered lightning flash. *J. of Geophysical Research* **89**, 7311–7316. => HT0177
2094. Idone, V.P. and Orville, R.E. (1985) Correlated peak relative light intensity and peak current in triggered lightning subsequent return strokes. @*JGR* **90**, 6159–6164. => HT0401
2095. Idone, V.P. and Orville, R.E. (1988) Channel tortuosity variation in Florida triggered lightning. *Geophys. Res. Lett.* **15**, 645–648. => HT0900
2096. Idone, V.P., Davis, D.A., Moore, P.K., Wang, Y., Henderson, R.W., Ries, M. and Jamason, P.F. (1998) Performance evaluation of the U.S. National Lightning Detection Network in eastern New York 1. Detection efficiency. *J. Geophys. Res. Atmospheres* **103**, 9045–9055. => AEL2256
2097. Idone, V.P., Davis, D.A., Moore, P.K., Wang, Y., Henderson, R.W., Ries, M. and Jamason, P.F. (1998) Performance evaluation of the U.S. National Lightning Detection Network in eastern New York 2. Location accuracy. *J. Geophys. Res. Atmospheres* **103**, 9057–9069. => AEL2257
2098. Idone, V.P., Orville, R.E. and Henderson, R.W. (1984) Ground truth: A positive cloud-to-ground lightning flash. *J. of Climate and Applied Meteorology* **23**, 1148–1151. => HT0176
2099. Idone, V.P., Orville, R.E., Hubert, P., Barret, L. and Eybert-Berard, A. (1984) Correlated observations of three triggered lightning flashes. *J. of Geophysical Research* **89**, 1385–1394. => HT0178
2100. Iher, H., Salm, J. and Tammet, H. (1984) Measurements of the mobility spectra of small air ions. *VII International Conference of Atmospheric Electricity*, pp. 37–39. => AEL0565
2101. Ihm, G., Song, Y. and Mason, E.A. (1991) A new strong principle of corresponding states for nonpolar fluids. *J. Chem. Phys.* **94**, 3939–3848. => AEL1486
2102. Iida, T., Ikebe, Y. and Tojo, K. (1991) An electrostatic radon monitor for measurements of environmental radon. *Res. Lett. Atmos. Electr.* **11**, 55–59. => HT1143
2103. Inuma, K. (1997) A model calculation of three-body recombination coefficients of some tropospheric positive and negative ion-pairs. *J. Atmos. Electr.* **17**, 23–32. => HT1196
2104. Inuma, K. (1998) A model calculation of transport coefficient for small negative ions in the troposphere. *J. Atmos. Electr.* **18**, 21–29. => HT1282
2105. Inuma, K. (1999) Prediction of mobility spectrum shift of atmospheric ions due to the presence of ion-molecule reactions. *J. Atmos. Electr.* **19**, 35–44. => HT1465
2106. Inuma, K. and Nishikatsu, H. (1997) A model calculation of transport coefficient for small positive ions in the troposphere. *J. Atmos. Electr.* **17**, 11–22. => HT1195
2107. Ilias, M.A., Wårdell, K., Falk, M. and Anderson, C. (2001) Phototesting based on a divergent beam – a study on normal subjects. *Photodermatology, Photoimmunology & Photomedicine* **17**, 189–196. => AEL3544



2108. Illies, A.J. (1990) Gas-phase ion-molecule reactions in dilute mixtures of dimethyl ether in krypton. Bimolecular and clustering reactions. *Organic Mass Spectrometry* **25**, 73–76. => AEL0451
2109. Im J.-S., Saxena, V.K. and Wenny, B.N. (2001) An assessment of hygroscopic growth factors for aerosols in the surface boundary layer for computing direct radiative forcing. *J. Geophys. Res. Atmospheres* **106**, 20213–20224. => AEL3514
2110. Imboden, A.S., Salmon, L.G. and Christoforou, C.S. *Atmospheric dry deposition of nitrogen to Lake Greenwood, South Carolina: 1. PM measurements. Käsikiri.* => HT1417
2111. Imyanitov, I.M. and Levin, L.M. (1974) Kritika i bibliografiya (in Russian). *Fizika Atmosfery i Okeana* **10**, 907–911. => HT0080
2112. Imyanitov, I.M., Stepanenko, V.D., Tammet, Kh.F., Khalilov, F.Kh. and Shvarts, Ya.M. (1987) Khronika.Tretii Vsesoyuznyi simpozium po atmosfernomu elektrichestvu.. (in Russian). *Meteorologia i Gidrologia* 125–127. => HT0344
2113. Imyanitova, I.M. and Kolokolova, V.P. (1976) *Atmosfernoe elektrichestvo* (in Russian). Gidrometeoizdat, Len. => HT0331
2114. Inagaki, M. (1968) Production of uniform size drops. *XXXXXX* **6**, 679–684. => AEL0941
2115. Ingels, J., Nevejans, D., Frederick, P. and Arijs, E. (1987) Acetonitrile and sulfuric acid concentrations derived from ion composition measurements during the MAP/GLOBUS 1983 campaign. *Planet. Space Sci.* **35**, 685–691. => AEL1432
2116. Ingham, D.B. (1975) Diffusion of disintegration products of radioactive gases in circular and flat channels. *J.Aerosol Sci.* **6**, 395–402. => HT1541
2117. Ingham, D.B. (1976) Simultaneous diffusion and sedimentation of aerosol particles in rectangular tubes. *J.Aerosol Sci.* **7**, 373–380. => HT1543
2118. Ingold, T., Mätzler, C., Kämpfer, N. and Heimo, A. (2001) Aerosol optical depth measurements by means of a Sun photometer network in Switzerland. *J. Geophys. Res. Atmospheres* **106**, 27537–27554. => AEL3570
2119. Ingraham, N.L. and Caldwell, E.A. (1999) Influence of weather on the stable isotopic ratios of wines: Tools for weather/climate reconstruction. *J. Geophys. Res. Atmospheres* **104**, 2185–2194. => AEL2758
2120. Iraci, L.T., Middlebrook, A.M. and Tolbert, M.A. (1995) Laboratory studies of the formation of polar stratospheric clouds: Nitric acid condensation on thin sulfuric acid films. *J. Geophys. Res. Atmospheres* **100**, 20969–20977. => AEL1910
2121. Iribarne, J.V. and Thomson, B.A. (1976) On the evaporation of small ions from charged droplets. *The Journal of Chemical Physics* **64**, 2287–2294. => HT1482
2122. Iribarne, J.V., Corr, D., Liu, B.Y.H. and Pui, D.Y.H. (1977) On the hypothesis of particle fragmentation during evaporation. *Atmospheric Environment* **11**, 639–642. => HT0315
2123. Irie, H., Koike, M., Kondo, Y., Bodeker, G.E., Danilin, M.Y. and Sasano, Y. (2001) Redistribution of nitric acid in the Arctic lower stratosphere during the winter of 1996-1997. *J. Geophys. Res. Atmospheres* **106**, 23139–23150. => AEL3559
2124. Isaac, G.A., Banic, C.M., Leaitch, W.R., Anlauf, K.G., Couture, M.D., Liu, P.S.K., Macdonald, A.M., MacQuarrie, K.I.A., Puckett, K.J. and Wiebe, H.A. (1998) Vertical profiles and horizontal transport of atmospheric aerosols and trace gases over central Ontario. *J. Geophys. Res. Atmospheres* **103**, 22015–22037. => AEL2790
2125. Isaksen, I.S.A. and Hov, O. (1987) Calculation of trends in the tropospheric concentration of O<sub>3</sub>~, OH, CO, CH<sub>4</sub>~ and NO<sub>x</sub>~. *Tellus* **39B**, 271–285. => AEL0584

2126. Isakson, J., Öblad, M., Selin Lindgren, E., Djupström Fridell, M., Pacyna, J.M. and Mäkinen, M. (1997) Perturbation of background aerosol at rural sites in the Nordic countries. *Atmos. Environ.* **31**, 3077–3086. => AEL1917
2127. Ishida, K. (1984) Molecular integrals arising in the linear response theory of van der Waals forces. *Int. J. Quantum Chem.* **24**, 535–559. => AEL0142
2128. Ishimaru, A., Marks R.J.II Tsang, L., Lam, C.M., Park, D.C. and Kitamura, S. (1990) Particle-size distribution determination using optical sensing and neural networks. *Optics Letters* **15**, 1221–1223. => AEL2415
2129. Ishizaka, Y. and Adhikari, M. (2003) Composition of cloud condensation nuclei. *J. Geophys. Res. Atmospheres* **108**, 4138– doi:10.1029/2002JD002085, 2003. => AEL3950
2130. Isidorov, V.A., Zenkevich, I.G. and Ioffe, B.V. (1985) Volatile organic compounds in the atmosphere of forests. *Atmos. Environ.* **19**, 1–8. => AEL1463
2131. Israël, H. (1941) Ionen und Kerne; eine kritische Studie. *Gerlands Beiträge zur Geophysik* **57**, 261–282. => AEL1726
2132. Israel, H. (1955) Mesgeräte und Arbeitsmethoden bei luftelektrischen Untersuchungen. II. Messungen des elektr. Feldes (Potentialgefälles) in der Atmosphäre. *Arch. Techn. Messen* **233**, 125–128. => HT-F016
2133. Israel, H. (1968) Remarks concerning the "ten-year-period" of atmospheric research. *Presented to the Fourth International Conference on the Universal Aspects of Atmospheric Electricity*, Manuscript, Tokyo, pp. 1–5. => HT0567
2134. Israel, H. and de Bruijn, P. (1967) The present status of atmospheric electric research. *Archiv für Meteorologie, Geophysik und Bioklimatologie* **16**, 281–300. => HT0002
2135. Israël, H. and Schulz, L. (1933) The mobility spectrum of atmospheric ions. Principles of measurements and results. *J. Geophys. Res.* **38**, 285–300. => AEL3532
2136. Israel, H. and Schulz, L. (1933) The mobility-spectrum of atmospheric ions-principles of measurements and results. *Terr. Magn.* **38**, 285–300. => HT-F053
2137. Israel, H. und Dolezalek, H. (1957) Zur Methodik luftelektrischen Messfühlern und ihre Verhütung. *Gerl. Beitr. Geoph. Leipzig* **66**, 129–142. => HT-F042
2138. Israeli, M. (1985) Deposition rates of Rn progeny in houses. *Health Physics* **49**, 1069–1083. => AEL2473
2139. Israelsson, S. (1968) Om den naturliga luftradioaktivitetens variation i marknära skikt/On the variation of the natural radioactivity in the air near the ground. *Uppsala Serien Rapport/Reports* **5**, 2–24. => HT1406
2140. Israelsson, S. (1984) Studies of spectrum of thunder and reconstruction of lightning channels. *VII International Conference on Atmospheric Electricity*, Boston, pp. 487–491. => HT0433
2141. Israelsson, S. (1994) The effects of wind and evaporation on space charge formation at the ground. *Journal of Atmospheric and Terrestrial Physics* **56**, 1–8. => HT0744
2142. Israelsson, S. (1994) The effects of wind on the space charge formation at the ground layer. *Journal of Atmospheric Electricity* **14**, 75–89. => HT0742
2143. Israelsson, S. (Comp.) *Radioactivity in the atmosphere. Käsikiri*. Meteorology, Geocentrum, => HT1235
2144. Israelsson, S. and Knudsen, E. (1986) Effects of radioactive fallout from a nuclear power plant accident on electrical parameters. *J. Geophys. Res. Atmospheres* **91**, 11909–11910. => HT1263

2145. Israelsson, S. and Knudsen, E. (1994) An artificially generated electrode effect at ground level. *Journal of Atmospheric Electricity* **14**, 139–145. => HT0743
2146. Israelsson, S. and Lelwala, R. (1999) Space charge density measurements downwind from a traffic route. *Atmos. Res.* **51**, 301–307. => HT1389
2147. Israelsson, S. and Schütte, T. (1984) On the effects of electric fields and turbulence on the production of space charge densities in the atmospheric surface layers. *VII International Conference on Atmospheric Electricity*, Boston, pp. 17–21. => HT0413
2148. Israelsson, S. *Determination of fall velocity and size of fog droplets from atmospheric electrical measurements. MS.* => HT1586
2149. Israelsson, S., Enayatollah, M.A., Pislser, E., Michnowski, S. and Adedokun, J. (1983) *On the occurrence of cloud-to-ground flashes in Southern Sweden. Manuscript.* Uppsala. => HT0424
2150. Israelsson, S., Israelsson, O., Knudsen, E. and Jayaratne, K.P.S.C. (1990) A thermochemical process for electrification of the atmosphere. Manuscript. *Submitted to Quart. J. Roy. Met. Soc.*, Uppsala, pp. 1–45. => HT0524
2151. Israelsson, S., Knudsen, E. and Anisimov, S.V. (1994) Vertical profiles of electrical conductivity in the lowermost part of the turbulent boundary layer over flat ground. *Journal of Atmospheric and Terrestrial Physics* **56**, 1545–1550. => AEL3189
2152. Israelsson, S., Knudsen, E. and Anisimov, S.V. (1994) Vertical profiles of electrical conductivity in the lowermost part of the turbulent boundary layer over flat ground. *Journal of Atmospheric and Terrestrial Physics* **56**, 1545–1550. => HT0741
2153. Israelsson, S., Knudsen, E. and Tammet, H. (1994) An experiment to examine the covariation of atmospheric electrical vertical currents at two separate stations. *J. Atmos. Electr.* **14**, 63–73. => HT0813
2154. Israelsson, S., Pislser, E. and Schütte, T. (1985) *The use of an automatic lightning location system in Sweden. Manuscript.* Uppsala. => HT0419
2155. Israelsson, S., Schütte, T., Pislser, E. and Lundquist, S. *Increased occurrence of lightning in Sweden during 1986. Manuscript.* Uppsala. => HT0422
2156. Itikawa, Y., Ichimura, A., Onda, K., Sakimoto, K., Takayanagi, K., Hatano, Y., Hayashi, M., Nishimura, H. and Tsurubuchi, S. (1989) Cross sections for collisions of electrons and photons with oxygen molecules. *Journal of Physical and Chemical Reference Data* **18**, 23–42. => AEL0476
2157. Itkin, A.L. (2001) Kinetic model of effect of a carrier gas on nucleation in a diffusion chamber. *Aerosol Sci. Technol.* **34**, 479–489. => AEL3495
2158. Itoh, H., Norimoto, K. and Hayashi, T. Measurement of negative ion mobilities in O<sub>2</sub> and O<sub>3</sub> mixtures at atmospheric pressure. *Käsikiri.* 1–5. => HT1010
2159. Itoh, M. and Takahashi, K. (1980) Size distribution data analysis of aerosol particles by EAA. *Bull. Inst. Atom Energy, Kyoto Univ.* **58**, 61–61. => AEL0944
2160. Itoh, M. and Tohno, S. (1996) Ion nucleation and growth of sulfuric acid-water aerosol particles. In *Nucleation and atmospheric aerosols*, edited by Kulmala, M. and Wagner, P.E., Pergamon, pp. 38–41. => HT1172
2161. Ivanov, V.N., Korovin, V.Ya., Smirnov, V.V. and Uvarov, A.D. (1981) Peculiarities of laser radiation and solid aerosol interaction. *Proceedings of the International Conference on Lasers'81* 924–927. => HT0183
2162. Iversen, T. and Seland, Ø. (2002) A scheme for process-tagged SO<sub>4</sub> and BC aerosols in NCAR CCM3: Validation and sensitivity to cloud processes. *J. Geophys. Res. Atmospheres* **107**, 4751– doi:10.1029/2001JD000885, 2002. => AEL3921

2163. Iwamatsu, M. and Horii, K. (1996) Temperature dependence of nucleation rate of spherical liquid drops and vapor bubbles. *J. Non-Crystalline Solids* **205**, 919–923. => AEL2373
2164. Iwamatsu, M. and Horii, K. (1997) Temperature dependence of liquid-vapor nucleation rate for the Yukawa model fluid. *Aerosol Sci. Technol.* **27**, 563–574. => AEL1962
2165. Iwasaka, Y., Hayashi, M., Kondo, Y., Koike, M., Koga, S., Yamato, M., Aïmediel, P. and Matthews, W.A. (1993) Two different type nitrate aerosols in the winter polar stratosphere: Morphology of individual particles observed with an electron microscope. *J. Geomag. Geoelectr.* **45**, 1181–1192. => AEL1903
2166. Izrael, Yu.A., Lysak, A.V., Nazarov, I.M., Pressman, A.Ya. and Ryaboshapko, A.G. (1979) Issledovaniya i otsenka perenosa zagryaznyayushchikh vozdukh veshchestv na bolshie rasstoyaniya (in Russian). *Gos.Kom.SSSR po Gidrometeorol. i Kontrolyu Prirodnoi Sredy*, **3**, pp. 3–12. => HT0324
2167. Izumi, K. and Fukuyama, T. (1990) Photochemical aerosol formation from aromatic hydrocarbons in the presence of NO<sub>x</sub>. *Atmos. Environ.* **24A**, 1433–1441. => AEL0816
2168. Jackman, C.H., Fleming, E.L. and Vitt, F.M. (2000) Influence of extremely large solar proton events in a changing atmosphere. *J. Geophys. Res. Atmospheres* **105**, 11659–11670. => AEL3210
2169. Jackson, M.R., Iglarsch, H. and Salkowski, M.J. (1970) Sample-size induced errors in the transformation of particle size distributions. *Powder Technol.* **3**, 317–322. => AEL0109
2170. Jacob, D.J., Field, B.D., Jin, E.M., Bey, I., Li, Q., Logan, J.A., Yantosca, R.M. and Singh, H.B. (2002) Atmospheric budget of acetone. *J. Geophys. Res. Atmospheres* **107**, ACH5 1–19. => AEL3652
2171. Jacob, D.J., Gottlieb, E.W. and Prather, M.J. (1989) Chemistry of a polluted cloudy boundary layer. *J. Geophys. Res.* **94**, 12975–13002. => AEL0593
2172. Jacob, D.J., Logan, J.A. and Murti, P.P. (1999) Effect of rising Asian emissions on surface ozone in the United States. *Geophys. Res. Lett.* **26**, 2175–2178. => AEL2907
2173. Jacob, D.J., Prather, M.J., Rasch, P.J., Shia, R.-L., Balkanski, Y.J., Beagley, S.R., Bergmann, D.J., Blackshear, W.T., Brown, M., Chiba, M., Chipperfield, M.P., Grandpré J., de, Dignon, J.E., Feichter, J., Genthon, C., Grose, W.L., Kasibhatla, P.S., Köhler, I., Kritz, M.A., Law, K., Penner, J.E., Ramonet, M., Reeves, C.E., Rotman, D.A., Stockwell, D.Z., Van Velthoven, P.F.J., Verver, G., Wild, O., Yang, H. and Zimmermann, P. (1997) Evaluation and intercomparison of global atmospheric transport models using <sup>222</sup>Rn and other short-lived tracers. *J. Geophys. Res. Atmospheres* **102**, 5953–5970. => AEL2313
2174. Jacob, D.J., Prather, M.J., Wofsy, S.C. and McElroy, M.B. (1987) Atmospheric distribution of <sup>85</sup>Kr simulated with a general circulation model. *@JGR* **92**, 6614–6626. => HT0398
2175. Jacob, P., Tavares, T.M., Rocha, V.C. and Klockow, D. (1990) "Atmospheric H<sub>2</sub>~O<sub>2</sub>~ field measurements in a tropical environment: Bahia, Brazil. *Atmos. Environ.* **24A**, 377–382. => AEL0470
2176. Jacobi, W. and Paretzke, H.G. (1985) Risk assessment for indoor exposure to radon daughters. *The Science of the Total Environment* **45**, 551–562. => AEL2480
2177. Jacobsen, S. and Brock, J.R. (1965) The thermal force on spherical sodium chloride aerosols. *J. Colloid Interface Sci.* **20**, 544–554. => AEL0141
2178. Jacobson, A.R. and Shao, X.-M. (2002) FORTE satellite observations of very narrow radiofrequency pulses associated with the initiation of negative cloud-to-ground lightning strokes. *J. Geophys. Res. Atmospheres* **107**, 4661 doi:10.1029/2001JD001542–2002. => AEL3806

2179. Jacobson, M.Z. (1997) Numerical techniques to solve condensational and dissolutional growth equations when growth is coupled to reversible reactions. *Aerosol Sci. Technol.* **27**, 491–498. => AEL1960
2180. Jacobson, M.Z. (1998) Studying the effects of aerosols on vertical photolysis rate coefficient and temperature profiles over an urban airshed. *J. Geophys. Res. Atmospheres* **103**, 10593–10604. => AEL2258
2181. Jacobson, M.Z. (1999) Isolating nitrated and aromatic aerosols and nitrated aromatic gases as sources of ultraviolet light absorption. *J. Geophys. Res. Atmospheres* **104**, 3527–3542. => AEL2764
2182. Jacobson, M.Z. (2001) Global direct radiative forcing due to multicomponent anthropogenic and natural aerosols. *J. Geophys. Res. Atmospheres* **106**, 1551–1568. => AEL3305
2183. Jacobson, M.Z. (2002) Analysis of aerosol interactions with numerical techniques for solving coagulation, nucleation, condensation, dissolution, and reversible chemistry among multiple size distributions. *J. Geophys. Res. Atmospheres* **107**, 4366–doi:10.1029/2001JD002044,2002. => AEL3767
2184. Jacobson, M.Z. (2002) Control of fossil-fuel particulate black carbon and organic matter, possibly the most effective method of slowing global warming. *J. Geophys. Res. Atmospheres* **107**, 4410 doi:10.1029/2001JD001376–2002. => AEL3776
2185. Jacobson, M.Z. (2003) Development of mixed-phase clouds from multiple aerosol size distributions and the effect of the clouds on aerosol removal. *J. Geophys. Res. Atmospheres* **108**, 4245– doi:10.1029/2002JD002691, 2003. => AEL3992
2186. Jacobson, M.Z. (2003) Reply to comment by D.P.Chock et al on "Control of fossil-fuel particulate black carbon and organic matter, possibly the most effective method of slowing the global warming". *J. Geophys. Res. Atmospheres* **108**, 4770– doi:10.1029/2003JD003707. => AEL4109
2187. Jacobson, M.Z. (2003) Reply to comment by J. Feichter et al on "Control of fossil-fuel particulate black carbon and organic matter, possibly the most effective method of slowing the global warming". *J. Geophys. Res. Atmospheres* **108**, 4768– doi:10.1029/2002JD003299. => AEL4106
2188. Jacobson, M.Z. (2003) Reply to comment by J.E. Penner on "Control of fossil-fuel particulate black carbon and organic matter, possibly the most effective method of slowing the global warming". *J. Geophys. Res. Atmospheres* **108**, 4772– doi:10.1029/2003JD003403. => AEL4110
2189. Jacobson, M.Z. and Seinfeld, J.H. (2004) Evolution of nanoparticle size and mixing state near the point of emission. *Atmos. Environ.* **38**, 1839–1850. => AEL4136
2190. Jacobson, M.Z. and Seinfeld, J.H. (2004) Evolution of nanoparticle size and mixing state near the point of emission. *Atmos. Environ.* **38**, 1839–1850. => HT1579
2191. Jacobson, M.Z. and Turco, R.P. (1995) Simulating condensational growth, evaporation, and coagulation of aerosols using a combined moving and stationary size grid. *Aerosol Sci. Technol.* **22**, 73–92. => AEL1298
2192. Jacobson, M.Z., Tabazadeh, A. and Turco, R.P. (1996) Simulating equilibrium within aerosols and nonequilibrium between gases and aerosols. *J. Geophys. Res.* **101**, 9079–9091. => AEL1665
2193. Jaeger-Voirol, A. (1988) *Etude physico-chimique de la formation des aerosols: application aux "pluies acides" et la stratosphere.* l'Universite Louis Pasteur, Strasbourg. => AEL1618
2194. Jaeger-Voirol, A. and Mirabel, P. (1988) Nucleation rate in a binary mixture of sulfuric acid and water vapor. *J. Phys. Chem.* **92**, 3518–3521. => AEL1334

2195. Jaecker-Voirol, A. and Mirabel, P. (1989) Heteromolecular nucleation in the sulfuric acid-water system. *Atmos. Environ.* **23**, 2053–2057. => AEL0741
2196. Jaecker-Voirol, A. and Mirabel, P. (1989) Heteromolecular nucleation in the sulfuric acid-water system. *Atmospheric Environment* **23**, 2053–2057. => AEL1857
2197. Jaecker-Voirol, A., Mirabel, P. and Reiss, H. (1987) Hydrates in supersaturated binary sulfuric acid-water vapor: A reexamination. *J. Chem. Phys.* **87**, 4849–4852. => AEL1333
2198. Jaeglé, L., Jacob, D.J., Brune, W.H., Faloon, I., Tan, D., Heikes, B.G., Kondo, Y., Sachse, G.W., Anderson, B., Gregory, G.L., Singh, H.B., Poeschel, R., Ferry, G., Blake, D.R. and Shetter, R.E. (2000) Photochemistry of HO<sub>x</sub> in the upper troposphere at northern midlatitudes. *J. Geophys. Res. Atmospheres* **105**, 3877–3892. => AEL3079
2199. Jaenicke, R. (1972) The optical particle counter: Cross-sensitivity and coincidence. *J. Aerosol Sci.* **3**, 95–111. => AEL0149
2200. Jaenicke, R. (1981) Discussion of "The use of differential mobility analyzers of second order in determining the aerosol size distribution". *J. Aerosol Sci.* **12**, 59–60. => AEL0150
2201. Jaenicke, R. Methods for determination of aerosol properties. pp. 467–483. => AEL0954
2202. Jaffe, D.A., Berntsen, T.K. and Isaksen, I.S.A. (1997) A global three-dimensional chemical transport model. 2. Nitrogen oxides and nonmethane hydrocarbon results. *J. Geophys. Res. Atmospheres* **102**, 21281–21296. => AEL2197
2203. Jaffe, D.A., Honrath, R.E., Zhang, L., Akimoto, H., Shimizu, A., Mukai, H., Murano, K., Hatakeyama, S. and Merrill, J. (1996) Measurements of NO, NO<sub>y</sub>, CO and O<sub>3</sub> and estimation of the ozone production rate at Oki Island, Japan, during PEM-West. *J. Geophys. Res.* **101**, 2037–2048. => AEL1625
2204. Jäglid, U., Olsson, J.G. and Pettersson, J.B.C. (1995) Detection and characterization of alkali salt particles using surface ionization techniques. *Subm. to European Aerosol Conf.*, pp. 1–2. => HT0953
2205. Jäglid, U., Olsson, J.G. and Pettersson, J.B.C. (1996) Detection of sodium and potassium salt particles using surface ionization at atmospheric pressure. *J. Aerosol Sci.* **27**, 967–977. => HT1096
2206. Jäglid, U., Olsson, J.G. and Pettersson, J.B.C. Melting and surface ionization of sodium and potassium salt particles on heated platinum at atmospheric pressure. *Käsikiri* 1–15. => HT0954
2207. Jakeman, A.J., Taylor, J.A. and Simpson, R.W. (1986) Modeling distributions of air pollutant concentrations. II. Estimation of one and two parameter statistical distributions. *Atmos. Environ.* **20**, 2435–2447. => AEL0151
2208. James, A.C. (1984) Dosimetric approaches to risk assessment for indoor exposure to radon daughters. *Radiation Protection Dosimetry* **7**, 353–366. => AEL2479
2209. James, A.C., Bradford, G.F. and Howell, D.M. (1972) Collection of unattached RaA atoms using a wire gauze. *J. Aerosol Sci.* **3**, 243–254. => AEL0152
2210. James, A.C., Stahlhofen, W., Rudolf, G., Egan, M.J., Nixon, W., Gehr, P. and Brian, J.K. (1991) The respiratory tract deposition model proposed by the ICRP task group. *Radiation Protection Dosimetry* **38**, 159–165. => AEL2447
2211. James, A.C., Strong, J.C., Cliff, K.D. and Strandén, E. (1988) The significance of equilibrium and attachment in radon daughter dosimetry. *Radiation Protection Dosimetry* **24**, 451–455. => AEL2476
2212. Jamriska, M., Morawska, L. and Ristovski, Z. (1998) Performance assessment of electrostatic filters with a focus on submicrometer particles. *J. Aerosol Sci.* **29**, S1129–S1130. => HT1361

2213. Jang H., D. (1999) Generation of silica nanoparticles from tetraethylorthosilicate (TEOS) vapor in a diffusion flame. *Aerosol Sci. Technol.* **30**, 477–488. => AEL3062
2214. Jang, H.D. and Jeong, J. (1995) The effects of temperature on particle size in the gas-phase production of TiO<sub>2</sub>. *Aerosol Sci. Technol.* **23**, 553–560. => AEL1513
2215. Janicke, L. (2000) A random-walk model for turbulent diffusion. *Berichte zur Umweltphysik/Reports on Environmental Physics* **1**, 1–10. => HT1380
2216. Janka, K. (1984) Dual junction field effect transistor as a comparator of small currents. *Rev. Sci. Instrum.* **55**, 250–252. => AEL0896
2217. Janka, K. (1984) Ion deflection air flow meter with constant deflection. *Rev. Sci. Instrum.* **55**, 976–982. => AEL0898
2218. Janka, K. and Kulmala, V. (1983) Ratemeter with dead-time correction. *Rev. Sci. Instrum.* **54**, 1573–1574. => AEL0900
2219. Janka, K. and Lehtimäki, M. (1982) Method of eliminating the effect of decay products in continuous measurement of <sup>222</sup>Rn. *Rev. Sci. Instrum.* **53**, 523–527. => AEL0901
2220. Janka, K. and Lehtimäki, M. (1982) Method of eliminating the effect of decay products in continuous measurement of <sup>222</sup>Rn. *Rev. Sci. Instrum.* **53**, 523–527. => AEL2535
2221. Janka, K. and Lehtimäki, M. (1982) Method of eliminating the effect of decay products in continuous measurement of <sup>222</sup>Rn. *Rev. Sci. Instrum.* **53**, 523–527. => HT0495
2222. Janov, A.P., Stukanov, V.I., Ivanov, V.N., Poddubnyi, V.L., Loginov, S.M., Lubenets, V.A., Petik, V.V. and Potemka, N.G. (1981) Skorostnoi rudnichnyi elektrofiltir s zhidkostnym osaditelnym elektrodom (in Russian). *Gornyi Zhurnal* 54–56. => HT0172
2223. Janson, R. and De Serves, C. (1998) Isoprene emissions from boreal wetlands in Scandinavia. *J. Geophys. Res. Atmospheres* **103**, 25513–25517. => AEL2804
2224. Janssens, K., Vincze, L., Rubio, J., Adams, F. and Bernasconi, G. (1994) Microscopic X-ray fluorescence analysis. Invited lecture. *J. Analytical Atomic Spectrometry* **9**, 151–157. => AEL2721
2225. Jantunen, M., Reponen, A., Kauranen, P. and Vartiainen, M. (1991) Chernobyl fallout in Southern and Central Finland. *Health Physics* **60**, 427–434. => HT0868
2226. Jaoui, M. and Kamens, R.M. (2001) Mass balance of gaseous and particulate products analysis from  $\alpha$ -pinene/NO<sub>x</sub>/air in the presence of natural sunlight. *J. Geophys. Res. Atmospheres* **106**, 12541–12558. => AEL3472
2227. Jäppinen, A., Koverola, H., Kulmala, M., Raunemaa, T. and Häkkinen, T. (1986) Size distribution above 0.6  $\mu$ m aerodynamic size of the aerosols produced by Spira respirator. *J. Aerosol Sci.* **17**, 552–555. => AEL0891
2228. Japuntich, D.A., Stenhouse, J.I.T. and Liu, B.Y.H. (1990) Conditions for monodispersity of heterogeneous condensation aerosols using dimensionless groups. *J. Colloid Interface Sci.* **136**, 393–400. => AEL1129
2229. Japuntich, D.A., Stenhouse, J.I.T. and Liu, B.Y.H. (1992) An aerosol generator for high concentrations of 0.5–5  $\mu$ m solid particles of practical monodispersity. *Aerosol Sci. Technol.* **16**, 246–254. => AEL0995
2230. Jarosławski, J., Krzyścin, J.W., Puchalski, S. and Sobolewski, P. (2003) On the optical thickness in the UV range: Analysis of the ground-based data taken at Belsk, Poland. *J. Geophys. Res. Atmospheres* **108**, 4722– doi:10.1029/2003JD003571. => AEL4080
2231. Jaworek, A., Adamiak, K., Balachandran, W., Krupa, A., Castle, P. and Machowski, W. (2002) Numerical simulation of scavenging of small particles by charged droplets. *Aerosol Sci. Technol.* **36**, 913–924. => AEL3711

2232. Jayanty, R.K.M. (1989) Evaluation of sampling and analytical methods for monitoring toxic organics in air. *Atmos. Environ.* **23**, 777–782. => AEL0594
2233. Jayaraman, A., Ramachandran, S., Acharya, Y.B. and Subbaraya, B.H. (1995) Pinatubo volcanic aerosol layer decay observed at Ahmedabad (23°N), India, using neodymium:yttrium/garnet backscatter lidar. *J. Geophys. Res.* **100**, 23209–23214. => AEL1712
2234. Jayaratne, E.R. (1998) Possible laboratory evidence for multipole electric charge structures in thunderstorms. *J. Geophys. Res. Atmospheres* **103**, 1871–1878. => AEL2093
2235. Jayaratne, K.P.S.C., Knudsen, E., Siriwardane, H.G.S., Jayathilaka, D.L.N., Manchanayake, S.V.K. and Karunaratne, F.L. (1988) The effect of distorted atmospheric electric field lines on the measurement of small ion densities. *Journal of the Institute of Physics, Sri Lanka* **4**, 18–24. => HT0543
2236. Jayne, J.T., Leard, D.C., Zhang, X., Davidovits, P., Smith, K.A., Kolb, C.E. and Worsnop, D.R. (2000) Development of an aerosol mass spectrometer for size and composition analysis of submicron particles. *Aerosol Sci. Technol.* **33**, 49–70. => AEL3341
2237. Jayne, J.T., Worsnop, D.R., Kolb, C.E., Leard, D., Davidovits, P., Zhang, X. and Smith, K.A. (1998) Aerosol mass spectrometer for size and composition analysis of submicron particles. *J. Aerosol Sci.* **29**, S111–S112. => HT1333
2238. Jaynes, E.T. (1968) Prior probabilities. *IEEE Transactions on Systems Science and Cybernetics SSC-4*, 227–241. => HT0236
2239. Jeanneret, F., Kirchner, F., Clappier, A., van den Bergh, H. and Calpini, B. (2001) Total VOC reactivity in the planetary boundary layer 1. Estimation by a pump and probe OH experiment. *J. Geophys. Res. Atmospheres* **106**, 3083–3093. => AEL3315
2240. Jeffers, D. (1999) Atmospheric electric fields and radon daughter deposition on vegetation. *Radiat. Prot. Dosimetry* **82**, 55–57. => AEL3321
2241. Jeffers, D. (1999) Atmospheric electric fields and radon daughter deposition on vegetation. *Radiat. Prot. Dosimetry* **82**, 55–57. => HT1463
2242. Jefferson, A., Tanner, D.J., Eisele, F.L. and Berresheim, H. (1998) Sources and sinks of H<sub>2</sub>SO<sub>4</sub> in the remote Antarctic marine boundary layer. *J. Geophys. Res. Atmospheres* **103**, 1639–1645. => >AEL2089
2243. Jefferson, A., Tanner, D.J., Eisele, F.L., Davis, D.D., Chen, G., Crawford, J., Huey, J.W., Torres, A.L. and Berresheim, H. (1998) OH photochemistry and methane sulfonic acid formation in the coastal Antarctic boundary layer. *J. Geophys. Res. Atmospheres* **103**, 1647–1656. => AEL2090
2244. Jeffery, C.A. and Austin, P.H. (1997) Homogeneous nucleation of supercooled water: Results from a new equation of state. *J. Geophys. Res. Atmospheres* **102**, 25269–25279. => AEL2210
2245. Jeffery, C.A. and Austin, P.H. (1999) A new analytic equation of state for liquid water. *J. Chem. Phys.* **110**, 484–496. => AEL3135
2246. Jekeli, C. and Kwon, J.H. (1999) Results of airborne vector (3-D) gravimetry. *Geophys. Res. Lett.* **26**, 3533–3536. => AEL2929
2247. Jenkins, P.L., Phillips, T.J., Mulberg, E.J. and Hui, S.P. (1992) Activity patterns of Californians: Use of and proximity to indoor pollutant sources. *Atmos. Environ.* **26A**, 2141–2148. => AEL2919
2248. Jennings, K.R. (1978) Recent developments in the study of ion-molecule reactions. *Advances in Mass Spectrometry* **7A**, 209–228. => AEL0508
2249. Jennings, S.G. and O'Dowd, C.D. (1990) Volatility of aerosol at Mace Head, on the west coast of Ireland. *J. Geophys. Res.* **95**, 13937–13948. => AEL1856



2250. Jennings, S.G., Geever, M., McGovern, F.M., Francis, J., Spain, T.G. and Donaghy, T. (1997) Microphysical and physico-chemical characterization of atmospheric marine and continental aerosol at Mace Head. *Atmos. Environ.* **31**, 2795–2808. => AEL1918
2251. Jennings, S.G., Spain, T.G., Doddridge, B.G., Maring, H., Kelly, B.P. and Hansen, A.D.A. (1996) Concurrent measurements of black carbon aerosol and carbon monoxide at Mace Head. *J. Geophys. Res.* **101**, 19447–19454. => AEL1889
2252. Jensen, E.J. and Thomas, G.E. (1991) Charging of mesospheric particles: Implications for electron density and particle coagulation. *J. Geophys. Res. Atmospheres* **96**, 18603–18615. => HT1274
2253. Jensen, E.J. and Thomas, G.E. (1994) Numerical simulations of the effects of gravity waves on noctilucent clouds. *J. Geophys. Res.* **99**, 3421–3430. => HT0861
2254. Jensen, E.J. and Toon, O.B. (1992) The potential effects of volcanic aerosols on cirrus cloud microphysics. *Geophys. Res. Lett.* **19**, 1759–1762. => AEL1767
2255. Jensen, E.J., Read, W.G., Mergenthaler, J., Sandor, B.J., Pfister, L. and Tabazadeh, A. (1999) High humidities and subvisible cirrus near the tropical tropopause. *Geophys. Res. Lett.* **26**, 2347–2350. => AEL2910
2256. Jensen, E.J., Toon, O.B., Selkirk, H.B., Spinhirne, J.D. and Schoeberl, M.R. (1996) On the formation and persistence of subvisible cirrus clouds near the tropical tropopause. *J. Geophys. Res.* **101**, 21361–21375. => AEL1846
2257. Jensen, J.R., Nielsen, L.B., Schultz-Møller, C., Wedel, S. and Livbjerg, H. (2000) The nucleation of aerosols in flue gases with a high content of alkali - A laboratory study. *Aerosol Sci. Technol.* **33**, 490–509. => AEL3356
2258. Jensen, T.L., Kreidenweis, S.M., Kim, Y., Sievering, H. and Pszenny, A. (1996) Aerosol distributions in the North Atlantic marine boundary layer during Atlantic Stratocumulus Transition Experiment/Marine Aerosol and Gas Exchange. *J. Geophys. Res.* **101**, 4455–4467. => AEL1758
2259. Jeong, S.H. and Kim, S.S. (1997) *A study on the electrohydrodynamic flow in rectangular impactor with positive corona discharge. Käsikiri.* => HT1220
2260. Jeuken, A., Veeffkind, J.P., Dentener, F., Metzger, S. and Gonzalez, C.R. (2001) Simulation of the aerosol optical depth over Europe for August 1997 and a comparison with observations. *J. Geophys. Res. Atmospheres* **106**, 28295–28311. => AEL3579
2261. Ji Q., Shaw, G.E. and Cantrell, W. (1998) A new instrument for measuring cloud condensation nuclei: Cloud condensation nucleus remover. *J. Geophys. Res. Atmospheres* **103**, 28013–28019. => AEL2815
2262. Jiang, Y., Yung, Y.L. and Zurek, R.W. (1996) Decadal evolution of the Antarctic ozone hole. *J. Geophys. Res.* **101**, 8985–8999. => AEL1867
2263. Jimenez, J.L., Bahreini, R., Cocker D.R., III, Zhuang, H., Varutbangkul, V., Flagan, R.C., Seinfeld, J.H., O'Dowd, C.D. and Hoffmann, T. (2003) New particle formation from photooxidation of diiodomethane (CH<sub>2</sub>I<sub>2</sub>). *J. Geophys. Res. Atmospheres* **108**, 4318–doi:10.1029/2002JD002452, 2003. => AEL4015
2264. Jimenez, J.L., Jayne, J.T., Shi, Q., Kolb, C.E., Worsnop, D.R., Yourshaw, I., Seinfeld, J.H., Flagan, R.C., Zhang, X., Smith, K.A., Morris, J.W. and Davidovits, P. (2003) Ambient aerosol sampling using the Aerodyne Aerosol Mass Spectrometer. *J. Geophys. Res. Atmospheres* **108**, 8425– doi:10.1029/2001JD001213, 2003. => AEL3989

2265. Jobson, B.T., McKeen, S.A., Parrish, D.D., Fehsenfeld, F.C., Blake, D.R., Goldstein, A.H., Schauffler, S.M. and Elkins, J.W. (1999) Trace gas mixing ratio variability versus lifetime in the troposphere and stratosphere: Observations. *J. Geophys. Res. Atmospheres* **104**, 16091–16113. => AEL3000
2266. Jodwalis, C.M. and Benner, R.L. (1996) Sulfur gas fluxes and horizontal inhomogeneities in the marine boundary layer. *J. Geophys. Res.* **101**, 4393–4401. => AEL1752
2267. Jodwalis, C.M., Benner, R.L. and Eslinger, D.L. (2000) Modeling of dimethyl sulfide ocean mixing, biological production, and sea-to-air flux for high latitudes. *J. Geophys. Res. Atmospheres* **105**, 14387–14399. => AEL3220
2268. Johannsdottir, H. (1993) *Comparison of lightning location systems. Joint project between the Icelandic Power Company (Landsvirkjun) and the Technical University of Denmark.* Technical University of Denmark,. => HT0780
2269. Johansson, L., Roos, B. and Samuelsson, C. (1992) Alpha-particle spectrometry of large-area samples using an open-flow pulse ionisation chamber. *Int. J. Radiat. Appl. Instrum. Part A* **43**, 119–125. => AEL2537
2270. Johansson, L., Roos, B. and Samuelsson, C. (1992) Alpha-particle spectrometry of large-area samples using an open-flow pulse ionisation chamber. *Appl. Radiat. Isot.* **43**, 119–125. => HT0659
2271. John, F. (1955) Numerical solution of the equation of heat conduction for preceding times. *Ann. Mat. Pura Appl.* **40**, 129–142. => HT0329
2272. John, W. (1980) Particle charge effects. @ GA, @ AA, pp. 141–149. => AEL0385
2273. John, W. and Davis, J.W. (1974) The measurement of the charge distribution on monodisperse aerosols. *Atmos. Environ.* **8**, 1029–1034. => AEL0153
2274. John, W. and Vincent, J.H. (1985) Review. Static electrification of workplace aerosols: A perspective. *Ann. Occup. Hyg.* **29**, 285–288. => HT0362
2275. John, W., Reischl, G. and Devor, W. (1980) Charge transfer to metal surfaces from bouncing aerosol particles. *J. Aerosol Sci.* **11**, 115–138. => HT0201
2276. Johnsen, R. (1986) Temperature dependence of association of diatomic ions in diatomic gases. *J. Chem. Phys.* **85**, 3869–3873. => AEL0547
2277. Johnsen, R., Chen, A. and Biondi, M.A. (1980) Dissociative charge transfer of He<sup>+</sup> ions with H<sub>2</sub> and D<sub>2</sub> molecules from 78 to 330 K. *J. Chem. Phys.* **72**, 3085–3088. => AEL1374
2278. Johnson, D.L., Davis, B.L., Dzubay, T.G., Hasan, H., Crutcher, E.R., Courtney, W.J., Jaklevic, J.M., Thompson, A.C. and Hopke, P.K. (1984) Chemical and physical analyses of Houston aerosol for interlaboratory comparison of source apportionment procedures. *Atmos. Environ.* **18**, 1539–1553. => AEL0155
2279. Johnson, M.P., Inan, U.S. and Lauben, D.S. (1999) Subionospheric VLF signatures of oblique (nonducted) whistler-induced precipitation. *Geophys. Res. Lett.* **26**, 3569–3572. => AEL2932
2280. Johnson, M.P., Inan, U.S., Lev-Tov, S.J. and Bell, T.F. (1999) Scattering pattern of lightning-induced ionospheric disturbances associated with early/fast VLF events. *Geophys. Res. Lett.* **26**, 2363–2366. => AEL2911
2281. Johnson, T.W. (1979) Technique for measurement of electrostatic charge in automotive fuel tanks. *More plastics growth, the answer to transportation in the 80's. Nat. Techn. Conf. Soc. Plast. Eng.*, Detroit, Michigan, pp. 238–240. => AEL0154
2282. Johnston, A.M. (1983) A semi-automatic method for the assessment of electric charge carried by airborne dust. *J. Aerosol Sci.* **14**, 643–655. => AEL0871

2283. Johnston, A.M., Vincent, J.H. and Jones, A.D. (1985) Measurements of electric charge for workplace aerosols. *Annals of Occupational Hygiene Society* **29**, 271–284. => AEL1081
2284. Johnston, A.M., Vincent, J.H. and Jones, A.D. (1985) Measurements of electric charge for workplace aerosols. *Ann. Occup. Hyg.* **29**, 271–284. => HT0364
2285. Johnston, A.M., Vincent, J.H. and Jones, A.D. (1987) Electrical charge characteristics of dry aerosols produced by a number of laboratory mechanical dispensers. *@AST* **6**, 115–127. => HT0358
2286. Johnston, R.L. (2002) *Atomic and molecular clusters*, pp. 1-15, 65-71, 185-191. => HT1553
2287. Jokinen, V. and Mäkelä, J.M. (1997) Closed-loop arrangement with critical orifice for DMA sheath/excess flow system. *J. Aerosol Sci.* **28**, 643–648. => AEL2035
2288. Jokinen, V., Savolainen, S. and Tikkanen, P. (1996) Apparatus for an easy demonstration of the basic phenomena in fluid flow. *Am. J. Phys.* **64**, 1207–1209. => AEL2062
2289. Jonas, P.R. and Mason, B.J. Systematic charging of water droplets produced by break-up of liquid jets and filaments. 1971–1982. => AEL0955
2290. Jonassen, N. (1970) Measurement of small-ion concentrations. *J. of Geophysical Research* **75**, 4491–4498. => HT0316
2291. Jonassen, N. (1988) Ions, electric fields and radon daughters effects of filtration and electrostatic plateout. *Seventh International Congress of International Radiation Protection Association*, Sydney, pp. 377–380. => HT0665
2292. Jonassen, N. (1988) Ions, electric fields and radon daughters. Effects of filtration and electrostatic plateout. *7th International Congress of International Radiation Protection Association*, Sydney, pp. 377–380. => AEL2538
2293. Jonassen, N. and Hayes, E. (1972) Mobility distribution of radon 222 daughter small ions in laboratory air. *J. Geophys. Res.* **77**, 5876–5882. => AEL2527
2294. Jonassen, N. and Hayes, E. (1972) Mobility distribution of radon 222 daughter small ions in laboratory air. *J. of Geophysical Research* **77**, 5876–5882. => HT0323
2295. Jonassen, N. and Jensen, B. (1988) Modification of electric fields by space charges: Effects on airborne radon daughters. *Radiation Protection Dosimetry* **24**, 497–501. => AEL2517
2296. Jonassen, N. and Jensen, B. (1992) Measurement of simulated lung deposition of radon daughters. *Radiation Protection Dosimetry* **45**, 669–671. => AEL2467
2297. Jonassen, N. and McLaughlin, J.P. (1976) On the recoil of RaB from membrane filters. *J. Aerosol Sci.* **7**, 141–149. => AEL2419
2298. Jonassen, N. and McLaughlin, J.P. (1976) The effect of RaB recoil losses on radon daughter measurements. *Health Physics* **30**, 234–238. => AEL2418
2299. Jonassen, N. and Wilkening, M.H. (1965) Conductivity and concentration of small ions in the lower atmosphere. *J. Geophys. Res.* **70**, 779–784. => HT-F024
2300. Jones, A., Roberts, D.L., Woodage, M.J. and Johnson, C.E. (2001) Indirect sulphate aerosol forcing in a climate model with an interactive sulphur cycle. *J. Geophys. Res. Atmospheres* **106**, 20293–20310. => AEL3517
2301. Jones, A.D., Johnston, A.M. and Vincent, J.H. (1985) The measurement of electric charge on airborne dusts in quarries and mines. *Staub - Reinhaltung der Luft* **45**, 475–480. => HT0361
2302. Jones, A.D., Vincent, J.H., Johnston, A.M. and McMillan, C.H. (1988) Effects of electrostatic charge on the pulmonary deposition of mineral dust aerosols inhaled by rats. *@JAS* **19**, 565–575. => HT0357

2303. Jones, C.F., Segall, R.L., Smart, R.St.C. and Turner, P.S. (1980) Correspondence. Size distribution of MgO smoke particles. *Phil. Mag.* **42A**, 267–270. => AEL0156
2304. Jones, G.W., Marcano, J.M., Noerskov, J.K. and Venables, J.A. (1990) Energies controlling nucleation and growth processes: the case of Ag/W(110). *Phys. Rev. Lett.* **65**, 3317–3320. => AEL0720
2305. Jönsson, G. (1988) Indoor  $^{222}\text{Rn}$  measurements in Sweden with the solid-state nuclear track detector technique. *Health Phys.* **54**, 271–281. => HT1137
2306. Jönsson, G. (1995) Radon - a geological and health risk. In *Gas Geochemistry. Supplement to Volume 16(1994) of Environmental Geochemistry and Health*, edited by Dubois, C., Klein, D., Chambaudet, A. and Rebetez, M., Science Reviews, pp. 439–450. => HT1136
2307. Jönsson, G. (1997) *Nuclear track detectors for radon detection. Paper presented at the "7. Treffen des Arbeitskreises Grundlagen und Anwendungen von Ionenspuren vom 17. bis 21. März 1997" Föhr, Germany.* => HT1135
2308. Jönsson, G. and Hellborg, R. (1992) The exposure of plastic films and their response to 1.3–5.5 MeV helium ions. *Nucl. Instrum. Meth. Phys. Res.* **B63**, 399–406. => HT1133
2309. Jönsson, G., Baixeras, C., Enge, W., Freyer, K., Treutler, H.-C., Monnin, M.M. and Sciocchetti, G. (1995) Criteria for indoor radon concentration - an experimental study considering especially the Leipzig-Halle brown coal area. *Radiation Measurements* **25**, 627–630. => HT1134
2310. Jonsson, H.H. and Vonnegut, B. (1993) Miniature vortices produced by electrical corona. *J. Geophys. Res. Atmospheres* **98**, 5245–5248. => HT1293
2311. Jonsson, H.H. and Vonnegut, B. (1995) Comment on "Negatively charged precipitation in a New Mexico thunderstorm" by Thomas C. Marshall and Stephen J. Marsh and "Charged precipitation measurements before the first lightning flash in a thunderstorm" by Stephen J. Marsh and Thomas C. Marshall. *J. Geophys. Res.* **100**, 16867–16868. => HT0897
2312. Jo'nsson, H.H., Wilson, J.C., Brock, C.A., Dye, J.E., Ferry, G.V. and Chan, K.R. (1996) Evolution of the stratospheric aerosol in the northern hemisphere following the June 1991 volcanic eruption of Mount Pinatubo: Role of tropospheric-stratospheric exchange and transport. *J. Geophys. Res.* **101**, 1553–1570. => AEL1794
2313. Jordan, C.E., Talbot, R.W. and Keim, B.D. (2000) Water-soluble nitrogen at the New Hampshire sea coast:  $\text{HNO}_3$ , aerosols, precipitation and, fog. *J. Geophys. Res. Atmospheres* **105**, 26403–26431. => AEL3259
2314. Jordan, D.M., Idone, V.P., Rakov, V.A., Uman, M.A., Beasley, W.H. and Jurenka, H. (1992) Observed dart leader speed in natural and triggered lightning. *Käsikiri. Subm. to J. Geophys. Res.* 1–28. => HT0990
2315. Jordan, P., Seed, A. and Austin, G. (2000) Sampling errors in radar estimates of rainfall. *J. Geophys. Res. Atmospheres* **105**, 2247–2257. => AEL3073
2316. Jordan, S. (1988) Progress in the electron beam treatment of stack gases. *Radiat. Phys. Chem.* **31**, 21–28. => AEL0158
2317. Jorgensen, W.L., Chandrasekhar, J., Madura, J.D., Impey, R.W. and Klein, M.L. (1983) Comparison of simple potential functions for simulating liquid water. *J. Chem. Phys.* **79**, 926–935. => AEL0838
2318. Josefsson, W. and Landelius, T. (2000) Effect of clouds on UV irradiance: As estimated from cloud amount, cloud type, precipitation, global radiation and sunshine duration. *J. Geophys. Res. Atmospheres* **105**, 4927–4935. => AEL3099

2319. Josephson, J. (1981) Monitoring airborne organics. *Environmental Science and Technology* **15**, 731–. => AEL0489
2320. Joshi, P.V. (1990) The background levels of atmospheric ions. *Current Science* **59**, 737–738. => AEL1395
2321. Joss, F. and Baltensperger, U. (1989) Fog chemistry at Laegeren. *Paul Scherrer Institut Annual Report, Aerosol Chemistry* 86–87. => HT0987
2322. Jost, D.T., Gäggeler, H.W., Baltensperger, U., Lehmann, B., Lehmann, M. and Neftel, A. (1989) Atmospheric studies at Jungfrauoch. *Paul Scherrer Institut Annual Report, Aerosol Chemistry* 88–89. => HT0988
2323. Jourdain, B. and Legrand, M. (2001) Seasonal variations of atmospheric dimethylsulfide, dimethylsulfoxide, sulfur dioxide, methanesulfonate, and non-sea-salt sulfate aerosols at Dumont d'Urville (coastal Antarctica) (December 1998 to July 1999). *J. Geophys. Res. Atmospheres* **106**, 14391–14408. => AEL3481
2324. Jung, J., Jhon, M.S. and Ree, F.H. (1995) Fluid-fluid phase separations in nonadditive hard sphere mixtures. *J. Chem. Phys.* **102**, 1349–1360. => AEL1305
2325. Junge, C. (1953) Die Rolle der Aerosole und der gasförmigen Beimengungen der Luft im Spurenstoffhaushalt der Troposphäre. *Tellus* **5**, 1–26. => AEL1774
2326. Junge, C. (1955) The size distribution and aging of natural aerosols as determined from electrical and optical data on the atmosphere. *Journal of Meteorology* **12**, 13–25. => AEL1775
2327. Junod, A. (1969) Contribution a la methodologie granulometrique des aerosols amicroscopiques. *Veröff. Schweizer. Meteorol. Zentralanstalt* 1–70. => AEL0157
2328. Junod, A., Sängler, R. and Thams, J.C. (1962) Enregistrement direct du spectre des petits ions atmospheriques. *Zs. angew. Math. und Phys.* **13**, 272–278. => HT-F056
2329. Juozaitis, A., Trakumas, S., Girgzdiene, R., Girgzdys, A., Sopauskiene, D. and Ulevicius, V. (1996) Investigations of gas-to-particle conversion in the atmosphere. *Atmospheric Research* **41**, 183–201. => AEL1832
2330. Juuti, S. and Hoekstra, E.J. (1998) The origins and occurrence of trichloroacetic acid. *Atmos. Environ.* **32**, 3059–3060. => AEL2731
2331. Juuti, S., Arey, J. and Atkinson, R. (1990) Monoterpene emission rate measurements from a Monterey pine. *J. Geophys. Res.* **95**, 7515–7519. => AEL0482
2332. Juutilainen, J. (1991) Effects of low-frequency magnetic fields on embryonic development and pregnancy. *Scandinavian Journal of Work, Environment and Health* **17**, 149–158. => HT0770
2333. Juutilainen, J., Läärä, E. and Saali, K. (1987) Relationship between field strength and abnormal development in chick embryos exposed to 50 Hz magnetic fields. *International Journal of Radiation Biology* **52**, 787–793. => HT0773
2334. Juutilainen, J., Matilainen, P., Saarikoski, S., Läärä, E. and Suonio, S. (1993) Early pregnancy loss and exposure to 50-Hz magnetic fields. *Bioelectromagnetics* **14**, 229–236. => HT0771
2335. Kaasik, M. and Sõukand, Ü. (2000) Balance of alkaline and acidic pollution loads in the area affected by oil shale combustion. *Oil Shale* **17**, 113–128. => AEL3454
2336. Kadlecck, J.A., Mohnen, V.A. and DelSanto, J. (1977) *Atmospheric ion molecule interactions involving chlorofluorocarbons*. Atmos.Sci.Res.Center, The Univ. of Albany, Albany, N.Y.12222. => AEL0703
2337. Kagawa, A. and Hayashida, S. (2003) Analysis of ozone loss in the Arctic stratosphere during the late winter and spring of 1997 using the Chemical Species Mapping on Trajectories (CSMT) technique. *J. Geophys. Res. Atmospheres* **108**, 4698– doi:10.1029/2002JD002824. => AEL4086

2338. Kalakutskii, L.I. and Podolskii, A.A. (1976) Issledovaniya po elektropretsipitatsii i induktsionnomu izmereniyu zaryadov poroshka (in Russian). *Trudy LIAP*, Leningrad, **103**, pp. 11–20. => HT0589
2339. Kalikmanov, V.I. (1997) Semiphenological theory of the Tolman length. *Physical Review E* **55**, 3068–3071. => AEL2395
2340. Kalikmanov, V.I. and Van Dongen, M.E.H. (1993) Cluster approach to the kinetic theory of homogeneous nucleation. *Europhysics Letters* **21**, 645–650. => AEL1327
2341. Kalikmanov, V.I. and Van Dongen, M.E.H. (1993) Self-consistent cluster approach to the homogeneous kinetic nucleation theory. *Physical Review E* **47**, 3532–3539. => AEL1318
2342. Kalikmanov, V.I. and van Dongen, M.E.H. (1995) Quasi-one-component theory of homogeneous binary nucleation. *Physical Review E* **51**, 4391–4399. => AEL1566
2343. Kalikmanov, V.I. and Van Dongen, M.E.H. (1995) Semiphenological theory of homogeneous vapor-liquid nucleation. *J. Chem. Phys.* **103**, 4250–4255. => AEL1494
2344. Kalikmanov, V.I. and Van Dongen, M.E.H. (1997) Semiphenological effective-medium theory of multicomponent nucleation. *Phys. Rev. E* **55**, 1607–1616. => AEL2375
2345. Kalkkinen, J., Vesala, T. and Kulmala, M. (1991) Binary droplet evaporation in the presence of an inert gas: An exact solution of the Maxwell-Stefan equations. *Int. Commun. Heat and Mass Transfer* **18**, 117–126. => AEL0769
2346. Kalkkinen, J., Vesala, T. and Kulmala, M. (1991) Binary droplet evaporation in the presence of an inert gas: An exact solution of the Maxwell-Stefan equations. *Int. Comm. Heat Mass Transfer* **18**, 117–126. => HT0465
2347. Kalkkinen, J., Vesala, T. and Kulmala, M. (1991) Binary droplet evaporation in the presence of an inert gas: an exact solution of the Maxwell-Stefan equations. *Int. Comm. Heat Mass Transfer* **18**, 117–126. => HT0689
2348. Kallaste, T., Roots, O., Saar, J. and Saare, L. (1992) *Õhu saastatus Eestis 1985-1990. Air pollution in Estonia 1985-1990* (in Estonian). Environment Data Centre, Helsinki. => AEL2079
2349. Kambara, H. and Kanomata, I. (1977) Collision-induced dissociation of water cluster ions at high pressure. *Int. J. Mass Spectrom. Ion Phys.* **25**, 129–136. => AEL1476
2350. Kamens, R.M., Jeffries, H.E., Gery, M.W., Wiener, R.W., Sexton, K.G. and Howe, G.B. (1981) The impact of  $\alpha$ -pinene on urban smog formation: An outdoor smog chamber study. *Atmos. Environ.* **15**, 969–981. => AEL2347
2351. Kamra, A.K., Deshpande, C.G. and Gopalakrishnan, V. Effect of relative humidity on the electrical conductivity of marine air. *Käsikiri* 1–16. => HT0937
2352. Kamra, A.K., Murugavel, P. and Pawar, S.D. (2003) Measured size distributions of aerosols over the Indian Ocean during INDOEX. *J. Geophys. Res. Atmospheres* **108**, 8000–doi:10.1029/2002JD002200, 2003. => AEL3939
2353. Kamra, A.K., Murugavel, P., Pawar, S.D. and Gopalakrishnan, V. (2001) Background aerosol concentration derived from the atmospheric electric conductivity measurements made over the Indian Ocean during INDOEX. *J. Geophys. Res. Atmospheres* **106**, 28643–28651. => AEL3582
2354. Kanapilly, G.M., Tu, K.W., Larsen, T.B., Fogel, G.R. and Luna, R.J. (1978) Controlled production of ultrafine metallic aerosols by vaporization of an organic chelate of the metal. *J. Coll. Interface Sci.* **65**, 533–547. => AEL0411

2355. Kane, D. and El-Shall, M.S. (1996) A new technique for ion nucleation using resonance ionization within supersaturated vapors. In *Nucleation and atmospheric aerosols*, edited by Kulmala, M. and Wagner, P.E., Pergamon, pp. 46–49. => HT1170
2356. Kane, D. and El-Shall, M.S. (1996) Condensation of supersaturated vapors of hydrogen bonding molecules: Ethylene glycol, propylene glycol, trimethylene glycol, and glycerol. *J. Chem. Phys.* **105**, 7617–7631. => AEL2387
2357. Kane, D.B., Oktem, B. and Johnston, M.V. (2001) An electrostatic lens for focusing charged particles in a mass spectrometer. *Aerosol Sci. Technol.* **35**, 990–997. => AEL3588
2358. Kane, S.M., Timonen, R.S. and Leu, M.-T. (1999) Heterogeneous chemistry of acetone in sulfuric acid solutions: Implications for the upper troposphere. *J. Phys. Chem. A* **103**, 9259–9265. => AEL2967
2359. Kaneyasu, N., Hobbs, P.V., Ishizaka, Y. and Qian, G.-W. (2001) Aerosol properties around marine tropical cumulus clouds. *J. Geophys. Res. Atmospheres* **106**, 14435–14445. => AEL3483
2360. Kang, H.S. and Ree, F.H. (1995) New integral equation for simple fluids. *J. Chem. Phys.* **103**, 3629–3635. => AEL1527
2361. *Kannettava radon säteilymittari. Radon mittalaite Pylon AB-5 Kenaco OY.*, => HT1157
2362. Kao, A.S. and Friedlander, S.K. (1994) Chemical signatures of the Los Angeles aerosol ( $d_p < 3.5 \mu\text{m}$ ). *Aerosol Sci. Technol.* **21**, 283–293. => AEL1324
2363. Kaplan, I.R. and Gordon, R.J. (1994) Non-fossil-fuel fine-particle organic carbon aerosols in Southern California determined during the Los Angeles Aerosol Characterization and Source Apportionment Study. *Aerosol Sci. Technol.* **21**, 343–359. => AEL1325
2364. Kar, J. and Mahajan, K.K. (1998) Evidence of transport in water vapor profiles at mid latitudes from Stratospheric Aerosol and Gas Experiment (SAGE II) measurements. *J. Geophys. Res. Atmospheres* **103**, 31057–31065. => AEL2826
2365. Karasek, F.W. (1970) A drift-mass spectrometer. *Research/Development* **21**, 25–27. => HT0941
2366. Karasek, F.W. (1970) The plasma chromatograph. A new instrument and a new technique make direct measurement of organic compounds possible at concentrations below 0.1 parts per billion. *Research/Development* **21**, 34–37. => HT0945
2367. Karasek, F.W. and Cohen, M.J. (1970) Trace studies with ion-molecule reactions in the plasma chromatograph - mass spectrometer instrument. *18th Ann. Conf. on Mass Spectrom. and Allied Topics, June 17, 1970*, pp. B251–B251. => HT0943
2368. Karasek, F.W. and Cohen, M.J. The plasma chromatograph-mass spectrometer as a qualitative organic analysis instrument. 1–2. => HT0942
2369. Karasek, F.W. and Denney, D.W. (1974) Role of nitric oxide in positive reactant ions in plasma chromatography. *Anal. Chem.* **46**, 633–637. => AEL0971
2370. Karasek, F.W. and Kane, D.M. (1974) Plasma chromatography of isomeric halogenated nitrobenzenes. *Anal. Chem.* **46**, 780–782. => AEL0972
2371. Karasek, F.W., Kilpatrick, W.D. and Cohen, M.J. (1971) Qualitative studies of trace constituents by plasma chromatography. *Anal. Chem.* **43**, 1441–1447. => AEL1188
2372. Karasek, F.W., Kim, S.H. and Hill, H.H.Jr. (1976) Mass identified mobility spectra of p-nitrophenol and reactant ions in plasma chromatography. *Anal. Chem.* **48**, 1133–1137. => AEL1409

2373. Kärcher, B. (1998) Physicochemistry of aircraft-generated liquid aerosols, soot, and ice particles 1. Model description. *J. Geophys. Res. Atmospheres* **103**, 17111–17128. => AEL2299
2374. Kärcher, B., Busen, R., Petzold, A., Schröder, F.P., Schumann, U. and Jensen, E.J. (1998) Physicochemistry of aircraft-generated liquid aerosols, soot, and ice particles. 2. Comparison with observations and sensitivity studies. *J. Geophys. Res. Atmospheres* **103**, 17129–17147. => AEL2300
2375. Kärcher, B., Turco, R.P., Yu, F., Danilin, M.Y., Weisenstein, D.K., Miake-Lie, R.C. and Busen, R. (2000) A unified model for ultrafine aircraft particle emissions. *J. Geophys. Res. Atmospheres* **105**, 29379–29386. => AEL3287
2376. Karg, E., Brand, P., Hietel, B., Kreyling, W.G., Ruoß, K., Tschiersch, J., Tuch, T. and Heyder, J. (1989) Intercomparison of particle size spectrometers. *J. Aerosol Sci.* **20**, 1481–1484. => AEL2926
2377. Karl, T., Jobson, T., Kuster, W.C., Williams, E., Stutz, J., Shetter, R., Hall, S.R., Goldan, P., Fehsenfeld, F. and Lindinger, W. (2003) Use of proton-transfer-reaction mass spectrometry to characterize volatile organic compound sources at the La Porte super site during the Texas Air Quality Study 2000. *J. Geophys. Res. Atmospheres* **108**, 4508– doi:10.1029/2002JD003333. => AEL4032
2378. Karlsdóttir, S., Isaksen, I.S.A., Myhre, G. and Berntsen, T. (2000) Trend analysis of O<sub>3</sub> and CO in the period 1980-1996: A three-dimensional model study. *J. Geophys. Res. Atmospheres* **105**, 28907–28933. => AEL3275
2379. Kärner, O. (2002) On nonstationarity and antipersistency in global temperature series. *J. Geophys. Res. Atmospheres* **107**, 4415 doi:10.1029/2001JD002024–2002. => AEL3798
2380. Karol, I.L., Ozolin, Y.E., Kiselev, A.A. and Rozanov, E.V. (2000) Plume Transformation Index (PTI) of the subsonic aircraft exhausts and their dependence on the external conditions. *Geophys. Res. Lett.* **27**, 373–376. => AEL3054
2381. Karpas, Z., Pollevoy, Y. and Melloul, S. (1991) Determination of bromine in air by ion mobility spectrometry. *Analytica Chimica Acta* **249**, 503–507. => AEL1352
2382. Kascheev, V.A. and Poluectov, P.P. (1992) Electric charge distribution on atmospheric aerosols under photoeffect influence. *Abstracts of Conference on Visibility and Fine Particles*, Vienna, pp. 1–1. => HT0677
2383. Kascheev, V.A. and Poluectov, P.P. (1992) The mechanisms of convective cloud radioemission. *Abstracts of Conference on Visibility and Fine Particles*, Vienna, pp. 1–1. => HT0678
2384. Kasemir, H.W. (1967) Measurement of atmospheric electric parameters. *NCAR Techn. Notes* 107–115. => HT0231
2385. Kasemir, H.W. (1974) Theoretical problems of the global atmospheric electric circuit. *Fifth International Conference on Atmospheric Electricity Garmisch-Partenkirchen, September 2-7, 1974*, pp. 1–20+ill. => HT1182
2386. Kasemir, H.W. and Ruhnke, L.H. (1958) Antenna problems of measurement of the air-earth current. *Recent Advances in Atmospheric Electricity*, Pergamon Press, London, pp. 137–147. => HT-F006
2387. Kasemir, H.W. and Ruhnke, L.H. (1959) Antenna problems of measurement of the air-earth current. *Recent Advances in Atmospheric Electricity* 137–147. => HT0037
2388. Kasibhatla, P., Chameides, W.L. and St. John, J. (1997) A three-dimensional global model investigation of seasonal variations in the atmospheric burden of anthropogenic sulfate aerosols. *J. Geophys. Res. Atmospheres* **102**, 3737–3759. => AEL2187



2389. Kasper, G. (1981) Electrostatic dispersion of homopolar charged aerosols. *J. Coll. Interface Sci.* **81**, 32–40. => AEL1557
2390. Kasper, G. (1982) Hot wire thermal precipitator with low inlet losses and low size selectivity. *Rev. Sci. Instrum.* **53**, 79–82. => AEL0159
2391. Kasper, M., Matter, U. and Burtscher, H. (2000) NanoMet: On-line characterization of nanoparticle size and composition. *CEC and SAE International* **1**, 27–37. => HT1418
2392. Kataoka, T., Yunoki, E., Shimizu, M., Mori, T., Tsukamoto, O., Ohhashi, Y., Sahashi, K., Maitani, T., Miyashita, K., Fujikawa, Y. and Kudo, A. (1998) Diurnal variation in radon concentration and mixing-layer depths. *Boundary-Layer Meteorology* **89**, 225–250. => AEL2872
2393. Katase, A., Matsumoto, Y., Nagao, Y., Sakae, T., Tanmabe, K. and Ishibashi, K. (1986) Plane multiwire-electrode ionization chamber for measurements of radon concentration in air. *Rev. Sci. Instrum.* **57**, 945–951. => AEL2428
2394. Katase, A., Matsumoto, Y., Sakae, T. and Ishibashi, K. (1988) Indoor concentrations of  $^{220}\text{Rn}$  and its decay products. *Health Physics* **54**, 283–286. => AEL2427
2395. Kathmann, S.M., Schenter, G.K. and Garrett, B.C. (1999) Dynamical nucleation theory: Calculation of condensation rate constants for small water clusters. *J. Chem. Phys.* **111**, 4688–4697. => AEL3125
2396. Kathmann, S.M., Schenter, G.K. and Garrett, B.C. (2002) Understanding the sensitivity of nucleation kinetics: A case study on water. *J. Chem. Phys.* **116**, 5046–5057. => AEL3906
2397. Katoszewski, D. and Seinfeld, J.H. (1997) Analytical solution of the multicomponent aerosol general dynamic equation – without coagulation. *Aerosol Sci. Technol.* **27**, 541–549. => AEL1959
2398. Katoszewski, D. and Seinfeld, J.H. (1997) Analytical-numerical solution of the multicomponent aerosol general dynamic equation – with coagulation. *Aerosol Sci. Technol.* **27**, 550–556. => AEL1958
2399. Katsev, I.L. and Zege, E.P. (1992) Modern theory of vision meteorological range of visibility. *Abstracts of Conference on Visibility and Fine Particles*, Vienna, pp. 1–1. => HT0679
2400. Katta, V., Rockwood, A.L. and Vestal, M.L. (1991) Field limit for ion evaporation from charged thermospray droplets. *Int. J. Mass Spectrometry and Ion Processes* **103**, 129–148. => AEL0758
2401. Katz, J.L. and Donohue, M.D. (1979) A kinetic approach to homogeneous nucleation theory. *Advances in Chemical Physics* **40**, 137–154. => AEL1278
2402. Katz, J.L. and Wiedersich, H. (1977) Nucleation theory without Maxwell demons. *J. Colloid Interface Sci.* **61**, 351–355. => AEL1558
2403. Katz, J.L., Fisk, J.A. and Chakarov, V.M. (1994) Condensation of a supersaturated vapor. IX. Nucleation on ions. *J. Chem. Phys.* **101**, 2309–2318. => AEL1185
2404. Katz, J.L., Mirabel, P. and Scoppa C.J.II Virkler, T.L. (1976) Condensation of a supersaturated vapor. III. The homogeneous nucleation of  $\text{CCl}_4$ ,  $\text{CHCl}_3$ ,  $\text{CCl}_3\text{F}$ , and  $\text{C}_2\text{H}_2\text{Cl}_4$ . *J. Chem. Phys.* **65**, 382–392. => AEL0813
2405. Katz, J.L., Wen, F.C., McLaughlin, T., Reusch, R.J. and Partch, R. (1977) Nucleation on photoexcited molecules. *Science* **196**, 1203–1205. => AEL1502
2406. Kaufman, S. (1996) *TSI macromolecule analyzer application examples. Käsikiri. Stendiettekanne?*. TSI Incorporated,. => HT1009
2407. Kaufman, S. (1996) *TSI macromolecule analyzer application examples. Käsikiri.* TSI Inc., => HT1045

2408. Kaufman, S.L., Skogen, J.W., Dorman, F.D., Zarrin, F. and Lewis, K.C. (1996) Macromolecule analysis based on electrophoretic mobility in air: globular proteins. *Anal. Chem.* **68**, 1895–1904. => HT1007
2409. Kaufman, S.L., Skogen, J.W., Dorman, F.D., Zarrin, F. and Lewis, K.C. (1996) Correction to: Macromolecule analysis based on electrophoretic mobility in air: globular proteins. *Subm. to Anal. Chem.* 1–2. => HT1008
2410. Kaufman, Y.J. and Tanré, D. (1994) Effect of variations in supersaturation on the formation of cloud condensation nuclei. *Nature* **369**, 45–48. => AEL1581
2411. Kaurola, J., Taalas, P., Koskela, T., Borkowski, J. and Josefsson, W. (2000) Long-term variations of UV-B doses at three stations in northern Europe. *J. Geophys. Res. Atmospheres* **105**, 20813–20820. => AEL3240
2412. Kavouras, I.G. and Koutrakis, P. (2001) Use of polyurethane foam as the impaction substrate/collection medium in conventional inertial impactors. *Aerosol Sci. Technol.* **34**, 46–56. => AEL3362
2413. Kavouras, I.G. and Stephanou, E.G. (2002) Particle size distribution of organic primary and secondary aerosol constituents in urban, background marine, and forest atmosphere. *J. Geophys. Res. Atmospheres* **107**, AAC7 1–13. => AEL3647
2414. Kawamoto, H. and Ogawa, T. (1985) Minor species of negative ions in the lower stratosphere. *Research Letters on Atmospheric Electricity* **5**, 1–6. => HT0382
2415. Kawamoto, H. and Ogawa, T. (1986) First model of negative ion composition in the troposphere. *Planetary Space Science* **34**, 1229–1239. => AEL0580
2416. Kawamoto, H. and Ogawa, T. (1986) First model of negative ion composition in the troposphere. *Planet. Space Sci.* **34**, 1229–1239. => HT0411
2417. Kawasaki, Z.-I., Israelsson, S., Takeuti, T. and Nakano, M. *Spectrum analyses of positive ground strokes during winter in Japan. Manuscript.* Toyokawa. => HT0428
2418. Kaye, P.H., Alexander-Buckley, K., Hirst, E., Saunders, S. and Clark, J.M. (1996) A real-time monitoring system for airborne particle shape and size analysis. *J. Geophys. Res.* **101**, 19215–19221. => AEL1874
2419. Kazadzis, S., Bais, A.F., Balis, D. and Zerefos, C.S. (2000) Retrieval of downwelling UV actinic flux density spectra from spectral measurements of global and direct solar UV irradiance. *J. Geophys. Res. Atmospheres* **105**, 4857–4864. => AEL3092
2420. Kazil, J., Kopp, E., Chabrillat, S. and Bishop, J. (2003) The University of Bern Atmospheric Ion Model: Time-dependent modeling of the ions in the mesosphere and lower thermosphere. *J. Geophys. Res. Atmospheres* **108**, 4432– doi:10.1029/2002JD003024. => AEL4028
2421. Keady, P.B., Quant, F.R. and Sem, G.J. (1983) Differential mobility particle sizer: A new instrument for high-resolution aerosol size distribution measurement below 1 micrometer. *TSI Quarterly* **9**, -. => HT0913
2422. Kebarle, P. (1977) Ion thermochemistry and solvation from gas phase ion equilibria. *Annual Review of Physical Chemistry* **28**, 445–476. => AEL0526
2423. Kebarle, P., Arshadi, M. and Scarborough, J. (1968) Hydration of negative ions in the gas phase. *The Journal of Chemical Physics* **49**, 817–822. => AEL1681
2424. Keefe, D., Nolan, P.J. and Rich, T.A. (1959) Charge equilibrium in aerosols according to the Boltzmann law. *Proc. Roy. Irish Acad.* **A60**, 27–45. => HT-F083
2425. Keene, W.C. and Galloway, J.N. (1988) The biochemical cycling of formic and acetic acids through the troposphere: an overview of current understanding. *Tellus* **40B**, 322–334. => AEL0467

2426. Keesee, R.G. and Castleman, A.W.Jr. (1982) 3. The chemical kinetics of aerosol formation. *Top. Curr. Phys.* **28**, 69–92. => AEL0965
2427. Keesee, R.G. and Castleman, A.W.Jr. (1985) Ions and cluster ions: Experimental studies and atmospheric observations. *J. Geophys. Res.* **90**, 5885–5890. => AEL1007
2428. Keesee, R.G., Castleman, A.W. and Jr. (1983) Understanding the middle atmosphere via the laboratory: ion cluster investigations. *Annales Geophysicae* **1**, 75–80. => AEL0579
2429. Keesee, R.G., Castleman, A.W. and Jr. (1986) Thermochemical data on gas-phase ion-molecule association and clustering reactions. *Journal of Physical and Chemical Reference Data* **15**, 1011–1071. => AEL0518
2430. Keesee, R.G., Kilgore, K., Breen, J.J. and Castleman, A.W.Jr. (1987) The formation of clusters with reactive species. Precursors to aerosol formation in the ammonia-sulfur dioxide system. *Aerosol Sci. Technol.* **6**, 71–77. => AEL0612
2431. Keesee, R.G., Lee, N. and Castleman, A.W.Jr. (1979) Atmospheric negative ion hydration derived from laboratory results and comparison to rocket-borne measurements in the lower ionosphere. *J. Geophys. Res.* **84**, 3719–3722. => AEL0623
2432. Keesee, R.G., Lee, N. and Castleman, A.W.Jr. (1980) Properties of clusters in the gas phase: V. Complexes of neutral molecules onto negative ions. *J. Chem. Phys.* **73**, 2195–2202. => AEL0645
2433. Kegel, W.K. (1995) On the variation of the interfacial tension with cluster size in connection to homogeneous nucleation from the vapor phase. *J. Chem. Phys.* **102**, 1094–1095. => AEL1302
2434. Keh, H.J. and Yu, J.L. (1995) Migration of aerosol spheres under the combined action of thermophoretic and gravitational effects. *Aerosol Sci. Technol.* **22**, 250–260. => AEL1398
2435. Keiding, K., Pedersen, J. and Palmgren Jensen, F. (1988) A comparison of two procedures for modelling of absolute source contributions in urban air. *Atmos. Environ.* **22**, 763–767. => AEL2128
2436. Keil, A., Wendisch, M. and Brüggemann, E. (2001) Measured profiles of aerosol particle absorption and its influence on clear-sky solar radiative forcing. *J. Geophys. Res. Atmospheres* **106**, 1237–1247. => AEL3299
2437. Keizer, J. (1975) Concentration fluctuations in chemical reactions. *J. Chem. Phys.* **63**, 5037–5043. => AEL0488
2438. Keller, D. and Vonnegut, B. (1976) Wind speed estimation based on the penetration of straws and splinters into wood. *Weatherwise* **29**, 228–232. => HT0055
2439. Keller, D. and Vonnegut, B. (1976) Wind speeds required to drive straws and splinters into wood. *J. of Applied Meteorology* **15**, 899–901. => HT0101
2440. Keller, G., Folkerts, K.H. and Muth, H. (1982) Activity concentrations of <sup>222</sup>Rn, <sup>220</sup>Rn, and their decay products in German dwellings, dose calculations and estimate of risk. *Radiat. Environ. Biophys.* **20**, 263–274. => AEL2429
2441. Kemper, P. and Hale, B. (1988) Monte Carlo simulations of small water clusters: effective surface tension. *Lecture Notes on Physics* **309**, 450–453. => AEL1782
2442. Kent, G.S., Winker, D.M., Vaughan, M.A., Wang, P.H. and Skeens, K.M. (1997) Simulation of Stratospheric Aerosol and Gas Experiment (SAGE) II cloud measurements using airborne lidar data. *J. Geophys. Res. Atmospheres* **102**, 21795–21807. => AEL2009
2443. Kerekes, A., Falk, R. and Suomela, J. (1991) *Analysis of hot particles collected in Sweden after the Chernobyl accident. Research report SSI 91-02.* Swedish Radiation Protection Institute,. => HT1141

2444. Kerker, M. (1977) Some recent reflections on light scattering. *J. Colloid Interface Sci.* **58**, 100–112. => AEL0160
2445. Kerker, M., Cox, L. and Shoenberg, M.D. (1955) Maximum particle sizes in polydispersed aerosols. *J. Colloid Sci.* **10**, 413–427. => AEL0185
2446. Kerminen, V.-M. (1994) Simulation of Brownian coagulation in the presence of van der Waals forces and viscous interactions. *Aerosol Sci. Technol.* **20**, 207–214. => AEL1014
2447. Kerminen, V.-M. (2001) Relative roles of secondary sulfate and organics in atmospheric cloud condensation nuclei production. *J. Geophys. Res. Atmospheres* **106**, 17321–17333. => AEL3489
2448. Kerminen, V.-M. (2003?) *Organic (atmospheric) aerosols. Käsikiri.* => HT1468
2449. Kerminen, V.-M. and Kulmala, M. (2002) Analytical formulae connecting the "real" and the "apparent" nucleation rate and the nuclei number concentration for atmospheric nucleation events. *J. Aerosol Sci.* **33**, 609–622. => AEL3853
2450. Kerminen, V.-M. and Kulmala, M. (2002) Analytical formulae connecting the "real" and the "apparent" nucleation rate and the nuclei number concentration for atmospheric nucleation events. *J. Aerosol Sci.* **33**, 609–622. => HT1439
2451. Kerminen, V.-M. and Leck, C. (2001) Sulfur chemistry over the central Arctic Ocean during the summer: Gas-to-particle transformation. *J. Geophys. Res. Atmospheres* **106**, 32087–32099. => AEL3613
2452. Kerminen, V.-M. and Wexler, A.S. (1994) Particle formation due to SO<sub>2</sub> oxidation and high relative humidity in the remote marine boundary layer. *J. Geophys. Res.* **99**, 25607–25614. => AEL1595
2453. Kerminen, V.-M. and Wexler, A.S. (1995) Enhanced formation and development of sulfate particles due to marine boundary layer circulation. *J. Geophys. Res.* **100**, 23051–23062. => AEL1710
2454. Kerminen, V.-M. and Wexler, A.S. (1995) Growth laws for atmospheric aerosol particles: An examination of the bimodality of the accumulation mode. *Atmos. Environ.* **29**, 001–013. => HT1280
2455. Kerminen, V.-M. and Wexler, A.S. (1996) The occurrence of sulfuric acid-water nucleation in plumes. *Tellus* **48B**, 65–82. => AEL1906
2456. Kerminen, V.-M. and Wexler, A.S. (1997) Growth behavior of the marine submicron boundary layer aerosol. *J. Geophys. Res. Atmospheres* **102**, 18813–18825. => AEL2028
2457. Kerminen, V.-M., Anttila, T., Lehtinen, K.E.J. and Kulmala, M. (2004) Parameterization for atmospheric new-particle formation: Application to a system involving sulfuric acid and condensable water-soluble organic vapors. *Aerosol Sci. Technol.* **38**, 1001–1008. => HT1477
2458. Kerminen, V.-M., Hillamo, R.E., Mäkelä, T., Jaffarezo, J.-L. and Maenhaut, W. (1998) The physicochemical structure of the Greenland summer aerosol and its relation to atmospheric processes. *J. Geophys. Res. Atmospheres* **103**, 5661–5670. => AEL2228
2459. Kerminen, V.-M., Pirjola, L. and Kulmala, M. (2001) How significantly does coagulation scavenging limit atmospheric particle production?. *J. Geophys. Res. Atmospheres* **106**, 24119–24125. => AEL3562
2460. Kerminen, V.-M., Pirjola, L., Boy, M., Eskola, A., Teinilä, K., Laakso, L., Asmi, A., Hienola, J., Lauri, A., Vainio, V., Lehtinen, K. and Kulmala M. (2000) Interaction between SO<sub>2</sub> and submicron atmospheric particles. *Atmos. Res.* **54**, 41–57. => AEL3156

2461. Kerminen, V.-M., Virkkula, A., Hillamo, R., Wexler, A.S. and Kulmala, M. (2000) Secondary organics and atmospheric cloud condensation nuclei production. *J. Geophys. Res. Atmospheres* **105**, 9255–9264. => AEL3202
2462. Kerminen, V.-M., Wexler, A.S. and Potukuchi, S. (1997) Growth of freshly nucleated particles in the troposphere: Roles of NH<sub>3</sub>, H<sub>2</sub>SO<sub>4</sub>, HNO<sub>3</sub>, and HCl. *J. Geophys. Res. Atmospheres* **102**, 3715–3724. => AEL2186
2463. Kerminen, V.-M., Wexler, A.S., Potukuchi, S., Korhonen, P., Hillamo, R.E., Viisanen, Y. and Kulmala, M. (1996) The growth of nanometer size particles in the lower troposphere. In *Nucleation and atmospheric aerosols*, edited by Kulmala, M. and Wagner, P.E., Pergamon, pp. 589–593. => HT1160
2464. *Kernstrahlung in der Geophysik. Inhaltsverzeichnis* (1962) Red. Israel, H., Krebs, A. und Evans, R.D., Springer-Verlag, Berlin, Göttingen, Heidelberg. => HT0714
2465. Keskinen, J. and Graeffe, G. (1989) Continuous monitoring of air impurities in dwellings. *Environment International* **15**, 557–562. => AEL0897
2466. Keskinen, J. and Graeffe, G. (1989) Continuous monitoring of air impurities in dwellings. *Environment International* **15**, 557–562. => HT0503
2467. Keskinen, J., Janka, K. and Lehtimäki, M. (1987) Virtual impactor as an accessory to optical particle counters. *Aerosol Sci. Technol.* **6**, 79–83. => AEL0894
2468. Keskinen, J., Janka, K. and Lehtimäki, M. (1987) Virtual impactor as an accessory to optical particle counters. *@AST* **6**, 79–83. => HT0490
2469. Keskinen, J., Oksanen, E., Lehtimäki, M., Annanmäki, M. and Laaksonen, J. (1988) Intercomparison of radon measurement techniques. *7th International Congress of International Radiation Protection Association*, Sydney, pp. 841–844. => AEL2532
2470. Keskinen, J., Oksanen, E., Lehtimäki, M., Annanmäki, M. and Laaksonen, J. (1988) Intercomparison of radon measurement techniques. *Seventh International Congress of International Radiation Protection Association*, Sydney, pp. 841–844. => HT0667
2471. Kesselmeier, J. and Staudt, M. (1999) Biogenic volatile organic compounds (VOC): An overview on emission, physiology and ecology. *J. Atmos. Chem.* **33**, 23–88. => AEL2871
2472. Kesten, J., Butterweck, G., Porstendörfer, J., Reineking, A. and Heymel, H.-J. (1993) An online alpha-impactor for short-lived radon daughters. *Aerosol Sci. Technol.* **18**, 156–164. => AEL1257
2473. Kesten, J., Butterweck, G., Porstendörfer, J., Reineking, A. and Heymel, H.-J. (1993) An online alpha-impactor for short-lived radon daughters. *Aerosol Science and Technology* **18**, 156–164. => HT0801
2474. Ketkar, S.N., Ridgeway, R.G. and Martinez de Pinillos, J.V. (1992) Ion-molecule reactions in the source of an atmospheric pressure ionization mass spectrometer. *J. Electrochem. Soc.* **139**, 3675–3678. => AEL1137
2475. Ketznel, M. and Berkowicz, R. (2004) Modelling the fate of ultrafine particles from exhaust pipe to rural background: an analysis of time scales for dilution, coagulation and deposition. *Atmos. Environ.* **38**, 2639–2652. => AEL4137
2476. Khalfin, L.A. (1960) O teoretiko-informatsionnom podkhode k teorii spektralnykh priborov (in Russian). 187–205. => HT0547
2477. Khalfin, L.A. (1962) K staticheskoi teorii spektralnykh priborov (in Russian). *Trudy II Vsesoyushchn.Sovshch. po Teorii Veroyatnostei i Mat. Statistike*, Vilnius, pp. 265–268. => HT0290

2478. Khalil, M.A.K. and Rasmussen, R.A. (1999) Atmospheric chloroform. *Atmos. Environ.* **33**, 1151–1158. => AEL2732
2479. Khan, A. (1994) Theoretical studies of the clathrate structures of  $(\text{H}_2\text{O})_{20}$ ,  $\text{H}^+(\text{H}_2\text{O})_{20}$  and  $\text{H}^+(\text{H}_2\text{O})_{21}$ . *Chem. Phys. Lett.* **217**, 443–450. => AEL1200
2480. Khan, A., Busigin, A. and Phillips, C.R. (1982) An optimized scheme for measurement of the concentrations of the decay products of radon and thoron. *Health Phys.* **42**, 809–826. => AEL1208
2481. Khemani, L.T., Momin, G.A., Prakasa Rao, P.S., Safai, P.D., Singh, G. and Kapoor, R.K. (1989) Spread of acid rain over India. *Atmos. Environ.* **23**, 757–762. => AEL0186
2482. Khemani, L.T., Momin, G.A., Prakasa Rao, P.S., Safai, P.D., Singh, G., Chatterjee, R.N. and Prakash, P. (1989) Long-term effects of pollutants on pH of rain water in North India. *Atmos. Environ.* **23**, 753–756. => AEL0187
2483. Khlystov, A., Kos, G.P.A. and ten Brink, H.M. (1996) A high-flow turbulent cloud chamber. *Aerosol Sci. Technol.* **24**, 59–68. => AEL1576
2484. Khvorostyanov, V.I. and Curry, J.A. (1999) A simple analytical model of aerosol properties with account for hygroscopic growth 1. Equilibrium size spectra and cloud condensation nuclei activity spectra. *J. Geophys. Res. Atmospheres* **104**, 2175–2184. => AEL2756
2485. Khvorostyanov, V.I. and Curry, J.A. (1999) A simple analytical model of aerosol properties with account for hygroscopic growth 2. Scattering and absorption coefficients. *J. Geophys. Res. Atmospheres* **104**, 2163–2174. => AEL2757
2486. Kiang, C.S. and Middleton, P. (1977) Formation of secondary sulfuric acid aerosols in urban atmosphere. *Geophys. Res. Lett.* **4**, 17–20. => AEL1699
2487. Kiang, C.S. and Stauffer, D. (1970) Application of Fisher's droplet model for the liquid-gas transition near  $T_c$ . *Z. Phys.* **235**, 130–139. => AEL0812
2488. Kiang, C.S. and Stauffer, D. (1973) Chemical nucleation theory for various humidities and pollutants. *Faraday Symp. Chem. Soc.* **7**, 26–33. => AEL0825
2489. Kiang, C.S., Stauffer, D., Walker, G.H., Puri, O.P., Wise, J.D.Jr. and Patterson, E.M. (1971) A reexamination of homogeneous nucleation theory. *J. Atmos. Sci.* **28**, 1222–1232. => AEL1107
2490. Kido, M., Osada, K., Matsunaga, K. and Iwasaka, Y. (2001) Diurnal variation of ionic aerosol species and water-soluble gas concentrations at a high-elevation site in the Japanese Alps. *J. Geophys. Res. Atmospheres* **106**, 17335–17345. => AEL3490
2491. Kiefer, M. (1990) Adenauers richtige Langzeit-Prognosen. *Epoche* **14**, 84–85. => HT0483
2492. Kiehl, J.T. and Briegleb, B.P. (1993) The relative roles of sulfate aerosols and greenhouse gases in climate forcing. *Science* **260**, 311–314. => AEL2711
2493. Kikas, Ü., Juuti, S. and Ruuskanen, J. (1997) Daily changes in aerosol size distribution in a greenhouse. *Käsikiri*. => HT1396
2494. Kikas, Ü., Miller, F. and Peil, I. Tahm Eesti õhus (in Estonian). *Käsikiri* 1–11. => HT0961
2495. Kikas, Ü., Mirme, A. and Tamm, E. (1998) Examining the relationship between aerosol size distribution and atmospheric visibility in an urban area. *J. Aerosol Sci.* **29**, S661–S662. => HT1344
2496. Kikas, Ü., Mirme, A., Raunemaa, T. and Tamm, E. (1997) Bimodality of aerosol size distribution in the 0.06–1.0  $\mu\text{m}$  diameter range observed during haze episodes. *Käsikiri*. => HT1394

2497. Kikas, Ü., Mirme, A., Raunemaa, T. and Tamm, E. (1997) *The modal structure of aerosol size distribution observed in summer and winter atmosphere. Käsikiri.* => HT1395
2498. Kikas, Ü., Mirme, A., Raunemaa, T., Tamm, E. and Tammet, H. *The modal structure of aerosol size distribution observed in summer and winter atmosphere. Kavandataav artikkel J. Aerosol Sci. temaatilisse numbrisse.* => HT1397
2499. Kikas, Ü., Mirme, A., Tamm, E. and Raunemaa, T. (1996) Statistical characteristics of aerosol in Baltic Sea region. *J. Geophys. Res. Atmospheres* **101**, 19319–19327. => HT1548
2500. Kikas, Ü., Mirme, A., Tamm, E. and Raunemaa, T. Statistical characteristics of aerosol in Baltic Sea region. *Käsikiri* 1–14. => HT0934
2501. Kikas, Ü., Peil, I. and Miller, F. (1996) Black carbon in the air of Estonia. In *Nucleation and atmospheric aerosols*, edited by Kulmala, M. and Wagner, P.E., Pergamon, pp. 554–557. => HT1162
2502. Kikas, Ü., Reinart, A., Vaht, M. and Veismann, U. (2001) A case study of the impact of boundary layer aerosol size distribution on the surface UV irradiance. *Atmospheric Environment* **35**, 5041–5051. => HT1377
2503. Kikuchi, K. and Yoshida, Y. (1987) Vertical distributions of the concentration of submicron aerosol particles near the ground surface. *J. Meteorol. Soc. Japan* **65**, 963–971. => AEL3403
2504. Kildesø, J., Bhatia, V.K., Lind, L., Johnson, E. and Johansen, A. (1995) An experimental investigation for agglomeration of aerosols in alternating electric fields. *Aerosol Sci. Technol.* **23**, 603–610. => AEL1516
2505. Kilian, A. and Morse, T.F. (2001) A novel aerosol combustion process for the high rate formation of nanoscale oxide particles. *Aerosol Sci. Technol.* **34**, 227–235. => AEL3373
2506. Kilpatrick, W.D. *An experimental mass-mobility relation for ions in air at atmospheric pressure.* => HT0342
2507. Kim, B.-G., Schwartz, S.E., Miller, M.A. and Min, Q. (2003) Effective radius of cloud droplets by ground-based remote sensing: Relationship to aerosol. *J. Geophys. Res. Atmospheres* **108**, 4740– doi:10.1029/2003JD003721. => AEL4077
2508. Kim, B.M., Cassmassi, J., Hogo, H. and Zeldin, M.D. (2001) Positive organic carbon artifacts on filter medium during PM<sub>2.5</sub> sampling in the South Coast Air Basin. *Aerosol Sci. Technol.* **34**, 35–41. => AEL3360
2509. Kim, C.-H., Kreidenweis, S.M., Feingold, G., Frost, G.J. and Trainer, M.K. (2002) Modeling cloud effects on hydrogen peroxide and methylhydroperoxide in the marine atmosphere. *J. Geophys. Res. Atmospheres* **107**, AAC7 1–14. => AEL3629
2510. Kim, C.S., Adachi, M., Okuyama, K. and Seinfeld, J.H. (2002) Effect of NO<sub>2</sub> on particle formation in SO<sub>2</sub>/H<sub>2</sub>O/air mixtures by ion-induced and homogeneous nucleation. *Aerosol Sci. Technol.* **36**, 941–952. => AEL3710
2511. Kim, D.-H., Sohn, B.-J., Nakajima, T., Takamura, T., Takemura, T., Choi, B.-C. and Yoon, S.-C. (2004) Aerosol optical properties over east Asia determined from ground-based sky radiation measurements. *J. Geophys. Res. Atmospheres* **109**, D02209– doi:10.1029/2003JD003387, 2004. => AEL4119
2512. Kim, D.-S. and Kim, Y.-S. (1993) Distributions of airborne radon concentrations in Seoul metropolitan subway stations. Abstract. *Health Phys.* **65**, 12–16. => AEL1229
2513. Kim, H.T., Kim, Y.J. and Lee, K.W. (1998) New PM10 inlet design and evaluation. *Aerosol Sci. Technol.* **29**, 350–354. => AEL2342

2514. Kim, K.-S. and Kim, D.-J. (2002) Plug flow modeling of particle formation and growth combined with plasma chemistry in NO<sub>x</sub> removal by a pulsed corona discharge process. *Aerosol Sci. Technol.* **36**, 178–190. => AEL3592
2515. Kim, T.O., Adachi, M., Okuyama, K. and Seinfeld, J.H. (1997) Experimental measurement of competitive ion-induced and binary homogeneous nucleation in SO<sub>2</sub>/H<sub>2</sub>O/N<sub>2</sub> mixtures. *Aerosol Sci. Technol.* **26**, 527–543. => AEL1956
2516. Kim, T.O., Ishida, T., Adachi, M., Okuyama, K. and Seinfeld, J.H. (1998) Nanometer-sized particle formation from NH<sub>3</sub>/SO<sub>2</sub>/H<sub>2</sub>O/air mixtures by ionizing irradiation. *Aerosol Sci. Technol.* **29**, 111–125. => AEL2848
2517. Kim, Y., Sievering, H., Boatman, J., Wellman, D. and Pszenny, A. (1995) Aerosol size distribution and aerosol water content measurements during Atlantic Stratocumulus Transition Experiment/Marine Aerosol and Gas Exchange. *J. Geophys. Res.* **100**, 23027–23038. => AEL1541
2518. Kim, Y.K. and Kim, S.S. (1995) Transport of a condensable species in nonisothermal tube flow. *International Journal of Numerical Methods for Heat & Fluid Flow* **5**, 797–812. => AEL1678
2519. Kim, Y.P. and Seinfeld, J.H. (1992) Simulation of multicomponent aerosol dynamics. *J. Colloid Interface Sci.* **149**, 425–449. => AEL2702
2520. Kim, Y.P. and Seinfeld, J.H. (1995) Atmospheric gas-aerosol equilibrium: III. Thermodynamics of crustal elements Ca<sup>2+</sup>, K<sup>+</sup>, and Mg<sup>2+</sup>. *Aerosol Sci. Technol.* **22**, 93–110. => AEL1296
2521. Kim, Y.P., Pun, B.K.-L., Chan, C.K., Flagan, R.C. and Seinfeld, J.H. (1994) Determination of water activity in ammonium sulfate and sulfuric acid mixtures using levitated single particles. *Aerosol Sci. Technol.* **20**, 275–284. => AEL3188
2522. Kim, Y.P., Seinfeld, J.H. and Saxena, P. (1993) Atmospheric gas-aerosol equilibrium I. Thermodynamic model. *Aerosol Sci. Technol.* **19**, 157–181. => AEL1112
2523. Kim, Y.P., Seinfeld, J.H. and Saxena, P. (1993) Atmospheric gas-aerosol equilibrium II. Analysis of common approximations and activity coefficient calculation methods. *Aerosol Sci. Technol.* **19**, 182–198. => AEL1121
2524. Kim, Y.P., Seinfeld, J.H. and Saxena, P. (1993) Atmospheric gas-aerosol equilibrium I. Thermodynamic model. *Aerosol Sci. Technol.* **19**, 157–181. => HT0850
2525. Kim, Y.P., Seinfeld, J.H. and Saxena, P. (1993) Atmospheric gas-aerosol equilibrium II. Analysis of common approximations and activity coefficient calculation methods. *Aerosol Sci. Technol.* **19**, 182–198. => HT0851
2526. Kimlin, M. and Parisi, A. (2001) Usage of real-time ultraviolet radiation data to modify the daily erythemal exposure of primary schoolchildren. *Photodermatology, Photoimmunology & Photomedicine* **17**, 130–135. => AEL3543
2527. Kimmel, V. and Kaasik, M. (2003) Assessment of urban air quality in south Estonia by simple measures. *Environmental Modeling and Assessment* **8**, 47–53. => HT1469
2528. Kimmel, V. *Estimation of risk associated with exposure of lead in South-Estonia. ERSS grant proposal. Käsikiri.* => HT1002
2529. Kimura, F. (1989) A simulation of wind and air pollution over complex terrain using a hydrostatic numerical model. *Atmos. Environ.* **23**, 723–730. => AEL0188
2530. King, G.W.K. (1979) *Air ionization and its effects on well being and stress and its biological effects. (The third wave). Paper presented to the International Academy of preventive medicine. Manuscript. Dallas.* => HT0406



2531. Kinne, S., Lohmann, U., Feichter, J., Schulz, M., Timmreck, C., Ghan, S., Easter, R., Chin, M., Ginoux, P., Takemura, T., Tegen, I., Koch, D., Herzog, M., Penner, J., Pitari, G., Holben, B., Eck, T., Smirnov, A., Dubovik, O., Slutsker, I., Tanre, D., Torres, O., Mischenko, M., Geogdzhayev, I., Chu, D.A. and Kaufman, Y. (2003) Monthly averages of aerosol properties: A global comparison among models, satellite data, and AERONET ground data. *J. Geophys. Res. Atmospheres* **108**, 4634– doi:10.1029/2001JD001253. => AEL4066
2532. Kinney, P.D., Pui, D.Y.H., Mulholland, G.W. and Bryner, N.P. (1991) Use of the electrostatic classification method to size 0.1  $\mu\text{m}$  SRM particles - a feasibility study. *Journal of Research of the National Institute of Standards and Technology* **96**, 147–176. => AEL1591
2533. Kinsara, A.A., Tompson, R.V. and Loyalka, S.K. (1993) Computational flow and aerosol concentration profiles in lung bifurcations. Abstract. *Health Phys.* **64**, 13–22. => AEL1227
2534. Kirchner, F., Jeanneret, F., Clappier, A., Krüger, B., van den Bergh, H. and Calpini, B. (2001) Total VOC reactivity in the planetary boundary layer 2. A new indicator for determining the sensitivity of the ozone production to VOC and  $\text{NO}_x$ . *J. Geophys. Res. Atmospheres* **106**, 3095–3110. => AEL3316
2535. Kirchstetter, T.W., Novakov, T., Morales, R. and Rosario, O. (2000) Differences in the volatility of organic aerosols in unpolluted tropical and polluted continental atmospheres. *J. Geophys. Res. Atmospheres* **105**, 26547–26554. => AEL3262
2536. Kirjanduse nimestik. Ajakiri K&B. Rootsi- ja ingliskeelne. => HT0998
2537. Kirkevåg, A. and Iversen, T. (2002) Global direct radiative forcing by process-parameterized aerosol optical properties. *J. Geophys. Res. Atmospheres* **107**, 4433 doi:10.1029/2001JD000886–2002. => AEL3799
2538. Kirsch, A.A. and Zagnit'ko, A.V. (1981) Diffusion charging of submicrometer aerosol particles by unipolar ions. *J. Colloid Interface Sci.* **80**, 111–117. => AEL1075
2539. Kitaev, A.V. (1962) K primeneniyu ionizirovannogo vozdukhha i unipolyarnykh aerazolei (in Russian). *Zhurnal Fizicheskoi Khimii* **36**, 1136–1139. => HT0079
2540. Kitaev, A.V. and Kloiz, L.N. (1963) Spektrometr ionov i elektroaerazolei (in Russian). *Trudy VNIMNO* 131–134. => HT0165
2541. Kitani (1956) Measurement of monodisperse aerosols. (1st announcement). Measurement limits on light scattering. *J. Chem. Soc. Japan. Pure Chem. Sec.* **77**, 1181–1183. => AEL0943
2542. Kittelson, D.B., McKenzie, R., Vermeersch, M., Dorman, F., Pui, D., Linne, M., Liu, B. and Whitby, K. (1978) Total sulfur aerosol concentration with an electrostatically pulsed flame photometric detector system. *Atmospheric Environment* **12**, 105–111. => HT0321
2543. Kivanç, Ö. and Heelis, R.A. (1999) On relationships between horizontal velocity structure and thermal ion upwellings at high latitudes. *Geophys. Res. Lett.* **26**, 1829–1832. => AEL2900
2544. Kivi, R., Kyrö, E., Dörnbrack, A. and Birner, T. (2001) Observations of vertically thick polar stratospheric clouds and record low temperature in the Arctic vortex. *Geophys. Res. Lett.* **28**, 3661–3664. => AEL3547
2545. Klassen, J.K., Hu, Z. and Williams, L.R. (1998) Diffusion coefficients for HCl and HBr in 30 wt % to 72 wt % sulfuric acid at temperatures between 220 and 300 K. *J. Geophys. Res. Atmospheres* **103**, 16197–16202. => AEL2289
2546. Kleefeld, C., O'Dowd, C.D., O'Reilly, S., Jennings, S.G., Aalto, P., Becker, E., Kunz, G. and de Leeuw, G. (2002) Relative contribution of submicron and supermicron particles to aerosol light scattering in the marine boundary layer. *J. Geophys. Res. Atmospheres* **107**, 8103 doi:10.1029/2001JD000262–2002. => AEL3791

2547. Kleeman, M.J., Cass, G.R. and Eldering, A. (1997) Modeling the airborne particle complex as a source-oriented external mixture. *J. Geophys. Res. Atmospheres* **102**, 21355–21372. => AEL2202
2548. Kleimenova, N.G., Kozyreva, O.V., Mihnovski, S., Shimanski, A. and Ermolenko, D.Yu. (1992) Vysokoshirotnye dlinnoperiodnye pulsatsii v geomagnitnom pole i atmosfernom elektrichestve po nablyudeniya na arkh. Shpitsbergen (in Russian). *Geomagnetizm i Aeronomiya* **32**, 41–48. => HT0876
2549. Klein Baltink, H., van der Marel, H. and van der Hoeven, A.G.A. (2002) Integrated water vapor estimates from a regional GPS network. *J. Geophys. Res. Atmospheres* **107**, ACL3 1–8. => AEL3634
2550. Kleinert, H. (1986) Thermal softening of curvature elasticity in membranes. *Physics Letters* **114A**, 263–268. => AEL1329
2551. Klement, S. and Kratky, K.W. (1997) Multifractal analysis of airborne particle count data: the influence of data preprocessing. *Aerosol Sci. Technol.* **26**, 12–20. => AEL1608
2552. Klemm, O., Stockwell, W.R., Schlager, H. and Ziereis, H. (1998) Measurements of nitrogen oxides from aircraft in the northeast Atlantic flight corridor. *J. Geophys. Res. Atmospheres* **103**, 31217–31229. => AEL2832
2553. Klemperer, W. Structure and dynamics of van der Waals molecules. 398–407. => AEL0704
2554. Klockow, D., Niessner, R., Malejczyk, M., Kiendl, H., Vom Berg, B., Keuken, M.P., Wayers-Ypelaan, A. and Slanina, J. (1989) Determination of nitric acid and ammonium nitrate by means of a computer-controlled thermodenuder system. *Atmos. Environ.* **23**, 1131–1138. => AEL0699
2555. Kloeppel, J.E. (1993) Innovations. A sensitive technique for measuring hydroxyl radicals, atmospheric cleansing molecules. *Environmental Health Perspectives* **101**, 123–125. => AEL1769
2556. Klostermeyer, J. (1994) A two-ion ice particle model for the polar summer mesopause region. *J. Geophys. Res.* **99**, 5487–5497. => HT0860
2557. Klostermeyer, J. (1998) A simple model of the ice particle size distribution in noctilucent clouds. *J. Geophys. Res. Atmospheres* **103**, 28743–28752. => AEL2821
2558. Klostermeyer, J. (2002) Noctilucent clouds getting brighter. *J. Geophys. Res. Atmospheres* **107**, AAC1 1–7. => AEL3671
2559. Klots, C.E. Kinetic methods for quantifying magic. *Zeitschrift für Physik D. Atoms, Molecules and Clusters* **21**, 335–342. => AEL0447
2560. Klotz, J.B., Schoenberg, J.B. and Wilcox, H.B. (1993) Relationship among short- and long-term radon measurements within dwellings: influence of radon concentrations. *Health Phys.* **65**, 367–374. => AEL1203
2561. Klouda, G.A., Lewis, C.W., Stiles, D.C., Marolf, J.L., Ellenson, W.D. and Lonneman, W.A. (2002) Biogenic contributions to atmospheric volatile organic compounds in Azusa, California. *J. Geophys. Res. Atmospheres* **107**, ACH7 1–14. => AEL3648
2562. Knoll, M., Eichmeier, J. and Schön, R.W. (1964) Properties, measurement and bioclimatic action of "small" multimolecular atmospheric ions. *Advances in Electronics and Electron Physics*, Acad. Press, New York, **19**, pp. 177–254. => HT-F IX
2563. Knop, G. and Arnold, F. (1985) Short paper. Nitric acid vapour measurements in the troposphere and lower stratosphere by chemical ionisation mass spectrometry. *Planetary Space Science* **33**, 983–986. => AEL0569

2564. Knudsen, B.M., Pommereau, J.-P., Garnier, A., Nunez-Pinharanda, M., Denis, L., Letrenne, G., Durand, M. and Rosen, J.M. (2001) Comparison of stratospheric air parcel trajectories based on different meteorological analyses. *J. Geophys. Res. Atmospheres* **106**, 3415–3424. => AEL3411
2565. Knudsen, E. and Israelson, S. *Recommendations for conditions when recording atmospheric electric parameters related to the global circuit. Manuscript.* => HT0545
2566. Knudsen, E. and Israelsson, S. (1994) Method of measuring the mobility spectrum versus aging of atmospheric ions. *Unclassified paper* 1–8. => HT0755
2567. Knudsen, E. and Israelsson, S. (1994) Method of measuring the mobility spectrum versus aging of atmospheric ions. *J. Geophys. Res.* **99**, 22767–22771. => HT0854
2568. Knudsen, E. and Israelsson, S. (1994) Mobility spectrum of ions in the electrode effect layer. *J. Geophys. Res. Atmospheres* **99**, 10709–10712. => AEL3167
2569. Knudsen, E. and Israelsson, S. (1994) Mobility spectrum of ions in the electrode effect layer. *Journal of Geophysical Research* **99**, 10709–10712. => HT0749
2570. Knudsen, E. and Israelsson, S. *Investigation of the electrode effect under controlled meteorological and ground surface conditions. Manuscript.* Uppsala. => HT0414
2571. Knudsen, E. and Israelsson, S. *Mobility spectrum of ions in the electrode effect layer.* => HT0639
2572. Knudsen, E., Israelsson, S. and Hallberg, B. (1989) Measurements of the electrode effect over flat, snow-covered ground. *Journal of Atmospheric and Terrestrial Physics* **51**, 521–527. => HT0472
2573. Knudsen, E., Israelsson, S. and Hallberg, B. (1989) Measurements of the electrode effect over flat, snow-covered ground. *Journal of Atmospheric and Terrestrial Physics* **51**, 521–527. => HT0541
2574. Knudsen, E., Israelsson, S. and Hallberg, B. (1989) Measurements of the electrode effect over flat, snow-covered ground. *J. Atmos. Terr. Phys.* **51**, 521–527. => HT0809
2575. Knudsen, E., Jayaratne, K.P.S.C. and Israelsson, S. (1989) An investigation of sources of errors by space charge measurements using the Obolensky filter method. *Journal of Atmospheric and Terrestrial Physics* **51**, 529–531. => HT0473
2576. Knudsen, E., Jayaratne, K.P.S.C. and Israelsson, S. (1989) An investigation of sources of errors by space charge measurements using the Obolensky filter method. *Journal of Atmospheric and Terrestrial Physics* **51**, 529–531. => HT0542
2577. Knutson, E.O. (1995) Random and systematic errors in the graded screen technique for measuring the diffusion coefficient of radon decay products. *Aerosol Sci. Technol.* **23**, 301–310. => AEL1571
2578. Knutson, E.O. (1999) History of diffusion batteries in aerosol measurements. *Aerosol Sci. Technol.* **31**, 83–128. => AEL3115
2579. Knutson, E.O. and Whitby, K.T. (1975) Accurate measurement of aerosol electric mobility moments. *J. Aerosol Sci.* **6**, 453–460. => AEL0193
2580. Knutson, E.O. and Whitby, K.T. (1975) Aerosol classification by electric mobility: apparatus, theory, and applications. *J. Aerosol Sci.* **6**, 443–451. => AEL0190
2581. Knutson, E.O. and Whitby, K.T. (1975) Anomalous unipolar diffusion charging of polystyrene latex aerosols. *J. Colloid Interface Sci.* **53**, 493–495. => AEL0189
2582. Knutson, E.O., George, A.C. and Tu, K.W. (1997) The graded screen technique for measuring the diffusion coefficient of radon decay products. *Aerosol Sci. Technol.* **27**, 604–624. => AEL2544

2583. Knyazikhin, Y., Kranigk, J., Myneni, R.B., Panfyorov, O. and Gravenhorst, G. (1998) Influence of small-scale structure on radiative transfer and photosynthesis in vegetation canopies. *J. Geophys. Res. Atmospheres* **103**, 6133–6144. => AEL2239
2584. Ko J.-H. and Ihm, S.-K. (1997) A two-dimensional model for polydisperse particles on the effective migration rate of the electrostatic precipitator with wider plate-spacing. *Aerosol Sci. Technol.* **26**, 398–202. => AEL1978
2585. Kobayashi, H., Tsukuda, M. and Sasaki, A. (1980) Studies of the absolute measurement of low-level natural environmental radiation using the normal-pressure ionization chamber. *Natural Radiation Environment III*, U.S. Dept. Energy, **2**, pp. 1004–1021. => AEL2539
2586. Kobayashi, H., Tsukuda, M. and Sasaki, A. (1980) Studies of the absolute measurement of low-level natural environmental radiation using the normal-pressure ionization chamber. *Natural Radiation Environment III*, U.S. Dept. Energy, **2**, pp. 1004–1021. => HT0711
2587. Kobraei, H.R. (1994) A molecular model for homogeneous nucleation. *Atmospheric Research* **31**, 3–12. => HT0838
2588. Kobraei, H.R. and Anderson, B.R. (1991) Extension of microscopic theory of nucleation to macroscopic clusters. *J. Chem. Phys.* **94**, 590–596. => AEL0748
2589. Koch, D. (2001) Transport and direct radiative forcing of carbonaceous and sulfate aerosols in the GISS GCM. *J. Geophys. Res. Atmospheres* **106**, 20311–20332. => AEL3518
2590. Koch, D., Park, J. and Del Genio, A. (2003) Clouds and sulfate are anticorrelated: A new diagnostic for global sulfur models. *J. Geophys. Res. Atmospheres* **108**, 4781–doi:10.1029/2003JD003621. => AEL4102
2591. Koch, D.M., Jacob, D.J. and Graustein, W.C. (1996) Vertical transport of tropospheric aerosols as indicated by  $^7\text{Be}$  and  $^{210}\text{Pb}$  in a chemical tracer model. *J. Geophys. Res.* **101**, 18651–18666. => AEL1859
2592. Kochanski, E. (1985) Theoretical studies of the system  $\text{H}_3\text{O}^+(\text{H}_2\text{O})_n$  for  $n=1-9$ . *J. Amer. Chem. Soc.* **107**, 7869–7873. => AEL0608
2593. Kochanski, E. (1999) Temperature effects on Monte Carlo studies of small  $\text{Ca}^+(\text{H}_2\text{O})_n$  clusters. *Chem. Phys. Lett.* **159**, 51–55. => AEL2880
2594. Kochanski, E., Rahmouni, A. and Wiest, R. (1990) The role of non-additive interactions in the description of the first solvation shell of ionic clusters:  $\text{H}_3\text{O}^+(\text{H}_2\text{O})_6$ . *J. Chim. Phys.* **87**, 917–930. => AEL0822
2595. Kocmond, W.C., Yang, J.Y. and Kittelson, D.B. (1979) The role of the electrical aerosol analyzer in photochemical aerosol research. *Aerosol measurement*, University Presses of Florida, pp. 458–472. => AEL0755
2596. Koczorowski, Z., Zagorska, I. and Kalinska, A. (1989) Differences between surface potentials of water and some organic solvents. *Electrochimica Acta* **34**, 1857–1862. => AEL1042
2597. Koenig, F.O. (1950) On the thermodynamic relation between surface tension and curvature. *The Journal of Chemical Physics* **18**, 449–459. => AEL4145
2598. Köhler, I., Dameris, M., Ackermann, I. and Hass, H. (2001) Contribution of road traffic emissions to the atmospheric black carbon burden in the mid-1990s. *J. Geophys. Res. Atmospheres* **106**, 17997–18014. => AEL3493
2599. Köhnlein, W. (1986) A model of the electron and ion temperatures in the ionosphere. *Planet. Space Sci.* **34**, 609–630. => AEL0628
2600. Kojima, H. (1982) Contributions of aerosols and the ionization intensity to the electrical conductivity of the air. *Res. Lett. Atmos. Electr.* **2**, 25–28. => AEL0192

2601. Kojima, H. (1982) Contributions of aerosols and the ionization intensity to the electrical conductivity of the air. *Research Letters on Atmospheric Electricity* **2**, 25–28. => HT0299
2602. Kojima, H. (1988) Experimental estimation of a recoil factor in alpha decay of RaA. *Research Letters On Atmospheric Electricity* **8**, 69–74. => AEL2431
2603. Kojima, H. and Abe, S. (1989) Comparison of sensitivity between two methods (a decay method and a build-up and decay method) in monitoring of individual radon daughters. *Hoken Butsuri* **24**, 25–30. => AEL2430
2604. Kokotti, H. *Bibliography*. Unclassified paper, University of Kuopio. => HT0758
2605. Kokotti, H. *Radon included to education of students. Öppeprogramm ja joonised*. => HT0766
2606. Kokotti, H., Kalliokoski, P. and Jantunen, M. (1992) Dependency of radon entry on pressure difference. *Atmospheric Environment* **26A**, 2247–2250. => HT0761
2607. Kokotti, H., Kalliokoski, P. and Raunemaa, T. (1988) Analysis of indoor radon in different ventilation systems. *Symposium on Radon and Radon Reduction Technology. Proceedings*, Denver, Colorado, **VII-9**, pp. 1–10. => HT0759
2608. Kokotti, H., Kalliokoski, P. and Raunemaa, T. (1989) Short and long term indoor radon concentrations in buildings with different ventilation systems. *Environmental Technology Letters* **10**, 1083–1088. => HT0760
2609. Kokotti, H., Keskikuru, T. and Kalliokoski, P. (1993) Radon mitigation with mechanical supply and exhaust ventilation adjusted by a pressure control unit. *Proceedings of Indoor Air* **4**, 633–638. => HT0762
2610. Kokotti, H., Keskikuru, T. and Kalliokoski, P. (1993) Radon problem in underground spaces. *Proceedings of Indoor Air '93*, **4**, pp. 593–598. => HT0764
2611. Kokotti, H., Keskikuru, T. and Kalliokoski, P. (1993) Radon problem in underground workplaces. *Building Design, Technology, and Occupant Well-Being in Temperate Climates*, Am.Soc.Heat.,Refriger.and Air-Cond.Eng.Inc., pp. 298–301. => HT0767
2612. Kokotti, H., Keskikuru, T. and Kalliokoski, P. (1994) Radon mitigation with pressure-controlled mechanical ventilation. *Building and Environment* **29**, 1–18. => HT0763
2613. Kokotti, H., Korhonen, P., Keskikuru, T. and Kalliokoski, P. (1994) Effect of ventilation on radon levels in underground workplaces. *Occupational Hygiene* **in press**, 1–19. => HT0765
2614. Kolafa, J. and Nezbeda, I. (1987) Monte Carlo simulations on primitive models of water and methanol. *Mol. Phys.* **61**, 161–175. => AEL1995
2615. Kolerskii, S.V., Kuznetsov, Yu.V., Polev, N.M. and Ruzer, L.S. (1974) Effect of recoil nuclei being knocked off aerosol particles onto free-atom concentrations of daughter emanation products. *Consultants Bureau, Plenum Publ. Corp. Translated from Izmeritel'naya Tekhnika, 1973, n. 10, pp. 57-58* 1527–1530. => AEL2432
2616. Koliadima, A., Athanasopoulou, A. and Karaiskakis, G. (1998) Particulate matter in air of the cities of Athens and Patras (Greece): Particle-size distributions and elemental concentrations. *Aerosol Sci. Technol.* **28**, 292–300. => AEL2099
2617. Kollman, P. and Kuntz, I. (1976) Hydration of NH<sub>4</sub>F. *J. Amer. Chem. Soc.* **98**, 6820–6825. => AEL0622
2618. Kolmogorov, A.N. (1956) *Teoriya peredachi informatsii* (in Russian). AN SSSR., => HT0339
2619. Koloutsou-Vakakis, S., Rood, M.J., Nenes, A. and Pilinis, C. (1998) Modeling of aerosol properties related to direct climate forcing. *J. Geophys. Res. Atmospheres* **103**, 17009–17032. => AEL2296

2620. Kolstad, C.D. and Williams, M.D. (1989) Aggregate source-receptor relations for economic analysis of ambient regulations. *J. Air Poll. Contr. Assoc.* **39**, 824–830. => AEL0670
2621. Koltsov, B.Yu. (1979) Metod izmereniya massovoi kontsentratsii aerolei (in Russian). *Trudy LIAP*, Leningrad, **1(136)**, pp. 31–36. => HT0626
2622. Komarov, N.N. (1960) Voprosy rascheta neustanovivshchikhsya tokov v izmeritel'nykh kondensatorakh schetchikov ionov i ionnykh spektrometrov (in Russian). *Izvestiya Akademii Nauk SSSR geofizika* 309–317. => AEL4141
2623. Komarov, N.N. (1961) Metody i nekotorye rezultaty izmereniya ionizirovannogo sostoyaniya svobodnoi atmosfery (in Russian). 259–265. => HT-F055
2624. Komarov, N.N. (1973) Ob odnom metode resheniya integralnogo uravneniya dlya tokov v ionnoi kamere (in Russian). *Fizika Atmosfery i Okeana* **9**, 101–104. => HT0211
2625. Komarov, N.N., Kuz'menko, M.D. and Seredkin, A.A. (1960) Izmereniya ionizatsionnogo sostoyaniya svobodnoi atmosfery v usloviyakh antitsiklona (in Russian). *Izv. AN SSSR ser. geofizicheskaya* 1534–1540. => AEL3385
2626. *Komponenten für die Vakuumtechnik. Reklaamprospekt.* Balzers,. => HT1021
2627. Komppula, M., Lihavainen, H., Hatakka, J., Paatero, J., Aalto, P., Kulmala, M. and Viisanen, Y. (2003) Observations of new particle formation and size distributions at two different heights and surroundings in subarctic area in northern Finland. *J. Geophys. Res. Atmospheres* **108**, 4295– doi:10.1029/2002JD002939, 2003. => AEL4010
2628. Kondo, Y., Ziereis, H., Koike, M., Kawakami, S., Gregory, G.L., Sachse, G.W., Singh, H.B., Davis, D.D. and Merrill, J.T. (1996) Reactive nitrogen over the Pacific ocean during PEM-West A. *J. Geophys. Res.* **101**, 1809–1828. => AEL1651
2629. Kondratyev, K.Ya., Bondarenko, V.G. and Khvorostyanov, V.I. (1992) A three-dimensional numerical model of cloud formation and aerosol transport in an orographically inhomogeneous atmospheric boundary layer. *Boundary-Layer Meteorology* **61**, 265–285. => AEL2724
2630. Konopka, P. (1996) A reexamination of the derivation of the equilibrium supersaturation curve for soluble particles. *J. Atmos. Sci.* **53**, 3157–3163. => AEL2390
2631. Konopka, P. and Vogelsberger, W. (1997) Köhler equation for finite systems: A simple estimation of possible condensation mechanisms in aircraft contrails. *J. Geophys. Res. Atmospheres* **102**, 16057–16064. => AEL2180
2632. Konovalov, I.B., Feigin, A. and Mukhina, A.Y. (1999) Toward understanding the nonlinear nature of atmospheric photochemistry: Multiple equilibrium states in the high-latitude lower stratospheric photochemical system. *J. Geophys. Res. Atmospheres* **104**, 3669–3689. => AEL2768
2633. *Konverentsi "Ümbritseva keskkonna mõju inimese tervisele" materjalid* (in Estonian) (1993) Arendus- ja konsultatsioonikeskus "Estorex", Tartu. => HT1126
2634. Koo, B., Gaydos, T.M. and Pandis, S. (2003) Evaluation of the equilibrium, dynamic, and hybrid aerosol modeling approaches. *Aerosol Sci. Technol.* **37**, 53–64. => AEL3719
2635. Koop, T., Kapilashrami, A., Molina, L.T. and Molina, M.J. (2000) Phase transitions of sea-salt/water mixtures at low temperatures: Implications for ozone chemistry in the polar marine boundary layer. *J. Geophys. Res. Atmospheres* **105**, 26393–26402. => AEL3258
2636. Koopman, R.P., Ermak, D.L. and Chan, S.T. (1989) A review of recent field tests and mathematical modelling of atmospheric dispersion of large spills of denser-than-air gases. *Atmos. Environ.* **23**, 731–745. => AEL0191

2637. Kopanev, I.D. (1987) S 22 po 26 sentyabrya 1986 g. v Leningrade, na baze GGO, byl proveden Mezhdunarodnyi simpozium VMO, VOZ, YuNEP, Gosgidrometa.. (in Russian). *Meteorologiya i Hidrologiya* 124–125. => HT0344
2638. Koponen, I. (2003) *Observations of tropospheric aerosol size distributions. Academic dissertation. Käsikiri. Ilmus Report Series in Aerosol Science N. 63.* => HT1451
2639. Koponen, I.K. and Mäkelä, J.M. *Particle number size distribution and existence of size modes at Hyttiälä forest site. MS.* => HT1587
2640. Koponen, I.K., Asmi, A., Keronen, P., Puhto, K. and Kulmala, M. (2001) Indoor air measurement campaign in Helsinki, Finland 1999 - the effect of outdoor air pollution on indoor air. *Atmos. Environ.* **35**, 1465–1477. => HT1456
2641. Koponen, I.K., Virkkula, A., Hillamo, R., Kerminen, V.-M. and Kulmala, M. (2002) Number size distributions and concentrations of marine aerosols: Observations during a cruise between the English Channel and the coast of Antarctica. *J. Geophys. Res. Atmospheres* **107**, 4753–doi:10.1029/2002JD002533. => AEL3828
2642. Koponen, I.K., Virkkula, A., Hillamo, R., Kerminen, V.-M. and Kulmala, M. (2003) Number size distributions and concentrations of marine aerosols: Observations during a cruise between the English Channel and the coast of Antarctica. *J. Geophys. Res. Atmospheres* **107**, 4753–doi:10.1029/2002JD002533, 2002. => AEL3932
2643. Koponen, I.K., Virkkula, A., Hillamo, R., Kerminen, V.-M. and Kulmala, M. (2003) Number size distributions and concentrations of the continental summer aerosols in Queen Maud Land, Antarctica. *J. Geophys. Res. Atmospheres* **108**, 4587– doi:10.1029/2003JD003614. => AEL4062
2644. Koponen, I.K., Virkkula, A., Hillamo, R., Kerminen, V.-M. and Kulmala, M. (2003) Number size distributions and concentrations of the continental summer aerosols in Queen Maud Land, Antarctica. *J. Geophys. Res. Atmospheres* **108**, XXXX doi:10.1029/2003JD003614. => HT1452
2645. Koponen, I.K., Virkkula, A., Hillamo, R., Kerminen, V.-M. and Kulmala, M. (2002) Number size distributions and concentrations of marine aerosols: Observations during a cruise between the English Channel and the coast of Antarctica. *J. Geophys. Res. Atmospheres* **107**, 4753–doi:10.1029/2002JD002533. => HT1453
2646. Kops, J., Hermans, L. and Van De Vate, J.F. (1974) Calibration of a Stöber centrifugal aerosol spectrometer. *J. Aerosol Sci.* **5**, 379–386. => AEL0184
2647. Kopyt, N.Kh. and Girin, A.I. (1992) Local atmosphere conductivity increase caused by ascending products of dispersed fuel combustion. *Abstracts of Conference on Visibility and Fine Particles*, Vienna, pp. 1–1. => HT0680
2648. Korhonen, H., Lehtinen, K., Pirjola, L., Napari, I., Vehkamäki, H., Noppel, M. and Kulmala, M. (2003) Simulation of atmospheric nucleation mode: A comparison of nucleation models and size distribution representations. *J. Geophys. Res. Atmospheres* **108**, 4471 doi: 10.1029/2002JD003305. => HT1448
2649. Korhonen, H., Lehtinen, K.E.J., Pirjola, L., Napari, I., Vehkamäki, H., Noppel, M. and Kulmala, M. (2003) Simulation of atmospheric nucleation mode: A comparison of nucleation models and size distribution representations. *Class 108*,. => @1@\*
2650. Korhonen, H., Napari, I., Timmreck, C., Vehkamäki, H., Pirjola, L., Lehtinen, K.E.J., Lauri, A. and Kulmala, M. (2003) Heterogeneous nucleation as a potential sulphate-coating mechanism of atmospheric mineral dust particles and implications of coated dust on new particle formation. *J. Geophys. Res. Atmospheres* **108**, 4546– doi:10.1029/2003JD003553. => AEL4039

2651. Korhonen, P., Kulmala, M. and Vesala, T. (1996) Model simulation of the amount of soluble mass during cloud droplet formation. *Atmos. Environ.* **30**, 1773–1785. => AEL2053
2652. Korhonen, P., Kulmala, M., Hansson, H.-C., Svenningsson, I.B. and Rusko, N. (1996) Hygroscopicity of pre-existing particle distribution and formation of cloud droplets: a model study. *Atmos. Res.* **41**, 249–266. => AEL2043
2653. Korhonen, P., Kulmala, M., Laaksonen, A., Viisanen, Y., McGraw, R. and Seinfeld, J.H. (1999) Ternary nucleation of H<sub>2</sub>SO<sub>4</sub>, NH<sub>3</sub>, and H<sub>2</sub>O in the atmosphere. *J. Geophys. Res. Atmospheres* **104**, 26349–26353. => AEL3030
2654. Korhonen, P., Kulmala, M., Laaksonen, A., Viisanen, Y., McGraw, R. and Seinfeld, J.H. (1999) Ternary nucleation of H<sub>2</sub>SO<sub>4</sub>, NH<sub>3</sub>, and H<sub>2</sub>O in the atmosphere. *J. Geophys. Res. Atmospheres* **104**, 26349–26353. => HT1303
2655. Kotamarthi, V.R., Rodriguez, J.M., Sze, N.D., Kondo, Y., Pueschel, R., Ferry, G., Bradshaw, J., Sandholm, S., Gregory, G., Davis, D. and Liu, S. (1997) Evidence of heterogeneous chemistry on sulfate aerosols in stratospherically influenced air masses sampled during PEM-West B. *J. Geophys. Res. Atmospheres* **102**, 28425–28436. => AEL2170
2656. Kotchenruther, R.A., Jaffe, D.A. and Jaeglé, L. (2001) Ozone photochemistry and the role of peroxyacetyl nitrate in the springtime northeastern Pacific troposphere: Results from the Photochemical Ozone Budget of the Eastern North Pacific Atmosphere (PHOBEA) campaign. *J. Geophys. Res. Atmospheres* **106**, 28731–28742. => AEL3584
2657. Kousaka, Y., Endo, Y. and Nakai, S. (1996) Size measurement of fine powders using the differential mobility analyzer - application of boiling method for aerosol generation. *Aerosol Sci. Technol.* **25**, 61–66. => AEL1828
2658. Kousaka, Y., Horiuchi, T., Endo, Y. and Aotani, S. (1994) Generation of aerosol particles by boiling of suspensions. *Aerosol Sci. Technol.* **21**, 236–240. => AEL1252
2659. Kousaka, Y., Okuyama, K., Adachi, M. and Ebie, K. (1981) Measurement of electric charge of aerosol particles generated by various methods. *J. Chem. Eng. Japan* **14**, 54–58. => AEL0183
2660. Koutrakis, P., Fasano, A.M., Slater, J.L., Spengler, J.D., McCarthy, J.F. and Leaderer, B.P. (1989) Design of a personal annular denuder sampler to measure atmospheric aerosols and gases. *Atmos. Environ.* **23**, 2767–2773. => AEL0724
2661. Koutsenogii, P. (1997) Aerosol measurements in Siberia. *Atmos. Res.* **44**, 167–173. => AEL1939
2662. Kozack, R.E. and Jordan, P.C. (1993) Structure of H<sup>+</sup>(H<sub>2</sub>O)<sub>n</sub> clusters near the magic number n=21. *J. Chem. Phys.* **99**, 2978–2984. => AEL0915
2663. Kozatshenko, V.I. (1979) Dreifovaya zaryadka aerazolnykh tshastits v elektritsheskom pole gazovykh razryadov (in Russian). *Trudy LIAP, Leningrad*, **1(136)**, pp. 26–30. => HT0606
2664. Kozatshenko, V.I. and Neiman, L.A. (1976) Analiz pogreshnosti elektronno-indutsionnogo pylemera pri sinkhronnom nakoplenii signala (in Russian). *Trudy LIAP, Leningrad*, **103**, pp. 69–73. => HT0583
2665. Kožíšek, Z. and Demo, P. (1996) Comment on "Transient kinetics of binary nucleation by Z. Kožíšek and P. Demo" [J. Crystal Growth 132 (1993) 491]. *J. Crystal Growth* **169**, 413–414. => AEL2364
2666. Kozlov, V.I. (1966) O vostanovlenii vysotnogo profilya temperatury po spektru ukhodyashchei radiatsii (in Russian). *Fizika Atmosfery i Okeana* **2**, 137–148. => HT0268
2667. Kozlov, V.P. (1964) O razreshayushchei sposobnosti spektralnykh priborov (in Russian). *Optika i Spektroskopiya* **16**, 501–506. => HT0279



2668. Kozlov, V.P. (1964) O razreshayushchei sposobnosti spektralnykh priborov (in Russian). *Optika i Spektroskopiya* **17**, 278–283. => HT0280
2669. Kozlov, V.P. K voprosu ob optimalnoi reduktsii v teorii spektralnykh priborov (in Russian). 73–76. => HT0558
2670. Kraemer, H.F. and Johnstone, H.F. (1955) Collection of aerosol particles in presence of electrostatic fields. *Industr. and Engng. Chem.* **47**, 2426–2434. => HT-F041
2671. Kralchevsky, P.A., Eriksson, J.C. and Ljunggren, S. (1994) Theory of curved interfaces and membranes: Mechanical and thermodynamical approaches. *Advances in Colloid and Interface Science* **48**, 19–59. => AEL4144
2672. Kralchevsky, P.A., Gurkov, T.D. and Nagayama, K. (1996) Electric component on the interfacial bending moment and the curvature elastic moduli. *J. Colloid Interface Sci.* **180**, 619–622. => AEL4143
2673. Krall, E. (1960) Parasitologia-alane konverents Riias (in Estonian). *Eesti NSV Teaduste Akadeemia Toimetised. Bioloogiline Seeria* **9**, 193–194. => HT0017
2674. Krämer, M., Schütz, L., Svenningsson, B. and Wiedensohler, A. *Number size distribution of insoluble atmospheric aerosol particles in fog/cloud-water*. Manuscript,. => HT0699
2675. Krasnogorskaya, N.V., Parkhomov, A.G. and Rudakov, Ya.Ya. *Electric fluctuations at the earth's surface in the function of space parameters*. Manuscript. => HT0523
2676. Krasnopevtsev, Yu.V. (1966) Izmereniya provodimosti atmosfery s samoleta (in Russian). *Fizika Atmosfery i Okeana* **2**, 636–646. => HT0084
2677. Krehbiel, P., Brook, M., McCrory, R. and Tarbox, D. (1976) Lightning charge center locations relative to precipitation in a thunerstorm. *Volume International Conference on Cloud Physics*, Boulder, pp. 642–643. => HT0119
2678. Kreidenweis, S.M. and Seinfeld, J.H. (1988) Nucleation of sulfuric acid-water and methanesulfonic acid-water solution particles: implications for the atmospheric chemistry of organosulfur species. *Atmos. Environ.* **22**, 283–296. => AEL1596
2679. Kreidenweis, S.M., Walcek, C.J., Feingold, G., Gong, W., Jacobson, M.Z., Kim, C.-H., Liu, X., Penner, J.E., Nenes, A. and Seinfeld, J.H. (2003) Modification of aerosol mass and size distribution due to aqueous-phase SO<sub>2</sub> oxidation in clouds: Comparisons of several models. *J. Geophys. Res. Atmospheres* **108**, 4213– doi:10.1029/2002JD002697, 2003. => AEL3981
2680. Kreidenweis, S.M., Zhang, Y. and Taylor, G.R. (1997) The effects of clouds on aerosol and chemical species production and distribution. 2. Chemistry model description and sensitivity analysis. *J. Geophys. Res. Atmospheres* **102**, 23867–23882. => AEL2177
2681. Kreisberg, N.M., Stolzenburg, M.R., Hering, S.V., Dick, W.D. and McMurry, P.H. (2001) A new method for measuring the dependence of particle size distributions on relative humidity, with application to the Southeastern Aerosol and Visibility Study. *J. Geophys. Res. Atmospheres* **106**, 14935–14949. => AEL3486
2682. Krey, P.W., Lagomarsino, R.J. and Toonkel, L.E. (1977) Gaseous halogens in the atmosphere in 1975. *J. Geophys. Res.* **82**, 1753–1766. => AEL0590
2683. Kreyling, W.G. and Erbe, F. (1985) Continuous dispersion of aqueous solutions by a modified vibrating orifice aerosol generator. *J. Aerosol Sci.* **16**, 261–263. => AEL0182
2684. Krieger, A. and Arnold, F. (1992) Evidence for upper stratospheric aerosols from ballon-borne mass spectrometers. *Geophys. Res. Lett.* **19**, 2301–2304. => AEL1768
2685. Krishtalik, L.I., Alpatova, N.M. and Ovsyannikova, E.V. (1992) Determination of the surface potentials of solvents. *J. Electroanal. Chem.* **329**, 1–8. => AEL1044

2686. Kristjánsson, J.E. (2002) Studies of the aerosol indirect effect from sulfate and black carbon aerosols. *J. Geophys. Res. Atmospheres* **107**, AAC1 1–19. => AEL3722
2687. Kristjánsson, J.E. and Kristiansen, J. (2000) Is there a cosmic ray signal in recent variations in global cloudiness and cloud radiative forcing. *J. Geophys. Res. Atmospheres* **105**, 11851–11863. => AEL3212
2688. Kritz, M.A., Rosner, S.W. and Stockwell, D.Z. (1998) Validation of an off-line three-dimensional chemical transport model using observed radon profiles 1. Observations. *J. Geophys. Res. Atmospheres* **103**, 8425–8432. => AEL2246
2689. Krochmal, D. and Górski, L. (1991) Determination of nitrogen dioxide in ambient air by use of a passive sampling technique and triethanolamine as adsorbent. *Environ. Sci. Technol.* **25**, 531–535. => AEL2102
2690. Krochmal, D. and Kalina, A. (1997) Technical note. A method of nitrogen dioxide and sulphur dioxide determination in ambient air by use of passive samplers and ion chromatography. *Atmos. Environ.* **31**, 3473–3479. => 2103
2691. Krol, M.C., Molemaker, M.J. and Vilá-Guerau de Arellano, J. (2000) Effects of turbulence and heterogeneous emissions on photochemically active species in the convective boundary layer. *J. Geophys. Res. Atmospheres* **105**, 6871–6884. => AEL3110
2692. Kröling, P. (1985) Natural and artificially produced air ions - a biologically relevant climate factor?. *Int. J. Biometeorol.* **29**, 233–242. => AEL3323
2693. Kröling, P. (1985) Part C. Natural and artificially produced air ions - a biologically relevant climate factor?. *International Journal of Biometeorology* **29**, 233–242. => HT0513
2694. Krotkov, N.A., Bhartia, P.K., Herman, J.R., Fioletov, V. and Kerr, J. (1998) Satellite estimation of spectral surface UV irradiance in the presence of tropospheric aerosols 1. Cloud-free case. *J. Geophys. Res. Atmospheres* **103**, 8779–8793. => AEL2251
2695. Krotkov, N.A., Herman, J.R., Bhartia, P.K., Fioletov, V. and Ahmad, Z. (2001) Satellite estimation of spectral surface irradiance 2. Effects of homogeneous clouds and snow. *J. Geophys. Res. Atmospheres* **106**, 11743–11759. => AEL3460
2696. Krueger, A.P. (1980) On air ions-and your health, moods and efficiency. *Executive Health* **17**, 1–6. => HT0405
2697. Krueger, A.P. and Reed, E.J. (1976) Biological impact of small air ions. *Science* **193**, 1209–1213. => HT0208
2698. Kruger, J. and Nöthling, J.F. (1979) A comparison of the attachment of the decay products of radon-220 and radon-222 to monodispersed aerosols. *J. Aerosol Sci.* **10**, 571–579. => AEL2433
2699. Kruis, F.E., Otten, F., Jordan, F. and Fissan, H. (1998) A new efficient unipolar charger for nanoparticles. *J. Aerosol Sci.* **29**, S1021–S1022. => HT1357
2700. Kruse, L.P., Sierk, B., Springer, T. and Cocard, M. (1999) GPS meteorology: Impact of predicted orbits on precipitable water estimates. *Geophys. Res. Lett.* **26**, 2045–2049. => AEL2901
2701. Krzyscin, J.W., Degórska, M. and Rajewska-Więch, B. (2001) Impact of interannual meteorological variability on total ozone in northern middle latitudes: A statistical approach. *J. Geophys. Res. Atmospheres* **106**, 17953–17960. => AEL3491
2702. Krzyscin, J.W. (2000) Impact of the ozone profile on the surface UV radiation: Analyses of the Umkehr and UV measurements at Belsk (52° N, 21° E), Poland. *J. Geophys. Res. Atmospheres* **105**, 5009–5015. => AEL3105

2703. Krzyścin, J.W. (2000) Total ozone influence on the surface UV-B radiation in the late spring-summer 1963-1997: An analysis of multiple timescales. *J. Geophys. Res. Atmospheres* **105**, 4993–5000. => AEL3103
2704. Krzyścin, J.W. and Puchalski, S. (1998) Aerosol impact on the surface UV radiation from the ground-based measurements taken at Belsk, Poland, 1980-1996. *J. Geophys. Res. Atmospheres* **103**, 16175–16181. => AEL2288
2705. Ku J.-Y., Rao, S.T. and Rao, K.S. (1987) Numerical simulation of air pollution in urban areas: Model development. *Atmos. Environ.* **21**, 201–212. => AEL0180
2706. Ku J.-Y., Rao, S.T. and Rao, K.S. (1987) Numerical simulation of air pollution in urban areas: Model performance. *Atmos. Environ.* **21**, 213–232. => AEL0181
2707. Kübarsepp, T., Yoon, H.W., Nevas, S., Kärhä, P. and Ikonen, E. (2002) Comparison of spectral irradiance scales between the NIST and the HUT. *Metrologia* **39**, 399–402. => AEL3972
2708. Kudo, A., Takahashi, K. and Kozima, T. (1971) Numerical calculation for electrical charge on aerosol particles. Part II. Estimation method of particle size distribution. *Technical Reports of the Engineering Research Institute Kyoto University* 1–41. => AEL0179
2709. Kukkonen, J., Kulmala, M., Nikmo, J., Vesala, T., Webber, D.M. and Wren, T. (1994) The homogeneous equilibrium approximation in models of aerosol cloud dispersion. *Atmos. Environ.* **28**, 2763–2776. => AEL1611
2710. Kukkonen, J., Kulmala, M., Nikmo, J., Vesala, T., Webber, D.M. and Wren, T. (1993) Aerosol cloud dispersion and the suitability of the homogeneous equilibrium approximation. *AEA/CS/HSE* 1–22. => AEL2078
2711. Kukkonen, J., Vesala, T. and Kulmala, M. (1989) The interdependence of evaporation and settling for airborne freely falling droplets. *J. Aerosol Sci.* **20**, 749–763. => AEL2069
2712. Kulkarni, M. and Kamra, A.K. (2001) Vertical profiles of atmospheric electric parameters close to ground. *J. Geophys. Res. Atmospheres* **106**, 28209–28221. => AEL3576
2713. Kull, R. and Vettik, A. (1987) *Vabariiklik terministandard "Looduskaitse. Atmosfäär. Saastekontrolli terminid ja määratlused."* Projekt (in Estonian). Eesti NSV Teaduste Akadeemia Keele ja Kirjanduse Instituut,. => HT1212
2714. Kulmala, M. (1993) Comments on “New explicit equations for the accurate calculation of hydrometeors by the diffusion of water vapor. *J. Atmos. Sci.* **50**, => AEL2038
2715. Kulmala, M. (1993) Condensational growth and evaporation in the transition regime. An analytical expression. *Aerosol Sci. Technol.* **19**, 381–388. => AEL2070
2716. Kulmala, M. (2003) How particles nucleate and grow. *Science* **302**, 1000–1001. => HT1449
2717. Kulmala, M. and Laaksonen, A. (1990) Binary nucleation of water-sulfuric acid system: comparison of classical theories with different H<sub>2</sub>SO<sub>4</sub> saturation vapor pressures. *J. Chem. Phys.* **93**, 696–701. => AEL0735
2718. Kulmala, M. and Laaksonen, A. (1990) Binary nucleation of water-sulfuric acid system: Comparison of classical theories with different H<sub>2</sub>SO<sub>4</sub> saturation vapor pressures. *@JCP* **93**, 696–701. => HT0467
2719. Kulmala, M. and Vesala, T. (1991) Condensation in the continuum regime. *J. Aerosol Sci.* **22**, 337–346. => AEL0771
2720. Kulmala, M. and Vesala, T. (1991) Condensation in the continuum regime. *@JAS* **22**, 337–346. => HT0466

2721. Kulmala, M., Asmi, A. and Pirjola, L. (1999) Indoor air aerosol model: the effect of outdoor air, filtration and ventilation on indoor concentrations. *Atmos. Environ.* **33**, 2133–2144. => AEL2879
2722. Kulmala, M., Dal Maso, M., Mäkelä, J.M., Pirjola, L., Väkevä, M., Aalto, P., Miikkulainen, P., Hämeri, K. and O'Dowd, C.D. (2001) On the formation, growth and composition of nucleation mode particles. *Tellus* **53B**, 479–490. => AEL3745
2723. Kulmala, M., Dal Maso, M., Mäkelä, J.M., Pirjola, L., Väkevä, M., Aalto, P., Miikkulainen, P., Hämeri, K. and O'Dowd, C.D. (2001) On the formation, growth and composition of nucleation mode particles. *Tellus* **53B**, 479–490. => HT1443
2724. Kulmala, M., Hämeri, K., Aalto, P.P., Mäkelä, J.M., Pirjola, L., Nilsson, E.D., Buzorius, G., Rannik, Ü., Dal Maso, M., Seidl, W., Hoffmann, T., Janson, R., Hansson, H.-C., Viisanen, Y., Laaksonen, A. and O'Dowd, C.D. (2001) Overview of the international project on biogenic aerosol formation in the boreal forest (BIOFOR). *Tellus* **53B**, 324–343. => AEL3743
2725. Kulmala, M., Hämeri, K., Mäkelä, J.M., Aalto, P.P., Pirjola, L., Väkevä, M., Nilsson, E.D., Koponen, I.K., Buzorius, G., Keronen, P., Rannik, Ü., Laakso, L., Vesala, T., Bigg, K., Seidl, W., Forkel, R., Hoffmann, T., Spanke, J., Janson, R., Shimmo, M., Hansson, H.-C., O'Dowd, C., Becker, E., Paatero, J., Teinilä, K., Hillamo, R., Viisanen, Y., Laaksonen, A., Swietlicki, E., Salm, J., Hari, P., Altimir, N. and Weber, R. (2000) Biogenic aerosol formation in the boreal forest. *Boreal Environment Research* **5**, 281–297. => AEL3742
2726. Kulmala, M., Hämeri, K., Mäkelä, J.M., Aalto, P.P., Pirjola, L., Väkevä, M., Nilsson, E.D., Koponen, I.K., Buzorius, G., Keronen, P., Rannik, Ü., Laakso, L., Vesala, T., Bigg, K., Seidl, W., Forkel, R., Hoffmann, T., Spanke, J., Jansson, R., Shimmo, M., Hansson, H.-C., O'Dowd, C.D., Becker, E., Paatero, J., Teinilä, K., Hillamo, R., Viisanen, Y., Laaksonen, A., Swietlicki, E., Salm, J., Hari, P. and Altimir, N. *Biogenic aerosol formation in the boreal forest. Käsikiri.* => HT1403
2727. Kulmala, M., Hienola, J., Pirjola, L., Vesala, T., Shimmo, M., Altimir, N. and Hari, P. (1999) A model for NO<sub>x</sub>-O<sub>3</sub>-terpene chemistry in chamber measurements of plant gas exchange. *Atmos. Environ.* **33**, 2145–2156. => AEL3850
2728. Kulmala, M., Kerminen, V.-M. and Laaksonen, A. (1995) Simulations on the effect of sulphuric acid formation on atmospheric aerosol concentrations. *Atmos. Environ.* **29**, 377–382. => AEL1612
2729. Kulmala, M., Kerminen, V.-M., Anttila, T., Laaksonen, A. and O'Dowd, C.D. (2004) Organic aerosol formation via sulphate cluster activation. *J. Geophys. Res. Atmospheres* **109**, D04205–doi:10.1029/2003JD003961, 2004. => AEL4121
2730. Kulmala, M., Kerminen, V.-M., Anttila, T., Laaksonen, A. and O'Dowd, C.D. (2004) Organic aerosol formation via sulphate cluster activation. *J. Geophys. Res. Atmospheres* **109**, D04205–doi:10.1029/2003JD003961, 2004. => HT1475
2731. Kulmala, M., Kerminen, V.-M., Anttila, T., Laaksonen, A. and O'Dowd, C.D. (2004) Organic aerosol formation via sulphate cluster activation. *J. Geophys. Res. Atmospheres* **109**, D04205–doi:10.1029/2003JD003961, 2004. => HT1576
2732. Kulmala, M., Kerminen, V.-M., Anttila, T., Laaksonen, A. and O'Dowd, C.D. *Organic aerosol formation via sulphate cluster activation. Käsikiri.* => HT1425
2733. Kulmala, M., Korhonen, P., Laaksonen, A. and Vesala, T. (1992) Formation and growth of cloud droplets: the effect of binary heterogeneous nucleation and binary condensation. In *ICCP*, Montreal, **2**, pp. 899–902. => AEL2068
2734. Kulmala, M., Korhonen, P., Laaksonen, A. and Vesala, T. (1995) Changes in cloud properties due to NO<sub>x</sub> emissions. *Geophys. Res. Lett.* **22**, 239–242. => AEL2064

2735. Kulmala, M., Korhonen, P., Napari, I., Karlsson, A., Berresheim, H. and O'Dowd, C.D. (2002) Aerosol formation during PARFORCE: Ternary nucleation of H<sub>2</sub>SO<sub>4</sub>, NH<sub>3</sub>, and H<sub>2</sub>O. *J. Geophys. Res. Atmospheres* **107**, 8111 doi:10.1029/2001JD000900–2002. => AEL3797
2736. Kulmala, M., Korhonen, P., Vesala, T., Hansson, H.-C., Noone, K. and Svenningsson, B. (1996) The effect of hygroscopicity on cloud droplet evaporation. *Tellus* **48B**, 347–360. => AEL2077
2737. Kulmala, M., Laaksonen, A. and Jokiniemi, J. (1991) Numerical simulation of binary nucleation of hydrogen iodide and water vapours. *J. Aerosol Sci.* **22**, 149–157. => AEL0754
2738. Kulmala, M., Laaksonen, A. and Jokiniemi, J. (1991) Numerical simulation of binary nucleation of hydrogen iodide and water vapours. *@JAS* **22**, 149–157. => HT0464
2739. Kulmala, M., Laaksonen, A. and Pirjola, L. (1998) Parameterization for sulfuric acid/water nucleation rates. *J. Geophys. Res. Atmospheres* **103**, 8301–8307. => AEL2241
2740. Kulmala, M., Laaksonen, A., Charlson, R.J. and Korhonen, P. (1997) Clouds without supersaturation. *Nature* **388**, 336–337. => AEL2076
2741. Kulmala, M., Laaksonen, A., Korhonen, P., Vesala, T., Ahonen, T. and Barrett, J.C. (1993) The effect of atmospheric nitric acid vapor on cloud condensation nucleus activation. *J. Geophys. Res. Atmospheres* **98**, 22949–22958. => AEL2040
2742. Kulmala, M., Lazaridis, M., Laaksonen, A. and Vesala, T. (1991) Extended hydrates interaction model: hydrate formation and the energetics of binary homogeneous nucleation. *J. Chem. Phys.* **94**, 7411–7413. => AEL0772
2743. Kulmala, M., Lazaridis, M., Laaksonen, A. and Vesala, T. (1991) Extended hydrates interaction model: hydrate formation and the energetics of binary homogeneous nucleation. *J. Chem. Phys.* **94**, 7411–7413. => HT0690
2744. Kulmala, M., Majerowicz, A. and Wagner, P.E. (1989) Condensational growth at large vapour concentration: Limits of applicability of the Mason equation. *J. Aerosol Sci.* **20**, 1023–1026. => AEL2067
2745. Kulmala, M., Pirjola, L. and Mäkelä, J. (2000) Stable sulphate clusters as a source of new atmospheric particles. *Nature* **404**, 66–69. => HT1400
2746. Kulmala, M., Pirjola, L. and Mäkelä, J.M. (2000) Stable sulphate clusters as a source of new atmospheric particles. *Nature* **404**, 66–69. => AEL3833
2747. Kulmala, M., Pirjola, L. and Mäkelä, J.M. (2000) *Stable sulphate clusters as a source of new atmospheric particles. Käsikiri avaldamisel ajakirjas Nature.* => HT1302
2748. Kulmala, M., Rannik, Ü., Pirjola, L., Dal Maso, M., Karimäki, J., Asmi, A., Jäppinen, A., Karhu, V., Korhonen, H., Malvikko, S.-P., Puustinen, A., Raittila, J., Romakkaniemi, S., Suni, T., Yli-Koivisto, S., Paatero, J., Hari, P. and Vesala, T. (2000) Characterization of atmospheric trace gas and aerosol concentrations at forest sites in southern and northern Finland using back trajectories. *Boreal Environment Research* **5**, 315–336. => AEL3738
2749. Kulmala, M., Raunemaa, T. and Tapper, U. (1987) Deposition of indoor aerosols as determined by PIXE analysis. *Nuclear Instruments and Methods in Physics Research* **B22**, 337–339. => AEL2054
2750. Kulmala, M., Toivonen, A., Mäkelä, J.M. and Laaksonen, A. (1998) Analysis of the growth of nucleation mode particles observed in boreal forest. *Tellus* **50B**, 449–462. => AEL3118
2751. Kulmala, M., Toivonen, A., Marttila, T. and Korhonen, P. (1998) Variations of cloud droplet concentrations and the optical properties of clouds due to changing hygroscopicity: A model study. *J. Geophys. Res. Atmospheres* **103**, 16183–16195. => AEL3848

2752. Kulmala, M., Vehkamäki, H., Petäjä, T., Dal Maso, M., Lauri, A., Kerminen, V.-M., Birmili, W. and McMurry, P.H. (2004) Formation and growth rates of ultrafine atmospheric particles: a review of observations. *J. Aerosol Sci.* **35**, 143–176. => AEL4046
2753. Kulmala, M., Vehkamäki, H., Petäjä, T., Dal Maso, M., Lauri, A., Kerminen, V.-M., Birmili, W. and McMurry, P.H. (2004) *Formation and growth rates of ultrafine atmospheric particles: a review of observations*. Käsikiri. => HT1503
2754. Kulmala, M., Vehkamäki, H., Vesala, T., Barrett, J.C. and Clement, C.F. (1995) Aerosol formation in diffusive boundary layer: Binary homogeneous nucleation of ammonia and water vapours. *J. Aerosol Sci.* **26**, 547–558. => AEL3747
2755. Kulmala, M., Vesala, T. and Wagner, P.E. (1993) An analytical expression for the rate of binary condensational particle growth. *Proc. Roy. Soc. London A* **441**, 589–605. => AEL2072
2756. Kulmala, M., Vesala, T., Schwarz, J. and Smolik, J. (1995) Mass transfer from a drop – II. Theoretical analysis of temperature dependent mass flux correlation. *Int. J. Heat Mass Transfer* **38**, 1705–1708. => AEL2065
2757. Kumar, K. (1984) The physics of swarms and some basic questions of kinetic theory. *Physics Reports* **112**, 319–375. => AEL0162
2758. Kumar, K., Skullerud, H.R. and Robson, R.E. (1980) Kinetic theory of charged particle swarms in neutral gases. *Austr. J. Phys.* **33**, 343–448. => AEL0161
2759. Kumar, N., Odman, M.T. and Russell, A.G. (1994) Multiscale air quality modeling: Application to southern California. *J. Geophys. Res.* **99**, 5385–5397. => AEL1773
2760. Kurdi, L. and Kochanski, E. (1989) Theoretical studies of sulfuric acid monohydrate: Neutral or ionic complex?. *Chem. Phys. Lett.* **158**, 111–115. => AEL2400
2761. Kurgansky, M.V., Dethloff, K., Pisnichenko, I.A., Gernandt, H., Chmielewski, F.-M. and Jansen, W. (1996) Long-term climate variability in a simple, nonlinear atmospheric model. *J. Geophys. Res.* **101**, 4299–4314. => AEL1866
2762. Kusaka, I. (1999) Comment on "Reversible work of formation of an embryo of a new phase within a uniform macroscopic mother phase" [J. Chem. Phys. 108, 5498 (1998)]. *J. Chem. Phys.* **111**, 3769–3770. => AEL3845
2763. Kusaka, I. and Oxtoby, D.W. (1999) Identifying physical clusters in bubble nucleation. *J. Chem. Phys.* **111**, 1104–1108. => AEL3136
2764. Kusaka, I. and Oxtoby, D.W. (1999) Identifying physical clusters in vapor phase nucleation. *J. Chem. Phys.* **110**, 5249–5261. => AEL3144
2765. Kusaka, I. and Oxtoby, D.W. (1999) On the direct evaluation of the equilibrium distribution of clusters by simulation. *J. Chem. Phys.* **111**, 9958–9964. => AEL3145
2766. Kusaka, I., Wang, Z.-G. and Seinfeld J., H. (1998) Binary nucleation of sulfuric acid-water: Monte Carlo simulation. *J. Chem. Phys.* **108**, 6829–6848. => AEL3137
2767. Kusaka, I., Wang, Z.-G. and Seinfeld J., H. (1998) Direct evaluation of the equilibrium distribution of physical clusters by a grand canonical Monte Carlo simulation. *J. Chem. Phys.* **108**, 3416–3423. => AEL3138
2768. Kusaka, I., Wang, Z.-G. and Seinfeld, J.H. (1995) Ion-induced nucleation. II. Polarizable multipolar molecules. *J. Chem. Phys.* **103**, 8993–9009. => AEL1776
2769. Kusaka, I., Wang, Z.-G. and Seinfeld, J.H. (1996) Monte-Carlo simulation of homogeneous binary nucleation: Toward a theory of sulfuric acid-water system. In *Nucleation and atmospheric aerosols*, edited by Kulmala, M. and Wagner, P.E., Pergamon, pp. 34–37. => HT1173

2770. Kusaka, I., Wang, Z.-G., Seinfeld, J.H. (1995) Ion-induced nucleation: A density functional approach. *J. Chem. Phys.* **102**, 913–924. => AEL1301
2771. Kusalik, P.G., Mandy, M.E. and Svishchev, I.M. (1994) The dielectric constant of polar fluids and the distribution of the total dipole moment. *J. Chem. Phys.* **100**, 7654–7664. => AEL1179
2772. Kuśmierczyk-Michulec, J., Krüger, O. and Marks, R. (1999) Aerosol influence on the sea-viewing wide-field-of-view sensor bands: Extinction measurements in a marine summer atmosphere over the Baltic Sea. *J. Geophys. Res. Atmospheres* **104**, 14293–14307. => AEL2986
2773. Kutser, T., Arst, H. and Mäekivi, S. Estimation of water quality by passive optical remote measurements. *Käsikiri* 1–8. => HT1001
2774. Kutser, T., Arst, H., Miller, T., Käärman, L. and Milius, A. (1995) Telespectrometrical estimation of water transparency, chlorophyll-a and total phosphorus concentration of Lake Peipsi. *Int. J. Remote Sensing* **16**, 3069–3085. => HT0883
2775. Kuttler, W. (1984) Spurenstoffe in der Atmosphäre. Ihre Verteilung und regionale Ablagerung. *Geoökodynamik* **5**, 29–76. => AEL0596
2776. Kütz, S. and Schmidt-Ott, A. *Use of a low-pressure impactor for fractal analysis of submicron particles*. Manuscript,. => HT0694
2777. Kuusk, A. and Nilson, T. (2001) Testing directional properties of a forest reflectance model. *J. Geophys. Res. Atmospheres* **106**, 12011–12021. => AEL3463
2778. Kvasnak, W. and Ahmadi, G. (1995) Fibrous particle deposition in a turbulent channel flow - an experimental study. *Aerosol Sci. Technol.* **23**, 641–652. => AEL1517
2779. Kyle, T.G. (1979) Determining particle concentration by statistics. *J. Aerosol Sci.* **10**, 87–93. => AEL0163
2780. Kylling, A. and Mayer, B. (2001) Ultraviolet radiation in partly snow covered terrain: Observations and three-dimensional simulations. *Geophys. Res. Lett.* **28**, 3665–3668. => AEL3548
2781. Kylling, A., Bais, A.F., Blumthaler, M., Schreder, J., Zerefos, C.S. and Kosmidis, E. (1998) Effect of aerosols on solar UV irradiances during the Photochemical Activity and Solar Ultraviolet Radiation campaign. *J. Geophys. Res. Atmospheres* **103**, 26051–26060. => AEL2812
2782. Kyrö, E., Kivi, R., Turunen, T., Aulamo, H., Rudakov, V.V., Khattatov, V., MacKenzie, A.R., Chipperfield, M.P., Lee, A.M., Stefanutti, L. and Ravegnani, F. (2000) Ozone measurements during the Airborne Polar Experiment: Aircraft instrument validation; isentropic trends; and hemispheric fields prior to the 1997 Arctic ozone depletion. *J. Geophys. Res. Atmospheres* **105**, 14599–14611. => AEL3222
2783. Laakso, L., Anttila, T., Lehtinen, K.E.J., Aalto, P.P., Kulmala, M., Hörrak, U., Paatero, J., Hanke, M. and Arnold, F. (2004) Kinetic nucleation and ions in boreal forest particle formation events. *Atmospheric Chemistry and Physics* **4**, 2353–2366. => HT1485
2784. Laakso, L., Grönholm, T., Rannik, Ü., Kosmale, M., Fiedler, V., Vehkamäki, H. and Kulmala, M. (2003) Ultrafine particle scavenging coefficients calculated from 6 years field measurements. *Atmos. Environ.* **37**, 3605–3613. => HT1435
2785. Laakso, L., Hussein, T., Aarnio, P., Komppula, M., Hiltunen, V., Viisanen, Y. and Kulmala, M. (2003) Diurnal and annual characteristics of particle mass and number concentrations in urban, rural and Arctic environments in Finland. *Atmos. Environ.* **37**, 2629–2641. => AEL4047

2786. Laakso, L., Hussein, T., Aarnio, P., Komppula, M., Hiltunen, V., Viisanen, Y. and Kulmala, M. (2003) Diurnal and annual characteristics of particle mass and number concentrations in urban, rural and Arctic environments in Finland. *Atmos. Environ.* **37**, 2629–2641. => HT1429
2787. Laakso, L., Kulmala, M. and Lehtinen, K.E.J. (2003) Effect of condensation rate enhancement factor of 3-nm (diameter) particle formation in binary ion-induced and homogeneous nucleation. *J. Geophys. Res. Atmospheres* **108**, 4574– doi:10.1029/2003JD003432. => AEL4063
2788. Laakso, L., Kulmala, M. and Lehtinen, K.E.J. (2003) Effect of condensation rate enhancement factor of 3-nm (diameter) particle formation in binary ion-induced and homogeneous nucleation. *J. Geophys. Res. Atmospheres* **108**, 4574– doi:10.1029/2003JD003432. => HT1447
2789. Laakso, L., Mäkelä, J.M., Pirjola, L. and Kulmala, M. (2002) Model studies on ion-induced nucleation in the atmosphere. *J. Geophys. Res. Atmospheres* **107**, 4427 doi:10.1029/2002JD002140–2002. => AEL3801
2790. Laaksonen, A. (1993) Letter to the editor. The composition size dependence of aerosols created by dispersion of surfactant solutions. *J. Colloid Interface Sci.* **159**, 517–519. => AEL2036
2791. Laaksonen, A. (1997) Gas-liquid nucleation of nonideal binary mixtures. II. Examination of classical predictions. *J. Chem. Phys.* **106**, 7268–7274. => AEL3139
2792. Laaksonen, A. and Kulmala, M. (1991) An explicit cluster model for binary nuclei in water-alcohol systems. *J. Chem. Phys.* **95**, 6745–6748. => AEL0777
2793. Laaksonen, A. and Kulmala, M. (1991) Homogeneous heteromolecular nucleation of sulphuric acid and water vapours in stratospheric conditions: a theoretical study of the effect of hydrate interaction. *J. Aerosol Sci.* **22**, 779–787. => AEL0778
2794. Laaksonen, A. and Kulmala, M. (1991) Homogeneous heteromolecular nucleation of sulphuric acid and water vapours in stratospheric conditions: a theoretical study of the effect of hydrate interaction. *J. Aerosol Sci.* **22**, 779–787. => HT0693
2795. Laaksonen, A. and McGraw, R. (1996) Thermodynamics, gas-liquid nucleation, and size-dependent surface tension. *Europhys. Lett.* **35**, 367–372. => AEL2039
2796. Laaksonen, A. and Napari, I. (2001) Breakdown of the capillary approximation in binary nucleation: A density functional study. *J. Phys. Chem. B* **105**, 11678–11682. => AEL3838
2797. Laaksonen, A., Ford, I.J. and Kulmala, M. (1994) Revised parametrization of the Dillmann-Meier theory of homogeneous nucleation. *Physical Review E* **49**, 5517–5524. => AEL1314
2798. Laaksonen, A., Kulmala, M. and Wagner, P.E. (1993) On the cluster compositions in the classical binary nucleation theory. *J. Chem. Phys.* **99**, 6832–6835. => AEL3154
2799. Laaksonen, A., McGraw, R. and Vehkamäki, H. (1999) Liquid-drop formalism and free-energy surfaces in binary homogeneous nucleation theory. *J. Chem. Phys.* **111**, 2019–2027. => AEL3124
2800. Laaksonen, A., Pirjola, L., Kulmala, M., Wohlfrom, K.-H., Arnold, F. and Raes, F. (2000) Upper tropospheric SO<sub>2</sub> conversion into sulfuric acid aerosols and cloud condensation nuclei. *J. Geophys. Res. Atmospheres* **105**, 1459–1469. => AEL3067
2801. Laaksonen, A., Talanquer, V. and Oxtoby, D.W. (1995) Nucleation: Measurements, theory, and atmospheric applications. *Annu. Rev. Phys. Chem.* **46**, 489–524. => AEL3755
2802. Laaksonen, J., Lehtimäki, M., Keskinen, J. and Janka, K. (1988) Ionization chamber radon monitor with pulse counting mode. *7th International Congress of the International Radiation Protection Association*, Sydney, pp. 849–852. => AEL2531



2803. Laaksonen, J., Lehtimäki, M., Keskinen, J. and Janka, K. (1988) Ionization chamber radon monitor with pulse counting mode. *Seventh International Congress of the International Radiation Protection Association*, Sydney, pp. 849–852. => HT0668
2804. Labowsky, M. (1998) Discrete charge distributions in dielectric droplets. *J. Colloid Interface Sci.* **206**, 19–28. => HT1234
2805. Labowsky, M. and de la Mora, J.F. (2004) *Novel ion mobility analyzers and filters, submitted to J. Aerosol Sci.* => HT1545
2806. Lada, E., Urbanczyk, A. and Kalinowski, M.K. (1990) Polarographic study of the complexation of Na<sup>+</sup> and K<sup>+</sup> ions by dibenzo-18-crown-6 in non-aqueous solution. *Australian Journal of Chemistry* **43**, 2003–2008. => AEL0465
2807. Laforge, A. and Theophanides, T. (1982) Interaction between iodine and argon explained by the theory of molecular complexes. *J. Molecular Struct.* **89**, 203–212. => AEL0164
2808. Laframboise, J.G. and Chang, J.-S. (1977) Theory of charge deposition on charged aerosol particles of arbitrary shape. *J. Aerosol Sci.* **8**, 331–338. => AEL0165
2809. Lahmann, E. (1997) *Determination and evaluation of air quality control. Manual of ambient air quality control in Germany. Koopias sisukord.* Umweltbundesamt, Berlin. => HT1292
2810. Lai, C.-T., Katul, G., Oren, R., Ellsworth, D. and Schäfer, K. (2000) Modeling CO<sub>2</sub> and water vapor flux distributions within a forest canopy. *J. Geophys. Res. Atmospheres* **105**, 26333–26351. => AEL3257
2811. Lai, F.S., Friedlander, S.K., Pich, J. and Hidy, G.M. (1972) The self-preserving particle size distribution for Brownian coagulation in the free-molecule regime. *J. Colloid and Interface Sci.* **39**, 395–405. => AEL1249
2812. Laine, V. (1992) Some results of atmospheric aerosol optical thickness and size distribution from NOAA/AVHRR data over the Gulf of Finland and over the Baltic Sea. *Abstracts of Conference on Visibility and Fine Particles*, Vienna, pp. 1–1. => HT0681
2813. Lakkala, K., Kyrö, E. and Turunen, T. (2003) Spectral UV measurements at Sodankylä during 1990-2001. *J. Geophys. Res. Atmospheres* **108**, 4621– doi:10.1029/2002JD003300. => AEL4064
2814. Lal, M. and Kapoor, R.K. (1989) Certain meteorological features of submicron aerosols at Schirmacher oasis, East Antarctica. *Atmos. Environ.* **23**, 803–808. => AEL0166
2815. Lal, S., Naja, M. and Jayaraman, A. (1998) Ozone in the boundary layer over the tropical Indian Ocean. *J. Geophys. Res. Atmospheres* **103**, 18907–18917. => AEL2336
2816. Lamb, B., Westberg, H. and Allwine, G. (1986) Isoprene emission fluxes determined by an atmospheric tracer technique. *Atmos. Environ.* **20**, 1–8. => AEL0687
2817. Lamb, D., Moyle, A.M. and Brune, W.H. (1996) The environmental control of individual aqueous particles in a cubic electrodynamic levitation system. *Aerosol Sci. Technol.* **24**, 263–278. => AEL1739
2818. Lamb, G.E.R. (1995) Technical note. Use of ambient aerosols for measuring filter efficiencies. *Aerosol Sci. Technol.* **23**, 250–252. => AEL1531
2819. Landelius, T. and Josefsson, W. (2000) Methods for cosine correction of broadband UV data and their effect on the relation between UV irradiance and cloudiness. *J. Geophys. Res. Atmospheres* **105**, 4795–4802. => AEL3091
2820. Landgrebe, J.D. and Pratsinis, S.E. (1989) Gas-phase manufacture of particulates: Interplay of chemical reaction and aerosol coagulation in the free-molecular regime. *Ind. Eng. Chem. Res.* **28**, 1474–1481. => AEL0840

2821. Landgrebe, J.D. and Pratsinis, S.E. (1990) A discrete-sectional model for particulate production by gas-phase chemical reaction and aerosol coagulation in the free-molecular regime. *J. Colloid Interface Sci.* **139**, 63–85. => AEL0873
2822. Landsberg, H.E. (1983) Report on International Conference on Biometeorology, 26-30 December 1983 at Vigyan Bhavan, New Delhi, India. *Manuscript*, pp. -. => HT0402
2823. Landsberg, H.E. and Dolezalek, H. (1982) *Glossary of technical terms in ion physics and technology and related topics*. Käsikiri. => HT1269
2824. Lane-Smith, E.D. (1974) Review of instrumentation for atmospheric electricity. *Fifth International Conference on Atmospheric Electricity Garmisch-Partenkirchen, September 2-7, 1974*, pp. 1–13+App.+ill. => HT1184
2825. Lang, R., Maurellis, A.N., van der Zande, W.J., Aben, I., Landgraf, J. and Ubachs, W. (2002) Forward modeling and retrieval of water vapor from the Global Ozone Monitoring Experiment: Treatment of narrowband absorption spectra. *J. Geophys. Res. Atmospheres* **107**, ACH11 1–23. => AEL3688
2826. Lange, R., Fissan, H. and Schmidt-Ott, A. (1998) *Determination of equivalent diameters of nonspherical particles with low anisometry. Part I: Determination of diffusion equivalent diameters*. Käsikiri. => HT1246
2827. Lange, R., Fissan, H. and Schmidt-Ott, A. (1998) *Determination of equivalent diameters of nonspherical particles with low anisometry. Part II: Determination of interception equivalent diameters*. Käsikiri. => HT1247
2828. Langenberg, S., Proksch, V. and Schurath, U. (1998) Solubilities and diffusion of trace gases in cold sulfuric acid films. *Atmos. Environ.* **32**, 3129–3137. => AEL2950
2829. Langer, G., Pierrard, J. and Yamate, G. (1964) Further development of an electrostatic classifier for submicron airborne particles. *Int. J. Air Water Poll.* **8**, 167–176. => AEL0167
2830. Langer, J.S. (1967) Theory of the condensation point. *Annals of Physics* **41**, 108–157. => AEL3180
2831. Langmann, B., Bauer, S.E. and Bey, I. (2003) The influence of the global photochemical composition of the troposphere on European summer smog, Part I: Application of a global to mesoscale model chain. *J. Geophys. Res. Atmospheres* **108**, 4146–doi:10.1029/2002JD002072, 2003. => AEL3947
2832. Lapeta, A., Engelsen, O., Litynska, Z., Kojs, B. and Kylling, A. (2000) Sensitivity of surface UV radiation and ozone column retrieval to ozone and temperature profiles. *J. Geophys. Res. Atmospheres* **105**, 5001–5007. => AEL3104
2833. Larsen, N. (1994) The impact of freezing of sulfate aerosols on the formation of polar stratospheric clouds. *Geophys. Res. Lett.* **21**, 425–428. => AEL1849
2834. Larson, R.S. (1988) The effect of cluster scavenging on homogeneous nucleation rates. *J. Chem. Phys.* **88**, 5064–5067. => AEL1583
2835. Larson, R.S. (1988) The effect of scavenging on homogeneous nucleation rates. *J. Chem. Phys.* **88**, 5064–5067. => AEL1675
2836. Larssen, S. (1989) NO<sub>x</sub> emissions from gasoline and diesel oil combustion in mobile sources in Europe, 1985. *NILU OR* 1–124. => AEL2148
2837. Larsson, C., Hallberg, B. and Isoaelsson, S. *Long-term audible noise and radio noise performance from an operating 400-kV transmission line*. *Manuscript*. Uppsala. => HT0437
2838. Lary, D.J. (1996) Gas phase atmospheric bromine photochemistry. *J. Geophys. Res.* **101**, 1505–1516. => AEL1798

2839. Lary, D.J. and Shallcross (2000) Potential importance of the reaction  $\text{CO} + \text{HNO}_3$ . *J. Geophys. Res. Atmospheres* **105**, 11617–11623. => AEL3209
2840. Lary, D.J. and Shallcross, D.E. (2000) Central role of carbonyl compounds in atmospheric chemistry. *J. Geophys. Res. Atmospheres* **105**, 19771–19778. => AEL3233
2841. Lary, D.J., Chipperfield, M.P., Toumi, R. and Lenton, T. (1996) Heterogeneous atmospheric bromine chemistry. *J. Geophys. Res.* **101**, 1489–1504. => AEL1799
2842. Lary, D.J., Lee, A.M., Toumi, R., Newchurch, M.J., Pirre, M. and Renard, J.B. (1997) Carbon aerosols and atmospheric photochemistry. *J. Geophys. Res. Atmospheres* **102**, 3671–3682. => AEL2184
2843. Lary, D.J., Shallcross, D.E. and Toumi, R. (1999) Carbonaceous aerosols and their potential role in atmospheric chemistry. *J. Geophys. Res. Atmospheres* **104**, 15929–15940. => AEL2995
2844. Latham, J. (1974) Some electrical effects in clouds. *Fifth International Conference on Atmospheric Electricity Garmisch-Partenkirchen, September 2-7, 1974*, pp. 1–15. => HT1180
2845. Latham, J. and Smith, M.H. (1990) Effect of global warming of wind-dependent aerosol generation at the ocean surface. *Nature* **347**, 372–373. => AEL1099
2846. Lattanzi, D., Lucci, F. and Merolli, S. (1988) A computer-aid system for off-site nuclear emergency situation management. *Seventh International Congress of the International Radiation Protection Association, Sydney*, pp. 502–505. => HT0666
2847. Lau, Y.K., Ikuta, S. and Kebarle, P. (1982) Thermodynamics and kinetics of the gas-phase reactions:  $\text{H}_3\text{O}^+(\text{H}_2\text{O})_{n-1} + \text{H}_2\text{O} = \text{H}_3\text{O}^+(\text{H}_2\text{O})_n$ . *J. Am. Chem. Soc.* **104**, 1462–1469. => AEL0960
2848. Lauben, D.S., Inan, U.S. and Bell, T.F. (1999) Poleward-displaced electron precipitation from lightning-generated oblique whistlers. *Geophys. Res. Lett.* **26**, 2633–2636. => AEL2915
2849. Laurent, D. and Peyrous, R. (1978) Measurement of physical parameters accompanying pollutant fall-outs on the site of LACQ. Studies of the correlations between the different phenomena with a view to predicting pollution. *Atmospheric Pollution. Proc. 13th Int. Colloquium, Paris*, pp. 11–14. => AEL3190
2850. Laurent, D. and Peyrous, R. (1978) Measurement of physical parameters accompanying pollutant fall-outs on the site of LACQ. Studies of the correlations between the different phenomena with a view to predicting pollution. *Atmospheric Pollution. Proc. 13th Int. Colloquium, Paris*, pp. 11–14. => HT1040
2851. Laurent, D. and Peyrous, R. (1979) Behaviour of the electrical parameters of the atmosphere near an industrial plant situated in a rural site. *The Science of the Total Environment* **13**, 55–70. => HT0387
2852. Laurent, D. and Peyrous, R. (1979) Behaviour of the electrical parameters of the atmosphere near an industrial plant situated in a rural site. *The Science of the Total Environment* **13**, 55–70. => HT1038
2853. Laurila, T. (1999) Observational study of transport and photochemical formation of ozone over northern Europe. *J. Geophys. Res. Atmospheres* **104**, 26235–26243. => AEL3028
2854. Lavoué, D., Liousse, C., Cachier, H., Stocks, B.J. and Goldammer, J.G. (2000) Modeling of carbonaceous particles emitted by boreal and temperate wildfires at northern latitudes. *J. Geophys. Res. Atmospheres* **105**, 26871–26890. => AEL3265
2855. Lavrentev, M.M. and Vasilev, V.G. (1966) O postanovke nekotorykh zadach matematicheskoi fiziki (in Russian). *Sibirskii Matematicheskii Zhurnal* **7**, 559–576. => HT0289
2856. Law, B.M. and Pak, H.K. (1997) Influence of hydrodynamic flow on nucleated wetting. *J. Chem. Phys.* **106**, 301–310. => AEL2383

2857. Lawless, P.A. and Sparks, L.E. (1980) Measurement of ion mobilities in air and sulfur dioxide-air mixtures as a function of temperature. *Atmos. Environ.* **14**, 481–483. => AEL0546
2858. Lawless, P.A., Rodes, C.E., Evans, G., Sheldon, L. and Creason, J. (2001) Aerosol concentrations during the 1999 Fresno exposure studies as functions of size, season, and meteorology. *Aerosol Sci. Technol.* **34**, 66–74. => AEL3364
2859. Lawrence, J. and Koutrakis, P. (1996) Measurement and speciation of gas and particulate phase organic acidity in an urban environment 1. Analytical. *J. Geophys. Res.* **101**, 9159–9169. => AEL1655
2860. Lawrence, J. and Koutrakis, P. (1996) Measurement and speciation of gas and particulate phase organic acidity in an urban environment 2. Speciation. *J. Geophys. Res.* **101**, 9171–9184. => AEL1656
2861. Lawrimore, J.H., Das, M. and Aneja, V.P. (1995) Vertical sampling and analysis of nonmethane hydrocarbons for ozone control in urban North Carolina. *J. Geophys. Res.* **100**, 22785–22793. => AEL1701
2862. Lazaridis, M. and Drossinos, Y. (1997) Energy fluctuations in steady-state binary nucleation. *J. Phys. A* **30**, 3847–3865. => AEL2372
2863. Lazaridis, M., Kulmala, M. and Laaksonen, A. (1991) Binary heterogeneous nucleation of a water-sulphuric acid system: the effect of hydrate interaction. *J. Aerosol Sci.* **22**, 823–830. => AEL0770
2864. Le Bronec, E., Renoux, A., Boulaud, D. and Pourprix, M. (1997) *Effect of gravity in differential mobility analysers. A new method to determine the density and mass of aerosols. Käsikiri.* => HT1222
2865. Le Bronec, E., Renoux, A., Boulaud, D. and Pourprix, M. (1998) Use of a **Radial Flow Differential Mobility Analyzer** to determine the mass and density of aerosol particles. *J. Aerosol Sci.* **29**, S409–S410. => HT1339
2866. Leach, K.B., Kamens, R.M., Strommen, M.R. and Jang, M. (1999) Partitioning of semivolatile organic compounds in the presence of a secondary aerosol in a controlled atmosphere. *J. Atmos. Chem.* **33**, 241–264. => AEL2874
2867. Leaitch, W.R. (1996) Observations pertaining to the effect of chemical transformation in cloud on the anthropogenic aerosol size distribution. *Aerosol Sci. Technol.* **25**, 157–173. => AEL1740
2868. Leaitch, W.R., Bottenheim, J.W., Biesenthal, T.A., Li, S.-M., Liu, S.K., Asalian, K., Dryfhout-Clark, H. and Hopper, F. (1999) A case study of gas-to-particle conversion in an eastern Canadian forest. *J. Geophys. Res. Atmospheres* **104**, 8095–8111. => AEL2888
2869. Lean, J.L., Rottman, G.J., Kyle, H.L., Woods, T.N., Hickey, J.R. and Puga, L.C. (1997) Detection and parameterization of variations in solar mid- and near-ultraviolet radiation (200–400 nm). *J. Geophys. Res. Atmospheres* **102**, 29939–29956. => AEL2164
2870. Leasure, C.S., Fleischer, M.E., Anderson, G.K. and Eiceman, G.A. (1986) Photoionization in air with ion mobility spectrometry using a hydrogen discharge lamp. *Anal. Chem.* **58**, 2142–2147. => AEL1189
2871. Leasure, S.C., Martin, T.P. and Balint-Kurti, G.G. (1984) Ab initio valence-electron-only molecular electronic structure calculations: Theory and test applications. *J. Chem. Phys.* **80**, 1186–1200. => AEL0168
2872. Lebedev, D.S. and Mirkin, L.I. (1973) Ispolzovznie modeli sostavnovo istotcnika dlya slazhivaniya izobrazhenii (in Russian). *The Third International Symposium on Information Theory. Abstracts of Papers, Moskva-Tallinn*, **1**, pp. 65–68. => HT0557

2873. Leck, C., Bigg, E.K., Covert, D.S., Heintzenberg, J., Maenhaut, W., Nilsson, E.D. and Wiedensohler, A. (1996) Overview of the atmospheric research program during the International Arctic Ocean Expedition of 1991 (IAOE-91) and its scientific results. *Tellus* **48B**, 136–155. => AEL1698
2874. Leck, C., Nilsson, E.D., Bigg, E.K. and Bäcklin, L. (2001) Atmospheric program on the Arctic Ocean Expedition 1996 (AOE-96): An overview of scientific goals, experimental approach, and instruments. *J. Geophys. Res. Atmospheres* **106**, 32051–32067. => AEL3611
2875. Leck, C., Norman, M., Bigg, E.K. and Hillamo, R. (2002) Chemical composition and sources of the high Arctic aerosol relevant for cloud formation. *J. Geophys. Res. Atmospheres* **107**, AAC1 1–17. => AEL3666
2876. Lecolazet, R. (1946) Sur la definition et la theorie des prises de potentiel en electricite atmospherique. *Comptes Rendus Academie des Sciences* **222**, 331–332. => HT-F013
2877. *Lectures on air pollution modeling. Olemas lk. 63-117. Ch. 2. Briggs, G.A. Analysis of diffusion field experiments* (1988) edited by Venkatram, A. and Wyngaard, J.C., American Meteorological Society, Boston. => HT0920
2878. Lee, D.J., Telo da Gama, M.M. and Gubbins, K.E. (1986) A microscopic theory for spherical interfaces: Liquid drops in the canonical ensemble. *J. Chem. Phys.* **85**, 490–499. => AEL1943
2879. Lee, D.S., Dollard, G.J., Derwent, R.G. and Pepler, S. (1999) Observations on gaseous and aerosol components of the atmosphere and their relationships. *Water, Air, and Soil Pollution* **113**, 175–202. => AEL2870
2880. Lee, H.N. and Feichter, J. (1995) An intercomparison of wet precipitation scavenging schemes and the emission rates of  $^{222}\text{Rn}$  for the simulation of global transport and deposition of  $^{210}\text{Pb}$ . *J. Geophys. Res.* **100**, 23253–23270. => AEL1604
2881. Lee, H.S. and Johnsen, R. (1989) Ion-ion recombination studies in ambient helium and argon at atmospheric densities. *J. Chem. Phys.* **90**, 6328–6334. => AEL0548
2882. Lee, J.K., Barker, J.A. and Abraham, F.F. (1973) *Theory and Monte Carlo simulation of physical clusters in the imperfect vapor.* => AEL0443
2883. Lee, K.W. (1983) Change of particle size distribution during Brownian coagulation. *J. Colloid Interface Sci.* **92**, 315–325. => AEL1270
2884. Lee, K.W. and Hwang, J. (1997) Erratum to “Log-normally preserving size distribution for Brownian coagulation in the free molecule regime” by Lee et al. and “Coagulation rate of polydisperse particles” by Lee and Chen. *Aerosol Sci. Technol.* **26**, 469–470. => AEL1973
2885. Lee, K.W., Chen, H. and Gieseke, J.A. (1984) Log-normally preserving size distribution for Brownian coagulation in the free-molecule regime. *Aerosol Sci. Technol.* **3**, 53–62. => AEL1248
2886. Lee, N., Keese, R.G. and Castleman, A.W.Jr. (1980) The properties of clusters in the gas phase. IV. Complexes of  $\text{H}_2\text{O}$  and  $\text{HNO}_x$  clustering on  $\text{NO}_x$ . *J. Chem. Phys.* **72**, 1089–1094. => AEL1372
2887. Lee, S.-H., Murphy, D.M., Thomson, D.S. and Middlebrook, A.M. (2002) Chemical components of single particles measured with Particle Analysis by Laser Mass Spectrometry (PALMS) during the Atlanta SuperSite Project: Focus on organic/sulfate, lead, soot, and mineral particles. *J. Geophys. Res. Atmospheres* **107**, AAC1 1–13. => AEL3627
2888. Lee, S.-H., Murphy, D.M., Thomson, D.S. and Middlebrook, A.M. (2003) Nitrate and oxidized organic ions in single particle mass spectra during the 1999 Atlanta Supersite Project. *J. Geophys. Res. Atmospheres* **108**, 8417– doi:10.1029/2001JD001455, 2003. => AEL3985

2889. Lee, X., Fuentes, J.D., Staebler, R.M. and Neumann, H.H. (1999) Long-term observation of the atmospheric exchange of CO<sub>2</sub> with a temperate deciduous forest in Southern Ontario, Canada. *J. Geophys. Res. Atmospheres* **104**, 15975–15984. => AEL2996
2890. Lefebvre, M. and Trégan, R. (1964) Etude de quelques facteurs influencant les dimensions de particules d'une projection aérosol. *Parfumerie Cosmétique Savons* **7**, 276–292. => AEL0169
2891. Lefer, B.L. and Talbot, R.W. (2001) Summertime measurements of aerosol nitrate and ammonium at a northeastern U.S. site. *J. Geophys. Res. Atmospheres* **106**, 20365–20378. => AEL3519
2892. Lefer, B.L., Talbot, R.W. and Munger, J.W. (1999) Nitric acid and ammonia at a rural northeastern U.S. site. *J. Geophys. Res. Atmospheres* **104**, 1645–1661. => AEL2751
2893. Legrand, M. and De Angelis, M. (1996) Light carboxylic acids in Greenland ice: A record of past forest fires and vegetation emissions from the boreal zone. *J. Geophys. Res.* **101**, 4129–4145. => AEL1805
2894. Legrand, M., Sciare, J., Jourdain, B. and Genthon, C. (2001) Subdaily variations of atmospheric dimethylsulfide, dimethylsulfoxide, methanesulfonate, and non-sea-salt sulfate aerosols at Dumont d'Urville (coastal Antarctica) during summer. *J. Geophys. Res. Atmospheres* **106**, 14409–14422. => AEL3482
2895. Lehtimäki, M. (1983) Ch. 76. Modified electrical aerosol detector. *Aerosols in the mining and industrial work environments. V. 3. Instrumentation. Ed. V.A. Marple and B.Y.H.Liu*, Ann Arbor Science Publishers, Ann Arbor, **3**, pp. 1135–1143. => HT0908
2896. Lehtimäki, M. (1987) New current measuring technique for electrical aerosol analyzers. *J. Aerosol Sci.* **18**, 401–407. => AEL0997
2897. Lehtimäki, M. (1987) New current measuring technique for electrical aerosol analyzers. @JAS **18**, 401–407. => HT0500
2898. Lehtimäki, M. and Graeffe, G. (1984) Measurement of air ions. @IA, Stockholm, pp. 187–192. => AEL0400
2899. Lehtimäki, M. and Graeffe, G. (1986) Measurement of air ions. *Environment International* **12**, 109–113. => AEL1900
2900. Lehtimäki, M. and Graeffe, G. (1986) Measurement of air ions. *Environmental International* **12**, 109–113. => HT0501
2901. Lehtimäki, M. and Keskinen, J. (1988) A method of modifying the sensitivity function of an aerosol photometer. *Am. Ind. Hyg. Assoc. J.* **49**, 396–400. => AEL0899
2902. Lehtimäki, M. and Keskinen, J. (1988) A method of modifying the sensitivity function of an aerosol photometer. *Am. Ind. Hyg. Assoc. J.* **49**, 396–400. => HT0491
2903. Lehtimäki, M. und Kivistö, T. (1983) Über das Verhalten des Radons in geschlossenen Räumen. *Staub - Reinhalt. Luft* **43**, 25–28. => HT0493
2904. Lehtimäki, M., Graeffe, G., Janka, K., Kulmala, V. and Rajala, M. (1984) On the behaviour of radon daughters in indoor air. *Radiation Protection Dosimetry* **7**, 165–168. => AEL2474
2905. Lehtimäki, M., Graeffe, G., Janka, K., Kulmala, V. and Rajala, M. On the behaviour of radon daughters in indoor air. *Radiation Protwection Dosimetry* **7**, 165–168. => HT0498
2906. Lehtimäki, M., Keskinen, J. and Janka, K. (1990) Sedimentation method in calibrating optical particle counters. @AST **12**, 711–715. => HT0497
2907. Lehtinen, K.E.J., Jokiniemi, J.K., Kauppinen, E.I. and Hautanen, J. (1995) Kinematic coagulation of charged droplets in an alternating electric field. *Aerosol Sci. Technol.* **23**, 422–430. => AEL1535

2908. Lehtinen, K.E.J., Korhonen, H., Dal Maso, M. and Kulmala, M. (2003) On the concept of condensation sink diameter. *Boreal Environment Research* **8**, 405–411. => HT1446
2909. Leinster, P., Perry, R. and Young, R.J. (1978) Ethylene dibromide in urban air. *Atmos. Environ.* **12**, 2383–2387. => AEL0544
2910. Lekhtmakher, S. (1990) Data reduction of measurements with particle size-selective optical counters. *J. Aerosol Sci.* **21**, 61–71. => HT1519
2911. Lekhtmakher, S. and Shapiro, M. (1993) Finite-dimension regularization of the problem of aerosol size distribution determination. *J. Aerosol Sci.* **24**, 817–821. => HT1086
2912. Lekhtmakher, S. and Shapiro, M. (1993) Finite-dimension regularization of the problem of aerosol size distribution determination. *J. Aerosol Sci.* **24**, 817–821. => HT1517
2913. Lekhtmakher, S. and Shapiro, M. (2000) Short communication on the paper “Inverse methods for analyzing aerosol spectrometer measurements: A critical review.”. *J. Aerosol Sci.* **31**, 867–873. => HT1559
2914. Lekhtmakher, S. and Shapiro, M. (2003) *Registration probabilities and pulse-height distributions of coincidences in optical particle counters. Aerosol Sci. Technol. Accepted MS.* => HT1557
2915. Lekhtmakher, S.O. (1990) Data reduction of measurements with particle size-selective optical counters. *J. Aerosol Sci.* **21**, 61–71. => HT1083
2916. Lekhtmakher, S.O. (1990) Letter to the editor. On Markowski's article "Improving Twomey's algorithm for inversion of aerosol measurement data". *Aerosol Sci. Technol.* **13**, 124. => HT1084
2917. Lelieveld, J. and Dentener, F.J. (2000) What controls tropospheric ozone?. *J. Geophys. Res. Atmospheres* **105**, 3531–3551. => AEL3074
2918. Lelieveld, J., Bregman, A., Scheeren, H.A., Ström, J., Carslaw, K.S., Fischer, H., Siegmund, P.C. and Arnold, F. (1999) Chlorine activation and ozone destruction in the northern lowermost stratosphere. *J. Geophys. Res. Atmospheres* **104**, 8201–8213. => AEL2892
2919. Lelwala, R., Israelsson, S. and Jayaratne, K.P.S.C. *Electrode effect at the ground level under stable atmospheric stratification.* => HT1405
2920. Lelwala, R., Jayaratne, K.P.S.C. and Israelsson, S. *Measurement of space charge density over flat ground in nearly neutral stratified atmospheric surface layer. Käsikiri ajakirjale J. Geophys. Res. Atmospheres.* => HT1128
2921. Lenard, P. (1915) Über Wasserfallelektrizität und über die Oberflächenbeschaffenheit der Flüssigkeiten. *Annalen der Physik* **352**, 463–524. => HT1529
2922. Lenard, P. und Ramsauer, C. (1910) Über die Wirkungen sehr kurzwelligen ultravioletten Lichtes auf Gases und über eine sehr reiche Quelle dieses Lichtes. III Teil. Über Bildung grosser Elektrizitätäger. *Sitzungsberichte der Heidelberger Akademie der Wissenschaften, Math.-Naturwiss. Kl.*, Carl Winter's Universitätsbuchhandlung, Heidelberg, S. 3–31. => HT-F061
2923. Lenkeit, K. and Golloch, G. Tests regarding the suitability and use of ion mobility spectrometers for early detection of chemical degradation products. pp. 295. => HT1324
2924. Lenkeit, K., Golloch, G. and Schumann, A. (1999) Tests regarding the suitability and use of ion mobility spectrometers for early detection of chemical degradation products. *AUBE'99: 11th Int. Konf. Über Automatische Brandentdeckung*, pp. 295–302. => HT1572
2925. Leong, K.H. (1981) Morphology of aerosol particles generated from the evaporation of solution drops. *J. Aerosol Sci.* **12**, 417–435. => AEL0170

2926. Leonhardt, J.W., Rohrbeck, W. and Bensch, H. (2000) A high resolution IMS for environmental studies. *International Journal of Ion Mobility Spectrometry* **3**, 43–49. => HT1457
2927. Lepisto, A. (1991) The possibilities to control and to regulate the energy consumption. *XXV fysiikan päivät 21. - 23.3.1991. Energia ja ympäristö. Abstraktit*, Oulu, pp. 2–2. => HT0505
2928. Lesbridzh, M.D. (1982) Chastota groz i solnechnye sektornye granitsy (in Russian). *Solnechno-Zemnye Zvyazi, Pogoda i Klimat*, Mir, M., pp. 285–289. => HT0295
2929. Lesins, G., Chylek, P. and Lohmann, U. (2002) A study of internal and external mixing scenarios and its effect on aerosol optical properties and direct radiative forcing. *J. Geophys. Res. Atmospheres* **107**, AAC5 1–14. => AEL3653
2930. Lesniewski, T. and Friedlander, S.K. (1995) The effect of turbulence on rates of particle formation by homogeneous nucleation. *Aerosol Sci. Technol.* **23**, 174–182. => AEL1529
2931. Lessel, P.J., Hoell, J.M., Levine, J.S. and Vay, S.A. (1985) Aircraft measurements of ammonia and nitric acid in the lower troposphere. *Geophys. Res. Lett.* **12**, 401–404. => AEL1679
2932. Levaggi, D.A. and Feldstein, M. (1970) The determination of formaldehyde, acrolein, and low molecular weight aldehydes in industrial emissions on a single collection sample. *J. Air Pollut. Control Assoc.* **20**, 312–313. => AEL0885
2933. Levdanskii, V.V. (2002) Dependence of the condensation (sticking) coefficient on the radius of small aerosol particles. *Journal of Engineering Physics and Thermophysics* **75**, 792–797. => HT1493
2934. Levin, B.R. and Baronkin, V.M. (1973) Obnaruzhenie signalov na fone pomekh po kvantovannym nablyudeniya (in Russian). *The Third International Symposium on Information Theory. Abstracts of Papers*, Moskva-Tallinn, **1**, pp. 69–73. => HT0091
2935. Levin, I., Glatzel-Mattheier, H., Marik, T., Cuntz, M., Schmidt, M. and Worthy, D.E. (1999) Verification of German methane emission inventories and their recent changes based on atmospheric observations. *J. Geophys. Res. Atmospheres* **104**, 3447–3456. => AEL2760
2936. Levin, Y. (2000) Interfacial tension of electrolyte solutions. *J. Chem. Phys.* **113**, 9722–9726. => AEL3865
2937. Levin, Z. and Feingold, G. (1986) The lognormal fit to drop size distributions in Israel with application to single and dual parameter radar measurements. *23rd Conference on Radar Meteorology and Cloud Physics Snowmass, Colorado, JP*, pp. 162–165. => HT0353
2938. Levin, Z. and Tzur, I. (1986) Models of the development of the electrical structure of clouds. *The Earth's Electrical Environment, Studies in Geophysics*, National Academy Press, Washington, pp. 131–145. => HT0356
2939. Levin, Z., Borucki, W.J. and Toon, O.B. (1983) Lightning generation in planetary atmospheres. *ICARUS* **56**, 80–115. => HT0354
2940. Levin, Z., Teller, A., Ganor, E., Graham, B., Andreae, M.O., Maenhaut, W., Falkovich, A.H. and Rudich, Y. (2003) Role of aerosol size and composition in nucleation scavenging within clouds in a shallow cold front. *J. Geophys. Res. Atmospheres* **108**, 4700–doi:10.1029/2003JD003647. => AEL4083
2941. Levin, Z., Yankofsky, S.A., Pardes, D. and Magal, N. (1987) Possible application of bacterial condensation freezing to artificial rainfall enhancement. *Journal of Climate and Applied Meteorology* **26**, 1188–1197. => HT0355
2942. Levine, J.S., Gregory, G.L., Harvey, G.A., Howell, W.E., Borucki, W.J. and Orville, R.E. (1982) Production of nitric oxide by lightning on Venus. *Geophysical Research Letters* **9**, 893–896. => HT0145



2943. Levy, G.B. (1994) Editor's page. Another red herring perchance?. *International Laboratory* 4–5. => HT0828
2944. Lewin, E.E., De Pena, R.G. and Shimshock, J.P. (1986) Atmospheric gas and particle measurements at a rural northeastern U.S. site. *Atmos. Environ.* **20**, 59–70. => AEL0674
2945. Lewis, C.W. (1979) A microcomputer-modified electrical aerosol analyzer. *J. Aerosol Sci.* **10**, 471–475. => AEL0171
2946. Lewis, C.W. and Lamothe, P.J. (1978) A microcomputer-modified particle size spectrometer. *J. Aerosol Sci.* **9**, 391–397. => AEL0172
2947. Lewis, R.A., Gower, S.A., Groombridge, P., Cox, D.T.W. and Adorni-Braccesi, L.G. (1991) Student scanning tunneling microscope. *Am. J. Phys.* **59**, 38–42. => HT0814
2948. Lewtas, J., Pang, Y., Booth, D., Reimer, S., Eatough, D.J. and Gundel, L.A. (2001) Comparison of sampling methods for semi-volatile organic carbon associated with PM<sub>2.5</sub>. *Aerosol Sci. Technol.* **34**, 9–22. => AEL3358
2949. Leygonie, R. and Delandre, J.-R. (1989) Les réseaux de mesure de la pollution atmosphérique dans l'environnement en France. *Techn. Sci. Meth. - L'eau* **84**, 219–229. => AEL3406
2950. Li A. and Ahmadi, G. (1993) Aerosol particle deposition with electrostatic attraction in a turbulent channel flow. *J. Colloid Interface Sci.* **158**, 476–482. => AEL1725
2951. Li A. and Ahmadi, G. (1993) Computer simulation of deposition of aerosols in a turbulent channel flow with rough walls. *Aerosol Sci. Technol.* **18**, 11–24. => AEL1116
2952. Li A. and Ahmadi, G. (1995) Computer simulation of particle deposition in the upper tracheobronchial tree. *Aerosol Sci. Technol.* **23**, 201–223. => AEL1530
2953. Li C. and Aber, J. (2000) A process-oriented model of N<sub>2</sub>O and NO emissions from forest soils: 1. Model development. *J. Geophys. Res. Atmospheres* **105**, 4369–4384. => AEL3084
2954. Li C., Wang, W. and Wang, Z. (2000) A surface tension model for liquid mixtures based on the Wilson equation. *Fluid Phase Equilibria* **175**, 185–196. => AEL3884
2955. Li C.-S. and Hopke, P.K. (1991) Characterization of radon decay products in a domestic environment. *Indoor Air* **4**, 539–561. => AEL0890
2956. Li C.-S. and Hopke, P.K. (1991) Efficacy of air cleaning systems in controlling indoor radon decay products. *Health Phys.* **61**, 785–797. => AEL0888
2957. Li C.-S. and Lin, C.-H. (2002) PM<sub>1</sub>/PM<sub>2.5</sub>/PM<sub>10</sub> characteristics in the urban atmosphere in Taipei. *Aerosol Sci. Technol.* **36**, 469–473. => AEL3699
2958. Li C.-T., Chen, S.-J. and Cheng, R.J. (1992) Study on incineration techniques of ABS and its flue gas composition analysis. *To be presented at 9th World Clean Air Congress, Aug. 30-Sept. 4, 1992, Montreal, Quebec*, pp. -. => HT0974
2959. Li J., Anderson, J.R. and Buseck, P.R. (2003) TEM study of aerosol particles from clean and polluted marine boundary layers over the North Atlantic. *J. Geophys. Res. Atmospheres* **108**, 4189– doi:10.1029/2002JD002106, 2003. => AEL3967
2960. Li P., Perreau, K.A., Covington, E., Song, C.H., Carmichael, G.R. and Grassian, V.H. (2001) Heterogeneous reactions of volatile organic compounds on oxide particles of the most abundant crustal elements: Surface reactions of acetaldehyde, acetone, and propionaldehyde on SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>, and CaO. *J. Geophys. Res. Atmospheres* **106**, 5517–5529. => AEL3427
2961. Li S.-M., Barrie, L.A. and Toom, D. (1996) Seasonal variations of methanesulfonate, non-sea-salt sulfate, and sulfur dioxide at three sites in Canada. *J. Geophys. Res.* **101**, 4165–4173. => AEL1803

2962. Li S.-M., Macdonald, A.M., Strapp, J.W., Lee, Y.-N. and Zhou, X.-L. (1997) Chemical and physical characterizations of atmospheric aerosols over southern California. *J. Geophys. Res. Atmospheres* **102**, 21341–21353. => AEL2201
2963. Li S.-N. and Lungren, D.A. (2002) Aerosol aspiration efficiency of blunt and thin-walled samplers at different wind orientations. *Aerosol Sci. Technol.* **36**, 342–350. => AEL3603
2964. Li W. and Davis, E.J. (1996) Aerosol evaporation in the transition regime. *Aerosol Sci. Technol.* **25**, 11–21. => AEL1830
2965. Li W., Xiong, J.Q. and Cohen, B.S. (1998) The deposition of unattached radon progeny in a tracheobronchial cast as measured with iodine vapor. *Aerosol Sci. Technol.* **28**, 502–510. => AEL2843
2966. Li Y., Aneja, V.P., Arya, S.P., Rickman, J., Brittig, J., Roelle, P. and Kim, D.S. (1999) Nitric oxide emission from intensively managed agricultural soil in North Carolina. *J. Geophys. Res. Atmospheres* **104**, 26115–26123. => AEL3027
2967. Li Y., Dexun, F. and Yanwen, M. (1995) Numerical simulation of axisymmetric unsteady incompressible flow by a vorticity-velocity method. *International Journal for Numerical Methods in Fluids* **21**, 401–411. => AEL1999
2968. Li Z. and Lu, B.C.-Y. (2001) Surface tension of aqueous electrolyte solutions at high concentrations - representation and prediction. *Chemical Engineering Science* **56**, 2879–2888. => AEL3883
2969. Li Z. and Wang, H. (2003) Drag force, diffusion coefficient, and electric mobility of small particles. I. Theory applicable to the free-molecule regime. *Physical Review E* **68**, 1–9. => HT1479
2970. Li Z. and Wang, H. (2003) Drag force, diffusion coefficient, and electric mobility of small particles. II. Application. *Physical Review E* **68**, 1–13. => HT1480
2971. Liang, J. and Jacob, D.J. (1997) Effect of aqueous phase cloud chemistry on tropospheric ozone. *J. Geophys. Res. Atmospheres* **102**, 5993–6001. => AEL2314
2972. Liang, J. and Jacobson, M.Z. (1999) A study of sulfur dioxide oxidation pathways over a range of liquid water contents, pH values, and temperatures. *J. Geophys. Res. Atmospheres* **104**, 13749–13769. => AEL2981
2973. Liang, W.-J. and Lin, T.H. (1994) The characteristics of ionic wind and its effect on electrostatic precipitators. *Aerosol Sci. Technol.* **20**, 330–344. => AEL1277
2974. Liao, H. and Seinfeld, J.H. (1998) Effect of clouds on direct aerosol radiative forcing of climate. *J. Geophys. Res. Atmospheres* **103**, 3781–3788. => AEL2225
2975. Liao, H., Adams, P.J., Chung, S.H., Seinfeld, J.H., Mickley, L.J. and Jacob, D.J. (2003) Interactions between tropospheric chemistry and aerosols in a unified general circulation model. *J. Geophys. Res. Atmospheres* **108**, 4001– doi:10.1029/2001JD001260, 2003. => AEL3922
2976. Liao, H., Yung, Y.L. and Seinfeld, J.H. (1999) Effects of aerosols on tropospheric photolysis rates in clear and cloudy atmospheres. *J. Geophys. Res. Atmospheres* **104**, 23697–23707. => AEL3023
2977. Lias, S.G., Bartmess, J.E., Liebman, J.F., Holmes, J.L., Levin, R.D. and Mallard, W.G. (1988) Gas-phase ion and neutral thermochemistry. 2 osa. *J. Phys. Chem. Ref. Data* **17**, 1–861. => AEL3187
2978. Lias, S.G., Liebman, J.F. and Levin, R.D. (1984) Evaluated gas phase basicities and proton affinities of molecules; heats of formation of protonated molecules. *J. Phys. Chem. Ref. Data* **13**, 695–712. => AEL1475

2979. Lie, G.C., Grigoras, S., Dang, L.X., Yang, D.-Y. and McLean, A.D. (1993) Monte Carlo simulation of the liquid-vapor interface of water using an ab initio potential. *J. Chem. Phys.* **99**, 3933–3937. => AEL1051
2980. Liebman, J.F., Romm, M.J., Meot-Ner (Mautner), M., Cybulski, S.M. and Scheiner, S. (1991) Isotropy in ionic interactions. 2. How spherical is the ammonium ion? Comparison of the gas-phase clustering energies and condensed-phase thermochemistry of  $\text{K}^+$  and  $\text{NH}_4^+$ . *J. Phys. Chem.* **95**, 1112–1119. => AEL0460
2981. Lifshitz, C. and Louage, F. (1989) Magic numbers in kinetic energy releases for unimolecular decompositions of  $(\text{NH}_3)_n\text{H}^+$  ion clusters. *J. Phys. Chem.* **93**, 5633–5635. => AEL0655
2982. Lifshitz, C., Wu, R.L.C., Tiernan, T.O. and Terwilliger, D.T. (1978) "Negative ion-molecule reactions of ozone and their implications on the thermochemistry of  $\text{O}_3^-$ ". *J. Chem. Phys.* **68**, 247–260. => AEL0521
2983. Lightman, P., Kallend, A.S., Marsch, A.R.W., Jones, B.M.R. and Penkett, S.A. (1990) Seasonal variation of hydrocarbons in the free troposphere at mid-latitudes. *Tellus* **42B**, 408–422. => AEL0473
2984. Lihavainen, H., Kerminen, V.-M., Komppula, M., Hatakka, J., Aaltonen, V., Kulmala, M. and Viisanen, Y. (2003) Production of "potential" cloud condensation nuclei associated with atmospheric new-particle formation in northern Finland. *J. Geophys. Res. Atmospheres* **108**, 4782– doi:10.1029/2003JD003887. => AEL4103
2985. Liley, J.B., Baumgardner, D., Kondo, Y., Kita, K., Blake, D.R., Koike, M., Machida, T., Takegawa, N., Kawakami, S., Shirai, T. and Ogawa, T. (2003) Black carbon in aerosol during BIBLE B. *J. Geophys. Res. Atmospheres* **108**, 8399– doi:10.1029/2001JD000845, 2003. => AEL3944
2986. Lin, C.S., Moulton, R.W. and Putnam, G.L. (1953) Mass transfer between solid wall and fluid streams. Mechanism and eddy distribution relationships in turbulent flow. *Ind. & Eng. Chem.* **45**, 636–640. => AEL0841
2987. Lin, J.J., Noll, K.E. and Holsen, T.M. (1994) Dry deposition velocities as a function of particle size in the ambient atmosphere. *Aerosol Sci. Technol.* **20**, 239–252. => AEL1090
2988. Lin, J.-M., Fang, G.-C., Holsen, T.M. and Noll, K.E. (1993) A comparison of dry deposition modelled from size distribution data and measured with a smooth surface for total particle mass, lead and calcium in Chicago. *Atmos. Environ.* **27A**, 1131–1138. => AEL0850
2989. Lin, J.-S. and Tabazadeh, A. (2001) A parameterization of an aerosol physical chemistry model for the  $\text{NH}_3/\text{H}_2\text{SO}_4/\text{HNO}_3/\text{H}_2\text{O}$  system at cold temperatures. *J. Geophys. Res. Atmospheres* **106**, 4815–4829. => AEL3419
2990. Lin, S.L., Robson, R.E. and Mason, E.A. (1979) Moment theory of electron drift and diffusion in neutral gases in an electrostatic field. *J. Chem. Phys.* **71**, 3483–3498. => AEL0173
2991. Lin, S.L., Viehland, L.A. and Mason, E.A. (1979) Three-temperature theory of gaseous ion transport. *Chem. Phys.* **37**, 411–424. => AEL0174
2992. Lind, F.D., Sahr, J.D. and Gidner, D.M. (1999) First passive radar observations of auroral E-region irregularities. *Geophys. Res. Lett.* **26**, 2155–2158. => AEL2904
2993. Lindfors, A.V., Arola, A., Kaurola, J., Taalas, P. and Svenøe, T. (2003) Long-term erythemal UV doses at Sodankylä estimated using total ozone, sunshine duration, and snow depth. *J. Geophys. Res. Atmospheres* **108**, 4518– doi:10.1029/2002JD003325. => AEL4036
2994. Lindgren, E.R. (1957) The transition process and other phenomena in viscous flow. *Arkiv för Fysik* **12**, 1–8. => HT-F059

2995. Lindinger, W. and Hansel, A. (1995) Analysis of trace gases at ppb levels by proton transfer reaction mass spectrometry (PTR-MS). *Käsikiri*. 1–23. => HT1016
2996. Lindinger, W., McFarland, M., Fehsenfeld, F.C., Albritton, D.L., Schmeltekopf, A.L. and Ferguson, E.E. (1975) "Translational and internal energy dependences of some ion-neutral reactions. *J. Chem. Phys.* **63**, 2175–2181. => AEL0534
2997. Lindley, C.R.C., Calvert, J.G. and Shaw, J.H. (1979) Rate studies of the reactions of the  $(\text{CH}_3)_2\text{N}$  radical with  $\text{O}_2$ ,  $\text{NO}$ , and  $\text{NO}_2$ . *Chem. Phys. Lett.* **67**, 57–62. => AEL1370
2998. Liousse, C., Dulac, F., Cachier, H. and Tanré, D. (1997) Remote sensing of carbonaceous aerosol production by African savanna biomass burning. *J. Geophys. Res. Atmospheres* **102**, 5895–5911. => AEL2308
2999. Lipowicz, P.J. (1988) Determination of cigarette smoke particle density from mass and mobility measurements in a Millikan cell. *J. Aerosol Sci.* **19**, 587–589. => AEL1844
3000. Lippmann, M. and Albert, R.E. (1967) A compact electric-motor driven spinning disc aerosol generator. *Amer. Ind. Hyg. Assoc. J.* **28**, 501–506. => AEL0175
3001. Lipscomb, W.N., Rubin, T.R. and Sturdivant, J.H. (1947) An investigation of a method for the analysis of smokes according to particle size. *J. Appl. Phys.* **18**, 72–79. => HT-F027
3002. Liu, B., Y.H., Pui, D.Y.H. and Fissan, H.J. (1984) Contents. *Aerosols. Proceedings of the First International Aerosol Conference*, Minneapolis, pp. 5–33. => HT0700
3003. Liu, B.B., Srinivasachar, S. and Helble, J.J. (2000) The effect of chemical composition on the fractal-like structure of combustion-generated inorganic aerosols. *Aerosol Sci. Technol.* **33**, 459–469. => AEL3354
3004. Liu, B.Y.H. (1968) Aerosol research: U. of Minnesota Particle Technology Laboratory. *J. Air Poll. Contr. Assoc.* **18**, 694–696. => AEL0176
3005. Liu, B.Y.H. (1974) Laboratory generation of particulates with emphasis on submicron aerosols. *APCA Journal* **24**, 1170–1172. => AEL0412
3006. Liu, B.Y.H. (1974) Laboratory generation of particulates with emphasis on submicron aerosols. *APCA Journal* **24**, 1170–1172. => HT0121
3007. Liu, B.Y.H. (Comp.) (1987) *Contamination control in microelectronics*. Particle Technol. Lab., Univ. Minnesota, Minneapolis. => AEL1127
3008. Liu, B.Y.H. and Agarwal, J.K. (1974) Experimental observation of aerosol deposition in turbulent flow. *J. Aerosol Sci.* **5**, 145–155. => AEL0177
3009. Liu, B.Y.H. and Agarwal, J.K. (1974) Experimental observation of aerosol deposition in turbulent flow. *Aerosol Science* **5**, 145–155. => HT0032
3010. Liu, B.Y.H. and Ahn, K. (1987) Particle deposition on semiconductor wafers. *@AST* **6**, 215–224. => HT0367
3011. Liu, B.Y.H. and Kapadia, A. (1978) Combined field and diffusion charging of aerosol particles in the continuum regime. *J. Aerosol Sci.* **9**, 227–242. => AEL0202
3012. Liu, B.Y.H. and Kuhlmeier, G.A. (1977) Efficiency of air sampling filter media. *X-Ray Fluorescence Analysis of Environmental Samples*. Edited by T.G. Dzubay, Ann Arbor Science Publishers Inc., pp. 107–119. => HT0009
3013. Liu, B.Y.H. and Kuhlmeier, G.A. (Comp.) *Efficiency of air sampling filter media*. Ann Arbor Science Publishers Inc, Ann Arbor. => AEL0413
3014. Liu, B.Y.H. and Lee, K.W. (1975) An aerosol generator of high stability. *American Industrial Hygiene Association Journal* 861–865. => HT0068

3015. Liu, B.Y.H. and Lee, K.W. (1976) Efficiency of membrane and nuclepore filters for submicrometer aerosols. *Environmental Science and Technology* **10**, 345–350. => HT0123
3016. Liu, B.Y.H. and Levi, J. (1980) Generation of submicron sulfuric acid aerosol by vaporization and condensation. @ GA, @ AA, pp. 317–336. => AEL0390
3017. Liu, B.Y.H. and Pui, D.Y.H. (1974) A submicron aerosol standard and the primary, absolute calibration of the condensation nuclei counter. *J. Colloid Interface Sci.* **47**, 155–171. => AEL0207
3018. Liu, B.Y.H. and Pui, D.Y.H. (1974) A submicron aerosol standard and the primary, absolute calibration of the condensation nuclei counter. *Journal of Colloid and Interface Science* **47**, 155–171. => HT0060
3019. Liu, B.Y.H. and Pui, D.Y.H. (1974) Electrical neutralization of aerosols. *J. Aerosol Sci.* **5**, 465–472. => AEL0204
3020. Liu, B.Y.H. and Pui, D.Y.H. (1974) Equilibrium bipolar charge distribution of aerosols. *Journal of Colloid and Interface Science* **49**, 305–312. => HT0014
3021. Liu, B.Y.H. and Pui, D.Y.H. (1974) On the performance of the electrical aerosol analyzer. *Particle Technology Publ.* 1–35. => AEL0716
3022. Liu, B.Y.H. and Pui, D.Y.H. (1975) On the performance of the electrical aerosol analyzer. *J. Aerosol Sci.* **6**, 249–264. => AEL0205
3023. Liu, B.Y.H. and Pui, D.Y.H. (1975) On the performance of the electrical aerosol analyzer. *J. Aerosol Sci.* **6**, 249–264. => HT0015
3024. Liu, B.Y.H. and Pui, D.Y.H. (1975) On the performance of the electrical aerosol analyzer. *J. Aerosol Science* **6**, 249–264. => HT0029
3025. Liu, B.Y.H. and Pui, D.Y.H. (1977) On unipolar diffusion charging of aerosols in the continuum regime. *J. Colloid Interface Sci.* **58**, 142–149. => AEL0206
3026. Liu, B.Y.H. and Pui, D.Y.H. (1977) On unipolar diffusion charging of aerosols in the continuum regime. *Journal of Colloid and Interface Science* **58**, 142–149. => HT0033
3027. Liu, B.Y.H. and Pui, D.Y.H. (1978) Comments on the paper: Aspects of the performance of the electrical aerosol analyzer under nonideal conditions. *Particle Technology Laboratory Publ.* 1–9. => AEL0203
3028. Liu, B.Y.H. *Introduction to aerosol measurement. An overview.* Käsikiri. => HT1275
3029. Liu, B.Y.H. *Outline. Generation of test and calibration aerosols.* Käsikiri. => HT1276
3030. Liu, B.Y.H., Pui, D.Y.H. and Kapadia, A. (1976) Electrical aerosol analyzer: history, principle and data reduction. *Particle Technology Laboratory Publ.* 1–41. => AEL0209
3031. Liu, B.Y.H., Pui, D.Y.H. and Kapadia, A. (1976) Electrical aerosol Analyzer: history, principle and data reduction. *For presentation at the Aerosol Measurement Workshop University of Florida. Particle Technology Laboratory Publication, Gainesville*, **303**, pp. 1–8. => HT0578
3032. Liu, B.Y.H., Pui, D.Y.H. and Wang, X.-Q. (1982) Drop size measurement of liquid aerosols. *Atmos. Environ.* **16**, 563–567. => AEL0210
3033. Liu, B.Y.H., Pui, D.Y.H., Hogan, A.W. and Rich, T.A. (1975) Calibration of the Pollak counter with monodisperse aerosols. *J. Appl. Meteorol.* **14**, 46–51. => AEL0208
3034. Liu, B.Y.H., Pui, D.Y.H., Hogan, A.W. and Rich, T.A. (1975) Calibration of the Pollak counter with monodisperse aerosols. *J. of Applied Meteorology* **14**, 46–51. => HT0139
3035. Liu, B.Y.H., Pui, D.Y.H., Rubow, K.L. and Szymanski, W.W. (1985) Electrostatic effects in aerosol sampling and filtration. *Ann. Occup. Hyg.* **29**, 251–269. => AEL1000

3036. Liu, B.Y.H., Pui, D.Y.H., Whitby, K.T., Kittelson, D.B., Kousaka, Y. and McKenzie, R.L. (1978) The aerosol mobility chromatograph: a new detector for sulfuric acid aerosols. *Atmos. Environ.* **12**, 99–104. => AEL0637
3037. Liu, B.Y.H., Pui, D.Y.H., Whitby, K.T., Kittelson, D.B., Kousaka, Y. and McKenzie, R.L. (1978) The aerosol mobility chromatograph: A new detector for sulfuric acid aerosols. *Atmospheric Environment* **12**, 99–104. => HT0320
3038. Liu, B.Y.H., Whitby, K.T. and Pui, D.Y.H. (1973) A portable electrical aerosol analyzer for size distribution measurement of submicron aerosols. *Particle Technology Laboratory Publication* 1–29. => AEL0212
3039. Liu, B.Y.H., Whitby, K.T. and Pui, D.Y.H. (1974) A portable electrical analyzer for size distribution measurement of submicron aerosols. *APCA Journal* **24**, 1067–1072. => AEL0211
3040. Liu, B.Y.H., Whitby, K.T. and Pui, D.Y.H. (1974) A portable electrical analyzer for size distribution measurement of submicron aerosols. *APCA Journal* **24**, 1067–1072. => HT0087
3041. Liu, B.Y.H., Whitby, K.T. and Yu, H.H.S. (1967) On the theory of charging of aerosol particles by unipolar ions in the absence of an applied electric field. *J. Colloid Interface Sci.* **23**, 367–378. => AEL0213
3042. Liu, B.Y.H., Zhang, Z.Q. and Kuehn, T.H. (1989) A numerical study of inertial errors in anisokinetic sampling. *J. Aerosol Sci.* **20**, 367–380. => AEL1842
3043. Liu, B.Y.H., Zhang, Z.Q. and Kuehn, T.H. (1989) A numerical study of inertial errors in anisokinetic sampling. *@JAS* **20**, 367–380. => HT0369
3044. Liu, C.S. and Gentry, J.W. (1982) Charge distribution of ultrafine aerosols undergoing bipolar charging. *J. Aerosol Sci.* **13**, 127–138. => AEL0201
3045. Liu, C.S., Davisson, S. and Gentry, J.W. (1982) Bipolar charge equilibrium for spherical aerosols (minimum flux hypothesis). *The Sci. Total Environ.* **23**, 337–342. => AEL0178
3046. Liu, D.-Y., Prather, K.A. and Hering, S.V. (2000) Variations in the size and chemical composition of nitrate-containing particles in Riverside, CA. *Aerosol Sci. Technol.* **33**, 71–86. => AEL3342
3047. Liu, D.-Y., Wenzel, R.J. and Prather, K.A. (2003) Aerosol time-of-flight mass spectrometry during the Atlanta Supersite Experiment 1. Measurements. *J. Geophys. Res. Atmospheres* **108**, 8426– doi:10.1029/2001JD001562, 2003. => AEL3990
3048. Liu, H.-L. (2000) Temperature changes due to gravity wave saturation. *J. Geophys. Res. Atmospheres* **105**, 12329–12336. => AEL3215
3049. Liu, H.-L., Hagan, M.E. and Roble, R.G. (2000) Local mean state changes due to gravity wave breaking modulated by the diurnal tide. *J. Geophys. Res. Atmospheres* **105**, 12381–12396. => AEL3216
3050. Liu, P., Ziemann, P.J., Kittelson, D.B. and McMurry, P.H. (1995) Generating particle beams of controlled dimensions and divergence: II. Experimental evaluation of particle motion in aerodynamic lenses and nozzle expansions. *Aerosol Sci. Technol.* **22**, 314–324. => AEL1416
3051. Liu, P., Ziemann, P.J., Kittelson, D.B. and McMurry, P.H. (1995) Generating particle beams of controlled dimensions and divergence: I. Theory of particle motion in aerodynamic lenses and nozzle expansions. *Aerosol Sci. Technol.* **22**, 293–313. => AEL1417
3052. Liu, S., Jarrold, M.F. and Bowers, M.T. (1985) Ion-molecule clustering in simple systems. A study of the temperature dependence of the dimerization reactions of  $\text{CH}_2\text{CF}_2^+$ ,  $\text{C}_6\text{H}_6^+$  (benzene), and  $\text{C}_6\text{D}_6^+$  (benzene- $d_6$ ) in their parent neutral gases: e. *J. Phys. Chem.* **89**, 3127–3134. => AEL1380

3053. Liu, S.C., McKeen, S.A., Hsie, E.-Y., Lin, X., Kelly, K.K., Bradshaw, J.D., Sandholm, S.T., Browell, E.V., Gregory, G.L., Sachse, G.W., Bandy, A.R., Thornton, D.C., Blake, D.R., Rowland, F.S., Newell, R., Heikes, B.G., Singh, H. and Talbot, R.W. (1996) Model study of tropospheric trace species distributions during PEM-West A. *J. Geophys. Res.* **101**, 2073–2085. => AEL1628
3054. Liu, W., Hopke, P.K. and VanCuren, R.A. (2003) Origins of fine aerosol mass in the western United States using positive matrix factorization. *J. Geophys. Res. Atmospheres* **108**, 4716–doi:10.1029/2003JD003678. => AEL4073
3055. Liu, X. and Seidl, W. (1998) Modeling study of cloud droplet nucleation and in-cloud sulfate production during the Sanitation of the Atmosphere (SANA) 2 campaign. *J. Geophys. Res. Atmospheres* **103**, 16145–16158. => AEL2287
3056. Liu, X., Hegg, D.A. and Stoelinga, M.T. (2001) Numerical simulation of new particle formation over the northwest Atlantic using the MM5 mesoscale model coupled with sulfur chemistry. *J. Geophys. Res. Atmospheres* **106**, 9697–9715. => AEL3456
3057. Liu, Y. and Liu, F. (1994) On the description of aerosol particle size distribution. *Atmospheric Research* **31**, 187–198. => AEL3535
3058. Liu, Y. and Liu, F. (1994) On the description of aerosol particle size distribution. *Atmospheric Research* **31**, 187–198. => HT0808
3059. Liu, Z.G. and Wang, P.K. (1996) Numerical investigation of viscous flow fields around multifiber filters. *Aerosol Sci. Technol.* **25**, 375–391. => AEL1736
3060. Livingston, E.S., Nielsen-Gammon, J.W. and Orville, R.E. (1996) A climatology, synoptic assessment, and thermodynamic evaluation for cloud-to-ground lightning in Georgia: A study for the 1996 Summer Olympics. *Bull. Amer. Meteorol. Soc.* **77**, 1483–1495. => HT1087
3061. Livshits, A.I., Portnov, F.G. and Shmidt, A.B. (1984) Vliyanie vlazhnosti na khimicheskii sostav ionov v vozdukh (in Russian). *Izvestiya Akademii Nauk Lat. SSR* 192–196. => HT0171
3062. Lkeimenova, N.G., Kozyreva, O.V., Mikhnovski, S., Shimanski, A. and Ermolenko, D.Yu. (1992) Vysokoshirotnye dlinnoperiodnye pulsatsii v geomagnitnom pole i atmosfernom elektrishestve po nablyudeniya na arkh. Shpitchbergen (in Russian). *Geomagnetizm i Aeronomiya* **32**, 41–48. => HT0651
3063. Łobiński, R., Boutron, C.F., Candelone, J.-P., Hong, S., Szpunar-Łobińska, J. and Adams, F.C. (1994) Present century snow core record of organolead pollution in Greenland. *Environ. Sci. Technol.* **28**, 1467–1471. => AEL2361
3064. Lodge, J.P. (1954) Analysis of micron-sized particles. *Anal. Chem.* **26**, 1829–1831. => AEL0194
3065. Lodge, J.P. and Fanzoi, H.M. (1954) Extension of the gelatin method for the detection of micron-sized particles. *Anal. Chem.* **26**, 1829–1829. => AEL0195
3066. Loeb, L.B. (1923) The absolute mobilities of negative ions in air. *Journal of the Franklin Institute* **196**, 537–546. => AEL3536
3067. Loeb, L.B. (1971) On the appearance and mechanisms of formation of Langevin-type ions and related nuclei. *Aerosol Sci.* **2**, 133–139. => AEL3378
3068. Loeb, L.B. (1971) On the appearance and mechanisms of formation of Langevin-type ions and related nuclei. *Aerosol Sci.* **2**, 133–139. => HT0322
3069. Loeschner, H.W., Bentz, J.A., Oberbauer, F., Ghosh, T.K., Tompson, R.V. and Loyalka S., K. (2004) Characterization and dry deposition of carbonaceous aerosols in a wet tropical forest canopy. *J. Geophys. Res. Atmospheres* **109**, D02309–doi:10.1029/2002JD003353, 2004. => AEL4120

3070. Lomonosov, M.V. (1753) *Discussion of atmospheric phenomena stemming from electricity*. Translated by David Kraus. => HT1546
3071. Longuet-Higgins, H.C. and Widom, B. (1965) A rigid sphere model for the melting of argon. *Mol. Phys.* **8**, 549–556. => AEL0874
3072. Looijmans, K.N.H., Luijten, C.C.M., Hofmans, G.C.J. and Van Dongen, M.E.H. (1995) Classical binary nucleation theory applied to the real mixture n-nonane/methane at high pressures. *J. Chem. Phys.* **102**, 4531–4537. => AEL1480
3073. Lopez, A., Barthomeuf, M.O. and Huertas, M.L. (1989) Simulation of chemical processes occurring in an atmospheric boundary layer. Influence of light and biogenic hydrocarbons on the formation of oxidants. *Atmos. Environ.* **23**, 1465–1478. => AEL0698
3074. Lord, E. (1947) The use of range in place of standard deviation in the t-test. *Biometrika* 41–67. => HT-F096
3075. Łosakiewicz, A.C. (1995) Correlations between short-period fluctuations of the Maxwellian current at Hornsund (Spitzbergen) and Józefosław (Poland). *Acta Geophysica Polonica* **43**, 273–279. => HT1189
3076. Łosakiewicz, A.C. (1995) Some theoretical estimations of spectral densities of short-period electric noises generated near the ground. *J. Geophys. Res.* **100**, 11529–11535. => HT0858
3077. Łosakiewicz, A.C. (1995) Some theoretical estimations of spectral densities of short-period electric noises generated near the ground. *J. Geophys. Res.* **100**, 11529–11535. => AEL3192
3078. Łosakiewicz, A.C. Currents produced by a charge flowing in the atmosphere. 532–535. => HT1214
3079. Loscertales, I.G. (1997) *Drift differential mobility analyzer. Käsikiri. Algversioon.* => HT1262
3080. Loscertales, I.G. (1998) *Drift differential mobility analyzer. Käsikiri.* => HT1261
3081. Loscertales, I.G. (1998) Theoretical effect of an axial electric field upon the resolution of classic differential mobility analyzers. *J. Aerosol Sci.* **29**, S1241–S1242. => HT1362
3082. Loscertales, I.G. (1998) *Theoretical effect of an axial electric field upon the resolution of classic differential mobility analyzers. Presented at the 5th International Aerosol Conference in Edinburgh. Ettekande käsikiri.* => HT1486
3083. Loscertales, I.G. (1999) *Mass diameter versus aerodynamic diameter of nanoparticles. Implications on the calibration curve of an inertial impactor. Käsikiri.* => HT1398
3084. Loscertales, I.G. (2000) Mass diameter versus aerodynamic diameter of nanoparticles. Implications on the calibration curve of an inertial impactor. *J. Aerosol Sci.* **31**, 923–932. => HT1310
3085. Loscertales, I.G. and Fernandez de la Mora, J. (1995) Experiments on the kinetics of field evaporation of small ions from droplets. *J. Chem. Phys.* **103**, 5041–5060. => AEL1497
3086. Loscertales, I.G. and Fernandez de la Mora, J. (1995) Experiments on the kinetics of field evaporation of small ions from droplets. *J. Chem. Phys.* **103**, 1–20. => HT0880
3087. Loscertales, I.G.? (1998) *Charging and growth of aerosol particles in ionised atmosphere. Käsikiri.* => HT1487
3088. Lovejoy, E.R. and Curtius, J. (2001) Cluster ion thermal decomposition (II): Master equation modeling in the low-pressure limit and fall-off regions. Bond energies for  $\text{HSO}_4^-$  ( $\text{H}_2\text{SO}_4$ )<sub>x</sub>( $\text{HNO}_3$ )<sub>y</sub>. *J. Phys. Chem. A* **105**, 10874–10883. => AEL3757



3089. Lovejoy, E.R. and Curtius, J. (2001) Cluster ion thermal decomposition (II): Master equation modeling in the low-pressure limit and fall-off regions. Bond energies for  $\text{HSO}_4^-$  ( $\text{H}_2\text{SO}_4$ )<sub>x</sub>( $\text{HNO}_3$ )<sub>y</sub>. *J. Phys. Chem. A* **105**, 10874–10883. => HT1441
3090. Lovejoy, E.R., Curtius, J. and Froyd, K.D. (2004) Atmospheric ion-induced nucleation of sulfuric acid and water. *J. Geophys. Res. Atmospheres* **109**, D08204–doi:10.1029/2003JD004460. => HT1582
3091. Lövestam, N.E.G. and Swietlicki, E. (1989) An external beam set-up for the Lund proton microprobe. *Swietlicki, E. Doctoral dissertation. Part VII*, Lund, pp. 121–136. => AEL1031
3092. Lõvi, M. (1964) Stomatoloogilisest esmaabist velskri-ämmaemandapunktis (in Estonian). *Nõukogude Eesti Tervishoid* 47–50. => HT0905
3093. Lowenthal, D.H., Hanumara, R.C., Rahn, K.A. and Currie, L.A. (1987) Effects of systematic error, estimates and uncertainties in chemical mass balance apportionments: Quail Roost II revisited. *Atmos. Environ.* **21**, 501–510. => AEL2354
3094. Lowenthal, D.H., Hanumara, R.C., Rahn, K.A. and Currie, L.A. (1987) Effects of systematic error, estimates and uncertainties in chemical mass balance apportionments: Quail Roost II revisited. *Atmos. Environ.* **21**, 501–510. => AEL2896
3095. Löwenthal, G. (1990) Ein Jahr nach der Mauer-Öffnung: Die Opfer der SED verlieren ihre Geduld. *Epoche* **14**, 88–89. => HT0484
3096. Loyalka, S.K. (1976) Brownian coagulation of aerosols. *J. Colloid Interface Sci.* **57**, 578–579. => AEL0196
3097. Lu C.-H., Yue, G.K., Joseph, E.D. and Mohnen, V.A. (2003) Retrieval analysis of aerosol integral properties from simulated extinction at SAGE II and HALOE wavelengths. *J. Geophys. Res. Atmospheres* **108**, 4202–doi:10.1029/2002JD002453, 2003. => AEL3979
3098. Lu R., Turco, R.P. and Jacobson, M.Z. (1997) An integrated air pollution modeling system for urban and regional scales: 1. Structures and performance. *J. Geophys. Res. Atmospheres* **102**, 6063–6079. => AEL2319
3099. Lu R., Turco, R.P. and Jacobson, M.Z. (1997) An integrated air pollution modeling system for urban and regional scales: 2. Simulations for SCAQS 1987. *J. Geophys. Res. Atmospheres* **102**, 6081–6098. => AEL2320
3100. Lubin, J.H. and Boice, J.D.Jr. (1989) Estimating Rn-induced lung cancer in the United States. *Health Physics* **57**, 417–427. => AEL2421
3101. Lübken, F.-J., Fricke, K.-H. and Langer, M. (1996) Noctilucent clouds and the thermal structure near the Arctic mesopause in summer. *J. Geophys. Res. Atmospheres* **101**, 9489–9508. => HT1104
3102. Lübken, F.-J., Jarvis, M.J. and Jones, G.O.L. (1999) First in situ temperature measurements at the Antarctic summer mesopause. *Geophys. Res. Lett.* **26**, 3581–3584. => AEL2934
3103. Lucas, C. and Orville, R.E. (1996) TOGA COARE: Oceanic lightning. *Monthly Weather Review* **124**, 2077–2082. => HT1088
3104. Lucek, E.A., Dunlop, M.W., Balogh, A., Cargill, P., Baumjohann, W., Georgescu, E., Haerendel, G. and Fornacon, K.-H. (1999) Mirror mode structures observed in the dawn-side magnetosheath by Equator-S. *Geophys. Res. Lett.* **26**, 2159–2162. => AEL2905
3105. Luck, H. and O. Dedicated detection algorithms for automatic fire detection. *Fire Safety Science - Proceedings of the Third International Symposium*, pp. 135–148. => HT0590
3106. Luck, H.O., Siemund, B. and Lorbeer, G. (1985) The measurement of spatial aerosol distributions in enclosures by means of computed tomography. *Part. Character.* **2**, 137–142. => HT0624

3107. Ludwig, F.L. and Robinson, E. (1965) Size distribution of sulfur-containing compounds in urban aerosols. *J. Coll. Sci.* **20**, 571–584. => AEL0197
3108. Ludwig, J. and Klemm, O. (1990) Acidity of size-fractionated aerosol particles. *Water Air Soil Pollut.* **49**, 35–50. => AEL0794
3109. Lumley, J.L. and Panofsky, H.A. (1964) *The Structure of Atmospheric Turbulence*, John Wiley & Sons, New York-London-Sydney, pp. 99–161. => HT0660
3110. Lund, P.D. (1991) Solar energy in mitigating global environmental problems. *XXV fysiikan päivät 21. - 23.3.1991. Energia ja ympäristö. Abstraktit*, Oulu, pp. 4–4. => HT0505
3111. Lundquist, S. (1985) On the discharge of static electricity: Some historic notes with comments and remarks. *Journal of Electrostatics* **16**, 221–230. => HT0438
3112. Luo, B., Peter, T. and Crutzen, P. (1994) Freezing of stratospheric aerosol droplets. *Geophys. Res. Lett.* **21**, 1447–1450. => AEL1851
3113. Lupu, A. and Cuculeanu, V. (1999) Vertical distribution of radon progeny over vegetated ground. *J. Geophys. Res. Atmospheres* **104**, 27527–27533. => AEL3039
3114. Lushnikov, A.A. and Kulmala, M. (1995) Source-enhanced condensation in monocomponent disperse systems. *Phys. Rev. E* **52**, 1658–1668. => AEL2050
3115. Lushnikov, A.A. and Kulmala, M. (1998) Nucleation burst in coagulating aerosol. *J. Aerosol Sci.* **29**, S39–S40. => HT1332
3116. Lushnikov, A.A. and Kulmala, M. (2000) Nucleation burst in a coagulating system. *Physical Review E* **62**, 4932–4939. => AEL3844
3117. Lushnikov, A.A. and Kulmala, M. (2001) Kinetics of nucleation controlled formation and condensational growth of disperse particles. *Physical Review E* **63**, 061109 1–8. => AEL3843
3118. Lushnikov, A.A. and Kulmala, M. (2001) Nonsingular self-preserving regimes of coagulation-condensation process. *Physical Review E* **64**, 031605 1–8. => AEL3750
3119. Lushnikov, A.A. and Kulmala, M. (2001?) *Charging of aerosol particles in near free-molecule regime. Käsikiri.* => HT1432
3120. Lushnikov, A.A. and Kulmala, M. (2002) Singular self-preserving regimes of coagulation processes. *Physical Review E* **65**, 041604 1–12. => AEL3842
3121. Lushnikov, A.A. and Kulmala, M. (2004) Charging of aerosol particles in the near free-molecule regime. *The European Physical Journal D* **29**, 345–355, DOI: 10.1140/epjd/e2004-00047-9. => HT1472
3122. Lushnikov, A.A. and Kulmala, M. (2004) Flux-matching theory of particle charging. *Physical Review E* **70**, 1–9. => HT1474
3123. Lushnikov, A.A. and Lyubovtseva, Y.S. (1988) Atmospheric aerosols - the subject of physico-chemical study. *Lect. Notes Phys.* **309**, 138–157. => AEL0739
3124. Lushnikov, A.A., Ahonen, T., Vesala, T., Juurola, E., Nikinmaa, E. and Hari, P. (1997) Modelling of light-driven RuBP regeneration, carboxylation and CO<sub>2</sub> diffusion for leaf photosynthesis. *J. theor. Biol.* **188**, 143–151. => AEL2031
3125. Lushnikov, A.A., Bhatt, J.S. and Ford, I.J. (2003) Stochastic approach to chemical kinetics in ultrafine aerosols. *J. Aerosol Sci.* **34**, 1117–1133. => AEL3971
3126. Lushnikov, A.A., Kulmala, M. and Arstila, H. (1996) Nucleation controlled growth of aerosol particles. In *Nucleation and atmospheric aerosols*, edited by Kulmala, M. and Wagner, P.E., Pergamon, pp. 225–228. => HT1165

3127. Lushnikov, A.A., Kulmala, M., Arstila, H. and Zapadinsky, E.L. (1996) Source enhanced condensation of a single-component vapor in the transition regime. *J. Aerosol Sci.* **27**, 853–867. => AEL2045
3128. Lushnikov, A.A., Vesala, T., Kulmala, M. and Hari, P. (1994) A semiphenomenological model for stomatal gas transport. *J. theor. Biol.* **171**, 291–301. => AEL2066
3129. Lutrus, C.K., Hagen, D.E. and Suck Salk, S.-H. (1990) Calculation of properties of ionic water clusters by the MNDO method. *Atmos. Environ.* **24A**, 1397–1399. => AEL0768
3130. Luts, A. (1998) Temperature variation of the evolution of positive small air ions at constant relative humidity. *J. Atmos. Solar-Terr. Phys.* **60**, 1739–1750. => HT1467
3131. Luts, A. (1998) Temperature variation of the evolution of positive small air ions at constant relative humidity. *J. Atmos. Solar-Terr Phys.* **60**, 1739–1750. => HT1547
3132. Luts, A. and Parts, T. *Evolution of negative small air ions at two different temperatures. Käsikiri.* => HT1391
3133. Luts, A. and Salm, J. (1994) Chemical composition of small atmospheric ions near the ground. *J. Geophys. Res.* **99**, 10781–10785. => HT0827
3134. Luts, A. *Temperature dependence of the composition of air ions. Käsikiri.* => HT1127
3135. Lyall, R.J., Hooper, M.A. and Mainwaring, S.J. (1988) Polycyclic aromatic hydrocarbons in the Latrobe Valley. *Atmos. Environ.* **22**, 2549–2555. => AEL0541
3136. Lyons, W.A., Nelson, T.E., Williams, E.R., Cramer, J.A. and Turner, T.R. (1998) Enhanced positive cloud-to-ground lightning in thunderstorms ingesting smoke from fires. *Science* **282**, 42. Oct., => HT1257
3137. Mølhave, L. (1982) Indoor air pollution due to organic gases and vapours of solvents in building materials. *Environment International* **8**, 117–127. => AEL1901
3138. MacAdam, D.P. (1970) Digital image restoration by constrained deconvolution. *J. Opt. Soc. Am.* **60**, 1617–1627. => HT0259
3139. MacDonald, A.M., Makar, P.A., Anlauf, K.G., Hayden, K.L., Bottenheim, J.W., Wang, D. and Dann, T. (2001) Summertime formaldehyde at a high-elevation site in Quebec. *J. Geophys. Res. Atmospheres* **106**, 32361–32374. => AEL3618
3140. Macias, A. and Riera, A. (1982) Ab initio quantum chemistry in the molecular model of atomic collisions. *Physics Reports* **90**, 299–376. => AEL0200
3141. MacKenzie, A.R. (1997) Correction to “On the theories of type 1 polar stratospheric cloud formation” by A.R. MacKenzie, et al. *J. Geophys. Res. Atmospheres* **102**, 19729–19730. => AEL2195
3142. MacKenzie, A.R., Kulmala, M., Laaksonen, A. and Vesala, T. (1995) On the theories of type 1 polar stratospheric cloud formation. *J. Geophys. Res.* **100**, 11275–11288. => AEL1609
3143. MacKenzie, A.R., Laaksonen, A., Batris, E. and Kulmala, M. (1998) The Turnbull correlation and the freezing of stratospheric aerosol droplets. *J. Geophys. Res. Atmospheres* **103**, 10875–10884. => AEL2261
3144. Mackerras, D., Darveniza, M., Orville, R.E., Williams, E.R. and Goodman, S.J. (1998) Global lightning: Total, cloud and ground flash estimates. *J. Geophys. Res. Atmospheres* **103**, 19791–19809. => HT1248
3145. Mackowski, D.W. (1990) Phoretic behavior of asymmetric particles in thermal nonequilibrium with the gas: Two-sphere aggregates. *J. Coll. Interface Sci.* **140**, 138–157. => AEL0457
3146. Madueme, T.C. and Israelsson, S. (1988) Spatial distribution of lightning parameters in Sweden. *Institute of High Voltage Research. Uppsala University. UURIE* 1–42. => HT0721

3147. Maenhaut, W. and Cafmeyer, J. (1987) Particle induced X-ray emission analysis and multivariate techniques: An application to the study of the sources of respirable atmospheric particles in Gent, Belgium. *J. Trace and Microprobe Techniques* **5**, 135–158. => AEL2722
3148. Maenhaut, W., Ducastel, G., Beyaert, K. and Hanssen, J.E. (1994) Chemical composition of the summer aerosol at Ny Ålesund, Spitzbergen, and relative contribution of natural and anthropogenic sources to the non-sea-salt sulfate. A contribution to subproject ASE. *The Proceedings of EUROTRAC Symposium '94*, SPB Academic Publishing, Hague, pp. 467–471. => AEL3445
3149. Maenhaut, W., Hillamo, R., Mäkelä, T., Jaffrezo, J.-L., Bergin, M.H. and Davidson, C.I. (1996) A new cascade impactor for aerosol sampling with subsequent PIXE analysis. *Nuclear Instruments and Methods in Physics Research B* **109/110**, 482–487. => AEL2720
3150. Maerk, T.D. (1987) Cluster ions: production, detection and stability. *Int. J. Mass Spectrom. Ion Proc.* **79**, 1–59. => AEL1354
3151. Maeso, M.J. and Solana, J.R. (1994) An accurate equation of state for fluids of linear homonuclear fused hard spheres. *J. Chem. Phys.* **101**, 9864–9868. => AEL1311
3152. Mage, D., Ozolins, G., Peterson, P., Webster A. Orthofer, R., Vandeweerd, V. and Gwynne, M. (1996) Urban air pollution in megacities of the world. *Atmos. Environ.* **30**, 681–686. => AEL1938
3153. Mage, D.T. (1984) Pseudo-lognormal distributions. *Journal of the Air Pollution Control Association* **34**, 374–376. => AEL2422
3154. Magliano, K.L., Hughes, V.M., Chinkin, L.R., Coe, D.L., Haste, T.L., Kumar, N. and Lurmann, F.W. (1999) Spatial and temporal variations in PM<sub>10</sub> and PM<sub>2.5</sub> source contributions and comparison to emissions during the 1995 integrated monitoring study. *Atmos. Environ.* **33**, 4757–4773. => AEL2923
3155. Magono, C. (1974) Precipitation electricity of thunderclouds and showerclouds. *Fifth International Conference on Atmospheric Electricity Garmisch-Partenkirchen, September 2-7, 1974*, pp. 1–14+ill. => HT1176
3156. Mahadevan, T.N., Negi, B.S. and Meenakshy, V. (1989) Measurements of elemental composition of aerosol matter and precipitation from a remote background site in India. *Atmos. Environ.* **23**, 869–874. => AEL0214
3157. Mahotkin, L.G. and Solovev, V.A. (1960) Elektricheskie kharakteristiki atmosfery pri tumanakh (in Russian). *Trudy GGO* 63–86. => HT0168
3158. Mahowald, N.M., Rasch, P.J., Eaton, B.E., Whittlestone, S. and Prinn, R.G. (1997) Transport of <sup>222</sup>Rn to the remote troposphere using the Model of Atmospheric Transport and Chemistry and assimilated winds from ECMWF and the National Center for Environmental Prediction/NCAR. *J. Geophys. Res. Atmospheres* **102**, 28139–28151. => AEL2217
3159. Mahrt, L., Lenschow, D.H., Sun, J., Weil, J.C., MacPherson, J.I. and Desjardins, R.L. (1995) Ozone fluxes over a patchy cultivated surface. *J. Geophys. Res.* **100**, 23125–23131. => AEL1720
3160. Maigné, J.P., Turpin, P.-Y., Madelaine, G. and Bricard, J. (1974) Nouvelle methode de determination de la granulometrie d'un aerosol au moyen d'une batterie de diffusion. *J. Aerosol Sci.* **5**, 339–355. => AEL0199
3161. Makar, P.A., Fuentes, J.D., Wang, D., Staebler, R.M. and Wiebe, H.A. (1999) Chemical processing of biogenic hydrocarbons within and above a temperate deciduous forest. *J. Geophys. Res. Atmospheres* **104**, 3581–3603. => AEL2767

3162. Makar, P.A., Wiebe, H.A., Staebler, R.M., Li, S.M. and Anlauf, K. (1998) Measurement and modeling of particle nitrate formation. *J. Geophys. Res. Atmospheres* **103**, 13095–13110. => AEL2266
3163. Mäkelä, J., Kulmala, M., Jäppinen, A. and Raunemaa, T. Radiation induced aerosol formation in gas mixtures containing SO<sub>2</sub> and NO<sub>x</sub>. pp. -. => AEL1122
3164. Mäkelä, J., Riihelä, M., Ukkonen, A., Jokinen, V. and Keskinen, J. (1996) Cluster ion mobility spectra of alcohols. In *Nucleation and atmospheric aerosols*, edited by Kulmala, M. and Wagner, P.E., Pergamon, pp. 54–57. => HT1168
3165. Mäkelä, J.M., Aalto, P., Jokinen, V., Pohja, T., Nissinen, A., Palmroth, S., Markkanen, T., Seitsonen, K., Lihavainen, H. and Kulmala, M. (1997) Observations of ultrafine aerosol particle formation and growth in boreal forest. *Geophys. Res. Lett.* **24**, 1219–1222. => AEL2735
3166. Mäkelä, J.M., Dal Maso, M., Pirjola, L., Keronen, P., Laakso, L., Kulmala, M. and Laaksonen, A. (2000) Characteristics of the atmospheric particle formation events observed at a boreal forest site in southern Finland. *Boreal Environment Research* **5**, 299–313. => AEL3737
3167. Mäkelä, J.M., Hoffmann, T., Holzke, C., Väkevä, M., Suni, T., Mattila, T., Aalto, P.P., Tapper, U., Kauppinen, E.I. and O'Dowd, C.D. (2002) Biogenic iodine emissions and identification of end-products in coastal ultrafine particles during nucleation bursts. *J. Geophys. Res. Atmospheres* **107**, 8110 doi:10.1029/2001JD000580–2002. => AEL3796
3168. Mäkelä, J.M., Jokinen, V., Mattila, T., Ukkonen, A. and Keskinen, J. (1995) Mobility distribution of acetone cluster ions. *Subm. to J. Aerosol Sci.* 1–19. => HT0929
3169. Mäkelä, J.M., Koponen, I.K., Aalto, P. and Kulmala, M. (2000) One-year data of submicron size modes of tropospheric background aerosol in Southern Finland. *J. Aerosol Sci.* **31**, 595–611. => AEL3748
3170. Mäkelä, J.M., Koponen, I.K., Aalto, P. and Kulmala, M. (2000) One-year data of submicron size modes of tropospheric background aerosol in Southern Finland. *J. Aerosol Sci.* **31**, 595–611. => HT1455
3171. Mäkelä, J.M., Riihelä, M., Ukkonen, A., Jokinen, V. and Keskinen, J. (1996) Comparison of mobility equivalent diameter with Kelvin-Thomson diameter using ion mobility data. *Subm. to J. Chem. Phys.* 1–22. => HT0951
3172. Mäkelä, J.M., Riihelä, M., Ukkonen, A., Jokinen, V. and Keskinen, J. (1996) Comparison of mobility equivalent diameter with Kelvin-Thomson diameter using ion mobility data. *J. Chem. Phys.* **105**, 1562–1571. => HT1011
3173. Mäkelä, J.M., Yli-Koivisto, S., Hiltunen, V., Seidl, W., Swietlicki, E., Teinilä, K., Sillanpää, M., Koponen, I.K., Paatero, J., Rosman, K. and Hämeri, K. (2001) Chemical composition of aerosol during particle formation events in boreal forest. *Tellus* **53B**, 380–393. => AEL3746
3174. Mäkelä, J., Hämeri, K. and Kulmala, M. *Sulphuric acid aerosol formation by irradiation: particle size distribution and model calculations*. Manuscript,. => HT0692
3175. Makhotkin, L.G. *O svyazi elektritseskoi provodimosti vozdukha s aerozolem* (in Russian). Manuscript,. => HT0625
3176. Makino, M. and Ogawa, T. (1984) An empirical model of atmospheric electrical conductivity. *Research Letters on Atmospheric Electricity* **4**, 1–4. => HT0157
3177. Makino, M. and Ogawa, T. (1984) Responses of atmospheric electric field and air-earth current to variations of conductivity profiles. *Journal of Atmospheric and Terrestrial Physics* **46**, 431–445. => HT0064

3178. Makino, M. and Ogawa, T. (1985) Quantitative estimation of global circuit. @*JGR* **90**, 5961–5966. => HT0389
3179. Mäkynen, J., Hakulinen, J., Kivistö, T. and Lehtimäki, M. (1982) Optical particle counters: Response, resolution and counting efficiency. @*JAS* **13**, 529–535. => HT0494
3180. Malecki, J. (1982) 4. Solvent effects on molecular complexes. *Molecular Interactions*. Ed. by H. Ratajczak and W.J. Orville-Thomas, John Wiley & Sons, Ltd., **3**, pp. 183–240. => AEL0989
3181. Malet, J., Michielsen, N., Boulaud, D. and Renoux, A. (2000) Mass transfer of diffusive species with nonconstant in-flight formation and removal in laminar tube flow. Application to unattached short-lived radon daughters. *Aerosol Sci. Technol.* **32**, 168–183. => AEL3330
3182. Malko, M.W. and Troe, J. (1982) Analysis of the unimolecular reaction  $\text{N}_2\text{O}_5 + \text{M} \rightleftharpoons \text{NO}_2 + \text{NO}_3 + \text{M}$ . *Int. J. Chem. Kinetics* **14**, 399–416. => AEL1453
3183. Mallet, M., Roger, J.C., Despiau, S., Putaud, J.P. and Dubovik, O. (2004) A study of the mixing state of black carbon in urban zone. *J. Geophys. Res. Atmospheres* **109**, D04202–doi:10.1029/2003JD003940, 2004. => AEL4128
3184. Malm, W.C., Day, D.E., Kreidenweis, S.M., Collett, J.L. and Lee, T. (2003) Humidity-dependent optical properties of fine particles during the Big Bend Regional Aerosol and Visibility Observational Study. *J. Geophys. Res. Atmospheres* **108**, 4279–doi:10.1029/2002JD002998, 2003. => AEL4006
3185. Malm, W.C., Schichtel, B.A., Pitchford, M.L., Ashbaugh, L.L. and Eldred, R.A. (2004) Spatial and monthly trends in speciated fine particle concentration in the United States. *J. Geophys. Res. Atmospheres* **109**, D03306–doi:10.1029/2003JD003739, 2004. => AEL4130
3186. Maltoni, G.G., Melandri, C., Prodi, V., Tarroni, G., De Zaiacomo, A., Bompane, G.F. and Formignani, M. (1973) An improved parallel plate mobility analyzer for aerosol particles. *J. Aerosol Sci.* **4**, 447–455. => AEL0198
3187. Mamane, Y., Willis, R. and Conner, T. (2001) Evaluation of computer-controlled scanning electron microscopy applied to an ambient urban aerosol sample. *Aerosol Sci. Technol.* **34**, 97–107. => AEL3367
3188. Mani, S.V., Kulmala, M. and Vesala, T. (1993) Evaporation of polydisperse ethanol aerosols in humid environment. *Int. J. Heat Mass Transfer* **36**, 705–711. => AEL2073
3189. Mann, N.R., Schafer, R.E. and Singpurwalla, N.D. *Methods for statistical analysis of reliability and life data*. John Wiley & Sons., => HT0384
3190. Manney, G.L., Michelsen, H.A., Irion, F.W., Toon, G.C., Gunson, M.R. and Roche, A.E. (2000) Lamination and polar vortex development in fall from ATMOS long-lived trace gases observed during November 1994. *J. Geophys. Res. Atmospheres* **105**, 29023–29038. => AEL3279
3191. Manohar, G.K., Kandalgaonkar, S.S. and Sholapurkar, S.M. (1989) Effects of thermal power plant emissions on atmospheric electrical parameters. *Atmos. Environ.* **23**, 843–850. => AEL0216
3192. Manohar, R. (1964) An exact analysis of laminar flow in the entrance region of an annular pipe. *MRC Technical Summary Report* 1–18. => AEL0215
3193. Mansell, E.R., MacGorman, D.R., Ziegler, C.L. and Straka, J.M. (2002) Simulated three-dimensional branched lightning in a numerical thunderstorm model. *J. Geophys. Res. Atmospheres* **107**, ACL2 1–14. => AEL3649
3194. März, F. and Bencze, P. (1998) Surplus of negative charge flow in point-discharge current as shown by variations on different time scales at Nagycenk station. *J. Atmos. Solar-Terr. Phys.* **60**, 1435–1443. => HT1290

3195. Märçz, F. and Harrison, R.G. (2003) Long-term changes in atmospheric electrical parameters observed at Nagycenk (Hungary) and the UK observatories at Eskdalemuir and Kew. *Annales Geophysicae* **21**, 2193–2200. => HT1500
3196. Mareev, E.A., Israelsson, S., Knudsen, E., Kalinin, A.V. and Novozhenov, M.M. (1996) Studies of an artificially generated electrode effect at ground level. *Ann. Geophysicae* **14**, 1095–1101. => HT1109
3197. Mareev, E.A., Tshugunov, Yu. and V. (1991) Oglavlennie (in Russian). *Antenny v Plazme*, Nizhnii Novgorod, pp. 223–227. => HT0662
3198. Marengo, A. (1986) Variations of CO and O<sub>3</sub> in the troposphere: evidence of O<sub>3</sub> photochemistry. *Atmos. Environ.* **20**, 911–918. => AEL0665
3199. Mari, C., Jacob, D.J. and Bechtold, P. (2000) Transport and scavenging of soluble gases in a deep convective cloud. *J. Geophys. Res. Atmospheres* **105**, 22255–22267. => AEL3243
3200. Mari, C., Suhre, K., Rosset, R., Bates, T.S., Huebert, B.J., Bandy, A.R., Thornton, D.C. and Businger, S. (1999) One-dimensional modeling of sulfur species during the First Aerosol Characterization Experiment (ACE 1) Lagrangian B. *J. Geophys. Res. Atmospheres* **104**, 21733–21749. => AEL3019
3201. Maria, S.F., Russell, L.M., Turpin, B.J., Porcja, R.J., Campos, T.L., Weber, R.J. and Huebert, B.J. (2003) Source signatures of carbon monoxide and organic functional groups in Asian Pacific Regional Aerosol Characterization Experiment (ACE-Asia) submicron aerosol types. *J. Geophys. Res. Atmospheres* **108**, 8637– doi:10.1029/2003JD003703. => AEL4075
3202. Maricq, M.M., Podsiadlik, D.H. and Chase, R.E. (2000) Size distributions of motor vehicle exhaust PM: A comparison between ELPI and SMPS measurements. *Aerosol Sci. Technol.* **33**, 239–260. => AEL3350
3203. Marinac, I. *The concentration of small air ions in ventilated indoor environments*. Manuscript., => HT0618
3204. Märk, T.D., Castleman, A.W. and Jr. (1985) Experimental studies on cluster ions. *Advances in Atomic and Molecular Physics* **20**, 65–. => AEL0558
3205. Markham, B.L., Schafer, J.S., Holben, B.N. and Halthore, R.N. (1997) Atmospheric aerosol and water vapor characteristics over north central Canada during BOREAS. *J. Geophys. Res. Atmospheres* **102**, 29737–29745. => AEL2159
3206. Markovic, N. and Pettersson, J.B.C. (1994) Evaporation model of cluster scattering from surfaces. *J. Chem. Phys.* **100**, 3911–3924. => HT0863
3207. Markovich, G., Pollack, S., Giniger, R. and Cheshnovsky, O. (1994) Photoelectron spectroscopy of Cl<sup>-</sup>, Br<sup>-</sup>, and I<sup>-</sup> solvated in water clusters. *J. Chem. Phys.* **101**, 9344–9353. => AEL1308
3208. Markovich, G., Pollack, S., Giniger, R. and Chesnovsky, O. (1994) Photoelectron spectroscopy of Cl<sup>-</sup>, Br<sup>-</sup>, and I<sup>-</sup> solvated in water clusters. *J. Chem. Phys.* **101**, 9345–9353. => AEL3721
3209. Markowski, G.R. (1990) Reply to S.O. Lekhtmakher. *Aerosol Sci. Technol.* **13**, 125. => HT1085
3210. Markson, R. (1978) Solar modulation of atmospheric electrification and possible implications for the Sun-weather relationship. *Nature* **273**, 103–109. => HT0519
3211. Markson, R. (1982) Atmosfernoe elektrichestvo i problema svyazi mezhdu solnechnoi aktivnostyu i pogodoi (in Russian). *Solnechno-Zemnye Svyazi, Pogoda i Klimat*, Mir, M., pp. 242–264. => HT0294

3212. Markson, R. (1983) Solar modulation of fair-weather and thunderstorm electrification and a proposed program to test an atmospheric electrical sun-weather mechanism. *Weather and Climate Responses to Solar Variations*. Ed. by McCormac, M., Colorado Associated University Press, pp. 323–343. => HT0516
3213. Markson, R. (1986) Tropical convection, ionospheric potentials and global circuit variation. *Nature* **320**, 588–594. => HT0518
3214. Markson, R. (2007) The global circuit intensity. Its measurement and variation over the last 50 years. *Bull. Amer. Meteorol. Soc.* 223–241. => HT1561
3215. Markson, R. and Muir, M. (1980) Solar wind control of the earth's electric field. *Science* **208**, 979–990. => HT0517
3216. Marley, N.A., Gaffney, J.S. and Cunningham, M.M. (1993) Aqueous greenhouse species in clouds, fogs, and aerosols. *Environ. Sci. Technol.* **27**, 2864–2869. => AEL0879
3217. Marley, N.A., Gaffney, J.S., Drayton, P.J., Cunningham, M.M., Orlandini, K.A. and Paode, R. (2000) Measurement of  $^{210}\text{Pb}$ ,  $^{210}\text{Po}$ , and  $^{210}\text{Bi}$  in size-fractionated atmospheric aerosols: An estimate of fine-aerosol residence times. *Aerosol Sci. Technol.* **32**, 569–583. => AEL3338
3218. Marlow, W.H. (1979) The diffusion charging mobility analysis hypothesis revisited. @AM, @UFB, Gainesville, pp. 433–437. => AEL0375
3219. Marlow, W.H. (1980) Derivation of aerosol collision rates for singular attractive contact potentials. *J. Chem. Phys.* **73**, 6284–6287. => AEL1259
3220. Marlow, W.H. (1980) Lifshitz-van der Waals forces in aerosol particle collisions. I. Introduction: Water droplets. *J. Chem. Phys.* **73**, 6288–6295. => AEL1687
3221. Marlow, W.H. (1980) Lifshitz-van der Waals forces in aerosol particle collisions. I. Introduction: Water droplets. *J. Chem. Phys.* **73**, 6288–6295. => AEL2423
3222. Marlow, W.H. (1986) Thermal collision rate densities of small clusters. *The Journal of Physical Chemistry* **90**, 2302–2305. => AEL2424
3223. Marlow, W.H. and Brock, J.R. (1975) Calculations of bipolar charging of aerosols. *J. Colloid Interface Sci.* **51**, 23–31. => AEL0218
3224. Marlow, W.H. and Brock, J.R. (1975) Unipolar charging of small aerosol particles. *J. Colloid Interface Sci.* **50**, 32–38. => AEL0217
3225. Marlow, W.H., Reist, P.C. and Dwiggins, G.A. (1976) Aspects of the performance of the electrical aerosol analyzer under nonideal conditions. *J. Aerosol Sci.* **7**, 457–462. => AEL0219
3226. Marple, V.A. and Liu, B.Y.H. (1974) Characteristics of laminar jet impactors. *Environmental Science and Technology* **8**, 648–654. => HT0124
3227. Marple, V.A. and Rubow, K.L. (1980) Aerosol generation concepts and parameters. @ GA, @ AA, pp. 3–29. => AEL0382
3228. Marr, L.C., Black, D.R. and Harley, R.A. (2002) Formation of photochemical air pollution in Central California 1. Development of a revised motor vehicle emission inventory. *J. Geophys. Res. Atmospheres* **107**, ACH5 1–9. => AEL3640
3229. Marr, L.C., Noblet, G.S. and Harley, R.A. (2002) Formation of photochemical air pollution in Central California. 2. Impact of revised emissions on Eulerian model predictions. *J. Geophys. Res. Atmospheres* **107**, ACH6 1–11. => AEL3641
3230. Marsh, N. and Svensmark, H. (2003) Galactic cosmic ray and El Niño-Southern Oscillation trends in International Satellite Cloud Climatology Project D2 low-cloud properties. *J. Geophys. Res. Atmospheres* **108**, 4195– doi:10.1029/2001JD001264, 2003. => AEL3970



3231. Marshall, T.C. and Stolzenburg, M. (1998) Estimates of cloud charge densities in thunderstorms. *J. Geophys. Res. Atmospheres* **103**, 19769–19775. => AEL2303
3232. Marshall, T.C. and Stolzenburg, M. (2001) Voltages inside and just above thunderstorms. *J. Geophys. Res. Atmospheres* **106**, 4757–4768. => AEL3415
3233. Marshall, T.C. and Stolzenburg, M. (2002) Electrical energy constraints on lightning. *J. Geophys. Res. Atmospheres* **107**, ACL1 1–13. => AEL3643
3234. Mårtensson, E.M., Nilsson, E.D., de Leeuw, G., Cohen, L.H. and Hansson, H.-C. (2003) Laboratory simulations and parameterization of the primary marine aerosol production. *J. Geophys. Res. Atmospheres* **108**, 4297– doi:10.1029/2002JD002263, 2003. => AEL4009
3235. Marti, J.J., Jefferson, A., Cai, X.P., Richert, C., McMurry, P.H. and Eisele, F. (1997) H<sub>2</sub>SO<sub>4</sub> vapor pressure of sulfuric acid and ammonium sulfate solutions. *J. Geophys. Res. Atmospheres* **102**, 3725–3735. => AEL3140
3236. Marti, J.J., Weber, R.J., McMurry, P.H., Eisele, F., Tanner, D. and Jefferson, A. (1997) New particle formation at a remote continental site: Assessing the contributions of SO<sub>2</sub> and organic precursors. *J. Geophys. Res. Atmospheres* **102**, 6331–6339. => AEL2324
3237. Marti, J.J., Weber, R.J., McMurry, P.H., Eisele, F., Tanner, D. and Jefferson, A. (1997) New particle formation at a remote continental site: Assessing the contributions of SO<sub>2</sub> and organic precursors. *J. Geophys. Res. Atmospheres* **102**, 6331–6339. => AEL3176
3238. Marti, J.J., Weber, R.J., Saros, M.T., Vasiliou, J.G. and McMurry, P.H. (1996) Technical note. Modification of the TSI 3025 condensation particle counter for pulse height analysis. *Aerosol Sci. Technol.* **25**, 214–218. => AEL1821
3239. Martin, D., Tsivou, M., Bonsang, B., Abonnel, C., Carsey, T., Springer-Young, M., Pszenny, A. and Suhre, K. (1997) Hydrogen peroxide in the marine atmospheric boundary layer during the Atlantic Stratocumulus Transition Experiment / Marine Aerosol and Gas Exchange experiment in the eastern subtropical North Atlantic. *J. Geophys. Res. Atmospheres* **102**, 6003–6015. => AEL2315
3240. Martin, R.V., Jacob, D.J., Yantosca, R.M., Chin, M. and Ginoux, P. (2003) Global and regional decreases in tropospheric oxidants from photochemical effects of aerosols. *J. Geophys. Res. Atmospheres* **108**, 4097– doi:10.1029/2002JD002622, 2003. => AEL3942
3241. Martin, T.J., Gardiner, B.G. and Seckmeyer, G. (2000) Uncertainties in satellite-derived estimates of surface UV doses. *J. Geophys. Res. Atmospheres* **105**, 27005–27011. => AEL3271
3242. Martin, T.L. (1952) Climate control through ionization. *J. Franklin Institute* **254**, 267–280. => HT-F004
3243. Martin, T.L. (1954) Production of unipolar air with radium isotopes. *Trans. AIEE* **72**, 771–776. => HT-F001
3244. Martin, T.P. (1980) The structure of ionic clusters: Thermodynamic functions, energy surfaces, and SIMS. *J. Chem. Phys.* **72**, 3506–3510. => AEL0575
3245. Martinac, I., Crona, S., Olander, L. and Johansson, J. (Comp.) (1994) *Discussion about air ionizers in Swedish newspapers. Arbetsmiljöteknik. Ventilation.* Transjonic AB,. => HT1031
3246. Martinsson, B.G. (1991) The concept of a droplet aerosol analysing method. Manuscript. *Submitted to J. Aerosol Sci.* 1–16. => HT0658
3247. Martinsson, B.G., Cederfelt, S.-I., Hansson, H.-C. and Wiedensohler, A. (1990) A droplet aerosol analysing system for cloud studies. *The EUROTRAC Annual Report*, pp. 32–33. => HT0698

3248. Martinsson, B.G., Swietlicki, E., Hansson, H.-C., Wiedensohler, A., Noone, K.J., Ogren, J.A. and Hallberg, A. (1992) Elemental composition of fog interstitial particle size fractions and hydrophobic fractions related to fog droplet nucleation scavenging. *Tellus* **44B**, 593–603. => AEL1641
3249. Martius, C.H. (1960) Zur Messung der Teichengrößen-Verteilung von Aerosolen. *Z. Naturforschung* **15**, 642–646. => AEL0950
3250. Martner, J.G. (1967) Aerosol generator. USA Patent No. 3357641, Class 239-102, Prior. 05.08.1965. => AEL0220
3251. Martz, D.E., Holleman, D.F., McCurdy, D.E. and Schiager, K.J. (1969) Analysis of atmospheric concentrations of RaA, RaB and RaC by alpha spectroscopy. *Health Physics* **17**, 131–138. => AEL2425
3252. Mason Ch. 1. *The condensation of water vapour in clean ion-free air.* => HT1583
3253. Mason, B.J. (1960) Nucleation of water aerosols. *Discuss. Faraday Soc.* 20–38. => AEL0762
3254. Mason, B.J. (1976) In reply to a critique of precipitation theories of thunderstorm electrification by C.B. Moore. *Quart. J. R. Met. Soc.* **102**, 219–225. => HT0059
3255. Mason, B.J. (1976) Theories of thunderstorm electrification. *Quart. J. Roy. Meteorol. Soc.* **102**, 219–240. => AEL0221
3256. Mason, E.A. and Chapman, S. (1962) Motion of small suspended particles in nonuniform gases. *J. Chem. Phys.* **36**, 627–632. => AEL3398
3257. Mason, E.A. and Chapman, S. (1962) Motion of small suspended particles in nonuniform gases. *The Journal of Chemical Physics* **36**, 627–632. => HT0836
3258. Mason, E.A., Malinauskas, A.P. and Evans, R.B.III (1967) Flow and diffusion of gases in porous media. *The J. Chem. Phys.* **46**, 3199–3216. => AEL1019
3259. Massucci, M., Clegg, S.L. and Brimblecombe, P. (1996) Equilibrium vapor pressure of H<sub>2</sub>O above aqueous H<sub>2</sub>SO<sub>4</sub> at low temperature. *J. Chem. Eng. Data* **41**, 765–778. => AEL2376
3260. Masuda, S. and Itagaki, T. (1986) High sensitivity counting of nanometer particles and its application in particle measurement. *Aerosols: formation and reactivity. 2nd Int. Aerosol Conf. Berlin*, Pergamon Journals Ltd., pp. 821–825. => AEL0222
3261. Masuelli, S., Scavuzzo, C.M. and Caranti, G.M. (1997) Convective electrification of clouds: A numerical study. *J. Geophys. Res. Atmospheres* **102**, 11049–11059. => AEL1982
3262. Materna, J. (1989) Air pollution and forestry in Czechoslovakia. *Environ. Monit. and Assess.* **12**, 227–235. => AEL0643
3263. Mateu, J., Montes, F. and Fuentes, M. (2003) Recent advances in space-time statistics with applications to environmental data: An overview. *J. Geophys. Res. Atmospheres* **108**, 8774–doi:10.1029/2003JD003819. => AEL4093
3264. Matijevic', E. (1988) Colloid science of ceramic powders. *Pure & Applied Chemistry* **60**, 1479–1491. => AEL1780
3265. Matsumi, Y. and Kawasaki, M. (2003) Photolysis of atmospheric ozone in the ultraviolet region. *Chemical Reviews* **103**, 4767–4781. => AEL4056
3266. Matsumi, Y., Comes, F.J., Hancock, G., Hofzumahaus, A., Hynes, A.J., Kawasaki, M. and Ravishankara, A.R. (2002) Quantum yields for production of O(<sup>1</sup>D) in the ultraviolet photolysis of ozone: Recommendation based on evaluation of laboratory data. *J. Geophys. Res. Atmospheres* **107**, ACH1 1–12. => AEL3637

3267. Matsumoto, Y., Tokumori, K., Iwata, T., Sakae, T., Ishibashi, K. and Katase, A. (1989) Method to calibrate an ionization chamber for measuring indoor radon concentrations with standard gamma-ray sources. *Rev. Sci. Instrum.* **60**, 1189–1193. => AEL2420
3268. Matsuoka, S. and Nakamura, H. (1988) Pressure and temperature dependences of the "binary" ion-molecule reaction  $N_3^+ + H_2O \rightarrow H_2NO^+ + N_2$ . *J. Chem. Phys.* **89**, 5663–5669. => AEL0601
3269. Matsuoka, S., Nakamura, H. and Tamura, T. (1981) Ion-molecule reactions of  $N_3^+$ ,  $N_4^+$ ,  $O_2^+$ , and  $NO_2^+$  in nitrogen containing traces of oxygen. *J. Chem. Phys.* **75**, 681–689. => AEL1376
3270. Matsuoka, S., Nakamura, H. and Tamura, T. (1983) Reactivity and structure of  $NO_2^+$  produced by the  $N_3^+ + H_2O$  reaction. *J. Chem. Phys.* **79**, 825–830. => AEL1377
3271. Matsuoka, T. (1995) Comment on the electrostatic energy of charged aerosols. *J. Aerosol Sci.* **26**, 147–150. => HT0829
3272. Mattenklott, M. (1998) Identifizierung von Asbestfasern in Stäuben, Pulvern und Pudern mineralischen Rohstoffe. *Gefahrstoffe – Reinhaltung der Luft* **58**, 15–22. => AEL2120
3273. Matthias, A. (1926) Fortschritte in der Auflärung der Gewittereinflüsse auf Leitungsanlagen. *Elektrizitätswirtschaft* **25**, 297–308. => HT-F079
3274. Matthias, A. (1927) Das elektrische Feld der Umgebung von Isolatoren und seine Untersuchung in der Praxis. *Elektrizitätswirtschaft* **26**, 531–536. => HT-F080
3275. Mattila, T., Kulmala, M. and Vesala, T. (1996) Simultaneous condensation of five gaseous substances. *J. Aerosol Sci.* **27**, S273–S274. => AEL2060
3276. Mattila, T., Kulmala, M. and Vesala, T. (1997) On the condensation growth of a multicomponent droplet. *J. Aerosol Sci.* **28**, 553–564. => AEL2033
3277. Mattsson, R. (1970) Seasonal variation of short-lived radon progeny,  $Pb^{210}$  and  $Po^{210}$ , in ground level air in Finland. *J. Geophys. Res.* **75**, 1741–1744. => AEL1582
3278. Matulyavichene, V. (1962) K voprosu opredeleniya tspektra mass radioaktivnogo aerosolya v atmosfere (in Russian). *Lietovos TSR Aukstuju Mokyklu Mokslo Darbai Geografija ir Geologija*, **1**, pp. 145–153. => HT-F057
3279. Maugeri, M., Valentini, M. and Novo, A. (1992) Identification and estimation of the relative importance of sources in the Milan aerosol. *J. Aerosol Sci.* **23**, S987–S990. => AEL0924
3280. Mauldin III, R.L., Cantrell, C.A., Zondlo, M.A., Kosiuch, E., Ridley, B.A., Weber, R. and Eisele, F.E. (2003) Measurements of OH,  $H_2SO_4$ , and MSA during Tropospheric Ozone Production about the Spring Equinox (TOPSE). *J. Geophys. Res. Atmospheres* **108**, 8366–doi:10.1029/2002JD002295, 2003. => AEL3957
3281. Mauldin, R.L.III, Cantrell, C.A., Zondlo, M., Kosciuch, E., Eisele, F.L., Chen, G., Davis, D., Weber, R., Crawford, J., Blake, D., Bandy, A. and Thornton, D. (2003) Highlights of OH,  $H_2SO_4$ , and methane sulfonic acid measurements made aboard the NASA P-3B during Transport and Chemical Evolution over the Pacific. *J. Geophys. Res. Atmospheres* **108**, 8796–doi:10.1029/2003JD003410. => AEL4070
3282. Mauldin, R.L.III, Tanner, D.J. and Eisele, F.L. (1998) A new chemical ionization mass spectrometer technique for the fast measurement of gas phase nitric acid in the atmosphere. *J. Geophys. Res. Atmospheres* **103**, 3361–3367. => AEL2219
3283. Mauri, R., Shinnar, R. and Triantafyllou, G. (1996) Spinodal decomposition in binary mixtures. *Phys. Rev. E* **53**, 2613–2623. => AEL2374
3284. Maushart, R. (1958) Über die Beweglichkeit positiver Ionen in extrem reinen Gasen und Gasmischen. *Ann. Phys.* **1**, 264–280. => HT-F037

3285. Mauzerall, D.L., Jacob, D.J., Fan, S.-M., Bradshaw, J.D., Gregory, G.L., Sachse, G.W. and Blake, D.R. (1996) Origin of tropospheric ozone at remote high northern latitudes in summer. *J. Geophys. Res.* **101**, 4175–4188. => AEL1802
3286. Mauzerall, D.L., Logan, J.A., Jacob, D.J., Anderson, B.E., Blake, D.R., Bradshaw, J.D., Heikes, B., Sachse, G.W., Singh, H. and Talbot, B. (1998) Photochemistry in biomass burning plumes and implications for tropospheric ozone over the tropical South Atlantic. *J. Geophys. Res. Atmospheres* **103**, 8401–8423. => AEL2245
3287. Mavliev, R., Hopke, P.K., Wang, H.-C. and Lee, D.-W. (2001) A transition from heterogeneous to homogeneous nucleation in the turbulent mixing CNC. *Aerosol Sci. Technol.* **35**, 586–595. => AEL3499
3288. Mayer, B., Kylling, A., Madronich, S. and Seckmeyer, G. (1998) Enhanced absorption of UV radiation due to multiple scattering in clouds: Experimental evidence and theoretical explanation. *J. Geophys. Res. Atmospheres* **103**, 31241–31254. => AEL2834
3289. Mayer, D. and Dauer, L. (1993) Application of systematic error bounds to detection limits for practical counting. *Health Phys.* **65**, 89–91. => AEL1222
3290. Maynard, A.D. (1995) The development of a new thermophoretic precipitator for scanning transmission electron microscope analysis of ultrafine aerosol particles. *Aerosol Sci. Technol.* **23**, 521–533. => AEL1524
3291. Mayol-Bracero, O.L., Gabriel, R., Andreae, M.O., Kirchstetter, T.W., Novakov, T., Ogren, J., Sheridan, P. and Streets, D.G. (2002) Carbonaceous aerosols over the Indian Ocean during the Indian Ocean Experiment (INDOEX): Chemical characterization, optical properties, and probable sources. *J. Geophys. Res. Atmospheres* **107**, 8030 doi:10.1029/2000JD000039–2002. => AEL3782
3292. Mayya, Y.S. (1990) Theory of diffusion charging of fractal aerosol aggregates. *J. Colloid Interface Sci.* **140**, 185–191. => AEL1134
3293. Mayya, Y.S. and Holländer, W. (1995) Ion densities and particle charges for alpha ionization in an aerosol atmosphere: Columnar recombination corrections. *Aerosol Sci. Technol.* **23**, 628–640. => AEL1506
3294. Mayya, Y.S. and Sahni, D.C. (1983) One-dimensional Brownian motion near an absorbing boundary: Solution to the steady-state Fokker-Planck equation. *J. Chem. Phys.* **79**, 2302–2307. => AEL1723
3295. Mayya, Y.S. and Sapra, B.K. Variation of the aerosol charge neutralization coefficient in the entire particle size range. *Käsikiri* 1–16. => HT0958
3296. Mazumder, M.K., Ware, R.E. and Hood, W.G. (1983) Simultaneous measurements of aerodynamic diameter and electrostatic charge on a single-particle basis. *Dahneke, B. Measurement of Suspended Particles by Quasi-Elastic Light Scattering*, Wiley Interscience, New York, pp. 327–341. => AEL1006
3297. Mazur, V. (1989) A physical model of lightning initiation on aircraft in thunderstorms. *@JGR* **94**, 3326–3340. => HT0374
3298. Mazur, V. (1989) Triggered lightning strikes to aircraft and natural intracloud discharges. *@JGR* **94**, 3311–3325. => HT0375
3299. Mazur, V. and Ruhnke, L. (1998) Model of electric charges in thunderstorms and associated lightning. *J. Geophys. Res. Atmospheres* **103**, 23299–23308. => AEL2797
3300. Mazur, V., Ruhnke, L.H., Bondiou-Clergerie, A. and Lalande, P. (2000) Computer simulation of a downward negative stepped leader and its interaction with a ground structure. *J. Geophys. Res. Atmospheres* **105**, 22361–22369. => AEL3246

3301. Mazzeo, N.A. and Venegas, L.E. (1997) An application of generalized similarity analysis to atmospheric diffusion. *Atmospheric Research* **43**, 157–166. => AEL1865
3302. McArthur, L.J.B., Fioletov, V.E., Kerr, J.B., McElroy, C.T. and Wardle, D.I. (1999) Derivation of UV-A irradiance from pyranometer measurements. *J. Geophys. Res. Atmospheres* **104**, 30139–30151. => AEL3043
3303. McClellan, R.O. and Miller, F.J. (1997) An overview of EPA's proposed revision of the particulate matter standard. *CIIT Activities (Chemical Industry Institute of Toxicology)* **17**, 1–23. => AEL2008
3304. McClurg, R.B., Flagan, R.C. and Goddard, W.A.III (1996) Thermodynamic properties and homogeneous nucleation rates for surface-melted physical clusters. *J. Chem. Phys.* **105**, 7648–7663. => AEL2382
3305. McCrumb, J.L. and Arnold, F. (1981) High-sensitivity detection of negative ions in the stratosphere. *Nature* **294**, 136–139. => AEL1407
3306. McDermott, W.T. (1997) A reactive gas diluter for measuring nanometer-size particles. *Aerosol Sci. Technol.* **26**, 285–288. => AEL1788
3307. McDonald, J.E. (??) Homogeneous nucleation of vapor condensation. II. Kinetic aspects. ?? ??, 31–41. => AEL0837
3308. McDonald, J.E. (1962) Homogeneous nucleation of vapor condensation. I. Thermodynamic aspects. *American Journal of Physics* **30**, 870–877. => AEL1281
3309. McDonald, J.E. (1979) Homogeneous nucleation of vapor condensation. I. Thermodynamic aspects. *Advances in Chemical Physics* **40**, 225–237. => AEL1279
3310. McDonald, J.E. (1979) Homogeneous nucleation of vapor condensation. II. Kinetic aspects. *Advances of Chemical Physics* **40**, 225–256. => AEL1280
3311. McElroy, P.J. (1979) Surface tension and its effect on vapor pressure. *J. Colloid Interface Sci.* **72**, 147–149. => AEL1928
3312. McElvany, S.W. (1988) Reactions of carbon cluster ions with small hydrocarbons. *J. Chem. Phys.* **89**, 2063–2075. => AEL0491
3313. McFarland, M., Albritton, D.L., Fehsenfeld, F.C., Ferguson, E.E. and Schmeltekopf, A.L. (1973) Flow-drift technique for ion mobility and ion-molecule reaction rate constant measurements. III. Negative ion reactions of O<sup>-</sup> with CO, NO, H<sub>2</sub>, and D<sub>2</sub>. *J. Chem. Phys.* **59**, 6629–6635. => AEL0614
3314. McFarland, M., Albritton, D.L., Fehsenfeld, F.C., Ferguson, E.E. and Schmeltekopf, A.L. (1973) Flow-drift technique for ion mobility and ion-molecule reaction rate constant measurements. II. Positive ion reactions of N<sup>+</sup>, O<sup>+</sup>, and N<sub>2</sub><sup>+</sup> with O<sub>2</sub> and O<sup>+</sup> with N<sub>2</sub> from thermal to ~ 2 eV. *J. Chem. Phys.* **59**, 6620–6628. => AEL0615
3315. McFarland, M., Albritton, D.L., Fehsenfeld, F.C., Ferguson, E.E. and Schmeltekopf, A.L. (1973) Flow-drift technique for ion mobility and ion-molecule reaction rate constant measurements. I. Apparatus and mobility measurements. *J. Chem. Phys.* **59**, 6610–6619. => AEL0618
3316. McFiggans, G., Cox, R.A., Mössinger, J.C., Allan, B.J. and Plane, J.M.C. (2002) Active chlorine release from marine aerosols: Roles for reactive iodine and nitrogen species. *J. Geophys. Res. Atmospheres* **107**, ACH10 1–13. => AEL3723
3317. McFiggans, G., Plane, J.M.C., Allan, B.J., Carpenter, L.J., Coe, H. and O'Dowd, C. (2000) A modeling study of iodine chemistry in the marine boundary layer. *J. Geophys. Res. Atmospheres* **105**, 14371–14385. => AEL3219

3318. McGinty, D.J. (1973) Molecular dynamics studies of the properties of small clusters of argon atoms. *The J. Chem. Phys.* **58**, 4733–4742. => AEL0753
3319. McGlamery, B.L. (1967) Restoration of turbulence-degraded images. *J. Opt. Soc. Am.* **57**, 293–303. => HT0256
3320. McGovern, F.M., Jennings, S.G., O'Connor, T.C. and Simmonds, P.G. (1996) Aerosol and trace gas measurements during the Mace Head experiment. *Atmos. Environ.* **30**, 3891–3902. => AEL1564
3321. McGovern, F.M., Nunes, M.J., Raes, F. and Gonzales-Jorge, H. (2002) Marine and anthropogenic aerosols at Punta Del Hidalgo, Tenerife, and the aerosol nitrate number paradox. *J. Geophys. Res. Atmospheres* **107**, 4766– doi:10.1029/2001JD000827, 2002. => AEL3917
3322. McGovern, F.M., Raes, F., Van Dingenen, R. and Maring, H. (1999) Anthropogenic influences on the chemical and physical properties of aerosols in the Atlantic subtropical region during July 1994 and July 1995. *J. Geophys. Res. Atmospheres* **104**, 14309–14319. => AEL2987
3323. McGraw, R. (1989) The thermodynamic barrier to nucleation near a critical point. *J. Chem. Phys.* **91**, 5655–5664. => AEL0806
3324. McGraw, R. (1995) Two-dimensional kinetics of binary nucleation in sulfuric acid-water mixtures. *J. Chem. Phys.* **102**, 2098–2108. => AEL1304
3325. McGraw, R. (1997) Description of aerosol dynamics by the quadrature method of moments. *Aerosol Sci. Technol.* **27**, 255–265. => AEL1963
3326. McGraw, R. and Laaksonen, A. (1997) Interfacial curvature free energy, the Kelvin relation, and vapor-liquid nucleation rate. *J. Chem. Phys.* **106**, 5284–5287. => AEL2034
3327. McGraw, R. and LaViolette, R.A. (1995) Fluctuations, temperature, and detailed balance in classical nucleation theory. *J. Chem. Phys.* **102**, 8983–8994. => AEL1484
3328. McGraw, R. and Marlow, W.H. (1983) The multistate kinetics of nucleation in the presence of an aerosol. *J. Chem. Phys.* **78**, 2542–2548. => AEL1677
3329. McGraw, R. and McMurry, P.H. (1983) The coupling of nucleation and diffusion near an aerosol particle. *J. Colloid Interface Sci.* **92**, 584–587. => AEL1560
3330. McGraw, R. and Weber, R.J. (1998) Hydrates in binary sulfuric acid-water vapor: Comparison of CIMS measurements with the liquid-drop model. *Geophys. Res. Lett.* **25**, 3143–3146. => AEL2878
3331. McGraw, R., Huang, P.I. and Schwartz, S.E. (1995) Optical properties of atmospheric aerosols from moments of the particle size distribution. *Geophys. Res. Lett.* **22**, 2929–2932. => AEL1672
3332. McGreevy, G. (1966) An investigation of the size frequency resolution of an aerosol by the static method of diffusion. *Pure and appl. geophys.* **63**, 220–230. => AEL0223
3333. McHenry, J.N. and Dennis, R.L. (1994) The relative importance of oxidation pathways and clouds to atmospheric ambient sulfate production as predicted by the regional acid deposition model. *J. Appl. Meteorol.* **33**, 890–905. => AEL2741
3334. McKeen, S.A., Liu, S.C., Hsie, E.-Y., Lin, X., Bradshaw, J.D., Smyth, S., Gregory, G.L. and Blake, D.R. (1996) Hydrocarbon ratios during PEM-West A: A model perspective. *J. Geophys. Res.* **101**, 2087–2109. => AEL1629
3335. McKendry, I.G., Hacker, J.P., Stull, R., Sakiyama, S., Mignacca, D. and Reid, K. (2001) Long-range transport of Asian dust to the Lower Fraser Valley, British Columbia, Canada. *J. Geophys. Res. Atmospheres* **106**, 18361–18370. => AEL3494

3336. McKenna, D.S. (1997) Analytic solutions of reaction diffusion equations and implications for the concept of an air parcel. *J. Geophys. Res. Atmospheres* **102**, 13719–13725. => AEL2335
3337. McKenzie, R., Smale, D., Bodeker, G. and Claude, H. (2003) Ozone profile differences between Europe and New Zealand: Effects on surface UV irradiance and its estimation from satellite sensors. *J. Geophys. Res. Atmospheres* **108**, 4179– doi:10.1029/2002JD002770, 2003. => AEL3969
3338. McKenzie, R.L., Seckmeyer, G., Bais, A.F., Kerr, J.B. and Madronich, S. (2001) Satellite retrievals of erythemal UV dose compared with ground-based measurements at northern and southern midlatitudes. *J. Geophys. Res. Atmospheres* **106**, 24051–24062. => AEL3560
3339. McKoy, V. and Sinanoglu, O. (1963) Theory of dissociation pressures of some gas hydrates. *The Journal of Chemical Physics* **38**, 2946–2956. => AEL1063
3340. McLean, A.D., Gropen, O. and Huzinaga, S. (1980) Near Hartree-Fock calculations on I<sub>2</sub> and its positive and negative ions. *J. Chem. Phys.* **73**, 396–401. => AEL0225
3341. McMahon, T.A. and Denison, P.J. (1979) Empirical atmospheric deposition parameters - A survey. *Atmos. Environ.* **13**, 571–585. => AEL0854
3342. McMillen, R.T. (1988) An eddy correlation technique with extended applicability to non-simple terrain. *Boundary-Layer Meteorology* **43**, 231–245. => AEL2726
3343. McMurry, P.H. (1980) Photochemical aerosol formation from SO<sub>2</sub>: a theoretical analysis of smog chamber data. *J. Colloid and Interface Sci.* **78**, 513–527. => AEL1648
3344. McMurry, P.H. (1983) New particle formation in the presence of an aerosol: rates, time scales, and sub-0.01 μm size distributions. *J. Colloid Interface Sci.* **95**, 72–80. => AEL1076
3345. McMurry, P.H. (1996) *Ultrafine aerosol size distributions: a study of new particle formation in the atmosphere. A progress report for DOE grant No. DE-FG02-91ER61205.* => HT1029
3346. McMurry, P.H. (2000) A review of atmospheric aerosol measurements. *Atmos. Environ.* **34**, 1959–1999. => AEL2993
3347. McMurry, P.H. (2000) The history of condensation nucleus counters. *Aerosol Sci. Technol.* **33**, 297–322. => AEL3352
3348. McMurry, P.H. and Friedlander, S.K. (1978) Aerosol formation in reacting gases: Relation of surface area to rate of gas-to-particle conversion. *J. Colloid Interface Sci.* **64**, 248–257. => AEL1989
3349. McMurry, P.H. and Friedlander, S.K. (1979) New particle formation in the presence of an aerosol. *Atmos. Environ.* **13**, 1635–1651. => AEL1479
3350. McMurry, P.H. and Grosjean, D. (1985) Photochemical formation of organic aerosols: Growth laws and mechanisms. *Atmos. Environ.* **19**, 1445–1451. => AEL1069
3351. McMurry, P.H. and Wilson, J.C. (1982) Growth laws for the formation of secondary ambient aerosols: implications for chemical conversion mechanisms. *Atmos. Environ.* **16**, 121–134. => AEL0985
3352. McMurry, P.H. and Wilson, J.C. (1982) Growth laws for the formation of secondary ambient aerosols: Implications for chemical conversion mechanisms. *Atmos. Environ.* **16**, 121–134. => HT1281
3353. McMurry, P.H., Wang, X., Park, K. and Ehara, K. (2002) The relationship between mass and mobility for atmospheric particles: A new technique for measuring particle density. *Aerosol Sci. Technol.* **36**, 227–238. => AEL3595
3354. McMurry, P.H., Woo, K.S., Weber, R., Chen, D.-R. and Pui, D.Y.H. (2000) Size distributions of 3 to 10 nm atmospheric particles: Implications for nucleation mechanisms. *Phil. Trans. Roy. Soc.* **A358**, 2625–2642. => AEL3448

3355. McMurry, P.H., Woo, K.S., Weber, R., Chen, D.-R. and Pui, D.Y.H. (2000) Size distributions of 3 to 10 nm atmospheric particles: Implications for nucleation mechanisms. *Phil. Trans. Roy. Soc.* **A358**, 2625–2642. => HT1534
3356. McPheat, R.A., Bass, S.F., Nenham, D.A., Ballard, J. and Remedios, J.J. (2002) Comparison of aerosol and thin film spectra of supercooled ternary solution aerosol. *J. Geophys. Res. Atmospheres* **107**, 4371 doi:10.1029/2001JD000641–2002. => AEL3769
3357. Mebust, M.R., Eder, B.K., Binkowski, F.S. and Roselle, S.J. (2003) Models-3 Community Multiscale Air Quality (CMAQ) model aerosol component 2. Model evaluation. *J. Geophys. Res. Atmospheres* **108**, 4184– doi:10.1029/2001JD001410, 2003. => AEL3965
3358. Mederos, L. and Navascués, G. (1994) Phase diagram of the hard-sphere/attractive-Yukawa system. *J. Chem. Phys.* **101**, 9841–9843. => AEL1309
3359. Megaw, W.J. and Flyger, H. (1973) Measurement of the background atmospheric aerosol. *J. Aerosol Sci.* **4**, 179–181. => AEL0226
3360. Megaw, W.J. and Wells, A.C. (1969 Ser 2) A high resolution charge and mobility spectrometer for radioactive submicrometer aerosols. *J. Scient. Instrum. (J. Phys. E)* **2**, 1013–1016. => AEL0228
3361. Megaw, W.J. and Wells, A.C. (1969) Production of monodisperse submicron aerosols of which each particle carries a specified number of electronic charges. *Nature* **224**, 689–690. => AEL0227
3362. Meier, R.R., Anderson, D.E., Jr. and Nicolet, M. (1982) Radiation field in the troposphere and stratosphere from 240-1000 nm. I. General analysis. *Planet. Space Sci.* **30**, 921–933. => AEL0627
3363. Meisels, G.G., Botz, F., Mitchum, R.K. and Heckel, E.F. (1978) "Angular momentum and the temperature-dependence of ion-molecule reactions. *Advances in Mass Spectrometry* **7A**, 250–257. => AEL0509
3364. Melandsö, F. (1992) Collisionless damping of oscillations in electrically supported dust rings. *Physica Scripta* **45**, 515–520. => HT0655
3365. Melandsö, F. and Havnes, O. (1991) Oscillations and resonances in electrostatically supported dust rings. *Journal of Geophysical Research* **96**, 5837–5845. => HT0656
3366. Melandsö, F., Aslaksen, T. and Havnes, O. (1993) A new damping effect for the dust-acoustic wave. Manuscript. *In print Planet. Space Sci.* 1–19. => HT0654
3367. Meleti, C. and Cappellani, F. (2000) Measurements of aerosol optical depth at Ispra: Analysis of the correlation with UV-B, UV-A, and total solar irradiance. *J. Geophys. Res. Atmospheres* **105**, 4971–4978. => AEL3102
3368. Melin, S. (1984) *Automatic lightning detection systems. Interim report 2.* Vattenfall,. => HT0779
3369. Mellander, H. (1996) *A short manual on the Estonian alpha track radon analysis system. Käsikiri.* => HT1488
3370. Meloni, D., di Sarra, A., DeLuisi, J., Di Iorio, T., Fiocco, G., Junkermann, W. and Pace, G. (2003) Tropospheric aerosols in the Mediterranean: 2. Radiative effects through model simulations and measurements. *J. Geophys. Res. Atmospheres* **108**, 4317– doi:10.1029/2002JD002807, 2003. => AEL4014
3371. Meng, Z. and Seinfeld, J.H. (1994) On the source of the submicrometer droplet mode of urban and regional aerosols. *Aerosol Sci. Technol.* **20**, 253–265. => AEL1091



3372. Meng, Z., Dabdub, D. and Seinfeld, J.H. (1998) Size-resolved and chemically resolved model of atmospheric aerosol dynamics. *J. Geophys. Res. Atmospheres* **103**, 3419–3435. => AEL2220
3373. Meng, Z., Seinfeld, J.H. and Saxena, P. (1995) Gas/aerosol distribution of formic and acetic acids. *Aerosol Sci. Technol.* **23**, 561–578. => AEL1514
3374. Meng, Z., Seinfeld, J.H., Saxena, P. and Kim, Y.P. (1995) Atmospheric gas-aerosol equilibrium: IV. Thermodynamics of carbonates. *Aerosol Sci. Technol.* **23**, 131–154. => AEL1528
3375. Meng, Z., Seinfeld, J.H., Saxena, P. and Kim, Y.P. (1995) Contribution of water to particulate mass in the South Coast air basin. *Aerosol Sci. Technol.* **22**, 111–123. => AEL1295
3376. Menon, S., Brenguier, J.-L., Boucher, O., Davison, P., Del Genio, A.D., Feichter, J., Ghan, S., Guibert, S., Liu, X., Lohmann, U., Pawlowska, H., Penner, J.E., Quaas, J., Roberts, D.L., Schüller, L. and Snider, J. (2003) Evaluating aerosol/cloud/radiation process parameterizations with single-column models and Second Aerosol Characterization Experiment (ACE-2) cloudy column observations. *J. Geophys. Res. Atmospheres* **108**, 4762–doi:10.1029/2003JD003902. => AEL4094
3377. Meot-Ner (Mautner), M. (1987) Heats of hydration of organic ions: predictive relations, and analysis of solvation factors based on ion clustering. *J. Phys. Chem.* **91**, 417–426. => AEL0635
3378. Meot-Ner (Mautner), M. and Speller, C.V. (1986) Filling of solvent shells about ions. 1. Thermochemical criteria and the effects of isomeric clusters. *J. Phys. Chem.* **90**, 6616–6624. => AEL0961
3379. Meot-Ner, M. and Field, F.H. (1978) *Correlations between rate, temperature dependence, exothermicity, and reactant structure in slow ion-molecule reactions.* => AEL0506
3380. Mercer, T.T. (1974) Note. *J. Aerosol Sci.* **5**, 405–413. => AEL0224
3381. Mercer, T.T. and Greene, T.D. (1974) Interpretation of diffusion battery data. *J. Aerosol Sci.* **5**, 251–255. => AEL0229
3382. Mercer, T.T. and Greene, T.D. (1974) Interpretation of diffusion battery data. *Aerosol Science* **5**, 251–255. => AEL2426
3383. Merrill, J.T. (1996) Trajectory results and interpretation for PEM-West A. *J. Geophys. Res.* **101**, 1679–1690. => AEL1811
3384. Mesbach, B. *Density calculation from mobility and aerodynamic sizing. Case of nanometer and subnanometer sized particles.* *Käsikiri.* => HT1033
3385. Mesbah, B., Fitzgerald, B., Hopke, P.K. and Pourprix, M. (1997) A new technique to measure the mobility size of ultrafine radioactive particles. *Aerosol Sci. Technol.* **27**, 381–393. => AEL2547
3386. Mestayer, P. and Lefauconnier, C. (1988) Spray droplet generation, transport, and evaporation in a wind wave tunnel during the humidity exchange over the sea experiments in the simulation tunnel. *J. Geophys. Res.* **93**, 572–586. => AEL0992
3387. *Meteoline uP2000. Ion meter Mod. uP2001. Computerized measuring unit for simultaneous detection of positive and negative ions.* Periso Elektro-Industrie,. => HT0989
3388. Metzger, S., Dentener, F., Krol, M., Jeuken, A. and Lelieveld, J. (2002) Gas/aerosol partitioning: 2. Global modeling results. *J. Geophys. Res. Atmospheres* **107**, ACH17 1–23. => AEL3686
3389. Metzger, S., Dentener, F., Pandis, S. and Lelieveld, J. (2002) Gas/aerosol partitioning: 1. A computationally efficient model. *J. Geophys. Res. Atmospheres* **107**, ACH16 1–23. => AEL3685

3390. Metzlik, M.S., Perevertaev, V.D., Liopo, V.A., Timoshtchenko, G.T. and Kiselev, A.B. (1973) New data on the structure and properties of thin water films on mica crystals. *J. Colloid Interface Sci.* **43**, 662–669. => AEL0834
3391. Meyer, C.P., Elsworth, C.M. and Galbally, I.E. (1991) Water vapor interference in the measurement of ozone in ambient air by ultraviolet absorption. *Rev. Sci. Instrum.* **62**, 223–228. => AEL1291
3392. Meyerott, R.E., Reagan, J.B. and Joiner, R.G. (1980) The mobility and concentration of ions and the ionic conductivity in the lower stratosphere. *J. Geophys. Res.* **85**, 1273–1278. => AEL0592
3393. Meyerott, R.E., Reagan, J.B. and Joiner, R.G. (1980) The mobility and concentration of ions and the ionic conductivity in the lower stratosphere. @*JGR* **85**, 1273–1278. => HT0408
3394. Michaels, R.A. (1996) Airborne particle excursions contributing to daily average particle levels may be managed via a 1hr standard, with possible public health benefits. *Aerosol Sci. Technol.* **25**, 437–444. => AEL1735
3395. Michalsky, J.J., Schlemmer, J.A., Berkheiser, W.E., Berndt, J.L., Harrison, L.C., Laulainen, N.S., Larson, N.R. and Barnard, J.C. (2001) Multiyear measurements of aerosol optical depth in the Atmospheric Radiation Measurement and Quantitative Links programs. *J. Geophys. Res. Atmospheres* **106**, 12099–12107. => AEL3467
3396. Michishita, K., Ishii, M. and Hojo, J.-I. (1996) Measurement of horizontal electric fields associated with distant cloud-to-ground strokes. *J. Geophys. Res.* **101**, 3861–3867. => AEL1666
3397. Michnowski, S. (1998) Solar wind influences on atmospheric electricity variables in polar regions. *J. Geophys. Res. Atmospheres* **103**, 13939–13948. => AEL2276
3398. Michnowski, S. (1998) Solar wind influences on atmospheric electricity variables in polar regions. *J. Geophys. Res. Atmospheres* **103**, 13939–13948. => HT1249
3399. Mickley, L.J., Abbatt, J.P.D., Frederick, J.E. and Russell, J.M.III (1997) Response of summertime odd nitrogen and ozone at 17 mbar to Mount Pinatubo aerosol over the southern midlatitudes: Observations from the Halogen Occultation Experiment. *J. Geophys. Res. Atmospheres* **102**, 23573–23582. => AEL2012
3400. Middlebrook, A.M., Murphy, D.M., Lee, S.-H., Thomson, D.S., Prather, K.A., Wenzel, R.J., Liu, D.-Y., Phares, D.J., Rhoads, K.P., Wexler, A.S., Johnston, M.V., Jimenez, J.L., Jayne, J.T., Worsnop, D.R., Yourshaw, I., Seinfeld, J.H. and Flagan, R.C. (2003) A comparison of particle mass spectrometers during the 1999 Atlanta Supersite Project. *J. Geophys. Res. Atmospheres* **108**, 8424– doi:10.1029/2001JD000660, 2003. => AEL3988
3401. Middleton, P. and Kiang, C.S. (1978) A kinetic aerosol model for the formation and growth of secondary sulfuric acid particles. *J. Aerosol Sci.* **9**, 359–385. => AEL1500
3402. Mierdel, G. (1932) Über die Wanderungsgeschwindigkeit suspendierten Staubteilchen in Elektrofiltern. *Z. techn. Physik* 564–567. => AEL0230
3403. Migliore, M., Fornili, S.L., Spohr, E., Palinkas, G. and Heinzinger, K. (1986) A molecular dynamics study of the structure of an aqueous KCl solution. *Z. Naturforsch.* **41A**, 826–834. => AEL0828
3404. Miguel E., de, Llamas, J.F. and Chacón, E. (1995) Trace elements in the street dust of Oslo, Norway. *International Conference on Heavy Metals in the Environment*, Hamburg, **2**, pp. 427–430. => AEL2118
3405. Miguel E., de., Llamas, J.F., Chacón, E., Berg, T., Larssen, S., Røyset, O. and Vadset, M. (1997) Origin and patterns of distribution of trace elements in street dust: unleaded petrol and urban lead. *Atmos. Environ.* **31**, 2733–2740. => AEL2106

3406. Mikhailov, V.F. *Magnetic charges on ferromagnetic aerosols*. => HT1221
3407. Mikhalenkov, S.V. (1979) Izmerenie sverkhmalykh stshetnykh kontsentratsii monodispersnykh aerolei (in Russian). *Trudy LIAP*, Leningrad, **1(136)**, pp. 37–41. => HT0604
3408. Mikhalkova, O.A. and Poluektov, P.P. *Photoelectric charging of polydisperse aerosol with different work function of particles*. *Käsikiri*. => HT1187
3409. Mikheev, V.B. (1994) Nucleation research of binary systems in presence of chemical interaction between the components under the ultraviolet irradiation. *Atmos. Res.* **35**, 1–9. => AEL1639
3410. Mikheev, V.B. (1994) Nucleation research of binary systems in presence of chemical interaction between the components under the ultraviolet irradiation. *Atmospheric Research* **35**, 1–9. => AEL1835
3411. Miles, J.C.H. and Algar, R.A. (1997) Measurements of radon decay product concentrations under power lines. *Radiat. Prot. Dosimetry* **74**, 193–194. => HT1318
3412. Milford, C., Hargreaves, K.J., Sutton, M.A., Loubet, B. and Cellier, P. (2001) Fluxes of NH<sub>3</sub> and CO<sub>2</sub> over upland moorland in the vicinity of agricultural land. *J. Geophys. Res. Atmospheres* **106**, 24169–24181. => AEL3563
3413. Milford, J.B. and Davidson, C.I. (1987) The sizes of particulate sulfate and nitrate in the atmosphere - a review. *JAPCA* **37**, 125–134. => AEL1087
3414. Millionis, A.E. and Davies, T.D. (1994) Regression and stochastic models for air pollution – I. Review, comments and suggestions. *Atmos. Environ.* **28**, 2801–2810. => AEL1924
3415. Millionis, A.E. and Davies, T.D. (1994) Regression and stochastic models for air pollution - II. Application of stochastic models to examine the links between ground-level smoke concentrations and temperature inversions. *Atmos. Environ.* **28**, 2811–2822. => AEL3282
3416. Miller, J.R. and O'Neill, N.T. (1997) Multialtitude airborne observations of insolation effects of forest smoke aerosols at BOREAS: Estimates of aerosol optical parameters. *J. Geophys. Res. Atmospheres* **102**, 20729–29736. => AEL2158
3417. Miller, R.L., Tegen, I. and Perlwitz, J. (2004) Surface radiative forcing by soil dust aerosols and the hydrologic cycle. *J. Geophys. Res. Atmospheres* **109**, D04203–doi:10.1029/2003JD004085, 2004. => AEL4127
3418. Miller, T.M., Ballenthin, J.O., Hunton, D.E., Viggiano, A.A., Wey, C.C. and Anderson, B.E. (2003) Nitric acid emission from the F100 jet engine. *J. Geophys. Res. Atmospheres* **108**, 4032–doi:10.1029/2001JD001522, 2003. => AEL3928
3419. Miller, T.M., Wetterskog, R.E. and Paulson, J.F. (1984) Temperature dependence of the ion-molecule reactions N<sup>+</sup>+CO, C<sup>+</sup>+NO, and C<sup>+</sup>, CO<sup>+</sup>, CO<sub>2</sub><sup>+</sup>+O<sub>2</sub> from 90–450 K. *J. Chem. Phys.* **80**, 4922–4925. => AEL0962
3420. Min, Q. and Harrison, L.C. (1998) Synthetic spectra for terrestrial ultraviolet from discrete measurements. *J. Geophys. Res. Atmospheres* **103**, 17033–17039. => AEL2297
3421. Minami, Y. and Ishizaka, Y. (1996) Evaluation of chemical composition in fog water near the summit of a high mountain in Japan. *Atmos. Environ.* **30**, 3363–3376. => AEL1904
3422. Minc, S., Zagorska, I. and Koczorowski, Z. (1967) Differences of surface potentials of electrolyte solutions in methyl alcohol and methyl cyanide determined by condenser and jet methods. *Roczniki Chemii. Ann. Soc. Chim. Polonorum* **41**, 1983–1991. => AEL1043
3423. Ming, Y. and Russell, L.M. (2001) Predicted hygroscopic growth of sea salt aerosol. *J. Geophys. Res. Atmospheres* **106**, 28259–28274. => AEL3577

3424. Minikin, A., Legrand, M., Hall, J., Wagenbach, D., Kleefeld, C. and (1998) Sulfur-containing species (sulfate and methanesulfonate) in coastal Antarctic aerosol and precipitation. *J. Geophys. Res. Atmospheres* **103**, 10975–10990. => AEL2263
3425. Mirabel, P. and Clavelin, J.L. (1978) Condensation de la vapeur d'eau en présence de certains polluants. *La Météorologie* **6e serie**, 29–39. => AEL0752
3426. Mirabel, P. and Clavelin, J.L. (1978) Experimental study of nucleation in binary mixtures: The nitric acid-water and sulfuric acid-water systems. *J. Chem. Phys.* **68**, 5020–5027. => AEL2881
3427. Mirabel, P. and Clavelin, J.L. (1978) On the limiting behaviour of binary homogeneous nucleation theory. *J. Aerosol Sci.* **9**, 219–225. => AEL0709
3428. Mirabel, P. and Katz, J.L. (1974) Binary homogeneous nucleation as a mechanism for the formation of aerosols. *The J. Chem. Phys.* **60**, 1138–1144. => AEL1988
3429. Mirabel, P. and Katz, J.L. (1977) Condensation of a supersaturated vapor. IV. The homogeneous nucleation of binary mixtures. *The J. Chem. Phys.* **67**, 1697–1704. => AEL2882
3430. Mirabel, P. and Reiss, H. (1987) Resolution of the "Renniger-Wilemski problem" concerning the identification of heteromolecular nuclei. *Langmuir* **3**, 228–234. => AEL0729
3431. Mirabel, Ph. and Ponche, J.L. (1991) Studies of gas-phase clustering of water on sulphuric acid molecules. *Chem. Phys. Lett.* **183**, 21–24. => AEL2704
3432. Mirme, A., Kikas, Ü. and Tamm, E. *The receptor-oriented study of aerosol residence times. Käsikiri.* => HT1393
3433. Mirme, A., Kreyling, W.G., Khlystov, A., ten Brink, H., Ruuskanen, J., Tuch, T. and Pekkanen, J. (2002) Intercomparison of aerosol spectrometers for ambient air monitoring. *Aerosol Sci. Technol.* **36**, 866–876. => AEL3707
3434. Mirme, A., Minkinen, P. and Ruuskanen, J. (1996) Behaviour of urban aerosol, black carbon and gaseous pollutants in urban air: Exploratory principal component analysis. In *Nucleation and atmospheric aerosols*, edited by Kulmala, M. and Wagner, P.E., Pergamon, pp. 423–426. => HT1164
3435. Mirme, A.A., Salm, Ya.I., Tamm, E.I. and Tammet, Kh.F. (1979) Granulometr submikronnogo aerolya (in Russian). *Trudy LIAP, Leningrad*, **1(136)**, pp. 64–67. => HT0598
3436. Misaki, M. (1950) A method of measuring the ion spectrum. *Papers in Meteorology Geophysics* **1**, 313–318. => HT0028
3437. Misaki, M. (1960) Determination of air flow in an ion chamber. *Papers in Meteorology and Geophysic* **11**, 348–355. => HT0021
3438. Misaki, M. (1960) Determination of air flow in an ion chamber. Preliminary examination for the study of ion spectrum. *Papers Meteorol. Geophys.* **11**, 348–355. => HT-F050
3439. Misaki, M. (1960) Recent studies on charged and uncharged nuclei. **4**, 23–29. => HT0568
3440. Misaki, M. (1961) Studies on the atmospheric ion spectrum (I). Procedures of experimental and data analysis. *Papers in Meteorological and Geophysics* **12**, 247–260. => HT0026
3441. Misaki, M. (1961) Studies on the atmospheric ion spectrum (II). Relation between the ion spectrum and the electrical conductivity. *Papers in Meteorological and Geophysics* **12**, 261–276. => HT0027
3442. Misaki, M. (1961) Studies on the atmospheric ion spectrum I. *Pap. Met. Geophys.* **12**, 247–270. => AEL0523

3443. Misaki, M. and Kanazawa, I. (1968) Some features of the dynamic spectra of atmospheric ions throughout the mobility range 4.22 - 0.00042 cm<sup>2</sup>/Volt sec. *The Fourth International Conference on the Universal Aspects of Atmospheric Electricity*, Tokyo, pp. 1–9. => HT0549
3444. Misaki, M. and Takeuti, T. (1970) The extension of air pollution from land over ocean as revealed in the variation of atmospheric electric conductivity. *Journal of the Meteorological Society of Japan* **48**, 263–269. => HT0061
3445. Misaki, M. *Atmospheric Fine Particles Change the Climate. (Sisukord)*. => HT0627
3446. Misaki, M., Ikegami, M. and Kanazawa, I. (1972) Atmospheric electrical conductivity measurement in the pacific ocean, exploring the background level of global pollution. *Journal of the Meteorological Society of Japan* **50**, 497–500. => HT0062
3447. Misaki, M., Ikegami, M. and Kanazawa, I. (1975) Deformation of the size distribution of aerosol particles dispersing from land to ocean. *Journal of the Meteorological Society of Japan* **53**, 111–120. => HT0025
3448. Misaki, M., Ohtagaki, M. and Kanazawa, I. (1972) Mobility spectrometry of the atmospheric ions in relation to atmospheric pollution. *Pure and Applied Geophysics* **100**, 133–145. => HT0034
3449. Mishchenko, M.I. and Travis, L.D. (1997) Satellite retrieval of aerosol properties over the ocean using polarization as well as intensity of reflected sunlight. *J. Geophys. Res. Atmospheres* **102**, 16989–17013. => AEL2025
3450. Mitchell, G.D. (1987) Trace gas calibration systems using permeation devices. *Sampling and calibration for atmospheric measurements*, pp. 110–120. => AEL0644
3451. Mitchell, J.P. (1984) The production of aerosols from aqueous solutions using the spinning top generator. *J. Aerosol Sci.* **15**, 35–45. => AEL0231
3452. Mitchell, J.P. (1986) *Aerosol generation for instrument calibration. Unclassified paper.* Winfrith. UK Atomic Energy Authority,. => AEL0999
3453. Mitchell, J.P. and Nichols, A.L. (1991) Winfrith aerosol science section: Key team. *AEA Technology* **2**, 1–6. => AEL0931
3454. Mitchell, J.P., Mark, D. and Griffiths, W.D. (1992) The DTI initiative to establish an infrastructure for the measurement of aerosols and particulates in the gas phase. *Monitor* **92**, pp. –. => AEL0933
3455. Mlot, C. (1995) A clearer view of why plants make haze. *Science* **268**, 641–642. => AEL2348
3456. Mo Q., Detwiler, A.G., Hallett, J. and Black, R. (2003) Horizontal structure of the electric field in the stratiform region of an Oklahoma mesoscale convective system. *J. Geophys. Res. Atmospheres* **108**, 4225– doi:10.1029/2001JD001140, 2003. => AEL3982
3457. Mo Q., Helsdon, J.H.Jr. and Winn, W.P. (2002) Aircraft observations of the creation of lower positive charges in thunderstorms. *J. Geophys. Res. Atmospheres* **107**, 4616 doi:10.1029/2002JD002099–2002. => AEL3804
3458. Mo X., Feind, R.E., Kopp, F.J. and Detwiler, A.G. (1999) Improved electric field measurements with the T-28 armored research airplane. *J. Geophys. Res. Atmospheres* **104**, 24485–24497. => AEL3026
3459. Mochida, M., Kawamura, K., Umemoto, N., Kobayashi, M., Matsunaga, S., Lim, H.-J., Turpin, B.J., Bates, T.S. and Simoneit, B.R.T. (2003) Spatial distributions of oxygenated organic compounds (dicarboxylic acids, fatty acids, and levoglucosan) in marine aerosols over the western Pacific and off the coast of East Asia: Continental outflow of organic aerosols during the ACE-Asia campaign. *J. Geophys. Res. Atmospheres* **108**, 8638– doi:10.1029/2002JD003249. => AEL4076

3460. Mochida, M., Kitamori, Y., Kawamura, K., Nojiri, Y. and Suzuki, K. (2002) Fatty acids in the marine atmosphere: Factors governing their concentrations and evaluation of organic films on sea-salt particles. *J. Geophys. Res. Atmospheres* **107**, AAC1 1–10. => AEL3729
3461. Modera, M.P. and Bonnefous, Y. (1993) Statistical uncertainties associated with multiplexed sampling with a continuous radon monitor. *Health Phys.* **64**, 291–299. => AEL1216
3462. Moeller, D.W. and Rudnick, S.N. (1993) Radon decay product removal unit as adapted for use with a lamp. USA Patent No. 5241449, Class H01T 23/00, Prior. 21.01.1992. => HT1202
3463. Moeller, D.W., Rudnick, S.N. and Maher, E.F. (1986) Method and apparatus for reduction of radon decay product exposure. USA Patent No. 4596585, Class B03C 3/41; B03C 3/86, Prior. 05.03.1984. => HT1200
3464. Mohan Rao, A.M. and Pandit, G.G. (1988) Concentrations of C<sub>2</sub>–C<sub>5</sub> hydrocarbons in atmospheric air at Deonar, Bombay, in relation to possible sources. *Atmos. Environ.* **22**, 395–401. => AEL0515
3465. Mohnen, A. (1974) Formation, nature and mobility of ions of atmospheric importance. *Fifth International Conference on Atmospheric Electricity Garmisch-Partenkirchen, September 2-7, 1974*, pp. 1–10+ill. => HT1175
3466. Mohnen, V.A. (1970) 5,000 join in air pollution survey. *The Conservationist* 1–4. => HT0163
3467. Mohnen, V.A. (1970) Preliminary results on the formation of negative small ions in the troposphere. *J. Geophys. Research* **75**, 1717–1721. => HT0206
3468. Mohnen, V.A. (1972) Negative ions in air-like gas mixtures. @PAGEOPH **100**, 123–132. => AEL0561
3469. Mohnen, V.A. (1990) Stratospheric ion and aerosol chemistry and possible links with cirrus cloud microphysics - A critical assessment. *Journal of the Atmospheric Sciences* **47**, 1933–. => AEL0466
3470. Mohnen, V.A., DeSanto, J.J. and Kadlecck, J.A. Nature, mobility and physico-chemical reactivity of ions in the lower atmosphere (<40 km). *Vith conference on atmospheric electricity, 28. July - 1. Aug., 1980. Manchester*, **1**, pp. 1–4. => AEL0559
3471. Mohr, K.I., Toracinta, E.R., Zipser, E.J. and Orville, R.E. (1996) A comparison of WSR-88D reflectivities, SSM/I brightness temperatures, and lightning for mesoscale convective systems in Texas. Part II: SSM/I brightness temperatures and lightning. *J. Appl. Meteorol.* **35**, 919–931. => HT1100
3472. Mohr, M., Matter, D. and Burtscher, H. (1996) Efficient multiple charging of diesel particles by photoemission. *Aerosol Sci. Technol.* **24**, 14–20. => AEL1519
3473. Mohr, M., Ylätaalo, S., Klippel, N., Kauppinen, E.I., Riccius, O. and Burtscher, H. (1996) Submicron fly ash penetration through electrostatic precipitators at two coal power plants. *Aerosol Sci. Technol.* **24**, 191–204. => AEL1511
3474. Moise, T., Talukdar, R.K., Frost, G.J., Fox, R.W. and Rudich, Y. (2002) Relative uptake of NO<sub>3</sub> by liquid and frozen organics. *J. Geophys. Res. Atmospheres* **107**, AAC6 1–9. => AEL3628
3475. Moldanová, J. and Ljungström, E. (2001) Sea-salt aerosol chemistry in coastal areas: A model study. *J. Geophys. Res. Atmospheres* **106**, 1271–1296. => AEL3301
3476. Mölders, N., Hass, H., Jakobs, H.J., Laube, M. and Ebel, A. (1994) Some effects of different cloud parameterizations in a mesoscale model and a chemistry transport model. *Journal of Applied Meteorology* **33**, 527–545. => AEL1658
3477. Molenaar, J.V. and Malm, W.C. (1992) Ambient optical monitoring techniques. *Abstracts of Conference on Visibility and Fine Particles, Vienna*, pp. 1–1. => HT0682

3478. Möller, K. and Holmlid, L. (1987) Simultaneous determination of desorption parameters and barrier heights for release of previously absorbed tracer amounts of cesium and potassium from a platinum sample. *Surface Science* **179**, 267–282. => HT1117
3479. Monchaux, G. and Masse, R. (1994) Radon: occupational or domestic carcinogen?. *Radiation Protection Dosimetry* **56**, 81–88. => AEL2505
3480. Monchik, L., Yun, K.S. and Mason, E.A. (1963) Formal kinetic theory of transport phenomena in polyatomic gas mixtures. *The J. Chem. Phys.* **39**, 654–669. => AEL1020
3481. *Monitoring fonovogo zagryazneniya prirodnykh sred (udk)* (in Russian) (1982) edited by Reingeverg, O.D., Leningrad. => HT0293
3482. Mönkkönen, P., Koponen, I.K., Lehtinen, K.E.J., Uma, R., Srinivasan, D., Hämeri, K. and Kulmala, M. (2004) Death of nucleation and Aitken mode particles: observations at extreme atmospheric conditions and their theoretical explanation. *J. Aerosol Sci.* **35**, 781–787. => HT1471
3483. Montgomery, T.L. and Corn, M. (1970) Aerosol deposition in a pipe with turbulent airflow. *J. Aerosol Sci.* **1**, 185–213. => AEL0232
3484. Montik, P.N. and Konovalov, S.A. (1979) Mnogokanalnyi sttshetshik ionov (in Russian). *Trudy LIAP*, Leningrad, **1(136)**, pp. 78–81. => HT0595
3485. Moody, J.L., Munger, J.W., Goldstein, A.H., Jacob, D.J. and Wofsy, S.C. (1998) Harvard forest regional-scale air mass composition by patterns in atmospheric transport history (PATH). *J. Geophys. Res. Atmospheres* **103**, 13181–13194. => AEL2268
3486. Moore, C.B. (1974) An assessment of thundercloud electrification mechanisms. *Fifth International Conference on Atmospheric Electricity Garmisch-Partenkirchen, September 2-7, 1974*, pp. 1–21+ill. => HT1178
3487. Moore, C.B. (1975) A comment on "A stochastic electrical model of infinite cloud:charge generation and precipitation development" by W.D.Scott and Z.Levin. *J.Atmos.Sci.* **32**, 1814–1828. => HT0114
3488. Moore, C.B. (1975) Comment on "The electrification of thunderclouds and the rain gush" by Z.Levin and A.Ziv. *J.of Geophysical Research* **80**, 3915–3917. => HT0108
3489. Moore, C.B. (1975) Rebound limits on charge separation by falling precipitation. *J.of Geophysical Research* **80**, 2658–2662. => HT0127
3490. Moore, C.B. (1975) Recombination limits on charge separation by hydrometeors in clouds. *J.of Atmospheric Sciences* **32**, 608–612. => HT0126
3491. Moore, C.B. (1976) Reply. 935–939. => HT1006
3492. Moore, C.B. (1976) Reply. *Quart. J.R.Met. Soc.* 225–240. => HT0059
3493. Moore, C.B. and Vonnegut, B. (1988) Measurements of the electrical conductivities of air over hot water. *Journal of the Atmospheric Sciences* **45**, 885–890. => HT0507
3494. Moore, C.B. and Vonnegut, B. (1995) Letters. *Physics Today* 71–71. => HT0891
3495. Moore, C.B., Vonnegut, B. and Mallahan, F.J. (1961) Airborne filters for the measurement of atmospheric space charge. *Journal of Geophysical Research* **66**, 3219–3226. => HT0045
3496. Moore, K.G.II, Clarke, A.D., Kapustin, V.N. and Howell, S.G. (2003) Long-range transport of continental plumes over the Pacific Basin: Aerosol physicochemistry and optical properties during PEM-Tropics A and B. *J. Geophys. Res. Atmospheres* **108**, 8236–  
doi:10.1029/2001JD001451, 2003. => AEL3931

3497. Moore, M.E., McFarland, A.R. and Rodgers, J.C. (1993) Factors that affect alpha particle detection in continuous air monitor applications. Abstract. *Health Phys.* **65**, 69–81. => AEL1223
3498. Moore, T.E., Peterson, W.K., Russell, C.T., Chandler, M.O., Collier, M.R., Collin, H.L., Craven, P.D., Fitzenreiter, R., Giles, B.L. and Pollock, C.J. (1999) Ionospheric mass ejection in response to a CME. *Geophys. Res. Lett.* **26**, 2339–2342. => AEL2909
3499. Moorthy, K.K., Saha, A., Prasad, B.S.N., Niranjana, K., Jhurry, D. and Pillai, P.S. (2001) Aerosol optical depths over peninsular India and adjoining oceans during the INDOEX campaigns: Spatial, temporal, and spectral characteristics. *J. Geophys. Res. Atmospheres* **106**, 28539–28554. => AEL3581
3500. Morawska, L. and Jamriska, M. (1997) Determination of the activity size distribution of radon progeny. *Aerosol Sci. Technol.* **26**, 459–468. => AEL1976
3501. Morawska, L., Thomas, S., Jamriska, M. and Johnson, G. (1999) The modality of particle size distributions of environmental aerosols. *Atmos. Environ.* **33**, 4401–4411. => AEL2921
3502. Möre, H., Falk, R. and Nyblom, L. (1996) A bench-top calibration chamber for  $^{220}\text{Rn}$  activity in air. *Environment International* **22**, S1147–S1153. => HT1139
3503. Morgan, R.B. and Jackson, A.V. (2002) Measurements of gas-phase hydrogen peroxide and methyl hydroperoxide in the coastal environment during the PARFORCE project. *J. Geophys. Res. Atmospheres* **107**, 8109 doi:10.1029/2000JD000257–2002. => AEL3795
3504. Morita, Y. and Ishikawa, H. (1969) Influence of the atmospheric aerosols on the ion density profile up to 30 km altitude. *Proc. Res. Inst. Atmos. Nagoya Univ.* **16**, 43–52. => AEL3537
3505. Morita, Y. and Ishikawa, H. (1976) Simultaneous measurements of electric conductivity and aerosol in the lower atmosphere. *Journal of Geomagnetism and Geoelectricity* **28**, 309–. => AEL0405
3506. Morita, Y. and Ishikawa, H. (1976) Simultaneous measurements of electric conductivity and aerosol in the lower stratosphere. *J. Geomag. Geoelectr.* **28**, 309–315. => HT0063
3507. Morozov, V.N. *K raschetu vremennykh izmerenii elektricheskikh kharakteristik atmosfery. Manuscript* (in Russian). => HT0349
3508. Morris, G.A., Kawa, S.R., Douglass, A.R., Schoeberl, M.R., Froidevaux, L. and Waters, J. (1998) Low-ozone pockets explained. *J. Geophys. Res. Atmospheres* **103**, 3599–3610. => AEL2223
3509. Morris, R. (1968) Scatter storage techniques. *Communications of the ACM* **11**, 38–44. => HT0191
3510. Morris, V.J., Foweraker, A.R. and Jennings, B.R. (1978) Particle size distributions from transient electric birefringence data. II. Polydisperse discs by two-parameter distribution functions. *Adv. Mol. Relax. and Interact. Processes* **12**, 201–210. => AEL0233
3511. Morse, D.C. and Milner, S.T. (1994) Fluctuations and phase behavior of fluid membrane vesicles. *Europhysics Letters* **26**, 565–570. => AEL1328
3512. Moskovchenko, A.V. and Khorungii, O. (1992) The aerosol cloud sedimentation in nonhomogeneous temperature atmosphere. *Abstracts of Conference on Visibility and Fine Particles*, Vienna, pp. 1–1. => HT0683
3513. Mosley, R.B., Greenwell, D.J., Sparks, L.E., Guo, Z., Tucker, W.G., Fortmann, R. and Whitfield, C. (2001) Penetration of ambient fine particles into the indoor environment. *Aerosol Sci. Technol.* **34**, 127–136. => AEL3370
3514. Moss, O.R. and Eckerman, K.F. (1991) Proposed NCRP respiratory tract model: Geometric basis for estimating absorbed dose. *Radiation Protection Dosimetry* **38**, 185–191. => AEL2451



3515. Mössinger, J.C., Hynes, R.G. and Cox, R.A. (2002) Interaction of HOBr and HCl on ice surfaces in the temperature range 205–227 K. *J. Geophys. Res. Atmospheres* **107**, 4740–doi:10.1029/2002JD002151, 2002. => AEL3919
3516. Möttus, M., Ross, J. and Ross, V. (2002) Shape and area of simple narrow leaves. *Proc. Estonian Acad. Sci. Biol. Ecol.* **51**, 147–162. => HT1385
3517. Möttus, M., Ross, J. and Sulev, M. (2001) Experimental study of PAR to direct integral solar radiation under cloudless conditions. *Agricultural and Forest Meteorology* **109**, 161–170. => HT1388
3518. Mount, G.H. and Eisele, F.L. (1992) An intercomparison of tropospheric OH measurements at Fritz Peak Observatory, Colorado. *Science* **256**, 1187–1190. => AEL1388
3519. Mount, G.H. and Williams, E.J. (1997) An overview of the Tropospheric OH Photochemistry Experiment, Fritz Peak/Idaho Hill, Colorado, fall 1993. *J. Geophys. Res. Atmospheres* **102**, 6171–6186. => AEL2894
3520. Mount, G.H., Brault, J.W., Johnston, P.V., Marovich, E., Jakoubek, R.O., Volpe, C.J., Harder, J. and Olson, J. (1997) Measurement of tropospheric OH by long-path laser absorption at Fritz Peak Observatory, Colorado, during the OH Photochemistry Experiment, fall 1993. *J. Geophys. Res. Atmospheres* **102**, 6393–6413. => AEL2893
3521. Mount, G.H., Eisele, F.L., Tanner, D.J., Brault, J.W., Johnston, P.V., Harder, J.W., Williams, E.J., Fried, A. and Shetter, R. (1997) An intercomparison of spectroscopic laser long-path and ion-assisted in situ measurements of hydroxyl concentrations during the Tropospheric OH Photochemistry Experiment, fall 1993. *J. Geophys. Res. Atmospheres* **102**, 6437–6455. => AEL2328
3522. Mozurkewich, M. (1986) Aerosol growth and the condensation coefficient for water: A review. *Aerosol Sci. Technol.* **5**, 223–236. => AEL1073
3523. Mozurkewich, M. (1993) The dissociation constant of ammonium nitrate and its dependence on temperature, relative humidity and particle size. *Atmos. Environ.* **27A**, 261–270. => AEL0849
3524. Muchnik, V.M. and Fishman, B.E. (1982) Mekhanizmy kontaktnoi elektrizatsii (in Russian). *Elektrizatsiya grubodispersnykh aerizolei v atmosphere*, 4.3., Gidrometeoizdat, Leningrad, pp. 90–96. => HT1530
3525. Mühlbacher, L. (1998) Interfacial properties of water in an extended van der Waals theory. *J. Chem. Phys.* **108**, 10205–10208. => AEL3870
3526. Muhleisen, R. (1969) La concentration des petits ions au ras du sol dans les batiments et dans l'atmosphere libre. *Ann.Inst.Hydr. et Clim.* **40**, 111–114. => HT0318
3527. Mühleisen, R. (1971) Neue Ergebnisse und Probleme in der Luftelektrizität. *Z.für Geoph.* **37**, 759–793. => HT0317
3528. Mühleisen, R. (1974) The global circuit and its parameters. *Fifth International Conference on Atmospheric Electricity Garmisch-Partenkirchen, September 2-7, 1974*, pp. 1–8+ill. => HT1177
3529. Muijtens, M.J.E.H., Kalikmanov, V.I., v.Dongen, M.E.H., Hirschberg, A. and Derks, P.A.H. (1994) On mist formation in natural gas. *Revue de l'Institut Francais du Pétrole* **49**, 63–72. => AEL1559
3530. Mukai, H. and Suzuki, M. (1996) Using air trajectories to analyze the seasonal variation of aerosols transported to the Oki islands. *Atmos. Environ.* **30**, 3917–3934. => AEL1934
3531. Mulholland, G.W. and Bryner, N.P. (1992) Performance of the transmission cell-reciprocal nephelometer. *Abstracts of Conference on Visibility and Fine Particles*, Vienna, pp. 1–1. => HT0684

3532. Mulla, J.E. (1976) Ekstremalnye podsistemy monotonykh sistem.I (in Russian). *Avtomatika i Telemekhanika* 130–139. => HT0011
3533. Mulla, J.E. (1976) Ekstremalnye podsistemy monotonykh sistem.II (in Russian). *Avtomatika i Telemekhanika* 169–178. => HT0012
3534. Mulla, J.E. (1977) Ekstremalnye podsistemy monotonykh sistem.III (in Russian). *Avtomatika i Telemekhanika* 109–119. => HT0013
3535. Müller, D., Ansmann, A., Wagner, F., Franke, K. and Althausen, D. (2002) European pollution outbreaks during Ace 2: Microphysical particle properties and single-scattering albedo inferred from multiwavelength lidar observations. *J. Geophys. Res. Atmospheres* **107**, AAC3 1–11. => AEL3727
3536. Müller, M., Neuber, R., Beyerle, G., Kyrö, E., Kivi, R. and Wöste, L. (2001) Non-uniform PSC occurrence within the Arctic polar vortex. *Geophys. Res. Lett.* **28**, 4175–4178. => AEL3549
3537. Mulquiney, J.E. and Norton, J.P. (1998) A new inverse method for trace gas flux estimation 1. State-space model identification and constraints. *J. Geophys. Res. Atmospheres* **103**, 1417–1427. => AEL2082
3538. Mulquiney, J.E., Taylor, J.A., Jakeman, A.J., Norton, J.P. and Prinn, R.G. (1998) A new inverse method for trace gas flux estimation. 2. Application to tropospheric CFC<sub>13</sub> fluxes. *J. Geophys. Res. Atmospheres* **103**, 1420–1442. => AEL2083
3539. Munshi, H.B., Rama Rao, K.V.S. and Iyer, R.M. (1989) Rate constants of the reactions of ozone with nitriles, acrylates and terpenes in gas phase. *Atmos. Environ.* **23**, 1971–1976. => AEL0595
3540. Murphy, D.M. and Thomson, D.S. (1995) Laser ionization mass spectroscopy of single aerosol particles. *Aerosol Sci. Technol.* **22**, 237–249. => AEL1397
3541. Murphy, D.M. and Thomson, D.S. (1997) Chemical composition of single aerosol particles at Idaho Hill: Positive ion measurements. *J. Geophys. Res. Atmospheres* **102**, 6341–6352. => AEL2325
3542. Murphy, D.M. and Thomson, D.S. (1997) Chemical composition of single aerosol particles at Idaho Hill: Negative ion measurements. *J. Geophys. Res. Atmospheres* **102**, 6353–6368. => AEL2326
3543. Murphy, D.M., Thomson, D.S., Kaluzhny, M., Marti, J.J. and Weber, R.J. (1997) Aerosol characteristics at Idaho Hill during the OH Photochemistry Experiment. *J. Geophys. Res. Atmospheres* **102**, 6325–6330. => AEL2323
3544. Murphy, D.M., Thomson, D.S., Middlebrook, A.M. and Schein, M.E. (1998) In situ single particle characterization at Cape Grim. *J. Geophys. Res. Atmospheres* **103**, 16485–16491. => AEL2293
3545. Murray, N.D., Orville, R.E. and Huffines, G.R. (2000) Effect of pollution from Central American fires on cloud-to-ground lightning in May 1998. *Geophys. Res. Lett.* **27**, 2249–2252. => HT1415
3546. Murty, R.C., Israelsson, S., Pislér, E. and Lundquist, S. (1983) Observations of positive lightning in Sweden. *Fifth Symposium on Meteorological Observations and Instrumentation*, pp. 512–515. => HT0432
3547. Musatenko, S.I. (1980) Detsimetrovoe radioizluchenie okolozemnogo prostranstva vo vremyaproyavleniya solnechnoi aktivnosti (in Russian). *Geomagnetizm i Aeronomia* **20**, 482–488. => HT0346

3548. Musatenko, S.I. (1980) Radioizluchenie okolozemnogo kosmicheskogo prostranstva kak rezultat vozdeistviya solnechnykh vspyshek na magnitosferu i ionosferu Zemli (in Russian). *Geomagnetizm i Aeronomia* **20**, 884–888. => HT0347
3549. Musgrove, C. and Brook, M. (1975) Microwave echo fluctuations produced by vibrating water drops. *J. of Atmospheric Sciences* **32**, 2001–2007. => HT0096
3550. Mustonen, R.A., Reponen, A.R. and Jantunen, M.J. (1989) Artificial radioactivity in fuel peat and peat ash in Finland after the Chernobyl accident. *Health Physics* **56**, 451–458. => HT0862
3551. Muyshondt, A., Anand, N.K. and McFarland, A.R. (1996) Turbulent deposition of aerosol particles in large transport tubes. *Aerosol Sci. Technol.* **24**, 107–116. => AEL1574
3552. Muyshondt, A., McFarland, A.R. and Anand, N.K. (1996) Deposition of aerosol particles in contraction fittings. *Aerosol Sci. Technol.* **24**, 205–216. => AEL1512
3553. Myhre, C.E.L., Nielsen, C.J. and Saastad, O.W. (1998) Density and surface tension of aqueous H<sub>2</sub>SO<sub>4</sub> at low temperature. *J. Chem. Eng. Data* **43**, 617–622. => AEL3901
3554. Myhre, G., Karlsdóttir, S., Isaksen, I.S.A. and Stordal, F. (2000) Radiative forcing due to changes in tropospheric ozone in the period 1980 to 1996. *J. Geophys. Res. Atmospheres* **105**, 28935–28942. => AEL3276
3555. Myuir, M.S. (1982) Rol atmosfernogo elektrichestva v svyazi pogody s solnechnoi aktivnostyu (in Russian). *Solnechno-Zemnye Zvyazi, Pogoda i Klimat*, Mir, M., pp. 290–294. => HT0296
3556. Myurk, Kh. Yu. and Okhvril, Kh.A. (1990) Inzhenernaya metodika privedeniya koeffitsienta prozratshnosti atmosfery ot odnoi atmosferno massy k drugoi (in Russian). *Meteorologiya i Gidrologiya* 103–107. => HT0615
3557. Nadykto, A.B. and Yu, F. (2003) Uptake of neutral polar vapor molecules by charged clusters/particles: Enhancement due to dipole-charge interaction. *J. Geophys. Res. Atmospheres* **108**, 4717– doi:10.1029/2003JD003664. => AEL4072
3558. Nadykto, A.B. and Yu, F. (2003) Uptake of neutral polar vapor molecules by charged clusters/particles: Enhancement due to dipole-charge interaction. *J. Geophys. Res. Atmospheres* **108**, 4717– doi:10.1029/2003JD003664. => HT1577
3559. Nadykto, A.B., Shchukin, E.R., Kulmala, M., Lehtinen, K.E.J. and Laaksonen, A. (2003) Evaporation and condensational growth of liquid droplets in nonisothermal gas mixtures. *Aerosol Sci. Technol.* **37**, 315–324. => AEL3764
3560. Nagao, I., Matsumoto, K. and Tanaka, H. (1999) Characteristics of dimethylsulfide, ozone, aerosols, and cloud condensation nuclei in air masses over the northwestern Pacific ocean. *J. Geophys. Res. Atmospheres* **104**, 11675–11693. => AEL2979
3561. Nagaraja, K., Prasad, B.S.N., Srinivas, N. and Madhava, M.S. (2003?) *Electrical conductivity near the earth's surface: Ion - aerosol model. Käsikiri.* => HT1499
3562. Nagarajan, M. (1972) On the turbulent pipe flow of gas-solids suspensions. *J. Aerosol Sci.* **3**, 157–165. => AEL0234
3563. Nagato, K. (2001) Development and evaluation of an Ion Mobility Spectrometer/Mass Spectrometer (IMS/MS) for the analysis of ion-molecule reactions at atmospheric pressure. *J. Atmos. Electr.* **21**, 31–47. => HT1430
3564. Nagato, K. and Ogawa, T. (1988) Atmospheric ion mobility spectra near the ground. *Planet. Space Sci.* **36**, 163–176. => AEL0617
3565. Nagato, K. and Ogawa, T. (1988) Atmospheric ion mobility spectra near the ground. *Planet. Space Sci.* **36**, 163–176. => HT0521

3566. Nagato, K. and Ogawa, T. (1998) Evolution of tropospheric ions observed by an ion mobility spectrometer with a drift tube. *J. Geophys. Res. Atmospheres* **103**, 13917–13925. => AEL2272
3567. Nagato, K. and Ogawa, T. Evolution of tropospheric small ions observed by an ion mobility spectrometer with a drift tube. *Käsikiri* 1–4. => HT0938
3568. Nagato, K., Tanner, D.J., Friedli, H.R. and Eisele, F.L. (1999) Field measurement of positive ion mobility and mass spectra at a Colorado site in winter. *J. Geophys. Res. Atmospheres* **104**, 3471–3482. => AEL2762
3569. Nagato, K., Tanner, D.J., Friedli, H.R. and Eisele, F.L. (1999) Field measurement of positive ion mobility and mass spectra at a Colorado site in winter. *J. Geophys. Res. Atmospheres* **104**, 3471–3482. => HT 1522
3570. Nagato, K., Tanner, D.J., Friedli, H.R., Eisele, F.L. and (1998) *Field measurement of positive ion mobility and mass spectra at a Colorado site in winter. Käsikiri. 1998. a. 11. mai variant.* => HT1277
3571. Nagato, K., Tanner, D.J., Friedli, H.R., Eisele, F.L. and (1998) *Field measurement of positive ion mobility and mass spectra at a Colorado site in winter. Käsikiri. 1998. a. 1. septembri variant.* => HT1278
3572. Nagel, D., Herber, A., Thomason, L.W. and Leiterer, U. (1998) Vertical distribution of the spectral aerosol optical depth in the Arctic from 1993 to 1996. *J. Geophys. Res. Atmospheres* **103**, 1857–1870. => AEL2092
3573. Nagy, J. and Hencsei, P. (1971) Calculation of the molecular structure of aniline derivatives. 114–120. => AEL0956
3574. Nair, P.V.N. and Vohra, K.G. (1975) Growth of aqueous sulphuric acid droplets as a function of relative humidity. *J. Aerosol Sci.* **6**, 265–271. => AEL1402
3575. Nakada, M.P. (1972) Heavy ions from interplanetary dust. *J. of Geophysical Research* **77**, 1713–1719. => HT0319
3576. Nakae, S., Moon, J.Y., Yamada, T., Hara, K. and Miura, K. (2000) Properties of radioactive small ions and size distribution of radioactive aerosols in Tokyo. *J. Atmos. Electr.* **20**, 21–27. => HT1466
3577. Nakajima, T., Takamura, T., Yamano, M., Shiobara, M., Yamauchi, T., Goto, R. and Murai, K. (1986) Consistency of aerosol size distribution inferred from measurements of solar radiation and aerosols. *J. Meteorol. Soc. Japan* **64**, 765–776. => AEL3405
3578. Nakano, T., Tsuji, M. and Okuno, T. (1987) Level of chlorinated organic compounds in the atmosphere. *Chemosphere* **16**, 1781–1786. => AEL1452
3579. Nakatani, S. (1972) Comparison between size distribution of natural aerosols and that of radioactive aerosols in the atmosphere. *Journal of the Meteorological Society of Japan* **50**, 408–415. => HT0020
3580. Nakatani, S. (1972) Improved apparatus for obtaining ionic mobility distributions of radioactive aerosols. *Journal of the Meteorological Society of Japan* **50**, 151–158. => HT0019
3581. Nakaya, T. (1965) Corona by wire-to-plate electrodes. *Oyo Buturi* **34**, 91–96. => HT-F088
3582. Napari, I. and Laaksonen, A. (2001) The effect of potential truncation on the gas-liquid surface tension of planar interfaces and droplets. *J. Chem. Phys.* **114**, 5796–5801. => AEL3840
3583. Napari, I., Kulmala, M. and Vehkamäki, H. (2002) Ternary nucleation of inorganic acids, ammonia, and water. *J. Chem. Phys.* **117**, 8418–8425. => AEL3832

3584. Napari, I., Vehkamäki, H. and Laasonen, K. (2004) Molecular dynamic simulations of atom-cluster collision processes. *J. Chem. Phys.* **120**, 165–169. => HT1450
3585. Narcisi, R.S. (1966) Ion composition measurements and related ionospheric processes in the D and lower E regions. *Annales de Geophysique* **22**, 224–234. => AEL0517
3586. Narsimhan, G. and Ruckenstein, E. (1989) A new approach for the prediction of the rate of nucleation in liquids. *J. Colloid Interface Sci.* **128**, 549–565. => AEL0722
3587. Nastrom, G.D. and VanZandt, T.E. (2001) Seasonal variability of the observed vertical wave number spectra of wind and temperature and the effects of prewhitening. *J. Geophys. Res. Atmospheres* **106**, 14369–14375. => AEL3479
3588. Natanson, G.L. (1950) K voprosu o mekhanizme balloelektricheskikh yavlenii (in Russian). *Dokl. Akad. Nauk SSSR* **73**, 975–978. => HT1476
3589. Natanson, G.L. (1951) Simmetrichnaya elektrizatsiya kapel' pri mekhanicheskom raspylenii zhidkosti (in Russian). *Zhurnal Fizicheskoi Khimii* **25**, 779–790. => HT1526
3590. Natanzon, G.L. (1959) K teorii ob'emnoi rekombinatsii ionov. *Zhurnal Tekhnicheskoi Fiziki* **29**, 1373–1380. => AEL3903
3591. Natanzon, G.L. (1960) K teorii zaryadki amikroskopicheskikh aerazol'nykh chastits v rezul'tate zakhvata gazovykh ionov (in Russian). *Zhurnal Tekhnicheskoi Fiziki* **30**, 573–588. => AEL3889
3592. Nazaroff, W.W. (1980) An improved technique for measuring working levels of radon daughters in residences. *Health Phys.* **39**, 683–686. => AEL1207
3593. Nazaroff, W.W. (1988) Appendix. Measurement techniques. *Radon and its decay products in indoor air*, John Wiley & Sons, pp. 491–504. => AEL2471
3594. Nazaroff, W.W. and Cass, G.R. (1989) Mathematical modeling of indoor aerosol dynamics. *Environmental Science and Technology* **23**, 157–166. => AEL2434
3595. Nazaroff, W.W. and Nero, A.V.Jr. (Comp.) (1988) *Radon and Its Decay Products in Indoor Air. Sisukord.* John Wiley & Sons, New York. => HT0805
3596. Nazaroff, W.W. Measurement techniques. *Radon and Its Decay Products in Indoor Air. Ed. by Nazaroff, W.W. and Anthony, V.N.*, John Wiley & Sons, New York, Chichester, Brisbane, Toronto, Singapore, pp. 491–505. => HT0605
3597. Neely, W.B. and Plonka, J.H. (1978) Estimation of time-averaged hydroxyl radical concentration in the troposphere. *Environ. Sci. Technol.* **12**, 317–321. => AEL1433
3598. Neiman, L.A. (1979) Izmerenie plotnosti obemnogo elektricheskogo zaryada vozdukh (in Russian). *Trudy LIAP*, Leningrad, **1(136)**, pp. 57–63. => HT0599
3599. Neiman, L.A. and Turubarov, V.I. (1976) Sposob izmereniya raznosti kontsentratsii protivopolozhno zaryazhennykh aeroionov (in Russian). *Trudy LIAP*, Leningrad, **103**, pp. 55–64. => HT0585
3600. Nelder, J.A. and Mead, R. (1965) Function minimization.. *Computer Journal* **7**, 308–313. => AEL2435
3601. Nelson, I.A., Stolyarov, L.I. and Shishitsyn, V.F. (1985) Ustanovka dlya konditsionirovaniya vozdukh (in Russian). USSR Patent No. 1176146, Class F24F 3/14, Prior. 1983. => HT0907
3602. Nelson, M.P., Zugates, C.T., Treado, P.J., Casuccio, G.S., Exline, D.L. and Schlaegle, S.F. (2001) Combining Raman chemical imaging and scanning electron microscopy to characterize ambient fine particulate matter. *Aerosol Sci. Technol.* **34**, 108–117. => AEL3368
3603. Nema, A. and Tare, V. (1989) Atmospheric dispersion under non-homogeneous and unsteady conditions. *Atmos. Environ.* **23**, 851–856. => AEL0235

3604. Nenes, A., Charlson, R.J., Facchini, M.C., Kulmala, M., Laaksonen, A. and Seinfeld, J.H. (2002) Can chemical effects on cloud droplet number rival the first indirect effect. *Geophys. Res. Lett.* **29**, 1848– doi:10.1029/2002GL015295. => AEL3819
3605. Nenes, A., Chuang, P.Y., Flagan, R.C. and Seinfeld, J.H. (2001) A theoretical analysis of cloud condensation nucleus (CCN) instruments. *J. Geophys. Res. Atmospheres* **106**, 3449–3474. => AEL3412
3606. Nero, A.V., Gadgil, A.J., Nazaroff, W.W. and Revzan, K.L. (1990) Indoor radon and decay products: concentrations, causes, and control strategies. *Radon. Technical Report Series* 1–138. => HT0712
3607. Nero, A.V.Jr. (1994) Risk evaluation and control strategies for indoor radon: A brief discussion. *Radiation Protection Dosimetry* **56**, 359–365. => AEL2512
3608. Nesbitt, S.W., Zhang, R. and Orville, R.E. (2000) Seasonal and global NO<sub>x</sub> production by lightning estimated from the Optical Transient Detector (OTD). *Tellus* **52B**, 1206–1215. => HT1368
3609. Neu, J.L. and Plumb, R.A. (1999) Age of air in a "leaky pipe" model of stratospheric transport. *J. Geophys. Res. Atmospheres* **104**, 19243–19255. => AEL3010
3610. Neufeld P Aziz, R.A. (1972) Program ACQN to calculate transport collision integrals adapted to run on IBM computers. *Computer Phys. Commun.* **3**, 269–271. => AEL0883
3611. Neuman, J.A., Nowak, J.B., Brock, C.A., Trainer, M., Fehsenfeld, F.C., Holloway, J.S., Hübler, G., Hudson, P.K., Murphy, D.M., Nicks, D.K.Jr., Orsini, D., Parrish, D.D., Ryerson, T.B., Sueper, D.T., Sullivan, A. and Weber, R. (2003) Variability in ammonium nitrate formation and nitric acid depletion with altitude and location over California. *J. Geophys. Res. Atmospheres* **108**, 4557– doi:10.1029/2003JD003616. => AEL4040
3612. Neusüss, C., Pelzing, M., Plewka, A. and Herrmann, H. (2000) A new analytical approach for size-resolved speciation of organic compounds in atmospheric aerosol particles: Methods and first results. *J. Geophys. Res. Atmospheres* **105**, 4513–4527. => AEL3087
3613. Nevejeans, D., Arijs, E. and Ingels, J. (1978) CAMAC-controlled system for the measurement of ion mobilities. *Sci. Instrum.* **11**, 955–959. => AEL0236
3614. Nevison, C. and Holland, E. (1997) A reexamination of the impact of anthropogenically fixed nitrogen on atmospheric N<sub>2</sub>O and the stratospheric O<sub>3</sub> layer. *J. Geophys. Res. Atmospheres* **102**, 25519–25536. => AEL2215
3615. Newell, R.E., Wu, Z.-X., Zhu, Y., Hu, W., Browell, E.V., Gregory, G.L., Sachse, G.W., Collins, J.E.Jr., Kelly, K.K. and Liu, S.C. (1996) Vertical fine-scale atmospheric structure measured from NASA DC-8 during PEM-West A. *J. Geophys. Res.* **101**, 1943–1960. => AEL1620
3616. Nezbeda, I. and Iglesias-Silva, G.A. (1990) Primitive model of water. III. Analytic theoretical results with anomalies for the thermodynamic properties. *Mol. Phys.* **69**, 767–774. => AEL1996
3617. Nezbeda, I., Kolafa, J., Pavlicek, J. and Smith, W.R. (1995) Molecular theory of phase equilibria in model and real associated mixtures. II Binary aqueous mixtures of inert gases and n-alkanes. *J. Chem. Phys.* **102**, 9638–9646. => AEL1682
3618. Nezbeda, I., Smith, W.R. and Kolafa, J. (1994) Molecular theory of phase equilibria in model associated structures. 1. Binary mixtures of water and a simple fluid. *J. Chem. Phys.* **100**, 2191–2201. => AEL2399
3619. Nguyen, H.V., Okuyama, K., Mimura, T., Kousaka, Y., Flagan, R.C. and Seinfeld, J.H. (1987) Homogeneous and heterogeneous nucleation in a laminar flow aerosol generator. *J. Colloid and Interface Sci.* **119**, 491–504. => AEL1647

3620. Nguyen, K. and Dabdub, D. (2002) NO<sub>x</sub> and VOC control and its effects on the formation of aerosols. *Aerosol Sci. Technol.* **36**, 560–572. => AEL3701
3621. Nguyen, K. and Dabdub, D. (2002) Semi-Lagrangian flux scheme for the solution of the aerosol condensation/evaporation equation. *Aerosol Sci. Technol.* **36**, 407–418. => AEL3696
3622. Nicholson, K.W. (1988) A review of particle resuspension. *Atmos. Environ.* **22**, 2639–2651. => AEL0844
3623. Nickolaenko, A.P., Korol, M.A., Shvets, A.V. and Kudintseva, I.G. (1996) Effective parameters of low frequency antennas. *J. Atmos. Electricity* **16**, 81–88. => HT1114
3624. Niedziela, R.F., Norman, M.L., DeForest, C.L., Miller, R.E. and Worsnop, D.R. (1999) A temperature- and composition-dependent study of H<sub>2</sub>SO<sub>4</sub> aerosol optical constants using Fourier transform and tunable diode laser infrared spectroscopy. *J. Phys. Chem. A* **103**, 8030–8040. => AEL2990
3625. Nielsen, J.O. (1994) Elliptic integral of the first kind K(k). *22nd International Conference on Lightning Protection*, Budapest, pp. 1–7. => HT0777
3626. Nielsen, J.O. and Pedersen, A. (1994) Simulation of fields beneath thunderclouds by means of ring chargers for implementation in the leader progression model (LPM). *22nd International Conference on Lightning Protection*, Budapest, pp. 1–6. => HT0776
3627. Nielsen, N.F. and Schneider, T. (1997) *Particle deposition onto a human head: Influence of electrostatic and wind fields*. *Käsikiri*. => HT1444
3628. Niessner, R. (1990) Chemical characterization of aerosols. *Fresenius' J. Anal. Chem.* **337**, 565–576. => AEL0715
3629. Niessner, R. and Klockow, D. (1982) A new approach to the determination of atmospheric strong acids. *J. Aerosol Sci.* **13**, 175–179. => AEL0414
3630. Niininen, H. (1991) Fossil fuels and the environment. *XXV fysiikan pa,ivät 21. - 23.3.1991. Energia ja ympäristö. Abstraktit*, Oulu, pp. 6–6. => HT0505
3631. Niininen, M., Heinonen-Tanski, H. and Ralliokoski, P. (1993) Identification of filamentous microorganisms in some wastewater treatment plants of Finnish pulp and paper industry. *Prevention and Control of Bulking Activated Sludge*, Perugia, pp. 161–161. => HT0768
3632. Niininen, M., Kalliokoski, P. and Eskelinen, T. (1991) Co-treatment of landfill leachate and domestic sewage in activated sludge plant: A case study in Finland. *Proceedings of International Conference on Environmental Pollution*, Interscience Enterprises Ltd., Lisbon, **1**, pp. 307–313. => HT0769
3633. Nijmeijer, M.J.P., Bruin, C., Van Woerkom, A.B., Bakker, A.F. and Van Leeuwen, J.M.J. (1992) Molecular dynamics of the surface tension of a drop. *J. Chem. Phys.* **96**, 565–576. => AEL1050
3634. Nikmo, J., Kukkonen, J., Vesala, T. and Kulmala, M. (1994) A model for mass and heat transfer in an aerosol cloud. *J. Hazardous Materials* **38**, 293–311. => AEL2061
3635. Niles, F.E. (1970) Airlike discharges with CO<sub>2</sub>, NO, NO<sub>2</sub>, and N<sub>2</sub>O as impurities. *The J. Chem. Phys.* **52**, 408–423. => AEL0677
3636. Nilsson, B.A. (1992) A model of the relation between aerosol extinction and meteorological parameters. *Abstracts of Conference on Visibility and Fine Particles*, Vienna, pp. 1–1. => HT0685
3637. Nilsson, E.D. (1996) Planetary boundary layer structure and air mass transport during the International Arctic Ocean Expedition 1991. *Tellus* **48B**, 178–196. => AEL1643

3638. Nilsson, E.D. and Barr, S. (2001) Effects of synoptic patterns on atmospheric chemistry and aerosols during the Arctic Ocean Expedition 1996. *J. Geophys. Res. Atmospheres* **106**, 32069–32086. => AEL3612
3639. Nilsson, E.D. and Kulmala, M. (1998) The potential for atmospheric mixing processes to enhance the binary nucleation rate. *J. Geophys. Res. Atmospheres* **103**, 1381–1389. => AEL2080
3640. Nilsson, E.D., Paatero, J. and Boy, M. (2001) Effects of air masses and synoptic weather on aerosol formation in the continental boundary layer. *Tellus* **53B**, 462–478. => AEL3754
3641. Nilsson, E.D., Pirjola, L. and Kulmala, M. (2000) The effect of atmospheric waves on aerosol nucleation and size distribution. *J. Geophys. Res. Atmospheres* **105**, 19917–19926. => AEL3237
3642. Nilsson, E.D., Rannik, Ü., Kulmala, M. and O'Dowd, C.D. (2001) Effects of continental boundary layer evolution, convection, turbulence and entrainment, on aerosol formation. *Tellus* **53B**, 441–461. => AEL3753
3643. Nilsson, E.D., Rannik, Ü., Swietlicki, E., Leck, C., Aalto, P.P., Zhou, J. and Norman, M. (2001) Turbulent aerosol fluxes over the Arctic Ocean 2. Wind-driven sources from the sea. *J. Geophys. Res. Atmospheres* **106**, 32139–32154. => AEL3615
3644. Nilsson, M., Mikkilä, C., Sundh, I., Granberg, G., Svensson, B.H. and Ranneby, B. (2001) Methane emission from Swedish mires: National and regional budgets and dependence on mire vegetation. *J. Geophys. Res. Atmospheres* **106**, 20847–20860. => AEL3529
3645. *NILU Analyser*. => AEL2155
3646. *NILU-NYTT* (1998). => AEL2151
3647. Nishioka, K. (1995) Kinetic and thermodynamic definitions of the critical nucleus in nucleation theory. *Physical Review E* **52**, 3263–3265. => AEL2397
3648. Nishioka, K. and Fujita, K. (1994) Transient nucleation in binary vapor of water and sulfuric acid. *J. Chem. Phys.* **100**, 532–540. => AEL1907
3649. Nishioka, K. and Kusaka, I. (1992) Thermodynamic formulas of liquid phase nucleation from vapor in multicomponent systems. *J. Chem. Phys.* **96**, 5370–5376. => AEL3152
3650. Nishioka, K. and Maksimov, I.L. (1996) Reconsideration of the concept of critical nucleus and the Gibbs-Thomson equation. *J. Crystal Growth* **163**, 1–7. => AEL2396
3651. Nishioka, K. and Mori, A. (1992) Thermodynamic formula for the reversible work of forming a noncritical cluster from the vapor in multicomponent systems. *J. Chem. Phys.* **97**, 6687–6689. => AEL1041
3652. Nitter, T. and Havens, O. (1992) Dynamics of dust in a plasma sheath and injection of dust into plasma sheath above moon and asteroidal surfaces. *Earth, Moon, and Planets* **56**, 7–34. => HT0650
3653. Nogaj, B. (1987) Hydrogen-bond theories and models based on nuclear quadrupole resonance spectroscopy studies. *J. Phys. Chem.* **91**, 5863–5869. => AEL0696
3654. Nogaj, B., Dulevich, E., Brycki, B., Hrynio, A., Barczynski, P., Dega-Szafran, Z., Szafran, M., Koziol, P. and Katritzky, A.R. (1990) Chlorine-35 nuclear quadrupole resonance and infrared spectroscopic studies of hydrogen bonding in complexes of dichloroacetic acid with nitrogen and oxygen bases. Correlation of spectroscopic properties with proton affinity and aqueous  $pK_a$ . *J. Phys. Chem.* **94**, 1279–1285. => AEL0663
3655. Nolan, J.J. (1920) The nature of the ions produced in air by radioactive bodies. *Proc. Roy. Irish Acad.* **35**, 38–45. => AEL1337



3656. Nolan, J.J. and de Sacy, G.P. (1927) Atmospheric ionisation. *Proc. Roy. Irish Acad.* **A37**, 71–94. => AEL3388
3657. Nolan, J.J. and Nolan, P.J. (1935) A new method for counting atmospheric ions and determining their mobilities. *Proc. Royal Irish Academy* **42A**, 15–19. => AEL3531
3658. Nolan, J.J. and Nolan, P.J. (1935) A new method for counting atmospheric ions and determining their mobilities. *Proc. Roy. Irish Acad.* **A42**, 15–19. => HT-F067
3659. Nolan, P.J. and Kenny, P.J. (1952) A modified McClelland method for measuring ionic mobilities. *J. Atmos. Terr. Phys.* **2**, 266–271. => AEL3394
3660. Nolan, P.J. and O'Connor, T.C. (1955) Size, mobility and charge of multiply charged large ions. *Proc. Roy. Irish Acad.* **A57**, 161–171. => HT-F085
3661. Nolan, P.J. and O'Connor, T.C. (1955) Size, mobility and charge of multiply charged ions. *Proceedings of the Royal Irish Academy* **A57**, 161–171. => AEL1779
3662. Nolan, P.J. and O'Connor, T.C. (1955) Size, mobility and charge of multiply charged ions. *Proc. Roy. Irish Acad.* **57 A**, 161–171. => HT1193
3663. Nolan, P.J. and O'Toole, C.P.J. (1959) The condensation nuclei produced by point discharge. *Geofisica pura e applicata* **42**, 117–126. => AEL1128
3664. Nolan, P.J. and Scott, J.A. (1966) The exhaustion method of nucleus size analysis. *Proc. Roy. Irish Acad.* **A 65**, 13–25. => AEL0237
3665. Noll, K.E. and Khalili, E.K. (1990) Characterization of pollen deposition in a forest environment. *Atmos. Environ.* **24A**, 951–957. => AEL2115
3666. Noll, K.E., Jackson, M.M. and Oskouie, A.K. (2001) Development of an atmospheric particle dry deposition model. *Aerosol Sci. Technol.* **35**, 627–636. => AEL3501
3667. Nomura, Y., Hopke, P.K., Fitzgerald, B. and Mesbah, B. (1997) Deposition of particles in a chamber as a function of ventilation rate. *Aerosol Sci. Technol.* **27**, 62–72. => AEL1977
3668. Noone, K.J., Ogren, J.A., Hallberg, A., Hansson, H.-C., Wiedensohler, A. and Swietlicki, E. (1992) A statistical examination of the chemical differences between interstitial and scavenged aerosol. *Tellus* **44B**, 581–592. => AEL2029
3669. Noone, K.J., Schillawski, R.D., Kok, G.L., Bretherton, C.S. and Huebert, B.J. (1996) Ozone in the marine atmosphere observed during the Atlantic Stratocumulus Transition Experiment/Marine Aerosol and Gas Exchange. *J. Geophys. Res.* **101**, 4485–4499. => AEL1761
3670. Noppel, M. (1996) Nucleation in the presence of air ions and aerosol particles. In *Nucleation and atmospheric aerosols*, edited by Kulmala, M. and Wagner, P.E., Pergamon, pp. 208–211. => HT1166
3671. Noppel, M. (2000) Enthalpy and entropy changes in formation of gas phase sulfuric acid monohydrates and dihydrates as a result of fitting to experimental pressure data. *J. Geophys. Res. Atmospheres* **105**, 19779–19785. => HT1375
3672. Noppel, M. (2000) Enthalpy and entropy changes in formation of gas phase sulfuric acid monohydrates and dihydrates as a result of fitting to experimental pressure data. *J. Geophys. Res. Atmospheres* **105**, 19779–19785. => HT1392
3673. Noppel, M. and Hörrak, U. (2000) *Simulation of the mobility spectrum of charged particles during bursts in atmospheric air. Käsikiri.* => HT1496
3674. Nordmann, Ch. (1904) Enregistrement continu de l'ionisation gazeuse et de la radioactivité. *Compt. Rend.* **138**, 1596–1599. => HT-F040

3675. Nordmeyer, T. and Prather, K.A. (1994) Real-time measurement capabilities using aerosol time-of-flight mass spectrometry. *Anal. Chem.* **66**, 3540–3542. => AEL1415
3676. Norinder, H. and Sikсна, R. (1949) Continued measurements of the variation characteristics of the density of small-ions. *Arkiv för Geofysik* **1**, 149–158. => AEL1578
3677. Norinder, H. and Sikсна, R. (1949) The measurements of the variation characteristics of the density of small-ions. *Arkiv för Geofysik* **1**, 1–32. => AEL1577
3678. Norinder, H. and Sikсна, R. (1953) Mobility of atmospheric small ions during summer nights at Uppsala. *J. Atmos. Terr. Phys.* **4**, 93–105. => AEL3390
3679. Norinder, H. und Sikсна, R. (1950) Variationen des Ionengehaltes in der bodennahen Luftschicht. *Archiv für Meteorologie, Geophysik und Bioklimatologie* **A3**, 29–39. => AEL1616
3680. Norval, M. (2001) What's new in photoimmunology. *Photodermatology, Photoimmunology & Photomedicine* **17**, 136–137. => AEL3545
3681. *Norwegian Institute for Air Research. Annual report 1996* (1996). => AEL2150
3682. *NOSA 97. Abstracts from the annual Nordic Aerosol symposium* (1997) Chalmers University of Technology, Göteborg University,. => AEL3375
3683. *NOSA 97. Abstracts from the annual Nordic Aerosol symposium 23-24 October 1997* (1997) Chalmers University of Technology, Göteborg University,. => HT1209
3684. Nösler, H.G. und Gerike, P. (1985) Ökologische Absicherung von chemischen Produkten: Eine Bilanz nach 25 Jahren. *Chem. Ind.* **37**, 606–609. => AEL0632
3685. Noto, R., Martorana, V., Migliore, M. and Fornili, S. (1990) "Hydration of the ammonium ion: Monte Carlo simulation. *Zeitschrift für Naturforschung* **46A**, 107–110. => AEL0469
3686. Nouaime, G., Bertman, S.B., Seaver, C., Elyea, D., Huang, H., Shepson, P.B., Starn, T.K., Riemer, D.D., Zika, R.G. and Olszyna, K. (1998) Sequential oxidation products from tropospheric isoprene chemistry: MACR and MPAN at a NO<sub>x</sub>-rich forest environment in the southeastern United States. *J. Geophys. Res. Atmospheres* **103**, 22463–22471. => AEL2793
3687. Novakov, T. and Penner, J.E. (1993) Large contribution of organic aerosols to cloud-condensation-nuclei concentrations. *Nature* **365**, 823–826. => AEL1586
3688. Novakov, T., Corrigan, C.E., Penner, J.E., Chuang, C.C., Rosario, O. and Mayol Bracero, O.L. (1997) Organic aerosols in the Caribbean trade winds: A natural source?. *J. Geophys. Res. Atmospheres* **102**, 21307–21313. => AEL2198
3689. Novakov, T., Hegg, D.A. and Hobbs, P.V. (1997) Airborne measurements of carbonaceous aerosols on the East Coast of United States. *J. Geophys. Res. Atmospheres* **102**, 30023–30030. => AEL2162
3690. Novelli, P.C., Masarie, K.A. and Lang, P.M. (1998) Distributions and recent changes of carbon monoxide in the lower troposphere. *J. Geophys. Res. Atmospheres* **103**, 19015–19033. => AEL2338
3691. Nowakowski, B. and Ruckenstein, E. (1991) A kinetic approach to the theory of nucleation in gases. *J. Chem. Phys.* **94**, 1397–1402. => AEL0238
3692. Nowakowski, B. and Ruckenstein, E. (1991) Comparison among various approaches to the calculation of the nucleation rate. *J. Colloid Interface Sci.* **142**, 599–601. => AEL0747
3693. Noxon, J.F., Norton, R.B. and Marovich, E. (1980) NO<sub>3</sub> in the troposphere. *Geophysical Research Letters* **7**, 125–128. => AEL1428
3694. Nozière, B., Barnes, I. and Becker, K.-H. (1999) Product study and mechanisms of the reactions of  $\alpha$ -pinene and of pinonaldehyde with OH radicals. *J. Geophys. Res. Atmospheres* **104**, 23645–23656. => AEL3021

3695. *Nucleation and atmospheric aerosols. Sisukord* (1996) edited by Kulmala, M. and Wagner, P.E., Pergamon,. => HT1158
3696. Num.. (1994) *Numbriline meteoroloogia. Praktikum.* (in Estonian). Unclassified paper,. => AEL1033
3697. Num.. (1994) *Numbrilise meteoroloogia lühike inglise-soome-eeesti sõnastik.* Unclassified paper,. => AEL1034
3698. Nunez, M., Kuchinke, C. and Gies, P. (2002) Using broadband erythral UV instruments to measure relative irradiance. *J. Geophys. Res. Atmospheres* **107**, 4789–doi:10.1029/2001JD000738, 2002. => AEL3913
3699. Nyblom, L. and Samuelsson, C. (1992) The determination of the activity of serially transforming radionuclides by a recursive technique. *Radiation Protection Dosimetry* **45**, 25–28. => AEL2523
3700. Nyeki, S., Baltensperger, U., Colbeck, I., Jost, D.T., Weingartner, E. and Gäggeler, H.W. (1998) The Jungfrauoch high-alpine research station (3454 m) as a background clean continental site for the measurement of aerosol parameters. *J. Geophys. Res. Atmospheres* **103**, 6097–6107. => AEL2237
3701. Nyeki, S., Li, F., Weingartner, E., Streit, N., Colbeck, I., Gäggeler, H.W. and Baltensperger, U. (1998) The background aerosol size distribution in the free troposphere: An analysis of the annual cycle at a high-alpine site. *J. Geophys. Res. Atmospheres* **103**, 31749–31761. => AEL2839
3702. Nygre'n, T., Lanchester, B.S., Jalonen, L. and Huuskonen, A. (1989) "A method for determining ion-neutral collision frequency using radar measurements of ion velocity in two directions. *Planetary Space Science* **37**, 493–502. => AEL0578
3703. Nyle'n, P., Bergqvist, U., Wibom, R. and Knave, B. (1984) Physical and chemical environment at VDT work stations: air ions, electrostatic fields and PCBs. @IA, Stockholm, pp. 163–167. => AEL0396
3704. Nyquist, R.M., Talanquer, V. and Oxtoby, D.W. (1995) Density functional theory of nucleation: a semiempirical approach. *J. Chem. Phys.* **103**, 1175–1179. => AEL1490
3705. O`Dowd, C.D. (2002) On the spatial extent and evolution of costal aerosol plumes. *J. Geophys. Res. Atmospheres* **107**, 8105 doi:10.1029/2001JD000422–2002. => AEL3793
3706. O`Dowd, C.D., Aalto, P., Hämeri, K., Kulmala, M. and Hoffman, T. (2002) Atmospheric particles from organic vapours. *Nature* **416**, 497–498. => AEL3836
3707. O`Dowd, C.D., Aalto, P., Hämeri, K., Kulmala, M. and Hoffman, T. (2002) Atmospheric particles from organic vapours. *Nature* **416**, 497–497. => HT1428
3708. O`Dowd, C.D., Becker, E., Mäkelä, J.M. and Kulmala, M. (2000) Aerosol physico-chemical characteristics over a boreal forest determined by volatility analysis. *Boreal Environment Research* **5**, 337–348. => AEL3739
3709. O`Dowd, C.D., Hämeri, K., Mäkelä, J., Väkevä, M., Aalto, P., de Leeuw, G., Kunz, G.J., Becker, E., Hansson, H.-C., Allen, A.G., Harrison, R.M., Berresheim, H., Kleefeld, C., Geever, M., Jennings, S.G. and Kulmala, M. (2002) Coastal new particle formation: Environmental conditions and aerosol physicochemical characteristics during nucleation bursts. *J. Geophys. Res. Atmospheres* **107**, 8107 doi:10.1029/2000JD000206–2002. => AEL3794
3710. O`Dowd, C.D., Jimenez, J.L., Bahreini, R., Flagan, R.C., Seinfeld, J.H., Hämeri, K., Pirjola, L., Kulmala, M., Jennings, S.G. and Hoffmann, T. (2002) Marine aerosol formation from biogenic iodine emissions. *Nature* **417**, 632–636. => AEL3756

3711. O'Dowd, C.D., Hämeri, K., Mäkelä, J., Pirjola, L., Kulmala, M., Jennings, S.G., Berresheim, H., Hansson, H.-C., de Leeuw, G., Kunz, G.J., Allen, A.G., Hewitt, C.N., Jackson, A., Viisanen, Y. and Hoffmann, T. (2002) A dedicated study of New Particle Formation and Fate in the Coastal Environment (PARFORCE): Overview of objectives and achievements. *J. Geophys. Res. Atmospheres* **107**, 8108 doi:10.1029/2001JD000555–2002. => AEL3785
3712. O'Dowd, C.D., Lowe, J.A., Smith, M.H., Davison, B., Hewitt, C.N. and Harrison, R.M. (1997) Biogenic sulfur emissions and inferred non-sea-salt-sulphate cloud condensation nuclei in and around Antarctica. *J. Geophys. Res. Atmospheres* **102**, 12839–12854. => AEL2001
3713. Obeidi, F. and Eatough, D. (2002) Continuous measurement of semivolatile fine particulate mass in Provo, Utah. *Aerosol Sci. Technol.* **36**, 191–203. => AEL3593
3714. Obeidi, F., Eatough, N.L. and Eatough, D.J. (2002) Use of RAMS to measure semivolatile fine particulate matter at Riverside and Bakersfield, California. *Aerosol Sci. Technol.* **36**, 204–216. => AEL3594
3715. Öblad, M. and Selin, E. (1986) Measurements of elemental composition in background aerosol on the west coast of Sweden. *Atmos. Environ.* **20**, 1419–1432. => HT1081
3716. Öblad, M., Standzenieks, P., Selin, E. and Dubois, J. (1982) Application of an energy dispersive X-ray fluorescence spectrometer to air pollution studies. *Physica Scripta* **26**, 257–261. => HT1119
3717. O'Brien, E.W., Jennings, S.G., Geever, M. and Kleefeld, C. (2000) Relationships between condensation nuclei number concentration, tides, and standard meteorological variables at Mace Head, Ireland. *J. Geophys. Res. Atmospheres* **105**, 1973–1986. => AEL3071
3718. O'Brien, J.M., Shepson, P.B., Muthuramu, K., Hao, C., Niki, H., Hastie, D.R., Taylor, R. and Roussel, P.B. (1995) Measurements of alkyl and multifunctional organic nitrates at a rural site in Ontario. *J. Geophys. Res.* **100**, 22795–22804. => AEL1700
3719. Ockendon, J.R. and Evans, G.A. (1972) The drag on a sphere in low Reynolds number flow. *J. Aerosol Sci.* **3**, 237–242. => AEL0264
3720. O'Connor, T.C. Air pollution measurements at Mace Head, Ireland. 146–151. => AEL1093
3721. O'Connor, T.C. and McGovern, F.M. (1991) Aerosol climatology measurements with a Nolan-Pollak counter. *Atmos. Environ.* **25A**, 563–567. => AEL1565
3722. O'Doherty, S., Simmonds, P.G., Cunnold, D.M., Wang, H.J., Sturrock, G.A., Fraser, P.J., Ryall, D., Derwent, R.G., Weiss, R.F., Salameh, P., Miller, B.R. and Prinn, R.G. (2001) In situ chloroform measurements at Advanced Global Atmospheric Gases Experiment atmospheric research stations from 1994 to 1998. *J. Geophys. Res. Atmospheres* **106**, 20429–20444. => AEL3521
3723. O'Dowd, C. (2001) Biogenic coastal aerosol production and its influence on aerosol radiative properties. *J. Geophys. Res. Atmospheres* **106**, 1545–1549. => AEL3304
3724. O'Dowd, C.D., Lowe, J.A. and Smith, M.H. (1998) Coupling sea-salt and sulphate interactions and its impact on cloud droplet concentration predictions. Abstract. *Geophys. Res. Lett.* **26**, 1311–1314. => AEL2866
3725. O'Dowd, C.D., Lowe, J.A., Clegg, N., Smith, M.H. and Clegg, S.L. (2000) Modeling heterogeneous sulphate production in maritime stratiform clouds. *J. Geophys. Res. Atmospheres* **105**, 7143–7160. => AEL3111
3726. O'Dowd, C.D., Smith, M.H., Consterdine, I.E. and Lowe, J.A. (1997) Marine aerosol, sea-salt, and the marine sulphur cycle: A short review. *Atmos. Environ.* **31**, 73–80. => AEL3512

3727. Odum, J.R., Hoffmann, T., Bowman, F., Collins, D., Flagan, R.C. and Seinfeld, J.H. (1996) Gas/particle partitioning and secondary organic aerosol yields. *Environ. Sci. Technol.* **30**, 2580–2585. => AEL2350
3728. Oebblad (Öblad), M. and Selin, E. (1986) Measurements of elemental composition in background aerosol on the West Coast of Sweden. *Atmos. Environ.* **20**, 1419–1432. => AEL0239
3729. Oeseburg, F. (1972) The influence of the aperture of the optical system of aerosol particle counters on the response curve. *J. Aerosol Sci.* **3**, 307–311. => AEL0265
3730. Offenberg, J.H. and Baker, J.E. (2000) Aerosol size distributions of elemental and organic carbon in urban and over-water atmospheres. *Atmos. Environ.* **34**, 1509–1517. => AEL3121
3731. Ofuruton, H., Kondo, N., Kamogawa, M., Aoki, M. and Ohtsuki, Y.-H. (2001) Experimental conditions for ball lightning creation by using air gap discharge embedded in a microwave field. *J. Geophys. Res. Atmospheres* **106**, 12367–12369. => AEL3469
3732. Ogawa, T. (1985) Fair-weather electricity. @*JGR* **90**, 5951–5960. => HT0388
3733. Ogawa, T. and Kawamoto, H. (1982) Mid-latitude horizontal electric fields in the stratosphere during magnetically disturbed periods. *Planetary and Space Science* **30**, 1013–1024. => HT0065
3734. Ogawa, T., Oike, K. and Miura, T. (1984) Electromagnetic radiations from rock. *VII International Conference on Atmospheric Electricity*, Boston, pp. 504–507. => HT0146
3735. Ogawa, T., Oike, K. and Miura, T. (1985) Electromagnetic radiations from rocks. @*JGR* **90**, 6245–6249. => HT0404
3736. Ogawa, T., Yamagishi, H., Fukunishi, H. and Ono, T. (1984) Balloon measurement of electric fields near the Harang discontinuity. *Memoirs of National Institute of Polar Research* 137–143. => HT0158
3737. Oge, M. (1994) The US Environmental Agency's strategy to reduce risks of radon. *Radiation Protection Dosimetry* **56**, 343–354. => AEL2510
3738. Ogren, J.A. (1980) On the operation of the electrical aerosol analyzer at reduced pressures. *J. Aerosol Sci.* **11**, 427–434. => AEL0266
3739. Ogren, J.A. (1980) On the operation of the electrical aerosol analyzer at reduced pressures. *J. Aerosol Sci.* **11**, 427–434. => HT0200
3740. Oh K.J. and Zeng, X.C. (1998) Contribution of the center-of-mass fluctuation of a liquid cluster to the free energy: A Monte Carlo simulation study. *J. Chem. Phys.* **108**, 4683–4684. => AEL3874
3741. Oh K.J. and Zeng, X.C. (1999) Formation of free energy of clusters in vapor-liquid nucleation: A Monte Carlo simulation study. *J. Chem. Phys.* **110**, 4471–4476. => AEL3875
3742. Oh K.J. and Zeng, X.C. (2000) Nucleation of water and methanol droplets on ions: The sign preference. In *Nucleation and atmospheric aerosols 2000: 15th Int. \l Conf.*, edited by Hale, B.N. and Kulmala, M., American Institute of Physics, pp. 11–14. => AEL3855
3743. Oh K.J., Gao, G.T. and Zeng, X.C. (1998) The effect of a uniform electric field on homogeneous vapor-liquid nucleation in a dipolar fluid. I. Stockmayer fluid. *J. Chem. Phys.* **109**, 8435–8441. => AEL3147
3744. Oh K.J., Gao, G.T. and Zeng, X.C. (2001) Nucleation of water and methanol droplets on cations and anions: The sign preference. *Phys. Rev. Lett.* **86**, 5080–5083. => AEL3862
3745. Oh M.D., Yoo, K.H. and Myong, H.K. (1996) Numerical analysis of particle deposition onto horizontal freestanding water surfaces heated or cooled. *Aerosol Sci. Technol.* **25**, 141–156. => AEL1741

3746. O'Hara, H. and Smith, F.J. (1971) Transport collision integrals for a dilute gas. *Computer Phys. Commun.* **2**, 47–54. => AEL0884
3747. Ohvriil, H., Okulov, O., Teral, H. and Teral, K. (1999) The atmospheric integral transparency coefficient and the Forbes effect. *Solar Energy* **66**, 305–317. => HT1328
3748. Oike, K. and Ogawa, T. (1986) Electromagnetic radiations from shallow earthquakes observed in the LF range. *J. Geomag. Geoelectr.* **38**, 1031–1040. => HT0396
3749. Okada, K., Tanaka, T., Naruse, H. and Yoshikawa, T. (1990) Nucleation scavenging of submicrometer aerosol particles. *Tellus* **42B**, 463–480. => AEL0799
3750. Okada, Y., Oorii, T. and Takeuchi, K. (2001) Growth rate of clusters in ion-induced nucleation. *RIKEN Review* **38**, 9–11. => HT1580
3751. Okuyama, K. and Kousaka, Y. (1988) Experiments on the dynamics of ultrafine aerosol particles. *Lect. Notes Phys.* **309**, 79–92. => AEL0711
3752. Okuyama, K., Adachi, M. and Kim, T. (1996) Experimental evaluation of ion-induced nucleation in nanometer-sized particle formation from SO<sub>2</sub>/H<sub>2</sub>O/N<sub>2</sub> mixture by  $\alpha$ -ray radiolysis. In *Nucleation and atmospheric aerosols*, edited by Kulmala, M. and Wagner, P.E., Pergamon, pp. 42–45. => HT1171
3753. Okuyama, K., Kousaka, Y. and Hayashi, K. (1984) Change in size distribution of ultrafine aerosol particles undergoing Brownian coagulation. *Journal of Colloid and Interface Science* **101**, 98–109. => AEL1684
3754. Okuyama, K., Kousaka, Y., Warren, D.R., Flagan, R.C. and Seinfeld, J.H. (1987) Homogeneous nucleation by continuous mixing of high temperature vapor with room temperature gas. *Aerosol Sci. Technol.* **6**, 15–27. => AEL0809
3755. Okuyama, K., Kousaka, Y., Warren, D.R., Flagan, R.C. and Seinfeld, J.H. (1987) Homogeneous nucleation by continuous mixing of high temperature vapor with room temperature gas. *Aerosol Sci. Technol.* **6**, 15–27. => AEL1580
3756. Oladiran, E.O. and Israelsson, S. *Pollutant effects on the low-level potential gradient short-time variations. Manuscript.* => HT0415
3757. Oladiran, E.O., Pislser, E. and Israelsson, S. (1985) *The calibration of lightning flash counters using pulses of finite rise times. Manuscript.* Uppsala. => HT0423
3758. Olawoyin, O.O., Raunemaa, T.M. and Hopke, P.K. (1995) A system for aerodynamically sizing ultrafine radioactive particles. *Aerosol Sci. Technol.* **23**, 121–130. => AEL1532
3759. Olier, J.-P. (1989) La pollution de l'air en France. *Pollution Atmospherique* 371–381. => AEL3407
3760. Olivier, B.J., Sorensen, C.M. and Taylor, T.W. (1992) Scaling dynamics of aerosol coagulation. *Phys. Rev. A* **45**, 5614–5623. => AEL0875
3761. Ollikainen, O., Rebane, A. and Rebane, K.K. (1993) Error-corrective optical neural networks modelled by persistent spectral hole-burning. *Optical and Quantum Electronics* **25**, S569–S585. => HT0879
3762. Olmo, F.J., Tovar, J., Alados-Arboledas, L., Okulov, O. and Ohvriil, H.O. (1999) A comparison of ground level solar radiative effects of recent volcanic eruptions. *Atmos. Environ.* **33**, 4589–4596. => HT1329
3763. Olson, J.A., Baumann, K., Volpe, C.J., Harder, J.W., Williams, E.J. and Mount, G.H. (1997) Meteorological overview of the 1993 OH Photochemistry Experiment. *J. Geophys. Res. Atmospheres* **102**, 6187–6197. => AEL2895
3764. Olsson, J. (1994) *Surface ionization of alkali salt aerosol particles at atmospheric pressure. B. Sc. thesis in chemistry.* Göteborg University,. => HT1130

3765. Olsson, J., Singh, V.P. and Jinno, K. (1999) Effect of spatial averaging on temporal statistical and scaling properties of rainfall. *J. Geophys. Res. Atmospheres* **104**, 19117–19126. => AEL3006
3766. Olsson, J.G. and Pettersson, J.B.C. Surface ionization of alkali salt aerosol particles at atmospheric pressure. *Subm. to J. Aerosol Sci.* 1–12. => HT0955
3767. Olszyna, K.J., Parkhurst, W.J. and Meagher, J.F. (1998) Air chemistry during the 1995 SOS/Nashville intensive determined from level 2 network. *J. Geophys. Res. Atmospheres* **103**, 31143–31153. => AEL2830
3768. Onsager, L. and Samaras, N.N.T. (1934) The surface tension of Debye-Hückel electrolytes. 528–536. => AEL3910
3769. Orlando, J.J., Nozière, B., Tyndall, G.S., Orzechowska, G.E., Paulson, S.E. and Rudich, Y. (2000) Product studies of the OH- and ozone-initiated oxidation of some monoterpenes. *J. Geophys. Res. Atmospheres* **105**, 11561–11572. => AEL3208
3770. Ortner, G. and El Nadi, A.F. (1955) Intermediate and large atmospheric ions at Cairo-Giza. *J. Atmos. Terr. Phys.* **7**, 31–39. => AEL3509
3771. Orville, R.E. (1980) Daylight spectra of individual lightning flashes in the 370-690 nm region. *J. of Applied Meteorology* **19**, 470–473. => HT0092
3772. Orville, R.E. (1981) Global distribution of midnight lighting - September to November 1977. *Monthly Weather Review* **109**, 391–395. => HT0093
3773. Orville, R.E. (1987) An analytical solution to obtain the optimum source location using multiple direction finders on a spherical surface. *@JGR* **92**, 10877–10886. => HT0390
3774. Orville, R.E. (1987) Meteorological applications of lightning data. *Review of Geophysics* **25**, 411–414. => HT0442
3775. Orville, R.E. (1990) Peak-current variations of lightning return strokes as a function of latitude. *Nature* **343**, 149–151. => HT0528
3776. Orville, R.E. (1993) Cloud-to-ground lightning in the Blizzard of '93. *Geophysical Research Letters* **20**, 1367–1370. => HT0784
3777. Orville, R.E. (1999) Annual summary. Lightning ground flash measurements over the contiguous United States: 1995-97. *Monthly Weather Review* **127**, 2693–2703. => HT1321
3778. Orville, R.E. (1999) Comments on "Large peak current cloud-to-ground lightning flashes during the summer months in the contiguous United States". *Monthly Weather Review* **127**, 1937–1938. => HT1319
3779. Orville, R.E. and Henderson, R.W. (1986) Global distribution of midnight lightning: September 1977 to August 1978. *Monthly Weather Review* **114**, 2640–2653. => HT0441
3780. Orville, R.E. and Huffines, G.R. (2001) Cloud-to-ground lightning in the United States: NLDN results in the first decade, 1989-98. *Monthly Weather Review* **129**, 1179–1193. => HT1367
3781. Orville, R.E. and Idone, V.P. (1982) Lightning leader characteristics in the thunderstorm research international program (TRIP). *J. of Geophysical Research* **87**, 11177–11192. => HT0142
3782. Orville, R.E. and Silver, A.C. (1997) Annual summary. Lightning ground flash density in the contiguous United States: 1992-95. *Monthly Weather Review* **125**, 631–638. => HT1090
3783. Orville, R.E., Henderson, R.W. and Bosart, L.F. (1983) An east coast lightning detection network. *Bull. of the American Meteorological Society* **64**, 1029–1037. => HT0169

3784. Orville, R.E., Henderson, R.W. and Bosart, L.F. (1988) Bipole patterns revealed by lightning locations in mesoscale storm systems. @*JGR* **15**, 129–132. => HT0410
3785. Orville, R.E., Huffines, G., Nielsen-Gammon, J., Zhang, R., Ely, B., Steiger, S., Phillips, S., Allen, S. and Read, W. (2001) Enhancement of cloud-to-ground lightning over Houston, Texas. *Geophys. Res. Lett.* **28**, 2597–2600. => HT1366
3786. Orville, R.E., Huffines, G.E., Burrows, W.R., Holle, R.L. and Cummins, K.L. (2002) The North American Lightning Detection Network (NALDN) – first results: 1998-2000. *Monthly Weather Review* **130**, 2098–2109. => HT1383
3787. Orville, R.E., Weisman, R.A., Pyle, R.B., Henderson, R.W., Orville, R.E. and Jr. (1987) Cloud-to-ground lightning flash characteristics from June 1984 through May 1985. @*JGR* **92**, 5640–5644. => HT0429
3788. Orville, R.E., Zipser, E.J., Brook, M., Weidman, C., Aulich, G., Krider, E.P., Christian, H., Goodman, S., Blakeslee, R. and Cummins, K. (1997) Lightning in the region of the TOGA COARE. *Bull. Amer. Meteorol. Soc.* **78**, 1055–1067. => HT1089
3789. Oskouie, A.K., Wang, H.-C., Mavliev, R. and Noll, K.E. (1998) Calculated calibration curves for particle size determination based on time-of flight (TOF). *Aerosol Sci. Technol.* **29**, 433–441. => AEL2737
3790. Oster, A.L. and Coroniti, S.C. (1968) A method of measuring electron and ion densities in the region of 40 - 80 kilometers. *J. Geophys. Res.* **73**, 4421–4424. => HT-F094
3791. O'Sullivan, D.W., Heikes, B.G., Lee, M., Chang, W., Gregory, G.L., Blake, D.R. and Sachse, G.W. (1999) Distribution of hydrogen peroxide and methylhydroperoxide over the Pacific and South Atlantic Oceans. *J. Geophys. Res. Atmospheres* **104**, 5635–5646. => AEL2785
3792. Ots, A. (1992) Formation of air-polluting compounds while burning oil-shale. *Oil Shale* **9**, 63–75. => AEL1941
3793. Otten, F., Elihn, K., Kruis, F.E., Boman, M., Carlsson, J.-O. and Fissan, H. (1998) Generation of monodisperse iron-containing nanoparticles by laser-assisted precipitation from ferrocene and mobility fractionation. *J. Aerosol Sci.* **29**, S125–S126. => HT1334
3794. Otto, E., Fissan, H., Park, S.H. and Lee, K.W. (1997?) *Brownian coagulation in the transition regime using the moments of a lognormal distribution. Käsikiri.* => HT1205
3795. Ouyang, M. and Liu, B.Y.H. (1995) Analytical solution of flow field and pressure drop for filters with noncircular fibers. *Aerosol Sci. Technol.* **23**, 311–320. => AEL1570
3796. Owen, P.R. and Thompson, W.R. (1963) Heat transfer across rough surfaces. *The J. of Fluid Mech.* **15**, 321–334. => AEL0857
3797. Owen, S.M., Boissard, C., Hagenlocher, B. and Hewitt, C.N. (1998) Field studies of isoprene emissions from vegetation in the Northwest Mediterranean region. *J. Geophys. Res. Atmospheres* **103**, 25499–25511. => AEL2803
3798. Oxtoby, D.W. (1992) Homogeneous nucleation: theory and experiment. *J. Phys.: Condens. Matter* **4**, 7627–7650. => AEL1161
3799. Oxtoby, D.W. and Evans, R. (1988) Nonclassical nucleation theory for the gas-liquid transition. *J. Chem. Phys.* **89**, 7521–7530. => AEL1158
3800. Oxtoby, D.W. and Kashchiev, D. (1994) A general relation between the nucleation work and the size of the nucleus in a multicomponent nucleation. *J. Chem. Phys.* **100**, 7665–7671. => AEL1180
3801. Paatero, P., Tapper, U., Aalto, P. and Kulmala, M. (1991) *Matrix factorization methods for analysing diffusion battery data.* Manuscript,. => HT0691



3802. Pacyna, J.M. and Ottar, B. (1989) Origin of natural constituents in the Arctic aerosol. *Atmos. Environ.* **23**, 809–815. => AEL0267
3803. Pacyna, J.M., Larssen, S. and Semb, A. (1991) European survey for NO<sub>x</sub> emissions with emphasis on Eastern Europe. *Atmos. Environ.* **25A**, 425–439. => AEL2133
3804. Page, R.H., Vernon, M.F., Shen, Y.R. and Lee, Y.T. (1987) Infrared vibrational predissociation spectra of large water clusters. *Chem. Phys. Lett.* **141**, 1–6. => AEL0693
3805. Pagels, J., Falk, R., Gudmundsson, A., Zhou, J., Swietlicki, E. and Bohgard, M. *Experimental deposition of particle attached radon progeny in the respiratory tracts of children and adults. Conference proceeding.* => HT1537
3806. Pahapill, L., Rulkov, A. and Swedjemark, G.A. (1996) *Radon in Estonian buildings. Establishment of a measurement system and obtained results. SSI 96:13.* Swedish Radiation Protection Institute,. => HT1148
3807. Pahapill, L., Rulkov, A. and Swedjemark, G.A. (1996) *Radon in Estonian buildings. Establishment of a measurement system and obtained results, Swedish Radiation Protection Institute, Report No. 96:13.* => HT1509
3808. Palffy-Muhoray, P. and Bergersen, B. (1987) Van der Waals theory for nematic liquid crystals. *Phys. Rev. A* **35**, 2704–2708. => AEL1013
3809. Palinkas, G., Riede, W.O. and Heinzinger, K. (1977) A molecular dynamics study of aqueous solutions. VII. Improved simulation and comparison with X-ray investigations of a NaCl solution. *Z. Naturforsch.* **32A**, 1137–1145. => AEL0827
3810. Palmer, L.S., Cunliffe, A. and Hough, J.M. (1952) Dielectric constant of water films. *Nature* **170**, 796–796. => AEL0835
3811. Paltridge, G.W. (1965) Experimental measurements of the small-ion density and electrical conductivity of the stratosphere. *J. Geophys. Res.* **70**, 2751–2761. => HT-F020
3812. Pan, W., Tatang, M.A., McRae, G.J. and Prinn, R.G. (1997) Uncertainty analysis of direct radiative forcing by anthropogenic sulfate aerosols. *J. Geophys. Res. Atmospheres* **102**, 21915–21924. => AEL2010
3813. Panaget, M.-P., Renard, D., Goldman, A. and Goldman, M. (1995) On the production of hydrogen peroxide by corona discharges in controlled air. *Subm. to 11th Int. Conf. on Gas Discharge and their Applications*, Tokyo, pp. 1–4. => HT0952
3814. Panchenko, M.V., Terpugova, S.A. and Tumakov, A.G. (1996) Annual variations of submicron aerosol fraction as assessed from the data of airborne nephelometric measurements. *Atmospheric Research* **41**, 203–215. => AEL1834
3815. Pandis, S.N., Baltensperger, U., Wolfenbarger, J.K. and Seinfeld, J.H. (1991) Inversion of aerosol data from the epiphaniometer. *J. Aerosol Sci.* **22**, 417–428. => HT1491
3816. Pandis, S.N., Paulson, S.E., Seinfeld, J.H. and Flagan, R.C. (1991) Aerosol formation in the photooxidation of isoprene and b-pinene. *Atmos. Environ.* **25A**, 997–1008. => AEL1070
3817. Pandis, S.N., Seinfeld, J.H. and Pilinis, C. (1990) The smog-fog-smog cycle and acid deposition. *J. Geophys. Res.* **95**, 18489–18500. => AEL0448
3818. Pang, Y., Eatough, N.L. and Eatough, D.J. (2002) PM<sub>2.5</sub> semivolatile organic material at Riverside, California: Implications for the PM<sub>2.5</sub> Federal Reference Method Sampler. *Aerosol Sci. Technol.* **36**, 277–288. => AEL3600
3819. Pang, Y., Eatough, N.L. and Eatough, D.J. (2002) PM<sub>2.5</sub> semivolatile organic material at Riverside, California: Implications for the PM<sub>2.5</sub> Federal Reference Method Sampler. *Aerosol Sci. Technol.* **36**, 277–288. => AEL3691

3820. Pang, Y., Eatough, N.L., Wilson, J. and Eatough, D.J. (2002) Effect of semivolatile material on PM<sub>2.5</sub> measurement by the PM<sub>2.5</sub> Federal Reference Method Sampler at Bakersfield, California. *Aerosol Sci. Technol.* **36**, 289–299. => AEL3601
3821. Pang, Y., Eatough, N.L., Wilson, J. and Eatough, D.J. (2002) Effect of semivolatile material on PM<sub>2.5</sub> measurement by the PM<sub>2.5</sub> Federal Reference Method Sampler at Bakersfield, California. *Aerosol Sci. Technol.* **36**, 289–299. => AEL3692
3822. Panneerselvam, C., Gurubaran, S., Jeeva, K., Nair, K.U. and Rajaram, R. (2001) *Air-Earth current measurements from Tirunelveli (8.7° N): a search for global DC component*. *Kāsikiri*. => HT1378
3823. Panneerselvam, C., Jeeva, K., Nair, K.U., Gurubaran, ?. and Rajaram, R. *First observations of atmospheric electric current density from a low latitude continental station*. Manuscript,. => HT1535
3824. Paoletti, D. and Spagnolo, G.S. (1991) Air ions as possible environmental monitors. *Il Nuovo Cimento della Societa Italiana di Fisica* **13D**, 195–202. => AEL1348
3825. Papastefanou, C. and Bondietti, E.A. (1987) Aerodynamic size associations of <sup>212</sup>Pb and <sup>214</sup>Pb in ambient aerosols. *Health Phys.* **53**, 461–472. => HT1283
3826. Papastefanou, C. and Ioannidou, A. (1996) Influence of air pollutants in the <sup>7</sup>Be size distribution of atmospheric aerosols. *Aerosol Sci. Technol.* **24**, 102–106. => AEL1575
3827. Papen, H. and Butterbach-Bahl, K. (1999) A 3-year continuous record of nitrogen trace gas fluxes from untreated and limed soil of a N-saturated spruce and beech forest ecosystem in Germany 1. N<sub>2</sub>O emissions. *J. Geophys. Res. Atmospheres* **104**, 18487–18503. => AEL3001
3828. Papoular, R. (1965) *Electrical phenomena in gases*. Iliffe Books Ltd., London. => HT0916
3829. Papoulis, A. (1972) Approximations of point spreads for deconvolution. *J. Opt. Soc. Am.* **62**, 77–80. => HT0261
3830. Paramonov, N.A. (1971) Vydelenie globalnogo sutochnogo khoda gradienta potentsiala elektricheskogo polya v atmosfere i vertikalnogo toka provodimosti (in Russian). *Meteorologiya i Gidrologiya* 89–91. => HT1532
3831. Paris, P., Mirme, A. and Laan, M. (1998) Study of corona discharge aerosol with an electrical aerosol spectrometer. *J. Aerosol Sci.* **29**, S845–S846. => HT1347
3832. Park, C.G. and Dejnakintra, M. The effects of magnetospheric convection on atmospheric electric fields in the polar cap. pp. 536–543. => HT0947
3833. Park, M., Randel, W.J., Kinnison, D.E., Garcia, R.R. and Choi, W. (2004) Seasonal variation of methane, water vapor, and nitrogen oxides near the tropopause: Satellite observations and model simulations. *J. Geophys. Res. Atmospheres* **109**, D03302– doi:10.1029/2003JD003706, 2004. => AEL4129
3834. Park, R.J., Stenchikow, G.L., Pickering, K.E., Dickerson, R.R., Allen, D.J. and Kondragunta, S. (2001) Regional air pollution and its radiative forcing: Studies with a single-column chemical and radiation transport model. *J. Geophys. Res. Atmospheres* **106**, 28751–28770. => AEL3586
3835. Park, S.H. and Lee, K.W. (2000) Condensational growth of polydisperse aerosol for the entire particle size range. *Aerosol Sci. Technol.* **33**, 222–227. => AEL3348
3836. Park, S.H., Kim, H.O., Han, Y.T., Kwon, S.B. and Lee, K.W. (2001) Wall loss rate of polydispersed aerosols. *Aerosol Sci. Technol.* **35**, 710–717. => AEL3505
3837. Park, S.H., Kruis, F.E., Lee, K.W. and Fissan, H. (2002) Evolution of particle size distributions due to turbulent and Brownian coagulation. *Aerosol Sci. Technol.* **36**, 419–432. => AEL3697

3838. Park, Y.O., King, W.E.Jr. and Gentry, J.W. (1980) On the inversion of penetration measurements to determine aerosol product size distributions. *Ind. Eng. Chem. Prod. Res. Dev.* **19**, 151–157. => AEL2436
3839. Parker, G.A. and Pack, R.T. (1978) Rotationally and vibrationally inelastic scattering in the rotational IOS approximation. Ultrasimple calculation of total (differential, integral, and transport) cross sections for nonspherical molecules. *J. Chem. Phys.* **68**, 1585–1601. => AEL0268
3840. Parmentier, N. and Nenot, J.C. (1989) Radiation damage aspects of the Chernobyl accident. *Atmos. Environ.* **23**, 771–775. => AEL0269
3841. Parrish, D.D., Holloway, J.S., Jakoubek, R., Trainer, M., Ryerson, T.B., Hübler, G., Fehsenfeld, F.C., Moody, J.L. and Cooper, O.R. (2000) Mixing of anthropogenic pollution with stratospheric ozone: A case study from the North Atlantic wintertime troposphere. *J. Geophys. Res. Atmospheres* **105**, 24363–24374. => AEL3255
3842. Parsons, C. and Mavliev, R. (2001) Design and characterization of a new, water-based, high sample-flow condensation nucleus counter. *Aerosol Sci. Technol.* **34**, 309–320. => AEL3436
3843. Parungo, F., Ackerman, E., Caldwell, W. and Weickmann, H.K. (1979) Individual particle analysis of Antarctic aerosols. *Tellus* **31**, 521–529. => AEL0270
3844. Parungo, F., Ackerman, E., Proulx, H. and Pueschel, R. (1978) Nucleation properties of fly ash in a coal-fired power-plant plume. *Atmos. Environ.* **12**, 929–935. => AEL0271
3845. Paschoa, A.S., Wrenn, M.E. and Torrey, J.A. (1984) A mathematical model of indoor radon and daughters. *Radiation Protection Dosimetry* **7**, 139–142. => AEL2437
3846. Pastuszka, J.S., Okada, K. and Willeke, K. (1992) Studies on the structure of atmospheric aerosol in Katowice, Poland. *Abstracts of Conference on Visibility and Fine Particles*, Vienna, pp. 1–1. => HT0686
3847. Pataschnick, H., Rupprecht, G., Ambs, J.L. and Meyer, M.B. (2001) Development of a reference standard for particulate matter mass in ambient air. *Aerosol Sci. Technol.* **34**, 42–45. => AEL3361
3848. Patashnick, H. and Rupprecht, G. (1986) Microweighing goes on line in real time. Tapered-element oscillating microbalance weighs small amounts of particulates where they occur. *Research & Development* 74–78. => AEL0679
3849. Patschull, J. and Roth, P. (1992) Charge and size distribution of particles emitted from a DI-diesel engine. *J. Aerosol Sci.* **23**, S229–S232. => AEL0928
3850. Patton, G.W., Hinkley, D.A., Walla, M.D., Bidleman, T.F. and Hargrave, B.T. (1989) Airborne organochlorines in the Canadian High Arctic. *Tellus* **41B**, 243–255. => AEL0587
3851. Patuharju, O. (1974) Kiuas-the heart of the Finnish Sauna. *Manuscript (VI International Sauna Congress)*, Helsinki, pp. 1–15. => HT0302
3852. Pätz, H.-W., Corsmeier, U., Glaser, K., Vogt, U., Kalthoff, N., Klemp, D., Kolahgar, B., Lerner, A., Neininger, B., Schmitz, T., Schultz, M.G., Slemr, J. and Volz-Thomas, A. (2000) Measurements of trace gases and photolysis frequencies during SLOPE96 and a coarse estimate of the local OH concentration from HNO<sub>3</sub> formation. *J. Geophys. Res. Atmospheres* **105**, 1563–1583. => AEL3069
3853. Paulson, S.E., Chung, M., Sen, A.D. and Orzechowska, G. (1998) Measurement of OH radical formation from the reaction of ozone with several biogenic alkenes. *J. Geophys. Res. Atmospheres* **103**, 25533–25539. => AEL2805
3854. Paur, H.-R. and Jordan, S. (1988) Aerosol formation in the electron beam dry scrubbing process (ES-verfahren). *Radiat. Phys. Chem.* **31**, 9–13. => AEL0272

3855. Pauthenier, M. and Demon, L. (1958) Expérience a Orly sur la production d'un champ électrique artificiel. *Compt. Rend. des Séances de l'Acad. Sci.* **246**, 722–724. => AEL0273
3856. Pedersen, J.O.P., Enghoff, M.B., Paling, S. and Svensmark, H. *Nucleation in an ultra low ionization environment. Poster.* => HT1556
3857. Peifer, W.R., Coolbaugh, M.T. and Garvey, J.F. (1989) Observation of "magic numbers" in the population distributions of the  $(\text{NH}_3)_n$  and  $(\text{NH}_3)_n\text{H}_2^+$  cluster ions: Implications for cluster ion structures. *J. Chem. Phys.* **91**, 6684–6690. => AEL0496
3858. Peliti, L. and Leibler, S. (1985) Effects of thermal fluctuations on systems with small surface tension. *Phys. Rev. Lett.* **54**, 1690–1693. => AEL1331
3859. Penner, J.E. (2003) Comment on "Control of fossil-fuel particulate black carbon and organic matter, possibly the most effective method of slowing the global warming" by M.Z. Jacobson. *J. Geophys. Res. Atmospheres* **108**, 4771– doi:10.1029/2002JD003364. => AEL4108
3860. Penner, J.E. and Novakov, T. (1996) Preface. *J. Geophys. Res.* **101**, 19371–19371. => AEL1890
3861. Penner, J.E., Charlson, R.J., Hales, J.M., Laulainen, N.S., Leifer, R., Novakov, T., Ogren, J., Radke, L.F., Schwartz, S.E. and Travis, L. (1994) Quantifying and minimizing uncertainty of climate forcing by anthropogenic aerosols. *Bull. Amer. Meteorol. Soc.* **75**, 375–400. => AEL2864
3862. Penney, G.W. and Lynch, R.D. (1957) Measurements of charge imparted to fine particles by a corona discharge. *AIEE Transactions* **76**, 294–299. => AEL0274
3863. Perez, A.H., Wicker, L.J. and Orville, R.E. (1997) Characteristics of cloud-to-ground lightning associated with violent tornadoes. *Weather and Forecasting* **12**, 428–437. => HT1092
3864. Periasamy, R., Clayton, A.C., Lawless, P.A., Donovan, R.P. and Ensor, D.S. (1991) Generation of uniformly sized, charged particles in a vacuum. *Aerosol Sci. Technol.* **15**, 256–265. => AEL1095
3865. Perkins, M.D. and Eisele, F. (1984) First mass spectrometric measurements of atmospheric ions at ground level. *J. Geophys. Res.* **89**, 9649–9657. => AEL0968
3866. Perry, K.D. and Hobbs, P.V. (1994) Further evidence for particle nucleation in clear air adjacent to marine cumulus clouds. *J. Geophys. Res.* **99**, 22803–22818. => AEL1615
3867. Perry, K.D., Cahill, T.A., Schnell, R.C. and Harris, J.M. (1999) Long-range transport of anthropogenic aerosols to the National Oceanic and Atmospheric Administration baseline station at Mauna Loa Observatory, Hawaii. *J. Geophys. Res. Atmospheres* **104**, 18521–18533. => AEL3003
3868. Person, J.C. and Ham, D.O. (1988) Removal of  $\text{SO}_2$  and  $\text{NO}_x$  from stack gases by electron beam irradiation. *Rad. Phys. Chem.* **31**, 1–8. => AEL0275
3869. Pesthy, A.J., Flagan, R.C. and Seinfeld, J.H. (1983) Theory of aerosol formation and growth in laminar flow. *J. Colloid and Interface Sci.* **91**, 525–545. => AEL1649
3870. Peter, J.E., Haider, B. and Ferron, G.H. (1994) Stabilisation characteristics of ventilation in buildings. *Radiation Protection Dosimetry* **56**, 193–196. => AEL2509
3871. Peterlin, A. und Stuart, H.A. (1939) Zur Theorie der Strömungsdoppelbrechung von Kolloiden und grossen Molekülen in Lösung. *Z. Phys.* **112**, 1–19. => AEL0242
3872. Peters, F. and Paikert, B. (1989) Experimental results on the rate of nucleation in supersaturated n-propanol, ethanol, and methanol vapors. *J. Chem. Phys.* **91**, 5672–5678. => AEL0760

3873. Peters, L.K. and Jouvanis, A.A. (1979) Numerical simulation of the transport and chemistry of CH<sub>4</sub> and CO in the troposphere. *Atmos. Environ.* **13**, 1443–1462. => AEL0606
3874. Peters, T.M., Chein, H.M., Lundgren, D.A. and Keady, P.B. (1993) Comparison and combination of aerosol size distributions measured with a low pressure impactor, differential mobility particle sizer, electrical aerosol analyzer, and aerodynamic particle sizer. *Aerosol Sci. Technol.* **19**, 396–405. => AEL1144
3875. Peters, T.M., Norris, G.A., Vanderpool, R.W., Gemmill, D.B., Wiener, R.W., Murdoch, R.W., McElroy, F.F. and Pitchford, M. (2001) Field performance of PM<sub>2.5</sub> federal reference method samplers. *Aerosol Sci. Technol.* **34**, 433–443. => AEL3441
3876. Peters, T.M., Vanderpool, R.W. and Wiener, R.W. (2001) Design and calibration of the EPA PM<sub>2.5</sub> well impactor ninety-six (WINS). *Aerosol Sci. Technol.* **34**, 389–397. => AEL3439
3877. Peters, T.M., Vanderpool, R.W. and Wiener, R.W. (2001) Methodology for measuring PM<sub>2.5</sub> separator characteristics using an aerosizer. *Aerosol Sci. Technol.* **34**, 398–406. => AEL3440
3878. Petersen, D., Ortner, R., Vrtala, A., Wagner, P.E., Kulmala, M. and Laaksonen, A. (2001) Soluble-insoluble transition in binary heterogeneous nucleation. *Physical Review Letters* **87**, 225703 1–4. => AEL3825
3879. Petersen, W.A., Rutledge, S.A. and Orville, R.E. (1996) Cloud-to-ground lightning observations from TOGA COARE: Selected results and lightning location algorithms. *Monthly Weather Review* **124**, 602–620. => HT1101
3880. Petrakis, M.A. and Karahalios, G.T. (1996) Technical note: Steady flow in a curved pipe with a coaxial core. *International Journal for Numerical Methods in Fluids* **22**, 1231–1237. => AEL1998
3881. Petrash, G.G. (1959) O vybore skorosti skanirovaniya, optimalnoi postoyannoi vremeni i shiriny shchelei pri spektrometricheskikh izmereniyakh (in Russian). *Opt.i Spektroskopiya* **6**, 792–797. => HT0267
3882. Petrash, G.G. (1964) Issledovanie apparaturnykh iskazhenii i metody ikh ucheta v infrakrasnoi spektroskopii (in Russian). *Trudy Fiz.Inst.im.P.N.Lebedeva* **27**, 3–62. => HT0281
3883. Petrov, A.I. and Petrova, G.G. Rezultaty izmerenii elektroprovodnosti v elektrodnom sloe atmosfery (in Russian). pp. 12–17. => HT0632
3884. Petrucci, G.A., Farnsworth, P.B., Cavalli, P. and Omenetto, N. (2000) A differentially pumped particle inlet for sampling of atmospheric aerosols into a time-of-flight mass spectrometer: Optical characterization of the particle beam. *Aerosol Sci. Technol.* **33**, 105–121. => AEL3343
3885. Petry, H., Hendricks, J., Möllhoff, M., Lippert, E., Meier, A., Ebel, A. and Sausen, R. (1998) Chemical conversion of subsonic aircraft emissions in the dispersing plume: Calculation of effective emission indices. *J. Geophys. Res. Atmospheres* **103**, 5759–5772. => AEL2231
3886. Petters, J.L., Saxena, V.K., Slusser, J.R., Wenny, B.N. and Madronich, S. (2003) Aerosol single scattering albedo retrieved from measurements of surface UV irradiance and a radiative transfer model. *J. Geophys. Res. Atmospheres* **108**, 4288– doi:10.1029/2002JD002360, 2003. => AEL3999
3887. Pettersson, J.B.C. (1994) Surface scattering of NO from Ag[111]: A statistical description of rotational energy distributions. *J. Chem. Phys.* **100**, 2359–2365. => HT0807
3888. Pettersson, J.B.C. (1996) Residence time for K and Cs atoms on a Pt filament surface as a function of temperature. *Käsikiri. 3 graafikut.* => HT1125
3889. Pettersson, L.G.M., Wahlgren, U. and Gropen, O. (1983) Effective core potential calculations using frozen orbitals. Applications to transition metals. *Chem. Phys.* **80**, 7–16. => AEL0243

3890. Petzold, A. and Döpelheuer, A. (1998) Reexamination of black carbon mass emission indices of a jet engine. *Aerosol Sci. Technol.* **29**, 355–356. => AEL2343
3891. Petzold, A. and Schröder, F.P. (1998) Jet engine exhaust aerosol characterization. *Aerosol Sci. Technol.* **28**, 62–76. => AEL2098
3892. Petzold, A., Busen, R., Schröder, F.P., Baumann, R., Kuhn, M., Ström, J., Hagen, D.E., Whitefield, P.D., Baumgardner, D., Arnold, F., Borrmann, S. and Schumann, U. (1997) Near-field measurements on contrail properties from fuels with different sulfur content. *J. Geophys. Res. Atmospheres* **102**, 29867–29880. => AEL2165
3893. Petzold, A., Hoell, C., Kärcher, B., Beuermann, J., Schiller, C., Ziereis, H. and Schlager, H. (2000) In situ observations of aerosol properties above ice saturation in the polar tropopause region. *J. Geophys. Res. Atmospheres* **105**, 29387–29395. => AEL3288
3894. Peyrous, R. (1990) The effect of relative humidity on ozone production by corona discharge in oxygen or air - a numerical simulation. Part I: Oxygen. *Ozone Science & Engineering* **12**, 19–40. => HT1039
3895. Peyrous, R. and Lapeyre, R.-M. (1982) Gaseous products created by electrical discharges in the atmosphere and condensation nuclei resulting from gaseous phase reactions. *Atmos. Environ.* **16**, 959–968. => HT1042
3896. Peyrous, R. and Millot, R.-M. (1982) Gaseous products created by D.C. corona discharges in an air or oxygen fed point to plane gap. *7th Int. Conf. on gas discharges and their applications*, Pau, pp. 173–176. => HT1043
3897. Peyrous, R., Coxon, P. and Moruzzi, J. (1982) Mass spectra of ionic species created by D.C. corona discharges in air. *7th Int. Conf. on gas discharges and their applications*, Pau, pp. 169–172. => HT1044
3898. Pfeifer, R.J. and Hendricks, C.D.Jr. (1968) Parametric studies of electrodynamic spraying. *AIAA Journal* **6**, 496–502. => AEL0244
3899. Pfeilsticker, K. and Arnold, F. (1989) First ion composition measurement in the stratopause region, using a rocket-borne parachute drop sonde. *Planetary Space Science* **37**, 315–328. => AEL0524
3900. Pfeilsticker, K., Blom, C.E., Brandtjen, R., Fischer, H., Glatthor, N., Grendel, A., Gulde, T., Höpfner, M., Perner, D., Piesch, C., Platt, U., Renger, W., Sessler, J. and Wirth, M. (1997) Aircraft-borne detection of stratospheric column amounts of O<sub>3</sub>, NO<sub>2</sub>, OClO, ClNO<sub>3</sub>, HNO<sub>3</sub>, and aerosols around the arctic vortex (79°N to 39°N) during spring 1993. 1. Observational data. *J. Geophys. Res. Atmospheres* **102**, 10801–10814. => AEL1953
3901. Pflügel, D. (1967) Über die Teilflächenmethode zur Bestimmung der Kapazität beliebiger Leiter. *Z. angew. Phys.* **23**, 89–94. => HT-F077
3902. Phalen, R.F., Cuddihy, R.G., Fisher, G.L., Moss, O.R., Schlesinger, R.B., Swift, D.L. and Yeh, H.-C. (1991) Main features of the proposed NCRP respiratory tract model. *Radiation Protection Dosimetry* **38**, 179–184. => AEL2450
3903. Phalen, R.F., Ho, A.T. and Kenoyer, J.L. (1979) Comparison of electron microscopy and the electrical aerosol size analyzer for determination of size distribution of a submicronic salt aerosol. @AM, @UFB, Gainesville, pp. 480–487. => AEL0379
3904. Pham, M., Müller, J.-F., Bresseur, G.P., Granier, C. and Mégie, G. (1995) A three-dimensional study of the tropospheric sulfur cycle. *J. Geophys. Res.* **100**, 26061–26092. => AEL1545
3905. Phanse, G.M. and Pratsinis, S.E. (1989) Theory for aerosol generation in laminar flow condensers. *Aerosol Sci. Technol.* **11**, 100–119. => AEL1579

3906. Phares, D.J., Rhoads, K.P. and Wexler, A.S. (2002) Performance of a single ultrafine particle mass spectrometer. *Aerosol Sci. Technol.* **36**, 583–502. => AEL3702
3907. Phares, D.J., Rhoads, K.P., Johnston, M.V. and Wexler, A.S. (2003) Size-resolved ultrafine particle composition analysis 2. Houston. *J. Geophys. Res. Atmospheres* **108**, 8420–doi:10.1029/2001JD001212, 2003. => AEL3987
3908. Phelps, A.V. (1969) Laboratory studies of electron attachment and detachment processes of aeronomic interest. *Can. J. Chem.* **47**, 1783–1793. => AEL0245
3909. Philippin, S. and Wiedensohler, A. (2002) *An eight-tube volatility tandem differential mobility analyzer (VTDMA-8) for rapid measurement of non-volatile fractions of pollution aerosols. Käsikiri.* => HT1382
3910. Phillips, D.L. (1962) A technique for the numerical solution of certain integral equations of the first kind. *J.Assoc.Comp.Mach.* **9**, 84–97. => HT0237
3911. Phillips, J. and Gormally, J. (1992) The laser desorption of organic molecules in ion mobility spectrometry. *Int. J. Mass Spectrom. Ion Processes* **112**, 205–214. => AEL1140
3912. Phillips, L.F. (1978) Pressure dependence of the rate of reaction of OH with HCN. *Chem. Phys. Lett.* **57**, 538–539. => AEL1444
3913. Phillips, L.F. (1993) Effect of electrostatic interactions on effective cross-sections for collision of small particles with neutral molecules. *Aust. J. Chem.* **46**, 13–20. => AEL1021
3914. Piacentini, R.D., Alfano, O.M., Albizzati, E.D., Luccini, E.A. and Herman, J.R. (2002) Solar ultraviolet irradiance for clear sky days incident at Rosario, Argentina: Measurements and model calculations. *J. Geophys. Res. Atmospheres* **107**, AAC6 1–7. => AEL3726
3915. Piazzola, J. and Despiaud, S. (1997) Contribution of marine aerosols in the particle size distributions observed in Mediterranean coastal zone. *Atmos. Environ.* **31**, 2991–3009. => AEL1923
3916. Piazzola, J., Van Eijk, A.M.J., De Leeuw, G. and Moerman, M. (1998) Marine aerosol concentrations at different locations of the northern hemisphere. *J. Aerosol Sci.* **29**, S185–S186. => HT1337
3917. Pich, J. (1962) Zur Theorie der elektrostatischen Zerstreung monodisperser Aerosole. *Staub* **22**, 15–23. => AEL0246
3918. Pich, J. (1980) Book review. *J.Aerosol Sci.* **11**, 225–225. => HT0306
3919. Pickering, K.E., Wang, Y., Tao, W.-K., Price, C. and Müller, J.-F. (1998) Vertical distributions of lightning NO<sub>x</sub> for use in regional and global chemical transport models. *J. Geophys. Res. Atmospheres* **103**, 31203–31216. => AEL2831
3920. Picknett, R.G. (1972) A new method of determining aerosol size distributions from multistage sampler data. *J. Aerosol Sci.* **3**, 185–198. => AEL0247
3921. Pignolet, P., Hadj-Ziane, S., Held, B., Peyrous, R., Benas, J.M. and Coste, C. (1990) Ozone generation by point to plane corona discharge. *J. Phys. D: Appl. Phys.* **23**, 1069–1072. => HT1041
3922. Pilacinski, W., Pan, M.J., Szewczyk, K.W., Lehtimäki, M. and Willeke, K. (1990) Aerosol release from aerated broths. *Biotechnology and Bioengineering* **36**, 970–973. => HT0492
3923. Pilacinski, W., Szewczyk, K.W., Lehtimäki, M. and Willeke, K. (1990) Characteristics of a double-orifice nebulizer. *J.Aerosol Sci.* **21**, 977–982. => HT0496
3924. Pilegaard, K., Hummelshøj, P. and Jensen, N.O. (1999) Nitric oxide emission from a Norway spruce forest floor. *J. Geophys. Res. Atmospheres* **104**, 3433–3445. => AEL2759

3925. Pilinis, C. (1990) Derivation and numerical solution of the species mass distribution equations for multicomponent particulate systems. *Atmos. Environ.* **24A**, 1923–1928. => AEL2701
3926. Pilinis, C. and Li, X. (1998) Particle shape and internal inhomogeneity effects on the optical properties of tropospheric aerosols of relevance to climate forcing. *J. Geophys. Res. Atmospheres* **103**, 3789–3800. => AEL2226
3927. Pilinis, C. and Seinfeld, J.H. (1988) Development and evaluation of an Eulerian photochemical gas-aerosol model. *Atmos. Environ.* **22**, 1985–2001. => AEL3890
3928. Pilinis, C. and Seinfeld, J.H. (1989) Water content of atmospheric aerosols. *Atmos. Environ.* **23**, 1601–1606. => AEL0678
3929. Pilinis, C., Capaldo, K.P., Nenes, A. and Pandis, S.N. (2000) MADM - a New Multicomponent Aerosol Dynamics Model. *Aerosol Sci. Technol.* **32**, 482–502. => AEL3337
3930. Pilinis, C., Pandis, S.N. and Seinfeld, J.H. (1995) Sensitivity of direct climate forcing by atmospheric aerosols to aerosol size and composition. *J. Geophys. Res. Atmospheres* **100**, 18739–18754. => AEL1992
3931. Pirazzini, R., Vihma, T., Launiainen, J. and Tisler, P. (2002) Validation of HIRLAM boundary-layer structures over the Baltic Sea. *Boreal Environment Research* **7**, 211–218. => AEL3826
3932. Pirjola, L. (1999) Effects of the increased UV radiation and biogenic VOC emissions on ultrafine sulphate aerosol formation. *J. Aerosol Sci.* **30**, 355–367. => AEL3851
3933. Pirjola, L. (1999) Effects of the increased UV radiation and biogenic VOC emissions on ultrafine sulphate aerosol formation. *J. Aerosol Sci.* **30**, 355–367. => HT1423
3934. Pirjola, L. and Kulmala, M. (1998) Modelling the formation of H<sub>2</sub>SO<sub>4</sub>-H<sub>2</sub>O particles in rural, urban and marine conditions. *Atmos. Res.* **46**, 321–347. => AEL2948
3935. Pirjola, L. and Kulmala, M. (2000) Aerosol dynamical model MULTIMONO. *Boreal Environment Research* **5**, 361–374. => AEL3741
3936. Pirjola, L. and Kulmala, M. (2000) Aerosol dynamical model MULTIMONO. *Boreal Environment Research* **5**, 361–374. => HT1433
3937. Pirjola, L. and Kulmala, M. (2001) Development of particle size and composition distributions with a novel aerosol dynamics model. *Tellus* **53B**, 491–509. => AEL3744
3938. Pirjola, L. and Kulmala, M. (2001) Development of particle size and composition distributions with a novel aerosol dynamics model. *Tellus* **53B**, 491–509. => HT1424
3939. Pirjola, L., Korhonen, H. and Kulmala, M. (2002) Condensation/evaporation of insoluble organic vapor as functions of source rate and saturation vapor pressure. *J. Geophys. Res. Atmospheres* **107**, ACH1 1–10. => AEL3659
3940. Pirjola, L., Laaksonen, A., Aalto, P. and Kulmala, M. (1998) Sulfate aerosol formation in the Arctic boundary layer. *J. Geophys. Res. Atmospheres* **103**, 8309–8321. => AEL2242
3941. Pirjola, L., Lehtinen, K.E.J., Hansson, H.-C. and Kulmala, M. (2004) How important is nucleation in regional/global modelling. *Geophys. Res. Lett.* **31**, L12109–doi:10.1029/2004GL019525. => HT1481
3942. Pirjola, L., O'Dowd, C.D. and Kulmala, M. (2002) A model prediction of the yield of cloud condensation nuclei from coastal nucleation events. *J. Geophys. Res. Atmospheres* **107**, PAR 3 doi:10.1029/2000JD000213–2002. => AEL3787
3943. Pirjola, L., O'Dowd, C.D., Brooks, I.M. and Kulmala, M. (2000) Can new particle formation occur in the clean marine boundary layer?. *J. Geophys. Res. Atmospheres* **105**, 26531–26546. => AEL3261



3944. Pirjola, L., Tsyro, S., Tarrason, L. and Kulmala, M. (2003) A monodisperse aerosol dynamics module, a promising candidate for use in long-range transport models: Box model tests. *J. Geophys. Res. Atmospheres* **108**, 4258– doi:10.1029/2002JD002867, 2003. => AEL4002
3945. Pirjola, L., Tsyro, S., Tarrason, L. and Kulmala, M. (2003) A monodisperse aerosol dynamics module, a promising candidate for use in long-range transport models: Box model tests. *J. Geophys. Res. Atmospheres* **108**, 4258– doi:10.1029/2002JD002867, 2003. => HT1434
3946. Pislser, E. (1985) *Comparison of LLP and LPATS lightning location systems. Käsikiri.* => HT0736
3947. Pitari, G. (1992) On the possible perturbation of stratospheric dynamics due to Pinatubo aerosols. *Il Nuovo Cimento* **15C**, 485–489. => AEL1588
3948. Pitari, G., Rizi, V., Ricciardulli, L. and Visconti, G. (1993) High-speed civil transport impact: Role of sulfate, nitric acid trihydrate, and ice aerosols studied with a two-dimensional model including aerosol physics. *J. Geophys. Res.* **98**, 23141–23164. => AEL1728
3949. Pitari, G., Rizi, V., Ricciardulli, L. and Visconti, G. (1993) High-speed civil transport impact: Role of sulfate, nitric acid trihydrate, and ice aerosols studied with a two-dimensional model including aerosol physics. *J. Geophys. Res.* **98**, 23141–23164. => AEL1764
3950. Pitzer, K.S. (1973) Thermodynamics of electrolytes. I. Theoretical basis and general equations. *J. Phys. Chem.* **77**, 268–277. => AEL3885
3951. Plane, J.M.C., Cox, R.M., Quian, J., Pfenninger, W.M., Papen, G.C., Gardner, C.S. and Espy, P.J. (1998) Mesospheric Na layer at extreme high latitudes in summer. *J. Geophys. Res. Atmospheres* **103**, 6381–6389. => AEL2240
3952. Planinic', J. and Faj, Z. (1989) The equilibrium factor F between radon and its daughters. *Nuclear Instruments and Methods in Physics Research* 550–552. => AEL2438
3953. Plank, T. (koost.) (1997) *Füüsikaliste mõõtmiste alused. Loengukonspekt. Käsikiri* (in Estonian). Tartu. => HT1218
3954. Plass-Dülmer, C., Brauers, T. and Rudolph, J. (1998) POPCORN: A field study of photochemistry in North-Eastern Germany. *J. Atmos. Chem.* **31**, 5–31. => AEL2875
3955. Platt, U.F., Winer, A.M., Biermann, H.W., Atkinson, R. and Pitts, J.N.Jr. (1984) Measurement of nitrate radical concentrations in continental air. *Environ. Sci. Technol.* **18**, 365–369. => AEL0967
3956. Plumb, I.C. and Ryan, K.R. (1998) Effect of aircraft on ultraviolet radiation reaching the ground. *J. Geophys. Res. Atmospheres* **103**, 31231–31239. => AEL2833
3957. Plumb, R.A. (1996) A "tropical pipe" model of stratospheric transport. *J. Geophys. Res.* **101**, 3957–3972. => AEL1542
3958. Plumb, R.A. and Zheng, X. (1996) Source determination from trace gas observations: An orthogonal function approach and results for long-lived gases with surface sources. *J. Geophys. Res.* **101**, 18569–18585. => AEL1871
3959. Podolskii, A.A. (1976) Tsilindritsheskie induktsionnye dattshiki zaryazhennykh tshastits (in Russian). *Trudy LIAP, Leningrad*, **103**, pp. 21–29. => HT0588
3960. Podolskii, A.A. (1979) Vliyanie inertsionnosti tshastits na pogreshnost izmeritelnykh zaryadnykh preobrazovatelei parametrov dispersnoi fazy (in Russian). *Trudy LIAP, Leningrad*, **1(136)**, pp. 5–14. => HT0608
3961. Podzimek, J., Carstens, J.C. and Yue, P.C. (1982) Comparison of several Aitken nuclei counters. *Atmos. Environ.* **16**, 1–11. => AEL0248

3962. Pohjola, M., Pirjola L. Kukkonen, J. and Kulmala, M. (2003) Modelling of the influence of aerosol processes for the dispersion of vehicular exhaust plumes in street environment. *Atmos. Environ.* **37**, 339–351. => AEL3824
3963. Pohl, F.G. and Wagner, P.E. (1979) Measurement of size distributions of urban aerosols in the size range below 0.1 mm. *J. Aerosol Sci.* **10**, 209–210. => AEL0415
3964. Poirot, R.L. and Wishinski, P.R. (1986) Visibility, sulfate and air mass history associated with the summertime aerosol in Northern Vermont. *Atmos. Environ.* **20**, 1457–1469. => AEL0249
3965. Pokhmelnikh, L.A. (1990) Geo-solar-cosmic electric relations in electrostatics with field E screening by matter. *Proceedings of the First International Congress on Geo - Cosmic Relations, organized by the Foundation for Study and Research of Environmental Factors*, Pudoc, pp. 327–335. => HT0633
3966. Pokrovskii, O.M. (1969) Ob optimalnykh usloviyakh kosvennogo zondirovaniya atmosfery (in Russian). *Fiz.Atm.i Okeana* **5**, 1324–1326. => HT0270
3967. Pokrovskii, O.M. (1972) Spravnenie statisticheskikh metodov resheniya obratnykh zadach atmosfernoï optiki (in Russian). *Fiz.Atmosfery i Okeana* **8**, 231–233. => HT0272
3968. Pokrovskii, O.M. and Timofeev, Yu.M. (1971) Ob informatsionnoi obespechennosti pri kosvennom zondirovanii razlichnykh sloev atmosfery (in Russian). *Fiz.Atmosfery i Okeana* **7**, 901–903. => HT0271
3969. Poliakoff, E.D., Dehmer, P.M., Dehmer, J.L. and Stockbauer, R. (1982) Photoelectron-photoion coincidence spectroscopy of gas-phase clusters. *J. Chem. Phys.* **76**, 5214–5224. => AEL0609
3970. Polissar, A.V., Hopke, P.K., Malm, W.C. and Sisler, J.F. (1998) Atmospheric aerosol over Alaska 1. Spatial and seasonal variability. *J. Geophys. Res. Atmospheres* **103**, 19035–19044. => AEL2339
3971. Polissar, A.V., Hopke, P.K., Paatero, P., Malm, W.C. and Sisler, J.F. (1998) Atmospheric aerosol over Alaska 2. Elemental composition and sources. *J. Geophys. Res. Atmospheres* **103**, 19045–19057. => AEL2340
3972. Pöllänen, R. and Toivonen, H. (1996) Size estimation of radioactive particles released in the Chernobyl accident. In *Nucleation and atmospheric aerosols*, edited by Kulmala, M. and Wagner, P.E, Pergamon, pp. 670–673. => HT1159
3973. Pollock, J.A. (1915) The nature of the large ions in the air. *Philosophical Magazine* **29**, 514–526. => AEL1260
3974. Pope, C.J. and Howard, J.B. (1997) Simultaneous particle and molecule modeling (SPAMM): An approach for combining sectional aerosol equations and elementary gas-phase reactions. *Aerosol Sci. Technol.* **27**, 73–94. => AEL1975
3975. Popkov, V.I. (1949) K teorii unipolyarnoi korony postoyannogo toka (in Russian). *Elektrichestvo* 33–48. => HT0212
3976. Popov, B.I. (1979) Korrektnost izmeritelnykh zadatsh pri aerolnykh izmereniyakh (in Russian). *Trudy LIAP, Leningrad*, **1(136)**, pp. 82–85. => HT0594
3977. Popov, B.I., Rumyantsev, V.V. and Turubarov, V.I. (1976) Izmerenie obemnoi kontsentratsii pyli (in Russian). *Metody, pribory i sistemy kontrolya proizvodstvennoi sredy. Mezhvuzovskii sbornik*, Leningrad, **103**, pp. 50–54. => HT0335
3978. Popov, M., He, S. and Thottappillil, R. (2000) Reconstruction of lightning currents and return stroke model parameters using remote electromagnetic fields. *J. Geophys. Res. Atmospheres* **105**, 24469–24481. => AEL3256

3979. Popov, S.G. (1968) K sozdaniyu laboratornogo izmeritelya elektroprovodnosti vozdukha (in Russian). *Tr. GGO* 101–105. => HT-F090
3980. Popov, S.G. (1968) K sozdaniyu laboratornogo izmeritelya elektroprovodnosti vozdukha (in Russian). *Atmosfernye Elektrichestvo*, Gidromet.Izdat., Leningrad, **225**, pp. 101–105. => HT0313
3981. Poppe, D. and Lustfeld, H. (1996) Nonlinearities in the gas phase chemistry of the troposphere: Oscillating concentrations in a simplified mechanism. *J. Geophys. Res.* **101**, 14373–14380. => AEL1885
3982. Porstendörfer, J. (1984) Behaviour of radon daughter products in indoor air. *Radiation Protection Dosimetry* **7**, 107–113. => AEL2469
3983. Porstendörfer, J. (1987) Indoor radon exposure in the Federal Republic of Germany. *Indoor Radon. Proc. Sec. APCA Int. Spec. Conf., Cherry Hill, N.J.*, Pittsburgh, PA, **2**, pp. 57–67. => AEL2442
3984. Porstendörfer, J. (1994) Properties and behaviour of radon and thoron and their decay products in the air. *J. Aerosol Sci.* **25**, 219–263. => HT0804
3985. Porstendörfer, J. and Heyder, J. (1972) Size distributions of latex particles. *J. Aerosol Sci.* **3**, 141–148. => AEL0252
3986. Porstendörfer, J. and Mercer, T.T. (1978) Concentration distributions of free and attached Rn and Tn decay products in laminar flow in a cylindrical tube. *J. Aerosol Sci.* **9**, 283–290. => AEL2441
3987. Porstendörfer, J. and Mercer, T.T. (1979) Influence of electric charge and humidity upon the diffusion coefficient of radon decay products. *Health Physics* **37**, 191–199. => AEL2440
3988. Porstendörfer, J., Dankelmann, V. and Reineking, A. (1998) Neutralization of  $^{218}\text{Po}$  clusters in air. *J. Aerosol Sci.* **29**, S1017–S1018. => HT1355
3989. Porstendörfer, J., Hussin, A., Scheibel, H.G. and Becker, K.H. (1984) Bipolar diffusion charging of aerosol particles. II. Influence of the concentration ratio of positive and negative ions on the charge distribution. *J. Aerosol Sci.* **15**, 47–56. => AEL0250
3990. Porstendörfer, J., Reineking, A. and Becker, K.H. (1987) Free fractions, attachment rates, and plate-out rates of radon daughters in houses. *Radon and Its Decay Products*, American Chemical Society, pp. 285–300. => AEL2439
3991. Porstendörfer, J., Scheibel, H.G., Pohl, F.G., Preining, O., Reischl, G. and Wagner, P.E. (1985) Heterogeneous nucleation of water vapor on monodispersed Ag and NaCl particles with diameters between 6 and 18 nm. *Aerosol Sci Technol.* **4**, 65–80. => AEL0902
3992. Porstendörfer, J., Wicke, A. and Schraub, A. (1978) The influence of exhalation, ventilation and deposition processes upon the concentration of radon( $^{222}\text{Rn}$ ), thoron( $^{220}\text{Rn}$ ) and their decay products in room air. *Health Physics* **34**, 465–473. => AEL2443
3993. Porter, F.E., Crider, W.L., Mitchell, R.I. and Margard, W.L. (1963) The dynamic behavior of aerosols. *Ann. New York Acad. Sci.* **105**, 45–87. => AEL0251
3994. Porter, J.N. and Clarke, A.D. (1997) Aerosol size distribution model based on in situ measurements. *J. Geophys. Res. Atmospheres* **102**, 6035–6045. => AEL2317
3995. Portnov, F.G., Falkenshtein, S.E. and Shmidt, A.B. (1984) Modelirovanie regionalnogo osazhdeniya aeroionov v legkikh cheloveka (in Russian). *Biofizika* **29**, 883–885. => HT0170
3996. Portnov, F.G., Shirokova, N.V. and Shmidt, A.B. (1983) O natshalnoi stadii otritsatel'nogo koronnogo razryada v neodnorodnykh polyakh (in Russian). 1234–1235. => HT0610

3997. Po'sfai, M., Anderson, J.R., Buseck, P.R. and Sievering, H. (1995) Compositional variations of sea-salt-mode aerosol particles from the North Atlantic. *J. Geophys. Res.* **100**, 23063–23074. => AEL1709
3998. Pósfai, M., Anderson, J.R., Buseck, P.R. and Sievering, H. (1999) Soot and sulfate aerosol particles in the remote marine troposphere. *J. Geophys. Res. Atmospheres* **104**, 21685–21693. => AEL3016
3999. *Position paper on EU noise indicators* (2000) European Communities,. => AEL3186
4000. Poskrebyshev, G.A., Neta, P. and Huie, R.E. (2001) Equilibrium constant of the reaction  $\bullet\text{OH} + \text{HNO}_3 \leftrightarrow \text{H}_2\text{O} + \text{NO}_3^\bullet$  in aqueous solution. *J. Geophys. Res. Atmospheres* **106**, 4995–5004. => AEL3417
4001. Post, P. and Tuulik, J. (1999) About the relationships between Estonian weather elements and European circulation patterns. *Phys. Chem. Earth (B)* **24**, 97–102. => HT1327
4002. Potter, C.S., Matson, P.A., Vitousek, P.M. and Davidson, E.A. (1996) Process modeling of controls on nitrogen trace gas emissions from soils worldwide. *J. Geophys. Res.* **101**, 1361–1377. => AEL1819
4003. Prakash, A., Bapat, A.P. and Zachariah, M.R. (2003) A simple numerical algorithm and software for solution of nucleation, surface growth, and coagulation problems. *Aerosol Sci. Technol.* **37**, 892–898. => HT1581
4004. Pranisha, T.S. and Kamra, A.K. (1996) Scavenging of aerosol particles by large water drops. 1. Neutral case. *J. Geophys. Res.* **101**, 23373–23380. => AEL1873
4005. Pranisha, T.S. and Kamra, A.K. (1997) Scavenging of aerosol particles by large water drops 2. The effect of electrical forces. *J. Geophys. Res. Atmospheres* **102**, 23937–23946. => AEL2179
4006. Pranisha, T.S. and Kamra, A.K. (1997) Scavenging of aerosol particles by large water drops. 3. Washout coefficients, half-lives, and rainfall depths. *J. Geophys. Res. Atmospheres* **102**, 23947–23953. => AEL2209
4007. Prather, K.A., Nordmeyer, T. and Salt, K. (1994) Real-time characterization of individual aerosol particles using time-of-flight mass spectrometry. *Anal. Chem.* **66**, 1403–1407. => AEL1396
4008. Prather, M., McElroy, M., Wofsy, S., Russell, G. and Rind, D. (1987) "Chemistry of the global troposphere: Fluorocarbons as tracers of air motion. *J. Geophys. Res.* **92**, 6579–6613. => AEL0501
4009. Pratsinis, S.E. (1988) Simultaneous nucleation, condensation, and coagulation in aerosol reactors. *J. Colloid Interface Sci.* **124**, 416–427. => AEL0807
4010. Pratsinis, S.E. (1994) Motor vehicle contributions to fine carbonaceous aerosol in Los Angeles. *Aerosol Sci. Technol.* **21**, 360–366. => AEL1326
4011. Preining, O. (1968) Die Querempfindlichkeiten des Royco-Aerosolphotometers PC 200. *Staub - Reinhalt. Luft* **28**, 22–24. => AEL0253
4012. Preining, O. (1972) Information theory applied to the acquisition of size distributions. *J. Aerosol Sci.* **3**, 289–296. => AEL0254
4013. Preining, O. (1972) Information theory applied to the acquisition of size distributions. *Aerosol Sci.* **3**, 289–296. => HT0239
4014. Prenni, A.J., Onasch, T.B., Tisdale, R.T., Siefert, R.L. and Tolbert, M.A. (1998) Composition-dependent freezing nucleation rates for  $\text{HNO}_3/\text{H}_2\text{O}$  aerosols resembling gravity-wave-perturbed stratospheric particles. *J. Geophys. Res. Atmospheres* **103**, 28439–28450. => AEL2820

4015. Prenni, A.J., Wise, M.E., Brooks, S.D. and Tolbert, M.A. (2001) Ice nucleation in sulfuric acid and ammonium sulfate particles. *J. Geophys. Res. Atmospheres* **106**, 3037–3044. => AEL3313
4016. Pressyanov, D.S., Guelev, M.G. and Pentchev, O.J. (1993) Integrated measurements of short-lived <sup>222</sup>Rn progeny by rotating filters. *Health Phys.* **64**, 522–527. => AEL1215
4017. Preston, J.M., Karasek, F.W. and Kim, S.H. (1977) Plasma chromatography of phosphorus esters. *Anal. Chem.* **49**, 1746–1750. => AEL3408
4018. Price, C. (2000) Evidence for a link between global lightning activity and upper tropospheric water vapour. *Nature* **406**, 290–293. => HT1410
4019. Price, C., Penner, J. and Prather, M. (1997) NO<sub>x</sub> from lightning 1. Global distribution based on lightning physics. *J. Geophys. Res. Atmospheres* **102**, 5929–5941. => AEL2311
4020. Price, C., Penner, J. and Prather, M. (1997) NO<sub>x</sub> from lightning 2. Constraints from the global atmospheric electric circuit. *J. Geophys. Res. Atmospheres* **102**, 5943–5951. => AEL2312
4021. Prodi, F., Santachiara, G. and Prodi, V. (1979) Measurements of thermophoretic velocities of aerosol particles in the transition region. *J. Aerosol Sci.* **10**, 421–425. => AEL0277
4022. *Proposal for a council directive relating to limit values for sulphur dioxide, oxides of nitrogen, particulate matter and lead in ambient air* (1997) Office for Official Publications of the European Communities, Luxembourg. => AEL2140
4023. Prüller, P. (1961) Eesti rahvaastronoomia (II) (in Estonian). *Eesti Loodus* 354–358. => HT0167
4024. Prüller, P. (1961) Eesti rahvaastronoomia (in Estonian). *Eesti Loodus* 291–295. => HT0166
4025. Prüller, P. and Reinet, J. (1966) Long-term investigations of atmospheric ionization in Tartu, Estonian SSR. *Int. J. Biometeor.* **10**, 127–133. => HT0035
4026. Prüller, P. and Reinet, J. (1972) Investigation of atmospheric ion spectra, an the hygienical and biometeorological significance of ionization. *Report of Proceedings of XV General Assembly*, IAMAP Publication, Toronto, pp. 163–163. => HT0202
4027. Prüller, P. Juhend täiendavate andmete kogumiseks eesti rahvaastronoomia alalt (in Estonian). *Rahvapärilmuste kogu*, **2**, lk. 51–71. => HT0629
4028. Prüller, P.K. (1966) Estonskaya narodnaya astronomiya (in Russian). *Istoriko-Astronomicheskie Issledovaniya* 145–169. => HT0007
4029. Pszenny, A.A.P., Prinn, R.G., Kleiman, G., Shi, X. and Bates, T.S. (1999) Nonmethane hydrocarbons in surface waters, their sea-air fluxes and impact on OH in the marine boundary layer during the First Aerosol Characterization Experiment (ACE 1). *J. Geophys. Res. Atmospheres* **104**, 21785–21801. => AEL3020
4030. Ptitsyna, N., Tuomi, T.J., Levitin, A. and Gromova, I. *Magnetospheric-ionospheric effect on the ground-level atmospheric electric field at Helsinki. Käsikiri.* => HT1190
4031. Pueschel, R.F., Verma, S., Ferry, G.V., Howard, S.D., Vay, S., Kinne, S.A., Goodman, J. and Strawa, A.W. (1998) Sulfuric acid and soot particle formation in aircraft exhaust. *Geophys. Res. Lett.* **25**, 1685–1688. => AEL2960
4032. Pui, D.Y.H. (Comp.) *Electrical techniques I. Outline. Konspekt.* => HT0966
4033. Pui, D.Y.H. and Liu, B.Y.H. (1976) Electrical aerosol analyzer: calibration and performance. For presentation at the Aerosol Measurement Workshop University of Florida. *Particle Technology Laboratory Publication*, Gainesville, **304**, pp. 1–25. => HT0579
4034. Pui, D.Y.H. and Liu, B.Y.H. (1976) Electrical aerosol analyzer: calibration and performance. *Part. Technol. Lab. Publ.* 1–23. => AEL0281

4035. Pui, D.Y.H. and Liu, B.Y.H. (1978) Aerosol generation and calibration of instruments. *Particle Technology Publ.* 1–30. => HT0069
4036. Pui, D.Y.H. and Liu, B.Y.H. (1979) Electrical aerosol analyzer: calibration and performance. @AM, @UFB, Gainesville, pp. 384–399. => AEL0373
4037. Pui, D.Y.H. and Liu, B.Y.H. (1988) Advances in instrumentation for atmospheric aerosol measurement. *Physica Scripta* **37**, 252–269. => AEL0796
4038. Pui, D.Y.H., Fruin, S. and McMurry, P.H. (1988) Unipolar diffusion charging of ultrafine aerosols. *Aerosol Sci. Technol.* **8**, 173–187. => AEL0278
4039. Pui, D.Y.H., Fruin, S. and McMurry, P.H. (1988) Unipolar diffusion charging of ultrafine aerosols. *Aerosol Sci. Technol.* **8**, 173–187. => HT1490
4040. Pui, D.Y.H., Tsai, C.-J. and Liu, B.Y.H. (1988) Charge level on aerosol particles: Measurement of particle charge and size distribution in disk drive. *Proceedings-Institute of Environmental Sciences. Particle Technology Laboratory Publication*, **656**, pp. 1–5. => HT0368
4041. Pulinets, S.A., Boyarchuk, K.A., Hegai, V.V., Kim, V.P. and Lomonosov, A.M. (2000) Quasielectrostatic model of atmosphere-thermosphere-ionosphere coupling. *Adv. Space Res.* **26**, 1209–1218. => HT1414
4042. Pun, B.K., Griffin, R.J., Seigneur, C. and Seinfeld, J.H. (2002) Secondary organic aerosol 2. Thermodynamic model for gas/particle partitioning of molecular constituents. *J. Geophys. Res. Atmospheres* **107**, AAC4 1–15. => AEL3731
4043. Pundt, I., Pommereau, J.-P., Chipperfield, M.P., Van Roozendael, M. and Goutail, F. (2002) Climatology of the stratospheric BrO vertical distribution by balloon-borne UV-visible spectrometry. *J. Geophys. Res. Atmospheres* **107**, 4806–doi:10.1029/2002JD002230, 2002. => AEL3920
4044. Punning, J.-M., Liblik, V. and Alliksaar, T. (1997) History of fly ash emission and palaeorecords of atmospheric deposition in the oil shale combustion area. *Oil Shale* **14**, 347–362. => AEL3453
4045. Punning, J.-M., Vaikmäe, R. and Mäekivi, S. (1991) Oxygen-18 variations in the Baltic Sea. *Int. J. Radiat. Appl. Instrum. Part E Nucl. Geophys.* **5**, 529–539. => HT0881
4046. Putaud, J.-P. and Nguyen, B.C. (1996) Assessment of dimethylsulfide sea-air exchange rate. *J. Geophys. Res.* **101**, 4403–4411. => AEL1753
4047. Putaud, J.P., Davison, B.M., Watts, S.F., Mihalopoulos, N., Nguyen, B.C. and Hewitt, C.N. (1999) Dimethylsulfide and its oxidation products at two sites in Brittany (France). *Atmos. Environ.* **33**, 647–659. => AEL2734
4048. Putaud, J.-P., Raes, F., Van Dingenen, R., Brüggemann, E., Facchini, M.-C., Decesari, S., Fuzzi, S., Gehrig, R., Hüglin, C., Laj, P., Lorbeer, G., Maenhaut, W., Mihalopoulos, N., Müller, K., Querol, X., Rodriguez, S., Schneider, J., Spindler, G., ten Brink, H., Tørseth, K. and Wiedensohler, A. (2004) A European aerosol phenomenology - 2: chemical characteristics of particulate matter at kerbside, urban, rural and ackground sites in Europe. *Atmos. Environ.* **38**, 2579–2595. => AEL4133
4049. Puxbaum, H., Rosenberg, C., Gregori, M., Lanzerstorfer, C., Ober, E. and Winiwarter, W. (1988) Atmospheric concentrations of formic and acetic acid and related compounds in eastern and northern Austria. *Atmos. Environ.* **22**, 2841–2850. => AEL0631
4050. Quinn, P. and Coffman, D.J. (1999) Comment on "Contribution on different aerosol species to the global aerosol extinction optical thickness: Estimates from model results" by Tegen et al. *J. Geophys. Res. Atmospheres* **104**, 4241–4248. => AEL2779

4051. Quinn, P.K., Bates, T.S., Miller, T.L., Coffman, D.J., Johnson, J.E., Harris, J.M., Ogren, J.A., Forbes, G., Anderson, T.L., Covert, D.S. and Rood, M.J. (2000) Surface submicron aerosol chemical composition: What fraction is not sulfate?. *J. Geophys. Res. Atmospheres* **105**, 6785–6805. => AEL3107
4052. Quinn, P.K., Coffman, D.J., Bates, T.S., Miller, T.L., Johnson, J.E., Voss, K., Welton, E.J. and Neusüss, C. (2001) Dominant aerosol chemical components and their contribution to extinction during the Aerosols99 cruise across the Atlantic. *J. Geophys. Res. Atmospheres* **106**, 20783–20809. => AEL3527
4053. Quinn, P.K., Miller, T.L., Bates, T.S., Ogren, J.A., Andrews, E. and Shaw, G.E. (2002) A 3-year record of simultaneously measured aerosol chemical and optical properties at Barrow, Alaska. *J. Geophys. Res. Atmospheres* **107**, AAC8 1–15. => AEL3658
4054. Qureshi, P.M., Varshney, R.K. and Singh, S.B. (1989) Empirical correlations for the evaluation of the free energies of solvation of some gaseous monovalent ions. *J. Chem. Education* **66**, 903–906. => AEL0740
4055. Raabe, O.G. (1971) Particle size analysis utilizing grouped data and the log-normal distribution. *Aerosol Sci.* **2**, 289–303. => AEL0976
4056. Rabeony, H. and Mirabel, P. (1986) Vapor nucleation on ions. *J. chim. phys.* **83**, 219–224. => AEL1461
4057. Rabeony, H. and Mirabel, P. (1987) Experimental study of vapor nucleation on ions. *J. Phys. Chem.* **91**, 1815–1818. => AEL1168
4058. Raczynska, E.D., Maria, P.-C., Gal, J.-F. and Decouzon, M. (1995) Amidines and guanidines as superbases in the gas phase. *Organic Reactivity* **29**, 67–68. => AEL1394
4059. Rader, D.J. (1990) Momentum slip correction factor for small particles in nine common gases. *J. Aerosol Sci.* **21**, 161–168. => HT0837
4060. Rader, D.J. and McMurry, P.H. (1986) Application of the tandem differential mobility analyzer to studies of droplet growth or evaporation. *J. Aerosol Sci.* **17**, 771–787. => AEL2486
4061. Rader, D.J., Geller, A.S. and Choi, S.J. (2002) Particle deposition in parallel-plate reactors: Simultaneous diffusion and external forces. *Aerosol Sci. Technol.* **36**, 251–266. => AEL3599
4062. Radke, L.F. and Hobbs, P.V. (1991) Notes and correspondence. Humidity and particle fields around some small cumulus clouds. *Journal of the Atmospheric Sciences* **48**, 1190–1193. => AEL1858
4063. Radke, L.F., Hobbs, P.V. and Eltgroth, M.W. (1980) Scavenging of aerosol particles by precipitation. *J. Appl. Meteorol.* **19**, 715–722. => AEL1082
4064. *Radon and thoron standards* Pylon Company,. => HT1147
4065. Radzi bin Abas, M. and Simoneit, B.R.T. (1996) Composition of extractable organic matter of air particles from Malaysia: Initial study. *Atmos. Environ.* **30**, 2779–2793. => AEL2715
4066. Raes, F. (1995) Entrainment of free tropospheric aerosols as a regulating mechanism for cloud condensation nuclei in the remote marine boundary layer. *J. Geophys. Res.* **100**, 2893–2903. => AEL1610
4067. Raes, F. and Janssens, A. (1984) Combined photolytic and radiolytic aerosol formation in a SO<sub>2</sub>~NO<sub>2</sub>~air mixture. *Physico-chemical behavior of atmospheric pollutants. 3rd European Symposium, Varese, Dordrecht*, pp. 364–372. => AEL0423
4068. Raes, F. and Janssens, A. (1985) Ion-induced aerosol formation in a H<sub>2</sub>O-H<sub>2</sub>SO<sub>4</sub> system. I. Extension of the classical theory and search for experimental evidence. *J. Aerosol Sci.* **16**, 217–227. => AEL0732

4069. Raes, F. and Janssens, A. (1986) Ion-induced aerosol formation in a H<sub>2</sub>O-H<sub>2</sub>SO<sub>4</sub> system. II. Numerical calculations and conclusions. *J. Aerosol Sci.* **17**, 715–722. => AEL0733
4070. Raes, F. and Janssens, A. (1986) Ion-induced aerosol formation in a H<sub>2</sub>O-H<sub>2</sub>SO<sub>4</sub> system II. Numerical calculations and conclusions. *J. Aerosol Sci.* **17**, 715–722. => AEL2939
4071. Raes, F. and Van Dingenen, R. (1992) Simulation of condensation and cloud condensation nuclei from biogenic SO<sub>2</sub> in the remote marine boundary layer. *J. Geophys. Res.* **97**, 12901–12912. => AEL1172
4072. Raes, F., Janssens, A. and Eggermont, G. (1985) A synergism between ultraviolet and gamma radiation in producing aerosol particles from SO<sub>2</sub>-H<sub>2</sub>SO<sub>4</sub> laden atmospheres. *Atmos. Environ.* **19**, 1069–1073. => HT1236
4073. Raes, F., Janssens, A. and Van Dingenen, R. (1986) The role of ion-induced aerosol formation in the lower atmosphere. *J. Aerosol Sci.* **17**, 466–470. => AEL2938
4074. Raes, F., Janssens, A., Declercq, A. and Vanmarcke, H. (1984) Investigation of the indoor aerosol and its effect on the attachment of radon daughters. *Radiation Protection Dosimetry* **7**, 127–131. => AEL2485
4075. Raes, F., Van Dingenen, R., Cuevas, E., Van Velthoven, P.F.J. and Prospero, J.M. (1997) Observations of aerosols in the free troposphere and marine boundary layer of the subtropical Northeast Atlantic: Discussion of processes determining their size distribution. *J. Geophys. Res. Atmospheres* **102**, 21315–21328. => AEL1981
4076. Raes, F., Van Dingenen, R., Cuevas, E., Van Velthoven, P.F.J. and Prospero, J.M. (1997) Observations of aerosols in the free troposphere and marine boundary layer of the subtropical Northeast Atlantic: Discussion of processes determining their size distribution. *J. Geophys. Res. Atmospheres* **102**, 21315–21328. => AEL2199
4077. Ragland, J.W. (1979) Measurement of ultrafine particle size distributions in industrial flue gases using an electrical aerosol analyzer. @AM, @UFB, Gainesville, pp. 473–479. => AEL0378
4078. Raimann, G. and Horvath, H. (1988) Numerical simulations of slip correction. *J. Aerosol Sci.* **19**, 853–854. => AEL1993
4079. Raj, P.E. and Devara, P.C.S. (1989) Some results of lidar aerosol measurements and their relationship with meteorological parameters. *Atmos. Environ.* **23**, 831–838. => AEL0276
4080. Rajala, M., Janka, K., Lehtimäki, M. and Graeffe, G. (1986) The influence of an electrostatic precipitator and a mechanical filter on Rn decay products. *Health Physics* **50**, 447–455. => AEL2530
4081. Rajala, M., Janka, K., Lehtimäki, M., Kulmala, V. and Graeffe, G. (1986) The influence of an electrostatic precipitator and a mechanical filter on Rn decay products. *Health Physics* **50**, 447–455. => HT0502
4082. Rajala, M., Janka, K., Lehtimäki, M., Kulmala, V., Graeffe, G. and Keskinen, J. (1985) The control of radon progeny by air treatment devices. *The Science of the Total Environment* **45**, 493–498. => AEL0895
4083. Rakov, V.A. (1990) Sovremennye passivnye radiotekhnicheskie sistemy mestoopredeleniya molnii (in Russian). *Meteorologiya i Gidrologiya* 118–123. => HT0534
4084. Rakov, V.A. (1991) Uman M.A. The lightning discharge. - Academic Press, San Diego, 1987 (Yuman M.A. "Razryad molnii") (in Russian). *Meteorologiya i Gidrologiya* 114–115. => HT0878
4085. Rakov, V.A. (1998) Some inferences on the propagation mechanisms of dart leaders and return strokes. *J. Geophys. Res. Atmospheres* **103**, 1879–1887. => AEL2094



4086. Rakov, V.A. and Dulzon, A.A. (1991) A modified transmission line model for lightning return stroke field calculations. *Proc. 9th Int. Symp. on Electromagnetic Compatibility*, Zurich, pp. 229–235. => HT0539
4087. Rakov, V.A. and Lutz, A.O. (1990) A new technique for estimating equivalent attractive radius for downward lightning flashes. *20th International Conference on Lightning Protection*, **2.2**, pp. 1–5. => HT0538
4088. Rakov, V.A. and Uman, M.A. (1990) Long continuing current in negative lightning ground flashes. @*JGR* **95**, 5455–5470. => HT0512
4089. Rakov, V.A. and Uman, M.A. (1990) Some properties of negative cloud-to-ground lightning flashes versus stroke order. @*JGR* **95**, 5447–5453. => HT0512
4090. Rakov, V.A. and Uman, M.A. (1990) Some properties of negative cloud-to-ground lightning. *20th International Conference on Lightning Protection*, **6.4**, pp. 1–4. => HT0536
4091. Rakov, V.A. and Uman, M.A. (1990) Waveforms of first and subsequent leaders in negative lightning flashes. @*JGR* **95**, 16561–16577. => HT0531
4092. Rakov, V.A., Shoivanov, Yu.R., Shelukhin, D.V., Lutz, A.O. and Esipenko, R.F. (1990) Annual ground flash density from lightning flash counter records. *20th International Conference on Lightning Protection*, **6.8P**, pp. 1–6. => HT0537
4093. Rakov, V.A., Thottappillil, R. and Uman, M.A. (1992) On the empirical formula of Willett et al. [1989] relating lightning return stroke peak current and peak electric field. *Käsikiri. Subm. to J. Geophys. Res.* 1–16. => HT0991
4094. Rakov, V.A., Uman, M.A. and Thottappillil, R. (1992) Review of lightning properties from electric field and TV observations. *ICAE '92. Käsikiri*, pp. 1–4. => HT0992
4095. Rakov, V.A., Uman, M.A., Jordan, D.M. and Priore, C.A. (1990V95) Ratio of leader to return stroke electric field change for first and subsequent lightning strokes. @*JGR* **95**, 16579–16587. => HT0532
4096. Rakov, V.A., Uman, M.A., Rambo, K.J., Fernandez, M.I., Fisher, R.J., Schnetzer, G.H., Thottappillil, R., Eybert-Berard, A., Berlandis, J.P., Lalonde, P., Bonamy, A., Laroche, P. and Bondiou-Clergerie, A. (1998) New insights into lightning processes gained from triggered-lightning experiments in Florida and Alabama. *J. Geophys. Res. Atmospheres* **103**, 14117–14130. => AEL2281
4097. Ramachandran, G., Adgate, J.L., Pratt, G.C. and Sexton, K. (2003) Characterizing indoor and outdoor 15 minute average PM<sub>2.5</sub> concentrations in urban neighborhoods. *Aerosol Sci. Technol.* **37**, 33–45. => AEL3717
4098. Ramamurthi, M. and Hopke, P.K. (1989) On improving the validity of wire screen "unattached" fraction Rn daughter measurements. *Health Physics* **56**, 189–194. => AEL2487
4099. Ramamurthi, M. and Hopke, P.K. (1991) An automated, semicontinuous system for measuring indoor radon progeny activity-weighted size distributions, d<sub>p</sub>: 0.5 - 500 nm. *Aerosol Sci. Technol.* **14**, 82–92. => AEL1163
4100. Ramamurthy, M. and Hopke, P.K. (1989) On improving the validity of wire screen "unattached" fraction Rn daughter measurements. *Health Physics* **56**, 189–194. => HT0847
4101. Ramanathan, V., Callis, L.B. and Boughner, R.E. (1976) Sensitivity of surface temperature and atmospheric temperature to perturbations in the stratospheric concentration of ozone and nitrogen dioxide. *J. Atmos. Sci.* **33**, 1092–1112. => AEL0907
4102. Ramonet, M., Le Roulley, J.C., Bousquet, P. and Monfray, P. (1996) Radon-222 measurements during the Tropoz II campaign and comparison with a global atmospheric transport model. *J. Atmos. Chem.* **23**, 107–136. => AEL2876

4103. Rañada, A., Soler, M. and Trueba, J.L. (1998) A model of ball lightning as a magnetic knot with linked streamers. *J. Geophys. Res. Atmospheres* **103**, 23309–23313. => AEL2798
4104. Rañada, A.F., Soler, M. and Trueba, J.L. (1998) A model of ball lightning as a magnetic knot with linked streamers. *J. Geophys. Res. Atmospheres* **103**, 23309–23313. => HT1228
4105. Rangarajan, C., Gopalakrishnan, S. and Eapen, C.D. (1977) The application of least squares analysis for the estimation of low atmospheric concentrations of short-lived radon daughters and studies on their disequilibrium. *Pure and Applied Geophysics* **115**, 513–522. => AEL2488
4106. Rannik, Ü. (1998) On the surface layer similarity at a complex forest site. *J. Geophys. Res. Atmospheres* **103**, 8685–8697. => AEL2250
4107. Rannik, Ü., Aalto, P., Keronen, P., Vesala, T. and Kulmala, M. (2003) Interpretation of aerosol particle fluxes over a pine forest: Dry deposition and random errors. *J. Geophys. Res. Atmospheres* **108**, 4544– doi:10.1029/2003JD003542. => AEL4038
4108. Rannik, Ü., Aalto, P., Keronen, P., Vesala, T. and Kulmala, M. (2003) Interpretation of aerosol particle fluxes over a pine forest: Dry deposition and random errors. *J. Geophys. Res. Atmospheres* **108**, 4544– doi:10.1029/2003JD003542. => HT1473
4109. Rannik, Ü., Markkanen, T., Raittila, J., Hari, P. and Vesala, T. (2003) Turbulence statistics inside and over forest: influence on footprint prediction. *Boundary-Layer Meteorology* **109**, 163–189. => HT1508
4110. Rannik, Ü., Vesala, T. and Keskinen, R. (1997) On the damping of temperature fluctuations in a circular tube relevant to the eddy covariance measurement technique. *J. Geophys. Res. Atmospheres* **102**, 12789–12794. => AEL2059
4111. Rannou, A. (1990) Radon in dwellings: physical and health properties. *Endeavour* **14**, 34–39. => AEL2466
4112. Rao, K.S., Ku, J.-Y. and Rao, S.T. (1989) A comparison study of three urban air pollution models. *Atmos. Environ.* **23**, 793–801. => AEL0299
4113. Rao, M., Berne, B.J. and Kalos, M.H. (1978) Computer simulation of the nucleation and thermodynamics of microclusters. *J. Chem. Phys.* **68**, 1325–1336. => AEL0765
4114. Rao, N.P. and McMurry, P.H. (1989) Nucleation and growth of aerosol in chemically reacting systems. A theoretical study of the near-collision-controlled regime. *Aerosol Sci. Technol.* **11**, 120–132. => AEL1119
4115. Rapp, M. and Lübken, F.-J. (2003) On the nature of PMSE: Electron diffusion in the vicinity of charged particles revisited. *J. Geophys. Res. Atmospheres* **108**, 8437– doi:10.1029/2002JD002857, 2003. => AEL3994
4116. Rasmussen, R.A., Khalil, M.A.K. and Fox, R.J. (1983) Altitudinal and temporal variation of hydrocarbons and other gaseous tracers of arctic haze. *Geophysical Research Letters* **10**, 144–147. => AEL0449
4117. Rastogi, S.C. (1993) Sample preparation for gas chromatographic analysis of organic solvents in aerosol cans. *Chromatographia* **36**, 201–203. => AEL2139
4118. Rattigan, O.V., Boniface, J., Swartz, E., Davidovits, P., Jayne, J.T., Kolb, C.E. and Worsnop, D.R. (2000) Uptake of gas-phase SO<sub>2</sub> in aqueous sulfuric acid: Oxidation by H<sub>2</sub>O<sub>2</sub>, O<sub>3</sub> and HONO. *J. Geophys. Res. Atmospheres* **105**, 29065–29078. => AEL3281
4119. Rattigan, O.V., Reilly, J., Judd, C.D., Moore, K.F., Das, M., Sherman, D.E., Dutkiewicz, V.A., Collett, J.L.Jr. and Husain, L. (2001) Sulfur dioxide oxidation in clouds at Whiteface Mountain as a function of drop size. *J. Geophys. Res. Atmospheres* **106**, 17347–17358. => AEL3510

4120. Rauch, P.J., Harrington, P.deB. and Davis, D.M. (1996) Ion mobility spectrometer measures food flavor freshness. *Food Technology* 83–85. => HT1019
4121. Raunemaa, T. and Hautojärvi, A. (1984) Radioactivity analysis and compressible flow capillary system. *J.Aerosol. Sci.* **15**, 123–132. => AEL0893
4122. Raunemaa, T., Kulmala, M., Saari, H., Olin, M. and Kulmala, M.H. (1989) Indoor air aerosol model: Transport indoors and deposition of fine and coarse particles. *Aerosol Sci. Technol.* **11**, 11–25. => AEL2063
4123. Raunemaa, T., Kulmala, M., Saari, H., Olin, M. and Kulmala, M.H. (1989) Indoor air aerosol model: Transport indoors and deposition of fine and coarse particles. @AST **11**, 11–25. => HT0489
4124. Raunemaa, T., Laaksonen, A., Kulmala, M. and Hautojärvi, A. (1989) Capillary impactor with optical detection in collection of carbonaceous particles. *Aerosol Sci. Technol.* **10**, 386–389. => AEL2055
4125. *Reactions under plasma conditions. Sellest lk. 1-138* (1971) edited by Venugopalan, M., Wiley-Interscience,. => HT0917
4126. Reade, W.C. and Collins, L.R. (1998) Collision and coagulation in the infinite-Stokes-number regime. *Aerosol Sci. Technol.* **29**, 493–509. => AEL2854
4127. Reavell, K.St.J., Symonds, J.P.R. and Biskos, G. (2005) *Charge distribution produced by unipolar diffusion charging of fine aerosols. Poster. List of attendees. Cambridge Particle meeting.* => HT1539
4128. Rebane, K.K. (1995) Commentary. Energy, entropy, environment: why is protection of the environment objectively difficult?. *Ecological Economics* **13**, 89–92. => HT0884
4129. Rebolledo, H.P. (1994) *Transient response of low voltage power installations to natural and simulated lightning electromagnetic fields. Uppsala dissertations from the Faculty of Science and Technology. Abstract.* Acta Universitatis Upsaliensis, Uppsala. => HT0886
4130. Rebertier, C. (1964) Mesure der champ électrique atmospherique. *Meteorologie* **76**, 337–342. => HT-F012
4131. Ree, F.H. and Winter, N.W. (1980) Ab initio and Gordon-Kim intermolecular potentials for two nitrogen molecules. *J. Chem. Phys.* **73**, 322–336. => AEL0263
4132. Reeben, V. (1977) The systems of magic numbers (N=.50, 82,.; Z=.50, 82,.) have a simple and general mathematical background. *Proc.Int.Conf. on Nuclear Structure*, Tokyo, **1**, pp. 1–1. => HT0559
4133. Reed, L.D., Jordan, H. and Gieseke, J.A. (1977) Charging of radioactive aerosols. *J. Aerosol Sci.* **8**, 457–463. => AEL0872
4134. Reents, W.D. and Ge, Z. (2000) Simultaneous elemental composition and size distributions of submicron particles in real time using laser atomization/ionization mass spectrometry. *Aerosol Sci. Technol.* **33**, 122–134. => AEL3344
4135. Reguera, D. and Rubi, J.M. (2001) Nonequilibrium translational-rotational effects in nucleation. *J. Chem. Phys.* **115**, 7100–7106. => AEL3837
4136. Reichert, L., Andrés Hernández, M.D., Stöbener, D., Burkert, J. and Burrows, J.P. (2003) Investigation of the effect of water complexes in the determination of peroxy radical ambient concentrations: Implications for the atmosphere. *J. Geophys. Res. Atmospheres* **108**, 4017–doi:10.1029/2002JD002152, 2003. => AEL3926
4137. Reid, J.S., Jonsson, H.H., Smith, M.H. and Smirnov, A. (2001) Evolution of the vertical profile and flux of large sea-salt particles in a coastal zone. *J. Geophys. Res. Atmospheres* **106**, 12039–12053. => AEL3464

4138. Reid, R.C., Prausnitz, J.M. and Poling, B.E. (1987) *The properties of gases and liquids*. McGraw-Hill Book Company, => AEL3184
4139. Reilly, P.T.A., Lazar, A.C., Gieray, R.A., Whitten, W.B. and Ramsey, J.M. (2000) The elucidation of charge-transfer-induced matrix effects in environmental aerosols via real-time aerosol mass spectral analysis of individual airborne particles. *Aerosol Sci. Technol.* **33**, 135–152. => AEL3345
4140. Reineking, A. and Porstendörfer, J. (1986) High-volume screen diffusion batteries and alpha-spectroscopy for measurement of the radon daughter activity size distributions in the environment. *J. Aerosol Sci.* **17**, 873–879. => AEL2489
4141. Reineking, A. and Porstendörfer, J. (1990) "Unattached" fraction of short-lived Rn decay products in indoor and outdoor environments: an improved single-screen method and results. *Health Physics* **58**, 715–727. => HT0803
4142. Reineking, A., Becker, K.H. and Porstendörfer, J. (1985) Measurements of the unattached fractions of radon daughters in houses. *The Science of the Total Environment* **45**, 261–270. => AEL2490
4143. Reineking, A., Butterweck, G., Kesten, J. and Porstendörfer, J. (1992) Unattached fraction and size distribution of aerosol-attached radon and thoron daughters in realistic living atmospheres and their influence on radiation dose. *Indoor Radon and Lung Cancer: Reality or Myth? 29th Hanford Symp. on Health and the Environment*, Battelle Press, **1**, pp. 129–147. => AEL2484
4144. Reineking, A., Butterweck, G., Kesten, J. and Porstendörfer, J. (1990) Unattached fraction and size distribution of aerosol-attached radon and thoron daughters in realistic living atmospheres and their influence on radiation dose. *Indoor Radon and Lung Cancer: Reality or Myth. Twenty-Ninth Hanford Symposium on Health and the Environment*, Battelle Press, **1**, pp. 129–147. => HT0798
4145. Reineking, A., Butterweck, G., Kesten, J. and Porstendörfer, J. (1990) Thoron gas concentration and aerosol characteristics of thoron decay products. *Health Physics* **58**, 715–727. => HT0802
4146. Reineking, A., Knutson, E.A., George, A.C., Solomon, S.B., Kesten, J., Butterweck, G. and Porstendörfer, J. (1994) Size distribution of unattached and aerosol-attached short-lived radon decay products: some results of intercomparison measurements. *Radiation Protection Dosimetry* **56**, 113–118. => HT0800
4147. Reiner, T. and Arnold, F. (1997) Stratospheric SO<sub>3</sub>: Upper limits inferred from ion composition measurements - Implications for H<sub>2</sub>SO<sub>4</sub> and aerosol formation. *Geophysical Research Letters* **24**, 1751–1754. => AEL1862
4148. Reiner, T., Hanke, M., Arnold, F., Ziereis, H., Schlager, H. and Junkermann, W. (1999) Aircraft-borne measurements of peroxy radicals by chemical conversion/ion molecule reaction mass spectrometry: Calibration, diagnostics, and results. *J. Geophys. Res. Atmospheres* **104**, 18647–18659. => AEL3004
4149. Reiner, T., Möhler, O. and Arnold, F. (1998) Improved atmospheric trace gas measurements with an aircraft-based tandem mass spectrometer: Ion identification by mass-selected fragmentation studies. *J. Geophys. Res. Atmospheres* **103**, 31309–31320. => AEL2836
4150. Reinet, J. (1959) Kerge teioonide tiheduse karakteristikuid (in Estonian). *Loodus ja matemaatika* 93–122. => HT0904
4151. Reinet, J. (1984) The corona air ionizer - a pollutant of the air in a closed room. @IA, Stockholm, pp. 193–194. => AEL0401
4152. Reinet, J. and Siirde, E. (1963) Aerosol ionizer and its application in medicine. *Proceedings 3rd Int. Biometeor. Congress, Pau*, pp. 1031–1036. => HT0016

4153. Reinet, J. and Siirde, E. (1963) Aerosol ionizer and its application in medicine. *Proceedings 3rd Int. Biometeor. Congress, Pau*, pp. 1031–1036. => HT0030
4154. Reinet, J., Tammet, H. and Salm, J. (1963) On the methods of counting air ions. *Proceedings 3rd Int. Biometeor. Congress, Pau*, pp. 1037–1046. => HT0031
4155. Reio, L. (1986) *Effects of Chernobyl accident on Sweden, 1986. Käsikiri*. Uppsala. => HT1408
4156. Reischl, G., John, W. and Devor, W. (1977) Uniform electrical charging of monodisperse aerosols. *J. Aerosol Sci.* **8**, 55–65. => AEL0262
4157. Reischl, G.P. (1991) Measurement of ambient aerosols by the differential mobility analyzer method: Concepts and realization criteria for the size range between 2 and 500 nm. *Aerosol Sci. Technol.* **14**, 5–24. => HT0832
4158. Reischl, G.P., Mäkelä, J.M. and Nacid, J. (1997) Performance of Vienna type differential mobility analyzer at 1.2-20 nanometer. *Aerosol Sci. Technol.* **27**, 651–672. => AEL1945
4159. Reischl, G.P., Mäkelä, J.M., Karch, R. and Nacid, J. (1996) Bipolar charging of ultrafine particles in the size range below 10 nm. *J. Aerosol Sci.* **27**, 931–949. => AEL3834
4160. Reischl, G.P., Mäkelä, J.M., Karch, R. and Nacid, J. Bipolar charging of ultrafine particles in the size range below 10 nm. *Käsikiri* 1–28. => HT0936
4161. Reisinger, A.R., Jones, N.B., Matthews, W.A. and Rinsland, C.P. (1995) Southern hemisphere midlatitude ground-based measurements of ClONO<sub>2</sub>: Method of analysis, seasonal cycle and long-term trend. *J. Geophys. Res.* **100**, 23183–23193. => AEL1711
4162. Reiss, H. (1950) The kinetics of phase transitions in binary systems. *The Journal of Chemical Physics* **18**, 840–848. => AEL1339
4163. Reiss, H. (1970) Treatment of droplike clusters by means of the classical phase integral in nucleation theory. *J. Statistical Phys.* **2**, 83–104. => AEL0731
4164. Reiss, H. (1999) Critique of the determination of equilibrium cluster distributions by means of "direct simulation". *J. Molecular Structure* **485-486**, 465–477. => AEL3320
4165. Reiss, H., Katz, J.L. and Cohen, E.R. (1968) Translation-rotation paradox in the theory of nucleation. *The J. Chem. Phys.* **48**, 5553–5560. => AEL0819
4166. Reiss, H., Margolese, D.I. and Schelling, F.J. (1976) Experimental study of nucleation in vapor mixtures of sulfuric acid and water. *J. Colloid Interface Sci.* **56**, 511–526. => AEL2398
4167. Reiss, H., Tabazadeh, A. and Talbot, J. (1990) Molecular theory of vapor phase nucleation: the physically consistent cluster. *J. Chem. Phys.* **92**, 1266–1274. => AEL0808
4168. Reissell, A. and Arey, J. (2001) Biogenic volatile organic compounds at Azusa and elevated sites during the 1997 Southern California Ozone Study. *J. Geophys. Res. Atmospheres* **106**, 1607–1621. => AEL3307
4169. Reissell, A., Aschmann, S.M., Atkinson, R. and Arey, J. (2002) Products of the OH radical- and O<sub>3</sub>-initiated reactions of myrcene and ocimene. *J. Geophys. Res. Atmospheres* **107**, doi:10.1029/2001JD001234. => AEL3823
4170. Reissell, A., Harry, C., Aschmann, S.M., Atkinson, R. and Arey, J. (1999) Formation of acetone from the OH radical- and O<sub>3</sub>-initiated reactions of a series of monoterpenes. *J. Geophys. Res. Atmospheres* **104**, 13869–13879. => AEL2984
4171. Reiter, R. (1972) Chromosphärische Eruptionen der Sonne beeinflussen atmosphärisch-elektrische Elemente in der unteren Troposphäre. *Metorol. Rdsch.* **25**, 1–6. => AEL1602

4172. Reiter, R. (1982) Vliyanie solnechnoi aktivnosti na elektricheskii potentsial mezhdu ionosferoi i zemnoi poverkhnostyu (in Russian). *Solnechno-Zemnye Zvyazi, Pogoda i Klimat*, Mir, M., pp. 275–284. => HT0297
4173. Reiter, R. (1984) Under which conditions can recordings of the atmospheric electric conductivity be regarded as indicator of particulate air pollution?. *Research Letters on Atmospheric Electricity* **4**, 35–48. => HT0617
4174. Reiter, R. (1985) Frequency distribution of positive and negative small ion concentrations, based on many years' recordings at two mountain stations, located at 740 and 1780 m ASL. *Int. J. Biometeorol.* **29**, 223–231. => AEL3322
4175. Reiter, R. (1985) Part B. Frequency distribution of positive and negative small ion concentrations, based on many years' recordings at two mountain stations located at 740 and 1780 m ASL. *International Journal of Biometeorology* **29**, 223–231. => HT0513
4176. Reiter, R. (1985) Preface. *Internatinal Journal of Biometeorology* **29**, 209–210. => HT0513
4177. Reiter, R. (1992) *Phenomena in atmospheric and environmental electricity*, pp. viii-xiv, 44-49, 56-59. => HT1569
4178. Reiter, R. *Publications*. => HT1590
4179. Remer, L.A. and Kaufman, Y.J. (1998) Dynamic aerosol model: Urban/industrial aerosol. *J. Geophys. Res. Atmospheres* **103**, 13859–13871. => AEL2271
4180. Remer, L.A., Kaufman, Y.J. and Holben, B.N. (1996) The size distribution of ambient aerosol particles: Smoke versus urban/industrial aerosol. In *Biomass burning and global change*, edited by Levine, J.S., The MIT Press, **2**, pp. 519–530. => HT1279
4181. Remiarz, R.J., Agarwal, J.K., Nelson, P.A. and Moyer, E. (1984) A new, automated method for testing particulate respirators. *Journal of the ISRP* **2**, 275–287. => AEL1104
4182. Renard, J.-B., Taupin, F.-G., Rivi re, E.D., Pirre, M., Huret, N., Berthet, G., Robert, C., Chartier, M., Pepe, F. and George, M. (2001) Measurements and simulation of stratospheric NO<sub>3</sub> at mid and high latitudes in the Northern Hemisphere. *J. Geophys. Res. Atmospheres* **106**, 32387–32399. => AEL3619
4183. Renaud, A., Staehelin, J., Fr hlich, C., Philipona, R. and Heimo, A. (2000) Influence of snow and clouds on erythematous UV radiation: Analysis of Swiss measurements and comparison with models. *J. Geophys. Res. Atmospheres* **105**, 4961–4969. => AEL3101
4184. Renninger, R.G., Hiller, F.C. and Bone, R.C. (1981) Comment on "self-nucleation in the sulfuric acid-water system". *J. Chem. Phys.* **75**, 1584–1585. => AEL0820
4185. Reponen, A. and Jantunen, M. (1991) Removal rates of Chernobyl fallout radioactivity on urban surfaces. *Health Physics* **60**, 569–573. => HT0869
4186. Reponen, T. (1995) Aerodynamic diameters and respiratory deposition estimates of viable fungal particles in mold problem dwellings. *Aerosol Sci. Technol.* **22**, 11–23. => AEL1349
4187. *Report of voting on ISO/DIS 13964* (1997). => AEL2147
4188. *Research proposal: Continued radon studies in Estonia, EST-6.05* (1996) Swedish Radiation Protection Institute,. => HT1152
4189. Retalis, D. and Pitta, A. *Effects on electrical parameters at Athens Greece by radioactive fallout from a nuclear power plant accident. Manuscript*. => HT0522
4190. Retalis, D. and Retalis, A. (1998) Effects of air pollution and wind on the large-ion concentration in the air above Athens. *J. Geophys. Res. Atmospheres* **103**, 13927–13932. => AEL2273

4191. Retalis, D.A. (1977) On the relationship between small atmospheric ions concentration and (1) smoke, (2) sulfur dioxide and (3) wind speed. *Pure and Appl. Geophys.* **115**, 575–581. => AEL1439
4192. Retalis, D.A. (1991) Study of the air-earth electrical current density in Athens. *PAGEOPH* **136**, 217–233. => HT0612
4193. Reuder, J. and Schwander, H. (1999) Aerosol effects on UV radiation in nonurban regions. *J. Geophys. Res. Atmospheres* **104**, 4065–4077. => AEL2773
4194. Revzan, K.L., Turk, B.H., Harrison, J., Nero, A.V. and Sextro, R.G. (1988) Parametric modelling of temporal variations in radon concentrations in homes. Subm. to IEEE Transactions on Nuclear Science. *Lawrence Berkeley Laboratory Publ.* 1–19. => AEL2491
4195. Reynolds, A.M. (2000) Representation of internal plume structure in Gifford's meandering plume model. *Atmos. Environ.* **34**, 2539–2545. => AEL3120
4196. Rhoads, K.P., Phares, D.J., Wexler, A.S. and Johnston, M.V. (2003) Size-resolved ultrafine particle composition analysis, 1. Atlanta. *J. Geophys. Res. Atmospheres* **108**, 8418–doi:10.1029/2001JD001211, 2003. => AEL3986
4197. Riba, M.L., Tathy, J.P., Tsiropoulos, N., Monsarrat, B. and Torres, L. (1987) Diurnal variation in the concentration of  $\alpha$ - and  $\nu$ -pinene in the Landes Forest (France). *Atmos. Environ.* **21**, 191–193. => AEL0582
4198. Ricard, V., Jaffrezo, J.-L., Kerminen, V.-M., Hillamo, R.E., Sillanpää, M., Ruellan, S., Liousse, C. and Cachier, H. (2002) Two years of continuous aerosol measurements in northern Finland. *J. Geophys. Res. Atmospheres* **107**, ACH10 1–17. => AEL3661
4199. Ricard, V., Jaffrezo, J.-L., Kerminen, V.-M., Hillamo, R.E., Teinilä, K. and Maenhaut, W. (2002) Size distributions and modal parameters of aerosol constituents in northern Finland during the European Arctic Aerosol Study. *J. Geophys. Res. Atmospheres* **107**, AAC4 1–18. => AEL3674
4200. Rich, T.A. (1970) Some aspects of size measurement in aerosols. *Atmos. Environ.* **4**, 301–309. => HT1484
4201. Rich, T.A., Pollak, L.W. and Metnieks, A.L. (1952) On the time required for aerosols to reach electrical equilibrium. *Geofisica pura e applicata* **51**, 217–224. => AEL1727
4202. Rich, T.A., Pollak, L.W. and Metnieks, A.L. (1959) Estimation of average size of submicron particles from the number of all and uncharged particles. *Geofisica pura e applicata* **44**, 233–241. => HT1483
4203. Richards, L.W. (1979) The reduction of data from the electrical aerosol analyzer. @AM, @UFB, Gainesville, pp. 438–450. => AEL0376
4204. Richardson, J.F. and Wooding, E.R. (1987) Concentration changes in an aerosol. *Chem. Eng. Sci.* **7**, 51–59. => AEL0261
4205. Richardson, W.H. (1972) Bayesian-based iterative method of image restoration. *J. Opt. Soc. Am.* **62**, 55–59. => HT0260
4206. Ridley, B.A., Carroll, M.A. and Gregory, G.L. (1987) Measurements of nitric oxide in the boundary layer and free troposphere over the Pacific Ocean. *J. Geophys. Res.* **92**, 2025–2047. => AEL1442
4207. Riemer, N., Vogel, H., Vogel, B., Schell, B., Ackermann, I., Kessler, C. and Hass, H. (2003) Impact of the heterogeneous hydrolysis of  $N_2O_5$  on chemistry and nitrate aerosol formation in the lower troposphere under photochemical conditions. *J. Geophys. Res. Atmospheres* **108**, 4144–doi:10.1029/2002JD002436, 2003. => AEL3948

4208. Rinsland, C.P., Zander, R., Demoulin, P. and Mahieu, E. (1996) ClONO<sub>2</sub> total vertical column abundances above the Jungfraujoch Station, 1986-1994: Long-term trend and winter-spring enhancements. *J. Geophys. Res.* **101**, 3891–3899. => AEL1667
4209. Rishbeth, H. and Van Eyken, A.P. (1993) EISCAT: early history and the first ten years of operation. *J. Atmos. Terr. Phys.* **55**, 525–542. => AEL1022
4210. Rison, W., Thomas, R.J., Krehbiel, P.R., Hamlin, T. and Harlin, J. (1999) A GPS-based three-dimensional lightning mapping system: Initial observations in central New Mexico. *Geophys. Res. Lett.* **26**, 3573–3576. => AEL2933
4211. Ristimäki, J., Virtanen, A., Marjamäki, M., Rostedt, A. and Keskinen, J. (2002) *On-line measurement of size distribution and effective density of submicron aerosol particles. Käsikiri.* => HT1379
4212. Ritslaid, V. (1960) Aeroionisatsiooni mõjust seemnete idanemisele ja taimede kasvule (in Estonian). *Eesti NSV Teaduste Akadeemia Toimetised. Bioloogiline Seeria* **9**, 167–179. => HT0017
4213. Ritslaid, V. (1963) Põllumajanduskultuuride seemnete idanevuse ja kasvu mõjustamisest aeroionisatsiooniga (in Estonian). *Eesti NSV Teaduste Akadeemia Toimetised. Bioloogiline Seeria* **12**, 33–48. => HT0072
4214. Rizi, V., Redaelli, G., Visconti, G., Masci, F., Wedekind, C., Stein, B., Immler, F., Mielke, B., Rairoux, P., Woste, L., del Guasta, M., Morandi, M., Castagnoli, F., Balestri, S., Stefanutti, L., Matthey, R., Mitev, V., Douard, M., Wolf, J.P., Kyro, E., Rummukainen, M. and Kivi, R. (1999) Trajectory studies of polar stratospheric cloud lidar observations at Sodankylä (Finland) during SESAME: Comparison with box model results of particle evolution. *J. Atmos. Chem.* **32**, 165–181. => AEL3546
4215. Roberts, J.M. (1990) The atmospheric chemistry of organic nitrates. *Atmos. Environ.* **24A**, 243–287. => AEL0474
4216. Roberts, J.M., Fehsenfeld, F.C., Albritton, D.L. and Sievers, R.E. (1983) Measurement of monoterpene hydrocarbons at Niwot Ridge, Colorado. *J. Geophys. Res.* **88**, 10667–10678. => AEL0513
4217. Roberts, J.M., Tanner, R.L., Newman, L., Bowersox, V.C., Bottenheim, J.W., Anlauf, K.G., Brice, K.A., Parrish, D.D., Fehsenfeld, F.C., Buhr, M.P., Meagher, J.F. and Bailey, E.M. (1995) Relationships between PAN and ozone at sites in eastern North America. *J. Geophys. Res.* **100**, 22821–22830. => AEL1636
4218. Robertson, A., Overpeck, J., Rind, D., Mosley-Thompson, E., Zielinski, G., Lean, J., Koch, D., Penner, J., Tegen, I. and Healy, R. (2001) Hypothesized climate forcing time series for the last 500 years. *J. Geophys. Res. Atmospheres* **106**, 14783–14803. => AEL3485
4219. Robertson, L., Langner, J. and Engardt, M. (1996) *MATCH-meso-scale atmospheric transport and chemistry modelling system. Basic transport model description and control experiments with 222Rn. Report.* => HT1124
4220. Robinson, M. (1968) Turbulent gas flow and electrostatic precipitation. *J. Air Poll. Contr. Assoc.* **18**, 235–239. => AEL0260
4221. Robinson, N.F. and Lamb, D. (1986) Technical note. On the calibration of an optical particle counter. *Aerosol Sci. Technol.* **5**, 113–116. => AEL0259
4222. Robl, R.Dzh. and Kheis, P.B. (1982) Elektricheskaya svyaz mezhdu verkhnei i nizhnei atmosferoi (in Russian). *Solnechno-Zmnye Zvyazi, Pogoda i Klimat*, Mir, M., pp. 265–274. => HT0298
4223. Roble, R.G. (1991) On modeling component processes in the Earth's global electric circuit. *J. Atmos. Terr. Phys.* **53**, 831–847. => HT0841



4224. Rodriguez, M.A. and Dabdub, D. (2004) IMAGES-SCAPE2: A modeling study of size- and chemically resolved aerosol thermodynamics in a global chemical transport model. *J. Geophys. Res. Atmospheres* **109**, D02203– doi:10.1029/2003JD003639, 2004. => AEL4117
4225. Roedel, W. (1979) Measurement of sulfuric acid saturation vapor pressure: implications for aerosol formation by heteromolecular nucleation. *J. Aerosol Sci.* **10**, 375–386. => AEL1650
4226. Roeder, R.C. (2002) Average summer peak UV-B in central Texas, 1995–2001. *J. Geophys. Res. Atmospheres* **107**, 4639 doi:10.1029/2002JD002603–2002. => AEL3813
4227. Roelofs, G.-J. and Lelieveld, J. (2000) Tropospheric ozone simulation with a chemistry-general circulation model: Influence of higher hydrocarbon chemistry. *J. Geophys. Res. Atmospheres* **105**, 22697–22712. => AEL3248
4228. Rogak, S.N. and Flagan, R.C. (1992) Coagulation of aerosol agglomerates in the transition regime. *J. Colloid Interface Sci.* **151**, 203–224. => AEL0862
4229. Rogak, S.N., Flagan, R.C. and Nguyen, H.V. (1993) The mobility and structure of aerosol agglomerates. *Aerosol Sci. Technol.* **18**, 25–47. => AEL1253
4230. Rogaski, C.A., Golden, D.M. and Williams, L.R. (1997) Reaction uptake and hydration experiments on amorphous carbon treated with NO<sub>2</sub>, SO<sub>2</sub>, O<sub>3</sub>, HNO<sub>3</sub>, and H<sub>2</sub>SO<sub>4</sub>. *Geophys. Res. Lett.* **24**, 381–384. => AEL2369
4231. Rogers, C.F., Sagebiel, J.C., Zielinska, B., Arnott, W.P., Fujita, E.M., McDonald, J.D., Griffin, J.B., Kelly, K., Overacker, D., Wagner, D., Lighty, J.S., Sarofim, A. and Palmer, G. (2003) Characterization of submicron exhaust particles from engines operating without load on diesel and JP-8 fuels. *Aerosol Sci. Technol.* **37**, 355–368. => AEL3766
4232. Rogers, C.F., Watson, J.G., Day, D. and Oraltay, R.G. (1998) Real-time liquid water mass measurement for airborne particles. *Aerosol Sci. Technol.* **29**, 557–562. => AEL2856
4233. Rogers, V.C. and Nielson, K.K. (1993) Generalized source term for the multiphase radon transport equation. *Health Phys.* **64**, 324–326. => AEL1217
4234. Rogge, W.F., Hildemann, L.M., Mazurek, M.A., Cass, G.R. and Simoneit, B.R.T. (1993) Sources of fine organic aerosol. 4. Particulate abrasion products from leaf surfaces of urban plants. *Environ. Sci. Technol.* **27**, 2700–2711. => AEL2363
4235. Rohr, A.C., Weschler, C.J., Koutrakis, P. and Spengler, J.D. (2003) Generation and quantification of ultrafine particles through terpene/ozone reaction in a chamber setting. *Aerosol Sci. Technol.* **37**, 65–78. => AEL3720
4236. Roll, M., Reinart, M. and Knyazikhin, Yu. (1991) Retrieval of scattering phase function from sky brightness distribution data. *Proceedings of the Estonian Academy of Sciences. Physics, Mathematics* **40**, 279–287. => HT0857
4237. Romay, F.J. and Pui, D.Y.H. (1992) Free electron charging of ultrafine aerosol particles. *J. Aerosol Sci.* **23**, 679–692. => HT0866
4238. Romay, F.J. and Pui, D.Y.H. (1992) On the combination coefficient of positive ions with ultrafine neutral particles in the transition and free-molecule regimes. *Aerosol Sci. Technol.* **17**, 134–147. => AEL1555
4239. Romay, F.J. and Pui, D.Y.H. (1992) On the combination coefficient of positive ions with ultrafine neutral particles in the transition and free-molecule regimes. *Aerosol Sci. Technol.* **17**, 134–147. => HT1489
4240. Romay, F.J., Liu, B.Y.H. and Pui, D.Y.H. (1994) A sonic jet corona ionizer for electrostatic discharge and aerosol neutralization. *Aerosol Sci. Technol.* **20**, 31–41. => AEL1274
4241. Romero-Rochin, V., Varea, C. and Robledo, A. (1991) Microscopic expressions for interfacial bending constants and spontaneous curvature. *Physical Review A* **44**, 8417–8420. => AEL1902

4242. Romero-Rochín, V., Varea, C. and Robledo, A. (1993) Erratum: Microscopic expressions for interfacial bending constants and spontaneous curvature [Phys. Rev. A 44, 8417 (1991)]. *Phys. Rev. E* **48**, 1600. => AEL2032
4243. Rooker, S.J. and Davies, C.N. (1979) Measurement of the coagulation rate of a high Knudsen number aerosol with allowance for wall losses. *J. Aerosol Sci.* **10**, 139–150. => AEL0258
4244. Root, W.L. (1962) Radar resolution of closely spaced targets. *IRE Transactions on Military Electronics* 197–204. => HT0247
4245. Rose, H.E. (1952) *The measurement of particle size in very fine powders*. Constable & Company Ltd., => HT0436
4246. Roselle, S.J. and Schere, K.L. (1995) Modeled response of photochemical oxidants to systematic reductions in anthropogenic volatile organic compound and NO<sub>x</sub> emissions. *J. Geophys. Res.* **100**, 22929–22941. => AEL1714
4247. Rosell-Llompарт, J., Loscertales, I.G., Bingham, D. and Fernandez de la Mora, J. (1995) Sizing nanoparticles and ions with a short differential mobility analyzer. *Subm. to J. Aerosol Sci.* 1–22. => HT0928
4248. Rosell-Llompарт, J., Loscertales, I.G., Bingham, D. and Fernandez de la Mora, J. (1995) Sizing nanoparticles and ions with a short differential mobility analyzer. *Subm. to J. Aerosol Sci.* 1–28. => HT0967
4249. Rosen, J.M. and Hofmann, D.J. (1981) Balloon-borne measurements of electrical conductivity, mobility, and the recombination coefficient. *J. Geophys. Res.* **86**, 7406–7410. => AEL1550
4250. Rosen, J.M., Hofmann, D.J. and Gringel, W. (1985) Measurements of ion mobility to 30 km. *J. Geophys. Res.* **90**, 5876–5884. => AEL1441
4251. Rosen, J.M., Hofmann, D.J. and Laby, J. (1975) Stratospheric aerosol measurements II. The worldwide distribution. *J. Atmos. Sci.* **32**, 1457–1462. => AEL0910
4252. Rosen, J.M., Kjöme, N.T. and Liley, J.B. (1997) Tropospheric aerosol backscatter at a midlatitude site in the northern and southern hemispheres. *J. Geophys. Res. Atmospheres* **102**, 21329–21339. => AEL2200
4253. Rosen, J.M., Kjöme, N.T., Larsen, N., Knudsen, B.M., Kyrö, E., Kivi, R., Karhu, J., Neuber, R. and Beninga, I. (1997) Polar stratospheric cloud threshold temperatures in the 1995-1996 arctic vortex. *J. Geophys. Res. Atmospheres* **102**, 28195–28202. => AEL2168
4254. Rosenblatt, P. and LaMer, V. (1946) Motion of a particle in a temperature gradient; thermal repulsion as a radiometer phenomenon. *Phys. Rev.* **70**, 385–395. => AEL0257
4255. Rosenfield, J.E. and Schoeberl, M.R. (2001) On the origin of polar vortex air. *J. Geophys. Res. Atmospheres* **106**, 33485–33497. => AEL3622
4256. Rosenfield, J.E., Douglass, A.R. and Considine, D.B. (2002) The impact of increasing carbon dioxide on ozone recovery. *J. Geophys. Res. Atmospheres* **107**, ACH7 1–9. => AEL3642
4257. Ross, J. and Möttus, M. (2000) Statistical treatment of sunfleck length inside willow coppice. *Agricultural and Forest Meteorology* **104**, 215–231. => HT1387
4258. Ross, J. and Möttus, M. (2000) Statistical treatment of umbra length inside willow coppice. *Agricultural and Forest Meteorology* **100**, 89–102. => HT1386
4259. Ross, W.D. (1978) Note. Logarithmic distribution functions for particle size. *J. Colloid Interface Sci.* **67**, 181–182. => AEL0256
4260. Roth, C., Berlaue, U. and Heyder, J. (1989) Particle size analysis of log-normally distributed ultrafine particles using a differential mobility analyzer. *J. Aerosol Sci.* **20**, 547–556. => AEL2492

4261. Roth, C., Gebhart, J. and Heigwer, G. (1976) Size spectrometry of submicron-aerosols by counting single particles illuminated by laser light. I. Instrumentation and calibration. *J. Colloid Interface Sci.* **54**, 265–277. => AEL0255
4262. Rothrock, D.A., Yu, Y. and Maykut, G.A. (1999) Thinning of the arctic sea-ice cover. *Geophys. Res. Lett.* **26**, 3469–3472. => AEL2928
4263. Rotstayn, L.D. (1999) Indirect forcing by anthropogenic aerosols: A global climate model calculation of the effective-radius and cloud-lifetime effects. *J. Geophys. Res. Atmospheres* **104**, 9369–9380. => AEL2973
4264. Rotta, J. (1956) Experimenteller Beitrag zur Entstehung turbulenter Strömung im Rohr. *Ingenieur - Archiv* **24**, 258–281. => HT-F081
4265. Routti, J. (1991) Energy systems and their technical, economic and environmental boundary conditions. *XXV fysiikan päivät 21. - 23.3.1991. Energia ja ympäristö. Abstraktit*, Oulu, pp. 1–1. => HT0505
4266. Rowe, B.R., Dupeyrat, G., Marquette, J.B. and Gaucherel, P. (1984) Study of the reactions  $N_2^+ + 2N_2 \rightarrow N_4^+ + N_2$  and  $O_2^+ + 2O_2 \rightarrow O_4^+ + O_2$  from 20 to 160 K by the CRESU technique. *J. Chem. Phys.* **80**, 4915–4921. => AEL1385
4267. Røyset, O. (1998) Comparison of passive and active sampling methods for the determination of nitrogen dioxide in urban air. *Fresenius J. Anal. Chem.* **360**, 69–73. => AEL2117
4268. Rozanov, E.V., Schlesinger, M.E., Egorova, T.A., Li, B., Andronova, N. and Zubov, V.A. (2004) Atmospheric response to the observed increase of solar UV radiation from solar minimum to solar maximum simulated by the University of Illinois at Urbana-Champaign climate-chemistry model. *J. Geophys. Res. Atmospheres* **109**, D01110–doi:10.1029/2003JD003796, 2004. => AEL4113
4269. Rozenberg, G.V. (1968) Opticheskie issledovaniya atmosfernogo aerolya (in Russian). *Uspehi Fiz. Nauk* **95**, 159–208. => HT0217
4270. Rozenkrants, A.S. (1972) Nelineinoe elektricheskoe pole v ionizirovannom gaze dlya obshchego sluchaya rezhima, blizkogo k nasyshcheniyu (in Russian). *Manuskript*, pp. 1–6. => HT0311
4271. Rozenkrants, A.S. (1972) Unipolyarnaya "kvazikorona" v trubke toka proizvolnoi konfiguratsii (in Russian). *Manuskript*, pp. 1–3. => HT0310
4272. Rozenkrants, A.S., Shihhov, V.N. and Sitnikov, V.P. (1969) K raschetu effektivnosti neutralizatorov elektrosticheskikh zaryadov na osnove alfa-izotopov (in Russian). *Izvestija VUZ* **70**, 112–116. => HT0214
4273. Rozenkrants, A.S., Shikhov, V.N. and Sitnikov, V.P. O vybore effektivnykh radioizotopnykh neutralizatorov (in Russian). 30–31. => HT0560
4274. Rubinstein, M. (1994) On the estimation of the stroke detection efficiency by comparison of adjacent lightning location systems. *22nd International Conference On Lightning Protection*, Budapest, **R1b-04**, pp. 1–5. => HT0727
4275. Rubinstein, M. (1994) Panel session 1B moderator report. The lightning discharge. *22nd International Conference On Lightning Protection*, Budapest, **R1b-00**, pp. 1–4. => HT0724
4276. Rubinstein, M. and Montandon, E. (1994) Estimation of the stroke detection efficiency of two adjacent lightning positioning systems in Europe. *22nd International Conference On Lightning Protection*, Budapest, **R1b-05**, pp. 1–3. => HT0728
4277. Rubinstein, M., Uman, M.A., Thomson, E.M., Medelius, P. and Rachidi, F. (1992) Measurements and characterization of ground level vertical electric fields 500 m and 30 m from triggered lightning. *ICAE '92. Käsikiri*, pp. 1–3. => HT0993

4278. Ruckenstein, E. (1990) On the Smoluchowski limit in Brownian coagulation of aerosols. *J. Colloid Interface Sci.* **138**, 294–294. => AEL0712
4279. Rudich, Y. (2003) Laboratory perspectives on the chemical transformations of organic matter in atmospheric particles. *Chemical Reviews* **103**, 5097–5124. => AEL4060
4280. Rudolf, G., Gebhart, J., Heyder, J., Schiller, Ch.F. and Stahlhofen, W. (1986) An empirical formula describing aerosol deposition in man for any particle size. *J. Aerosol Sci.* **17**, 350–355. => AEL2493
4281. Rudolf, R., Vrtala, A., Kulmala, M., Vesala, T., Viisanen, Y. and Wagner, P.E. (2001) Experimental study of sticking probabilities for condensation of nitric acid – water vapor mixtures. *J. Aerosol Sci.* **32**, 913–932. => AEL3839
4282. Rudolph, J., Czuba, E. and Huang, L. (2000) The stable carbon isotope fractionation for reactions of selected hydrocarbons with OH-radicals and its relevance for atmospheric chemistry. *J. Geophys. Res. Atmospheres* **105**, 29329–29346. => AEL3285
4283. Rudolph, J., Ehhalt, D.H., Khedim, A. and Jebson, C. (1981) Determination of C<sub>2</sub>-C<sub>5</sub> hydrocarbons in the atmosphere at low parts per 10<sup>9</sup> to high parts per 10<sup>12</sup> levels. *J. of Chromatography* **217**, 301–310. => AEL1449
4284. Rühling, Å., Brumelis, G., Goltsova, N., Kvietkus, K., Kubin, E., Liiv, S., Magnússon, S., Mäkinen, A., Pilegaard, K., Rasmussen, L., Sander, E. and Steinnes, E. (1992) *Atmospheric heavy metal deposition in Northern Europe 1990*. Nordic Council of Ministers,. => HT1210
4285. Ruhnke, L.H. (1961) The charge of the small ion density due to condensation nuclei and the relation to the extinction coefficient of light. *Proceeding of International Conference on Ionization of the Air*, pp. 1–13. => HT0115
4286. Ruhnke, L.H. (1962) Distance to lightning strokes as determined from electrostatic field strength measurements. *J. of Applied Meteorology* **1**, 544–547. => HT0136
4287. Ruhnke, L.H. (1965) Technological applications of research in atmospheric electricity. *Problems of Atmospheric and Space Electricity*. Edited by S.C. Coroniti, Elsevier Publishing Company, Amsterdam, pp. 79–81. => HT0057
4288. Ruhnke, L.H. (1966) Visibility and small-ion density. *Journal of Geophysical Research* **71**, 4235–4241. => HT0066
4289. Ruhnke, L.H. (1969) Area averaging of atmospheric electric currents. *Journal of Geomagnetism and Geoelectricity* **21**, 453–462. => HT0544
4290. Ruhnke, L.H. (1970) A simple model of electric charges and fields in non-raining convective clouds. *J. of Applied Meteorology* **9**, 947–950. => HT0135
4291. Ruhnke, L.H. (1970) Warm fog modification by seeding with unipolar ions. *The American Meteorological Society's Second National Conference on Weather Modification*, Santa Barbara, pp. 385–388. => HT0118
4292. Ruhnke, L.H. (1971) Determining distance to lightning strokes from a single station. *NOAA Technical Report ERL 195-APCL 16*, U.S. Department of Commerce, Boulder, pp. 1–26. => HT0117
4293. Ruhnke, L.H. (1972) Atmospheric electric cloud modelling. *Meteorologische Rundschau* **25**, 38–41. => HT0112
4294. Ruhnke, L.H. and Dennett, J.T. (1970) Mauna Loa observatory: high altitude science in a tropical maritime environment. *ESSA Technical Memorandum ERLTM-APCL 10*, U.S. Department of Commerce, Boulder, pp. 1–34. => HT0116

4295. Ruhnke, L.H. and Tammet, H.F. (1980) Atmospheric electric currents at widely spaced station. *Abstracts of the VIth International Conference on Atmospheric Electricity*, Manchester, pp. -. => AEL0421
4296. Ruhnke, L.H. *Local disturbances of atmospheric electric currents. Manuscript.* => HT0481
4297. Ruhnke, R., Kouker, W. and Reddmann, T. (1999) The influence of the OH + NO<sub>2</sub> + M reaction on the NO<sub>y</sub> partitioning in the late Arctic winter 1992/1993 as studied with KASIMA. *J. Geophys. Res. Atmospheres* **104**, 3755–3772. => AEL2769
4298. Rusanov, A.I. and Kuni, F.M. (1984) Reformulation of the thermodynamic theory of nucleation on charged particles. *J. Coll. Interface Sci.* **100**, 264–277. => AEL1696
4299. Rusch, D.W., Randall, C.E., Callan, M.T., Horanyi, M., Clancy, R.T., Solomon, S.C., Oltmans, S.J., Johnson, B.J., Koehler, U., Claude, H. and De Muer, D. (1998) A new inversion for stratospheric aerosol and gas experiment II data. *J. Geophys. Res. Atmospheres* **103**, 8465–8475. => AEL2249
4300. Russell, A.G., McCue, K.F. and Cass, G.R. (1988) Mathematical modeling of the formation of nitrogen-containing air pollutants. 1. Evaluation of an Eulerian photochemical model. *Environmental Science and Technology* **22**, 263–. => AEL0502
4301. Russell, A.G., McCue, K.F. and Cass, G.R. (1988) Mathematical modeling of the formation of nitrogen-containing pollutants. 2. Evaluation of the effect of emission controls. *Environmental Science and Technology* **22**, 1336–. => AEL0503
4302. Russell, K.C. (1969) Nucleation on gaseous ions. *The Journal of Chemical Physics* **50**, 1809–1816. => AEL1685
4303. Russell, L.M., Huebert, B.J., Flagan, R.C. and Seinfeld, J.H. (1996) Characterization of submicron aerosol size distributions from time-resolved measurements in the Atlantic Stratocumulus Transition Experiment/Marine Aerosol and Gas Exchange. *J. Geophys. Res.* **101**, 4469–4478. => AEL1759
4304. Russell, L.M., Pandis, S.N. and Seinfeld, J.H. (1994) Aerosol production and growth in the marine boundary layer. *J. Geophys. Res.* **99**, 20989–21003. => AEL1589
4305. Russell, L.M., Seinfeld, J.H., Flagan, R.C., Ferek, R.J., Hegg, D.A., Hobbs, P.V., Wobrock, W., Flossmann, A.I., O'Dowd, C.D., Nielsen, K.E. and Durkee, P.A. (1999) Aerosol dynamics in ship tracks. *J. Geophys. Res. Atmospheres* **104**, 31077–31095. => AEL3050
4306. Rust, W.D. and Moore, C.B. (1974) Electrical conditions near the bases of thunderclouds over New Mexico. *Quarterly J. of the Royal Meteorological Society* **100**, 450–468. => HT0088
4307. Ruuskanen, A. (1991) Nuclear energy - its strengths, weaknesses and role in Finland. XXV *fysiikan päivät 21. - 23.3.1991. Energia ja ympäristö. Abstraktit*, Oulu, pp. 5–5. => HT0505
4308. Ruzer, L.S. and Sextro, R.G. (1997) Assessment of very low aerosol concentrations by measuring the unattached fraction of <sup>218</sup>Po. *Radiat. Prot. Dosimetry* **71**, 135–140. => HT1149
4309. Ruzmaikin, A. and Feynman, J. (2002) Solar influence on a major mode of atmospheric variability. *J. Geophys. Res. Atmospheres* **107**, ACL7 1–11. => AEL3669
4310. Ryce, S.A. and Patriarche, D.A. (1965) Energy considerations in the electrostatic dispersion of liquids. *Can. J. Phys.* **43**, 2192–2199. => AEL0279
4311. Rycroft, M.J., Israelsson, S. and Price, C. (2000) The global atmospheric electric circuit, solar activity and climate change. *J. Atmos. Solar-Terr. Phys.* **00**, 1–14. => HT1458
4312. Rydock, J.P. and Williams, E.R. (1991) Charge separation associated with frost growth. *Q. J.R. Meteorol. Soc.* **117**, 409–420. => HT0621

4313. Ryerson, T.B., Trainer, M., Angevine, W.M., Brock, C.A., Dissly, R.W., Fehsenfeld, F.C., Frost, G.J., Goldan, P.D., Holloway, J.S., Hübler, G., Jakoubek, R.O., Kuster, W.C., Neuman, J.A., Nicks, D.K.Jr., Parrish, D.D., Roberts, J.M., Sueper, D.T., Atlas, E.L., Donnelly, S.G., Flocke, F., Fried, A., Potter, W.T., Schauffler, S., Stroud, V., Weinheimer, A.J., Wert, B.P., Wiedinmyer, C., Alvarez, R.J., Banta, R.M., Darby, L.S. and Senff, C.J. (2003) Effect of petrochemical industrial emissions of reactive alkenes and NO<sub>x</sub> on tropospheric ozone formation in Houston, Texas. *J. Geophys. Res. Atmospheres* **108**, 4249–doi:10.1029/2002JD003070, 2003. => AEL3998
4314. Saari, P. and Reivelt, K. (1997) Evidence of X-shaped propagation-invariant localized light waves. *Phys. Rev. Lett.* **79**, 4135–4138. => HT1260
4315. Saba, M.M.F., Pinto, O., Jr., Pinto, I.R.C.A., Mendes, O. and Jr. (2000) Stratospheric balloon measurements of electric fields associated with thunderstorms and lightning in Brazil. *J. Geophys. Res. Atmospheres* **105**, 18091–18097. => AEL3231
4316. Saba, M.M.F., Pinto, O.Jr. and Pinto, I.R.C.A. (1999) Stratospheric conductivity measurements in Brazil. *J. Geophys. Res. Atmospheres* **104**, 27203–27208. => AEL3036
4317. Sabburg, J. and Wong, J. (2000) Evaluation of a sky/cloud formula for estimating UV-B irradiance under cloudy skies. *J. Geophys. Res. Atmospheres* **105**, 29685–29691. => AEL3293
4318. Sabinina, L. und Terpugow, L. (1935) Die Oberflächenspannung des Systems Schwefelsäure-Wasser. *Z. Phys. Chem. A* **173**, 237–241. => AEL3896
4319. Sabziparvar, A.A., Forster P.M.de, F. and Shine, K.P. (1998) Changes in ultraviolet radiation due to stratospheric and tropospheric ozone changes since preindustrial times. *J. Geophys. Res. Atmospheres* **103**, 26107–26113. => AEL2813
4320. Sacristán, E. and Solis A. (1998) A swept-field aspiration condenser as an ion-mobility spectrometer. *IEEE Transactions on Instrumentation and Measurement* **47**, 769–775. => HT1402
4321. Sadri, R.M. and Floryan, J.M. (2002) Accurate evaluation of the loss coefficient and the entrance length of the inlet region of a channel. *J. Fluids Eng.* **124**, 685–693. => HT1594
4322. Sagnella, D.E. and Tuckerman, M.E. (1998) An empirical valence bond model for proton transfer in water. *J. Chem. Phys.* **108**, 2073–2083. => AEL3871
4323. Saija, F., Fiumara, G. and Giaquinta, P.V. (1998) Virial expansion of non-additive hard-sphere mixture. *J. Chem. Phys.* **108**, 9098–9101. => AEL3134
4324. Sakae, T., Matsumoto, Y., Ishibashi, K. and Katase, A. (1985) Data acquisition system using a microcomputer for the measurement of alpha energy spectra of radon in the air. *Technology Reports of the Kyushu University* **58**, 175–180. => AEL2494
4325. Sakashita, T., Murakami, T., Iida, T., Ikebe, Y., Suzuki, K. and Chino, M. (1994) The numerical model on three dimensional atmospheric transport with application to the transport of <sup>222</sup>Rn. *J. Atmos. Electr.* **14**, 57–62. => AEL2541
4326. Sakashita, T., Murakami, T., Iida, T., Ikebe, Y., Suzuki, K. and Chino, M. (1994) The numerical model on three dimensional atmospheric transport with application to the transport of <sup>222</sup>Rn. *Journal of Atmospheric Electricity* **14**, 57–62. => HT0710
4327. Sakata, S. and Okada, T. (1994) Effect of humidity on hydrated cluster-ion formation in a clean room corona discharge neutralizer. *J. Aerosol Sci.* **25**, 879–893. => HT0737
4328. Salisbury, G., Rickard, A.R., Monks, P.S., Allan, B.J., Bauguitte, S., Penkett, S.A., Carslaw, N., Lewis, A.C., Creasey, D.J., Heard, D.E., Jacobs, P.J. and Lee, J.D. (2001) Production of peroxy radicals at night via reactions of ozone and the nitrate radical in the marine boundary layer. *J. Geophys. Res. Atmospheres* **106**, 12669–12687. => AEL3474

4329. Salm and J.J. (1969) Eksperimental'noe issledovanie deistviya turbulentnoi diffuzii v aspiratsionnom schetchike aeroionov. An experimental study of the effect of turbulent diffusion in air ion aspiration counter (in Russian). *Acta et Comm. Univ. Tartuensis* 68–91. => HT1550
4330. Salm, J. (1970) Konvektsioonivoolu tihedus kondensaatoris laengukandjate difusiooni korral (in Estonian). *Eesti NSV Teaduste Akadeemia Toimetised. Füüsika. Matemaatika* **19**, 118–120. => HT0086
4331. Salm, J. (1988) The average mobility spectrum of large air ions of the troposphere. *Res. Lett. Atmos. Electr.* **8**, 21–24. => HT0867
4332. Salm, J. (1995) Õhk täis elektrit - kasulikud aeroioonid (in Estonian). *Eesti Loodus* 88–89. => HT0846
4333. Salm, J. (2000) Diffusion distortions in a differential mobility analyzer: The shape of apparent mobility spectrum. *Aerosol Sci. Technol.* **32**, 602–612. => AEL3339
4334. Salm, J. (2000) Diffusion distortions in a differential mobility analyzer: The shape of apparent mobility spectrum. *Aerosol Sci. Technol.* **32**, 602–612. => HT1330
4335. Salm, J. and Tamm, E. (2000) Air ion measurements in Hyytiälä during BIOFOR 3. *Report Series in Aerosol Science* **47**, 87–90. => HT1369
4336. Salm, J. *Electrostatic dispersion of charged aerosol particles. Käsikiri.* => HT1035
4337. Salm, J.I. (1971) O statsionarnoi zaryadke aerolei v nesimmetrichno-bipolyarnoi ionnoi atmosfere (in Russian). *Fizika Atmosfery i Okeana* **7**, 468–469. => HT0081
4338. Salm, J.J. (1988) Raspredelenie polyarnoi plotnosti zaryada troposfernykh tyazhelykh aeroionov po podvizhnostyam (in Russian). *Fizika Atmosfery i Okeana* **24**, 561–563. => HT0877
4339. Salma, I., Dal Maso, M., Kulmala, M. and Záray, G. (2002) Modal characteristics of particulate matter in urban atmospheric aerosols. *Microchemical Journal* **73**, 19–26. => HT1427
4340. Salmon, P.L., Henshaw, D.L., Keitch, P.A., Allen, J.E. and Fewes, A.P. (1994) TASTRAK spectroscopy of polonium-210 alpha-particle activity at bone surfaces: evidence for a concentrated surface deposit less than 3 micro m deep. *Radiation Research* **140**, 63–71. => HT1027
4341. Salomaa, R. (1991) Fusion energy - status and prospects. *XXV füsiikan päivät 21. - 23.3.1991. Energia ja ympäristö. Abstraktit*, Oulu, pp. 3–3. => HT0505
4342. Saltz, D. (1994) Using the noninteracting cluster theory to predict the properties of real vapor. *J. Chem. Phys.* **101**, 6038–6051. => AEL2970
4343. Sampath, S., Murali Das, S. and Sasi Kumar, V. (1989) Electrical conductivities, ion densities and mobilities in the middle atmosphere over India - balloon measurements. *J. Atmos. Terr. Phys.* **51**, 533–540. => AEL3400
4344. Sampath, S., Sasikumar, V. and Muralidas, S. (1992) Positive and negative ion densities and mobilities in the middle atmosphere over India - rocket measurements. *J. Atmos. Terr. Phys.* **54**, 347–354. => AEL1009
4345. Samuelsson, C. (1987) Application of a recursion formula to air sampling of radon daughters. *Nuclear Instruments and Methods in Physics Research* 457–462. => AEL2524
4346. Sanchez, D.C., Mason, M. and Norris, C. (1987) Methods and results of characterization of organic emissions from an indoor material. *Atmos. Environ.* **21**, 337–345. => AEL0633
4347. Sander, R., Rudich, Y., von Glasow, R. and Crutzen, P.J. (1999) The role of BrNO<sub>3</sub> in marine tropospheric chemistry: A model study. *Geophys. Res. Lett.* **26**, 2857–2860. => AEL2916

4348. Sanduloviciu, M. and Lozneau, E. (2000) Ball lightning as a self-organization phenomenon. *J. Geophys. Res. Atmospheres* **105**, 4719–4727. => AEL3088
4349. Sansone, E.B. and Weyel, D.A. (1971) A note on the penetration of a circular tube by an aerosol with a log-normal size distribution. *J. Aerosol Sci.* **2**, 413–415. => AEL0280
4350. Santos, A., Lopez de Haro, M. and Bravo Yuste, S. (1995) An accurate and simple equation of state for hard disks. *J. Chem. Phys.* **103**, 4622–4625. => AEL1495
4351. Sapse, A.-M., Osorio, L. and Snyder, G. (1984) Ab initio studies of negative ion-molecule(s) clusters present in the atmosphere. II.  $\text{OH}(\text{H}_2\text{O})_n$  for  $n=0,2,3,4$ . *Int. J. Quantum Chem.* **26**, 223–230. => AEL0797
4352. Sapse, A.-M., Osorio, L. and Snyder, G. (1984) Ab initio studies of negative ion-molecule(s) clusters present in the atmosphere. III.  $\text{OH}(\text{CO}_2)_n$  for  $n=1,2$ . *Int. J. Quantum Chem.* **26**, 231–236. => AEL0798
4353. Sarkies, K.W. and Frankel, N.E. (1971) Nucleation theory with a nonclassical free energy. *J. Chem. Phys.* **54**, 433–434. => AEL1061
4354. Sarkisov, G., Tikhonov, D., Malinsky, J. and Magarshak, Yu. (1993) Martynov-Sarkisov integral equation for the simple fluids. *J. Chem. Phys.* **99**, 3926–3931. => AEL1053
4355. Sarofim, A.F. and Helble, J.J. Health effects of combustion generated aerosols. *Käsikiri* 1–6. => HT0973
4356. Saros, M.T., Weber, R.J., Marti, J.J. and McMurry, P.H. (1995) Ultrafine aerosol measurement using a condensation nucleus counter with pulse height analysis. *Subm. to Aerosol Sci. Technol., Particle Technology Laboratory Publication* 1–26. => HT0957
4357. Saros, M.T., Weber, R.J., Marti, J.J. and McMurry, P.H. (1996) Ultrafine aerosol measurement using a condensation nucleus counter with pulse height analysis. *Aerosol Sci. Technol.* **25**, 200–213. => AEL1825
4358. Sartin, A. and Murr, L.E. (1980) A transmission electron microscopy study of particulate concentrations in seven individual snowflakes. *Cold Regions Sci. Technol.* **3**, 39–43. => AEL0282
4359. Sasakawa, M. and Uematsu, M. (2002) Chemical composition of aerosol, sea fog, and rainwater in the marine boundary layer of the northwestern North Pacific and its marginal seas. *J. Geophys. Res. Atmospheres* **107**, 4783– doi:10.1029/2001JD001004, 2002. => AEL3912
4360. Sasakawa, M., Ooki, A. and Uematsu, M. (2003) Aerosol size distribution during sea fog and its scavenge process of chemical substances over the northwestern North Pacific. *J. Geophys. Res. Atmospheres* **108**, 4120– doi:10.1029/2002JD002329, 2003. => AEL3938
4361. Sasser, P.E., Splinter, W.E. and Bowen, H.D. (1967) Effect of relative humidity on the electrostatic charging process. *Transact. ASAE* **10**, 201–208. => AEL0284
4362. Satsumabayashi, H., Kurita, H., Yokouchi, Y. and Ueda, H. (1990) Photochemical formation of particulate dicarboxylic acids under long-range transport in central Japan. *Atmos. Environ.* **24A**, 1443–1450. => AEL0905
4363. Saute, M. and Aubert-Frécon, M. (1982) Calculated long-range potential-energy curves for the 23 molecular states of  $\text{I}_2$ . *J. Chem. Phys.* **77**, 5639–5646. => AEL0283
4364. Savarino, J., Lee, C.C.W. and Thiemens, M.H. (2000) Laboratory oxygen isotopic study of sulfur(IV) oxidation: Origin of the mass-independent oxygen isotopic anomaly in atmospheric sulfates and sulfate mineral deposits on Earth. *Geophys. Res. Atmospheres* **105**, 29079–29088. => AEL3284



4365. Savchenko, A., Smirnov, V. and Svirkunov, P. (1979) Evaporation of impurity ions from solutions into the air. *Water, Air, and Soil Pollution* **12**, 407–415. => AEL0416
4366. Savchenko, A., Smirnov, V. and Svirkunov, P. (1979) Evaporation of impurity ions from solutions into the air. *Water, Air and Soil Pollution* **12**, 407–415. => HT0182
4367. Savchenko, A.V. and Smirnov, V.V. (1984) Ionnaya zaryadka aerolya pri kondensatsii (in Russian). *Koll.Zh.* 148–152. => HT0174
4368. Savchenko, A.V., Svirkunov, P.N. and Smirnov, V.V. (1983) Ionnaya zaryadka aerokolloidov pri isparenii (in Russian). *Koll.Zh.* 1205–1208. => HT0175
4369. Savelova, T.I. (1972) O reshenii uravneniya tipa svertki s netochno zadannym yadrom metodom regulyazatsii (in Russian). *ZhVM i MF* 212–218. => HT0284
4370. Savijärvi, H. (1994) *Numerical models of the atmosphere*. Unclassified paper,. => AEL1032
4371. Savory, E. and Toy, N. (2000) Technical note. Estimation of total circulation within a plume in a crosswind. *Atmos. Environ.* **34**, 1655–1658. => AEL3065
4372. Saxena, P., Hildemann, L.M., McMurry, P.H. and Seinfeld, J.H. (1995) Organics alter hygroscopic behavior of atmospheric particles. *J. Geophys. Res. Atmospheres* **100**, 18755–18770. => AEL1991
4373. Saxena, P., Hudischewskyj, A.B., Seigneur, C. and Seinfeld, J.H. (1986) A comparative study of equilibrium approaches to the chemical characterization of secondary aerosols. *Atmos. Environ.* **20**, 1471–1483. => AEL0286
4374. Saxena, V.K. (1980) Some wintertime cloud aerosol interactions over Lake Michigan. *J. Rech. Atmos.* **14**, 255–265. => AEL0285
4375. Scanlon, T.M. and Albertson, J.D. (2001) Turbulent transport of carbon dioxide and water vapor within a vegetation canopy during unstable conditions: Identification of episodes using wavelet analysis. *J. Geophys. Res. Atmospheres* **106**, 7251–7262. => AEL3428
4376. Sceats, M.G. (1988) Particle diffusion in the transition region of rarefied gas dynamics. *J. Colloid Interface Sci.* **126**, 101–107. => AEL1724
4377. Schaake, J.C., Duan, Q., Koren, V., Mitchell, K.E., Houser, P.R., Wood, E.F., Robock, A., Lettenmaier, D.P., Lohmann, D., Cosgrove, B., Sheffield, J., Luo, L., Higgins, W., Pinker, R.T. and Tarpley, J.D. (2004) An intercomparison of soil moisture fields in the North American Land Data Assimilation System (NLDAS). *J. Geophys. Res. Atmospheres* **109**, D01S90– doi:10.1029/2002JD003309, 2004. => AEL4111
4378. Schade, G.W. and Goldstein, A.H. (2001) Fluxes of oxygenated volatile organic compounds from a ponderosa pine plantation. *J. Geophys. Res. Atmospheres* **106**, 3111–3123. => AEL3317
4379. Schaefer, E. and Marschall, L.A. (1980) Design and use of a computerized test generating program. *Am.J.Phys.* **48**, 518–522. => HT0192
4380. Schaefer, V.J. (1952) Continuous cloud chamber for studying small particles in the atmosphere. *Ind. and Engineering Chemistry* **44**, 1381–1383. => HT0105
4381. Schaefer, V.J. (1952) Formation of ice crystals in ordinary and nuclei-free air. *Industrial and Engineering Chemistry* **44**, 1300–1304. => HT0104
4382. Schaefer, V.J. and Cheng, R.J. (1971) The production of ice crystal fragments by sublimation and electrification. *J. de Rech. Atmosph.* **5**, 5–10. => HT0984
4383. Schaeffer, V.J. Simple experiments in atmospheric physics. *ASRC-SUNY Publ.* 1–26. => AEL0287

4384. Schauer, J.J., Rogge, W.F., Hildemann, L.M., Mazurek, M.A., Cass, G.R. and Simoneit, B.R.T. (1996) Source apportionment of airborne particulate matter using organic compounds as tracers. *Atmos. Environ.* **30**, 3837–3855. => AEL2122
4385. Scheibel, H.G. and Porstendörfer, J. (1983) Generation of monodisperse Ag- and NaCl-aerosols with particle diameters between 2 and 300 nm. *J. Aerosol Sci.* **14**, 113–126. => AEL3621
4386. Scheibel, H.G. and Porstendörfer, J. (1983) The bipolar charging of aerosols: experimental results in the size range below 20-nm particle diameter. *J. Colloid Interface Sci.* **91**, 272–275. => AEL0288
4387. Scheibel, H.-G., Becker, K.-H., Hessin, A., Porstendörfer, J. and Rößig, G. The influence of wall losses on the counting efficiency of a condensation nuclei counter for submicron particles. pp. 160–167. => AEL2498
4388. Scheibel, H.G., Hussin, A. and Porstendörfer, J. Application of new charge distribution data in the particle size analysis of ultrafine aerosol particles ( $30\text{ nm} > d > 1\text{ nm}$ ) with the differential mobility method (DMM). *Aerosols in Science, Medicine and Technology. 11th Ann. Conf. of the Association for Aerosol Research*, pp. 372–375. => AEL2499
4389. Scheifinger, H. and Held, G. (1997) Aerosol behaviour on the South African Highveld. *Atmos. Environ.* **31**, 3497–3509. => AEL1929
4390. Scheirer, R. and Macke, A. (2001) On the accuracy of the independent column approximation in calculating the downward fluxes in the UVA, UVB, and PAR spectral ranges. *J. Geophys. Res. Atmospheres* **106**, 14301–14312. => AEL3478
4391. Schell, B., Ackermann, I.J., Hass, H., Binkowski, F.S. and Ebel, A. (2001) Modeling the formation of secondary organic aerosol within a comprehensive air quality model system. *J. Geophys. Res. Atmospheres* **106**, 28275–28293. => AEL3578
4392. Schelstraete, S. and Vershelde, H. (1998) Calculating free energies of Lennard-Jones clusters using the effective diffused potential. *J. Chem. Phys.* **108**, 7152–7160. => AEL3872
4393. Schene, H. (1966) Untersuchungen über die elektrostatische Zerstäubbarkeit von Lacken (1). *Industrie-Lakier-Betrieb* **34**, 431–437. => AEL0289
4394. Schene, H. (1966) Untersuchungen über die elektrostatische Zerstäubbarkeit von Lacken (2). *Industrie-Lakier-Betrieb* **34**, 471–484. => AEL0290
4395. Schenter, G.K., Kathmann, S.M. and Garrett, B.C. (1999) Variational transition state theory of vapor phase nucleation. *J. Chem. Phys.* **110**, 7951–7959. => AEL3129
4396. Schenter, G.K., Kathmann, S.M. and Garrett, B.C. (2002) Dynamical benchmarks of the nucleation kinetics of water. *J. Chem. Phys.* **116**, 4275–4280. => AEL3907
4397. Schery, S.D., Wang, R., Eack, K. and Whittlestone, S. (1992) New models for radon progeny near the Earth's surface. *Radiation Protection Dosimetry* **45**, 343–347. => AEL2520
4398. Schery, S.D., Wasiolek, P.T., Nemetz, B.M., Yarger, F.D. and Whittlestone, S. (1998) Relaxed eddy accumulator for flux measurement of nanometer-size particles. *Aerosol Sci. Technol.* **28**, 159–172. => AEL2100
4399. Scheuer, E., Talbot, R.W., Dibb, J.E., Seid, G.K., DeBell, L. and Lefer, B. (2003) Seasonal distributions of fine aerosol sulfate in the North American Arctic basin during TOPSE. *J. Geophys. Res. Atmospheres* **108**, 8370– doi:10.1029/2001JD001364, 2003. => AEL3960
4400. Schiller and Hahnemann *Umströmung von Körpern bei zweidimensionaler Strömung.* => HT1584

4401. Schlager, H. and Arnold, F. (1986) Implications for atmospheric negative ion composition measurements of laboratory ECA studies of sulfuric acid cluster ions. *Planet. Space Sci.* **34**, 245–252. => AEL0629
4402. Schlager, H. and Arnold, F. (1987) On stratospheric acetonitrile detection by passive chemical ionization mass spectrometry. *Planet. Space Sci.* **35**, 715–725. => AEL1429
4403. Schlatter, J., Ehara, K., Fukushima, N., Horn, H.-G., Ichjio, K., Marshall, I., Otani, Y., Owen, M., Peters, C., Quincy, P., Sakurai, H., Sem, G., Spielvogel, J., Tsunoda, C. and Vasiliou, J. (2009) *New International Standard for Aerosol Particle Sizing (ISO15900)*. 13th ETH Conference on Combustion generated Nanoparticles. Poster. => HT1560
4404. Schlatter, J., Schmidt-Ott, A. and Burtscher, H. (1987) Technical note. A simplified electrostatic aerosol analyzer. *J. Aerosol Sci.* **18**, 581–583. => HT0834
4405. Schlessinger, R.B. (1980) Particle deposition in model systems of human and experimental animal airways. @ GA, @ AA, pp. 553–575. => AEL0393
4406. Schmalwieser, A.W. and Schaubberger, G. (2000) Validation of the Austrian forecast model for solar, biologically effective UV radiation - UV index for Vienna. *J. Geophys. Res. Atmospheres* **105**, 26661–26667. => AEL3264
4407. Schmeer, H.R. (1966) Untersuchung über die Mesbarkeit der elektrischen Leitfähigkeit und der Dichte der Kleinionen in der Atmosphäre. *Arch. Techn. Messen* **361**, 31–36. => HT-F038
4408. Schmeer, H.R. (1966) Untersuchung über die Mesbarkeit der elektrischen Leitfähigkeit und der Dichte der Kleinionen in der Atmosphäre. *Arch. Techn. Messen* **362**, 55–56. => HT-F038
4409. Schmelzer, J.W.P., Schmelzer, J.Jr. and Gutzow, I.S. (2000) Reconciling Gibbs and van der Waals: A new approach to nucleation theory. *J. Chem. Phys.* **112**, 3820–3831. => AEL3131
4410. Schmid, G. (1990) Clusters and colloids: bridges between molecular and condensed material. *Endeavour, New Series* **14**, 172–178. => AEL0904
4411. Schmid, O., Eimer, B., Hagen, D.E. and Whitefield, P.D. (2002) Investigation of volatility method for measuring aqueous sulfuric acid on mixed aerosols. *Aerosol Sci. Technol.* **36**, 877–889. => AEL3708
4412. Schmid, O., Trueblood, M.B., Gregg, N., Hagen, D.E. and Whitefield, P.D. (2002) Sizing of aerosol in gases other than air using a differential mobility analyzer. *Aerosol Sci. Technol.* **36**, 351–360. => AEL3604
4413. Schmid, O., Trueblood, M.B., Gregg, N., Hagen, D.E. and Whitefield, P.D. (2002) Sizing of aerosol in gases other than air using a differential mobility analyzer. *Aerosol Sci. Technol.* **36**, 351–360. => AEL3694
4414. Schmidt, A.M. and Gelfand, A.E. (2003) A Bayesian coregionalization approach for multivariate pollutant data. *J. Geophys. Res. Atmospheres* **108**, 8783–doi:10.1029/2002JD002905. => AEL4097
4415. Schmidt, U. (1978) The latitudinal and vertical distribution of molecular hydrogen in the troposphere. *J. Geophys. Res.* **83**, 941–946. => AEL1434
4416. Schmidt-Ott, A. (1998) Monitoring particulate air pollution by integrating sensors. *J. Aerosol Sci.* **29**, S969–S970. => HT1350
4417. Schmidt-Ott, A. and Burtscher, H. (1982) The effect of van der Waals forces on aerosol coagulation. *J. Colloid Interface Sci.* **89**, 353–357. => HT0849
4418. Schmitt, J.L., Whitten, J., Adams, G.W. and Zalabsky, R.A. (1990) Binary nucleation of ethanol and water. *J. Chem. Phys.* **92**, 3693–3699. => AEL0737

4419. Schmucki, D., Voigt, S., Philipona, R., Fröhlich, C., Lenoble, J., Ohmura, A. and Wehrli, C. (2001) Effective albedo derived from UV measurements in the Swiss Alps. *J. Geophys. Res. Atmospheres* **106**, 5369–5383. => AEL3424
4420. Scholz, J. (1931) Gegenfelduntersuchungen und Beweglichkeitsmessung kleiner Ionen. *Gerlands Beiträge zur Geophysik* **29**, 226–238. => AEL3449
4421. Schreiber, G.O.S. and Peyrous, R. (1979) Some air ion measurements made in the Pyrenees (France) at altitudes of 200 m and 2,870 m. *Int. J. Biometeorol.* **23**, 123–130. => HT1037
4422. Schreiner, J., Voigt, C., Mauersberger, K., McMurry, P. and Ziemann, P. (1998) Aerodynamic lens system for producing particle beams at stratospheric pressures. *Aerosol Sci. Technol.* **29**, 50–56. => AEL2847
4423. Schröder, F. and Ström, J. (1997) Aircraft measurements of sub micrometer aerosol particles (>7nm) in the midlatitude free troposphere and tropopause region. *Atmos. Res.* **44**, 333–356. => AEL1940
4424. Schröder, F. and Ström, J. (1997) Aircraft measurements of sub micrometer aerosol particles (>7 nm) in the midlatitude free troposphere and tropopause region. *Atmos. Res.* **44**, 333–356. => AEL2884
4425. Schröder, F., Brock, C.A., Baumann, R., Petzold, A., Busen, R., Schulte, P. and Fiebig, M. (2000) In situ studies on volatile jet exhaust particle emissions: Impact of fuel sulfur content and environmental conditions on nuclei mode aerosols. *J. Geophys. Res. Atmospheres* **105**, 19941–19954. => AEL3238
4426. Schroeter, J.D., Musante, C.J., Hwang, D., Burton, R., Guilmette, R. and Martonen, T.B. (2001) Hygroscopic growth and deposition of inhaled secondary cigarette smoke in human nasal pathways. *Aerosol Sci. Technol.* **34**, 137–143. => AEL3371
4427. Schuetzle, D. and Rasmussen, R.A. (1978) The molecular composition of secondary aerosol particles formed from terpenes. *JAPCA* **28**, 236–240. => AEL1096
4428. Schult, I., Feichter, J. and Cooke, W.F. (1997) Effect of black carbon and sulfate aerosols on the Global Radiation Budget. *J. Geophys. Res. Atmospheres* **102**, 30107–30117. => AEL2161
4429. Schulte, P. and Arnold, F. (1990) Pyridinium ions and pyridine in the free troposphere. *Geophys. Res. Lett.* **17**, 1077–1080. => AEL1347
4430. Schulte, P. and Arnold, F. (1992) Detection of upper atmospheric negatively charged microclusters by a rocket-borne mass spectrometer. *Geophys. Res. Lett.* **19**, 2297–2300. => HT1103
4431. Schulte, P., Schlager, H., Ziereis, H., Schumann, U., Baughcum, S.L. and Deidewig, F. (1997) NO<sub>x</sub> emission indices of subsonic long-range jet aircraft at cruise altitude: In situ measurements and predictions. *J. Geophys. Res. Atmospheres* **102**, 21431–21442. => AEL2205
4432. Schumann, G. and Petrausch, D. (1971) Measurements on aerosols in the size range below 0.1|μ|m. *J. Aerosol Sci.* **2**, 151–159. => AEL0291
4433. Schumann, G. and Petrausch, D. (1971) Measurements on aerosols in the size range below 0.1. *Aerosol Sci.* **2**, 151–159. => HT0226
4434. Schumann, U., Arnold, F., Busen, R., Curtius, J., Kärcher, B., Kiendler, A., Petzold, A., Schlager, H., Schröder, F. and Wohlfrom, K.-H. (2002) Influence of fuel sulfur on the composition of aircraft exhaust plumes: The experiments SULFUR 1-7. *J. Geophys. Res. Atmospheres* **107**, AAC2 1–27. => AEL3728

4435. Schumann, U., Ström, J., Busen, R., Baumann, R., Gierens, K., Krautstrunk, M., Schröder, F.P. and Stingl, J. (1996) In situ observations of particles in jet aircraft exhausts and contrails for different sulfur-containing fuels. *J. Geophys. Res.* **101**, 6853–6869. => AEL1845
4436. Schütte, T. (1987) Optimum performance of lightning localization systems. *Acta Universitatis Upsaliensis. Comprehensive Summaries of Uppsala Dissertations from the Faculty of Science* 1–20. => HT0717
4437. Schütte, T. and Pislser, E. (1986) Some improved evaluations of the performance of lightning detection systems. *UURIE* 1–17. => HT0718
4438. Schütte, T., Cooray, V. and Israelsson, S. *Recalculating of lightning localization system acceptance using a refined damping model. Manuscript.* Uppsala. => HT0425
4439. Schütte, T., Israelsson, S. und Knudsen, E. (1983) *Schnelle Variationen des luftelektrischen Potetialgradienten und der Raumladung in der bodennahen Luftschicht.* Uppsala. => HT0407
4440. Schütte, T., Salka, O. and Israelsson, S. (1987) The use of the Weibull distribution for thunderstorm parameters. *Journal of Climate and Applied Meteorology* **26**, 457–463. => HT0434
4441. Schütte, Th., Pislser, E. and Israelsson, S. (1987) A new method for the measurement of the site errors of a lightning direction-finder: Description and first results. *Journal Atmospheric Ocean Technology* 0001–0007. => HT0395
4442. Schütte, Th., Pislser, E., Filipovic, D. and Israelsson, S. *The acceptance of lightning detectors and lightning localization systems under different damping conditions. Manuscript.* Uppsala. => HT0426
4443. Schütz, A. (1967) Über die elektrische Aufladung von Aerosolen. *Staub - Reinhalt. Luft* **27**, 534–540. => AEL0292
4444. Schwab, J.J., Pan, R.-J. and Zhang, J. (1996) What constitutes a valid intercomparison of satellite and in situ stratospheric H<sub>2</sub>O measurements?. *J. Geophys. Res.* **101**, 1517–1528. => AEL1797
4445. Schwander, H., Koepke, P., Kaifel, A. and Seckmeyer, G. (2002) Modification of spectral UV irradiance by clouds. *J. Geophys. Res. Atmospheres* **107**, AAC7 1–12. => AEL3678
4446. Schweidler, E.v. (1941) Zur Berechnung des Ionisationsgleichgewichtes in kernhaltiger Luft. *Gerlands Beiträge zur Geophysik* **57**, 283–288. => AEL1864
4447. Schwenkhagen, H.F. (1953) Elektrostatische Aufladungen und ihre Beseitigung. *Melliand Textilber.* **34**, 1182–1185. => AEL0293
4448. Scorer, R.S. (1989) The use of visible wavelengths in the study of particulate air pollution using regular meteorological satellite observations. *Atmos. Environ.* **23**, 817–829. => AEL0294
4449. Scott, A.G. (1994) Radon sources, radon ingress and models. *Radiation Protection Dosimetry* **56**, 145–149. => AEL2478
4450. Scott, W.D. and Cattell, F.C.R. (1979) Vapor pressure of ammonium sulfates. *Atmos. Environ.* **13**, 307–317. => AEL3866
4451. Scuka, V. and Israelsson, S. (Comp.) (1996) *Seminars in atmospheric electricity. Copies of overheads.* Institute of High Voltage Research, Uppsala University,. => HT1208
4452. Sear, R.P. (1999) Classical nucleation theory for the nucleation of the solid phase of spherical particles with a short-ranged attraction. *J. Chem. Phys.* **111**, 2001–2007. => AEL3148
4453. Searcy, C., Dean, K. and Stringer, W. (1998) PUFF: A Lagrangian trajectory volcanic ash tracking model. A condensed version. *J. Volcanology and Geothermal Res.* **80**, 1–16. => HT1381

4454. Searcy, J.Q. and Fenn, J.B. (1976) Reply to comment by Kassner and Hagen. *J. Chem. Phys.* **64**, 1861–1862. => AEL0536
4455. Seaver, M. and Barrett, A. (1994) Gas scavenging of soluble and insoluble organic vapors by levitated water drops. *J. Appl. Meteorol.* **33**, 808–812. => AEL2746
4456. Secker, P.E. and Chubb, J.N. (1984) Review. Instrumentation for electrostatic measurements. *Journal of Electrostatics* **16**, 1–19. => HT0445
4457. Seele, C. and Hartogh, P. (1999) Water vapor of the polar middle atmosphere: Annual variation and summer mesosphere conditions as observed by ground-based microwave spectroscopy. *Geophys. Res. Lett.* **26**, 1517–1520. => AEL2897
4458. Seeley, L.H., Seidler, G.T. and Dash, J.G. (2001) Laboratory investigation of possible ice nucleation by ionizing radiation in pure water at tropospheric temperatures. *J. Geophys. Res. Atmospheres* **106**, 3033–3036. => AEL3312
4459. Seeley, R.S. (1993) Clean air act amendments spawn lively air pollution equipment market. *Environ. Sci. Technol. Environmental Buyers' Guide Edition* 14–17. => AEL0882
4460. Segal', R.B. (1962) Raspredelenie malykh ionov vozdukha po ikh velichine (in Russian). *Izv. vysshikh uchebnykh zavedenii* 16–21. => AEL3399
4461. Segal, R.B. (1962) Ratspredelenie malykh ionov vozdukha po ikh velichine (in Russian). *Uschen.Zap.Tcsherepovetskovo Gos.Pedagogitscheskogo Inst.*, **3**, pp. 3–12. => HT-F054
4462. Seger, G. Application of holography for particle size analysis in aerosol clouds. *7th International Aerosol Congress, Nice, 24th-27th June, 1969*, Batelle-Institut e.V., Frankfurt am Main, pp. -. => AEL0302
4463. Seibert, P. and Jost, D.T. (1994) Investigation of potential source areas by statistical trajectory analysis of ALPTRAC aerosol measurements. *EUROTRAC Newsletter* 14–17. => AEL2717
4464. Seigneur, C. (1982) A model of sulfate aerosol dynamics in atmospheric plumes. *Atmospheric Environment* **16**, 2207–2228. => AEL1264
4465. Seigneur, C., Hudischewskyj, A.B., Seinfeld, J.H., Whitby, K.T., Whitby, E.R., Brock, J.R. and Barnes, H.M. (1986) Simulation of aerosol dynamics: a comparative review of mathematical models. *Aerosol Sci. Technol.* **5**, 205–222. => AEL0297
4466. Seinfeld, J.H. and Pandis, S.N. (1998) Dry deposition. In: Atmospheric chemistry and physics. *From air pollution to climate change*, pp. 958–996. => HT1574
4467. Seinfeld, J.H. and Pandis, S.N. (1998) Mass transfer aspects of atmospheric chemistry. 11.1.2 The kinetic regime. 11.1.3 The transition regime. 11.1.2 The accommodation coefficient. *Atmospheric chemistry and physics. From air pollution to climate change*, pp. 600–607. => HT1549
4468. Sekar, S. (1981) *A study of the effects of geometry and energization on electrostatic preipitation. Doctoral thesis.* Repro-centrlen vid Uppsala Universitet, Uppsala. => HT0440
4469. Sekar, S. and Stomberg, H. (1981) On the prediction of current-voltage characteristics for wireplate precipitators. *Journal of Electrostatics* **10**, 35–43. => HT0439
4470. Sekigawa, K., Hiruta, Y., Tsunoda, C. and Nakatani, S. (1982) An improved mobility analyzer for determining the size distribution of submicron aerosols. *J. Meteorol. Soc. Japan* **60**, 908–915. => AEL0296
4471. Sekigawa, K., Hiruta, Y., Tsunoda, C. and Nakatani, S. (1982) Characteristics of time variations in the size distribution of atmospheric aerosols. *Res. Lett. Atmos. Electr.* **2**, 21–24. => AEL0295

4472. Sekigawa, K., Hiruta, Y., Tsunoda, C. and Nakatani, S. (1982) Characteristics of time variations in the size distribution of atmospheric aerosols. *Research Letters on Atmospheric Electricity* **2**, 21–24. => HT0301
4473. Sekiguchi, M., Nakajima, T., Suzuki, K., Kawamoto, K., Higurashi, A., Rosenfeld, D., Sano, I. and Mukai, S. (2003) A study of the direct and indirect effects of aerosols using global satellite data sets of aerosol and cloud parameters. *J. Geophys. Res. Atmospheres* **108**, 4699–doi:10.1029/2002JD003359. => AEL4082
4474. Sekiya, T., Yabuzaki, T., Kitano, M. and Ogawa, M. (1988) Photochemical aerosol formation from organic gases. *Colloid and Polymer Science* **266**, 1037–1041. => AEL0434
4475. Sekiyama, M. (1959) The measurement of the aerosol by using a ion-detektor. *J. Fac.Engng. Ibarahi Univ.* **7**, 81–84. => HT-F064
4476. Sem, G. (1979) Electrical aerosol analyzer: operation, maintenance, and application. @AM, @UFB, Gainesville, pp. 400–432. => AEL0374
4477. Sem, G. (Comp.) (1978) *TSI EAA*. TSI Thermo Systems,. => AEL0947
4478. Sem, G.J. (1975) Design and application of an electrical size analyzer for submicron aerosol particles. *21st Annual ISA Analysis Instrumentation Symposium held May 6-8, 1975*, Philadelphia, pp. 33–46. => AEL0886
4479. Sem, G.J. (1978) Electrical aerosol analyzer: operation, maintenance and application. *To be published in "Aerosol Measurement" Ed. by Lundgren, D.A.*, University of Florida Press, Gainesville, pp. 1251–144. => HT0581
4480. Sem, G.J. (1980) A data reduction system for the electrical aerosol analyzer and comparison with a diffusion battery for submicrometer size measurement. *Aerosols in Science, Medicine and Technology*, pp. 131–138. => AEL0298
4481. Sem, G.J. *Electrical aerosol size measuring instruments. Lecture.* => HT0912
4482. Semenov, V.S., Bogdanova, Y.V., Rijnbeek, R.P. and Buchan, M.J. (1999) A new mechanism for interpreting the motion of auroral arcs in the nightside ionosphere. *Geophys. Res. Lett.* **26**, 2367–2370. => AEL2912
4483. Senger, B., Schaaf, P., Corti D., S., Bowles, R., Voegel, J.-C. and Reiss, H. (1999) A molecular theory of the homogeneous nucleation rate. II. Application to argon vapor. *J. Chem. Phys.* **110**, 6438–6450. => AEL3142
4484. Senger, B., Schaaf, P., Corti, D.S., Bowles, R., Voegel, J.-C. and Reiss, H. (1999) A molecular theory of the homogeneous nucleation rate. I. Formulation and fundamental issues. *J. Chem. Phys.* **110**, 6421–6437. => AEL3141
4485. Sensintaffar, E.L., Chambless, D.A., Gray, D.J. and Windham, S.T. (1992) Analysis of error and minimum detection limits for <sup>222</sup>Rn measurements. *Radiation Protection Dosimetry* **45**, 33–36. => AEL2518
4486. Seol, K.S., Yabumoto, J. and Takeuchi, K. *A differential mobility analyzer with adjustable column length for wide particle-size-range measurements. Käsikiri.* => HT1419
4487. Seol, K.S., Yabumoto, Y. and Takeuchi, K. (2001) *A column-length-adjustable differential mobility analyzer for wide particle-size-range measurements. Käsikiri.* => HT1371
4488. Sequeiros, A.B. (1994) The determination of particles, plankton and yellow substance from the underwater spectral irradiance in Lake Pääjärvi. *Käsikiri* 1–5. => HT0999
4489. Seto, T. and Okuyama, K. (1998) Size and sign effect on the ion-induced nucleation. *J. Aerosol Sci.* **29**, S141–S142. => HT1336
4490. Seto, T., Hirota, A., Fujimoto, T., Shimada, M. and Okuyama, K. (1997) Sintering of polydisperse nanometer-sized agglomerates. *Aerosol Sci. Technol.* **27**, 422–438. => AEL1970

4491. Seto, T., Okuyama, K., de Juan, L. and de la Mora, J.F. (1997) Condensation of supersaturated vapors on monovalent and divalent ions of varying size. *J. Chem. Phys.* **107**, 1576–1585. => AEL2379
4492. Sexton, K. and Westberg, H. (1984) Nonmethane hydrocarbon composition of urban and rural atmospheres. *Atmos. Environ.* **18**, 1125–1132. => AEL1435
4493. Shahin, M.M. (1966) Mass-spectrometric studies of corona discharges in air at atmospheric pressures. *J. Chem. Phys.* **45**, 2600–2605. => HT0205
4494. Shannon, J.D. (1997) Scales of sulfur concentrations and deposition from the perspective of the receptor. *Atmos. Environ.* **31**, 3933–3939. => AEL1931
4495. Shannon, K. (1961) *Raboty po teorii informatsii i kibernetike. Perevod s Angliskogo* (in Russian). Izd. Inostrannoi Literatury,. => HT-F IV (P.244-332, 685-709)
4496. Shantroch, J., Bruna, M., Mitoshinkova, M. and Sagner, P. (1989) Regionalni znechishteni ovzdushi ChSSR oxidy dusiku. *Meteorologické Zpravy* **42**, 141–143. => AEL0240
4497. Shao, M., Czapiewski, K.V., Heiden, A.C., Kobel, K., Komenda, M., Koppmann, R. and Wildt, J. (2001) Volatile organic compound emissions from Scots pine: Mechanisms and description by algorithms. *J. Geophys. Res. Atmospheres* **106**, 20483–20491. => AEL3522
4498. Shapiro, M. and Lekhtmakher, S. (1995) Dispersion of aerosol boluses in packed beds. *J. Aerosol Sci.* **26**, S921–S922. => HT1518
4499. Shapiro, M. and Lekhtmakher, S. (1997) Measurements of submicron aerosol effective transport coefficients in cylindrical tubes. *J. Aerosol Sci.* **28**, S91–S92. => HT1520
4500. Shapiro, M. and Lekhtmakher, S. (1998) *Measurement of aerosol effective transport coefficients in cylindrical tubes. Subm. to J. Aerosol Sci.* Manuscript,. => HT1516
4501. Shapiro, M., Brenner, H. and Guell, D.C. (1990) Accumulation and transport of Brownian particles at solid surfaces: Aerosol and hydrosol deposition processes. *J. Colloid Interface Sci.* **136**, 552–573. => AEL0998
4502. Shapiro, M., Dudko, V., Royzen, V., Krichevets, Yu., Lekhtmakher, S., Grozubinsky, V., Shapira, M. and Brill, M. (2003) *Characterization of powder beds by thermal conductivity: Effect of gas pressure on thermal resistance of particle contact points. In: Particles and particle system characterization. Submitted MS.* => HT1558
4503. Shapiro, M., Gutfinger, C. and Laufer, G. (1988) Electrostatic mechanisms of aerosol collection by granular filters: A review. *J. Aerosol Sci.* **19**, 651–677. => AEL1001
4504. Shapiro, M., Laufer, G. and Gutfinger, C. (1986) Experimental study on electrostatically enhanced granular filters. *Aerosol Sci. Technol.* **5**, 435–445. => AEL0300
4505. Sharma, S., Brook, J.R., Cachier, H., Chow, J., Gaudenzi, A. and Lu, G. (2002) Light absorption and thermal measurements of black carbon in different regions of Canada. *J. Geophys. Res. Atmospheres* **107**, 4771– doi:10.1029/2002JD002496, 2002. => AEL3916
4506. Shaw, G.E. (1989) Production of condensation nuclei in clean air by nucleation of H<sub>2</sub>SO<sub>4</sub>. *Atmos. Environ.* **23**, 2841–2846. => AEL0738
4507. Shaw, G.E. (1997) Aerosols at Mt. Lemmon: Estimates of gas-to-particle conversion rate. *Atmospheric Research* **43**, 253–261. => AEL1833
4508. Shaw, R.W. Air pollution by particle. 84–91. => HT0447
4509. Shchekin, A.K., Kshevetskiy and Warshawsky, V.B. (2002) The macroscopic effects of internal and external electric fields on profile and thermodynamics of a dielectric droplet. *Aerosol Sci. Technol.* **36**, 318–328. => AEL3693



4510. Shchekin, A.K., Kshevetskiy, M.S. and Warshavsky, V.B. (2002) The macroscopic effects of internal and external electric fields on profile and thermodynamics of a dielectric droplet. *Aerosol Sci. Technol.* **36**, 318–328. => AEL3602
4511. Shchepot'eva, E.S. (1929) O podvizhnosti ionov v atmosfere (in Russian). *Zhurnal Geofiziki i Meteorologii* **6**, 85–101. => AEL3475
4512. Sheets, R.W. and Thompson, C.C. (1993) Calculation of potential alpha energy concentrations. *Health Phys.* **64**, 552–552. => AEL1219
4513. Sheftel, V.M. (1987) *Fizicheskaya priroda solnechno-magnitosfernykh effektov v atmosfernom elektrichestve. Diss. na soisk. uch. step. doktora fiz.-mat. nauk. Väjjavötted* (in Russian). Rostov-na-Donu. => HT1036
4514. Sheftel, V.M., Bandilet, O.I. and Chernyshev, A.K. (1992) Effekty planetarnykh magnitnykh bur v atmosfernom elektricheskom pole vblizi poverkhnosti Zemli (in Russian). *Geomagnetizm i Aeronomiya* **32**, 186–188. => HT0875
4515. Sheftel, V.M., Bandilet, O.I., Yaroshenko, A.N. and Chernyshev, A.K. *Space-time structure and reasons of global, regional and local variations of atmospheric electricity*. Manuscript, => HT0622
4516. Sheftel, V.M., Bandilet, O.I., Yaroshenko, A.N. and Chernyshev, A.K. (1994) Space-time structure and reasons of global, regional, and local variations of atmospheric electricity. *Journal of Geophysical Research* **99**, 10797–10806. => HT0747
4517. Sheftel, V.M., Chernyshev, A.K. and Chernysheva, S.P. (1994) Air conductivity and atmospheric electric field as an indicator of anthropogenic atmospheric pollution. *Journal of Geophysical Research* **99**, 10793–10795. => HT0748
4518. Shen, J. and Israe"l, G.W. (1989) A receptor model using a specific non-negative transformation technique for ambient aerosol. *Atmospheric Environment* **23**, 289–298. => AEL2495
4519. Shen, T.T., Cheng, R.J., Mohnen, V.A., Current, M. and Hudson, J.B. (1977) Characterization of differences between oil-fired and coal-fired power plant emissions. *The 4th Int. Clean Air Congress*, Tokyo, pp. 386–391. => HT0147
4520. Shen, Y.C. and Oxtoby, D.W. (1996) Nucleation of Lennard-Jones fluids: A density functional approach. *J. Chem. Phys.* **105**, 6517–6524. => AEL2381
4521. Shenoy, D.M., Joseph, S., Kumar, M.D. and George, M.D. (2002) Control and interannual variability of dimethyl sulfide in the Indian Ocean. *J. Geophys. Res. Atmospheres* **107**, INX2 7 10.1029/2000JD000371. => AEL3779
4522. Shepherd, T.G. (2003) Large-scale atmospheric dynamics for atmospheric chemists. *Chemical Reviews* **103**, 4509–4531. => AEL4048
4523. Sheppard, P.A. (1958) Transfer across the earth's surface and through the air above. *Quart. J. Roy. Meteorol. Soc.* **84**, 205–224. => AEL1111
4524. Sheridan, S.C., Griffiths, J.F. and Orville, R.E. (1997) Warm season cloud-to-ground lightning-precipitation relationships in the south-central United States. *Weather and Forecasting* **12**, 449–458. => HT1093
4525. Sherwood, T.K. (1950) Heat transfer, mass transfer, and fluid friction. Relationships in turbulent flow. *Industrial and Engineering Chemistry* **42**, –2084. => AEL0301
4526. Shi, B. and Hopke, P.K. (1991) Study of neutralization of  $^{218}\text{Po}$  ions by small ion recombination in  $\text{O}_2$ , Ar, and  $\text{N}_2$ . *Health Phys.* **61**, 209–214. => AEL0889
4527. Shi, G. and Seinfeld, J.H. (1990) Homogeneous nucleation in the presence of an aerosol. *J. Colloid Interface Sci.* **135**, 252–258. => AEL0727

4528. Shi, G., Seinfeld, J.H. and Okuyama, K. (1990) Homogeneous nucleation in spatially inhomogeneous systems. *J. Appl. Phys.* **68**, 4550–4555. => AEL0710
4529. Shi, J.P. and Harrison, R.M. (1997) Regression modeling of hourly NO<sub>x</sub> and NO<sub>2</sub> concentrations in urban air in London. *Atmos. Environ.* **31**, 4081–4094. => AEL2105
4530. Shi, J.P. and Harrison, R.M. (1999) Investigation of ultrafine particle formation during diesel exhaust dilution. *Environ. Sci. Technol.* **33**, 3730–3736. => AEL2956
4531. Shi, Q., Jayne, J.T., Kolb, C.E., Worsnop, D.R. and Davidovits, P. (2001) Kinetic model for reaction of ClONO<sub>2</sub> with H<sub>2</sub>O and HCl and HOCl with HCl in sulfuric acid solutions. *J. Geophys. Res. Atmospheres* **106**, 24259–24274. => AEL3564
4532. Shia, R.-L., Ha, Y.L., Wen, J.-S. and Yung, Y.L. (1990) "Two-dimensional atmospheric transport and chemistry model: Numerical experiments with a new advection algorithm. *J. Geophys. Res.* **95**, 7467–7483. => AEL0483
4533. Shibata, H., Abe, S. and Yamaguchi, T. (1983) New NaCl aerosol generator. *J. Aerosol Sci.* **14**, 242–248. => AEL0417
4534. Shifrin, K.S. and Chayanova, E.A. (1966) Opređenje spektra chastits po indikatriše rasseyaniya (in Russian). *Fiz.Atmosfery i Okeana* **2**, 149–163. => HT0273
4535. Shimada, M., Okuyama, K., Inoue, Y., Adachi, M. and Fuji, T. (1997) *Removal of airborne particles by a device using UV/photoelectron method under reduced pressure conditions. Käsikiri.* => HT1223
4536. Shimazaki, T. and Shimizu, M. Seasonal variations of ozone density in the martian atmosphere. *Submitted to Geophysical Research Letters*, pp. 1–19. => HT0113
4537. Shimizu, T. (1957) Distribution of ions around charged fine wires. *J. Geomagn. Geoelectr.* **9**, 116–118. => HT-F063
4538. Shimizu, T. (1960) A study on the capture of atmospheric ions by charged wire rings. *Mem. Fac. Lib. Arts Fukui Univ. Ser.II. Nat. Sci.* **10**, 81–117. => HT-F051
4539. Shimo, M., Iida, T. and Ikebe, Y. (1987) Ch. 13. Intercomparison of different instruments that measure radon concentration in air. *Radon and Its Decay Products. Occurrence, Properties, and Health Effects*, American Chemical Society, Washington, pp. 160–171. => AEL2528
4540. Shimo, M., Iida, T. and Ikebe, Y. (1987) Intercomparison of different instruments that measure radon concentration in air. *American Chemical Society Symposium Series. Radon and Its Decay Products. Occurrence, properties, and Health Effects*, Washington, **331**, pp. 160–171. => HT0326
4541. Shimo, M., Sugiyama, K. and Ikebe, Y. (1988) The size distribution of radon daughter aerosol particles in indoor and outdoor air and their deposition to respiratory tract. *7th International Congress of the International Radiation Protection Association*, Sydney, pp. 889–892. => AEL2536
4542. Shimo, M., Sugiyama, K. and Ikebe, Y. (1988) The size distribution of radon daughter aerosol particles in indoor and outdoor air and their deposition to respiratory tract. *Seventh International Congress of the International Radiation Protection Association*, Sydney, pp. 889–892. => HT0669
4543. Shimota, A., Kobayashi, H. and Wada, K. (2002) Retrieval for physical parameters of aerosols in an urban area by ground-based FTIR measurement. *J. Geophys. Res. Atmospheres* **107**, AAC6 1–10. => AEL3673
4544. Shindell, D.T. and de Zafra, R.L. (1996) Chlorine monoxide in the Antarctic spring vortex. 2. A comparison of measured and modeled diurnal cycling over McMurdo Station, 1993. *J. Geophys. Res.* **101**, 1475–1487. => AEL1800

4545. Shindell, D.T. and Grewe, V. (2002) Separating the influence of halogen and climate changes on ozone recovery in the upper stratosphere. *J. Geophys. Res. Atmospheres* **107**, ACL3 1–10. => AEL3667
4546. Shindell, D.T., Grenfell, J.L., Rind, D., Grewe, V. and Price, C. (2001) Chemistry-climate interactions in the Goddard Institute for Space Studies general circulation model: 1. Tropospheric chemistry model description and evaluation. *J. Geophys. Res. Atmospheres* **106**, 8047–8075. => AEL3433
4547. Shinohara, H. and Nishi, N. (1987) Resonance-enhanced 2PI detection of ammonia clusters via a linear reflectron TOF mass spectrometer. *Chem. Phys. Lett.* **141**, 292–296. => AEL1383
4548. Shinohara, H., Nagashima, U. and Nishi, N. (1984) Mass spectroscopic observation of an enhanced structural stability of water-ammonia binary clusters at  $n=20$  in the series  $(\text{H}_2\text{O})_n(\text{NH}_3)_m\text{H}^+$  ( $0 \leq n+m \leq 32$ ). *Chem. Phys. Lett.* **11**, 511–513. => AEL1382
4549. Shinohara, H., Nagashima, U., Tanaka, H. and Nishi, N. (1985) Magic numbers for water-ammonia binary clusters: Enhanced stability of ion clathrate structures. *J. Chem. Phys.* **83**, 4183–4192. => AEL1375
4550. Shiromaru, H., Shinohara, H., Washida, N., Yoo, H.-S. and Kimura, K. (1987) Synchrotron radiation measurements of appearance potentials for  $(\text{H}_2\text{O})_2^+$ ,  $(\text{H}_2\text{O})_3^+$ ,  $(\text{H}_2\text{O})_2\text{H}^+$  and  $(\text{H}_2\text{O})_3\text{H}^+$  in supersonic jets. *Chem. Phys. Lett.* **141**, 7–11. => AEL0692
4551. Shrestha, A.B., Wake, C.P., Dibb, J.E. and Whitlow, S.I. (2002) Aerosol and precipitation chemistry at a remote Himalayan site in Nepal. *Aerosol Sci. Technol.* **36**, 441–456. => AEL3698
4552. Shrestha, S.B. (2000) *Streamlines and streamfunctions*. MEEG301. => HT1563
4553. Shugard, W.J. and Reiss, H. (1976) Transient nucleation in  $\text{H}_2\text{O}$ - $\text{H}_2\text{SO}_4$  mixtures: A stochastic approach. *J. Chem. Phys.* **65**, 2827–2840. => AEL1335
4554. Shukla, K. and Rajagopalan, R. (1994) Influence of the range of attractive forces on vapor/liquid phase coexistence. *J. Chem. Phys.* **101**, 11077–11078. => AEL1307
4555. Shul, R.J., Passarella, R., DiFazio, L.T.Jr., Keese, R.G. and Castleman, A.W.Jr. (1988) Ion-molecule reactions involving  $\text{H}_3\text{O}^+$ ,  $\text{H}_2\text{O}^+$ , and  $\text{OH}^+$  at thermal energy. *J. Phys. Chem.* **92**, 4947–4951. => AEL0660
4556. Shvarts, Ya.M. and Oguryaeva, L.V. (1987) Mnogoletnii khod velichin atmosfernogo elektrichestva v prizemnom sloe. *Meteorologia i Gidrologia* 59–64. => HT0409
4557. Shvarts, Ya.M., Petrenko, I.A. and Shchukin, G.G. (2000) *Data processing at special data center on the surface layer atmospheric electricity, A.I.Voeikov MGO RC ARS. Käsikiri*. => HT1399
4558. Shvedchikov, A.P., Belousova, E.V., Pavlova, S.U., Gol'danskii, V.I. and Dzantiev, B.G. (1988) Radiation-chemical removal of  $\text{NO}_x$  and  $\text{SO}_2$  from exhaust gases. *Radiation Physics and Chemistry* **31**, 15–19. => AEL0303
4559. Sibul, L. (1960) NSV Liidu Meditsiiniteaduste Akadeemia üldkogu XIV sessioon (in Estonian). *Eesti NSV Teaduste Akadeemia Toimetised. Bioloogiline Seeria* **9**, 189–190. => HT0017
4560. Siebel, R. (1991) A composite detection algorithm using signal trend information of two different sensors. *Fire Safety Journal* 519–534. => HT0591
4561. Siebenhofer, M. (1990) Aerosol precipitation. *Separation Science and Technology* **25**, 2171–2177. => AEL1098
4562. Siegel, M.W. and Fite, W.L. (1976) Terminal ions in weak atmospheric pressure plasmas. Applications of atmospheric pressure ionization to trace impurity analysis in gases. *J. Phys. Chem.* **80**, 2871–2881. => AEL0573

4563. Siegel, M.W. and McKeown, M.C. (1976) Ions and electrons in the electron capture detector. Quantitative identification by atmospheric pressure ionization mass spectrometry. *J. Chromatography* **122**, 397–413. => AEL1467
4564. Sielemann, S., Baumbach, J.I., Pilzecker, P. and Walendzik, G. (1999) Detection of trans-1,2-dichloroethene, trichloroethene and tetrachloroethene using multi-capillary columns coupled to ion mobility spectrometers with UV-ionisation sources. *International Journal of Ion Mobility Spectrometry* **2**, 15–21. => AEL3542
4565. Sievering, H. (1986) Aerosol characteristics in a forest. *Atmos. Environ.* **20**, 407–407. => AEL1101
4566. Sievering, H., Gorman, E., Ley, T., Pszenny, A., Springer-Young, M., Boatman, J., Kim, Y., Nagamoto, C. and Wellman, D. (1995) Ozone oxidation of sulfur in sea-salt aerosol particles during the Azores Marine Aerosol and Gas Exchange experiment. *J. Geophys. Res.* **100**, 23075–23081. => AEL1708
4567. Sigmond, R.S., Aints, M., Haljaste, A. and Kudu, K. (1998) Active corona probe for monitoring outdoor electric fields. In *11th symposium on elementary processes and chemical reactions in low temperature plasma. Book of contributed papers*, Low Tatras, **1**, pp. 148–152. => HT1298
4568. Sigmond, R.S., Chutov, Yu., Fikke, S.M., Kosharsky, K., Kravchenko, A., Kudu, K., Lisitchenko, T., Sigmond, T. and Veksklyarsky, R. (1998) Measurement of the radioactivity distribution in the vicinity of overhead high voltage transmission lines in the Chernobyl area. *11. Symp. On elementary processes and chem. Reactions in low temp. plasma. EU-1268 coronaions: Corona induced ion and particle production and accumulation under high voltage transmission lines*, Slovakia, pp. 1–4. => HT1308
4569. Sihra, K., Hurley, M.D., Shine, K.P. and Wallington, T. (2001) Updated radiative forcing estimates of 65 halocarbons and nonmethane hydrocarbons. *J. Geophys. Res. Atmospheres* **106**, 20493–20305. => AEL3523
4570. Siingh, D. *Information of the aerosols from the measurements for air-ions at Indian station Maitiri (Antarctica). Käsikiri.* => HT1595
4571. Siksna, R. (1953) Measurements of large ions in the atmospheric air at Uppsala. *Arkiv för Geofysik* **1**, 483–518. => AEL3452
4572. Siksna, R. (1961) Some topics concerning experimental investigation of ions. *Proc. Internat. Conf. Ioniz. Air* **1**, 1–25. => HT-F VII
4573. Siksna, R. (1964) Coefficient of volume recombination and some derived characteristics of air ions. *Pure and Appl. Geophys.* **59**, 243–255. => HT-F007
4574. Siksna, R. (1971) Relations between general and atmospheric physics, particularly concerning atmospheric ions. *Aerosol Science* **2**, 141–144. => AEL3539
4575. Siksna, R. (1971) Relations between general and atmospheric physics, particularly concerning atmospheric ions. *Aerosol Science* **2**, 141–144. => HT0018
4576. Siksna, R. (1971) The structure of the aggregates formed as atmospheric ions by means of hydrogen bonds between molecules of some organic substances and water. Some elements of organic chemistry for gaseous ionics. *Paper presented at the IAMAP Symposium on Atmospheric Electricity held during the 15th General Assembly of the IUGG in Moscow*, pp. 1–31. => HT0418
4577. Siksna, R. (1971) Triplet( ) and singlet( ) states of the oxygen molecule O<sub>2</sub> and related molecular ions. *Aerosol Science* **2**, 229–240. => HT0074
4578. Siksna, R. (1972) A symmetrical aspiration capacitor for the simultaneous recording of atmospheric ions of both polarities. *Pure and Applied Geophysics* **100**, 146–153. => HT0024

4579. Siksna, R. (1973) *Water clathrates as aerosol particles in the atmosphere. Manuscript.* Uppsala. => HT0416
4580. Siksna, R. (1973) *Water clathrates as aerosol particles. Manuscript.* Uppsala. => HT0417
4581. Siksna, R. and Lindsay, R. (1961) Air ions produced by a tritium-ion generator. II. Measurement of ions in a room. Mobility. *Arkiv för Geofysik* **3**, 141–154. => AEL3451
4582. Siksna, R. and Schmeer, H. (1961) On the recording of rapidly fluctuating concentrations of air ions. *Arkiv för Geofysik* **3**, 315–330. => AEL3450
4583. Siksna, R. und Mitnieks, A. (1953) Aufladung eines isolierten Rohrs bei Duchströmen von ionisierter Luft und Absorption der Ionen. *Z. für ang. Ph.* **5**, 454–461. => HT-F074
4584. Silkin, B.I. (1987) Za rubezhom (in Russian). *Meteorologiya i Gidrologiya* 127–128. => HT0344
4585. Sillman, S., Carroll, M.A., Thornberry, T., Lamb, B.K., Westberg, H., Brune, W.H., Faloon, I., Tan, D., Shepson, P.B., Sumner, A.L., Hastie, D.R., Mihele, C.M., Apel, E.C., Riemer, D.D. and Zika, R.G. (2002) Loss of isoprene and sources of nighttime OH radicals at a rural site in the United States: Results from photochemical models. *J. Geophys. Res. Atmospheres* **107**, ACH2 1–14. => AEL3638
4586. Sillmann, S. (1991) A numerical solution for the equations of tropospheric chemistry based on an analysis of sources and sinks of odd hydrogen. *J. Geophys. Res.* **96**, 20735–20744. => AEL0436
4587. Silva, A.M., Bugalho, M.L., Costa, M.J., von Hoyningen-Huene, W., Schmidt, T., Heintzenberg, J. and Henning, S. (2002) Aerosol optical properties from columnar data during the second Aerosol Characterization Experiment on the south coast of Portugal. *J. Geophys. Res. Atmospheres* **107**, 4642 doi:10.1029/2002JD002196–2002. => AEL3810
4588. Simm, W. (1969) Elektrostatische Feinzerstäubung von Flüssigkeiten. *Chemie Ingenieur Technik* **41**, 503–507. => AEL0304
4589. Simmonds, P.G., Kerrin, S.L., Lovelock, J.E. and Shair, F.H. (1974) Distribution of atmospheric hydrocarbons in the air over the Los Angeles basin. *Atmos. Environ.* **8**, 209–216. => AEL1465
4590. Simon, W.E., Powers, T.L. and Ernsberger, G.W. (1989) Low-cost radon detector. USA Patent No. 4871914, Class G01T 1/24, Prior. 05.05.1987. => HT1201
4591. Simpkins, P.G. (1997) Aerosols produced by spinning discs: a reappraisal. *Aerosol Sci. Technol.* **26**, 51–54. => AEL1605
4592. Simpson, D. (1995) Biogenic emissions in Europe 2. Implications for ozone control strategies. *J. Geophys. Res.* **100**, 22891–22906. => AEL1706
4593. Simpson, D., Guenther, A., Hewitt, C.N. and Steinbrecher, R. (1995) Biogenic emissions in Europe. 1. Estimates and uncertainties. *J. Geophys. Res.* **100**, 22875–22890. => AEL1705
4594. Simpson, D., Winiwarter, W., Börjesson, G., Cinderby, S., Ferreira, A., Guenther, A., Hewitt, C.N., Janson, R., Khalil, M.A.K., Owen, S., Pierce, T.E., Puxbaum, H., Shearer, M., Skiba, U., Steinbrecher, R., Tarrasón, L. and Öquist, M.G. (1999) Inventorying emissions from nature in Europe. *J. Geophys. Res. Atmospheres* **104**, 8113–8152. => AEL2889
4595. Simpson, I.J., Edwards, G.C. and Thurtell, G.W. (1999) Variations in methane and nitrous oxide mixing ratios at the southern boundary of a Canadian boreal forest. *Atmos. Environ.* **33**, 1141–1150. => AEL2733
4596. Sinanoglu, O. (1967) An intermolecular potential for use in liquids. *Chem. Phys. Lett.* **1**, 340–342. => AEL0921

4597. Sinanoglu, O. (1967) Intermolecular forces in liquids. *Adv. in Chem. Phys.* **12**, 283–326. => AEL1059
4598. Sinanoglu, O. (1974) The C-potential surface for predicting conformations of molecules in solution. *Theoret. Chim. Acta* **33**, 279–284. => AEL0922
4599. Sinanoglu, O. (1981) Microscopic surface tension down to molecular dimensions and microthermodynamic surface areas of molecules or clusters. *J. Chem. Phys.* **75**, 463–468. => AEL0986
4600. Sinanoglu, O. (1982) Molecular interactions within liquids, the solvophobic force and molecular surface areas. *Molecular Interactions. Ed. by H. Ratajczak and W.J. Orville-Thomas*, John Wiley & Sons, Ltd., **3**, pp. 281–342. => AEL0990
4601. Sinanoglu, O. and Abdunur, S. (1964) Hydrophobic stacking of bases and the solvent denaturation of DNA. *Photochemistry and Photobiology* **3**, 333–342. => AEL0982
4602. Sinanoglu, O. and Abdunur, S. (1965) Effect of water and other solvents on the structure of biopolymers. *Feder. Proc., Feder. Amer. Soc. Exp. Biol.* **24**, S–12-S-23. => AEL0858
4603. Sinclair, D. (1982) Particle size sensitivity of condensation nucleus counters. *Atmos. Environ.* **16**, 955–958. => AEL0305
4604. Sinclair, D. (1986) Measurement of nanometer aerosols. *Aerosol Sci. Technol.* **5**, 187–204. => AEL1079
4605. Sinclair, D. and Knutson, E.O. (1986) Letter to the editor. Reply to C.N. Davies and N. Egilmez concerning the Nolan-Pollak nucleus counter. *Aerosol Sci. Technol.* **5**, 119–120. => AEL0306
4606. Sinclair, D., Countess, R.J., Liu, B.Y.H. and Pui, D.Y.H. (1976) Experimental verification of diffusion battery theory. *APCA Journal* **26**, 661–663. => HT0090
4607. Sinclair, D., Countess, R.J., Liu, B.Y.H. and Pui, D.Y.H. (1976) Experimental verification of diffusion battery theory. *APCA Journal* **26**, 661–663. => HT0122
4608. Sinclair, J.D., Psota-Kelty, L.A. and Weschler, C.J. (1984) "Characterization of ionic substances in the environment: their outdoor, indoor and surface concentrations. @IA, Stockholm, pp. 181–186. => AEL0399
4609. Singh, H.B. and Hanst, P.L. (1981) Peroxyacetyl nitrate (PAN) in the unpolluted atmosphere: an important reservoir for nitrogen oxides. *Geophys. Res. Lett.* **8**, 941–944. => AEL1447
4610. Singh, H.B., Gregory, G.L., Anderson, B., Browell, E., Sachse, G.W., Davis, D.D., Crawford, J., Bradshaw, J.D., Talbot, R., Blake, D.R., Thornton, D., Newell, R. and Merrill, J. (1996) Low ozone in the marine boundary layer of the tropical Pacific Ocean: photochemical loss, chlorine atoms, and entrainment. *J. Geophys. Res.* **101**, 1907–1917. => AEL1653
4611. Singh, H.B., Herlth, D., Kolyer, R., Salas, L., Bradshaw, J.D., Sandholm, S.T., Davis, D.D., Crawford, J., Kondo, Y., Koike, M., Talbot, R., Gregory, G.L., Sachse, G.W., Browell, E., Blake, D.R., Rowland, F.S., Newell, R., Merrill, J., Heikes, B., Liu, S.C., Crutzen, P.J., Kanakidou and M. (1996) Reactive nitrogen and ozone over the western Pacific: Distribution, partitioning, and sources. *J. Geophys. Res.* **101**, 1793–1808. => AEL1734
4612. Singh, H.B., Salas, L.J., Cantrell, B.K. and Redmond, R.M. (1985) "Distribution of aromatic hydrocarbons in the ambient air. *Atmos. Environ.* **19**, 1911–1919. => AEL0535
4613. Singh, N., Rai, J. and Varshneya, N.C. (1990) On the enhancement of probability of ion induced nucleation on partially wetttable, water insoluble planar substrate. *Indian Journal of Radio & Space Physics* **19**, 138–. => AEL0463
4614. Sinha, A. and Tuomi, R. (1997) Tropospheric ozone, lightning, and climate change. *J. Geophys. Res. Atmospheres* **102**, 10667–10672. => AEL1952

4615. Sinnhuber, B.-M., Arlander, D.W., Bovensmann, H., Burrows, J.P., Chipperfield, M.P., Enell, C.-F., Frieß, U., Henrick, F., Johnston, P.V., Jones, R.L., Kreher, K., Mohamed-Tahrin, N., Müller, R., Pfeilsticker, K., Platt, U., Pommereau, J.-P., Pundt, I., Richter, A., South, A.M., Tørnkvist, K.K., Van Roozendaal, M., Wagner, T. and Wittrock, F. (2002) Comparison of measurements and model calculations of stratospheric bromine monoxide. *J. Geophys. Res. Atmospheres* **107**, 4398 doi:10.1029/2001JD000940–2002. => AEL3775
4616. Sioutas, C., Abt, E., Wolfson, J.M. and Koutrakis, P. (1999) Evaluation of the measurement performance of the Scanning Mobility Particle Sizer and Aerodynamic Particle Sizer. *Aerosol Sci. Technol.* **30**, 84–92. => AEL2859
4617. Sioutas, C., Koutrakis, P. and Olson, B.A. (1994) Development and evaluation of a low cutpoint virtual impactor. *Aerosol Sci. Technol.* **21**, 223–235. => AEL1251
4618. Sioutas, K. and Koutrakis, P. (1996) Inertial separation of ultrafine particles using a condensational growth/virtual impaction system. *Aerosol Sci. Technol.* **25**, 424–436. => AEL1737
4619. Siqueira, M., Lai, C.-T. and Katul, G. (2000) Estimating scalar sources, sinks, and fluxes in a forest canopy using Lagrangian, Eulerian, and hybrid inverse models. *J. Geophys. Res. Atmospheres* **105**, 29475–29488. => AEL3290
4620. Sirois, A. and Barrie, L.A. (1999) Arctic lower tropospheric aerosol trends and composition at Alert, Canada: 1980–1995. *J. Geophys. Res. Atmospheres* **104**, 11599–11618. => AEL2976
4621. Siskind, D.E., Bacmeister, J.T. and Summers, M.E. (1998) A new calculation of chemical eddy transport for several middle atmospheric tracers. *J. Geophys. Res. Atmospheres* **103**, 31321–31329. => AEL2837
4622. Siskind, D.E., Nedoluha, G.E., Randall, C.E., Fromm, M. and Russell, J.M.III (2000) An assessment of Southern Hemisphere stratospheric NO<sub>x</sub> enhancements due to transport from the upper atmosphere. *Geophys. Res. Lett.* **27**, 329–332. => AEL3056
4623. Sitarski, M. and Seinfeld, J.H. (1977) Brownian coagulation in the transition regime. *J. Colloid Interface Sci.* **61**, 261–271. => AEL1340
4624. Sjödin, A. and Ferm, M. (1985) Measurements of nitrous acid in an urban area. *Atmos. Environ.* **19**, 985–992. => AEL0549
4625. Skilling, H.H. and Beckett, J.C. (1953) Control of air ion density in rooms. *J. Franklin Inst.* **256**, 423–434. => HT-F034
4626. Slater, J.C. (1964) Atomic radii in crystals. *The Journal of Chemical Physics* **41**, 3199–3204. => HT0842
4627. Slater, J.F. and Dibb, J.E. (2004) Relationships between surface and column aerosol radiative properties and air mass transport at a rural New England site. *J. Geophys. Res. Atmospheres* **109**, D01303– doi:10.1029/2003JD003406, 2004. => AEL4116
4628. Slater, J.F., Dibb, J.E., Keim, B.D. and Kahl, J.D.W. (2001) Relationships between synoptic-scale transport and interannual variability of inorganic cations in surface snow at Summit, Greenland: 1992–1996. *J. Geophys. Res. Atmospheres* **106**, 20897–20912. => AEL3530
4629. Sleewaegen, J.M. (1999) Theoretically correct decimation of GPS data. *Geophys. Res. Lett.* **26**, 3713–3716. => AEL2937
4630. Slemr, F., Harris, G.W., Hastie, D.R., Mackay, G.I. and Schiff, H.I. (1986) Measurement of gas hydrogen peroxide in air by tunable diode laser absorption spectroscopy. *J. Geophys. Res.* **91**, 5371–5378. => AEL1468
4631. Slezov, V.V., Schmelzer, J. and Tkatch, Ya.Y. (1996) Number of clusters formed in nucleation-growth processes. *J. Chem. Phys.* **105**, 8340–8351. => AEL2384

4632. Slinker, S.P., Fedder, J.A., Hughes, W.J. and Lyon, J.G. (1999) Response of the ionosphere to a density pulse in the solar wind: simulation of traveling convection vortices. *Geophys. Res. Lett.* **26**, 3549–3552. => AEL2931
4633. Slinn, S.A. and Slinn, W.G.N. (1980) Predictions for particle deposition on natural waters. *Atmos. Environ.* **14**, 1013–1016. => AEL0843
4634. Slinn, W.G.N. (1978) Parameterizations for resuspension and for wet and dry deposition of particles and gases for use in radiation dose calculations. *Nuclear Safety* **19**, 205–219. => AEL1113
4635. Slinn, W.G.N., Hasse, L., Hicks, B.B., Hogan, A.W., Lal, D., Liss, P.S., Munnich, K.O., Sehmel, G.A. and Vittori, O. (1978) Some aspects of the transfer of atmospheric trace constituents past the air-sea interface. *Atmos. Environ.* **12**, 2055–2087. => AEL0856
4636. Slusser, J., Liu, X., Stamnes, K., Shaw, G., Smith, R., Storvold, R., Murcray, F., Lee, A. and Good, P. (1998) High-latitude stratospheric NO<sub>2</sub> and HNO<sub>3</sub> over Fairbanks (65° N) 1992–1994. *J. Geophys. Res. Atmospheres* **103**, 1549–1554. => AEL2085
4637. Slyshalov, V.K., Shihhov, V.N. and Sitnikov, V.P. (1969) Raschet volt-ampernykh kharakteristik tritievogo neutralizatora staticheskogo elektrichestva (in Russian). *Elektrichestvo* 76–79. => HT0216
4638. Smerkalov, V.A. (1983) Approksimatsiya srednego raspredeleniya aerazolnykh chastits po razmeram (in Russian). 317–320. => HT0345
4639. Smerkalov, V.A. (1999) *Prikladnaya optika atmosfery. Avtoreferat monografii na soisk. Uchenoi stepeni dokt. tekhn. nauk* (in Russian). Moskva. => HT1288
4640. Smerkalov, V.A. and Ushakova, L.K. (1991) Metodika priblizhennogo opredeleniya znachenii optimalnykh parametrov srednevzveshennoi funktsii raspredeleniya opticheski aktivnykh aerazolnykh chastits po razmeram (in Russian). *Käsikiri* 1–2. => HT0997
4641. Smerkalov, V.A. and Ushakova, L.K. (1991) Neyavnaya regularizatsiya reshenii obratnykh zadach aerazolnoi optiki spektrozonalnym metodom (in Russian). *Käsikiri* 1–11. => HT0996
4642. Smidowich, K.P., Zagaynov, V.A., Lushnikov, A.A. and Sutugin, A.G. (1988) Brownian coagulation of aerosols in free molecular regime. *Lecture Notes on Physics* **309**, 96–99. => AEL1783
4643. Smiley, B., Robertson, S., Horányi, M., Blix, T., Rapp, M., Latteck, R. and Gumbel, J. (2003) Measurement of positively and negatively charged particles inside PMSE during MIDAS SOLSTICE 2001. *J. Geophys. Res. Atmospheres* **108**, 8444– doi:10.1029/2002JD002425, 2003. => AEL3995
4644. Smirnov, A., Holben, B.N., Dubovik, O., Frouin, R., Eck, T.F. and Slutsker, I. (2003) Maritime component in aerosol optical models derived from Aerosol Robotic Network data. *J. Geophys. Res. Atmospheres* **108**, 4033– doi:10.1029/2002JD002701, 2003. => AEL3925
4645. Smirnov, A., Holben, B.N., Eck, T.F., Slutsker, I., Chatenet, B. and Pinker, R.T. (2002) Diurnal variability of aerosol optical depth observed at AERONET (Aerosol Robotic Network) sites. *Geophysical Research Letters* **29**, 2115– doi:10.1029/2002GL016305, 2002. => AEL4131
4646. Smirnov, B.M. (1994) Protsessy v rasshiryayushchemsya i kondensiruyushchemsya gaze (in Russian). *Uspekhi fizicheskikh nauk* **164**, 665–703. => HT1028
4647. Smirnov, N.D. (1982) O vozmozhnosti ispolzovaniya metoda ionizatsionnoi spektroskopii v fonovom monitoringe (in Russian). *Monitoring Fonovogo Zagryazneniya Prirodnykh Sred*, **1**, pp. 188–192. => HT0292



4648. Smirnov, N.N., Nikitin, V.F., Legros, J.C. and Shevtsova, V.M. (2002) Motion and sedimentation of particles in turbulent atmospheric flows above sources of heating. *Aerosol Sci. Technol.* **36**, 101–122. => AEL3591
4649. Smirnov, V.V. (1982) Fonovaya izmenchivost aerezolnogo i ionnogo sostava prizemnogo sloya vozdukha (in Russian). *Monitoring Fonovogo Zagryazneniya Prirodnikh Sred*, **1**, pp. 137–147. => HT0291
4650. Smit, B., Williams, C.P., Hendriks, E.M. and De Leeuw, S.W. (1989) Preliminary communication. Vapour-liquid equilibria for Stockmayer fluids. *Molecular Physics* **68**, 765–769. => AEL1167
4651. Smith, D. and Adams, N.G. (1980) Elementary plasma reactions of environmental interest. *Topics in Current Chemistry* **89**, 1–43. => AEL0557
4652. Smith, D. and Adams, N.G. (1982) Ionic recombination in the stratosphere. *Geophys. Res. Lett.* **9**, 1085–1087. => AEL1568
4653. Smith, D. and Church, M.J. (1977) Ion-ion recombination rates in the Earth's atmosphere. *Planet. Space Sci.* **25**, 433–439. => AEL1456
4654. Smith, D., Adams, N.G. and Alge, E. (1981) Ion-ion mutual neutralization and ion-neutral switching reactions of some stratospheric ions. *Planet. Space Sci.* **29**, 449–454. => AEL1458
4655. Smith, D.A., Shao, X.M., Holden, D.N., Rhodes, C.T., Brook, M., Krehbiel, P.R., Stanley, M., Rison, W. and Thomas, R.J. (1999) A distinct class of isolated intracloud lightning discharges and their associated radio emissions. *J. Geophys. Res. Atmospheres* **104**, 4189–4212. => AEL2777
4656. Smith, D.E. and Dang, L.X. (1994) Computer simulations of cesium-water clusters: Do ion-water clusters form gas-phase clathrates?. *J. Chem. Phys.* **101**, 7873–7881. => AEL1186
4657. Smith, G.P. and Lee, L.C. (1978) Photodissociation of atmospheric positive ions. II. 3500-8600 Å. *J. Chem. Phys.* **69**, 5393–5399. => AEL0533
4658. Smith, J.B., Hints, E.J., Allen, N.T., Stimpfle, R.M. and Anderson, J.G. (2001) Mechanisms for midlatitude ozone loss: Heterogeneous chemistry in the lowermost stratosphere. *J. Geophys. Res. Atmospheres* **106**, 1297–1309. => AEL3302
4659. Smith, R.D., Loo, J.A., Ogorzalek Loo, R.R., Busman, M. and Udseth, H.R. (1991) Principles and practice of electrospray ionization - mass spectrometry for large polypeptides and proteins. *Mass Spectrometry Reviews* **10**, 359–451. => AEL1023
4660. Smith, R.L., Kolenikov, S. and Cox, L.H. (2003) Spatiotemporal modeling of PM<sub>2.5</sub> data with missing values. *J. Geophys. Res. Atmospheres* **108**, 9004– doi:10.1029/2002JD002914. => AEL4096
4661. Smith, S.C. and Gilbert, R.G. (1988) Angular momentum conservation in unimolecular and recombination reactions. *International Journal of Chemical Kinetics* **20**, 307–329. => HT0350
4662. Smith, S.C., McEwan, M.J. and Gilbert, R.G. (1989) The pressure dependence of ion-molecule association rate coefficients. *J. Chem. Phys.* **90**, 1630–1640. => AEL0495
4663. Smith, S.C., McEwan, M.J. and Gilbert, R.G. (1989) The pressure dependence of ion-molecule association rate coefficients. *@JCP* **90**, 1630–1640. => HT0351
4664. Smith, S.C., McEwan, M.J. and Gilbert, R.G. (1989) The relationship between recombination, chemical activation and unimolecular dissociation rate coefficients. *@JCP* **90**, 4265–4273. => HT0352
4665. Smith, S.M. and Cheng, Y.S. (1998) Generation of <sup>212</sup>Pb attached ultrafine particles for deposition experiments. *Aerosol Sci. Technol.* **29**, 442–448. => AEL2736

4666. Smith, S.M. and Cheng, Y.S. (1998) Generation of  $^{212}\text{Pb}$  attached ultrafine particles for deposition experiments. *Aerosol Sci. Technol.* **29**, 442–448. => AEL2853
4667. Smith, W.B. and McDonald, J.R. (1976) Development of a theory for the charging of particles by unipolar ions. *J. Aerosol Sci.* **7**, 151–166. => AEL0308
4668. Smith, W.B., Felix, L.G., Hussey, D.H., Pontius, D.H. and Sparks, L.E. (1978) Experimental investigations of fine particle charging by unipolar ions - a review. *J. Aerosol Sci.* **9**, 101–124. => AEL0307
4669. Smith, W.M. (2003) Laboratory studies of atmospheric reactions at low temperatures. *Chemical Reviews* **103**, 4549–4564. => AEL4050
4670. Smolik, J. and Vitovec, J. (1989) Condensation of supersaturated vapors. *Aerosol Sci. Technol.* **10**, 482–490. => AEL0756
4671. Smutek, M. (1972) On the separation of air-borne particles by diffusion. *J. Aerosol Sci.* **3**, 337–343. => AEL0309
4672. Smyth, S., Bradshaw, J., Sandholm, S., Liu, S., McKeen, S., Gregory, G., Anderson, B., Talbot, R., Blake, D., Rowland, S., Browell, E., Fenn, M., Merrill, J., Bachmeier, S., Sachse, G., Collins, J., Thornton, D., Davis, D. and Singh, H. (1996) Comparison of free tropospheric western Pacific air mass classification schemes for the PEM-West A experiment. *J. Geophys. Res.* **101**, 1743–1762. => AEL1791
4673. Snider, J.R. and Dawson, G.A. (1984) Surface acetonitrile near Tucson, Arizona. *Geophys. Res. Lett.* **11**, 241–242. => AEL1567
4674. Snider, J.R. and Murphy, T. (1995) Airborne hydrogen peroxide measurements in supercooled clouds. *J. Geophys. Res.* **100**, 23039–23050. => AEL1713
4675. Snowflakes - identification and preservation. *Atmospheric Sciences Research Center, State University of New York at Albany. Publication* 1–3. => HT0950
4676. Snyder, A.P., Harden, C.S., Brittain, A.H., Kim, M.-G., Arnold, N.S. and Meuzelaar, H.L.C. (1993) Portable hand-held gas chromatography/ion mobility spectrometry device. *Anal. Chem.* **65**, 299–306. => AEL1192
4677. *SO<sub>2</sub> position paper* (1997) European Commission,. => AEL2141
4678. Söderholm, G. (1978) *Corona current distribution in electrostatic precipitators at different wire-to-plate geometries. Manuscript.* Uppsala. => HT0420
4679. Soderholm, S.C. (1979) Analysis of diffusion battery data. *J. Aerosol Sci.* **10**, 163–175. => AEL0310
4680. Soderholm, S.C. (1979) Analysis of diffusion battery data. *J. Aerosol Sci.* **10**, 163–175. => AEL2496
4681. Soerensen, J.T. and Soerensen, T. (1994) Lightning counting with the Cigré counters compared with the ALDF/APA system. *22nd International Conference On Lightning Protection, Budapest, R1b-07*, pp. 1–5. => HT0730
4682. Soerensen, T. (1994) Preliminary comparison of the Swedish LLP and LPATS lightning localization systems. *22nd International Conference On Lightning Protection, Budapest, R1b-13*, pp. 1–5. => HT0732
4683. Soerensen, T. (1994) Site error correction of magnetic direction finders. *22nd International Conference on Lightning Protection, Budapest, pp. 1–6.* => HT0775
4684. Soerensen, T. (1994) Statistical estimation of lightning sensor - and location system detection efficiency. *22nd International Conference On Lightning Protection, Budapest, R1b-10*, pp. 1–5. => HT0731

4685. Soerensen, T., Pedersen, Aa. and Jeppesen, R.T. (1992) Lightning parameters contra climatic conditions in Denmark, 1991. *21th International Conference on Lightning Protection*, Berlin, **6.15P**, pp. 1–7. => HT0774
4686. Sofiev, M. (2000) A model for the evaluation of long-term airborne pollution transport at regional and continental scales. *Atmos. Environ.* **34**, 2481–2493. => AEL3117
4687. Sofiev, M. (2002) Extended resistance analogy for construction of the vertical diffusion scheme for dispersion models. *J. Geophys. Res. Atmospheres* **107**, ACH10 1–8. => AEL3662
4688. Sokalski, W.A., Hariharan, P.C. and Kaufman, J.J. (1983) Guidelines for development of basis sets for the first-order intermolecular interaction energy calculations. *Journal of Computational Chemistry* **4**, 506–512. => AEL0311
4689. Solanki, S.K. and Fligge, M. (1999) A reconstruction of total irradiance since 1700. *Geophys. Res. Lett.* **26**, 2465–2468. => AEL2913
4690. *Solar variability effects in th human environment. Working Group 5* 19–21. => HT1514
4691. Solheim, F.S., Vivekanandan, J., Ware, R.H. and Rocken, C. (1999) Propagation delays induced in GPS signals by dry air, water vapor, hydrometeors, and other particulates. *J. Geophys. Res. Atmospheres* **104**, 9663–9670. => AEL2974
4692. Solodikhin, A.E. and Gorbunova, E.V. (1973) Sposob udaleniya elektrostatcheskikh zaryadov v tekstilnom proizvodstve (in Russian). USSR Patent No. 381185, Class H051 3/04,. => HT0906
4693. Solodovnikov, V.V. and Birjukov, V.F. (1972) Odin neklassicheskii podkhod k resheniyu lineinykh zadach optimalnoi obrabotki nestatsionarnykh sluchainykh protsessov (in Russian). *Metody Predstavlenija i Apparaturnyi Analiz.Tr. V Vses. Simp.*, Len.-Vilnius, pp. 30–37. => HT0219
4694. Solomon, P., Barrett, J., Connor, B., Zoonematkermani, S., Parrish, A., Lee, A., Pyle, J. and Chipperfield, M. (2000) Seasonal observations of chlorine monoxide in the stratosphere over Antarctica during the 1996–1998 ozone holes and comparison with the SLIMCAT three-dimensional model. *J. Geophys. Res. Atmospheres* **105**, 28979–29001. => AEL3283
4695. Solomon, P.A., Chameides, W.L. and Fiedler, F. (1995) Introduction to special section on regional photochemical measurement and modeling studies. *J. Geophys. Res.* **100**, 22769–22770. => AEL1703
4696. Solomon, S., Bormann, S., Garcia, R.R., Portmann, R., Thomason, L., Poole, L.R., Winker, D. and McCormick, M.P. (1997) Heterogeneous chlorine chemistry in the tropopause region. *J. Geophys. Res. Atmospheres* **102**, 21411–21429. => AEL2204
4697. Solomon, S., Sanders, R.W., Mount, G.H., Carroll, M.A., Jakoubek, R.O. and Schmeltekopf, A.L. (1989) Atmospheric NO<sub>3</sub>~. 2. Observations in polar regions. *J. Geophys. Res.* **94**, 16423–16427. => AEL0472
4698. Solomon, S.B. (1997) A radon progeny sampler for the determination of effective dose. *Radiation Protection Dosimetry* **72**, 31–42. => AEL2542
4699. Solomon, T. (1991) Standard enthalpies of formation of ions in solution. *Journal of Chemical Education* **68**, 41–41. => AEL0462
4700. Soltani Goharrizi, A., Taheri, M. and Fathikalajahi, J. (1998) Prediction of particle deposition from a turbulent stream around a surface-mounted ribbon. *Aerosol Sci. Technol.* **29**, 141–151. => AEL2849
4701. Soltani, M. and Ahmadi, G. (1999) Charged particle trajectory statistics and deposition in a turbulent channel flow. *Aerosol Sci. Technol.* **31**, 170–186. => AEL3116

4702. Song, C.H., Chen, G., Hanna, S.R., Crawford, J. and Davis, D.D. (2003) Dispersion and chemical evolution of ship plumes in the marine boundary layer: Investigation of O<sub>3</sub>/NO<sub>y</sub>/HO<sub>x</sub> chemistry. *J. Geophys. Res. Atmospheres* **108**, 4143–doi:10.1029/2002JD002216, 2003. => AEL3949
4703. Sonnemann, G.R. and Körner, U. (2003) Total hydrogen mixing ratio anomaly around the mesopause region. *J. Geophys. Res. Atmospheres* **108**, 4692–doi:10.1029/2002JD003015. => AEL4085
4704. Sonoc, S. and Sima, O. (1992) Optimal method for environmental radon and thoron daughters determination by alpha spectrometry. *Radiation Protection Dosimetry* **45**, 51–52. => AEL2519
4705. Soo, S.L. (1971) Dynamics of charged suspensions. In *Topics in Current Aerosol Research. International Reviews on Aerosol Physics and Chemistry*, edited by Hidy, G.M. and Brock, J.R., Pergamon Press, **2**, pp. 61–157. => HT1507
4706. Soole, B.W. (1972) A re-evaluation of the efficiencies of some rotary impaction filters for the removal of 10-40 mm droplets from a fast-flowing air stream. *J. Aerosol Sci.* **3**, 275–279. => AEL0312
4707. Sorensen, C.M. (2001) Light scattering by fractal aggregates: A review. *Aerosol Sci. Technol.* **35**, 648–687. => AEL3503
4708. Soroko, L.M. (1973) Multipleksnye sistemy registratsii chastits (in Russian). *Pribory i Tekhnika Eksperimenta* 7–19. => HT0083
4709. Soros, G. (1994) *The theory of reflexivity*. Tartu University, Tuesday, May 31. => HT0797
4710. Soros, G. (1994) *The theory of reflexivity*. Tartu University. => AEL1244
4711. Soto, R. and Cordero, P. (1999) Cluster birth–death processes in a vapor at equilibrium. *J. Chem. Phys.* **110**, 7316–7325. => AEL3130
4712. Soula, S. and Chauzy, S. (1997) Charge transfer by precipitation between thundercloud and cloud. *J. Geophys. Res. Atmospheres* **102**, 11061–11069. => AEL1983
4713. Soula, S. and Chauzy, S. *The influence of ground coroneae on surface electric field variation during thunderstorms*. Manuscript,. => HT0613
4714. Soulen, P.F. and Frederick, J.E. (1999) Estimating biologically active UV irradiance from satellite radiance measurements: A sensitivity study. *J. Geophys. Res. Atmospheres* **104**, 4117–4126. => AEL2775
4715. Spanel, P. and Smith, D. (1995) Reactions of hydrated hydronium ions and hydrated hydroxide ions with some hydrocarbons and oxygen-bearing organic molecules. *J. Phys. Chem.* **99**, 15551–15556. => HT1020
4716. Spangler, G.E. (1993) Theory and technique for measuring mobility using ion mobility spectrometry. *Anal. Chem.* **65**, 3010–3014. => AEL1196
4717. Spangler, G.E. and Collins, C.I. (1975) Reactant ions in negative ion plasma chromatography. *Anal. Chem.* **47**, 393–402. => AEL0638
4718. Sparmacher, H., Fülber, K. and Bonka, H. (1993) Below-cloud scavenging of aerosol particles: Particle-bound radionuclides - experimental. *Atmos. Environ.* **27A**, 605–618. => AEL1920
4719. Sparrow, J.G. and Ney, E.P. (1971) Lightning observations by satellite. *Nature* **232**, 540–541. => HT0430
4720. Spatola, J.A., Johnson, C.E. and Gentry, J.W. (1980) The effect of temperature and composition on the bromination of polystyrene latex aerosols. *Aerosols in Science, Medicine, and Technology. 8. Conf.*, pp. 336–341. => AEL0313

4721. Spears, K.G. (1972) Ion-neutral bonding. *The J. Chem. Phys.* **57**, 1850–1858. => AEL0746
4722. *Spectrometr ionov SI-62* (in Russian) Medgiz, Moskva. => HT0628
4723. Speer, R.E., Barnes, H.M. and Brown (1997) An instrument for measuring the liquid water content of aerosols. *Aerosol Sci. Technol.* **27**, 50–61. => AEL1979
4724. Spencer-Smith, J. (1935) Negative ions of iodine. Part II. Ion beams. *Phil. Mag., Ser. 7* **19**, 1016–1027. => HT1554
4725. Splinter, W.E. (1968) Air-curtain nozzle developed for electrostatically charging dusts. *Transactions of the ASAE* **11**, 487–490. => AEL0314
4726. Sportisse, B. and Djouad, R. (2003) Mathematical investigation of mass transfer for atmospheric pollutants into a fixed droplet with aqueous chemistry. *J. Geophys. Res. Atmospheres* **108**, 4073– doi:10.1029/2001JD001336, 2003. => AEL3930
4727. Sprengnether, M., Demerjian, K.L., Donahue, N.M. and Anderson, J.G. (2002) Product analysis of the OH oxidation of isoprene and 1,3-butadiene in the presence of NO. *J. Geophys. Res. Atmospheres* **107**, ACH8 1–13. => AEL3724
4728. Springer-Young, M. and Erickson D.J.III Carsey, T.P. (1996) Carbon monoxide gradients in the marine boundary layer of the North Atlantic Ocean. *J. Geophys. Res.* **101**, 4479–4484. => AEL1760
4729. Spurny, K. (1984) Zur Messtechnischen und hygienischen Bewertung der Konzentration von faserigen Stäuben in der atmosphärischen Umwelt. *Staub-Reinhalt. Luft* **44**, 456–458. => HT0184
4730. Spurny, K. (2000) Atmospheric condensation nuclei P.J.Coulier 1875 and J.Aitken 1880 (historical review). *Aerosol Sci. Technol.* **32**, 243–248. => AEL3332
4731. Spurny, K. and Hampl, V. (1967) Preparation of radioactively labelled condensation aerosols. II. Aerosols of mercury, diphosphoric acid, selenium, tungsten trioxide and platinum oxides. *Collection of Czechoslovak Chemical Communications* 4190–4196. => AEL0316
4732. Spurny, K.R. (1983) Natural fibrous zeolites and their carcinogenicity - a review. *The Science of the Total Environment* **30**, 147–166. => AEL0315
4733. Spurny, K.R. (1986) On the filtration of fibrous aerosols. *The Science of the Total Environment* **52**, 189–199. => HT0372
4734. Spurny, K.R. (1987) Smoluchowski award. P.E. Wagner. *Aerosol Sci. Technol.* 211–213. => AEL1142
4735. Spurny, K.R. (1989) Physico-chemical characterization of aerosols in a forest environment. *J. Aerosol Sci.* **20**, 1103–1106. => AEL1100
4736. Spurny, K.R. (1998) Methods of aerosol measurement before the 1960s. *Aerosol Sci. Technol.* **29**, 329–349. => AEL2341
4737. Spurny, K.R. and Lodge, J.P. (1972) Remarque sur l'analyse des ae'rosols dans la basse stratosphe~re. *Journal de Recherches Atmosphe'riques* 559–563. => AEL0418
4738. Sreenath, A., Ramachandran, G. and Vincent, J.H. (2001) Experimental study of particle losses close to the entry of thin-walled sampling probes at varying angles to the wind. *Aerosol Sci. Technol.* **35**, 767–778. => AEL3508
4739. Srivastava, G.K., Raghavayya, M., Khan, A.H. and Kotrappa, P. (1984) A low-level radon detection system. *Health Phys.* **46**, 225–228. => AEL1211
4740. Srivastava, V., Clarke, A.D., Jarzembski, M.A. and Rothernel, J. (1997) Comparison of modeled backscatter using measured aerosol microphysics with focused CW lidar data over Pacific. *J. Geophys. Res. Atmospheres* **102**, 16605–16617. => AEL2020

4741. Staebler, R., Toom-Sauntry, D., Barrie, L., Langendörfer, U., Lehrer, E., Li, S.-M. and Dryfhout-Clark, H. (1999) Physical and chemical characteristics of aerosols at Spitzbergen in the spring of 1996. *J. Geophys. Res. Atmospheres* **104**, 5515–5529. => AEL2783
4742. Staehelin, J., Kegel, R. and Harris, N.R.P. (1998) Trend analysis of the homogenized total ozone series of Arosa (Switzerland), 1926-1996. *J. Geophys. Res. Atmospheres* **103**, 8389–8399. => AEL2244
4743. Staehelin, J., Renaud, A., Bader, J., McPeters, R., Viatte, P., Hoegger, B., Bugnion, V., Giroud, M. and Schill, H. (1998) Total ozone series at Arosa (Switzerland): Homogenization and data comparison. *J. Geophys. Res. Atmospheres* **103**, 5827–5841. => AEL2233
4744. Staffelbach, T.A., Kok, G.L., Heikes, B.G., McCully, B., Mackay, G.I., Karecki, D.R. and Schiff, H.I. (1996) Comparison of hydroperoxide measurements made during the Mauna Loa Observatory Photochemistry Experiment 2. *J. Geophys. Res.* **101**, 14729–14739. => AEL1894
4745. Stahlhofen, W., Rudolf, G. and James, A.C. (1989) Intercomparison of experimental regional aerosol deposition data. *Journal of Aerosol Medicine* **2**, 285–308. => AEL2500
4746. Stamatopoulou, A. and Ben-Amotz, D. (1998) Cavity formation free energies for rigid chains in hard spheres fluids. *J. Chem. Phys.* **108**, 7294–7300. => AEL3133
4747. Stamatopoulou, A., De Souza, L.E.S., Ben-Amotz, D. and Talbot, J. (1995) Chemical potentials of hard molecular solutes in hard sphere fluids. Monte Carlo simulations and analytical approximations. *J. Chem. Phys.* **102**, 2109–2113. => AEL1303
4748. Stange, F., Butterbach-Bahl, K., Papen, H., Zechmeister-Boltenstern, S., Li, C. and Aber, J. (2000) A process-oriented model of N<sub>2</sub>O and NO emissions from forest soils: 2. Sensitivity analysis and validation. *J. Geophys. Res. Atmospheres* **105**, 4385–4398. => AEL3085
4749. Stark, M.S., Harrison, J.T.H. and Anastasi, C. (1996) Formation of nitrogen oxides by electrical discharges and implications for atmospheric lightning. *J. Geophys. Res.* **101**, 6963–6969. => AEL1884
4750. Starn, T.K., Shepson, P.B., Bertman, S.B., Riemer, D.D., Zika, R.G. and Olszyna, K. (1998) Nighttime isoprene chemistry at an urban-impacted forest site. *J. Geophys. Res. Atmospheres* **103**, 22437–22447. => AEL2792
4751. Stauffer, D. (1976) Kinetic theory of two-component ("hetero-molecular") nucleation and condensation. *J. Aerosol Sci.* **7**, 319–333. => AEL1058
4752. Stauffer, D., Kiang, C.S., Eggington, A., Patterson, E.M., Puri, O.P., Walker, G.H. and Wise, J.D.Jr. (1972) Heterogeneous nucleation and Fisher's droplet picture. *Phys. Rev. B* **6**, 2780–2783. => AEL0744
4753. Stecki, J. and Toxvaerd, S. (1995) The liquid-liquid interface of simple liquids. *J. Chem. Phys.* **103**, 4352–4359. => AEL1493
4754. Stedman, J.R., Vincent, K.J., Campbell, G.W., Goodwin, J.W.L. and Downing, C.E.H. (1997) New high resolution maps of estimated background ambient NO<sub>x</sub> and NO<sub>2</sub> concentrations in the U.K. *Atmos. Environ.* **31**, 3591–3602. => AEL2101
4755. Steele, H.M. and Turco, R.P. (1997) Retrieval of aerosol size distributions from satellite extinction spectra using constrained linear inversion. *J. Geophys. Res. Atmospheres* **102**, 16737–16747. => AEL2021
4756. Steele, H.M. and Turco, R.P. (1997) Separation of aerosol and gas components in the Halogen Occultation Experiment and the Stratospheric Aerosol and Gas Experiment (SAGE) II extinction measurements: Implications for SAGE II ozone concentrations and trends. *J. Geophys. Res. Atmospheres* **102**, 19665–19681. => AEL2192

4757. Steele, H.M., Lumpe, J.D., Turco, R.P., Bevilacqua, R.M. and Massie, S.T. (1999) Retrieval of aerosol surface area and volume densities from extinction measurements: Application to POAM II and SAGE II. *J. Geophys. Res. Atmospheres* **104**, 9325–9336. => AEL2972
4758. Stehr, J.W., Dickerson, R.R., Hallock-Waters, K.A., Doddridge, B.G. and Kirk, D. (2000) Observations of NO<sub>y</sub>, CO, and SO<sub>2</sub> and the origin of reactive nitrogen in the eastern United States. *J. Geophys. Res. Atmospheres* **105**, 3553–3563. => AEL3075
4759. Steiger, S.M., Orville, R.E. and Huffines, G. (2002) Cloud-to-ground lightning characteristics over Houston, Texas: 1989-2000. *J. Geophys. Res. Atmospheres* **107**, ACL2 1–13. => HT1384
4760. Stein, A.F. and Lamb, D. (2002) Chemical indicators of sulfate sensitivity to nitrogen oxides and volatile organic compounds. *J. Geophys. Res. Atmospheres* **107**, 4449 doi:10.1029/2001JD001088–2002. => AEL3803
4761. Stein, S.W., Turpin, B.J., Cai, X., Huang, P.-F. and McMurry, P.H. (1994) Measurements of relative humidity-dependent bounce and density for atmospheric particles using the DMA-impactor technique. *Atmos. Environ.* **28**, 1739–1746. => AEL1777
4762. Steiner, D. and Burtscher, H. (1993) Studies on the dynamics of adsorption and desorption from combustion particles, by temperature dependent measurement of size, mass and photoelectric yield. *Water, Air, and Soil Pollution* **68**, 159–176. => AEL0864
4763. Steinhäusler, F. (1994) A risk-based approach to health criteria for radon indoors - report on a WHO initiative. *Radiation Protection Dosimetry* **56**, 355–358. => AEL2511
4764. Steinhäusler, F., Hofmann, W. and Lettner, H. (1994) Thoron exposure of man: Anegligible issue?. *Radiation Protection Dosimetry* **56**, 127–131. => AEL2508
4765. Stelson, A.W. (1995) Thermodynamics of the acidic (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>-H<sub>2</sub>SO<sub>4</sub>-H<sub>2</sub>O system at ~25° C. *Aerosol Sci. Technol.* **23**, 392–400. => AEL1509
4766. Stelson, A.W. and Seinfeld, J.H. (1982) Relative humidity and pH dependence of the vapor pressure of ammonium nitrate-nitric acid solutions at 25° C. *Atmos. Environ.* **16**, 993–1000. => AEL0676
4767. Stelson, A.W. and Seinfeld, J.H. (1982) Relative humidity and temperature dependence of the ammonium nitrate dissociation constant. *Atmos. Environ.* **16**, 983–992. => AEL0639
4768. Stelson, A.W. and Seinfeld, J.H. (1982) Thermodynamic prediction of the water activity, NH<sub>4</sub>NO<sub>3</sub> dissociation constant, density and refractive index for the NH<sub>4</sub>NO<sub>3</sub>-(NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>-H<sub>2</sub>O system at 25° C. *Atmos. Environ.* **16**, 2507–2514. => AEL3892
4769. Stenhouse, J.I.T. (1974) The influence of electrostatic forces in fibrous filtration. *Filtration and Separation* **11**, 25–26. => AEL0317
4770. Stening, R.J. and Ogawa, T. (1985) An attempt to measure the large scale horizontal electric field near the ground. *Research Letters on Atmospheric Electricity* **5**, 7–12. => HT0371
4771. Stern, J.E., Wu, J.-J., Flagan, R.C. and Seinfeld, J.H. (1986) Effect of spatial inhomogeneities on the rate of homogeneous nucleation in systems with aerosol particles. *J. Colloid Interface Sci.* **110**, 533–543. => AEL0811
4772. Stevermer, A.J., Petropavlovskikh, I.V., Rosen, J.M. and DeLuisi, J.J. (2000) Development of a global stratospheric aerosol climatology: Optical properties and applications for UV. *J. Geophys. Res. Atmospheres* **105**, 22763–22776. => AEL3250
4773. Stewart, H.E., Hewitt, C.N., Bunce, R.G.H., Steinbrecher, R., Smiattek G. and Schoenemeyer, T. (2003) A highly spatially and temporally resolved inventory for biogenic isoprene and monoterpene emissions: Model description and application to Great Britain. *J. Geophys. Res. Atmospheres* **108**, 4644– doi:10.1029/2002JD002694. => AEL4069

4774. Stewart, R.W., Hameed, S. and Pinto, J.P. (1977) Photochemistry of tropospheric ozone. *J. Geophys. Res.* **82**, 3134–3140. => AEL0479
4775. Stiller, W. and Schuster, R. Kinetics of ion-molecule reactions in gases: Equilibrium and nonequilibrium theory with applications. *Berichte der Bunsengesellschaft für Physikalische Chemie* **94**, 1262–1265. => AEL0591
4776. Stillinger, F.H. and Jr. (1963) Rigorous basis of the Frenkel-Band theory of association equilibrium. *J. Chem. Phys.* **38**, 1486–1494. => AEL0442
4777. Stillinger, F.H. and Rahman, A. (1974) Improved simulation of liquid water by molecular dynamics. *The J. Chem. Phys.* **60**, 1545–1557. => AEL0836
4778. Stillinger, F.H.Jr. (1961) Interfacial solutions of the Poisson-Boltzmann equation. *J. Chem. Phys.* **35**, 1584–1589. => AEL3864
4779. Stillinger, F.H.Jr. and Ben-Naim, A. (1967) Liquid-vapor interface potential for water. *The J. Chem. Phys.* **47**, 4431–4437. => AEL0830
4780. Stingl, J. and Jaenicke, R. (1986) "Aerosol-size-distribution-analyzer based on an electrostatical plate condenser. *Aerosols: Formation and Reactivity. 2nd Int. Aerosol Conf. Berlin*, Pergamon Journals Ltd., pp. 797–800. => AEL0318
4781. *STN International (Databases in Science & Technologi). Reklamprospekt.* => HT0781
4782. Stober, J., Schleicher, B. and Burtscher, H. (1991) Bipolar diffusion charging of particles in noble gases. *Aerosol Sci. Technol.* **14**, 66–73. => AEL1551
4783. Stöber, W. (1980) Aerosol sampling and characterization for inhalation exposure studies with experimental animals. @ GA, @ AA, pp. 31–63. => AEL0383
4784. Stockwell, D.Z., Kritz, M.A., Chipperfield, M.P. and Pyle, J.A. (1998) Validation of an off-line three-dimensional chemical transport model using observed radon profiles. 2. Model results. *J. Geophys. Res. Atmospheres* **103**, 8433–8445. => AEL2247
4785. Stockwell, W.R. and Calvert, J.G. (1983) The mechanism of the HO-SO<sub>2</sub>~ reaction. *Atmos. Environ.* **17**, 2231–2235. => AEL0459
4786. Stockwell, W.R., Kirchner, F., Kuhn, M. and Seefeld, S. (1997) A new mechanism for regional atmospheric chemistry modeling. *J. Geophys. Res. Atmospheres* **102**, 25847–25879. => AEL2216
4787. Stohl, A. (1996) Trajectory statistics - a new method to establish source-receptor relationships of air pollutants and its application to the transport of particulate sulfate in Europe. *Atmos. Environ.* **30**, 579–587. => AEL2716
4788. Stokes, R.H. (1964) The van der Waals radii of gaseous ions of the noble gas structure in relation to hydration energies. *J. Amer. Chem. Soc.* **86**, 979–982. => AEL0763
4789. Stoll, S., Elaissari, A. and Pefferkorn, E. (1990) Fractal dimensions of latex aggregates. Correlation between hydrodynamic radius and cluster size. *J. Colloid Interface Sci.* **140**, 98–104. => AEL1133
4790. Stolzenburg, M. and Marshall, T.C. (1998) Charged precipitation and electric field in two thunderstorms. *J. Geophys. Res. Atmospheres* **103**, 19777–19790. => AEL2304
4791. Stolzenburg, M., Kreisberg, N. and Hering, S. (1998) Atmospheric size distributions measured by differential mobility optical particle size spectrometry. *Aerosol Sci. Technol.* **29**, 402–418. => AEL2739
4792. Stolzenburg, M., Kreisberg, N. and Hering, S. (1998) Atmospheric size distributions measured by differential mobility optical particle size spectrometry. *Aerosol Sci. Technol.* **29**, 402–418. => AEL2852



4793. Stolzenburg, M., Rust, W.D. and Marshall, T.C. (1998) Electrical structure in thunderstorm convective regions. 2. Isolated storms. *J. Geophys. Res. Atmospheres* **103**, 14079–14096. => AEL2279
4794. Stolzenburg, M., Rust, W.D. and Marshall, T.C. (1998) Electrical structure in thunderstorm convective regions.3. Synthesis. *J. Geophys. Res. Atmospheres* **103**, 14097–14108. => AEL2280
4795. Stolzenburg, M., Rust, W.D., Smull, B.F. and Marshall, T.C. (1998) Electrical structure in thunderstorm convective regions. 1. Mesoscale convective systems. *J. Geophys. Res. Atmospheres* **103**, 14059–14078. => AEL2278
4796. Stolzenburg, M.R. and McMurry, P.H. (1986) Counting efficiency of an ultrafine aerosol condensation nucleus counter: Theory and experiment. *Aerosols: Formation and Reactivity. 2nd Int. Aerosol Conf. Berlin*, Pergamon Journals Ltd., pp. 786–789. => AEL0319
4797. Stolzenburg, M.R. and McMurry, P.H. (1991) An ultrafine aerosol condensation nucleus counter. *Aerosol Sci. Technol.* **14**, 48–65. => AEL1097
4798. Stommel, Y.G. and Riebel, U. (2007) Comment on the Calculation of the steady-state charge distribution on aerosols <100 nm by three body trapping method in a bipolar ion environment. *Aerosol Sci. Technol.* **41**, 840–847. => HT1536
4799. Stones, I. (Comp.) (1982) *A brief summary of the controversy on artificial air ionization*. Can. Centre Occup. Health and Safety,. => HT0902
4800. Stothers, R.B. (2001) A chronology of annual mean effective radii of stratospheric aerosols from volcanic eruptions during the twentieth century as derived from ground-based spectral extinction measurements. *J. Geophys. Res. Atmospheres* **106**, 32043–32049. => AEL3610
4801. Stothers, R.B. (2001) Major optical depth perturbations to the stratosphere from volcanic eruptions: Stellar extinction period, 1961-1978. *J. Geophys. Res. Atmospheres* **106**, 2993–3003. => AEL3310
4802. Stowers, M.A. and Friedlander, S.K. (2002) Chemical characterization of flowing polydisperse aerosols by Raman spectroscopy. *Aerosol Sci. Technol.* **36**, 48–61. => AEL3598
4803. Strader, R., Lurmann, F. and Pandis, S. (1999) Evaluation of secondary organic aerosol formation in winter. *Atmos. Environ.* **33**, 4849–4863. => AEL2927
4804. Strand, O.N. and Westwater, E.R. (1968) Statistical estimation of the numerical solution of a Fredholm integral equation of the first kind. *JACM* **15**, 100–114. => HT0243
4805. Stranden, E., Berteig, L. and Ugletveit, F. (1979) A study on radon in dwellings. Abstract. *Health Phys.* **36**, 413–421. => AEL1221
4806. Stratmann, F., Kauffeldt, Th., Hummes, D. and Fissan, H. (1997) Differential electrical mobility analysis: A theoretical study. *Aerosol Sci. Technol.* **26**, 368–383. => AEL1915
4807. Stratmann, F., Otto, E. and Fissan, H. (1992) Theoretical investigation of ion and particle transport in space charge fields. *J. Aerosol Sci.* **23**, S101–S104. => AEL0927
4808. Straubel, H. (1954) Die elektrostatische Zerstäubung von Flüssigkeiten. *Zeitschrift für angewandte Physik* **6**, 264–267. => AEL0320
4809. Straubel, H. (1956) Die Stabilisierung elektrisch geladener Teilchen. *Fr. Forsch.* 26–32. => HT-F043
4810. Strawa, A.W., Drdla, K., Ferry, G.V., Verma, S., Pueschel, R.F., Yasuda, M., Salawitch, R.J., Gao, R.S., Howard, S.D., Bui, P.T., Loewenstein, M., Elkins, J.W., Perkins, K.K. and Cohen, R. (1999) Carbonaceous aerosol (Soot) measured in the lower stratosphere during POLARIS and its role in stratospheric photochemistry. *J. Geophys. Res. Atmospheres* **104**, 26753–26766. => AEL3032

4811. Strey, R. and Viisanen, Y. (1993) Measurement of the molecular content of binary nuclei. Use of the nucleation rate surface for ethanol-hexanol. *J. Chem. Phys.* **99**, 4693–4704. => AEL1056
4812. Strey, R., Viisanen, Y. and Wagner, P.E. (1995) Measurement of the molecular content of binary nuclei. III. Use of the nucleation rate surfaces for the water-n-alcohol series. *J. Chem. Phys.* **103**, 4333–4345. => AEL1492
4813. Strindehag, O. and Johnsson, L. (1984) Ventilation measures that affect the content of air ions in office premises. @IA, Stockholm, pp. 151–156. => AEL0394
4814. Stroud, C.A., Roberts, J.M., Williams, E.J., Hereid, D., Angevine, W.M., Fehsenfeld, F.C., Wisthaler, A., Hansel, A., Martinez-Harder, M., Harder, H., Brune, W.H., Hoenninger, G., Stutz, J. and White, A.B. (2002) Nighttime isoprene trends at an urban forested site during the 1999 Southern Oxidant Study. *J. Geophys. Res. Atmospheres* **107**, ACH7 1–14. => AEL3682
4815. Strydom, R., Leuschner, A.H. and Stoker, P. (1990) A mobility spectrometer for measurement of initial properties of <sup>218</sup>Po. *J. Aerosol Sci.* **21**, 859–873. => HT0845
4816. Strydom, R., Leuschner, A.H. and Stoker, P.H. (1990) A mobility spectrometer for measurement of initial properties of <sup>218</sup>Po. *J. Aerosol Sci.* **21**, 859–873. => AEL2501
4817. Stuart, A.L. and Jacobson, M.Z. (2003) A timescale investigation of volatile chemical retention during hydrometeor freezing: Nonrime freezing and dry growth riming without spreading. *J. Geophys. Res. Atmospheres* **108**, 4178– doi:10.1029/2001JD001408, 2003. => AEL3966
4818. Sturges, W.T. (1989) The reaction of NO<sub>2</sub> with NaBr: possible source of BrNO in polluted marine atmospheres. *Atmos. Environ.* **23**, 1167–1168. => AEL0649
4819. Sturges, W.T. and Harrison, R.M. (1986) Bromine in marine aerosols and the origin, nature and quantity of natural atmospheric bromine. *Atmos. Environ.* **20**, 1485–1496. => AEL0685
4820. Sturges, W.T., McIntyre, H.P., Penkett, S.A., Chappellaz, J., Barnola, J.-M., Mulvaney, R., Atlas, E. and Stroud, V. (2001) Methyl bromide, other brominated methanes, and methyl iodide in polar firn air. *J. Geophys. Res. Atmospheres* **106**, 1595–1606. => AEL3306
4821. Styro, B.I. and Matulyavichene, V.I. (1965) Spektry razmerov i podvizhnosti estestvennykh radioaktivnykh aerolei v atmosfere (in Russian). *Radioaktivnye Izotopy v Atmosfere i Ikh Izpolzovanie v Meteorologii. Nauchnaja Konferentsija po Yadernoi Meteorologii*, Atomizdat, Moskva, pp. 28–39. => HT-F091
4822. Su T. and Bowers, M.T. (1973) Theory of ion-polar molecule collisions. Comparison with experimental charge transfer reactions of rare gas ions to geometric isomers of difluorobenzene and dichloroethylene. *The Journal of Chemical Physics* **58**, 3027–3037. => AEL1405
4823. Su T. and Chesnavich, W.J. (1982) Parametrization of the ion-polar molecule collision rate constant by trajectory calculations. *J. Chem. Phys.* **76**, 5183–5185. => AEL4125
4824. Su T., Su, E.C.F. and Bowers, M.T. (1978) Ion-polar molecule collisions. Conservation of angular momentum in the average dipole orientation theory. The AADO theory. *J. Chem. Phys.* **69**, 2243–2250. => AEL1457
4825. Suck Salk, S.-H. and Lutrus, C.K. (1990) Formation energies for molecular clusters of critical size and estimation of homogeneous nucleation rates based on a multistate-kinetics approach. *Phys. Rev. A* **42**, 6151–6157. => AEL0764
4826. Suck Salk, S.H., Lutrus, C.K. and Hagen, D.E. (1986) Stability of water clusters: Implication for atmospheric hydrated clusters and aerosols. *Atmos. Environ.* **20**, 2027–2032. => AEL0555
4827. Suck Salk, S.-H., Lutrus, C.K. and Hagen, D.E. (1988) Temperature and supersaturation dependent nucleation rates of water by molecular cluster model calculations. *Journal of the Atmospheric Sciences* **45**, 2979–. => AEL0465

4828. Suck Salk, S.-H., Lutrus, C.K. and Hagen, D.E. (1988) Temperature and supersaturation dependent nucleation rates of water by molecular cluster model calculations. *J. Atmos. Sci.* **45**, 2979–2986. => AEL0823
4829. Suck Salk, S.-H., Thurman, R.E. and Kim, C.H. (1986) Growth of ultrafine particles by Brownian coagulation. *Atmos. Environ.* **20**, 773–777. => AEL1072
4830. Suck, S.H. (1981) Change of free energy in heteromolecular nucleation: Electrostatic energy contribution. *J. Chem. Phys.* **75**, 5090–5096. => AEL1039
4831. Suck, S.H. and Brock, J.R. (1979) Evolution of atmospheric aerosol particle size distributions via Brownian coagulation: numerical simulation. *J. Aerosol Sci.* **10**, 581–590. => HT0852
4832. Suda, T. and Sunaga, Y. (1990) Small ion mobility characteristics under the Shiobara HVDC test line. *IEEE Transactions on Power Delivery* **5**, 247–253. => HT0822
4833. Sudo, K., Takahashi, M., Kurokawa, J. and Akimoto, H. (2002) CHASER: A global chemical model of the troposphere 1. Model description. *J. Geophys. Res. Atmospheres* **107**, ACH7 1–20. => AEL3734
4834. Suess, D.T. and Prather, K.A. (2002) Reproducibility of single particle chemical composition during a heavy duty diesel truck dynamometer study. *Aerosol Sci. Technol.* **36**, 1139–1141. => AEL3716
4835. Suggitt, R.M., Aziz, P.M. and Wetmore, F.E.W. (1949) The surface tension of aqueous sulfuric acid solutions at 25°. *J. Am. Chem. Soc.* **71**, 676–678. => AEL3897
4836. Sugiyama, T. (1994) Ion-recombination nucleation and growth of ice particles in noctilucent clouds. *J. Geophys. Res. A* **99**, 3915–3929. => HT1048
4837. Suhre, K., Johnson, D.W., Mari, C., Rosset, R., Osborne, S., Wood, R., Bates, T.S. and Raes, F. (2000) A continental outbreak of air during the Second Aerosol Characterization Experiment (ACE 2): A Lagrangian experiment. *J. Geophys. Res. Atmospheres* **105**, 17911–17924. => AEL3229
4838. Sumiyoshitani, S. (1996) Three-dimensional model for analyzing charge carrier motion around a charged spherical object in the presence of flow and electric field. *Aerosol Sci. Technol.* **24**, 279–289. => AEL1722
4839. Sumner, A.L., Shepson, P.B., Couch, T.L., Thornberry, T., Carroll, M.A., Sillman, S., Pippin, M., Bertman, S., Tan, D., Faloon, I., Brune, W., Young, V., Cooper, O., Moody, J. and Stockwell, W. (2001) A study of formaldehyde chemistry above a forest canopy. *J. Geophys. Res. Atmospheres* **106**, 24387–24405. => AEL3568
4840. Sun, B. and Bradley, R.S. (2002) Solar influences on cosmic rays and cloud formation: A reassessment. *J. Geophys. Res. Atmospheres* **107**, AAC5 1–12. => AEL3677
4841. Sun, J., Desjardins, R., Mahrt, L. and MacPherson, I. (1998) Transport of carbon dioxide, water vapor, and ozone by turbulence and local circulations. *J. Geophys. Res. Atmospheres* **103**, 25873–25885. => AEL2810
4842. Suni, T., Berninger, F., Markkanen, T., Keronen, P., Rannik, Ü. and Vesala, T. (2003) Interannual variability and timing of growing-season CO<sub>2</sub> exchange in a boreal forest. *J. Geophys. Res. Atmospheres* **108**, 4265– doi:10.1029/2002JD002381, 2003. => AEL4000
4843. Suni, T., Rinne, J., Reissell, A., Altimir, N., Keronen, P., Rannik, Ü., Dal Maso, M., Kulmala, M. and Vesala, T. (2003) Long-term measurements of surface fluxes above a Scots pine forest in Hyytiälä, southern Finland, 1996–2001. *Boreal Environment Research* **8**, 287–301. => HT1470

4844. Sunner, J., Nicol, G. and Kebarle, P. (1988) Factors determining relative sensitivity of analytes in positive mode atmospheric pressure ionization mass spectrometry. *Anal. Chem.* **60**, 1300–1307. => AEL1190
4845. Suortti, T., Karhu, J., Kivi, R., Kyrö, E., Rosen, J., Kjome, N., Larsen, N., Neuber, R., Khattatov, V., Rudakov, V., Yushkov, V. and Nakane, H. (2001) Evolution of the Arctic stratospheric aerosol mixing ratio measured with balloon-borne aerosol backscatter sondes for years 1988 - 2000. *J. Geophys. Res. Atmospheres* **106**, 20759–20766. => AEL3551
4846. Surovtseva, G.I. (1979) Issledovanie osazhdeniya aerolnykh tshastits v elektrostatischeskom klassifikatore (in Russian). *Trudy LIAP, Leningrad*, **1(136)**, pp. 14–18. => HT0607
4847. Suzuki, K. (1988) Attachment coefficient of atmospheric ions to aerosol particles in transient state. *J. Aerosol Sci.* **19**, 821–824. => AEL1913
4848. Suzuki, K. (1996) Monte Carlo simulation on the water microcluster in the detailed balance. In *Nucleation and atmospheric aerosols*, edited by Kulmala, M. and Wagner, P.E., Pergamon, pp. 157–160. => HT1167
4849. Suzuki, K. (1997) Monte Carlo simulation on the ion hydrate cluster in molecular model. *J. Atmos. Electr.* **17**, 1–10. => HT1194
4850. Suzuki, K. (2000) Research notes on the nucleation theory(1): Macroscopic model, ion cluster, virial of water micro cluster. *J. Atmos. Electr.* **20**, 75–84. => HT1431
4851. Suzuki, K., Iritani, M. and Mitsukuchi, T. (1982) Measurements of small ion mobility spectrum with multi-electrodes Gerdien condenser. *Research Letters on Atmospheric Electricity* **2**, 1–4. => HT0300
4852. Svanberg, M. and Pettersson, J.B.C. (1996) Survival of noble gas clusters scattering from hot metal surfaces. Submitted. *Chem. Phys. Lett.* 1–15. => HT1122
4853. Svanberg, M., Markovic, N. and Pettersson, J.B.C. (1995) Energy transfer in water cluster scattering from solid surfaces. *Subm. to Chem. Phys.* 1–27. => HT0960
4854. Svanberg, M., Marković, N. and Pettersson, J.B.C. (1995) Energy transfer in water cluster scattering from solid surfaces. *Chemical Physics* **201**, 473–489. => HT1094
4855. Svanberg, M., Pettersson, J.B.C. and Murtagh, D. (1995) Ozone photodissociation in the Hartley band: A statistical description of the ground state decomposition channel  $O_2(X^3\Sigma_g^-)+O(^3P)$ . *J. Chem. Phys.* **102**, 8887–8896. => HT1097
4856. Svendby, T.M. and Dahlback, A. (2002) Twenty years of revised Dobson total ozone measurements in Oslo, Norway. *J. Geophys. Res. Atmospheres* **107**, 4369 doi:10.1029/2002JD002260–2002. => AEL3773
4857. Sverdrup, G.M., Whitby, K.T. and Clark, W.E. (1975) Characterization of California aerosols. II. Aerosol size distribution measurements in the Mojave desert. *Atmos. Environ.* **9**, 483–494. => AEL0321
4858. Svoboda, Z. (1978) Zpr~esne~na distribuc~ni funkce tuhych c~astic aerosolu. *Ochrana ovzdu~i* 153–154. => AEL0322
4859. Swann, W.F.G. (1914) On certain matters relating to the theory of atmospheric-electric measurements. *Terr. Magn.* **19**, 205–218. => HT-F VIII
4860. Swann, W.F.G. (1914) On certain new atmospheric-electric instruments and methods. *Terr. Magn.* **19**, 171–185. => HT-F VIII
4861. Swartz, E., Shi, Q., Davidovits, P., Jayne, J.T., Worsnop, D.R. and Kolb, C.E. (1999) Uptake of gas-phase ammonia. 2. Uptake by sulfuric acid surfaces. *J. Phys. Chem. A* **103**, 8824–8833. => AEL2991
4862. Swedjemark, G.A. (1983) The equilibrium factor F. *Health Physics* **45**, 453–462. => AEL2497

4863. Swietlicki, E. (Comp.) (1989) *European source region identification of long range transported ambient aerosol based on PIXE analysis and related techniques. Doctoral dissertation.* Department of Nuclear Physics, Lund. => AEL1024
4864. Swietlicki, E. and Bohgard, M. (1984) PIXE detection limits for some aerosol collection substrates by excitation with protons and  $^4\text{He}^{2+}$  ions from a 3 MV tandem accelerator. *Nuclear Instruments and Methods in Physics Research*, Elsevier Science Publishers, North-Holland, Amsterdam, pp. 441–445. => AEL1025
4865. Swietlicki, E., Hansson, H.-C. and Lövestam, N.E.G. (1989) A new PIXE set up dedicated to the analysis of aerosol samples. *Swietlicki, E. Doctoral dissertation. Part III*, Lund, pp. 31–44. => AEL1027
4866. Swietlicki, E., Hansson, H.-C. and Martinsson, B.G. (1987) PIXE elemental characterization of air masses using a multivariate statistical technique. *Nuclear Instruments and Methods in Physics Research*, Elsevier Science Publishers, North-Holland, Amsterdam, **B22**, pp. 264–269. => AEL1029
4867. Swietlicki, E., Hansson, H.-C. and Svantesson, B. (1989) European source region identification of long range transported aerosol. *Swietlicki, E. Doctoral dissertation. Part VI*, Lund, pp. 79–117. => AEL1030
4868. Swietlicki, E., Puri, S., Hansson, H.-C. and Edner, H. (1996) Urban air pollution source apportionment using a combination of aerosol and gas monitoring techniques. *Atmos. Environ.* **30**, 2795–2809. => AEL2125
4869. Swietlicki, E., Svantesson, B. and Hansson, H.-C. (1989) The design and calibration of a fine fraction aerosol mass monitor based on beta attenuation. *Swietlicki, E. Doctoral dissertation. Part IV*, Lund, pp. 47–67. => AEL1028
4870. Swift, D.L. (1967) A study of the size and monodispersity of aerosols produced in a Sinclair-La Mer generator. *Annals of Occupational Hygiene* **10**, 337–348. => AEL0323
4871. Swift, D.L. and Friedlander, S.K. (1964) The coagulation of hydrosols by Brownian motion and laminar shear flow. *J. Coll. Sci.* **19**, 621–647. => AEL1114
4872. Sykes, R.I., Parker, S.F., Henn, D.S. and Lewellen, W.S. (1994) Turbulent mixing with chemical reaction in the planetary boundary layer. *J. Appl. Meteorol.* **33**, 825–834. => AEL2744
4873. Sze, N.D. and Ko, M.K.W. (1980) Photochemistry of COS, CS<sub>2</sub>, CH<sub>3</sub>SCH<sub>3</sub> and H<sub>2</sub>S: implications for the atmospheric sulfur cycle. *Atmos. Environ.* **14**, 1223–1239. => AEL0540
4874. Taalas, P., Amanatidis, G. and Heikkilä, A. (2000) European Conference on Atmospheric UV Radiation: Overview. *J. Geophys. Res. Atmospheres* **105**, 4777–4785. => AEL3090
4875. Taalas, P., Damski, J., Kyrö, E., Ginzburg, M. and Talamoni, G. (1997) Effect of stratospheric ozone variations on UV radiation and on tropospheric ozone at high latitudes. *J. Geophys. Res. Atmospheres* **102**, 1533–1539. => AEL2307
4876. Taalas, P., Kaurola, J., Kylling, A., Shindell, D., Sausen, R., Dameris, M., Grewe, V., Herman, J., Damski, J. and Steil, B. (2000) The impact of greenhouse gases and halogenated species on future solar UV radiation doses. *Geophys. Res. Lett.* **27**, 1127–1130. => HT1323
4877. Tabazadeh, A. and Toon, O.B. (1996) The presence of metastable HNO<sub>3</sub>/H<sub>2</sub>O solid phases in the stratosphere inferred from ER 2 data. *J. Geophys. Res.* **101**, 9071–9078. => AEL1661
4878. Tabazadeh, A., Jensen, E.J. and Toon, O.B. (1997) A model description for cirrus cloud nucleation from homogeneous freezing of sulfate aerosols. *J. Geophys. Res. Atmospheres* **102**, 23845–23850. => AEL2175

4879. Tabazadeh, A., Toon, O.B., Clegg, S.L. and Hamill, P. (1997) A new parameterization of H<sub>2</sub>SO<sub>4</sub>/H<sub>2</sub>O aerosol composition: Atmospheric implications. *Geophys. Res. Lett.* **24**, 1931–1934. => AEL2368
4880. Tabazadeh, A., Turco, R.P., Drdla, K., Jacobson, M.Z. and Toon, O.B. (1994) A study of type I polar stratospheric cloud formation. *Geophys. Res. Lett.* **21**, 1619–1622. => AEL1850
4881. Taesler, I., Olovsson and I. (1969) Hydrogen bond studies XXXVII. The crystal structure of sulfuric acid dihydrate (H<sub>3</sub>O<sup>+</sup>)<sub>2</sub>SO<sub>4</sub><sup>2-</sup>. *The J. Chem. Phys.* **51**, 4213–4219. => AEL1997
4882. Taira, M. and Kanda, Y. (1993) Wet effluent diffusion denuder for sampling of atmospheric gaseous nitric acid. *Anal. Chem.* **65**, 3171–3173. => AEL1195
4883. Takahashi, K. and Kudo, A. (1973) Electrical charging of aerosol particles by bipolar ions in flow type charging vessels. *J. Aerosol Sci.* **4**, 209–216. => AEL0324
4884. Takahashi, K., Kasahara, M. and Itoh, M. (1975) A kinetic model of sulfuric acid aerosol formation from photochemical oxidation of sulfur dioxide vapor. *Aerosol Sci.* **6**, 45–55. => AEL1690
4885. Takahashi, T. (1973) Electrification of condensing and evaporating liquid drops. *Journal of the Atmospheric Sciences* **30**, 249–255. => AEL0347
4886. Takebe, M. (1974) Positive ion species and their mobilities in air. *Japanese Journal of Applied Physics* **13**, 207–. => AEL0516
4887. Takeuchi, M., Okochi, H. and Igawa, M. (2003) Deposition of coarse soil particles and ambient gaseous components dominating dew water chemistry. *J. Geophys. Res. Atmospheres* **108**, 4319– doi:10.1029/2002JD003058, 2003. => AEL4016
4888. Takeuti, T., Israelsson, S., Nakano, M., Ishikawa, H., Lundquist, S. and Aström, E. (1980) On thunderstorms producing positive ground flashes. *Proceedings of the Research Institute of Atmospheric Nagoya University*, **27-A**, pp. 1–18. => HT0427
4889. Takeuti, T., Nakano, M. and Israelsson, S. (1977) Notes and correspondence on the two types of thunderstorms deduced from cloud-to-ground discharges observed in Sweden and Japan. *The Journal of the Meteorological Society of Japan* **55**, 613–616. => HT0431
4890. Takigawa, M., Takahashi, M. and Akiyoshi, H. (2002) Simulation of stratospheric sulfate aerosols using a Center for Climate System Research/National Institute for Environmental Studies atmospheric GCM with coupled chemistry 1. Nonvolcanic simulation. *J. Geophys. Res. Atmospheres* **107**, 4610 doi:10.1029/2001JD001007–2002. => AEL3807
4891. Talanquer, V. (1997) A new phenomenological approach to gas-liquid nucleation based on the scaling properties of the critical nucleus. *J. Chem. Phys.* **106**, 9957–9960. => AEL2385
4892. Talanquer, V. and Oxtoby, D.W. (1993) Nucleation in dipolar fluids: Stockmayer fluids. *J. Chem. Phys.* **99**, 4670–4679. => AEL1054
4893. Talanquer, V. and Oxtoby, D.W. (1994) Dynamical density functional theory of gas-liquid nucleation. *J. Chem. Phys.* **100**, 5190–5200. => AEL1181
4894. Talanquer, V. and Oxtoby, D.W. (1995) Density functional analysis of phenomenological theories of gas-liquid nucleation. *J. Chem. Phys.* **99**, 2865–2874. => AEL3909
4895. Talanquer, V. and Oxtoby, D.W. (1997) Nucleation in the presence of an amphiphile: A density functional approach. *J. Chem. Phys.* **106**, 3673–3680. => AEL2386
4896. Talbot, R.W., Dibb, J.E., Klemm, K.I., Bradshaw, J.D., Sandholm, S.T., Blake, D.R., Sachse, G.W., Collins, J., Heikes, B.G., Gregory, G.L., Anderson, B.E., Singh, H.B., Thornton, D.C. and Merrill, J.T. (1996) Chemical characteristics of continental outflow from Asia to the troposphere over the western Pacific Ocean during September-October 1991: Results from PEM-West A. *J. Geophys. Res.* **101**, 1713–1725. => AEL1810

4897. Taleb, D.-E., McGraw, R. and Mirabel, P. (1997) Time lag effects on the binary homogeneous nucleation of aerosols in the wake of an aircraft. *J. Geophys. Res. Atmospheres* **102**, 12885–12890. => AEL2002
4898. Taleb, D.-E., Ponche, J.-L. and Mirabel, P. (1996) Vapor pressures in the ternary system water-nitric acid-sulfuric acid at low temperature: A reexamination. *J. Geophys. Res. Atmospheres* **101**, 25967–25977. => AEL2394
4899. Tamm, E. *Electrical classification as a basis of the aerosol standard. Käsikiri.* => HT1034
4900. Tamm, Ü. (1960) Metsanduslikust uurimistööst looduskaitseobjektidel (in Estonian). *Eesti NSV Teaduste Akadeemia Toimetised. Bioloogiline Seeria* **9**, 188–189. => HT0017
4901. Tammet, E. and Tammet, H. (1974) Vychislenie koeffitsentov slozheniya uglovykh momentov (in Russian). *Eesti NSV Teaduste Akadeemia Toimetised. Füüsika. Matemaatika* **23**, 81–85. => HT0076
4902. Tammet, H. (1998) Reduction of air ion mobility to standard conditions. *J. Geophys. Res. Atmospheres* **103**, 13933–13937. => AEL2275
4903. Tammet, H. Note to the preceding paper by Anderson and Bailey. Some remarks about the diffusive losses of ions in short inlettubes. *Errors in the Gerdien Measurement of Atmospheric Electric Conductivity*, pp. 26–32. => HT0470
4904. Tammet, H., Mirme, A. and Tamm, E. (1998) Electrical aerosol spectrometer of Tartu University. *J. Aerosol Sci.* **29**, S427–S428. => HT1341
4905. Tammet, H.F. (1960) K teorii aspiratsionnykh schetchikov aeroionov (in Russian). *Izvestiya Akademii Nauk SSSR Seriya Geofizicheskaya* 1264–1270. => HT0082
4906. Tammet, Kh. (1979) *Retsenziya na sratyu L.K. Vykhandu, T.F.Lutsckovskogo, Ya.Ya. Tepandi "Sistema khraneniya i obrabotki diskretnoi informatsii (SKhODI)"* (in Russian). Käsikiri,. => HT0564
4907. Tammet, Kh. (1979) *Retsenziya na statyu L.K. Vykhandu "O nekotorykh metodakh uporyadotseniya obektov i priznakov v sisteme dannnykh"* (in Russian). Käsikiri,. => HT0565
4908. Tammet, Kh. (1979) *Retsenziya na statyu L.K.Bykhandu i E.T.-Kh.Yunapuu "Obrabotka sotsialno-ekonomitsceskikh pokazatelei v dialogovom rezhime"* (in Russian). Käsikiri,. => HT0563
4909. Tammet, Kh.F. (1963) Optimalnye parametry aspiratsionnykh schetchikov aeroionov (in Russian). 322–328. => HT-F082
4910. Tammet, Kh.F. (1964) Ionozirobannyi detektor gazovogo khromatografa (in Russian). SSSR Patent No. 151100, Class G01n, 42l, Prior. 13.10.1961. => HT-F046
4911. Tamminen, J. and Kyrölä, E. (2001) Bayesian solution for nonlinear and non-Gaussian inverse problems by Markov chain Monte Carlo method. *J. Geophys. Res. Atmospheres* **106**, 14377–14390. => AEL3480
4912. *Tampere University of Technology. Aerosol Physics Lab: Publications 1981-90.* => HT0499
4913. Tan, C.W. and Thomas, J.W. (1972) Aerosol penetration through a parallel-plate diffusion battery. *J. Aerosol Sci.* **3**, 39–43. => AEL0325
4914. Tan, C.W. and Thomas, J.W. (1972) Aerosol penetration through a parallel-plate diffusion battery. *J. Aerosol Sci.* **3**, 39 43. => HT1542
4915. Tanaka, H. and Takeuchi, K (2002) C60 monomer as an inherently monodisperse standard nanoparticle in the 1 nm range. *Japanese Journal of Applied Physics* **41, Part 1**, 922–924. => HT1531

4916. Tanaka, H. and Takeuchi, K. (2002) C<sub>60</sub> monomer as an inherently monodisperse standard nanoparticle in the 1 nm range. *Japan Journal of Applied Physics* **41**, Part 1, 922–924. => HT1502
4917. Tang, I.N. (1980) Deliquescence properties and particle size change of hygroscopic aerosols. @ GA, @ AA, pp. 153–167. => AEL0386
4918. Tang, I.N. (1996) Chemical and size effects of hygroscopic aerosols on light scattering coefficients. *J. Geophys. Res.* **101**, 19245–19250. => AEL1899
4919. Tang, I.N. (1997) Thermodynamic and optical properties of mixed-salt aerosols of atmospheric importance. *J. Geophys. Res. Atmospheres* **102**, 1883–1893. => AEL2181
4920. Tang, I.N. and Munkelwitz, H.R. (1994) Aerosol phase transformation and growth in the atmosphere. *J. Applied Meteorol.* **33**, 791–796. => AEL2346
4921. Tang, I.N. and Munkelwitz, H.R. (1994) Water activities, densities, and refractive indices of aqueous sulfates and sodium nitrate droplets of atmospheric importance. *J. Geophys. Res. Atmospheres* **99**, 18801–18808. => AEL2018
4922. Tang, I.N., Munkelwitz, H.R. and Castleman, A.W.Jr. (1971) SO<sub>2</sub>-metal ion clusters. *Nature. Physical Science* **230**, 175–176. => AEL1287
4923. Tang, Y. and Lu, B.C.-Y. (1994) First-order radial distribution functions based on the mean spherical approximation for square-well, Lennard-Jones, and Kihara fluids. *J. Chem. Phys.* **100**, 3079–3084. => AEL1052
4924. Tanimoto, H., Hirokawa, J., Kajii, Y. and Akimoto, H. (1999) A new measurement technique of peroxyacetyl nitrate at parts per trillion by volume levels: Gas chromatography/negative ion chemical ionization mass spectrometry. *J. Geophys. Res. Atmospheres* **104**, 21343–21354. => AEL3012
4925. Tanner, D.J., Jefferson, A. and Eisele, F.L. (1997) Selected ion chemical ionization mass spectrometric measurement of OH. *J. Geophys. Res. Atmospheres* **102**, 6415–6425. => AEL2327
4926. Tanner, H.G. (1963) Evanescence of cloud-chamber aerosols. *Annals of the New York Academy of Sciences* **105**, 27–44. => AEL0326
4927. Tanner, R.L. and Meng, Z. (1984) Seasonal variations in ambient atmospheric levels of formaldehyde and acetaldehyde. *Environ. Sci. Technol.* **18**, 723–726. => AEL1446
4928. Tanré, D., Kaufman, Y.J., Herman, M. and Mattoo, S. (1997) Remote sensing of aerosol properties over oceans using the MODIS/EOS spectral radiances. *J. Geophys. Res. Atmospheres* **102**, 16971–16988. => AEL2026
4929. Tao, Y. and McMurry, P.H. (1990) Vapor pressures and surface free energies of C14 to C18 monocarboxylic acids and C5 and C6 dicarboxylic acids. *Aerosols, Science, Industry, Health and Environment. Proceedings of the Third International Aerosol Conference*, Oxford, N-Y, Beijing, Frankfurt, Sao Paulo, Sydney, Tokyo, Toronto, pp. 180–180. => HT0468
4930. Tapia, O. (1982) 2. Quantum theories of solvent-effect representation: an overview of methods and results. *Molecular Interactions. Ed. by H. Ratajczak and W.J. Orville-Thomas*, John Wiley & Sons, Ltd., **3**, pp. 47–117. => AEL0987
4931. Tarasova, T.A., Nobre, C.A., Eck, T.F. and Holben, B.N. (2000) Modeling of gaseous, aerosol, and cloudiness effects on surface solar irradiance measured in Brazil's Amazonia 1992-1995. *J. Geophys. Res. Atmospheres* **105**, 26961–26969. => AEL3268



4932. Tarasova, T.A., Nobre, C.A., Holben, B.N., Eck, T.F. and Setzer, A. (1999) Assessment of smoke aerosol impact on surface solar irradiance measured in the Rondônia region of Brazil during Smoke, Clouds, and Radiation - Brazil. *J. Geophys. Res. Atmospheres* **104**, 19161–19170. => AEL3008
4933. Tarroni, G., Prodi, V., Melandri, C., Bompane, G.F., De Zaiacomo, T. and Formignani, M. (1975) Production of ultrafine monodisperse aerosols by condensation. *J. Aerosol Sci.* **6**, 305–310. => AEL0327
4934. Taubman, B.F., Marufu, L.T., Vant-Hull, B.L., Piety, C.A., Doddridge, B.G., Dickerson, R.R. and Li, Z. (2004) Smoke over haze: Aircraft observations of chemical and optical properties and the effects on heating rates and stability. *J. Geophys. Res. Atmospheres* **109**, D02206–doi:10.1029/2003JD003898, 2004. => AEL4118
4935. Taulbee, D.B. and Yu, C.P. (1975) Simultaneous diffusion and sedimentation of aerosols in channel flows. *J. Aerosol Sci.* **6**, 433–441. => AEL0328
4936. Tavker, S., Pradeep Kumar, P., Carlon, H.R. and Milham, M.E. (1997) Isosbestic point: An application for aerosol spectrometry. *J. Geophys. Res. Atmospheres* **102**, 30017–30022. => AEL2163
4937. Taylor, G.R., Kreidenweis, S. and Zhang, Y. (1997) The effects of clouds on aerosol and chemical species production and distribution. 1. Cloud model formulation, mixing, and detrainment. *J. Geophys. Res. Atmospheres* **102**, 23851–23865. => AEL2176
4938. Tegen, I. (1999) Reply. *J. Geophys. Res. Atmospheres* **104**, 4249–4250. => AEL2780
4939. Tegen, I. and Fung, I. (1995) Contribution to the atmospheric mineral aerosol load from land surface modification. *J. Geophys. Res. Atmospheres* **100**, 18707–18726. => AEL2356
4940. Tegen, I., Hollrig, P., Chin, M., Fung, I., Jacob, D. and Penner, J. (1997) Contribution of different aerosol species to the global aerosol extinction optical thickness: Estimates from model results. *J. Geophys. Res. Atmospheres* **102**, 23895–23915. => AEL2178
4941. Tegen, I., Koch, D., Lacis, A.A. and Sato, M. (2000) Trends in tropospheric aerosol loads and corresponding impact on direct radiative forcing between 1950 and 1990: A model study. *J. Geophys. Res. Atmospheres* **105**, 26971–26989. => AEL3269
4942. Teinmaa, E., Kirso, U., Strommen, M.R. and Kamens, R.M. (2002) Atmospheric behaviour of oil-shale combustion fly ash in a chamber study. *Atmos. Environ.* **36**, 813–824. => AEL3550
4943. Teinilä, K., Kerminen, V.-M. and Hillamo, R. (2000) A study of size-segregated aerosol chemistry in the Antarctic atmosphere. *J. Geophys. Res. Atmospheres* **105**, 3893–3904. => AEL3080
4944. Teixeira, P.I. and Telo da Gama, M.M. (1991) Density-functional theory for the interfacial properties of a dipolar fluid. *J. Phys.: Condens. Matter* **3**, 111–125. => AEL1162
4945. Tell, I., Bensryd, I., Rylander, L., Jönsson, G. and Daniel, E. (1994) Geochemistry and ground permeability as determinants of indoor radon concentrations in southernmost Sweden. *Applied Geochemistry* **9**, 647–655. => HT1132
4946. ten Wolde, P.R. and Frenkel, D. (1998) Computer simulation study of gas–liquid nucleation in a Lennard-Jones system. *J. Chem. Phys.* **109**, 9901–9918. => AEL3128
4947. ten Wolde, P.R. and Frenkel, D. (1998) Numerical study of gas–liquid nucleation in partially miscible binary mixtures. *J. Chem. Phys.* **109**, 9919–9927. => AEL3143
4948. Terentiev, A.G., Zhitnikov, V.P. and Dmitrieva, N.A. (1997) An application of analytic functions to axisymmetric flow problems. *Applied Mathematical Modelling* **21**, 91–96. => AEL1863

4949. Terry, K.W. (1995) Particle size distribution of airborne dusts using a scanning electron microscope. *Aerosol Sci. Technol.* **23**, 475–478. => AEL1533
4950. Tervanhattu, H., Hartonen, K., Kerminen, V.-M., Kupiainen, K., Aarnio, P., Koskentalo, T., Tuck, A.F. and Vaida, V. (2002) New evidence of an organic layer on marine aerosols. *J. Geophys. Res. Atmospheres* **107**, AAC1 1–9. => AEL3644
4951. Tervanhattu, H., Juhanaja, J. and Kupiainen, K. (2002) Identification of an organic coating on marine aerosol particles by TOF-SIMS. *J. Geophys. Res. Atmospheres* **107**, ACH18 1–7. => AEL3689
4952. Thackston, M.G., Eisele, F.L., Ellis, H.W. and McDaniel, E.W. (1977) Mobilities of Cs<sup>+</sup> ions in molecular gases H<sub>2</sub>, N<sub>2</sub>, O<sub>2</sub>, CO, and CO<sub>2</sub>. *The Journal of Chemical Physics* **67**, 1276–1277. => AEL1150
4953. Thackston, M.G., Ellis, H.W., Pai, R.Y. and McDaniel, E.W. (1976) Mobilities of Rb<sup>+</sup> ions in He, Ne, Ar, H<sub>2</sub>, N<sub>2</sub>, O<sub>2</sub>, and CO<sub>2</sub>. *The Journal of Chemical Physics* **65**, 2037–2038. => AEL1149
4954. Thatcher, T.L. and Nazaroff, W.W. (1997) Effect of small-scale obstructions and surface textures on particle deposition from natural convection flow. *Aerosol Sci. Technol.* **27**, 709–725. => AEL1948
4955. *The Duisburg Fire Detection Laboratory* (1991) edited by Luck, H. and Krüll, W., Duisburg. => HT0623
4956. The global atmosphere watch. *World Meteorological Organization. Fact Sheet* 1–4. => HT0745
4957. Thellier, O. (1933) Mesure de la conductibilité électrique de l'air par une méthode de zéro. *Compt. Rend.* **196**, 1684–1686. => HT-F028
4958. Thellier, O. and Maurain, C. (1939) Sur la variation diurne de la conductibilité électrique de l'air et des nombres d'ions et de noyaux de condensation à l'Observatoire de Chambon-la-Forêt. *Comptes rendus de l'Académie des Séances du Paris* **208**, 1167–1170. => AEL1552
4959. Thiele, E. (1963) Equation of state for hard spheres. *The Journal of Chemical Physics* **39**, 474–479. => AEL1108
4960. Thomas, E.R., Frost, G.J. and Rudich, Y. (2001) Reactive uptake of ozone by proxies for organic aerosols: Surface-bound and gas-phase products. *J. Geophys. Res. Atmospheres* **106**, 3045–3056. => AEL3314
4961. Thomas, G.E. *Recent developments in the study of mesospheric clouds COSPAR C.2-S.3.08. Käsikiri.* => HT1273
4962. Thomas, J.W. (1972) Measurement of radon daughters in air. *Health Phys.* **23**, 783–789. => AEL1209
4963. Thomas, J.W. and Hinchliffe, L.E. (1972) Filtration of 0.001 μm particles by wire screens. *Aerosol Science* **3**, 387–393. => AEL2454
4964. Thomas, L. (1983) Modelling of the ion composition of the middle atmosphere. *Annales Geophysicae* **1**, 61–73. => AEL0528
4965. Thomas, L., Marsh, A.K.P., Wareing, D.P. and Hassan, M.A. (1994) Lidar observations of ice crystals associated with noctilucent clouds at middle latitudes. *Geophys. Res. Lett.* **21**, 385–388. => HT1111
4966. Thomson, J.J. (1924) Recombination of gaseous ions, the chemical combination of gases, and monomolecular reactions. *Phil. Mag.* **47**, 337–378. => AEL3905
4967. Thomson, J.J. and Thomson, G.P. (1928) *Conduction of electricity through gases.* Cambridge University Press, Cambridge. => HT-F V (P85-192,193-214, 278-291)

4968. Thornburg, J., Ensor, D.S., Rodes, C.E., Lawless, P.A., Sparks, L.E. and Mosley, R.B. (2001) Penetration of particles into buildings and associated physical factors. Part 1: Model development and computer simulations. *Aerosol Sci. Technol.* **34**, 284–296. => AEL3374
4969. Thornton, D.C., Bandy, A.R., Blomquist, B.W. and Anderson, B.E. (1996) Impact of anthropogenic and biogenic sources and sinks on carbonyl sulfide in the North Pacific troposphere. *J. Geophys. Res.* **101**, 1873–1881. => AEL1652
4970. Thornton, D.C., Bandy, A.R., Blomquist, B.W., Davis, D.D. and Talbot, R.W. (1996) Sulfur dioxide as a source of condensation nuclei in the upper troposphere of the Pacific Ocean. *J. Geophys. Res.* **101**, 1883–1890. => AEL1657
4971. Thornton, D.C., Bandy, A.R., Tu, F.H., Blomquist, B.W., Mitchell, G.M., Nadler, W. and Lenschow, D.H. (2002) Fast airborne sulfur dioxide measurements by Atmospheric Pressure Ionization Mass Spectrometry (APIMS). *J. Geophys. Res. Atmospheres* **107**, 4632 doi:10.1029/2002JD002289–2002. => AEL3816
4972. Thornton, J.A., Wooldridge, P.J., Cohen, R.C., Martinez, M., Harder, H., Brune, W.H., Williams, E.J., Roberts, J.M., Fehsenfeld, F.C., Hall, S.R., Shetter, R.E., Wert, B.P. and Fried, A. (2002) Ozone production rates as a function of NO<sub>x</sub> abundances and HO<sub>x</sub> production rates in the Nashville urban plume. *J. Geophys. Res. Atmospheres* **107**, ACH7 1–17. => AEL3663
4973. Thornton, J.A., Wooldridge, P.J., Cohen, R.C., Williams, E.J., Hereid, D., Fehsenfeld, F.C., Stutz, J. and Alicke, B. (2003) Comparisons of in situ and long path measurements of NO<sub>2</sub> in urban plumes. *J. Geophys. Res. Atmospheres* **108**, 4496– doi:10.1029/2003JD003559. => AEL4033
4974. Thottappillil, R., Rakov, V.A. and Uman, M.A. (1990) K and M changes in close lightning ground flashes in Florida. @*JGR* **95**, 18631–18640. => HT0533
4975. Thottappillil, R., Rakov, V.A. and Uman, M.A. (1997) Distribution of charge along the lightning channel: Relation to remote electric and magnetic fields and to return-stroke models. *J. Geophys. Res. Atmospheres* **102**, 6987–7006. => AEL2332
4976. Thottappillil, R., Uman, M.A. and Rakov, V.A. (1998) Treatment of retardation effects in calculating the radiated electromagnetic fields from the lightning discharge. *J. Geophys. Res. Atmospheres* **103**, 9003–9013. => AEL2253
4977. Thrane, K.E. (1987) *Ambient air concentrations of polycyclic aromatic hydrocarbons, fluoride, suspended particles and particulate carbon in areas near aluminium production plants.* => AEL0583
4978. Thrane, K.E. (1988) Application of air pollution models: A comparison of different techniques for estimating ambient air pollution levels and source contributions. *Atmos. Environ.* **22**, 587–594. => AEL2116
4979. Thuillard, M. (1995) Electric mobility measurements of small ions in the temperature range -40–20°C at constant relative humidity of 87%. *J. Aerosol Sci.* **26**, 219–225. => HT0816
4980. Tian, Y., Dickinson, R.E., Zhou, L., Zeng, X., Dai, Y., Myneni, R.B., Knyazikhin, Y., Zhang, X., Friedl, M., Yu, H., Wu, W. and Shaikh, M. (2004) Comparison of seasonal and spatial variations of leaf area index and fraction of absorbed photosynthetically active radiation from Moderate Resolution Imaging Spectroradiometer (MODIS) and Common Land Model. *J. Geophys. Res. Atmospheres* **109**, D01103– doi:10.1029/2003JD003777, 2004. => AEL4112
4981. Tie, X., Brasseur, G., Emmons, L., Horowitz, L. and Kinnison, D. (2001) Effects of aerosols on tropospheric oxidants: A global model study. *J. Geophys. Res. Atmospheres* **106**, 22931–22964. => AEL3553

4982. Tie, X., Emmons, L., Horowitz, L., Brasseur, G., Ridley, B., Atlas, E., Stround, C., Hess, P., Klonecki, A., Madronich, S., Talbot, R. and Dibb, J. (2003) Effect of sulfate aerosol on tropospheric NO<sub>x</sub> and ozone budgets: Model simulations and TOPSE evidence. *J. Geophys. Res. Atmospheres* **108**, 8364– doi:10.1029/2001JD001508, 2003. => AEL3956
4983. Tikhonov, A.N. (1963) O regularizatsii nekorrektno postavlennykh zadach (in Russian). *Doklady AN SSSR* **153**, 49–52. => HT0282
4984. Tikhonov, A.N. (1963) O reshenii nekorrektno postavlennykh zadach i metode regularizatsii (in Russian). *Doklady AN SSSR* **151**, 501–504. => HT0286
4985. Tikhonov, A.N., Arsenin, V.Ya., Vladimirov, L.A., Doroshenko, G.G. and Dumova, A.A. (1965) K voprosu ob obrabotke spektrov -kvantov i bystrykh neitronov (in Russian). *Izv.Akad.Nauk SSSR.Seriya Fizicheskaya* **29**, 815–818. => HT0269
4986. Tille, K.J.W., Savelsberg, M. and Bächmann, K. (1985) Airborne measurements of nonmethane hydrocarbons over Western Europe: vertical distributions, seasonal cycles of mixing ratios and source strengths. *Atmos. Environ.* **19**, 1751–1760. => AEL0543
4987. Timmreck, C. (2001) Three-dimensional simulation of stratospheric background aerosol: First results of a multiannual general circulation model simulation. *J. Geophys. Res. Atmospheres* **106**, 28313–28332. => AEL3580
4988. Tinsley, B.A. (1996) *Correlations of atmospheric dynamics with solar wind induced changes of air-earth current density into cloud tops. Käsikiri.* => HT1188
4989. Tinsley, B.A. (2000) Influence of solar wind on the global electric circuit, and inferred effects on cloud microphysics, temperature, and dynamics in the troposphere. *Space Science Reviews* **00**, 1–28. => HT1460
4990. Tinsley, B.A. and Beard, K.V. (1999) *Proposed mechanism for effects of global electric circuit on cloud microphysics. Käsikiri.* => HT1297
4991. Tinsley, B.A., Hoeksema, J.T. and Baker, D.N. (1994) Stratospheric volcanic aerosols and changes in air-earth current density at solar wind magnetic sector boundaries as conditions for the Wilcox tropospheric vorticity effect. *Journal of Geophysical Research* **99**, 16805–16813. => HT0752
4992. Tinsley, B.A., Liu, W., Rohrbaugh, R.P. and Kirkland, M.W. (1997) *South Pole electric field responses to overhead ionospheric convection.* => HT1198
4993. Tinsley, B.A., Liu, W., Rohrbaugh, R.P. and Kirkland, M.W. (1998) South Pole electric field responses to overhead ionospheric convection. *J. Geophys. Res. Atmospheres* **103**, 26137–26146. => AEL2814
4994. Tirabassi, T., Tagliazuca, M. and Paggi, P. (1989) A climatological model of dispersion in an inhomogeneous boundary layer. *Atmos. Environ.* **23**, 857–862. => AEL0329
4995. Tisler, P. and Savijärvi, H. (2002) On the parameterization of precipitation in warm clouds. *Atmos. Res.* **63**, 163–176. => AEL3821
4996. Tobias, H.J., Kooiman, P.M., Docherty, K.S. and Ziemann, P.J. (2000) Real-time chemical analysis of organic aerosols using a thermal desorption particle beam mass spectrometer. *Aerosol Sci. Technol.* **33**, 170–190. => AEL3346
4997. Todd, M.C. and Kniveton, D.R. (2001) Changes in cloud cover associated with Forbush decreases of galactic cosmic rays. *J. Geophys. Res. Atmospheres* **106**, 32031–32041. => AEL3609
4998. Tokuhashi, K., Takahashi, A., Kaise, M. and Kondo, S. (1999) Rate constants for the reactions of OH radicals with CH<sub>3</sub>OCF<sub>2</sub>CHFCl, CHF<sub>2</sub>OCF<sub>2</sub>CHFCl, CHF<sub>2</sub>OCHClCF<sub>3</sub>, and CH<sub>3</sub>CH<sub>2</sub>OCF<sub>2</sub>CHF<sub>2</sub>. *J. Geophys. Res. Atmospheres* **104**, 18681–18688. => AEL3005

4999. Toland, R.B. and Vonnegut, B. (1977) Measurement of electric field intensities over water during thunderstorms. *J. Geophys. Res.* **82**, 438–440. => AEL0330
5000. Tolfo, F. (1977) A simplified model of aerosol coagulation. *J. Aerosol Sci.* **8**, 9–19. => AEL0331
5001. Tolman, R.C. (1949) The effect of droplet size on surface tension. *The Journal of Chemical Physics* **17**, 333–337. => AEL1289
5002. Tolocka, M.P., Solomon, P.A., Mitchell, W., Norris, G.A., Gemmill, D.B., Wiener, R.W., Vanderpool, R.W., Homolya, J.B. and Rice, J. (2001) East versus West in the US: Chemical characteristics of PM<sub>2.5</sub> during the winter of 1999. *Aerosol Sci. Technol.* **34**, 88–96. => AEL3366
5003. Tomaidēs, M., Liu, B.Y.H. and Whitby, K.T. (1971) Evaluation of the condensation aerosol generator for producing monodispersed aerosols. *J. Aerosol Sci.* **2**, 39–46. => AEL0332
5004. Tomasi, J. (1982) 3. Electrostatic molecular potential model and its application to the study of molecular aggregations. *Molecular Interactions. Ed by H. Ratajczak and W.J. Orville-Thomas*, John Wiley & Sons, Ltd., **3**, pp. 119–181. => AEL0988
5005. Tompson, R.V. and Loyalka, S.K. (1986) Condensational growth of a spherical droplet: Free molecular limit. *J. Aerosol Sci.* **17**, 723–728. => AEL3900
5006. Tong, Y. and Lighthart, B. (1999) Diurnal distribution of total and culturable atmospheric bacteria at a rural site. *Aerosol Sci. Technol.* **30**, 246–254. => AEL2860
5007. Toohey, R.E., Essling, M.A., Rundo, J. and Hengde, W. (1984) Measurements of the deposition rates of radon daughters on indoor surfaces. *Radiation Protection Dosimetry* **7**, 143–146. => AEL2455
5008. Tooming, H. and Kadaja, J. (1997) Keeristorme näeb Eestis tihti (in Estonian). *Eesti Päevaleht*. => HT1533
5009. Toon, O.B., Kasting, J.F., Turco, R.P. and Liu, M.S. (1987) The sulfur cycle in the marine atmosphere. *J. Geophys. Res.* **92**, 943–963. => AEL1450
5010. Toon, O.B., Turco, R.P., Hamill, P., Kiang, C.S. and Whitten, R.C. (1979) A one-dimensional model describing aerosol formation and evolution in the stratosphere: II. Sensitivity studies and comparison with observations. *Journal of the Atmospheric Sciences* **36**, 718–. => AEL0529
5011. Toracinta, E.R., Mohr, K.I., Zipser, E.J. and Orville, R.E. (1996) A comparison of WSR-88D reflectivities, SSM/I brightness temperatures, and lightning for mesoscale convective systems in Texas. Part I: Radar reflectivity and lightning. *J. Appl. Meteorol.* **35**, 902–918. => HT1099
5012. Toraldo di Francia, G. (1955) Resolving power and information. *J. of the Optical Society of America* **45**, 497–501. => HT0240
5013. Torres, O. and Bhartia, P.K. (1999) Impact of tropospheric aerosol absorption on ozone retrieval from backscattered ultraviolet measurements. *J. Geophys. Res. Atmospheres* **104**, 21569–21577. => AEL3014
5014. Torres, O., Bhartia, P.K., Herman, J.R., Ahmad, Z. and Gleason, J. (1998) Derivation of aerosol properties from satellite measurements of backscattered ultraviolet radiation: Theoretical basis. *J. Geophys. Res. Atmospheres* **103**, 17099–17110. => AEL4043
5015. Torres, O., Bhartia, P.K., Herman, J.R., Sinyuk, A., Ginoux, P. and Holben, B. (2002) A long-term record of aerosol optical depth from TOMS observations and comparison to AERONET measurements. *J. Atmos. Sci.* **59**, 398–413. => AEL4044
5016. Torreson, O.W. and Wait, G.R. (1934) Measurements of total nuclei, of uncharged nuclei, and of large ions in the free atmosphere at Washington, D. C. *Terr. Magn. Atmos. Electr.* **39**, 47–64. => AEL3395

5017. Tovbin, M.V., Tchesha, I.I. and Gelman, L.A. (1973) Investigation of the crystallizing action of the high-molecular compounds. *Int. Conference on Weather Modification. Book of Abstracts*, Moscow, pp. 119–119. => HT0155
5018. Toxvaerd, S. (1971) Perturbation theory for nonuniform fluids: Surface tension. *The Journal of Chemical Physics* **55**, 3116–3120. => AEL1692
5019. Trakhtengerts, V.Y. (1994) Generation mechanism of polar mesosphere summer echoes. *J. Geophys. Res. Atmospheres* **99**, 21083–21088. => HT1107
5020. Trakhtengerts, V.Yu. (1989) O prirode elektricheskikh yacheek v grozovom oblake (in Russian). *Dokl.AN SSSR* **308**, 584–586. => HT0508
5021. Trakhtengerts, V.Yu. *Elektrodinamicheskie mekhanizmy generatsii atmosfernogo elektrichestva. Manuscript* (in Russian). => HT0509
5022. Trautner, F., Pohlmann, G., Reis, M., Repsold, U., Hietel, B., Schulz, F., Tschiersch, J. and Holländer, W. (1992) Determination of the size segregated chemical composition and on line size distribution measurement of aerosol during cloud formation. *J. Aerosol Sci.* **23**, S937–S940. => AEL0923
5023. Treial, H. (1997) Õhuseire aitab vältida vigu (in Estonian). *Sõnumileht*. => HT1216
5024. Treiger, B., Bondarenko, I., Van Espen, P., Van Grieken, R. and Adams, F. (1994) Classification of mineral particles by nonlinear mapping of electron microprobe energy dispersive X-ray spectra. *Analyst* **119**, 971–974. => AEL2358
5025. Tremblay, R.J., Leclerc, A., Mathieu, C., Pepin, R. and Townsend, M.G. (1979) Measurement of radon progeny concentration in air by alpha-particle spectrometric counting during and after air sampling. *Health Phys.* **36**, 401–411. => AEL1220
5026. Trent, E.M. and Gathman, S.G. (1972) Oceanic thunderstorms. *Pure and Applied Geophysics* **100**, 60–69. => HT0786
5027. Trent, E.M. and Gathmann, S.G. (1972) Oceanic thunderstorms. *Pure and Applied Geophysics* **100**, 60–69. => HT0050
5028. Trentmann, J., Andreae, M.O. and Graf, H.-F. (2003) Chemical processes in a young biomass-burning plume. *J. Geophys. Res. Atmospheres* **108**, 4705–  
doi:10.1029/2003JD003732. => AEL4089
5029. Trimborn, A., Hinz, K.-P. and Spengler, B. (2000) Online analysis of atmospheric particles with a transportable laser mass spectrometer. *Aerosol Sci. Technol.* **33**, 191–201. => AEL3347
5030. Trinkaus, H. (1983) Theory of the nucleation of multicomponent precipitates. *Physical Review B* **27**, 7372–7378. => AEL3835
5031. Tripathi, R.M., Khandekar, R.N., Raghunath, R. and Mishra, U.C. (1989) Short communication. Assessment of atmospheric pollution from toxic heavy metals in two cities in India. *Atmos. Environ.* **23**, 879–883. => AEL0333
5032. Tripathi, S.N. and Harrison, R.G. (1998) Dry deposition of electrically charged aerosols. *J. Aerosol Sci.* **29**, S809–S809. => HT1346
5033. Tripathi, S.N. and Harrison, R.G. (2001) Scavenging of electrified radioactive aerosol. *Atmos. Environ.* **35**, 5817–5821. => HT1374
5034. Troe, J. (1977) Theory of thermal unimolecular reactions at low pressures. I. Solutions of the master equation. *J. Chem. Phys.* 4745–4757. => AEL0574
5035. Troe, J. (2003) Toward a quantitative analysis of association reactions in the atmosphere. *Chemical Reviews* **103**, 4565–4576. => AEL4051

5036. Tropp, R.J., Brock, J.R. and Kuhn, P.J. (1981) Spectral analysis of tropospheric aerosol measurements. *Science* **213**, 651–653. => AEL0334
5037. Trujillo-Ventura, A. and Ellis, J.H. (1991) Multiobjective air pollution monitoring network design. *Atmos. Environ.* **25A**, 469–479. => AEL2131
5038. Tsai, P.-J., Vincent, J.H., Mark, D. and Maldonado, G. (1995) Impaction model for the aspiration efficiencies of aerosol samplers in moving air under orientation-averaged conditions. *Aerosol Sci. Technol.* **22**, 271–286. => AEL1423
5039. Tsay, S.-C., Stephens, G.L. and Greenwald, T.J. (1991) An investigation of aerosol microstructures on visual air quality. *Atmos. Environ.* **25A**, 1039–1053. => AEL2000
5040. Tschetaev, D.N., Morghounov, V.A., Schamanin, S.V. und Lependin, V.P. (1976) Über einen durch die Sonnenaktivität Bedingten Effekt in der Erdatmosphäre. *Phys. Solariterr.* 93–96. => HT0095
5041. TSI (Comp.) *Instruction manual for model 3050 Berglund-Liu vibrating orifice monodisperse aerosol generator*. Thermo-Systems Inc., => AEL1002
5042. Tsvang, L.R. and Gutman, L.N. (1958) Izmerenie spektra legkikh atmosferykh ionov (in Russian). *Izv. AN SSSR ser. geofizicheskaya* 891–902. => AEL3387
5043. Tsvang, L.R. and Komarov, N.N. (1959) Issledovanie spektra legkikh ionov v svobodnoi atmosfere (in Russian). *Izv. AN SSSR ser. geofizicheskaya* 1167–1176. => AEL3386
5044. Tsvang, L.R. and Komarov, N.N. (1959) Issledovanie spektra legkikh ionov v svobodnoi atmosfere (in Russian). *Izvestiya Akademii Nauk SSSR geofizika* 1167–1176. => AEL4142
5045. Tsyrlin, L.E. (1956) Nekotorye voprosy matematicheskoi teorii koronnogo razryada pri postoyannom napryazhenii (in Russian). *Zh.Tekhn.Fiz.* **26**, 2524–2538. => HT0328
5046. Tu K.W., Knutson, E.O. and George, A.C. (1991) Indoor radon progeny aerosol size measurements in urban, suburban, and rural regions. *Aerosol Sci. Technol.* **15**, 170–178. => AEL1198
5047. Tu K.-W., Knutson, E.O. and George, A.C. (1994) Thoron versus radon: comparison of measured progeny aerosol size distributions. *Aerosol Sci. Technol.* **20**, 266–274. => AEL1214
5048. Tuazon, E.C., Carter, W.P.L., Atkinson, R., Winer, A.M., Pitts, J.N. and Jr. (1984) Atmospheric reactions of N-nitrosodimethylamine and dimethylnitramine. *Environmental Science and Technology* **18**, 49–54. => AEL0481
5049. Tuch, Th., Mirme, A., Tamm, E., Heinrich, J., Heyder, J., Brand, P., Roth, Ch., Wichmann, H.E., Pekkanen, J. and Kreyling, W.G. (2000) Comparison of two particle-size spectrometers for ambient aerosol measurements. *Atmos. Environ.* **34**, 139–149. => HT1390
5050. Tuck, A.F. and Hovde, S.J. (1999) Fractal behavior of ozone, wind and temperature in the lower stratosphere. *Geophys. Res. Lett.* **26**, 1271–1274. => AEL3976
5051. Tuomi, R., Haigh, J.D. and Law, K.S. (1996) A tropospheric ozone-lightning climate feedback. *Geophys. Res. Lett.* **23**, 1037–1040. => HT1238
5052. Tuomi, T. (1980) Atmospheric electrode effect: Approximate theory and wintertime observations. *Pure and Applied Geophysics* **119**, 31–45. => HT0810
5053. Tuomi, T. (1996) *A summary of Finnish lightning summer this year and plans for a future replacement by possible new LLP system. INTAS seminar. Manuscript*. Uppsala. => HT1120
5054. Tuomi, T.J. (1960) On the accuracy and detection efficiency of a lightning location system of four direction finders. *Geophysica* **26**, 1–16. => HT0580
5055. Tuomi, T.J. (1989) Ten year summary 1977-1986 of atmospheric electricity measured at Helsinki-Vantaa airport, Finland. *Geophysica* **25**, 1–20. => HT0540

5056. Tuomi, T.J. (1993) Pallosalaman arvoitus. *Tähdet ja Avaruus* **23**, 12–15. => HT0782
5057. Turchin, V.F. (1968) Vybor ansamblya gladkikh funktsii pri reshenii obratnoi zadachi (in Russian). *ZhVM i MF* 230–238. => HT0278
5058. Turchin, V.F. and Nozik, V.Z. (1969) *Algoritmy resheniya nekorrektnykh zadach metodom statisticheskoi regulyarizatsii*. => HT0337
5059. Turchin, V.F. and Nozik, V.Z. (1969) Statischeckaya regulyarizatsiya resheniya nekorrektnykh zadach (in Russian). *Fiz.Atmosfery i Okeana* **5**, 29–38. => HT0287
5060. Turchin, V.F. and Turovtseva, L.S. (1974) Vostanovlenie opticheskikh spektrov i drugikh neotritsatelnykh funktsii po metodu staatisticheskoi regulyarizatsii (in Russian). *Optika i Spektroskopiya* **36**, 280–286. => HT0285
5061. Turchin, V.F., Kozlov, V.P. and Malkevich, M.S. (1970) Ispolzovanie metodov matematicheskoi statistiki dlya resheniya nekorrektnykh zadach (in Russian). *Uspekhi Fiz.Nauk* **102**, 345–386. => HT0288
5062. Turco, R.P. and Yu, F. (1998) Aerosol size distribution in a coagulating plume: Analytical behavior and modeling applications. *Geophys. Res. Lett.* **25**, 927–930. => AEL2954
5063. Turco, R.P. and Yu, F. (1999) Particle size distributions in an expanding plume undergoing simultaneous coagulation and condensation. *J. Geophys. Res. Atmospheres* **104**, 19227–19241. => AEL3009
5064. Turco, R.P., Hamill, P., Toon, O.B., Whitten, R.C. and Kiang, C.S. (1979) A one-dimensional model describing aerosol formation and evolution in the stratosphere: I. Physical processes and mathematical analogs. *Journal of the Atmospheric Sciences* **36**, 699–717. => AEL0553
5065. Turco, R.P., Whitten, R.C. and Toon, O.B. (1982) Stratospheric aerosols: Observation and theory. *Reviews of Geophysics and Space Physics* **20**, 233–. => AEL0572
5066. Turco, R.P., Zhao, J.-X. and Yu, F. (1998) A new source of tropospheric aerosols: Ion-ion recombination. *Geophys. Res. Lett.* **25**, 635–638. => AEL2955
5067. Turekian, V.C., Graustein, W.C. and Turekian, K.K. (1999) The  $^{214}\text{Bi}$  to  $^{214}\text{Pb}$  ratio in lower boundary layer aerosols and aerosol residence times at New Haven, Connecticut. *J. Geophys. Res. Atmospheres* **104**, 11593–11598. => AEL2975
5068. Turk, A., Sakalis, E., Lessuck, J., Karamitsos, H. and Rago, O. (1989) Ammonia injection enhances capacity of activated carbon for hydrogen sulfide and methyl mercaptan. *Environ. Sci. Technol.* **23**, 1242–1245. => AEL0671
5069. Turn, S.Q., Jenkins, B.M., Chow, J.C., Pritchett, L.C., Campbell, D., Cahill, T. and Whalen, S.A. (1997) Elemental characterization of particle matter emitted from biomass burning: Wind tunnel derived source profiles for herbaceous and wood fuels. *J. Geophys. Res. Atmospheres* **102**, 3683–3699. => AEL2185
5070. Turner, J.R., Kodas, T.T. and Friedlander, S.K. (1987) Monodisperse particle production by vapor condensation in nozzles. *J. Chem. Phys.* **88**, 457–465. => AEL1640
5071. Turner, R.B. and Brokenshire, J.L. (1994) Hand-held ion mobility spectrometers. *Trends in Analytical Chemistry* **13**, 275–280. => AEL1345
5072. Turpin, B.J. and Lim, H.-J. (2001) Species contributions to PM<sub>2.5</sub> mass concentrations: Revisiting common assumptions for estimating organic mass. *Aerosol Sci. Technol.* **35**, 602–610. => AEL3500
5073. Turšič, J., Berner, A., Podkrajšek, B. and Grgič, I. (2004) Influence of ammonia on sulfate formation under haze conditions. *Atmos. Environ.* **38**, 2789–2795. => AEL4135



5074. Turubarov, V.I. (1979) Opredelenie parametrov raspredeleniya dispersnoi fazy aerolya po ee integralnym kharakteristikam (in Russian). *Trudy LIAP*, Leningrad, **1(136)**, pp. 3–5. => HT0592
5075. Turubarov, V.I. (1979) Soderzhanie (in Russian). *Trudy LIAP*, Leningrad, **1(136)**, pp. 128–1329. => HT0593
5076. Turunen, M. (1996) *Responses of Scots pine needle surfaces to air pollutants*. Acta Universitatis Ouluensis, Oulu. => HT1186
5077. Twomey, S. (1966) Indirect measurements of atmospheric temperature profiles from satellites: II. Mathematical aspects of the inversion problem. *Monthly Weather Review* **94**, 363–366. => HT0255
5078. Twomey, S. (1976) Aerosol size distributions by multiple filter measurements. *J. Atmos. Sci.* **33**, 1073–1079. => AEL0909
5079. Twomey, S. and Thorndike, N.S.C. (1973) A simple pneumatic air control valve. *J. Aerosol Sci.* **4**, 283–285. => AEL0335
5080. Twomey, S.A. and Zalabsky, R.A. (1981) Multifilter technique for examination of the size distribution of the natural aerosol in the submicrometer size range. *Environ. Sci. Technol.* **15**, 177–178. => AEL0946
5081. Tymen, G., El Moussaoui, B. and Renoux, A. (1989) Dynamics of Rn-222 daughter size distribution evolution: Modelling and experimental aspects. *J. Aerosol Sci.* **20**, 1413–1416. => AEL2481
5082. Tyndall, A.M., Starr, L.H. and Powell, C.F. (1928) The mobility of ions in air. Part IV. Investigations by two new methods. *Proc. Roy. Soc.* **A121**, 172–184. => AEL3377
5083. Tyndall, A.M., Starr, L.H. and Powell, C.F. (1928) The mobility of ions in air. Part IV. Investigations by two new methods. *Proc. Roy. Soc.* **A121**, 172–184. => HT-F073
5084. Tyndall, G.S., Cox, R.A., Granier, C., Lesclaux, R., Moortgat, G.K., Pilling, M.J., Ravishankara, A.R. and Wallington, T.J. (2001) Atmospheric chemistry of small organic peroxy radicals. *J. Geophys. Res. Atmospheres* **106**, 12157–12182. => AEL3468
5085. Tyson, P.D., Garstang, M., Swap, R., Kallberg, P. and Edwards, M. (1996) An air transport climatology for subtropical Southern Africa. *Int. J. Climatology* **16**, 265–291. => AEL1547
5086. Tzivion (Tzitzvashvili), S., Feingold, G. and Levin, Z. (1987) An efficient numerical solution to the stochastic collection equation. *Journal of the Atmospheric Sciences* **44**, 3139–. => AEL0599
5087. Tzivion, S., Feingold, G. and Levin, Z. (1989) The evolution of raindrop spectra. Part II: Collisional collection/breakup and evaporation in a rainshaft. *Journal of Atmospheric Sciences* **46**, 3312–3327. => HT0476
5088. Uchtmann, H., Dettmer, R., Baranovskii, S.D. and Hensel, F. (1998) Photoinduced nucleation in supersaturated mercury vapor. *J. Chem. Phys.* **108**, 9775–9782. => AEL3882
5089. Ude, S., Gamero-Castano, M. and de la Mora, J.F. *Effect of charge on the mobility of singly and multiply charged clusters and macromolecules*. => HT1597
5090. Udelhofen, P.M., Gies, P., Roy, C. and Randel, W.J. (1999) Surface UV radiation over Australia, 1979–1992: Effects of ozone and cloud cover changes on variations of UV radiation. *J. Geophys. Res. Atmospheres* **104**, 19135–19159. => AEL3007
5091. Uematsu, M., Sugita, T., Anikiev, V.V. and Medvedev, A.N. (1992) Large-scale transport of pollution aerosol over the east coast of Asia. *Geophys. Res. Lett.* **19**, 2219–2221. => AEL1778

5092. Uematsu, M., Yoshikawa, A., Muraki, H., Arao, K. and Uno, I. (2002) Transport of mineral and anthropogenic aerosols during a Kosa event over East Asia. *J. Geophys. Res. Atmospheres* **107**, AAC3 1–7. => AEL3645
5093. Ulrych, T.J. (1972) Maximum entropy power spectrum of truncated sinusoids. *J. Geophys. Research* **77**, 1396–1400. => HT0254
5094. Uman, M.A. (1974) Calculation of the electric and magnetic fields produced by close lightning. *Fifth International Conference on Atmospheric Electricity Garmisch-Partenkirchen, September 2-7, 1974*, pp. 1–19. => HT1181
5095. Uman, M.A. (2010) *The art and science of lightning protection*, pp. 20-23, 78-83. => HT1562
5096. Uman, M.A. and Thottappillil, R. (1992) Lightning return stroke models. *ICAE '92. Käsikiri*, pp. 1–9. => HT0995
5097. Underhill, D.W. (1993) Basic theory for the diffusive sampling of radon. *Health Phys.* **65**, 17–24. => AEL1205
5098. Upschulte, B.L., Shul, R.J., Passarella, R., Keesee, R.G. and Castleman, A.W.Jr. (1987) Diagnostics of flow tube techniques for ion/molecule reactions. *Int. J. Mass Spectrom. Ion Proc.* **75**, 27–45. => AEL0969
5099. *Urban pollution measurement with a Gerdien condenser. Võrguväljaanne* (1997) <http://www.met.rdg.ac.uk>,. => HT1244
5100. Ushio, T., Kawasaki, Z.-I., Matsu-ura, K. and Wang, D. (1998) Electric fields of initial breakdown in positive ground flash. *J. Geophys. Res. Atmospheres* **103**, 14135–14139. => AEL2282
5101. Vainshtein, L.A. (1972) Filtratsiya pomekh pri chislenom reshenii integralnykh uravnenii pervogo roda (in Russian). *Doklady AN SSSR* **204**, 1067–1070. => HT0274
5102. Vainshtein, L.A. (1972) O chislenom reshenii integralnykh uravnenii pervogo roda s ispolzovaniem apriornykh svedenii o vosstanavlivaemoi funkuii (in Russian). *Doklady AN SSSR* **204**, 1331–1334. => HT0275
5103. Väkevä, M., Hämeri, K. and Aalto, P.P. (2002) Hygroscopic properties of nucleation mode and Aitken mode particles during nucleation bursts and in background air on the west coast of Ireland. *J. Geophys. Res. Atmospheres* **107**, 8104 doi:10.1029/2000JD000176–2002. => AEL3792
5104. Väkevä, M., Hämeri, K., Puhakka, T., Nilsson, E.D., Hohti, H. and Mäkelä, J.M. (2000) Effects of meteorological processes on aerosol particle size distribution in an urban background area. *J. Geophys. Res. Atmospheres* **105**, 9807–9821. => AEL3205
5105. Valentine, S.J., Counterman, A.E. and Clemmer, D.E. (1999) A database of 660 peptide ion cross sections: Use of intrinsic size parameters for bona fide predictions of cross sections. *J. Amer. Soc. Mass Spectrom.* **10**, 1188–1211. => AEL3376
5106. Valentine, S.J., Counterman, A.E. and Clemmer, D.E. (1999) A database of 660 peptide ion cross sections: Use of intrinsic size parameters for bona fide predictions of cross sections. *J. Amer. Soc. Mass Spectrom.* **10**, 1188–1211. => HT1326
5107. van Bochove, E., Thériault, G., Rochette, P., Jones, H.G. and Pomeroy, J.W. (2001) Thick ice layers in snow and frozen soil affecting gas emissions from agricultural soils during winter. *J. Geophys. Res. Atmospheres* **106**, 23061–23071. => AEL3556
5108. Van Borm, W.A. and Adams, F.C. (1988) Cluster analysis of electron microprobe analysis data of individual particles for source apportionment of air particulate matter. *Atmos. Environ.* **22**, 2297–2307. => AEL2355

5109. Van Borm, W.A., Adams, F.C. and Maenhaut, W. (1989) Characterization of individual particles in the Antwerp aerosol. *Atmos. Environ.* **23**, 1139–1151. => AEL0680
5110. Van Borm, W.A., Adams, F.C. and Maenhaut, W. (1989) Characterization of individual particles in the Antwerp aerosol. *Atmos. Environ.* **23**, 1139–1151. => AEL2709
5111. van den Berg, A., Dentener, F. and Lelieveld, J. (2000) Modeling the chemistry of the marine boundary layer: Sulphate formation and the role of sea-salt aerosol particles. *J. Geophys. Res. Atmospheres* **105**, 11671–11698. => AEL3211
5112. van den Broek, M.M.P., Bregman, A. and Lelieveld, J. (2000) Model study of stratospheric chlorine activation and ozone loss during the 1996/1997 winter. *J. Geophys. Res. Atmospheres* **105**, 28961–28977. => AEL3278
5113. van der Avoird, A., Wormer, P.E.S., Mulder, F. and Berns, R.M. (1980) Ab initio studies of the interactions in van der Waals molecules. *Topics in Current Chemistry* **93**, 1–51. => AEL0336
5114. van der Hage, J.C.H. and de Bruin, T.F. (1988) Charge distribution on the atmospheric aerosol over the North Atlantic and the Indian Ocean. *Pure Appl. Geophys.* **127**, 657–667. => AEL3538
5115. van der Spoel, D., Maaren, P.J. and Berendsen, H.J.C. (1998) A systematic study of water models for molecular simulation: Derivation of water models optimized for use with a reaction field. *J. Chem. Phys.* **108**, 10220–10230. => AEL3126
5116. Van der Vooren, A.W., Busigin, A. and Phillips, C.R. (1982) An evaluation of unattached radon (and thoron) daughter measurement techniques. *Health Physics* **42**, 801–808. => AEL2482
5117. van Dijk, S.M. and Duyzer, J.H. (1999) Nitric oxide emissions from forest soils. *J. Geophys. Res. Atmospheres* **104**, 15955–15961. => AEL2994
5118. Van Dingenen, R. and Raes, F. (1991) Determination of the condensation accommodation coefficient of sulfuric acid on water-sulfuric acid aerosol. *Aerosol Sci. Technol.* **15**, 93–106. => AEL1670
5119. Van Dingenen, R., Mangoni, M., Putaud, J.-P. and Wätjen, U. (1996) Ultrafine number size distribution measurements and chemical characterisation of the aerosol over the Atlantic Ocean between 40°N and 40°S. In *Nucleation and atmospheric aerosols*, edited by Kulmala, M. and Wagner, P.E., Pergamon, pp. 439–442. => HT1163
5120. Van Dingenen, R., Raes, F., Putaud, J.-P., Baltensperger, U., Charron, A., Facchini, M.-C., Decesari, S., Fuzzi, S., Gehrig, R., Hansson, H.-C., Harrison, R.M., Hüglin, C., Jones, A.M., Laj, P., Lorbeer, G., Maenhaut, W., Palmgren, F., Querol, X., Rodriguez, S., Schneider, J., ten Brink, H., Tunved, P., Tørseth, K., Wehner, B., Weingartner, E., Wiedensohler, A. and Wählin, P. (2004) A European aerosol phenomenology - 1: physical characteristics of particulate matter at kerbside, urban, rural and background sites in Europe. *Atmos. Environ.* **38**, 2561–2577. => AEL4132
5121. Van Dingenen, R., Raes, F., Putaud, J.-P., Virkkula, A. and Mangoni, M. (1999) Processes determining the relationship between aerosol number and non-sea-salt sulfate mass concentrations in the clean and perturbed marine boundary layer. *J. Geophys. Res. Atmospheres* **104**, 8027–8038. => AEL2885
5122. van Dorland, R., Dentener, F.J. and Lelieveld, J. (1997) Radiative forcing due to tropospheric ozone and sulfate aerosols. *J. Geophys. Res. Atmospheres* **102**, 28079–28100. => AEL2172
5123. Van Eyken, T. and Röttger, J. (Comp.) (1989) *EISCAT - European Incoherent Scatter Scientific Association. Annual report 1989*. Kiruna. => HT0479

5124. Van Hove, L.W.A., Adema, E.H., Vredenberg, W.J. and Pieters, G.A. (1989) A study of the adsorption of  $\text{NH}_3$  and  $\text{SO}_2$  on leaf surfaces. *Atmos. Environ.* **23**, 1479–1486. => AEL0650
5125. Van Koppen, P.A.M., Jarrold, M.F., Bowers, M.T., Bass, L.M. and Jennings, K.R. (1984) Ion-molecule association reactions: A study of the temperature dependence of the reaction  $\text{N}_2^+ + \text{N}_2 + \text{M} \rightarrow \text{N}_4^+ + \text{M}$  for  $\text{M}=\text{N}_2, \text{Ne},$  and  $\text{He}$ : Experiment and theory. *J. Chem. Phys.* **81**, 288–297. => AEL1384
5126. Van Neste, A., Duce, R.A. and Lee, C. (1987) Methylamines in the marine atmosphere. *Geophys. Res. Lett.* **14**, 711–714. => AEL1292
5127. Van Valin, C.C. and Ganor, E. (1987) Air pollution measurements at the Boulder Atmospheric Observatory. *Water, Air, and Soil Pollution* **35**, 357–372. => AEL3409
5128. van Velthoven, P.F.J. and Kelder, H. (1996) Estimates of stratosphere-troposphere exchange: Sensitivity to model formulation and horizontal resolution. *J. Geophys. Res.* **101**, 1429–1434. => AEL1816
5129. Vana, M. and Tamm, E. (1998) Study of the aerosol size spectrum transformation by synchronized monitoring of atmospheric aerosol. *J. Aerosol Sci.* **29**, S205–S206. => HT1338
5130. Vana, M., Tamm, E. and Viil, M. (1999) Experimental study of the air pollution transport by synchronised monitoring of atmospheric aerosols. *Atmos. Environ.* **33**, 4615–4628. => HT1376
5131. Vanderpool, R.W., Peters, T.M., Natarajan, S., Gemmill, D.B. and Wiener, R.W. (2001) Evaluation of the loading characteristics of the EPA WINS  $\text{PM}_{2.5}$  separator. *Aerosol Sci. Technol.* **34**, 444–456. => AEL3442
5132. Vanderpool, R.W., Peters, T.M., Natarajan, S., Tolocka, M.P., Gemmill, D.B. and Wiener, R.W. (2001) Sensitivity analysis of the USEPA WINS  $\text{PM}_{2.5}$  separator. *Aerosol Sci. Technol.* **34**, 465–476. => AEL3443
5133. Vandrish, G. and Lebel, A. (1986) *Techniques and equipment for residential radon monitoring. Presented to Air Pollution Control Association Conference on indoor Radon, Philadelphia, PA.* => HT1144
5134. Vanmarcke, H., Berkvens, P. and Poffijn, A. (1989) Radon versus Rn daughters. *Health Physics* **56**, 229–231. => AEL2483
5135. Vanmarcke, H., Berkvens, P., Poffijn, A. and Raes, F. (1988) Uncertainties in radon daughter measurement arising from fluctuations in room parameters. *Radiation Protection Dosimetry* **24**, 225–230. => AEL2477
5136. Vanmarcke, H., Landsheere, C., Van Dingenen, R. and Poffijn, A. (1991) Influence of turbulence on the deposition rate constant of the unattached radon decay products. *Aerosol Sci. Technol.* **14**, 257–265. => AEL1164
5137. Vanmarcke, H., Reineking, A., Porstendörfer, J. and Raes, F. (1988) Comparison of two methods for investigating indoor radon daughters. *Radiation Protection Dosimetry* **24**, 281–284. => AEL2515
5138. Vargaftik, N.B., Volkov, B.N. and Voljak, L.D. (1983) International tables of the surface tension of water. *J. Phys. Chem. Ref. Data* **12**, 817–820. => AEL3899
5139. Varma, G.S. (1989) Background trends of pH of precipitation over India. *Atmos. Environ.* **23**, 747–751. => AEL0337
5140. Várnai, T. and Marshak, A. (2003) A method for analyzing how various parts of clouds influence each other's brightness. *J. Geophys. Res. Atmospheres* **108**, 4706–doi:10.1029/2003JD003561. => AEL4084

5141. Varshneya, N.C. *On the study of the global electric circuit in the lower atmosphere : A perspective. Manuscript.* => HT0526
5142. Varshneya, N.C. *The atmosphere : Our sustenance. Manuscript.* => HT0525
5143. Vasconcelos, L.A.deP., Kahl, J.D.W., Liu, D., Macias, E.S. and White, W.H. (1996) Spatial resolution of a transport inversion technique. *J. Geophys. Res.* **101**, 19337–19342. => AEL1860
5144. Vasconcelos, L.A.deP., Kahl, J.D.W., Liu, D., Macias, E.S. and White, W.H. (1996) A tracer calibration of back trajectory analysis at the Grand Canyon. *J. Geophys. Res.* **101**, 19329–19335. => AEL1861
5145. Vasiliu, Gh., Calinicenco, N. and Mateicius, V. (1956) Contributiuni relativ la metodele intrebuintate in măsurarea conductibilității electrice a aerului. *Bul. Inst. Politehn. Iasi*, **2**, pp. 67–80. => HT-F065
5146. Vasudevan, L. and McLain, M.E. (1994) Atmospheric pressure effects on the calibration constant of alpha-track radon detectors. *Health Phys.* **66**, 318–326. => AEL1206
5147. Vatazhin, A., Lebedev, A., Likhter, V., Shulgin, V. and Sorokin, A. (1995) Turbulent air-stream jets with a condensed dispersed phase: theory, experiment, numerical modeling. *J. Aerosol Sci.* **26**, 71–93. => HT0855
5148. Vaughan, O.H. and Vonnegut, B. (1976) Luminous electrical phenomena associated with nocturnal tornadoes in Huntsville, Ala., 3 April 1974. *Bull. of the American Meteorological Society* **57**, 1220–1222. => HT0151
5149. Vaughan, O.H. and Vonnegut, B. (1976) Luminous electrical phenomena in Huntsville, Alabama, tornadoes on April 3, 1974. *NASA Technical Memorandum X-73301* 1–32. => HT0164
5150. Vecchi, R. and Valli, G. Radioactive aerosols monitoring: <sup>7</sup>Be daily measurements in surface air. *Käsikiri* 1–10. => HT0959
5151. Vehkamäki, H. and Ford, I.J. (2000) Critical cluster size and droplet nucleation rate from growth and decay simulations of Lennard-Jones clusters. *J. Chem. Phys.* **112**, 4193–4202. => AEL3847
5152. Vehkamäki, H., Kulmala, M., Napari, I., Lehtinen, K.E.J., Timmreck, C., Noppel, M. and Laaksonen, A. (2002) An improved parameterization for sulfuric acid–water nucleation rates for tropospheric and stratospheric conditions. *J. Geophys. Res. Atmospheres* **107**, 4622 doi:10.1029/2002JD002184–2002. => AEL3808
5153. Vehkamäki, H., Paatero, P., Kulmala, M. and Laaksonen, A. (1994) Binary nucleation kinetics: A matrix method. *J. Chem. Phys.* **101**, 9997–10002. => AEL1312
5154. Veismann, U., Min, M. and Usk, A. *Personaalarvuti rakendusvõimalustest mõõtetehnikas. Käsikiri* (in Estonian). => HT1217
5155. Veldre, I. (1960) Kalavarude uurimisele pühendatud välissõidusessioonid (in Estonian). *Eesti NSV Teaduste Akadeemia Toimetised. Bioloogiline Seeria* **9**, 192–192. => HT0017
5156. Veldre, I. (1960) Üleliiduline nõupidamine kalade arvukusdünaamika alal (in Estonian). *Eesti NSV Teaduste Akadeemia Toimetised. Bioloogiline Seeria* **9**, 190–192. => HT0017
5157. Vemury, S., Kusters, K.A. and Pratsinis, S.E. (1994) Time-lag for attainment of the self-preserving particle size distribution by coagulation. *J. Colloid Interface Sci.* **165**, 53–59. => AEL2393
5158. Venkataraman, C. and Friedlander, S.K. (1994) Size distributions of polycyclic aromatic hydrocarbons and elemental carbon. 2. Ambient measurements and effects of atmospheric processes. *Environ. Sci. Technol.* **28**, 563–572. => AEL2111

5159. Venkataraman, C., Lyons, J.M. and Friedlander, S.K. (1994) Size distributions of polycyclic aromatic hydrocarbons and elemental carbon. 1. Sampling, measurement methods, and source characterization. *Environ. Sci. Technol.* **28**, 555–562. => AEL2110
5160. Venkatram, A., Du, S., Hariharan, R., Carter, W. and Goldstein, R. (1998) The concept of species age in photochemical modeling. *Atmos. Environ.* **32**, 3403–3413. => AEL2729
5161. Verheggen, B. and Mozurkewich, M. (2002) Determination of nucleation and growth rates from observation of a SO<sub>2</sub> induced atmospheric nucleation event. *J. Geophys. Res. Atmospheres* **107**, AAC5 1–12. => AEL3656
5162. Verheggen, B. and Mozurkewich, M. (2006) An inverse modeling procedure to determine particle growth and nucleation rates from measured aerosol size distributions. *Atmos. Chem. Phys. Discuss.* **6**, 1679–1723. => HT1552
5163. Vershelde, H., Schelstraete, S., Vandekerckhove, J. and Vershelde, J.L. (1997) An effective potential for calculating free energies. I. General concepts and approximations. *J. Chem. Phys.* **106**, 1556–1568. => AEL3873
5164. Vesala, T. (1993) On droplet evaporation in the presence of a condensing substance: the effect of internal diffusion. *Int. J. Heat Mass Transfer* **36**, 695–703. => AEL2056
5165. Vesala, T. and Arstila, H. (1996) Comment on “Generalized Kelvin equation and the water content of a cloud”. *Physical Review E* **54**, 5868–5869. => AEL2074
5166. Vesala, T. and Kukkonen, J. (1992) A model for binary droplet evaporation and condensation, and its application for ammonia droplets in humid air. *Atmos. Environ.* **26A**, 1573–1581. => AEL2057
5167. Vesala, T. and Kulmala, M. (1993) Comparisons of uncoupled, film theoretical and exact solutions for binary droplet evaporation and condensation. *Physica A* **192**, 107–123. => AEL2071
5168. Vesala, T., Ahonen, T., Hari, P., Krissinel, E. and Shokhirev, N. (1996) Analysis of stomatal CO<sub>2</sub> uptake by a three-dimensional cylindrically symmetric model. *New Phytologist* **132**, 235–245. => AEL2058
5169. Vesala, T., Hannemann, A.U., Luo, B.P., Kulmala, M. and Peter, Th. (2001) Rigorous treatment of time-dependent trace gas uptake by droplets including bulk diffusion and surface accommodation. *J. Aerosol Sci.* **32**, 843–860. => AEL3820
5170. Vesala, T., Kulmala, M., Majerowicz, A. and Wagner, P.E. (1990) Binary condensation and evaporation in the continuum regime. *Aerosols, Science, Industry, Health and Environment. Proceedings of the Third International Aerosol Conference*, Pergamon Press, Oxford, **N-Y, Beijing, Frankfurt, Sao Paulo, Sydney, Tokyo, Toronto**, pp. 176–179. => HT0468
5171. Vette, A.F., Rea, A.W., Lawless, P.A., Rodes, C.E., Evans, G., Highsmith, V.R. and Sheldon, L. (2001) Characterization of indoor-outdoor aerosol concentration relationships during the Fresno PM Exposure Studies. *Aerosol Sci. Technol.* **34**, 118–126. => AEL3369
5172. Vidakovic, B.D., Katul, G.G. and Albertson, J.D. (2000) Multiscale denoising of self-similar processes. *J. Geophys. Res. Atmospheres* **105**, 27049–27058. => AEL3272
5173. Vidal, J.M. and Puigcerver, M. (1963) Keskmiste atmosfääriioonide spektri uurimus Barcelonas//Contribucion al estudio del espectro de los iones atmosfericos intermedios en Barcelona. Tõlge eesti keelde. *Revista de Geofisica* -. => HT0946
5174. Viehland, L.A. and Fahey, D.W. (1983) The mobilities of NO<sub>3</sub><sup>-</sup>, NO<sub>2</sub><sup>-</sup>, NO<sup>+</sup>, and Cl<sup>-</sup> in N<sub>2</sub>. A measure of inelastic energy loss. *J. Chem. Phys.* **78**, 435–441. => AEL1147
5175. Viehland, L.A. and Lin, S.L. (1979) Application of the three-temperature theory of gaseous ion transport. *Chemical Physics* **43**, 135–144. => AEL0338

5176. Viehland, L.A. and Mason, E.A. (1975) Gaseous ion mobility in electric fields of arbitrary strength. *Annals of Physics* **91**, 499–533. => AEL0341
5177. Viehland, L.A. and Mason, E.A. (1978) Gaseous ion mobility and diffusion in electric fields of arbitrary strength. *Annals of Physics* **110**, 287–328. => AEL0340
5178. Viehland, L.A. and Mason, E.A. (1979) On the choice of buffer gas mixtures for drift-tube studies of ion-neutral reactions. *J. Chem. Phys.* **70**, 2262–2265. => AEL0339
5179. Viehland, L.A. and Mason, E.A. (1995) Transport properties of gaseous ions over a wide energy range, IV. *Atomic Data and Nuclear Data Tables* **60**, 37–95. => AEL3200
5180. Viggiano, A.A. (1984) Three-body ion-molecule association rate coefficients as a function of temperature and cluster size:  $\text{NO}_3^-(\text{HNO}_3)_n + \text{HCl}^{\text{M}} \rightarrow \text{NO}_3^-(\text{HNO}_3)_n(\text{HCl})$ . *J. Chem. Phys.* **81**, 2639–2645. => AEL1381
5181. Viggiano, A.A. (1986) The temperature dependence of ion-molecule association rate coefficients in the low pressure limit. *J. Chem. Phys.* **84**, 244–249. => AEL0525
5182. Viggiano, A.A. (1993) *In situ* mass spectrometry and ion chemistry in the stratosphere and troposphere. *Mass Spectrometry Reviews* **12**, 115–137. => AEL3160
5183. Viggiano, A.A. and Arnold, F. (1981) The first height measurements of the negative ion composition of the stratosphere. *Planet. Space Sci.* **29**, 895–906. => AEL1460
5184. Viggiano, A.A. and Arnold, F. (1983) Stratospheric sulfuric acid vapor: new and updated measurements. *J. Geophys. Res.* **88**, 1457–1462. => AEL1440
5185. Viggiano, A.A. and Paulson, J.F. (1983) Temperature dependence of associative detachment reactions. *J. Chem. Phys.* **79**, 2241–2245. => AEL0963
5186. Viggiano, A.A., Dale, F. and Paulson, J.F. (1985) Measurements of some stratospheric ion-molecule association rates: Implications for ion chemistry and derived HNO<sub>3</sub> concentrations in the stratosphere. *J. Geophys. Res.* **90**, 7977–7984. => AEL1284
5187. Viggiano, A.A., Dale, F. and Paulson, J.F. (1988) Proton transfer reactions of  $\text{H}^+(\text{H}_2\text{O})_{n=2-11}$  with methanol, ammonia, pyridine, acetonitrile, and acetone. *J. Chem. Phys.* **88**, 2469–2477. => AEL1138
5188. Viggiano, A.A., Hunton, D.E., Miller, T.M. and Ballenthin, J.O. (2003) *In situ* measurements of hydrogen cyanide in the upper troposphere/lower stratosphere during Arctic spring 2000. *J. Geophys. Res. Atmospheres* **108**, 8304– doi:10.1029/2001JD001033, 2003. => AEL3963
5189. Viggiano, A.A., Morris, R.A. and Paulson, J.F. (1989) Temperature dependences of rate constants for reactions of  $\text{CO}_4^{\sim}$  with NO and  $\text{SO}_2^{\sim}$ . *J. Chem. Phys.* **91**, 5855–5856. => AEL0494
5190. Viggiano, A.A., Morris, R.A. and Van Doren, J.M. (1994) Ion chemistry of  $\text{ClONO}_2$  involving  $\text{NO}_3^-$  core ions: A detection scheme for  $\text{ClONO}_2$  in the atmosphere. *J. Geophys. Res.* **99**, 8221–8224. => AEL1404
5191. Viggiano, A.A., Morris, R.A. and Van Doren, J.M. (1994) Ion chemistry of  $\text{ClONO}_2$  involving  $\text{NO}_3^-$  core ions: A detection scheme for  $\text{ClONO}_2$  in the atmosphere. *Journal of Geophysical Research* **99**, 8221–8224. => HT0753
5192. Viggiano, A.A., Perry, R.A., Albritton, D.L., Ferguson, E.E. and Fehsenfeld, F.C. (1982) Stratospheric negative-ion reaction rates with  $\text{H}_2\text{SO}_4$ . *J. Geophys. Res.* **87**, 7340–7342. => AEL1156
5193. Vignati, E., de Leeuw, G. and Berkowicz, R. (2001) Modeling coastal aerosol transport and effects of surf-produced aerosols on processes in the marine atmospheric boundary layer. *J. Geophys. Res. Atmospheres* **106**, 20225–20238. => AEL3515

5194. Viidanoja, J., Reiner, T., Kiendler, A., Grimm, F. and Arnold, F. (2000) Laboratory investigations of negative ion molecule reactions of propionic, butyric, glyoxylic, pyruvic, and pinonic acids. *Int. J. Mass Spectrom.* **194**, 53–68. => AEL3749
5195. Viisanen, Y. and Strey, R. (1994) Homogeneous nucleation rates for n-butanol. *J. Chem. Phys.* **101**, 7835–7843. => AEL1187
5196. Viisanen, Y., Kulmala, M. and Laaksonen, A. (1997) Experiments on gas-liquid nucleation of sulfuric acid and water. *J. Chem. Phys.* **107**, 920–926. => AEL3852
5197. Viisanen, Y., Strey, R. and Reiss, H. (1993) Homogeneous nucleation rates for water. *J. Chem. Phys.* **99**, 4680–4692. => AEL1055
5198. Vijayakumar, R. and Whitby, K.T. (1984) Bipolar steady state charge fraction of ultrafine aerosols. *Aerosol Sci. Technol.* **3**, 25–30. => AEL0342
5199. Vincent, J.H. (1985) On the practical significance of electrostatic lung deposition of isometric and fibrous aerosols. @JAS **16**, 511–519. => HT0360
5200. Vincent, J.H. (1986) Review. Industrial hygiene implications of the static electrification of workplace aerosols. *Journal Electrostatics* **18**, 113–145. => HT0359
5201. Vincent, J.H., Johnston, A.M., Jones, A.D. and McLachlan, C.Q. (1985) Measurement of electric charge on airborne dusts in textile industry workplaces. *Textile Research Journal* **55**, 469–477. => HT0365
5202. Vincent, J.H., Johnston, W.B., Jones, A.D. and Johnston, A.M. (1981) Static electrification of airborne asbestos: A study of its causes, assessment and effects on deposition in the lungs of rats. *J. American Industrial Hygiene Association* **42**, 711–721. => HT0363
5203. Vinnikov, K.Y., Robock, A., Qiu, S., Entin, J.K., Owe, M., Choudhury, B.J., Hollinger, S.E. and Njoku, E.G. (1999) Satellite remote sensing of soil moisture in Illinois, United States. *J. Geophys. Res. Atmospheres* **104**, 4145–4168. => AEL2776
5204. Virkkula, A., Aurela, M., Hillamo, R., Mäkelä, T., Pakkanen, T., Kerminen, V.-M., Maenhaut, W., François, F. and Cafmeyer, J. (1999) Chemical composition of atmospheric aerosol in the European subarctic: Contribution of the Kola Peninsula smelter areas, central Europe, and the Arctic Ocean. *J. Geophys. Res. Atmospheres* **104**, 23681–23696. => AEL3022
5205. Virkkula, A., Van Dingenen, R., Raes, F. and Hjorth, J. (1999) Hygroscopic properties of aerosol formed by oxidation of limonene,  $\alpha$ -pinene, and  $\beta$ -pinene. *J. Geophys. Res. Atmospheres* **104**, 3569–3579. => AEL2766
5206. Visconti, G. (1982) Radiative-photochemical models of the primitive terrestrial atmosphere. *Planet. Space Sci.* **30**, 785–793. => AEL0626
5207. Vishnyakov, A., Piotrovskaya, E.M. and Brodskaya, E.N. (1997) Monte Carlo computer simulation of small clusters of methane, ethane, and their mixture. *J. Chem. Phys.* **106**, 1593–1599. => AEL3858
5208. *Vision and strategies around the Baltic Sea 2010. A summary report, March 1995. Result of the Tallinn Conference, December 7-8, 1994. Võrguväljaanne* (1995) c/o The Baltic Institute, Karlskrona, Sweden. => HT1213
5209. Visnapuu, L. and Priiman, R. (1984) Treatment of the air polluted by tobacco smoke with aqueous aerosols. @IA, Stockholm, pp. 175–175. => AEL0398
5210. Vogel, B., Fiedler, F. and Vogel, H. (1995) Influence of topography and biogenic volatile organic compounds emission in the state of Baden-Württemberg on ozone concentrations during episodes of high air temperatures. *J. Geophys. Res.* **100**, 22907–22928. => AEL1707



5211. Vogelsberger, W. (1994) A proposal for the thermodynamic and kinetic modeling of chemical reactions in cluster formation: Illustrated by soot formation in low pressure flames. *J. Chem. Phys.* **101**, 7990–7996. => AEL2714
5212. Vogelsberger, W., Fritsche, H.G. and Müller, E. (1988) Size dependence of surface thermodynamic parameters of microclusters and the location of the Gibbs' "surface of tension". *Physica Status Solidi (B)* **148**, 155–164. => AEL0730
5213. Vohra, K.G., Nair, P.V.N. and Muraleedharan, T.S. (1972) Possible role of singlet oxygen in an ion-induced reaction mechanism of nucleus formation by sulphur dioxide. *Aerosol Sci.* **3**, 225–236. => AEL0734
5214. Voisin, D., Legrand, M. and Chaumerliac, N. (2000) Scavenging of acidic gases (HCOOH, CH<sub>3</sub>COOH, HNO<sub>3</sub>, HCl, and SO<sub>2</sub>) and ammonia in mixed liquid-solid water clouds at the Puy de Dôme mountain (France). *J. Geophys. Res. Atmospheres* **105**, 6817–6835. => AEL3108
5215. Voldner, E.C., Barrie, L.A. and Sirois, A. (1986) A literature review of dry deposition of oxides of sulphur and nitrogen with emphasis on long-range transport modelling in North America. *Atmos. Environ.* **20**, 2101–2123. => AEL1085
5216. Volland, H. (1974) Global quasi-static electric fields in the earth's environment. *Fifth International Conference on Atmospheric Electricity Garmisch-Partenkirchen, September 2-7, 1974*, pp. 1–24. => HT1179
5217. Volland, H. Global, quasi-static electric fields in the Earth's environment. pp. 509–528. => HT0948
5218. Vömel, H., Oltmans, S.J., Johnson, B.J., Hasebe, F., Shiotani, M., Fujiwara, M., Nishi, N., Agama, M., Cornejo, J., Paredes, F. and Enriquez, H. (2002) Balloon-borne observations of water vapor and ozone in the tropical upper troposphere and lower stratosphere. *J. Geophys. Res. Atmospheres* **107**, ACL8 1–16. => AEL3670
5219. Vomela, R.A. and Whitby, K.T. (1967) The charging and mobility of chain aggregate smoke particles. *J. Coll. Interface Sci.* **25**, 568–576. => AEL0343
5220. Vompe, A.G. and Martynov, G.A. (1994) The bridge function expansion and the self-consistency problem of the Ornstein-Zernike equation solution. *J. Chem. Phys.* **100**, 5249–5258. => AEL1182
5221. von Glasow, R., Sander, R., Bott, A. and Crutzen, P.J. (2002) Modeling halogen chemistry in the marine boundary layer 2. Interactions with sulfur and the cloud-covered MBL. *J. Geophys. Res. Atmospheres* **107**, ACH2 1–13. => AEL3733
5222. von Glasow, R., Sander, R., Bott, A. and Crutzen, P.J. (2002) Modeling halogen chemistry in the marine boundary layer 1. Cloud-free MBL. *J. Geophys. Res. Atmospheres* **107**, ACH9 1–16. => AEL3736
5223. Von Helden, G., Hsu, M.-T., Gotts, N. and Bowers, M.T. (1993) Carbon cluster cations with up to 84 atoms: structures, formation mechanism, and reactivity. *J. Phys. Chem.* **97**, 8182–8192. => HT1014
5224. von Salzen, K. and Schlünzen, K.H. (1999) Simulation of the dynamics and composition of secondary and marine inorganic aerosols in the coastal atmosphere. *J. Geophys. Res. Atmospheres* **104**, 30201–30217. => AEL3045
5225. Vonnegut, B. (1953) Effect of halogens on the production of condensation nuclei by a heated platinum wire. *Science* **117**, 108–109. => HT0131
5226. Vonnegut, B. (1954) Possible mechanism for the formation of thunderstorm electricity. *Geophysical Research Papers* 169–181. => HT0153

5227. Vonnegut, B. (1960) Electrical theory of tornadoes. *J. of Geophysical Research* **65**, 203–212. => HT0094
5228. Vonnegut, B. (1973) Electrical balance in the lower atmosphere. *Annual Review of Earth and Planetary Sciences* **1**, 297–311. => HT0005
5229. Vonnegut, B. (1992) The atmospheric electricity paradigm. *Outline of talk to be given at the 9th International Conference on Atmospheric Electricity*, Manuscript, St. Petersburg, pp. 1–7. => HT0614
5230. Vonnegut, B. (1993) In memoriam Gaston Grenet, 1904-1991. Grenet, G. Possible explanation for the electric charge in thunderclouds. *Atmospheric Research* **30**, 175–179. => HT0839
5231. Vonnegut, B. (1994) The atmospheric electricity paradigm. *Bull. Amer. Meteorol. Soc.* **75**, 53–61. => HT0831
5232. Vonnegut, B. (1994) The atmospheric electricity paradigm. *Bull. Amer. Meteorol. Soc.* **75**, 53–61. => HT0889
5233. Vonnegut, B. (1995) Comment on "Trip illumines lightning" by R.D. Hill. *EOS* **76**, 516–516. => HT0894
5234. Vonnegut, B. (1995) Comments on "Warm-rain initiation: an overview of microphysical mechanisms". *J. Appl. Meteorol.* **34**, 2100–2100. => HT0890
5235. Vonnegut, B. (1995) Jovian lightning after comet impacts. *Science* **268**, 1829–1829. => HT0896
5236. Vonnegut, B. (1995) Letters to the editor. Importance of electricity in weather. *Weather* **50**, 62–63. => HT0899
5237. Vonnegut, B. and Jonsson, H.H. (1995) Global electric circuit and the environment. *IUGG XXI General Assembly*, Boulder, Colorado, **A**, pp. A275–A275. => HT0895
5238. Vonnegut, B. and Keller, D. (1975) Electrostatic technique for measuring velocity of small projectiles in transit through glass barrel. *Journal of Electrostatics* 91–93. => HT0040
5239. Vonnegut, B. and McCaig, D.A. (1960) Airplane instrument for measurement and vectorial presentation of electrical potential gradient. *Journal of Geophysical Research* **65**, 1959–1963. => HT0044
5240. Vonnegut, B. and Moore, C.B. (1961) Apparatus using radioactive probes for the vertical component of atmospheric potential gradient from an airplane. *Bulletin of the American Meteorological Society* **42**, 773–777. => HT0043
5241. Vonnegut, B. and Moore, C.B. (1995) Weather and climate changes arising from solar wind effects on thunderstorm electrification. Tinsley, B.A. Reply. *Eos, Transactions* **76**, 315–315. => HT0898
5242. Vonnegut, B. and Neubauer, R. (1952) Detection and measurement of aerosol particles by the use of an electrically heated filament. *Analytical Chemistry* **24**, 1000–1005. => AEL0345
5243. Vonnegut, B. and Neubauer, R. (1952) Detection and measurement of aerosol particles. By the use of an electrically heated filament. *Anal. Chem.* **24**, 1000–1005. => HT0137
5244. Vonnegut, B. and Neubauer, R.L. (1952) Production of monodisperse liquid particles by electrical atomization. *J. of Colloid Sci.* **7**, 616–622. => HT0128
5245. Vonnegut, B. and Rechnitzer, B.W. (1974) Instrument for measuring maximum thunderstorm electric field intensity. *Rev.Sci.Instrum.* **45**, 1172–1174. => HT0129
5246. Vonnegut, B. Comments on "Three-dimensional kinematic and microphysical evolution of Florida cumulonimbus" by Sandra E. Yuter and Robert A. Houze Jr. *Monthly Weather Review*. *Accepted* -. => HT0892

5247. Vonnegut, B. Importance of evaporative cooling in the formation of thundercloud downdrafts. *J. Appl. Meteorol. Accepted* -. => HT0893
5248. Vonnegut, B. *Problems for research in atmospheric electricity. Käsikiri.* => HT1265
5249. Vonnegut, B., Latham, D.J., Moore, C.B. and Hunyady, S.J. (1995) An explanation for anomalous lightning from forest fire clouds. *J. Geophys. Res.* **100**, 5037–5050. => HT0888
5250. Vonnegut, B., Markson, R. and Moore, C.B. (1973) Direct measurement of vertical potential differences in the lower atmosphere. *Journal of Geophysical Research* **78**, 4526–4528. => HT0042
5251. Vonnegut, B., Moore, C.B., Ehrenfeld, J. and Smallman, C.R. (1957) Determining the concentration of fogs and other aerosols by a space-charge measuring instrument. *Artificial Stimulation of Rain. Proceedings 1st Conf. on the Physics of Cloud and Precipitation Particles*, Symp. Publications Division. Pergamon Press, New York, London, Paris, pp. 122–130. => HT0070
5252. Vonnegut, B., Moore, C.B., Ehrenfeld, J. and Smallmann, C.R. (1957) "Determining the concentration of fogs and other aerosols by a space-charge measuring instrument. *Artificial Stimulation of Rain. Proceedings of the First Conference on the Physics of Cloud and Precipitation Particles*, pp. 122–130. => AEL0344
5253. Vonnegut, B., Vaughan, O.H., Brook, M. and Krehbiel, P. (1984) Mesoscale observations of lightning from space shuttle. *NASA Technical Memorandum 86451* 1–20. => HT0179
5254. Voss, P.B., Stimpfle, R.M., Cohen, R.C., Hanisco, T.F., Bonne, G.P., Perkins, K.K., Lanzendorf, E.J., Anderson, J.G., Salawitch, R.J., Webster, C.R., Scott, D.C., May, R.D., Wennberg, P.O., Newman, P.A., Lait, L.R., Elkins, J.W. and Bui, T.P. (2001) Inorganic chlorine partitioning in the summer lower stratosphere: Modeled and measured  $[ClONO_2]/[HCl]$  during POLARIS. *J. Geophys. Res. Atmospheres* **106**, 1713–1732. => AEL3308
5255. Vykhandu, L.K. and Yunapuu, E.Kh.-T. (1979) Obrabotka sotsialno-ekonomicheskikh pokazatelei v dialogovom rezhime (in Russian). *Manuskript*, pp. 1–9. => HT0327
5256. Vykhandu, L.K. *O nekotorykh metodakh uporyadotceniya obektov i priznakov v sisteme dannykh* (in Russian). Käsikiri,. => HT0561
5257. Wacker, R.S. and Orville, R.E. (1999) Changes in measured lightning flash count and return stroke peak current after the 1994 U.S. National Lightning Detection Network upgrade 1. Observations. *J. Geophys. Res. Atmospheres* **104**, 2151–2157. => HT1316
5258. Wacker, R.S. and Orville, R.E. (1999) Changes in measured lightning flash count and return stroke peak current after the 1994 U.S. National Lightning Detection Network upgrade. 2. Theory. *J. Geophys. Res. Atmospheres* **104**, 2159–2162. => HT1317
5259. Wagenbach, D., Ducroz, F., Mulvaney, R., Keck, L., Minikin, A., Legrand, M., Hall, J.S. and Wolff, E.W. (1998) Sea-salt aerosol in coastal Antarctic regions. *J. Geophys. Res. Atmospheres* **103**, 10961–10974. => AEL2262
5260. Wagner, G., Livingstone, D.M., Masarik, J., Muscheler, R. and Beer, J. (2001) Some results relevant to the discussion of a possible link between cosmic rays and the Earth's climate. *J. Geophys. Res. Atmospheres* **106**, 3381–3387. => AEL3410
5261. Wagner, J., Andrews, E. and Larson, S.M. (1996) Sorption of vapor phase octanoic acid onto deliquescent salt particles. *J. Geophys. Res.* **101**, 19533–19540. => AEL1886
5262. Wagner, P.E. and Strey, R. (1990) Observation of steady-state aerosol formation by nucleation in vapor mixtures during adjustable expansion pulses. *Aerosols: Science, Industry, Health and Environment. Ed. by M. Itoh*, Oxford, pp. 201–204. => AEL1772

5263. Wagner, P.E., Kaller, D., Vrtala, A., Lauri, A., Kulmala, M. and Laaksonen, A. (2003) Nucleation probability in binary heterogeneous nucleation of water-n-propanol vapor mixtures on insoluble and soluble nanoparticles. *Physical Review E* **67**, 021605 1–12. => AEL3822
5264. Wagner, R. (1955) Zur Messung des luftelektrischen Potentialgefälles mittels Kollektoren. *Arch. Meteorol., Geophys. Bioklimatol.* **8**, 427–464. => HT-F009
5265. Wagner, T., Leue, C., Wenig, M., Pfeilsticker, K. and Platt, U. (2001) Spatial and temporal distribution of enhanced boundary layer BrO concentrations measured by the GOME instrument aboard ERS-2. *J. Geophys. Res. Atmospheres* **106**, 24225–24235. => AEL3605
5266. Wagner, V., von Glasow, R., Fischer, H. and Crutzen, P.J. (2002) Are CH<sub>2</sub>O measurements in the marine boundary layer suitable for testing the current understanding of CH<sub>4</sub> photooxidation?: A model study. *J. Geophys. Res. Atmospheres* **107**, ACH3 1–14. => AEL3631
5267. Wahlin, L. (1986) Table of Contents. *Atmospheric Electrostatics*, pp. –. => HT0661
5268. Wahlin, L. and Kasemir, H. (1985) Electrochemical charging in the atmosphere measured by a Gerdien cylinder. *Journal of Electrostatics* 379–386. => Ht0616
5269. Wahlin, L. *The elements of fairweather electricity*. Manuscript,. => HT0619
5270. Wahlin, l. *The structure of fairweather electricity*. Manuscript,. => HT0620
5271. Wahner, A., Mentel, T.F., Sohn, m. and Stier, J. (1998) Heterogeneous reaction of N<sub>2</sub>O<sub>5</sub> on sodium nitrate aerosol. *J. Geophys. Res. Atmospheres* **103**, 31103–31112. => AEL2828
5272. Wait, G.R. (1934) Report on ion-counters, methods of use, and results. *C. R. Assemble'e de Lisbonne, 1933. Union Geod. Geophys. Internat. Ass. Magn. Electr. Terr. Bull.*, Copenhagen, pp. 143–147. => HT-F066
5273. Wait, G.R. (1935) The intermediate ion of the atmosphere. *Physical Review* **48**, 383–383. => HT1504
5274. Wait, G.R. and Torreson, O.W. (1934) The large-ion and small-ion content of the atmosphere at Washington, D. C. *Terr. Magn. Atmos. Electr.* **39**, 111–119. => AEL3391
5275. Wajsfelner, R. (1969) E'tude d'un nouveau spectrome`tre pour particules charge'es. *Informations ae'rauliques et thermiques* **6**, 16–29. => AEL0346
5276. Wales, D.J. and Doye, J.P.K. (1995) Coexistence and phase separation in clusters: From the small to the not-so-small regime. *J. Chem. Phys.* **103**, 3061–3070. => AEL1526
5277. Walkenhorst, W. (1962) Ein einfaches Verfahren zur Untersuchung des Verhaltens von Staubteilchen beim Umströmen von Hindernissen. *Staub* **22**, 255–294. => AEL0996
5278. Walker, J.P. and Houser, P.R. (2001) A methodology for initializing soil moisture in a global climate model: Assimilation of near-surface soil moisture observations. *J. Geophys. Res. Atmospheres* **106**, 11761–11774. => AEL3461
5279. Walker, R.E., Monchik, L., Westenberg, A.A. and Favin, S. High temperature gaseous diffusion experiments and intermolecular potential energy functions. 221–227. => AEL0957
5280. Wallach, C. (1984) Video display health hazard safeguards. @IA, Stockholm, pp. 169–174. => AEL0397
5281. Wallington, T.J., Andino, J.M., Ball, J.C. and Japar, S.M. (1990) "Fourier transform infrared studies of the reaction of Cl atoms with PAN, PPN, CH<sub>3</sub>~OOH, HCOOH, CH<sub>3</sub>~COCH<sub>3</sub>~ and CH<sub>3</sub>~COC<sub>2</sub>~H<sub>5</sub>~ at 29512K. *J. Atmos. Chem.* **10**, 301–313. => AEL0461

5282. Wallington, T.J., Dagaut, P., Liu, R. and Kurylo, M.J. (1988) "Gas-phase reactions of hydroxyl radicals with the fuel additives methyl tert-butyl ether and tert-butyl alcohol over the temperature range 240-440 K. *Environmental Science and Technology* **22**, 842-. => AEL0499
5283. Walsh, S.E., Vavrus, S.J., Foley, J.A., Fisher, V.A., Wynne, R.H. and Lenters, J.D. (1998) Global patterns of lake ice phenology and climate: Model simulations and observations. *J. Geophys. Res. Atmospheres* **103**, 28825–28837. => AEL2822
5284. Walter, H. (1973) Coagulation and size distribution of condensation aerosols. *Aerosol Sci.* **4**, 1–15. => AEL1691
5285. Wang, C. and Prinn, R.G. (2000) On the roles of deep convective clouds in tropospheric chemistry. *J. Geophys. Res. Atmospheres* **105**, 22269–22297. => AEL3244
5286. Wang, C.C., Pao, J.-R. and Gentry, J.W. (1988) Calculations and measurements of the charge distribution for non-spherical particles. *J. Aerosol Sci.* **19**, 805–808. => AEL1912
5287. Wang, C.S. and Friedlander, S.K. (1967) The self-preserving particle size distribution for coagulation by Brownian motion. *J. Coll. Interf. Sci.* **24**, 170–179. => AEL1115
5288. Wang, D., Rakov, V.A., Uman, M.A., Fernandez, M.I., Rambo, K.J., Schnetzer, G.H. and Fischer, R.J. (1999) Characterization of the initial stage of negative rocket-triggered lightning. *J. Geophys. Res. Atmospheres* **104**, 4213–4222. => AEL2778
5289. Wang, H.-C. (1996) Comparison of thermal rebound theory with penetration measurements of nanometer particles through wire screens. *Aerosol Sci. Technol.* **24**, 129–134. => AEL1521
5290. Wang, J., Flagan, R.C. and Seinfeld, J.H. (2003) A differential mobility analyzer (DMA) system for submicron aerosol measurements at ambient relative humidity. *Aerosol Sci. Technol.* **37**, 46–52. => AEL3718
5291. Wang, J., McNeill, V.F., Collins, D.R. and Flagan, R.C. (2002) Fast mixing condensation nucleus counter: Application to rapid scanning differential mobility analyzer measurements. *Aerosol Sci. Technol.* **36**, 678–689. => AEL3703
5292. Wang, P. and Lenoble, J. (1994) Comparison between measurements and modeling of UV-B irradiance for clear sky: a case study. *Applied Optics* **33**, 3964–3971. => AEL2945
5293. Wang, P.-H., Rind, D., Trepte, C.R., Kent, G.S., Yue, G.K. and Skeens, K.M. (1998) An empirical model study of the tropospheric meridional circulation based on SAGE II observations. *J. Geophys. Res. Atmospheres* **103**, 13801–13818. => AEL2270
5294. Wang, P.K. (1986) Brownian diffusion of charged fine particles surrounding a conducting cylinder in the presence of an external electric field. *J. Aerosol Sci.* **17**, 201–209. => AEL0348
5295. Wang, S.C. and Flagan, R.C. (1990) Scanning electrical mobility spectrometer. *Aerosol Sci. Technol.* **13**, 230–240. => AEL1143
5296. Wang, S.-C., Paulson, S.E., Grosjean, D., Flagan, R.C. and Seinfeld, J.H. (1992) Aerosol formation and growth in atmospheric organic/NO<sub>x</sub> systems. I. Outdoor smog chamber studies of C<sub>7</sub>- and C<sub>8</sub>-hydrocarbons. *Atmos. Environ.* **26A**, 403–420. => AEL0860
5297. Wang, W. and Finlayson-Pitts, B.J. (2001) Unique markers of chlorine atom chemistry in coastal urban areas: The reaction with 1,3-butadiene in air at room temperature. *J. Geophys. Res. Atmospheres* **106**, 4939–4958. => AEL3416
5298. Wang, X., Ye, C., Guo, W. and Sun, Z. *Preliminary study of atmospheric anions near the surface and its relationship with meteorological conditions. Käsikiri.* => HT1420
5299. Wang, Y. and Jacob, D.J. (1998) Anthropogenic forcing on tropospheric ozone and OH since preindustrial times. *J. Geophys. Res. Atmospheres* **103**, 31123–31135. => AEL2829

5300. Wang, Y., Ridley, B., Fried, A., Cantrell, C., Davis, D., Chen, G., Snow, J., Heikes, B., Talbot, R., Dibb, J., Flocke, F., Weinheimer, A., Blake, N., Blake, D., Shetter, R., Lefer, B., Atlas, E., Coffey, M., Walega, J. and Wert, B. (2003) Springtime photochemistry at northern mid and high latitudes. *J. Geophys. Res. Atmospheres* **108**, 8358–doi:10.1029/2002JD002227, 2003. => AEL3954
5301. Ward, D.C., Borak, T.B. and Gadd, M.S. (1993) Characterization of  $^{222}\text{Rn}$  entry into a basement structure surrounded by low-permeability soil. Abstract. *Health Phys.* **65**, 1–11. => AEL1230
5302. Warneck, P. (1974) On the role of OH and HO<sub>2</sub> radicals in the troposphere. *Tellus* **26**, 39–46. => AEL1466
5303. Warren, D.R. and Seinfeld, J.H. (1984) Nucleation and growth of aerosol from a continuously reinforced vapor. *Aerosol Sci. Technol.* **3**, 135–153. => AEL1171
5304. Warren, D.R. and Seinfeld, J.H. (1985) Prediction of aerosol concentrations resulting from a burst of nucleation. *J. Colloid and Interface Sci.* **105**, 136–142. => AEL1646
5305. Warren, D.R. and Seinfeld, J.H. (1985) Simulation of aerosol size distribution evolution in systems with simultaneous nucleation, condensation, and coagulation. *Aerosol Sci. Technol.* **4**, 31–43. => AEL0993
5306. Warren, D.R. and Seinfeld, J.H. (1985) Simulation of aerosol size distribution evolution in systems with simultaneous nucleation, condensation, and coagulation. *Aerosol Sci. Technol.* **4**, 31–43. => AEL1170
5307. Warren, M. and Harrop, J.A. (1968) The production of particulate clouds. *Chemical Engineering Journal* **4**, 36–40. => AEL0349
5308. Warshavsky, V.B. and Zeng, X.C. (2002) Bulk and interfacial properties of quadrupolar fluids. *J. Chem. Phys.* **117**, 3982–3991. => AEL3857
5309. Wasiolek, P.T. and Cheng, Y.-S. (1995) Measurements of the activity-weighted size distributions of radon decay products outdoors in central New Mexico with parallel and serial screen diffusion batteries. *Aerosol Sci. Technol.* **23**, 401–410. => AEL1536
5310. Wasiolek, P.T., Hopke, P.K. and James, A.C. (1992) Assessment of exposure to radon decay products in realistic living conditions. *Journal of Exposure Analysis and Environmental Epidemiology* **2**, 309–322. => AEL2462
5311. Wason, J., Chow, J., Richards, W., Neff, W., Andersen, S., Dietrich, D., Houck, J. and Burns, S. (1992) Effects of changes in sulfur dioxide emissions on the Denver Brown Cloud. *Abstracts of Conference on Visibility and Fine Particles*, Vienna, pp. 1–1. => HT0687
5312. Watanabe, M. and Kimoto, M. (1999) Tropical-extratropical connection in the Atlantic atmosphere-ocean variability. *Geophys. Res. Lett.* **26**, 2247–2250. => AEL2908
5313. Wätjen, U., Kriews, M. and Dannecker, W. (1993) Status report: preparing an ambient aerosol filter reference material for elemental analysis. *Fresenius' Journal of Analytical Chemistry* **345**, 261–264. => AEL2135
5314. Watkins, B.A., Parrish, D.D., Buhr, S., Norton, R.B., Trainer, M., Yee, J.E. and Fehsenfeld, F.C. (1995) Factors influencing the concentration of gas phase hydrogen peroxide during the summer at Kinterbish, Alabama. *J. Geophys. Res.* **100**, 22841–22851. => AEL1632
5315. Watkins, B.A., Parrish, D.D., Trainer, M., Norton, R.B., Yee, J.E., Fehsenfeld, F.C. and Heikes, B.G. (1995) Factors influencing the concentration of gas phase hydrogen peroxide during the summer at Niwot Ridge, Colorado. *J. Geophys. Res.* **100**, 22831–22840. => AEL1637

5316. Watnick, S., Latner, N. and Graveson, R.T. (1986) A  $^{222}\text{Rn}$  monitor using alpha spectroscopy. *Health Phys.* **50**, 645–646. => AEL1210
5317. Watson, J.G., Chow, J.C., Lu, Z., Fujita, E.M., Lowenthal, D.H., Lawson, D.R. and Ashbaugh, L.L. (1994) Chemical mass balance source apportionment of  $\text{PM}_{10}$  during the Southern California Air Quality Study. *Aerosol Sci. Technol.* **21**, 1–36. => AEL1319
5318. Watters, R.L.Jr., DeVoe, J.R., Shen, F.H., Small, J.A. and Marinenko, R.B. (1989) Characteristics of aerosols produced by the spark discharge. *Anal. Chem.* **61**, 1826–1833. => AEL0788
5319. Watts, P. (1992) Studies on gas-phase negative ion/molecule reactions of relevance to ion mobility spectrometry: kinetic modelling of the reaction occurring in clean air. *Int. J. Mass Spectrom. Ion Processes* **121**, 141–158. => AEL1151
5320. Watts, P. and Wilders, A. (1992) On the resolution obtainable in practical ion mobility systems. *Int. J. Mass Spectrom. Ion Processes* **112**, 179–190. => AEL1155
5321. Watts, P. and Wilders, A. (1992) On the resolution obtainable in practical ion mobility systems. *International Journal of Mass Spectrometry and Ion Processes* **112**, 179–190. => HT0853
5322. Waugh, D.W., Hall, T.M., Randel, W.J., Rasch, P.J., Boville, B.A., Boering, K.A., Wofsy, S.C., Daube, B.C., Elkins, J.W., Fahey, D.W., Dutton, G.S., Volk, C.M. and Vohralik, P.F. (1997) Three-dimensional simulations of long-lived tracers using winds from MACCM2. *J. Geophys. Res. Atmospheres* **102**, 21493–21513. => AEL2208
5323. Wayne, R.P. (1987) Review article. The photochemistry of ozone. *Atmos. Environ.* **21**, 1683–1694. => AEL0585
5324. Weakliem, C.L. and Reiss, H. (1993) Toward a molecular theory of vapor-phase nucleation. III. Thermodynamic properties of argon clusters from Monte Carlo simulations and a modified liquid drop theory. *J. Chem. Phys.* **99**, 5374–5383. => AEL1944
5325. Weakliem, C.L. and Reiss, H. (1994) Toward a molecular theory of vapor phase nucleation. IV. Rate theory using the modified liquid drop model. *J. Chem. Phys.* **101**, 2398–2406. => AEL1184
5326. Weakliem, L.C. and Reiss, H. (1994) The factor  $1/S$  in the classical theory of nucleation. *J. Phys. Chem.* **98**, 6408–6412. => AEL3157
5327. Weatherhead, E., Theisen, D., Stevermer, A., Enagonio, J., Rabinovitch, B., Disterhoft, P., Lantz, K., Meltzer, R., Sabburg, J., DeLuisi, J., Rives, J. and Shreffler, J. (2001) Temperature dependence of the Brewer ultraviolet data. *J. Geophys. Res. Atmospheres* **106**, 34121–34129. => AEL3623
5328. Weber, R.J. and McMurry, P.H. (1996) Fine particle size distributions at the Mauna Loa Observatory, Hawaii. *J. Geophys. Res. Atmospheres* **101**, 14767–14775. => AEL1908
5329. Weber, R.J., Chen, G., Davis, D.D., Mauldin III, R.L., Tanner, D.J., Eisele, F.L., Clarke, A.D., Thornton, D.C. and Bandy, A.R. (2001) Measurements of enhanced  $\text{H}_2\text{SO}_4$  and 3–4 nm particles near a frontal cloud during the First Aerosol Characterization Experiment (ACE 1). *J. Geophys. Res. Atmospheres* **106**, 24107–24117. => AEL3561
5330. Weber, R.J., Clarke, A.D., Litchy, M., Li, J., Kok, G., Schillawski, R.D. and McMurry, P.H. (1998) Spurious aerosol measurements when sampling from aircraft in the vicinity of clouds. *J. Geophys. Res. Atmospheres* **103**, 28337–28346. => AEL2819
5331. Weber, R.J., Marti, J.J., McMurry, P.H., Eisele, F.L., Tanner, D.J. and Jefferson, A. (1997) Measurements of new particle formation and ultrafine particle growth rates at a clean continental site. *J. Geophys. Res. Atmospheres* **102**, 4375–4385. => AEL1986

5332. Weber, R.J., Marti, J.J., McMurry, P.H., Eisele, F.L., Tanner, D.J. and Jefferson, A. (1995) Measured atmospheric new particle formation rates: implications for nucleation mechanisms. *Chem. Eng. Commun.*, in press. *PTL Publ.* 1–17. => HT1030
5333. Weber, R.J., McMurry, P.H., Bates, T.S., Clarke, A.D., Covert, D.S., Brechtel, F.J. and Kok, G.L. (1999) Intercomparison of airborne and surface-based measurements of condensation nuclei in the remote marine troposphere during ACE 1. *J. Geophys. Res. Atmospheres* **104**, 21673–21683. => AEL3015
5334. Weber, R.J., McMurry, P.H., Eisele, F.L. and Tanner, D.J. (1995) Measurement of expected nucleation precursor species and 3-500-nm diameter particles at Mauna Loa observatory, Hawaii. *Journal of the Atmospheric Sciences* **52**, 2242–2257. => AEL1645
5335. Weber, R.J., McMurry, P.H., Mauldin III, R.L., Tanner, D.J., Eisele, F.L., Clarke, A.D. and Kapustin, V.N. (1999) New particle formation in the remote troposphere: A comparison of observations at various sites. *Geophys. Res. Lett.* **26**, 307–310. => AEL2964
5336. Weber, R.J., McMurry, P.H., Mauldin, L., Tanner, D.J., Eisele, F.L., Brechtel, F.J., Kreidenweis, S.M., Kok, G.L., Schillawski, R.D. and Baumgardner, D. (1998) A study of new particle formation and growth involving biogenic and trace gas species measured during ACE 1. *J. Geophys. Res. Atmospheres* **103**, 16385–16396. => AEL2292
5337. Weber, R.J., Moore, K., Kapustin, V., Clarke, A., Mauldin, R.L., Kosciuch, E., Cantrell, C., Eisele, F., Anderson, B. and Thornhill, L. (2001) Nucleation in the equatorial Pacific during PEM-Tropics B: Enhanced boundary layer H<sub>2</sub>SO<sub>4</sub> with no particle production. *J. Geophys. Res. Atmospheres* **106**, 32767–32776. => AEL3620
5338. Weber, R.J., Orsini, D., Daun, Y., Lee, Y.-N., Klotz, P.J. and Brechtel, F. (2001) A particle-into-liquid collector for rapid measurement of aerosol bulk chemical composition. *Aerosol Sci. Technol.* **35**, 718–727. => AEL3506
5339. Weber, R.J., Orsini, D., Wang, B., Scheuer, E., Talbot, R.W., Dibb, J.E., Seid, G.K., DeBell, L., Mauldin, R.L., Kosiuch, E., Cantrell, C. and Eisele, F. (2003) Investigations into free tropospheric new particle formation in the central Canadian arctic during the winter/spring transition as part of TOPSE. *J. Geophys. Res. Atmospheres* **108**, 8357–doi:10.1029/2002JD002239, 2003. => AEL3955
5340. Weber, R.O. and Prévôt, A.S.H. (2002) Climatology of ozone transport from the free troposphere into the boundary layer south the Alps during North Foehn. *J. Geophys. Res. Atmospheres* **107**, ACH4 1–6. => AEL3636
5341. Weber, R.O. and Talkner, P. (2001) Spectra and correlations of climate data from days to decades. *J. Geophys. Res. Atmospheres* **106**, 20131–20144. => AEL3511
5342. Weber, R.O. and Talkner, P. (2001) Spectra and correlations of climate data from days to decades. *J. Geophys. Res. Atmospheres* **106**, 20131–20144. => AEL3513
5343. Wedding, J.B. and Stukel, J.J. (1974) Operational limits of vibrating orifice aerosol generator. *Environmental Science and Technology* **8**, 456–457. => AEL0431
5344. Weeks, J.D., Chandler, D. and Andersen, H.C. (1971) Role of repulsive forces in determining the equilibrium structure of simple liquids. *The Journal of Chemical Physics* **54**, 5237–5247. => AEL1165
5345. Weeks, J.D., Chandler, D. and Andersen, H.C. (1971) Role of repulsive forces in determining the equilibrium structure of simple liquids. *The Journal of Chemical Physics* **54**, 5237–5247. => AEL1693
5346. Wei, S., Shi, Z., Castleman, A.W. and Jr. (1991) Mixed cluster ions as a structure probe: Experimental evidence for clathrate structure of (H<sub>2</sub>O)<sub>2</sub>~0~H<sup>+</sup> and (H<sub>2</sub>O)<sub>2</sub>~1~H<sup>+</sup>. *J. Chem. Phys.* **94**, 3268–3270. => AEL0453



5347. Wei, S., Tzeng, W.B. and Castleman, A.W.Jr. (1991) Structure of protonated solvation complexes: ammonia-trimethylamine cluster ions and their metastable decompositions. *J. Phys. Chem.* **95**, 585–591. => AEL0783
5348. Weibel, E.S. (1968) Dimensionally correct transformations between different systems of units. *Am.J.of Phy.* **36**, 1130–1133. => HT0194
5349. Weihs, P., Webb, A.R., Hutchinson, S.J. and Middleton, G.W. (2000) Measurements of the diffuse UV sky radiance during broken cloud conditions. *J. Geophys. Res. Atmospheres* **105**, 4937–4944. => AEL3100
5350. Weil, J.C. (1985) Updating applied diffusion models. *Journal of Climate and Applied Meteorology* **24**, 1111–1130. => HT0811
5351. Weimer, D.R. (1996) A flexible, IMF dependent model of high-latitude electric potentials having "space weather" applications. *Geophys. Res. Lett.* **23**, 2549–2552. => HT1191
5352. Weingartner, E., Nyeki, S. and Baltensperger, U. (1999) Seasonal and diurnal variation of aerosol size distributions ( $10 < D < 750$  nm) at a high-alpine site (Jungfraujoch 3580 m asl). *J. Geophys. Res. Atmospheres* **104**, 26809–26820. => AEL3033
5353. Weinheimer, A.J. (1987) The electrostatic energy of a thunderstorm and its rate of change. *@JGR* **92**, 9715–9722. => HT0443
5354. Weinstock, B., Niki, H. and Chang, T.Y. (1980) Chemical factors affecting the hydroxyl radical concentration in the troposphere. *Advances in Environmental Sciences and Technological Sciences* **10**, 221–258. => AEL1426
5355. Weisenstein, D.K., Ko, M.K.W., Sze, N.-D. and Rodriguez, J.M. (1996) Potential impact of SO<sub>2</sub> emissions from stratospheric aircraft on ozone. *Geophys. Res. Lett.* **23**, 161–164. => AEL1671
5356. Weisenstein, D.K., Yue, G.K., Ko, M.K.W., Sze, N.-D., Rodriguez, J.M. and Scott, C.J. (1997) A two-dimensional model of sulfur species and aerosols. *J. Geophys. Res. Atmospheres* **102**, 13019–13035. => AEL2004
5357. Weiss, P.S., Johnson, J.E., Gammon, R.H. and Bates, T.S. (1995) Reevaluation of the open ocean source of carbonyl sulfide to the atmosphere. *J. Geophys. Res.* **100**, 23083–23092. => AEL1715
5358. Weiss, R. und Steinmaurer, R. (1937) Messungen der Luftionen in Innsbruck. *Gerlands Beiträge zur Geophysik* **50**, 238–251. => AEL1261
5359. Weller, R., Lilischkis, R., Schrems, O., Neuber, R. and Wessel, S. (1996) Vertical ozone distribution in the marine atmosphere over the central Atlantic Ocean (56°S–50°N). *J. Geophys. Res.* **101**, 1387–1399. => AEL1817
5360. Wells, B.H. and Wilson, S. (1983) Van der Waals interaction potentials. Basis set superposition effects in electron correlation calculations. *Molecular Physics* **50**, 1295–1309. => AEL0350
5361. Welty, J.R., Wicks, C.E. and Wilson, R.E. (1975) 28.6 Mass, energy, and momentum transfer analogies. *Fundamentals of momentum, heat and mass transfer*, New York, pp. 595–602. => AEL0845
5362. Wen, F.C., McLaughlin, T. and Katz, J.L. (1978) Photoinduced nucleation of water vapor. *Science* **200**, 769–771. => AEL1501
5363. Wen, G., Cahalan, R.F. and Holben, B.N. (2003) Limitations of ground-based solar irradiance estimates due to atmospheric variations. *J. Geophys. Res. Atmospheres* **108**, 4400–  
doi:10.1029/2003JD003431. => AEL4026

5364. Wen, H.Y., Reischl, G.P. and Kasper, G. (1984) Bipolar diffusion charging of fibrous aerosol particles. II. Charge and electrical mobility measurements on linear chain aggregates. *J. Aerosol Sci.* **15**, 103–122. => AEL0351
5365. Wen, H.Y., Reischl, G.P. and Kasper, G. (1984) Bipolar diffusion charging of fibrous aerosol particles. I. Charging theory. *J. Aerosol Sci.* **15**, 89–101. => AEL0352
5366. Wen, J.-S., Pinto, J.P. and Yung, Y.L. (1989) Photochemistry of CO and H<sub>2</sub>O: Analysis of laboratory experiments and applications to the prebiotic Earth's atmosphere. *J. Geophys. Res.* **94**, 14957–14970. => AEL0475
5367. Wendisch, M. and Keil, A. (1999) Discrepancies between measured and modeled solar and UV radiation within polluted boundary layer clouds. *J. Geophys. Res. Atmospheres* **104**, 27373–27385. => AEL3038
5368. Wenny, B.N., Saxena, V.K. and Frederick, J.E. (2001) Aerosol optical depth measurements and their impact on surface levels of ultraviolet-B radiation. *J. Geophys. Res. Atmospheres* **106**, 17311–17319. => AEL3488
5369. Wenny, B.N., Schafer, J.S., DeLuisi, J.J., Saxena, V.K., Barnard, W.F., Petropavlovskikh, I.V. and Vergamini, A.J. (1998) A study of regional aerosol radiative properties and effects on ultraviolet-B radiation. *J. Geophys. Res. Atmospheres* **103**, 17083–17097. => AEL2298
5370. Wenzel, R.J., Liu, D.-Y., Edgerton, E.S. and Prather, K.A. (2003) Aerosol time-of-flight mass spectrometry during the Atlanta Supersite Experiment 2. Scaling procedures. *J. Geophys. Res. Atmospheres* **108**, 8427– doi:10.1029/2001JD001563, 2003. => AEL3991
5371. Wertheim, M.S. (1963) Exact solution of the Percus-Yevick integral equation for hard spheres. *Phys. Rev. Lett.* **10**, 321–323. => AEL1123
5372. Wertheim, M.S. (1971) Exact solution of the mean spherical model for fluids of hard spheres with permanent electric dipole moments. *The Journal of Chemical Physics* **55**, 4291–4298. => AEL1183
5373. Wesely, M.L. and Hicks, B.B. (2000) A review of the current status of knowledge on dry deposition. *Atmos. Environ.* **34**, 2261–2282. => HT1570
5374. Wessel, R.A. and Righi, J. (1988) Generalized correlations for inertial impaction of particles on a circular cylinder. *Aerosol Sci. Technol.* **9**, 29–60. => HT1291
5375. Westmeier, W. (1984) Computerized analysis of alpha-particle spectra. *Int. J. Appl. Radiat. Isot.* **35**, 263–270. => AEL2457
5376. Westmeier, W. (1986) The fitting of solid state detector spectra. *Nuclear Instruments and Methods in Physics Research* 437–442. => AEL2456
5377. Westwater, E.R. and Cohen, A. (1973) Application of Backus-Gilbert inversion technique to determination of aerosol size distributions from optical scattering measurements. *Applied Optics* **12**, 1340–1348. => HT0242
5378. Wetzel, G., Oelhaf, H., Friedl-Vallon, F., Kleinert, A., Kouker, W., Maucher, G., Reddmann, T., Seefeldner, M., Stowasser, M., Trieschmann, O., von Clarmann, T. and Fischer, H. (2002) NO<sub>y</sub> partitioning and budget and its correlation with N<sub>2</sub>O in the Arctic vortex and in summer midlatitudes in 1997. *J. Geophys. Res. Atmospheres* **107**, ACH3 1–10. => AEL3681
5379. Wetzel, G., von Clarmann, T., Oelhaf, H. and Fischer, H. (1995) Vertical profiles of N<sub>2</sub>O<sub>5</sub> along with CH<sub>4</sub>, N<sub>2</sub>O, and H<sub>2</sub>O in the late Arctic winter retrieved from MIPAS-B infrared limb emission measurements. *J. Geophys. Res.* **100**, 23173–23181. => AEL1721
5380. Wetzel, M.A. and Stowe, L.L. (1999) Satellite-observed patterns in stratus microphysics, aerosol optical thickness, and shortwave radiative forcing. *J. Geophys. Res. Atmospheres* **104**, 31287–31299. => AEL3051

5381. Wetzel, M.A., Shaw, G.E., Slusser, J.R., Borys, R.D. and Cahill, C.F. (2003) Physical, chemical, and ultraviolet radiative characteristics of aerosol in central Alaska. *J. Geophys. Res. Atmospheres* **108**, 4418– doi:10.1029/2002JD003208. => AEL4027
5382. Wexler, A.S. and Clegg, S.L. (2002) Atmospheric aerosol models for systems including the ions  $H^+$ ,  $NH_4^+$ ,  $Na^+$ ,  $SO_4^{2-}$ ,  $NO_3^-$ ,  $Cl^-$ ,  $Br^-$ , and  $H_2O$ . *J. Geophys. Res. Atmospheres* **107**, ACH14 1–14. => AEL3676
5383. Wexler, A.S. and Ge, Z. (1998) Hydrophobic particles can activate at lower relative humidity than slightly hygroscopic ones: a Köhler theory incorporating surface fixed charge. *J. Geophys. Res. Atmospheres* **103**, 6083–6088. => AEL2236
5384. Wexler, A.S. and Seinfeld, J.H. (1990) The distribution of ammonium salts among a size and composition dispersed aerosol. *Atmos. Environ.* **24A**, 1231–1246. => AEL1088
5385. Whelpdale, D.M. (1989) The role of WMO in atmospheric composition monitoring. *WMO Spec. Environ. Report* 1–2. => AEL3401
5386. Whipple, E.C. (1960) An improved technique for obtaining atmospheric ion mobility distributions. *J. Geophys. Res.* **65**, 3679–3684. => HT-F084
5387. Whipple, E.C.Jr. (1960) An improved technique for obtaining atmospheric ion mobility distributions. *J. Geophys. Res.* **65**, 3679–3684. => AEL3534
5388. Whipple, F.J.W. (1933) Relations between the combination coefficients of atmospheric ions. *The Proceedings of the Physical Society (London)* **45**, 367–380. => AEL1770
5389. Whitby, E.R. and McMurry, P.H. (1997) Modal aerosol dynamics modeling. *Aerosol Sci. Technol.* **27**, 673–688. => AEL1946
5390. Whitby, K.T. (1978) The physical characteristics of sulfur aerosols. *Atmospheric Environment* **12**, 135–159. => AEL1263
5391. Whitby, K.T. (1981) Determination of aerosol growth rates in the atmosphere using lumped mode aerosol dynamics. *J. Aerosol Sci.* **12**, 173–178. => AEL1247
5392. Whitby, K.T. and Cantrell, B.K. (1979) Electrical aerosol analyzer constants. @AM, @UFB, Gainesville, pp. 492–493. => AEL0380
5393. Whitby, K.T. and Clark, W.E. (1966) Electric aerosol particle counting and size distribution measuring system for the 0.015 to 1  $\mu m$  size range. *Tellus* **18**, 573–586. => AEL0353
5394. Whitby, K.T. and Clark, W.E. (1966) Electric aerosol particle counting and size distribution measuring system for the 0.015 to 1 size range. *Tellus* **18**, 573–586. => HT0611
5395. Whitby, K.T. and Clark, W.E. (1966) Electric aerosol particle counting and size distribution measuring system for the 0.015 to 1 size range. *Tellus* **18**, 573–586. => HT-F092
5396. Whitby, K.T. and Liu, B.Y.H. (1966) The electrical behaviour of aerosols. *Aerosol Science. Ed. by Davies, C.N.*, Academic Press, London - New York, pp. 66–75. => HT0702
5397. Whitby, K.T. and Liu, B.Y.H. Advances in instrumentation and techniques for aerosol generation and measurement. *P.L.Pub.* 1–34. => HT0304
5398. Whitby, K.T. and Peterson, C.M. (1965) Electrical neutralization and particle size measurement of dye aerosols. *Ind. & Eng. Chem. Fundamentals* **4**, 66–72. => AEL0355
5399. Whitby, K.T. and Sverdrup, G.M. (1980) California aerosols: Their physical and chemical characteristics. *Advances in Environmental Science and Technology* **9**, 477–517. => AEL4124
5400. Whitby, K.T. *High accuracy electrical aerosol size distribution and classification techniques.* Univ. of Minnesota, Minneapolis. => AEL0952

5401. Whitby, K.T., Clark, W.E., Marple, V.A., Sverdrup, G.M., Sem, G.J., Willeke, K., Liu, B.Y.H. and Pui, D.Y.H. (1975) Characterization of California aerosols - I. Size distributions of freeway aerosol. *Atmos. Environ.* **9**, 463–482. => 3447
5402. Whitby, K.T., Husar, R.B. and Liu, B.Y.H. (1972) The aerosol size distribution of Los Angeles smog. *J. Colloid Interface Sci.* **39**, 177–204. => AEL1273
5403. Whitby, K.T., Husar, R.B. and Liu, B.Y.H. (1972) The aerosol size distribution of Los Angeles smog. *Journal of Colloid and Interface Science* **39**, 177–204. => HT0582
5404. Whitby, K.T., Liu, B.Y.H. and Peterson, C.M. (1965) Charging and decay of monodispersed aerosols in the presence of unipolar ion sources. *Journal of Colloid Science* **20**, 585–601. => AEL0354
5405. Whitby, R.A. and Altwicker, E.R. (1978) Acetylene in the atmosphere: sources, representative ambient concentrations and ratios to other hydrocarbons. *Atmos. Environ.* **12**, 1289–1296. => AEL0539
5406. Whitby, R.A. and Coffey, P.E. (1977) Measurement of terpenes and other organics in an Adirondack Mountain pine forest. *J. Geophys. Res.* **82**, 5928–5934. => AEL0478
5407. White, D.R. and Kassner, J.L.Jr. (1971) Experimental and theoretical study of the sign preference in the nucleation of water vapor. *Aerosol Sci.* **2**, 201–206. => AEL1290
5408. White, H.J. (1956) Chemical and physical particle conductivity factors in electrical precipitation. *Chemical Engineering Progress* **52**, 244–248. => AEL0356
5409. White, H.J. (1963) Particle charging. *Industrial electrostatic precipitation*, pp. 126–154. => AEL0940
5410. White, S.B., Alexander, B.V. and Rodman, N.F. (1994) Predicting the annual concentration of indoor <sup>222</sup>Rn from one or more short-term measurements. Abstract. *Health Phys.* **66**, 55–62. => AEL1225
5411. White, W.H. (1997) Deteriorating air or improving measurements? On interpreting concatenate time series. *J. Geophys. Res. Atmospheres* **102**, 6813–6821. => AEL2331
5412. Whitten, R.C., Borucki, W.J., Capone, L.A. and Turco, R.P. (1978) Effect of the reaction  $\text{HO}_2 + \text{O}_3 \rightarrow \text{OH} + 2\text{O}_2$  on stratospheric ozone. *Nature* **275**, 523–524. => AEL1411
5413. Whittlestone, S., Schery, S.D. and Li, Y. (1996) Pb-212 as a tracer for local influence on air samples at Mauna Loa Observatory, Hawaii. *J. Geophys. Res.* **101**, 14777–14785. => AEL1881
5414. Whittlestone, S., Schery, S.D. and Li, Y. (1996) Thoron and radon fluxes from the island of Hawaii. *J. Geophys. Res.* **101**, 14787–14794. => AEL1872
5415. Wiedensholer, A. (1988) An approximation of the bipolar charge distribution for particles in the submicron size range. *J. Aerosol Sci.* **19**, 387–389. => HT0637
5416. Wiedensholer, A. and Fissan, H.J. (1990) Bipolar ion and electron diffusion charging of aerosol particles in high purity argon and nitrogen. *Particle & Particle Systems Characterization*, **7**, pp. 250–255. => HT0638
5417. Wiedensholer, A. and Fissan, H.J. (1991) Bipolar charge distributions of aerosol particles in high-purity argon and nitrogen. *Aerosol Science and Technology* **14**, 358–364. => HT0636
5418. Wiedensohler, A. (1988) An approximation of the bipolar charge distribution for particles in the submicron size range. *J. Aerosol Sci.* **19**, 387–389. => HT0785
5419. Wiedensohler, A. and Fissan, H.J. (1991) Bipolar charge distributions of aerosol particles in high-purity argon and nitrogen. *Aerosol Sci. Technol.* **14**, 358–364. => AEL1553

5420. Wiedensohler, A., Aalto, P., Covert, D., Heintzenberg, J. and McMurry, P. Intercomparison of three methods to determine size distributions of ultrafine aerosols with low number concentrations. – => AEL0932
5421. Wiedensohler, A., Aalto, P., Covert, D., Heintzenberg, J. and McMurry, P.H. (1994) Intercomparison of four methods to determine size distributions of low-concentration ( $\sim 100 \text{ cm}^{-3}$ ), ultrafine aerosols ( $3 < D_p < 10 \text{ nm}$ ) with illustrative data from the Arctic. *Aerosol Sci. Technol.* **21**, 95–109. => AEL1250
5422. Wiedensohler, A., Aalto, P., Covert, D., Heintzenberg, J. and McMurry, P.H. (1994) Intercomparison of four methods to determine size distributions of low concentration ( $\sim 100 \text{ cm}^{-3}$ ), ultrafine aerosols ( $3 < D_p < 10 \text{ nm}$ ) with illustrative data from the Arctic. *Aerosol Sci. Technol.* **21**, 95–109. => HT0872
5423. Wiedensohler, A., Covert, D.S., Swietlicki, E., Aalto, P., Heintzenberg, J. and Leck, C. (1996) Occurrence of an ultrafine particle mode less than 20 nm in diameter in the marine boundary layer during Arctic summer and autumn. *Tellus* **48B**, 213–222. => AEL1584
5424. Wiedensohler, A., Krämer, M. and Hansson, H.-C. *A new method for measurements of insoluble submicron particles in water*. Manuscript,. => HT0696
5425. Wiedensohler, A., Martinsson, B.G. and Hansson, H.-C. *A new unipolar charger for submicron particles*. Manuscript,. => HT0635
5426. Wiedensohler, A., Orsini, D., Covert, D.S., Coffmann, D., Cantrell, W., Havlicek, M., Brechtel, F.J., Russell, L.M., Weber, R.J., Gras, J., Hudson, J.G. and Litchy, M. (1997) Intercomparison study of the size-dependent counting efficiency of 26 condensation particle counters. *Aerosol Sci. Technol.* **27**, 224–242. => AEL1972
5427. Wiegand, G. (1987) IR-Gasanalyse - jetzt mit Mikroprozessorsteuerung. *Labor Praxis* **11**, 1118–1122. => AEL0682
5428. Wiener, N. (1950) *Extrapolation, interpolation, and smoothing of stationary time series with engineering applications*. => HT-F III
5429. Wightman, J.P. (1982) Brief note. XPS analysis of Mount St. Helens ash. *Colloids and Surfaces* **4**, 401–406. => AEL0358
5430. Wild, M. (1999) Discrepancies between model-calculated and observed shortwave atmospheric absorption in areas with high aerosol loadings. *J. Geophys. Res. Atmospheres* **104**, 27361–27371. => AEL3037
5431. Wild, M. (2000) Absorption of solar energy in cloudless and cloudy atmospheres over Germany and in GCMs. *Geophys. Res. Lett.* **27**, 959–962. => AEL3057
5432. Wildt, J., Kley, D., Rockel, A., Rockel, P. and Segschneider, H.J. (1997) Emission of NO from several higher plant species. *J. Geophys. Res. Atmospheres* **102**, 5919–5927. => AEL2310
5433. Wilemski, G. (1975) Binary nucleation. I. Theory applied to water-ethanol vapors. *The J. Chem. Phys.* **62**, 3763–3771. => AEL0814
5434. Wilemski, G. (1975) Binary nucleation. II. Time lags. *The J. Chem. Phys.* **62**, 3772–3776. => AEL0815
5435. Wilemski, G. (1984) Composition of the critical nucleus in multicomponent vapor nucleation. *J. Chem. Phys.* **80**, 1370–1372. => AEL0357
5436. Wilemski, G. (1987) Revised classical binary nucleation theory for aqueous alcohol and acetone vapors. *J. Phys. Chem.* **91**, 2492–2498. => AEL0751
5437. Wilemski, G. (1988) Some issues of thermodynamic consistency in binary nucleation theory. *J. Chem. Phys.* **88**, 5134–5136. => AEL0430

5438. Wilemski, G. (1995) The Kelvin equation and self-consistent nucleation theory. *J. Chem. Phys.* **103**, 1119–1126. => AEL1487
5439. Wilemski, G. and Wyslouzil, B.E. (1995) Binary nucleation kinetics. I. Self-consistent size distribution. *J. Chem. Phys.* **103**, 1127–1136. => AEL1488
5440. Wilhelm, S., Eichkorn, S., Wiedner, D., Pirjola, L. and Arnold, F. (2004) Ion-induced aerosol formation: new insights from laboratory measurements of mixed cluster ions HSO<sub>4</sub>-(H<sub>2</sub>SO<sub>4</sub>)<sub>a</sub>(H<sub>2</sub>O)<sub>w</sub> and H<sup>+</sup>(H<sub>2</sub>SO<sub>4</sub>)<sub>a</sub>(H<sub>2</sub>O)<sub>w</sub>. *Atmos. Environ.* **38**, 1735–1744. => HT1578
5441. Wilkening, M. (1981) Radon in atmospheric studies: A review. *Natural Radiation Environment. 2nd Special Symp. Bhabha Atomic Research Center, Bombay, India*, pp. 565–574. => AEL2540
5442. Wilkening, M. (1981) Radon in atmospheric studies: A review. *Natural Radiation Environment. Second Special Symposium, Bombay*, pp. 565–574. => HT0383
5443. Wilkening, M. (1985) Characteristics of atmospheric ions in contrasting environments. @*JGR* **90**, 5933–5935. => HT0386
5444. Wilkening, M. (1985) Radon transport in soil and its relation to radioactivity. *The Science of the Total Environment* **45**, 219–226. => HT0376
5445. Wilkening, M. and Romero, V. (1981) <sup>222</sup>Rn and atmospheric electrical parameters in the Carlsbad Caverns. @*JGR* **86**, 9911–9916. => HT0385
5446. Wilkening, M.H. and Watkins, D.E. (1976) Air exchange and <sup>222</sup>Rn concentrations in the Carlsbad Caverns. *Health Physics* **31**, 139–145. => HT0067
5447. Willeke, K. and Brockmann, J.E. (1977) Extinction coefficients for multimodal atmospheric particle size distributions. *Atmos. Environ.* **11**, 995–999. => AEL2019
5448. Willeke, K. and Pavlik, R.E. (1980) Particle size-range selection by opposing-jet classification. @ *GA*, @ *AA*, pp. 427–440. => AEL0392
5449. Willett, J. (1985) Atmospheric-electrical implications of <sup>222</sup>Rn daughter deposition on vegetated ground. *J. Geophys. Res.* **90**, 5901–5908. => AEL1880
5450. Willett, J. (1985) Atmospheric-electrical implications of <sup>222</sup>Rn daughter deposition on vegetated ground. *J. Geophys. Res.* **90**, 5901–5908. => AEL2529
5451. Willett, J. (1985) Atmospheric-electrical implications of <sup>222</sup>Rn daughter deposition on vegetated ground. *Journal of Geophysical Research* **90**, 5901–5908. => HT0716
5452. Willett, J.C. (1981) Toward an understanding of the turbulent electrode effect over land. *Naval Research Laboratory Report* 1–28. => HT0161
5453. Willett, J.C. (1983) The turbulent electrode effect as influenced by interfacial ion transfer. *J. Geophys. Res.* **88**, 8453–8469. => HT0826
5454. Williams, D.J., Milne, J.W., Quigley, S.M., Roberts, D.B. and Kimberlee, M.C. (1989) Particulate emissions from "in-use" motor vehicles. II. Diesel vehicles. *Atmos. Environ.* **23**, 2647–2661. => AEL0721
5455. Williams, D.J., Milne, J.W., Roberts, D.B. and Kimberlee, M.C. (1989) Particulate emissions from "in-use" motor vehicles. I. Spark ignition vehicles. *Atmos. Environ.* **23**, 2639–2645. => AEL0876
5456. Williams, E. and Heckman, S. The global electrical circuit as global thermometer. 36–39. => HT0933
5457. Williams, E.R. (1994) Global circuit response to seasonal variations in global surface air temperatures. *Monthly Weather Review* **122**, 1917–1929. => HT1311

5458. Williams, E.R. and Heckman, S.J. (1993) The local diurnal variation of cloud electrification and the global diurnal variation of negative charge on the Earth. *J. Geophys. Res. Atmospheres* **98**, 5221–5234. => HT1250
5459. Williams, E.R. and Lhermitte, R.M. (1983) Radar tests of the precipitation hypothesis for thunderstorm electrification. *J. of Geophysical Research* **88**, 10984–10992. => HT0181
5460. Williams, E.R., Weber, M.E. and Orville, R.E. (1989) The relationship between lightning type and convective state of thunderclouds. @*JGR* **94**, 13213–13220. => HT0511
5461. Williams, I. and Hedley, A.B. (1972) The choice, design and performance of a multichannel aerosol particle counter. *J. Aerosol Sci.* **3**, 363–375. => AEL0361
5462. Williams, J., Roberts, J.M., Bertman, S.B., Stroud, C.A., Fehsenfeld, F.C., Baumann, K., Buhr, M.P., Knapp, K., Murphy, P.C., Nowick, M. and Williams, E.J. (2000) A method for the airborne measurement of PAN, PPN, and MPAN. *J. Geophys. Res. Atmospheres* **105**, 28943–28960. => AEL3277
5463. Williams, K., Frutiger, W.A., Hiley, J. and Nablo, S.V. (1988) "Requirements for very high power electron beam systems for utility stack gas treatment. *Radiation Physics and Chemistry* **31**, 29–44. => AEL0360
5464. Williams, L.R., Golden, D.M. and Huestis, D.L. (1995) Solubility of HBr in sulfuric acid at stratospheric temperatures. *J. Geophys. Res. Atmospheres* **100**, 7329–7335. => AEL2378
5465. Williams, L.R., Manion, J.A., Golden, D.M. and Tolbert, M.A. (1994) Laboratory measurements of heterogeneous reactions on sulfuric acid surfaces. *J. Applied Meteorol.* **33**, 785–790. => AEL2345
5466. Williams, P.C. (1982) A new estimation method for the lognormal distribution. @*JAPCA* **32**, 1071–1072. => AEL0359
5467. Williams, P.I., Gallagher, M.W., Choularton, T.W., Coe, H., Bower, K.N. and McFiggans, G. (2000) Aerosol development and interaction in an urban plume. *Aerosol Sci. Technol.* **32**, 120–126. => AEL3328
5468. Willson, R.C. and Mordvinov, A.V. (1999) Time-frequency analysis of Total Solar Irradiance variations. *Geophys. Res. Lett.* **26**, 3613–3616. => AEL2936
5469. Wilson, I.B. (1947) The deposition of charged particles in tubes, with reference to the retention of therapeutic aerosols in the human lung. *J. of Colloid Sci.* **2**, 271–276. => AEL2728
5470. Wilson, J.C. and Liu, B.Y.H. (1980) Aerodynamic particle size measurement by laser-doppler velocimetry. *J. Aerosol Sci.* **11**, 139–150. => AEL0363
5471. Wilson, L.G. and Cavanagh, P. (1967) The relative importance of Brownian diffusion and other factors in aerosol filtration. *Atmos. Environ.* **1**, 261–269. => AEL0362
5472. Wilson, W.E. (1992) A user-friendly, PC-based, Mie scattering program for theoretical investigations of atmospheric optical properties. *Abstracts of Conference on Visibility and Fine Particles*, Vienna, pp. 1–1. => HT0688
5473. Wiman, B.L.B., Agren, G.I. and Lannefors, H.O. (1986) Author's reply. *Atmos. Environ.* **20**, 407–408. => AEL1102
5474. Wimmer-Schweingruber, R.F., Kern, O. and Hamilton, D.C. (1999) On the solar wind composition during the November 1997 solar particle events: WIND/MASS observations. *Geophys. Res. Lett.* **26**, 3541–3544. => AEL2930
5475. Wincel, H., Mereand, E. and Castleman, A.W.Jr. (1995) Gas phase reactions of  $\text{N}_2\text{O}_5$  with  $\text{NO}_2^-$  ( $\text{H}_2\text{O}$ )<sub>n=0-2</sub>,  $\text{NO}_3^-$  ( $\text{H}_2\text{O}$ )<sub>n=1,2</sub>, and  $\text{NO}_{n=2,3}^- \text{HNO}_2$ . *J. Chem. Phys.* **102**, 9228–9234. => AEL1485

5476. Winchester, J.W., Ferek, R.J., Lawson, D.R., Pilotte, J.O., Thiemens, M.H. and Wangen, L.E. (1979) Comparison of aerosol sulfur and crustal element concentrations in particle size fractions from continental U.S. locations. *Water, Air, and Soil Pollution* **12**, 431–440. => AEL364
5477. Windeler, R.S., Friedlander, S.K. and Lehtinen, K.E.J. (1997) Production of nanometer-sized metal oxide particles by gas phase reaction in a free jet. I: Experimental system and results. *Aerosol Sci. Technol.* **27**, 174–190. => AEL1967
5478. Windeler, R.S., Friedlander, S.K. and Lehtinen, K.E.J. (1997) Production of nanometer-sized metal oxide particles by gas phase reaction in a free jet. II: Particle size and neck formation – comparison with theory. *Aerosol Sci. Technol.* **27**, 191–205. => AEL1968
5479. Wingenter, O.W., Kubo, M.K., Blake, N.J., Smith, T.W.Jr., Blake, D.R. and Rowland, F.S. (1996) Hydrocarbon and halocarbon measurements as photochemical and dynamical indicators of atmospheric hydroxyl, atomic chlorine, and vertical mixing obtained during Lagrangian flights. *J. Geophys. Res.* **101**, 4331–4340. => AEL1747
5480. Winiwarter, W., Haberl, H. and Simpson, D. (1999) On the boundary between man-made and natural emissions: Problems in defining European ecosystems. *J. Geophys. Res. Atmospheres* **104**, 8153–8159. => AEL2890
5481. Winkler, P. (1988) Surface ozone over the Atlantic Ocean. *J. Atmos. Chem.* **7**, 73–91. => AEL1454
5482. Winklmayr, W., Ramamurthi, M., Strydom, R. and Hopke, P.K. (1990) Size distribution measurements of ultrafine aerosols,  $dp > 1.8$  nm, formed by radiolysis in a diameter measurement analyzer aerosol charger. *Aerosol Science and Technology* **13**, 394–398. => AEL2526
5483. Winklmayr, W., Ramamurthi, M., Strydom, R. and Hopke, P.K. (1990) Technical note. Size distribution measurements of ultrafine aerosols,  $dp > 1.8$  nm, formed by radiolysis in a diameter measurement analyzer aerosol charger. *Aerosol Sci. Technol.* **13**, 394–398. => HT0830
5484. Winklmayr, W., Reischl, G.P., Lindner, A.O. and Berner, A. (1991) A new electromobility spectrometer for the measurement of aerosol size distributions in the size range from 1 to 1000 nm. *J. Aerosol Sci.* **22**, 289–296. => AEL1094
5485. Winklmayr, W., Reischl, G.P., Lindner, A.O. and Berner, A. (1991) A new electromobility spectrometer for the measurement of aerosol size distributions in the size range from 1 to 1000 nm. *J. Aerosol Sci.* **22**, 289–296. => HT0833
5486. Winn, W.P. and Byerley, L.G. (1975) Electric field growth in thunderclouds. *Journal of the Royal Meteorological Society* **101**, 979–994. => HT0054
5487. Winn, W.P. and Moore, C.B. (1971) Electric field measurements in thunderclouds using instrumented rockets. *Journal of Geophysical Research* **76**, 5003–5017. => HT0056
5488. Winn, W.P., Schwede, G.W. and Moore, C.B. (1974) Measurements of electric fields in thunderclouds. *J. of Geophysical Research* **79**, 1761–1767. => HT0125
5489. Winterrath, T., Kurosu, T.P., Richter, A. and Burrows, J.P. (1999) Enhanced O<sub>3</sub> and NO<sub>2</sub> in thunderstorm clouds: Convection or production?. *Geophys. Res. Lett.* **26**, 1291–1294. => AEL2868
5490. Wirzberger, H., Lekhtmakher, S., Shapiro, M. and Dudko, V. (1997) Prevention of particle deposition by means of heating the deposition surface. *J. Aerosol Sci.* **28**, S83–S84. => HT1521
5491. Wise, M.E., Surratt, J.D., Curtis, D.B., Shilling, J.E. and Tolbert, M.A. (2003) Hygroscopic growth of ammonium sulfate/dicarboxylic acids. *J. Geophys. Res. Atmospheres* **108**, 4638–doi:10.1029/2003JD003755. => AEL4067



5492. Wisenberg, J. and Kockarts, G. (1980) Negative ion chemistry in the terrestrial D region and signal flow graph theory. *J. Geophys. Res.* **85**, 4642–4652. => AEL0598
5493. Withers, P.B., Foot, E.V.J. and Clark, J.M. (1998) The measurement of particle size and mobility in an electric field. *J. Aerosol Sci.* **29**, S1243–S1244. => HT1363
5494. Witte, J.C., Folkins, I.A., Neima, J., Ridley, B.A., Walega, J.G. and Weinheimer, A.J. (1997) Large-scale enhancements in NO/NO<sub>y</sub> from subsonic aircraft emissions: Comparisons with observations. *J. Geophys. Res. Atmospheres* **102**, 28169–28175. => AEL2169
5495. Witttig, S., Spiegel, G., Platzer, K.-H. and Willibald, U. (1988) The performance characteristics of the electron-beam-technique: detailed studies at the (ITS) flue gas facility. *Radiation Physics and Chemistry* **31**, 83–93. => AEL0365
5496. Wlodek, S., Luczynski, Z. and Wincel, H. (1980) Stabilities of gas-phase NO<sub>3</sub><sup>-</sup>·(HNO<sub>3</sub>)<sub>n</sub>, n<6, clusters. *Int. J. Mass Spectrom. Ion Phys.* **35**, 39–46. => AEL1459
5497. Wolf, M.E. and Hidy, G.M. (1997) Aerosols and climate: Anthropogenic emissions and trends for 50 years. *J. Geophys. Res. Atmospheres* **102**, 11113–11121. => AEL1984
5498. Wolff, E.W. and Cachier, H. (1998) Concentrations and seasonal cycle of black carbon in aerosol at a coastal Antarctic station. *J. Geophys. Res. Atmospheres* **103**, 11033–11041. => AEL2264
5499. Wolff, G.T., Korsog, P.E., Kelly, N.A. and Ferman, M.A. (1985) Relationships between fine particulate species, gaseous pollutants and meteorological parameters in Detroit. *Atmos. Environ.* **19**, 1341–1349. => AEL0688
5500. Woo, K.S., Chen, D.R., Pui, D.Y.H. and McMurry, P.H. (2001) Measurement of Atlanta aerosol size distributions: Observations of ultrafine particle events. *Aerosol Sci. Technol.* **34**, 75–87. => AEL3365
5501. Woo, K.-S., Chen, D.-R., Pui, D.Y.H. and Wilson, W.E. (2001) Use of continuous measurements of integral aerosol parameters to estimate particle surface area. *Aerosol Sci. Technol.* **34**, 57–65. => AEL3363
5502. Wood, D., Waddicor, J.T. and Wilson, S. (1990) A mass spectrometer with novel geometry and analyzer. *International Laboratory* 52–63. => HT0673
5503. Woosley, J.D. and Holzworth, R.H. (1987) Electrical potential measurements in the lower atmosphere. *@JGR* **92**, 3127–3134. => HT0380
5504. Worsnop, D.R., Fox, L.E., Zahniser, M.S. and Wofsy, S.C. (1993) Vapor pressures of solid hydrates of nitric acid: Implications for polar stratospheric clouds. *Science* **259**, 71–74. => AEL1840
5505. Worthy, D.E.J., Levin, I., Hopper, F., Ernst, M.K. and Trivett, N.B.A. (2000) Evidence for a link between climate and northern wetland methane emissions. *J. Geophys. Res. Atmospheres* **105**, 4031–4038. => AEL3083
5506. Wright, D. and El-Shall, M.S. (1992) Reply to the Comment on the homogeneous nucleation of CH<sub>3</sub>CN and the scaling law for onset supersaturation ratios. *Chem. Phys. Lett.* **189**, 103–104. => AEL0824
5507. Wright, D. and El-Shall, M.S. (1993) Analysis of homogeneous nucleation data of polar molecules: Vapor association, dipole orientation, and elongated clusters. *J. Chem. Phys.* **98**, 3369–3379. => AEL1035
5508. Wright, D., Caldwell, R., Moxely, C. and El-Shall, M.S. (1993) Homogeneous nucleation in supersaturated vapors of polar molecules: acetonitrile, benzonitrile, nitromethane, and nitrobenzene. *J. Chem. Phys.* **98**, 3356–3368. => AEL0984

5509. Wright, D.L., Kasibhatla, P.S., McGraw, R. and Schwartz, S.E. (2001) Description and evaluation of a six-moment aerosol microphysical module for use in atmospheric chemical transport models. *J. Geophys. Res. Atmospheres* **106**, 20275–20291. => AEL3516
5510. Wu C.-Y. and Biswas, P. (1998) Particle growth by condensation in a system with limited vapor. *Aerosol Sci. Technol.* **28**, 1–20. => AEL2097
5511. Wu C.-Y. and Biswas, P. (1998) Study of numerical diffusion in a discrete-sectional model and its application to aerosol dynamics simulation. *Aerosol Sci. Technol.* **29**, 359–378. => AEL2850
5512. Wu J.J. and Flagan, R.C. (1988) A discrete-sectional solution to the aerosol dynamic equation. *J. Colloid Interface Sci.* **123**, 339–352. => AEL2371
5513. Wu J.J., Cooper, D.W. and Miller, R.J. (1990) An aerosol model of particle generation during pressure reduction. *J. Vacuum Sci. Technol.* **A8**, 1961–1968. => AEL0903
5514. Wu J.J., Nguyen, H.V. and Flagan, R.C. (1987) A method for the synthesis of submicron particles. *Langmuir* **3**, 266–271. => AEL1237
5515. Wu M.K., Windeler, R.S., Steiner, C.K.R., Börs, T. and Friedlander, S.K. (1993) Controlled synthesis of nanosized particles by aerosol processes. *Aerosol Sci. Technol.* **19**, 527–548. => AEL1268
5516. Wu Y.-L. and Davidson, C. (1989) Dry deposition onto aerodynamic surfaces and vegetation. *Air and Waste Management Association Annual Meeting, Anaheim, Calif.*, **89-140.6**, pp. 1–16. => AEL0913
5517. Wu Y.-L., Davidson, C.I., Dolske, D.A. and Sherwood, S.I. (1992) Dry deposition of atmospheric contaminants: The relative importance of aerodynamic, boundary layer, and surface resistances. *Aerosol Sci. Technol.* **16**, 65–81. => AEL1062
5518. Wu Z., Walters, J.K. and Thomas, D.W.P. (1999) The deposition of particles from air flow on a single cylindrical fiber in a uniform electrical field. *Aerosol Sci. Technol.* **30**, 62–70. => AEL2858
5519. Wurz, P., Husinsky, W. and Betz, G. (1991) Cluster emission under ion bombardment of metallic targets. *Applied Physics A Solids and Surfaces* **52**, 213–217. => AEL0450
5520. Wurzler, S., Reisin, T.G. and Levin, Z. (2000) Modification of mineral dust particles by cloud processing and subsequent effects on drop size distributions. *J. Geophys. Res. Atmospheres* **105**, 4501–4512. => AEL3086
5521. Wylie, D.P. and Hudson, J.G. (2002) Effects of long-range transport and cloud condensation nuclei in the springtime Arctic. *J. Geophys. Res. Atmospheres* **107**, AAC13 1–11. => AEL3679
5522. Wyslouzil, B.E. and Wilemski, G. (1995) Binary nucleation kinetics. II. Numerical solution of the birth-death equations. *J. Chem. Phys.* **103**, 1137–1151. => AEL1489
5523. Wyslouzil, B.E. and Wilemski, G. (1996) Binary nucleation kinetics. III. Transient behavior and time lags. *J. Chem. Phys.* **105**, 1090–1100. => AEL1787
5524. Wyslouzil, B.E., Carleton, K.L., Sonnenfroh, D.M., Rawlins, W.T. and Arnold, S. (1994) Observation of hydration of single, modified carbon aerosols. *Geophys. Res. Lett.* **21**, 2107–2110. => AEL1674
5525. Wyslouzil, B.E., Seinfeld, J.H., Flagan, R.C. and Okuyama, K. (1991) Binary nucleation in acid-water systems. II. Sulfuric acid-water and a comparison with methanesulfonic acid-water. *J. Chem. Phys.* **94**, 6842–6850. => AEL1743
5526. Xie, J. and Marlow, W.H. (1997) Water vapor pressure over complex particles, I: Sulfuric acid solution effect. *Aerosol Sci. Technol.* **27**, 591–603. => AEL1961

5527. Xie, Y. and Schaefer, H.F.III (1993) Hydrogen bonding between the water molecule and the hydroxyl radical ( $\text{H}_2\text{O}\text{-HO}$ ): The global minimum. *J. Chem. Phys.* **98**, 8829–8834. => AEL0916
5528. Xie, Y., Hopke, P.K., Casuccio, G. and Henderson, B. (1994) Use of multiple fractal dimensions to quantify airborne particle shape. *Aerosol Sci. Technol.* **20**, 161–168. => AEL1275
5529. Xie, Z.D. (1992) Formation mechanism of condensation nuclei in nighttime atmosphere and the kinetics of the  $\text{SO}_2\text{-O}_3\text{-NO}_2$  system. *J. Phys. Chem.* **96**, 1543–1547. => AEL1071
5530. Xiong, J.Q., Zhong, M., Fang, C., Chen, L.C. and Lippmann, M. (1998) Influence of organic films on the hygroscopicity of ultrafine sulfuric acid aerosol. *Environ. Sci. Technol.* **32**, 3536–3541. => AEL2966
5531. Xu X., Bingemer, H.G., Georgii, H.-W., Schmidt, U. and Bartell, U. (2001) Measurements of carbonyl sulfide (COS) in surface seawater and marine air, and estimates of the air-sea flux from observations during two Atlantic cruises. *J. Geophys. Res. Atmospheres* **106**, 3491–3502. => AEL3413
5532. Yackerson, N. *On the dielectric permittivity of the dust grains suspended in a humid atmosphere. Käsikiri.* => HT1421
5533. Yair, Y. and Levin, Z. (1989) Charging of polydispersed aerosol particles by attachment of atmospheric ions. *J. Geophys. Res.* –. => AEL0951
5534. Yair, Y. and Levin, Z. (1989) Charging of polydispersed aerosol particles by attachment of atmospheric ions. @*JGR* **94**, 13085–13091. => HT0475
5535. Yair, Y., Levin, Z. and Altaratz, O. (1998) Lightning phenomenology in the Tel Aviv area from 1989 to 1996. *J. Geophys. Res. Atmospheres* **103**, 9015–9025. => AEL2254
5536. Yaita, T. and Nitta, M. (1955) The effects of turbulence upon the measurements of atmospheric ions. *Bulletin of the Electrotechnical Laboratory* **19**, 272–284,308. => HT-F097
5537. Yaldram, K. and Binder, K. (1991) Monte Carlo simulation of phase separation and clustering in the ABV model. *J. Stat. Phys.* **62**, 161–175. => AEL0791
5538. Yamada, I., Usui, H. and Takagi, T. The formation and kinetics of ionized cluster beams. *Zeitschrift für Physik D. Atoms, Molecules and Clusters* **3**, 137–142. => AEL0437
5539. Yamada, Y., Miyamoto, K. and Koizumi, A. (1985) Size determination of latex particles by electron microscopy. *Aerosol Sci. Technol.* **4**, 227–232. => AEL0366
5540. Yamdagni, R. and Kebarle, P. (1971) Hydrogen-bonding energies to negative ions from gas-phase measurements of ionic equilibria. *J. Amer. Chem. Soc.* **93**, 7139–7143. => AEL0657
5541. Yamins, H.G. and Zisman, W.A. (1993) A new method of studying the electrical properties of monomolecular films on liquids. *J. Chem. Phys.* **1**, 656–661. => AEL1068
5542. Yang, P.C., Black, T.A., Neumann, H.H., Novak, M.D. and Blanken, P.D. (1999) Spatial and temporal variability of  $\text{CO}_2$  concentration and flux in a boreal aspen forest. *J. Geophys. Res. Atmospheres* **104**, 27653–27661. => AEL3041
5543. Yang, X. and Castleman, A.W.Jr. (1989) Large protonated water clusters  $\text{H}^+(\text{H}_2\text{O})_n$  ( $1 < n < 60$ ): the production and reactivity of clathrate-like structures under thermal conditions. *J. Amer. Chem. Soc.* **111**, 6845–6846. => AEL0656
5544. Yang, X. and Castleman, A.W.Jr. (1990) Production and magic numbers of large hydrated anion clusters  $\text{X}^-(\text{H}_2\text{O})_{n=0-59}$  ( $\text{X}=\text{OH}, \text{O}, \text{O}_2, \text{and } \text{O}_3$ ) under thermal conditions. *J. Phys. Chem.* **94**, 8500–8502. => AEL0654
5545. Yasuoka, K. and Matsumoto, M. (1998) Molecular dynamics of homogeneous nucleation in the vapor phase. I. Lennard-Jones fluid. *J. Chem. Phys.* **109**, 8451–8462. => AEL3876

5546. Yasuoka, K. and Matsumoto, M. (1998) Molecular dynamics of homogeneous nucleation in the vapor phase. II. Water. *J. Chem. Phys.* **109**, 8463–8470. => AEL3877
5547. Ye M. (1994) *Lightning electromagnetic environment and interaction to electrical systems. Comprehensive summaries of Uppsala dissertations from the Faculty of Science and Technology. Abstract.* Acta Universitatis Upsaliensis, Uppsala. => HT0887
5548. Yeh, H.-C., Cheng, Y.-S. and Kanapilly, G.M. (1983) Ch. 75. Use of the electrical aerosol analyzer at reduced pressure. *Aerosols in the mining and industrial work environments. V. 3. Instrumentation.* Ed. V.A. Marple and B.Y.H. Liu, Ann Arbor Science Publishers, Ann Arbor, **3**, pp. 1117–1133. => HT0909
5549. Yeh, H.C., Cheng, Y.S. and Orman, M.M. (1982) Evaluation of various types of wire screens as diffusion battery cells. *J. Coll. Interface Sci.* **86**, 12–16. => AEL0367
5550. Yeh, H.-C., Cuddihy, R.G., Phalen, R.F. and Chang, I-Y. (1996) Comparisons of calculated respiratory tract deposition of particles based on the proposed NCRP model and the new ICRP66 model. *Aerosol Sci. Technol.* **25**, 134–140. => AEL1742
5551. Yeh, H.-C., Muggenburg, B.A. and Harkema, J. (1997) *In vivo* deposition of inhaled ultrafine particles in the respiratory tract of rhesus monkeys. *Aerosol Sci. Technol.* **27**, 465–470. => AEL2543
5552. Ylätaalo, S.I. and Hautanen, J. (1998) Electrostatic precipitator penetration function for pulverized coal combustion. *Aerosol Sci. Technol.* **29**, 17–30. => AEL2844
5553. Yohannes, P., Bao, X. and Stelson, A.W. (1995) Competition of NO and SO<sub>2</sub> for OH generated within electrical aerosol analyzers. *Aerosol Sci. Technol.* **22**, 190–193. => AEL1299
5554. Yokelson, R.J., Goode, J.G., Ward, D.E., Susott, R.A., Babbitt, R.E., Wade, D.D., Bertschi, I., Griffith, D.W.T. and Hao, W.M. (1999) Emissions of formaldehyde, acetic acid, methanol, and other trace gases from biomass fires in North Carolina measured by airborne Fourier transform infrared spectroscopy. *J. Geophys. Res. Atmospheres* **104**, 30109–30125. => AEL3042
5555. Yokouchi, Y. and Ambe, Y. (1985) Aerosols formed from the chemical reaction of monoterpenes and ozone. *Atmos. Environ.* **19**, 1271–1276. => AEL0817
5556. Yokouchi, Y., Nojiri, Y., Barrie, L.A., Toom-Saunty, D. and Fujinuma, Y. (2001) Atmospheric methyl iodide: High correlation with surface seawater temperature and its implications on the sea-to-air flux. *J. Geophys. Res. Atmospheres* **106**, 12661–12668. => AEL3473
5557. Yong, P.K. and Seinfeld, J.H. (1992) Simulation of multicomponent aerosol dynamics. *J. Colloid Interface Sci.* **149**, 425–449. => AEL0863
5558. Yoon, S.C., Marlow, W.H. and Hopke, P.K. (1992) Measurement of SO<sub>2</sub> effects on the <sup>218</sup>Po ion mobility spectrum by alpha-track detection. *Health Phys.* **62**, 51–57. => HT1138
5559. Yoshikawa, H.H., Swartz, G.A., MacWaters, J.T. and Fite, W.L. (1956) "Electrostatic particle size analyzer. *The Review of Scientific Instruments* **27**, 359–. => AEL0368
5560. Yoshiki, M. and Sato, K. (2000) A statistical study of gravity waves in the polar regions based on operational radiosonde data. *J. Geophys. Res. Atmospheres* **105**, 17995–18011. => AEL3230
5561. Young, J.R., Ellis, C. and Hering, S. (1994) The Los Angeles Aerosol Characterization and Source Apportionment Study: An overview. *Aerosol Sci. Technol.* **21**, 259–268. => AEL1322
5562. Young, V.L., Kieser, B.N., Chen, S.P. and Niki, H. (1997) Seasonal trends and local influences on nonmethane hydrocarbon concentrations in the Canadian boreal forest. *J. Geophys. Res. Atmospheres* **102**, 5913–5918. => AEL2309

5563. Yu C.P., Zhang, L., Oberdöster, G., Mast, R.W., Maxim, D. and Utell, M.J. (1995) Deposition of refractory ceramic fibers (RCF) in the human respiratory tract and comparison with rodent studies. *Aerosol Sci. Technol.* **23**, 291–300. => AEL1572
5564. Yu F. (2003) *Formation mechanism of atmospheric aerosols. Käsikiri.* => HT1437
5565. Yu F. (2006) *Atmospheric nucleation: Quantum studies, kinetic modeling, and regional scale investigations. Proposed project to the National Science Foundation.* Manuscript,. => HT1510
5566. Yu F. and Turco, R. (2001) From molecular clusters to nanoparticles: Role of ambient ionization in tropospheric aerosol formation. *J. Geophys. Res. Atmospheres* **106**, 4797–4814. => AEL3418
5567. Yu F. and Turco, R.P. (1997) The role of ions in the formation and evolution of particles in aircraft plumes. *Geophys. Res. Lett.* **24**, 1927–1930. => AEL2367
5568. Yu F. and Turco, R.P. (1998) The formation and evolution of aerosols in stratospheric aircraft plumes: Numerical simulations and comparisons with observations. *J. Geophys. Res. Atmospheres* **103**, 25915–25934. => AEL2811
5569. Yu F. and Turco, R.P. (2000) Ultrafine aerosol formation via ion-mediated nucleation. *Geophys. Res. Lett.* **27**, 883–886. => AEL3158
5570. Yu F., Turco, R.P. and Kärcher, B. (1999) The possible role of organics in the formation and evolution of ultrafine aircraft particles. *J. Geophys. Res. Atmospheres* **104**, 4079–4087. => AEL2774
5571. Yu G., Zhang, Z. and Lessmann, R. (1998) Fluid flow and particle diffusion in the human upper respiratory system. *Aerosol Sci. Technol.* **28**, 146–158. => AEL2156
5572. Yu S. and Kennedy, I.M. (1997) An approximate method to calculate the collision rates of a discrete-sectional model. *Aerosol Sci. Technol.* **27**, 266–273. => AEL1971
5573. Yu S., Kasibhatla, P.S., Wright, D.L., Schwartz, S.E., McGraw, R. and Deng, A. (2003) Moment-based simulation of microphysical properties of sulfate aerosols in the eastern United States: Model description, evaluation, and regional analysis. *J. Geophys. Res. Atmospheres* **108**, 4353– doi:10.1029/2002JD002890. => AEL4021
5574. Yu S., Saxena, V.K., Wenny, B.N., DeLuisi, J.J., Yue, G.K. and Petropavlovskikh, I.V. (2000) A study of the aerosol radiative properties needed to compute direct aerosol forcing in the southeastern United States. *J. Geophys. Res. Atmospheres* **105**, 24739–24749. => AEL3273
5575. Yue, G.K. (1979) A quick method for estimating the equilibrium size and composition of aqueous sulfuric acid droplets. *J. Aerosol Sci.* **10**, 75–86. => AEL1282
5576. Yue, G.K. (1979) On the characteristics of sulfate aerosols formed in the presence of ion sources. *J. Aerosol Sci.* **10**, 387–393. => AEL1283
5577. Yue, G.K. and Chan, L.Y. (1979) Theory of the formation of aerosols of volatile binary solutions through the ion-induced nucleation process. *J. Colloid Interface Sci.* **68**, 501–507. => AEL0776
5578. Yue, G.K. and Deepak, A. (1982) Temperature dependence of the formation of sulfate aerosols in the stratosphere. *J. Geophys. Res.* **87**, 3128–3154. => AEL1472
5579. Yuen, P.-F. (1994) The effects of in-cloud sulfate production on light scattering properties of continental aerosol. *J. Appl. Meteorol.* **33**, 848–854. => AEL2743
5580. Yule, A.J., Chigier, N.A. and Cox, N.W. (1978) Measurement of particle sizes in sprays by the automated analysis of spark photographs. *Particle size analysis. Proceedings of the conference. Salford, 1977*, London, pp. 61–73. => AEL0419

5581. Yum, S.S. and Hudson, J. (2001) Vertical distributions of cloud condensation nuclei spectra over the springtime Arctic Ocean. *J. Geophys. Res. Atmospheres* **106**, 15045–15052. => AEL3487
5582. Yun, C.-M., Otani, Y. and Emi, H. (1997) Development of unipolar ion generator – separation of ions in axial direction of flow. *Aerosol Sci. Technol.* **26**, 389–397. => AEL1980
5583. Yunker, E.A. (1940) The diurnal variation and vertical distribution of atmospheric condensation-nuclei. *Terrestrial Magnetism and Atmospheric Electricity* **45**, 121–126. => AEL1733
5584. Yunker, E.A. (1940) The mobility spectrum of atmospheric ions. *Terrestrial Magnetism and Atmospheric Electricity* **45**, 127–132. => AEL1598
5585. Yunker, E.A. (1940) The mobility spectrum of atmospheric ions. *Terrestrial Magnetism and Atmospheric Electricity* **45**, 127–132. => HT-F070
5586. Yunker, E.A. The mobility-spectrum of atmospheric ions. **45**, 127–132. => HT0931
5587. Yvon, S.A., Plane, J.M.C., Nien, C.-F., Cooper, D., J. and Saltzman, E.S. (1996) Interaction between nitrogen and sulfur cycles in the polluted marine boundary layer. *J. Geophys. Res.* **101**, 1379–1386. => AEL1818
5588. Zachariah, M.R. and Dimitrou, P. (1990) Controlled nucleation in aerosol reactors for suppression of agglomerate formation: A numerical study. *Aeros. Sci. Technol.* **13**, 413–425. => AEL1110
5589. Zachek, S.I. (1962) Ustroistvo dlya izmereniya i registratsii elektroprovodimosti vozdukhav atmosfere (in Russian). SSSR Patent No. 146547, Class 42i, Prior. 11.04.1961. => HT-F058
5590. Zafiriou, O.C., Alford, J., Herrera, M., Peltzer, E.T., Gagosian, R.B. and Liu, S.C. (1980) Formaldehyde in remote marine air and rain: flux measurements and estimates. *Geophysical Research Letters* **7**, 341–344. => AEL1427
5591. Zagnitko, A.V., Nikylin, E.A., Prusakov, V.N. and Trotsenko, N.M. (1992) Unipolar charging of ultrafine aerosol particles by ions and electrons. *J. Aerosol Sci.* **23**, 93–96. => HT0642
5592. Zahn, A., Brenninkmeijer, C.A.M., Crutzen, P.J., Parrish, D.D., Sueper, D., Heinrich, G., Güsten, H., Fischer, H., Hermann, M. and Heintzenberg (2002) Electrical discharge source for tropospheric “ozone-rich transients”. *J. Geophys. Res. Atmospheres* **107**, 4638  
doi:10.1029/2002JD002345–2002. => AEL3812
5593. Zakharov, V.G. (1987) 2-4 dekabrya 1986 g. v Moskve na VDNKh SSSR sostoyalos sobeshtshanie-seminar.. (in Russian). *Meteorologiya i Gidrologiya* 123–124. => HT0344
5594. Zakharov, V.V., Brodskaya, E.N. and Laaksonen, A. (1997) Surface tension of water droplets: A molecular dynamics study of model and size dependencies. *J. Chem. Phys.* **107**, 10675–10683. => AEL3860
5595. Zakharov, V.V., Brodskaya, E.N. and Laaksonen, A. (1998) Molecular dynamics simulation of methanol clusters. *J. Chem. Phys.* **109**, 9487–9493. => AEL3879
5596. Zakharov, V.V., Brodskaya, E.N. and Laaksonen, A. (1998) Surface properties of water clusters: A molecular dynamics study. *Molecular Physics* **95**, 203–209. => AEL3878
5597. Zanis, P., Monks, P.S., Schuepbach, E. and Penkett, S.A. (1999) On the relationship of HO<sub>2</sub> + RO<sub>2</sub> with j(O<sup>1</sup>D) during the Free Tropospheric Experiment (FREETEX '96) at the Jungfraujoch Observatory (3580 m above sea level) in the Swiss Alps. *J. Geophys. Res. Atmospheres* **104**, 26913–26925. => AEL3035

5598. Zanis, P., Monks, P.S., Schuepbach, E., Carpenter, L.J., Green, T.J., Mills, G.P., Bauguitte, S. and Penkett, S.A. (2000) In situ ozone production under free tropospheric conditions during FREETEX '98 in the Swiss Alps. *J. Geophys. Res. Atmospheres* **105**, 24223–24234. => AEL3253
5599. Zapadinsky, E.L. and Kulmala, M. (1995) Helmholtz free energy of a cluster on the coherent substrate: Monte Carlo calculations. *J. Chem. Phys.* **102**, 6858–6864. => AEL2049
5600. Zapadinsky, E.L., Sabelfeld, K.K., Kulmala, M., Gorbunov, B.Z. and Rackimulova, D.M. (1995) Heterogeneous nucleation in non-uniform media: Numerical simulations. *J. Aerosol Sci.* **26**, 1189–1195. => AEL2051
5601. Zaratti, F., Forno, R.N., García Fuentes, J. and Andrade, M.F. (2003) Erythemally weighted UV variations at two high-altitude locations. *J. Geophys. Res. Atmospheres* **108**, 4263–doi:10.1029/2001JD000918, 2003. => AEL4007
5602. Zebel, G. (1958) Zur Theorie des Verhaltens elektrisch geladener Aerosole. *Kolloid-Zeitschrift* **157**, 37–50. => AEL1994
5603. Zeleny, J. (1900) The velocity of the ions produced in gases by Röntgen rays. *Philosophical Transactions A* **195**, 193–234. => AEL4019
5604. Zeleny, J. (1929) The distribution of mobilities of ions in moist air. *Phys. Rev.* **34**, 310–334. => AEL3389
5605. Zeleznik, F.J. (1991) Thermodynamic properties of the aqueous sulfuric acid system to 350 K. *J. Phys. Chem. Ref. Data* **20**, 1157–1200. => AEL1926
5606. Zellner, K. and Moussipoulos, N. (1986) Simulations of the ozone formation caused by traffic in urban areas. *Atmos. Environ.* **20**, 1589–1596. => AEL0369
5607. Zellner, R. (1978) Recombination reactions in atmospheric chemistry. *Ber. Bunsenges. Phys. Chem.* **82**, 1172–1179. => AEL1470
5608. Zellweger, C., Ammann, M., Buchmann, B., Hofer, P., Lugauer, M., Rüttimann, R., Streit, N., Weingartner, E. and Baltensperger, U. (2000) Summertime NO<sub>y</sub> speciation at the Jungfrauoch, 3580 m above sea level, Switzerland. *J. Geophys. Res. Atmospheres* **105**, 6655–6667. => AEL3106
5609. Zeng, X.C. and Oxtoby, D.W. (1991) Binary homogeneous nucleation theory for the gas-liquid transition: A nonclassical approach. *J. Chem. Phys.* **95**, 5940–5947. => AEL1332
5610. Zeng, X.C. and Oxtoby, D.W. (1991) Gas-liquid nucleation in Lennard-Jones fluids. *J. Chem. Phys.* **94**, 4472–4478. => AEL0456
5611. Zerefos, C.S., Balis, D.S., Meleti, C., Bais, A.F., Tourpali, K., Kourtidis, K., Vanicek, K., Cappellani, F., Kaminski, U., Colombo, T., Stübi, R., Manea, L., Formenti, P. and Andreae, M.O. (2000) Changes in surface solar UV irradiances and total ozone during the solar eclipse of August 11, 1999. *J. Geophys. Res. Atmospheres* **105**, 26463–26473. => AEL3260
5612. Zhang, J., Chameides, W.L., Weber, R., Cass, G., Orsini, D., Edgerton, E., Jongejan, P. and Slanina, J. (2003) An evaluation of the thermodynamic equilibrium assumption for fine particulate composition: Nitrate and ammonium during the 1999 Atlanta Supersite Experiment. *J. Geophys. Res. Atmospheres* **108**, 8414–doi:10.1029/2001JD001592, 2003. => AEL3983
5613. Zhang, J., He, Q. and Li, P.J. (1994) Characteristics of aldehydes: Concentrations, sources, and exposures for indoor and outdoor residential microenvironments. *Environ. Sci. Technol.* **28**, 146–152. => AEL0880
5614. Zhang, L., Brook, J.R. and Vet, R. (2003) A revised parametrization for gaseous dry deposition in air-quality models. *Atmos. Chem. Phys.* **3**, 2067–2082. => HT1571

5615. Zhang, S.-H., Akutsu, Y., Russell, L.M., Flagan, R.C. and Seinfeld, J.H. (1995) Radial differential mobility analyzer. *Aerosol Sci. Technol.* **23**, 357–372. => AEL1520
5616. Zhang, S.-H., Seinfeld, J.H. and Flagan, R.C. (1993) Determination of particle vapor pressures using the tandem differential mobility analyzer. *Aerosol Sci. Technol.* **19**, 3–14. => AEL1267
5617. Zhang, S.-H., Shaw, M., Seinfeld, J.H. and Flagan, R.C. (1992) Photochemical aerosol formation from  $\alpha$ -pinene and  $\beta$ -pinene. *J. Geophys. Res. Atmospheres* **97**, 20717–20729. => AEL2349
5618. Zhang, Y., Bischof, C.H., Easter, R.C. and Wu, P.-T. (1998) Sensitivity analysis of a mixed-phase chemical mechanism using automatic differentiation. *J. Geophys. Res. Atmospheres* **103**, 18953–18979. => AEL2337
5619. Zhang, Y., Kreidenweis, S.M. and Feingold, G. (1999) Stratocumulus processing of gases and cloud condensation nuclei 2. Chemistry sensitivity analysis. *J. Geophys. Res. Atmospheres* **104**, 16061–16080. => AEL2999
5620. Zhang, Y., Pun, B., Vijayaraghavan, K., Wu, S.-Y., Seigneur, C., Pandis, S.N., Jacobson, M.Z., Nenes, A. and Seinfeld, J.H. (2004) Development and application of the Model of Aerosol Dynamics, Reaction, Ionization, and Dissolution (MADRID). *J. Geophys. Res. Atmospheres* **109**, D01202– doi:10.1029/2003JD003501, 2004. => AEL4115
5621. Zhang, Y., Seigneur, C., Seinfeld, J.H., Jacobson, M.Z. and Binkowski, F.S. (1999) Simulation of aerosol dynamics: A comparative review of algorithms used in air quality models. *Aerosol Sci. Technol.* **31**, 487–514. => AEL3183
5622. Zhang, Y., Sunwoo, Y., Kotamarthi, V. and Carmichael, G.R. (1994) Photochemical oxidant processes in the presence of dust: An evaluation of the impact of dust on particulate nitrate and ozone formation. *J. Appl. Meteorol.* **33**, 813–824. => AEL2745
5623. Zhang, Z. and Liu, B.Y.H. (1992) Experimental study of aerosol filtration in the transition flow regime. *Aerosol Sci. Technol.* **16**, 227–235. => AEL0994
5624. Zhao, J., Toon, O.B. and Turco, R.P. (1995) Origin of condensation nuclei in the springtime polar stratosphere. *J. Geophys. Res.* **100**, 5215–5227. => AEL1594
5625. Zhao, J., Turco, R.P. and Toon, O.B. (1995) A model simulation of Pinatubo volcanic aerosols in the stratosphere. *J. Geophys. Res.* **100**, 7315–7328. => AEL1593
5626. Zhao, X. and Turco, R.P. (1997) Photodissociation parameterization for stratospheric photochemical modeling. *J. Geophys. Res. Atmospheres* **102**, 9447–9459. => AEL1950
5627. Zhao, X., Turco, R.P. and Shen, M. (1999) A new family Jacobian solver for global three-dimensional modeling of atmospheric chemistry. *J. Geophys. Res. Atmospheres* **104**, 1767–1799. => AEL2755
5628. Zhao, X., Turco, R.P., Kao, C.-Y.J. and Elliott, S. (1997) Aerosol-induced chemical perturbations of stratospheric ozone: Three-dimensional simulations and analysis of mechanisms. *J. Geophys. Res. Atmospheres* **102**, 3617–3637. => AEL2183
5629. Zheleznov, N.A. (1973) Nailutskie otsenki sverkhu dlya osnovnykh parametrov fizitseskikh signalov (in Russian). *The Third International Symposium on Information Theory. Abstracts of Papers*, Moskva-Tallinn, **1**, pp. 37–41. => HT0556
5630. Zhou, J. and Smith, S. (1997) Measurement of ozone concentrations in ambient air using a badge-type passive monitor. *J. Air & Waste Manage. Assoc.* **47**, 697–703. => AEL2113
5631. Zhou, S., Rottman, G.J. and Miller, A.J. (1997) Stratospheric ozone response to short- and intermediate-term variations of solar UV flux. *J. Geophys. Res. Atmospheres* **102**, 9003–9011. => AEL2334



5632. Zhou, S.-W., Ren, G.-Y. and Yu, S.-Y. (1989) Separation and determination of organics in air particulate matters using a new technique, low-volume liquid chromatography. *Atmos. Environ.* **23**, 863–867. => AEL0372
5633. Zhou, X., Lee, Y.-N., Newman, L., Chen, X. and Mopper, K. (1996) Tropospheric formaldehyde concentration at the Mauna Loa Observatory during the Mauna Loa Observatory Photochemistry Experiment 2. *J. Geophys. Res.* **101**, 14711–14719. => AEL1893
5634. Zhou, Y. and Hall, C.K. (1995) Thermodynamic perturbation theory for fused hard-sphere and hard-disk chain fluids. *J. Chem. Phys.* **103**, 2688–2695. => AEL1498
5635. Zhuang, L. and Huebert, B.J. (1996) Lagrangian analysis of the total ammonia budget during Atlantic Stratocumulus Transition Experiment/Marine Aerosol Gas Exchange. *J. Geophys. Res.* **101**, 4341–4350. => AEL1748
5636. Zhukhovitskii, D.I. (2002) Issledovanie mikrostruktury mezhfaznoi poverkhnosti zhidkost'-gaz metodom molekulyarnoi dinamiki (in Russian). *Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki* **121**, 396–405. => AEL3895
5637. Zhukhovitsky, D.I. (1996) Effect of an aspherical cluster shape on the nucleation rate. *Bull. Russian Acad. Sci. Physics* **60**, 1367–1369. => AEL2365
5638. Zhukovski, E.L. and Morozov, V.A. (1972) O posledovatelnoi baiesovskoi regularizatsii algebratsheskikh sistem uravnenii (in Russian). *Zhurnal Vytshislitelnoi Matematiki i Matematicheskoi Fiziki* **12**, 464–465. => HT0631
5639. Zhukovskii, E.L. (1972) Statischeckaya regularizatsiya sistem algebraicheskikh uravnenii (in Russian). *Zh. Vychis.Mat.i Mat.Fiz.* **12**, 185–191. => HT0266
5640. Ziemann, P.J., Liu, P., Kittelson, D.B. and McMurry, P.H. (1995) Electron impact charging properties of size-selected, submicrometer organic particles. *J. Phys. Chem.* **99**, 5126–5138. => HT0824
5641. Ziemann, P.J., Liu, P., Rao, N.P., Kittelson, D.B. and McMurry, P.H. (1995) Particle beam mass spectrometry of submicron particles charged to saturation in an electron beam. *J. Aerosol Sci.* **26**, 745–756. => HT0823
5642. Ziemke, J.R., Herman, J.R., Stanford, J.L. and Bhartia, P.K. (1998) Total ozone/UVB monitoring and forecasting. *J. Geophys. Res. Atmospheres* **103**, 3865–3871. => AEL2227
5643. Ziereis, H. and Arnold, F. (1986) Gaseous ammonia and ammonium ions in the free troposphere. *Nature* **321**, 503–505. => AEL0964
5644. Ziereis, H., Schlager, H., Fischer, H., Feigl, C., Hoor, P., Marquardt, R. and Wagner, V. (2000) Aircraft measurements of tracer correlations in the Arctic subvortex region during the Polar Stratospheric Aerosol Experiment (POLSTAR). *J. Geophys. Res. Atmospheres* **105**, 24305–24313. => AEL3254
5645. Ziereis, H., Schlager, H., Schulte, P., Köhler, I., Marquardt, R. and Feigl, C. (1999) In situ measurements of the NO<sub>x</sub> distribution and variability over the eastern North Atlantic. *J. Geophys. Res. Atmospheres* **104**, 16021–16032. => AEL2997
5646. Zikmunda, J. and Mohnen, V.A. (1972) Ion annihilation by aerosol particles from ground level to 60 km height. *Meteorol. Rdsch.* **25**, 10–14. => AEL1601
5647. Zimmermann, M. (1963) Electrostatic dusting. *Implement and tractor* **78**, 44–46,100. => AEL0939
5648. Zinchenko, A.V., Paramonova, N.N., Privalov, V.I. and Reshetnikov, A.I. (2002) Estimation of methane emissions in the St. Petersburg, Russia, region: An atmospheric nocturnal boundary layer budget approach. *J. Geophys. Res. Atmospheres* **107**, 4416  
doi:10.1029/2001JD001369–2002. => AEL3800

5649. Zinn, J., Sutherland, C.D. and Hay, P.J. (1990) On the structures, binding energies and entropies of the complex ions  $\text{NO}^+\cdot\text{N}_2^-$ ,  $\text{NO}^+\cdot\text{O}_2^-$  and  $\text{NO}^+\cdot\text{CO}_2^-$ . *J. Geophys. Res.* **95**, 13909–13915. => AEL0427
5650. Zinsmeister, A.R. and Redman, T.C. (1980) A time series analysis of aerosol composition measurements. *Atmos. Environ.* **14**, 201–215. => AEL0370
5651. Zitserman, V.Y. and Berezhkovskii, L.M. (1990) The multicomponent nucleation theory with saddle point avoidance. *J. Colloid Interface Sci.* **140**, 373–382. => AEL0736
5652. Zlatev, Z., Dimov, I. and Georgiev, K. (1994) Modeling the long-range transport of air pollutants. *IEEE Computational Science and Engineering* **1**, 45–52. => AEL1729
5653. Zolotoy, N.B. and Karpov, G.V. (1989) Mass spectrometry of field evaporation of ions from solutions. The mechanism of the phenomenon in aqueous solutions. *Phys. Lett. A* **142**, 251–255. => AEL0757
5654. Zwartz, G.J. and Guilmette, R.A. (1999) A charge coupled device system to image local particle deposition patterns in a model of a human nasal airway. *Aerosol Sci. Technol.* **30**, 489–504. => AEL3061
5655. Zwatz-Meise, V. (1986) Vom Satelliten beobachtet. *Wetter und Leben. Zeitschrift für angewandte Meteorologie* **38**, 169–175. => AEL0371
5656. ZZZ (1911) On some nuclei of cloudy condensation. *Proc. R.S.E.* **31**, 495–511. => AEL3911
5657. ZZZ (1947) Scanning electron microscope. S-800. Nitachi. *Biometrika* **34**, 41–67. => HT-F095
5658. ZZZ (1968) Faster paint curing - without heat. *Engineering* 256–258. => AEL0942
5659. ZZZ (1968) *Program of the Fourth International Conference on the Universal Aspects of Atmospheric Electricity*. Tokyo. => HT0548
5660. ZZZ (1970) *Alpha/II. Plasma chromatograph-mass spectrometer*. Franklin GNO Corporation,. => HT0940
5661. ZZZ (1970) *Mosaic* **1**, 1–1. => HT0576
5662. ZZZ (1970) Nouveau type de pistolet pour peinture électrostatique utilisable sur chantiers. *Travaux de peinture* **25**, 106–109. => AEL0938
5663. ZZZ (1970)..plasma chromatograph. *Journal of Chromatographic Science* **8**, 331–337. => HT0944
5664. ZZZ (1971) Electrical effects that may happen in ice clouds. *New Scientist and Science Journal* **51**, 1–1. => HT0574
5665. ZZZ (1971) Raw material for forging thunderbolts. *New Scientist* **49**, 1–1. => HT0573
5666. ZZZ (1971) Seeds of lead may bloom into cloudy days. *New Scientist and Science Journal* **49**, 1–1. => HT0575
5667. ZZZ (1973) Soderzanie (in Russian). *The Third International Symposium on Information Theory. Abstracts of Papers*, Moskva-Tallinn, **1**, pp. 3–10. => HT0554
5668. ZZZ (1975) *Aerosol resarch instruments*. Thermo-Systems Inc., => AEL1125
5669. ZZZ (1976) *Air cleaning and particle technology publications*. *Käsikirjaline bibliograafia*. => HT1005
5670. ZZZ (1976) *Vabariikliku Standardi Projekt. Ühtne Riiklik Mõõtesüsteem. Metroloogia; Terminid ja Määrused* (in Estonian). *Käsikiri*,. => HT0546
5671. ZZZ (1980) Contents. *Natural Radiation Environment III*, U.S. Dept. Energy, **2**, pp. –. => HT0713

- 5672.ZZZ (1981) **5**, 383–394. => HT0569
- 5673.ZZZ (1983) *Dosimetry aspects of exposure to radon and thoron daughter products. Report by a group of experts of the OECD Nuclear Energy Agency.* Nuclear Energy Agency,. => AEL1201
- 5674.ZZZ (1984) *Aerosol measurement: science and technology. Konverentsi ajakava, osavõtjad, teemakohane bibliograafia.* => HT0965
- 5675.ZZZ (1984) *TSI particle technology. Analyzers, generators, samplers, industrial hygiene instruments and complete data management capabilities for research and industry.* TSI Inc., St. Paul, USA. => AEL1126
- 5676.ZZZ (1985) Nucleation terminology. *J. Aerosol Sci.* **16**, 575–576. => HT0695
- 5677.ZZZ (1986) Ajakava. *7th world clean air congress & exhibition, August 25-29, 1986, Sydney, Australia*, IUAPPA, pp. 12–33. => HT0903
- 5678.ZZZ (1986) Particle Technology Laboratory Publications. Minneapolis, pp. 31–49. => HT0370
- 5679.ZZZ (1987) Ilya Moiseevich Imyanitov (1918-1987) (in Russian). *Meteorologia i Hidrologia* 126–127. => HT0343
- 5680.ZZZ (1988) Contents. *Seventh International Congress of the International Radiation Protection Association*, Pergamon Press, Sydney, **1**, pp. 1–52. => HT0664
- 5681.ZZZ (1989) *Portacount. Operation and service manual.* TSI Incorporated,. => HT0972
- 5682.ZZZ (1990) *EISCAT Scientific Association.* Kiruna. => HT0480
- 5683.ZZZ (1990) *Radon. Radon research program. FY -1989. Sisukord. Lisad. Appendix A: Scientific background.* => AEL2463
- 5684.ZZZ (1991) *Comparative dosimetry of radon in mines and homes.* National Academy Press, Washington, D.C. => HT0806
- 5685.ZZZ (1991) Discussion and comments (Proposed ICRP respiratory tract model). *Radiation Protection Dosimetry* **38**, 175–178. => AEL2449
- 5686.ZZZ (1991) Discussion and comments (Proposed NCRP respiratory tract model). *Radiation Protection Dosimetry* **38**, 201–204. => AEL2453
- 5687.ZZZ (1991) *Electromobility spectrometer EMS VIE-08.* Hauke Ges. M.B.H. & Co. KG., Gmunden/Austria. => AEL1124
- 5688.ZZZ (1991) Gamma radiation survey. *NILU information* 1–2. => AEL2153
- 5689.ZZZ (1991) *Information on the Office of Naval Research (United States Department of the Navy).* => HT0482
- 5690.ZZZ (1991) Particle Technology Laboratory publications. Part I. Publication numbers 1-400. *Particle Technology Laboratory Publ.* 1–25. => HT0910
- 5691.ZZZ (1991) Particle Technology Laboratory publications. Part II. Publication numbers 401-809. *Particle Technology Laboratory Publ.* 27–52. => HT0911
- 5692.ZZZ (1991) *XXV fysiikan päivät 21. - 23.3.1991. Energia ja ympäristö. Abstraktit.* Oulu. => HT0505
- 5693.ZZZ (1992) *European Aerosol Conference. Single page abstracts.* Oxford. *The Aerosol Society. Osaliselt kopeeritud.* => HT1515
- 5694.ZZZ (1992) Lightning location system performance issues. *Lightning Location and Protection, Inc.* **6**, -. => HT0722

- 5695.ZZZ (1994) *Lightning Danger Alert System (LDAS)*. Atmospheric Research Systems, Inc. Reklamprospekt. => HT0735
- 5696.ZZZ (1994) *Lightning Position and Tracking System (LPATS)*. Atmospheric Research Systems Inc. Reklamprospekt. => HT0734
- 5697.ZZZ (1994) *LLP - Lightning Location and Protection, Inc.* Reklamprospekt. => HT0733
- 5698.ZZZ (1994) Sisukord. *22nd International Conference on Lightning Protection (ICLP)*, Budapest, pp. -. => HT0723
- 5699.ZZZ (1994) *TUT Department of physics, aerosol physics group. Publications 1982-1993.* => HT1032
- 5700.ZZZ (1995) International Commission on Atmospheric Electricity. *IAMAS Publication* 13–14. => HT0873
- 5701.ZZZ (1995) The NILU tracer gas technique. *NILU Information* 1–2. => AEL2154
- 5702.ZZZ (1997) AirQUIS. Version 2.0. Technical specifications. *ENSIS* 1–2. => AEL2152
- 5703.ZZZ (1997) Commission proposes new air quality limit values. *Brussels, IP/97* 1–6. => HT1203
- 5704.ZZZ (1998) Ankündigung der Aufnahme von allgemeinen Luftgrenzwerten für Stäube in die TRGS 900 “Luftgrenzwerte”. *Gefahrstoffe – Reinhaltung der Luft* **58**, 11–14. => AEL2119
- 5705.ZZZ (1998) Author index. *J. Geophys. Res. Atmospheres* **103**, i–lxxviii. => AEL2841
- 5706.ZZZ (1998) Subject index. *J. Geophys. Res. Atmospheres* **103**, lxxix–cxxxvi. => AEL2840
- 5707.ZZZ (1999) Author Index. *J. Geophys. Res. Atmospheres* **104**, i–lxxx. => AEL3052
- 5708.ZZZ (1999) Subject Index. *J. Geophys. Res. Atmospheres* **104**, lxxxi–cxl. => AEL3053
- 5709.ZZZ (2000) Author index. *J. Geophys. Res. Atmospheres* **105**, i–lxxiv. => AEL3294
- 5710.ZZZ (2000) Subject index. *J. Geophys. Res. Atmospheres* **105**, lxxv–cxxxiii. => AEL3295
- 5711.ZZZ (2001) Author index. *J. Geophys. Res. Atmospheres* **106**, i–lxxxv. => AEL3625
- 5712.ZZZ (2001) Subject index. *J. Geophys. Res. Atmospheres* **106**, lxxxvii–cli. => AEL3626