

**Abstract to the cycle of works for the JINR competition 2022 in the section:
research experimental work**

**Influence of the structure of nuclei on the mechanisms of nucleon transfer
reactions at energies up to 10 MeV/nucleon**

A.K. Azhibekov, T. Issatayev, S.M. Lukyanov, V.A. Maslov, K. Mendibayev, M.A. Naumenko,
Yu.E. Penionzhkevich, N.K. Skobelev, A.V. Shakhov

1. IV International Scientific Forum “Nuclear Science and Technologies”, Almaty, Kazakhstan, September 26-30, 2022.
2. 28th International Nuclear Physics Conference (INPC 2022), Cape Town, South Africa, September 11-16, 2022.
3. The LXXII International conference "NUCLEUS-2022. Nuclear physics and elementary particle physics. Nuclear physics technologies", Moscow, July 11-16, 2022.
4. XI Conference of Young Scientists and Specialists “Alushta-2022”, Alushta, June 5-12, 2022.
5. XLIV Intern. conf. “Nuclear Science”, St. Paulo, Brazil, November 9-12, 2021.
6. The XXV International Scientific Conference of Young Scientists and Specialists, AYSS-2021, Almaty, Kazakhstan, October 11-15, 2021.
7. XXIIInd Colloque GANIL, Autrans-Meaudre en Vercors, France, September 26-October1, 2021.
8. III International Scientific Forum “Nuclear Science and Technologies”, Almaty, Kazakhstan, September 20-25, 2021.
9. The LXXI International conference "NUCLEUS-2021. Nuclear physics and elementary particle physics. Nuclear physics technologies", St.- Petersburg, September 20-25, 2021.
10. The 7th International Conference on Advancements in Nuclear Instrumentation Measurement Methods and their Applications “ANIMMA 2021”, Prague, Czech Republic, June 21-25, 2021.

Список работ, представленных на конкурс ОИЯИ 2022

- 1) Yu.E. Penionzhkevich, R.G Kalpakchieva. *Light Exotic Nuclei Near the Boundary of Neutron Stability*. World Scientific (Singapore, 2022).
- 2) N.K. Skobelev, Yu.E. Penionzhkevich, I. Sivacek, T. Issatayev, G D'Adata, V. Burjan, A.I. Kilic, J. Mrazek, V. Glagolev. *Population of Excited States in ^{45}Ti Nuclei in Charge Exchange Reactions in a 29-MeV ^3He Beam*. Phys. Part. Nucl. 53 (2022) 382.
- 3) A.K. Azhibekov, Yu.E. Penionzhkevich, S.M. Lukyanov, T. Issatayev, V.A. Maslov, K. Mendibayev, M.A. Naumenko, N.K. Skobelev, K.A. Kuterbekov, A.M. Mukhambetzhana. *Dynamics of the Neutron Transfer Process in the Reaction $^{181}\text{Ta}(^{18}\text{O}, ^{19}\text{O})$ at an Energy of 10 MeV per Nucleon*. Phys. At. Nucl. 84 (5) (2021) 635.
- 4) A.K. Azhibekov, V.A. Zernyshkin, V.A. Maslov, Yu.E. Penionzhkevich, K. Mendibayev, T. Issatayev, M.A. Naumenko, N.K. Skobelev, S.S. Stukalov, D. Aznabaev. *Differential Production Cross Sections for Isotopes of Light Nuclei in the $^{18}\text{O} + ^{181}\text{Ta}$ Reaction*. Phys. At. Nucl. 83 (2) (2020) 93.
- 5) N.K. Skobelev, Yu.E. Penionzhkevich, V. Burjan, J. Mrazek. *Charge Exchange Reactions on Low-Energy Particle Beams*. Bull. Russ. Acad. Sci.: Phys. 84 (4) (2020) 425.
- 6) Yu.E. Penionzhkevich, S.M. Lukyanov, A.K. Azhibekov, M.A. Naumenko, T. Issatayev, I.V. Kolesov, V.A. Maslov, K. Mendibayev, V.A. Zernyshkin, K.A. Kuterbekov, A.M. Mukhambetzhana. *Neutron Transfer in Reaction $^{18}\text{O} + ^{181}\text{Ta}$ with Formation of Neutron-Rich Oxygen Isotopes*. J. Phys. Conf. Ser. 1555 (1) (2020) 012031.
- 7) N.K. Skobelev. *Effect of the Structure of Light Loosely Bound Nuclei on the Mechanisms of Nuclear Reactions*. Phys. At. Nucl. 82 (4) (2019) 358.
- 8) Yu.E. Penionzhkevich. *Special Features of Nuclear Reactions Involving Loosely Bound Cluster Nuclei* Phys. At. Nucl. 82 (3) (2019) 224.
- 9) V.V. Samarin, Yu.E. Penionzhkevich, M.A. Naumenko, N.K. Skobelev. *Nucleon Transfer in Reactions $^3\text{He} + ^{194}\text{Pt}$, ^{45}Sc within Time-Dependent Approach*. Eurasian J. Phys. Funct. Mater. 3 (1) (2019) 31.
- 10) V.V. Samarin, Yu.E. Penionzhkevich, M.A. Naumenko, N.K. Skobelev, Yu.G Sobolev. *Dynamics of Nucleus-Nucleus Collisions and Neutron Rearrangement in Time-Dependent Approach* Nuovo Cimento Soc. Ital. Fis. 42 C (2019) 105.
- 11) V.V. Samarin, Yu.E. Penionzhkevich, M.A. Naumenko, N.K. Skobelev. *Near-Barrier Proton Transfer in Reactions with ^3He Nucleus*. Bull. Russ. Acad. Sci.: Phys. 82 (6) (2018) 637.
- 12) M.A. Naumenko, V.V. Samarin, Yu.E. Penionzhkevich, N.K. Skobelev. *Near-Barrier Neutron Transfer in Reactions with ^3He Nucleus*. Bull. Russ. Acad. Sci.: Phys. 80 (3) (2016) 264.