

IPHC 2023

1. S.Hellgartner, D.Mücher, K.Wimmer, V.Bildstein, J.L.Egido, R.Gernhäuser, R.Krücken, A.K.Nowak, M.Zielińska, C.Bauer, M.L.L.Benito, S.Bottoni, H.DeWitte, J.Elseviens, D.Fedorov, F.Flavigny, A.Illana, M.Klintefjord, T.Kröll, R.Lutter, B.Marsh, R.Orlandi, J.Pakarinen, R.Raabe, E.Rapisarda, S.Reichert, P.Reiter, M.Scheck, M.Seidlitz, B.Siebeck, E.Siesling, T.Steinbach, T.Stora, M.Vermeulen, D.Voulot, N.Warr, F.J.C.Wenander, *Axial and triaxial degrees of freedom in ^{72}Zn* , Physics Letters B 841, 137933 (2023). <https://doi.org/10.1016/j.physletb.2023.137933>
2. E. Jajčišinová, K. Dockx, M. Ashford, T. E. Cocolios, B. Cooper, K. Chrysalidis, D. V. Fedorov, V. N. Fedosseev, K. T. Flanagan, M. Griseri, D. Hougbo, A. Kellerbauer, S. Kraemer, B. A. Marsh, L. Popescu, J.P. Ramos, S. Rothe, M. D. Seliverstov, S. Sels, G.J.F. Smith, S. Stegemann, M. Stryczyk, V. Verelst, *Impact of the laser ionisation and temperature on the Actinium production from UCx target*, PRISMAP Deliverable D8.1 - Proceedings book workshop 1 /ed. Manzolaro Mattia, Corradetti Stefano, Pupillo Gaia, & Popescu Lucia. Zenodo (2023) 84-86. <https://doi.org/10.5281/zenodo.7913190>
3. A.E. Barzakh, D.V. Fedorov, P.L. Molkanov, V.N. Panteleev, M.D. Seliverstov, *Shape-staggering effect in mercury nuclei*, PNPI. High Energy Physics Division. Main Scientific Activities 2018-2022, 196-203 (2023). https://hepd.pnpi.nrcki.ru/hepd/articles/PNPI_2018-2022.pdf
4. A.E. Barzakh, D.V. Fedorov, P.L. Molkanov, V.N. Panteleev, M.D. Seliverstov, *Shell effect and odd-even staggering in charge radii around the $N = 126$ shell closure*, PNPI. High Energy Physics Division. Main Scientific Activities 2018-2022, 204-210 (2023). https://hepd.pnpi.nrcki.ru/hepd/articles/PNPI_2018-2022.pdf
5. A.E. Barzakh, D.V. Fedorov, P.L. Molkanov, V.N. Panteleev, M.D. Seliverstov, Yu.A. Demidov, M.G. Kozlov, *Hyperfine anomaly in gold and magnetic moments of $I^\pi = 11/2^-$ gold isomers*, PNPI. High Energy Physics Division. Main Scientific Activities 2018-2022, 211-216 (2023). https://hepd.pnpi.nrcki.ru/hepd/articles/PNPI_2018-2022.pdf
6. A.E. Barzakh, D.V. Fedorov, P.L. Molkanov, V.N. Panteleev, M.D. Seliverstov, L.V. Skripnikov, A.V. Oleynichenko, A.V. Zaitsevskii, *Large shape staggering in neutron-deficient Bi isotopes*, PNPI. High Energy Physics Division. Main Scientific Activities 2018-2022, 217-223 (2023). https://hepd.pnpi.nrcki.ru/hepd/articles/PNPI_2018-2022.pdf
7. V.N. Panteleev, A.E. Barzakh, D.V. Fedorov, P.L. Molkanov, M.D. Seliverstov, *IRINA project at the reactor PIK*, PNPI. High Energy Physics Division. Main Scientific Activities 2018-2022, 250-253 (2023). https://hepd.pnpi.nrcki.ru/hepd/articles/PNPI_2018-2022.pdf
8. V.N. Panteleev, A.E. Barzakh, D.V. Fedorov, V.S. Ivanov, P.L. Molkanov, S.Yu. Orlov, M.D. Seliverstov, *High-temperature and mass-separator*

methods for selective production of medical radionuclides at proton and neutron beams, PNPI. High Energy Physics Division. Main Scientific Activities 2018-2022, 378-384 (2023).
https://hepd.pnpi.nrcki.ru/hepd/articles/PNPI_2018-2022.pdf

9. J. G. Cubiss, A. N. Andreyev, A. E. Barzakh, P. Van Duppen, S. Hilaire, S. Péru, S. Goriely, M. Al Monthery, N. A. Althubiti, B. Andel, S. Antalic, D. Atanasov, K. Blaum, T. E. Cocolios, T. Day Goodacre, A. de Roubin, G. J. Farooq-Smith, D. V. Fedorov, V. N. Fedosseev, D. A. Fink, L. P. Gaffney, L. Ghys, R. D. Harding, M. Huyse, N. Imai, D. T. Joss, S. Kreim, D. Lunney, K. M. Lynch, V. Manea, B. A. Marsh, Y. Martinez Palenzuela, P. L. Molkanov, D. Neidherr, G. G. O'Neill, R. D. Page, S. D. Prosnjak, M. Rosenbusch, R. E. Rossel, S. Rothe, L. Schweikhard, M. D. Seliverstov, S. Sels, L. V. Skripnikov, A. Stott, C. Van Beveren, E. Verstraelen, A. Welker, F. Wienholtz, R. N. Wolf, and K. Zuber, *Deformation versus sphericity in the ground states of the lightest gold isotopes*, Phys.Rev.Lett. **131**, 202501 (2023). DOI: [10.1103/PhysRevLett.131.202501](https://doi.org/10.1103/PhysRevLett.131.202501)
10. G. Penyazkov, S. D. Prosnjak, A. E. Barzakh, and L. V. Skripnikov, *Refined theoretical values of field and mass isotope shifts in thallium to extract charge radii of Tl isotopes*, J. Chem. Phys. **158**, 114110 (2023). DOI: [10.1063/5.0142202](https://doi.org/10.1063/5.0142202).
11. Yu. A. Demidov, M. G. Kozlov, A. E. Barzakh, and V. A. Yerokhin, *Bohr-Weisskopf effect in the potassium isotopes*, Phys. Rev. C **107**, 024307 (2023) DOI: [10.1103/PhysRevC.107.024307](https://doi.org/10.1103/PhysRevC.107.024307)