Proceedings of the Iowa Academy of Science

Volume 41 | Annual Issue

Article 3

1934

Table of Contents

Copyright ©1934 Iowa Academy of Science, Inc.

Follow this and additional works at: https://scholarworks.uni.edu/pias

Recommended Citation

(1934) "Table of Contents," *Proceedings of the Iowa Academy of Science, 41(1),* 17-21. Available at: https://scholarworks.uni.edu/pias/vol41/iss1/3

This Front Matter is brought to you for free and open access by the Iowa Academy of Science at UNI ScholarWorks. It has been accepted for inclusion in Proceedings of the Iowa Academy of Science by an authorized editor of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

MEMORIALS

Thomas Huston Macbride	33
Henry Frederick Wickham	37
Herbert Grant Campbell	40 42
Floyd August Nagler	42
- 10) d 11d dust 11d first	73
Value of the state	
TITLES OF PAPERS PRESENTED	
Address of the President — The Future of Science, E. J. Cable——Adddress of the Guest Speaker — Chemistry and Recent Progress in Medicine, Dr. Julius Steiglitz 1————————————————————————————————————	49
Determine and Destaulations	
Botany and Bacteriology	
Some factors influencing the respiration of Rhizobium, D. Wynne	
Thorne and R. H. WalkerStomatal count of a single leaf of Colocasia, John A. Yarbrough	63
Fermentation of artichokes, Howard Reynolds and C. H. Werkman	71 75
Leaf surface of a twenty-year-old Catalpa tree, Franklin M. Turrell.	7 9
Trials with a bacteriological method for measuring available phosphorus	
in soils, F. B. Smith, P. E. Brown, and C. C. Mensing	85
The effect of low temperature on the germination and survival of native	89
oaks, J. M. Aikman	0,
L. Hershey	95
Notes on Iowa mosses - VI, Lucy M. Cavanagh	97
Some methods of labeling nature trails, John Moore	103 105
Mosses of southwestern Iowa, Geneva Sayre and H. S. Conard———A twenty-year's phenological record of the spring flowering plants of	103
Henry County, Ellsworth Dodds and H. E. Jaques (Abstract)	107
Shortening the rest period of the tubers of the Jerusalem artichoke	
(Helianthus tuberosus) L., E. S. Haber (Abstract)	111
The foliar embryos of Tolmiea Menziesii, John A. Yarbrough (Abstract)	111
Some similarities of nuclear organization in the basidium and the animal	
spermatocyte, J. E. Sass (Abstract)Notes on the life history of Aphanizomenon flos-aquae, E. T. Rose	112
Notes on the life history of Aphanizomenon flos-aquae, E. T. Rose	112
(Abstract) The basidium, Donald P. Rogers (Abstract) (Introduced by G. W.	112
Martin)	112
On the significance of the minor venation of foliage leaves, Robert B. Wylie (Abstract)	113
Scotch pine (Pinus sylvestris) as a member of the Iowa flora, Guy West Wilson (Abstract)	113
Inheritance of fruit shapes and sizes in the pepper and tomato, E. W. Lindstrom (Abstract)	114
A variant of Ouercus alba L., J. N. Martin (Abstract)	114
The distribution and life-history of Trillium nivale Riddell, J. N. Martin (Abstract)	115
1 Emeritus Professor of Chemistry, University of Chicago.	

Plant cover map of the Lake Wapello watershed, Davis County, Iowa Albert F. Dodge (Abstract)	115
Chemistry, General and Physical	
The significance of carbon dioxide in making phosphorus available in the soil, H. C. Millar and F. B. Smith	117 123 127 133 139 139 140 141 141
and Jesse L. BurgessSome notes on the early religion of western Indians, Albert B. Reagan Some observations on the activity of solvent and solute in aqueous solutions of strong electrolytes, J. N. Pearce Chemistry, Organic and Biological	
The effect of fluorine on blood and respiration, D. A. Greenwood, E. A. Hewitt and V. E. Nelson————————————————————————————————————	143 149 153
Thiele's theory of partial valency in terms of electrons, Francis Earl	157
Aluminum in nutrition, H. H. Keil and V. E. Nelson————————————————————————————————————	
The availability of tryptophane derivatives for supplementing diets deficient in tryptophane, Clarence P. Berg and H. Everett Hanson (Abstract)	165
Orientation in the dibenzofuran series, W. G. Bywater, E. W. Smith, G. E. Brown, and H. Gilman (Abstract)	166
pacity in the blood of pregnant and non-pregnant women, Fred W. Oberst and E. B. Woods (Abstract)	166
The oxidation of glucose by Rhizobium meliloti, O. R. Neal and R. H. Walker (Abstract)————————————————————————————————————	167
Fulmer (Abstract)	168
Reduction of furan and the preparation of tetramethylene derivatives, Donald F. Starr and R. M. Hixon (Abstract)	169
Edgar (Abstract)	170

1024	
19.14	ı

PAPERS PRESENTED

u

Behavior of bromine derivatives of guaiacol toward nitrating agents, L. Charles Raiford and R. E. Silker (Abstract)	170 171 171 172 172 173 174
Geology	
The Hampton tusk, E. J. Cable A pre-Wisconsin valley in southwestern Hancock county, I., W. Wood Some observations on the thermal springs of Southeastern Black Hills of South Dakota, P. Murray Work	177 191 199 203 209 215 239 239 240 241
Mathematics	
The effect of increasing the size of samples in certain distributions, Fred A. Brandner	243

Mechanical grade averagers, Karl E. Gaylord	
Convergence of series defined by recurrence relations, C. C. Hurd	
The circular solutions of the two body problem in electro-dynamics, J. S. Turner	
Conic sections in the elliptic plane, Dwight Goodner	
The dilution method for hacterial census E. S. Allen	
An elementary method for the computation of logarithms, E. W. Chit-	
tenden	
*** *	
Physics	
An experiment in gravitation, W. H. Kadesch and R. D. Huntoon	
(Abstract)	247
Psychophysical analysis of color blindness, A. A. Benedict (Abstract)	248 248
An effect of cathode rays on photographic paper, P. H. Carr (Abstract) The M-series absorption spectrum of metallic bismuth, W. D. Phelps,	270
(Abstract)	249
(Abstract)A study of the cybotactic group structure in isopentane near the critical	
point, Carl A. Benz (Abstract)	249
Structure of solutions of strong electrolytes in n-alcohols and water,	250
G. W. Stewart (Abstract)Comparison of x-ray diffraction in H ₂ O and H ₂ ² O, G. W. Stewart	250
(Abstract)	251
Hyperfine structure and the depolarization of resonance radiation by a	
magnetic field, A. Ellett (Abstract)	251
A mechanical method for the analysis of complex spectra, J. V. Atana-	252
soff and A. E. Brandt (Abstract)Effect of additions of cadmium on growth of zinc crystals, E. P. T.	252
Tyndall (Abstract)	252
Electrical resistivities of zinc single and mosaic crystals, W. J. Poppy	20-
(Abstract)	252
Thermal conductivity and Wiedemann-Franz ratio for zinc crystals,	252
C. A. Cinnamon (Abstract)The dependence of cybotactic groups on specific volume, Ross D. Spang-	253
ler (Abstract)	253
Serviceable homemade apparatus, E. H. Collins (Abstract)	254
Change in resistance of bismuth single crystals at the melting point,	a . .
J. H. Schroeder (Abstract)	254 255
A study of laboratory teaching, J. W. Woodrow (Abstract)	233
Lapp (Abstract)	255
Some experiments on the teaching value of talking motion pictures in	
college physics, C. J. Lapp and W. J. Poppy (Abstract)	256
A study of some transfer values of laboratory versus library projects,	256
W. J. Poppy and C. J. Lapp (Abstract) Electron collisions in mercury vapor, the 9.8 volt loss, C. J. Cross and	256
A. J. Eldridge (Abstract)	257
Mean free paths of molecules and wave mechanics, J. A. Eldridge (Ab-	
The purpose and content of the course in general arts physics, M. E.	257
The purpose and content of the course in general arts physics, M. E.	
Oraber	
Nicolaysen	
Psychology	
An analytical study of the common elements in silent and oral reading,	
Donald E. Swanson	259
An analysis of the functional timbre variations of the violin, Arnold	
M. Small	263
Some supplementary devices for improving laboratory results, M. R. Jones	_265
Stimulus-response factors in infantile plantar phenomena, Thomas W.	
Disharda	240

1934]	
-------	--

PAPERS PRESENTED

An experimental study of social maturity in young children, Harold M. Williams	271 275 281 285 287 291 295 299 300
toward self-reliance, Ralph J. Ojemann———————————————————————————————————	
Childrens preferences among play materials as determined by paired comparisons of pictures, Thomas H. Vance and Louise T. McCall The effect of diet on intelligence and learning, M. F. Fritz Development of sitting and standing in infants (motion pictures), Orvis C. Irwin	
A method of teaching psychology, V. E. Stansbury	
Zoology	
The general morphology of the Elasmobranch hypophysis, H. W. Norris and Jack Maxfield	301
A progress report of a survey of the insects of Iowa, H. E. Jaques Notes on the hatchability and infectivity of refrigerated eggs of Fasciola hepatica Linn., Wendell H. Krull	305 309
Effects of ultracentrifuging on certain cell structures, R. L. King and H. W. Beams (Abstract)	313
Respiratory mechanism of blocked and normal embryonic cells (Orthoptera), J. H. Bodine and E. J. Boell (Abstract)	313
Seasonal variation in birds, Emil Witschi (Abstract)Some factors in radiosensitivity, T. C. Evans (Abstract)	314 315
Some factors in radiosensitivity, T. C. Evans (Abstract) The development of the Pronephros in the California newt (Triturus torosus), Gardner M. Riley (Introduced by E. Witschi) (Abstract) Studies of the electromotive force in biological systems: IV. The effect	:
Some factors in radiosensitivity, T. C. Evans (Abstract)	315 315 316
Some factors in radiosensitivity, T. C. Evans (Abstract)	315 315