

Further publications to the programme Large-scale facilities for research with photons, neutrons and ions published in 2012

- NR-PNI-1 Artemyev, A N; Surzhykov, A; Indelicato, P; Plunien, G; Stöhlker, Th: **Novel approach to theoretical investigation of heavy quasi-molecules.** *Journal of physics / Conference Series* 388: 092006 -, 2012. DOI:10.1088/1742-6596/388/9/092006
- NR-PNI-2 Bana, D; Beyer, H F; Bosch, Fritz; Brandau, Carsten; Böhm, S; Chatterjee, S; Czarnota, M; Dousse, J -Cl; Gumberidze, Alexandre; Hagmann, Siegbert; Kozhuharov, Christophor; Liesen, Heinz-Dieter; Mokler, P H; Müller, A; Kumar, A; Pajek, M; Reuschl, R; Schmidt, E W; Sierpowski, D ; Spillmann, Uwe; Surzhykov, A; Stöhlker, Thomas ; Szlachetko, J; Tashenov, S; Trotsenko, Sergiy; Verma, P.; Warczak, A: **Enhanced radiative recombination of ^{92+}U ions with cooling electrons for the K-shell.** *Journal of physics / Conference Series* 388: 062044, 2012. DOI:10.1088/1742-6596/388/6/062044
- NR-PNI-3 Bernhardt, D; Brandau, Carsten; Kozhuharov, Christophor; Müller, A; Schippers, S; Böhm, S; Bosch, Fritz; Jacobi, J; Kieslich, S; Knopp, H; Mokler, P H; Nolden, Fritz; Shi, W; Stachura, Z; Steck, Markus; Stöhlker, Thomas: **Dielectronic recombination of metastable berylliumlike xenon ions.** *Journal of physics / Conference Series* 388: 062036 -, 2012. DOI:10.1088/1742-6596/388/6/062036
- NR-PNI-4 Bernhardt, D; Brandau, Carsten; Kozhuharov, Christophor; Müller, A; Schippers, S; Böhm, S; Bosch, Fritz; Jacobi, J; Kieslich, S; Knopp, H; Mokler, P H; Nolden, Fritz; Shi, W; Stachura, Z; Steck, Markus; Stöhlker, Thomas: **Towards a measurement of the $2s2p^3P_0 - 2s^2S_0$ E1M1 two photon transition rate in Be-like xenon ions.** *Journal of physics / Conference Series* 388: 012007 -, 2012. DOI:10.1088/1742-6596/388/1/012007
- NR-PNI-5 Blaum, Klaus; Eliseev, Sergey; Eronen, Tommi; Litvinov, Yuri: **Precision mass measurements for nuclear astrophysics.** *Journal of physics / Conference Series* 381: 012013, 2012. DOI:10.1088/1742-6596/381/1/012013
- NR-PNI-6 Brandau, C; Kozhuharov, C; Litvinov, Yu A; Müller, A; Bernhardt, D; Bernstein, L A; Bosch, F ; Currell, F J; Dimopoulou, C; Gumberidze, A; Heil, M; Nolden, F; Reifarth, R; Schippers, S; Schneider, D; Simon, H; Spillmann, U; Stachura, Z ; Steck, M; Stöhlker, Th; Wiedeking, M; Winckler, N; Winters, D F A: **Dielectronic recombination of in-flight synthesized exotic isotopes.** *Journal of physics / Conference Series* 388: 062042 -, 2012. DOI:10.1088/1742-6596/388/6/062042
- NR-PNI-7 Bräuning-Demian, A; Ananyevna, A; Azuma, T; Bräuning, H; Dauvergne, D; Kanai, Y; Nakano, Y; Shindo, T; Suda, S; Yamazaki, Y: **Resonant coherent excitation of $191.1 \text{ MeV/u } U^{89+}$ ions planar-channeled in a silicon crystal.** *Journal of physics / Conference Series* 388: 082036 -, 2012. DOI:10.1088/1742-6596/388/8/082036
- NR-PNI-8 Cheal, B; Billowes, J; Bissell, M L; Blaum, K; Charlwood, F C; Flanagan, K T; Forest, D H; Geppert, Ch; Kowalska, M; Kreim, K; Krieger, A; Krämer, J; Lynch, K M; Mane, E; Moore, I D; Neugart, R; Neyens, G; Nörthershäuser, W; Papuga, J; Procter, T J; Rajabali, M M; Stroke, H H; Vingerhoets, P; Yordanov, D T; akova, M: **Laser spectroscopy of gallium isotopes beyond $N = 50$.** *Journal of physics / Conference Series* 381: 012071 -, 2012. DOI:10.1088/1742-6596/381/1/012071
- NR-PNI-9 Cocolios, T E; Andreyev, A N; Antalic, S; Barzakh, A E; Bastin, B; Büscher, J; Darby, I G; Dexters, W; Fedorov, D V; Fedosseev, V N; Flanagan, K T; Franchoo, S; Fritzsche, S; Huber, G; Huysse, M; Keupers, M; Köster, U; Kudryavtsev, Yu; Mane, E; Marsh, B A; Molkanov, P L; Page, R D; Seliverstov, M D; Sjödin, A M; Stefan, I; Walle, J Van de; Duppen, P Van; Venhart, M; Zemlyanoy, S G: **Early onset of deformation in the neutron-deficient polonium isotopes.** *Journal of physics / Conference Series* 381: 012072 -, 2012. DOI:10.1088/1742-6596/381/1/012072
- NR-PNI-10 Fratini, F; Surzhykov, A; Jahrsetz, T; Tichy, M; Buchleitner, A; Fritzsche, S: **Quantum correlations in the two-photon decay of few-electron ions.** *Journal of physics / Conference Series* 388: 082034 -, 2012. DOI:10.1088/1742-6596/388/8/082034
- NR-PNI-11 Fritzsche, S; Grum-Grzhimailo, A N; Gryzlova, E V; Kabachnik, N M: **Angular correlations in the sequential two-photon double ionisation of atomic xenon.** *Journal of physics / Conference Series* 388: 032006 -, 2012. DOI:10.1088/1742-6596/388/3/032006
- NR-PNI-12 Gryzlova, E V; Grum-Grzhimailo, A N; Fritzsche, S; Kabachnik, N M: **Angular distributions and correlations in sequential three-photon triple atomic ionization.** *Journal of physics / Conference Series* 388: 032040 -, 2012. DOI:10.1088/1742-6596/388/3/032040
- NR-PNI-13 Gumberidze, A; Thorn, D B; Trotsenko, S; Bana, D; Beyer, H; Chen, W; DuBois, R D; Geyer, S; Grisenti, R; Hagmann, S; Hegewald, M; Hess, S; Indelicato, P; Kozhuharov, C; Martin, R; Orban, I ; Petridis, N; Reuschl, R; Simon, A; Spillmann, U ; Surzhykov, A; Trassinelli, M; Weber, G; Winters, D F A; Winters, N; Yu, D; Stöhlker, Th: **Electron- and Proton-Impact Excitation in Stored Hydrogenlike Uranium Ions.** *Journal of physics / Conference Series* 388: 082035 -, 2012. DOI:10.1088/1742-6596/388/8/082035
- NR-PNI-14 Hahn, M; Bernhardt, D; Grieser, M; Krantz, C; Lestinsky, M; Müller, A; Novotny, O; Repnow, R ; Schippers, S; Wolf, A; Savin, D W: **Electron impact ionization measurements at the Heidelberg heavy ion storage ring TSR.** *Journal of physics / Conference Series* 388: 062021 -, 2012. DOI:10.1088/1742-6596/388/6/062021
- NR-PNI-15 Herfurth, Frank; Barth, Winfried; Clemente,

- Gianluigi; Dahl, L A; Gerhard, P; Kaiser, Michael; Kester, Oliver; Kluge, Heinz-Jürgen; Krantz, C; Kotovskiy, Nikita; Kozhuharov, Christoph; Maier, Michael; Pfister, Jochen; Quint, Wolfgang; Ratzinger, U; Sokolov, Alexey; Stöhlker, Thomas; Vormann, Hartmut ; Vorobjev, G.; Wolf, A; Yaramishev, S; Schempp, A: **HITRAP Heavy, highly charged Ions at Rest: Status and experimental Opportunities.** *Journal of physics / Conference Series* 388: 142009, 2012. DOI:10.1088/1742-6596/388/14/142009
- NR-PNI-16 Kellerbauer, Alban; Fritzsche, Stephan: **High-resolution optical spectroscopy of Os with a view to laser cooling of atomic anions.** *Journal of physics / Conference Series* 388: 012023 -, 2012. DOI:10.1088/1742-6596/388/1/012023
- NR-PNI-17 McConnell, Sean; Artemyev, Anton; Surzhykov, Andrey: **Alignment of atomic inner-shell vacancies following nuclear decay.** *Journal of physics / Conference Series* 388: 082047 -, 2012. DOI:10.1088/1742-6596/388/8/082047
- NR-PNI-18 Martin, R; Barday, R; Enders, J; Poltoratska, Y; Spillmann, U; Weber, G; Stöhlker, Th: **Linear Polarization of the High-Energy End of Bremsstrahlung in Electron-Atom Collisions.** *Journal of physics / Conference Series* 388: 042027 -, 2012. DOI:10.1088/1742-6596/388/4/042027
- NR-PNI-19 Novo, S Beceiro; Sümmerer, K; Cortina-Gil, D; Wimmer, C; Plag, R; Alvarez-Pol, H; Aumann, T; Behr, K; Boretzky, K; Casarejos, E; Chaitillon, A ; Datta-Pramanik, U; Elekes, Z; Fulop, Z; Galaviz, D; Geissel, H; Giron, S; Greife, U; Hammache, F; Heil, M; Hoffman, J; Johansson, H; Karagiannis, C; Kiselev, O; Kurz, N; Larsson, K; Bleis, T Le; Litvinov, Y; Mahata, K; Muentz, C; Nociforo, C; Ott, W; Paschalis, S; Prokopowicz, W ; Rodriguez-Tajes, C; Rossi, D; Simon, H; Stanoiu, M; Stroth, J; Typel, S; Wagner, A; Wamers, F; Weick, H: **Coulomb Dissociation of ^{27}P .** *Journal of physics / Conference Series* 381: 012115 -, 2012. DOI:10.1088/1742-6596/381/1/012115
- NR-PNI-20 Pajek, M; Bana, D; Brandau, C; Gumberidze, A; Jagodzinski, P; Kozhuharov, Ch; Surzhykov, A; Stöhlker, Th: **Radiative recombination of ions with electrons in cold magnetized plasma.** *Journal of physics / Conference Series* 388: 062045 -, 2012. DOI:10.1088/1742-6596/388/6/062045
- NR-PNI-21 Reed, M W; Walker, P M; Cullen, I J; Litvinov, Yu A; Blaum, K; Bosch, Fritz; Brandau, Carsten; Carroll, J J; Cullen, D M; Deo, A Y; Detwiler, B ; Dimopoulou, Christina; Dracoulis, G D; Farinon, Fabio; Geissel, Hans; Haettner, E; Heil, Michael ; Kempsey, R S; Knöbel, Ronja; Kozhuharov, Christoph; Kurcewicz, Jan; Kuzminchuk, N; Litvinov, Sergey; Liu, Z; Mao, R; Nociforo, Chiara ; Nolden, Fritz; PlaßW R; Prochazka, Andrej; Scheidenberger, Christoph; Shubina, Daria; Steck, Markus; Stöhlker, Thomas; Sun, B; Swan, T P D; Trees, G; Weick, Helmut; Winckler, Nicolas; Winkler, Martin; Woods, P J; Yamaguchi, T: **Technique for Resolving Low-lying Isomers in the Experimental Storage Ring (ESR) and the Occurrence of an Isomeric State in ^{192}Re .** *Journal of physics / Conference Series* 381: 012058 -, 2012. DOI:10.1088/1742-6596/381/1/012058
- NR-PNI-22 Schippers, S; Bernhardt, D; Krantz, C; Lestinsky, M; Novotny, O; Miiller, A; Wolf, A: **Towards a storage-ring measurement of the hyperfine induced $2s2p^3P_0 \rightarrow 2s^21S_0$ transition rate in berylliumlike sulfur.** *Journal of physics / Conference Series* 388: 152004 -, 2012. DOI:10.1088/1742-6596/388/15/152004
- NR-PNI-23 Schippers, S; Bernhardt, D; Müller, A; Krantz, C; Grieser, M; Repnow, R; Wolf, A; Lestinsky, M ; Hahn, M; Novotny, O; Savin, D W: **Dielectronic recombination of xenonlike tungsten ions.** *Journal of physics / Conference Series* 388: 062028 -, 2012. DOI:10.1088/1742-6596/388/6/062028
- NR-PNI-24 Schippers, S; Bernhardt, D; Müller, A; Krantz, C; Wolf, A; Lestinsky, M; Hahn, M; Novotny, O; Savin, D W: **Storage ring meets astrophysics: Dielectronic recombination of L-shell and M-shell iron ions.** *Journal of physics / Conference Series* 388: 062029 -, 2012. DOI:10.1088/1742-6596/388/6/062029
- NR-PNI-25 Spillmann, U; Blumenhagen, K-H; Bräuning, H; Weber, G; Stöhlker, Th: **Planar position sensitive Ge(i)- and Si(Li)-detector systems for Compton Polarimetry in Atomic Physics with Highly Charged Ions.** *Journal of physics / Conference Series* 388: 142023 -, 2012. DOI:10.1088/1742-6596/388/14/142023
- NR-PNI-26 Stolterfoht, N; Bodewits, Erwin; Hellhammer, Rolf; Juhasz, Zoltan; Sulik, Bela; Bayer, Veronika; Trautmann, Christine; Hoekstra, Ronnie: **Dynamics of ion guiding through nanocapillaries in insulating polymers.** *Journal of physics / Conference Series* 388: 012049, 2012. DOI:10.1088/1742-6596/388/1/012049
- NR-PNI-27 Trotsenko, S; Kumar, A; Bana, D; Volotka, A V; Gumberidze, A; Kozhuharov, C; Thorn, D B; Beyer, H F; Fritzsche, S; Hagmann, S; Hess, S; Jagodzinski, P; Reuschl, R; Salem, S; Simon, A; Spillmann, U; Trassinelli, M; Tribedi, L C; Weber, G; Winters, D; Stöhlker, T: **Novel approach for studying two-photon transitions in heavy HCl.** *Journal of physics / Conference Series* 388: 082001 -, 2012. DOI:10.1088/1742-6596/388/8/082001
- NR-PNI-28 Verma, P; Mokler, P H; Bräuning-Demian, A; Kozhuharov, C; Bräuning, H; Bosch, F; Hagmann, S ; Liesen, D; Stachura, Z; Wahab, M A: **Shell-differential electron capture in heavy ion-atom collisions at moderate collision velocities.** *Journal of physics / Conference Series* 388: 082008 -, 2012. DOI:10.1088/1742-6596/388/8/082008
- NR-PNI-29 Vogel, Manuel; Birkel, Gerhard; Lindenfels, David von; Quint, Wolfgang: **Magnetic moments of bound electrons and nuclei by double resonance spectroscopy of highly charged ions in a Penning trap.** *Journal of physics / Conference Series* 388: 022065 -, 2012. DOI:10.1088/1742-6596/388/2/022065
- NR-PNI-30 Voitkiv, A B; Najjari, B; Fischer, D; Artemyev, A N; Surzhykov, A: **Young-type interference in projectile-electron loss in energetic ion-molecule collisions.** *Journal of physics / Conference Series* 388: 102047 -, 2012. DOI:10.1088/1742-6596/388/10/102047
- NR-PNI-31 Wang, Q M; Li, J G; Fritzsche, S; Godefroid,

M; Chang, Z W; Dong, C Z: **Theoretical study of hyperfine structure constants of Ga isotopes.** *Journal of physics / Conference Series* 388: 152009 -, 2012. DOI:10.1088/1742-6596/388/15/152009

NR-PNI-32 Weber, G; Bräuning, H; Surzhykov, A; Fritzsche, S; Martin, R; Reuschl, R; Spillmann, U; Winters, D F A; Stöhlker, Th: **Direct Determination of the Magnetic Quadrupole Contribution to the Lyman-₁ Transition in U^{91+} .** *Journal of physics / Conference Series* 388: 082029 -, 2012. DOI:10.1088/1742-6596/388/8/082029

NR-PNI-33 Winters, D F A; Kühl, Th; Nörtershäuser, W; Stöhlker, Th: **Laser spectroscopy at the experimental storage ring - an overview.** *Journal of physics / Conference Series* 388: 152022, 2012. DOI:10.1088/1742-6596/388/15/152022

NR-PNI-34 Zhang, S F; Ma, X; Fischer, D; Moshhammer, R; Voitkiv, A; Suske, J; Kühnel, K U; Hagmann, S; Krauss, A; Zhang, R T; Guo, D L; Ullrich, J: **Young-type interference in ionizing collisions between helium and hydrogen molecular ions.** *Journal of physics / Conference Series* 388: 102038 -, 2012. DOI:10.1088/1742-6596/388/10/102038