



Burtebayev Nassurlla

*Professor of the International
Department of Nuclear Physics,
New Materials and Technologies,
L.N. Gumilov ENU*

Contact information:
burteb@inp.kz

Academic degree and title, scientific school:

Doctor of Physical and Mathematical Sciences, Professor
Institute of Nuclear Physics of the Ministry of Energy of the Republic of
Kazakhstan
Kirov Kazakh State University
doctor phys.-mat. Sci., INP NNC RK
candidate phys.-math. Sci., INP NNC RK

Scientific interests:

Experimental nuclear physics and nuclear astrophysics, Reactions induced by
charged particles, Study of the mechanism of nuclear reactions and the
structure of light nuclei

Scientific grants:

Ministry of Education and Science grants: "Investigation of radiative capture
and peripheral nuclear transfer reactions of protons at energies near the
Coulomb barrier caused by heavy ions for astrophysical and thermonuclear
applications" (2018-2020)

Ministry of Energy programs: "Development of complex scientific research in
the field of nuclear and radiation physics on the basis of Kazakhstan
accelerator complexes." (2018-2020)

Delivered courses:

Nucleosynthesis in the universe, Mechanisms of interaction of radiation with
light nuclei, Interaction of radiation with heavy nuclei, Methods of
registration and identification of products of nuclear reactions, Physics of
nuclear reactors, Direct nuclear reactions and nuclear structure, Nuclear
reactions with heavy ions, Charged particle accelerators and physical
experiment technique

Professional experience:

Since 2008 - present time Professor
of the Department of Nuclear
Physics, New Materials and
Technologies

1996-2008 Associate Professor,
Kazakh National Pedagogical
University

1995-1997 Leading Researcher,
INP ME RK

1997-2008 Head of the Department
of Nuclear Physics, INP ME RK
2008 - 2018 Deputy Director of
INP ME RK

From 2001 to the present - Head.
laboratory of low-energy nuclear
reactions INP ME RK

Publications (selected):

1. **Burtebayev N.** et al. Doubly Magic Ca-48 Core in Ca Isotopes beyond N=28 // Physical Review Letters. – 2020. – Vol. 124, № 10. – P. 102501. - DOI: 10.1103/PhysRevLett.124.102501.
2. **Burtebayev N.** et al. Effect of the transfer reactions for o-16+b-10 elastic scattering // Acta Physica Polonica B. – 2019. – Vol.50, №. 8. – P. 1423-1436.-DOI: 10.5506/APhysPolB.50.1423.
3. **Burtebayev N.** et al. Measurement and analysis of B-10+C-12 elastic scattering at energy of 41.3 MeV // International Journal of Modern Physics E. – 2019. – Vol. 28, № 4. – P. 1950028. - DOI: 10.1142/S0218301319500289.
4. **Burtebayev N.** et al. Neutron halos in the excited states of B-12 // Physical Review C. – 2018. – Vol. 98, № 3. – P. 034602. - DOI: 10.1103/PhysRevC.98.034602.
5. **Burtebayev N.** et al. Investigation of exotic states of C-13 at low energy // International journal of modern physics E-Nuclear Physics. – 2018. - Vol. 27, № 3. - P. 1850025. - DOI: 10.1142/S0218301318500258.
6. **Burtebayev N.** et al. // International journal of modern physics E. – 2017. – Vol. 26, №. 4. – P. 1750018. - DOI: 10.1142/S0218301317500185.
7. **Burtebayev N.** et al. New measurements and phase shift analysis of p¹⁶O elastic scattering at astrophysical energies // Chinese Physics C. – 2017. – Vol. 41, № 1. – P. 014001. - DOI: 10.1088/1674-1137/41/1/014001.
8. **Burtebayev N.** et al. Characterization and simulation of fast neutron detectors based on surface-barrier VPE GaAs structures with polyethylene converter // Journal of instrumentation. – 2016. – Vol. 11. – P. C12005. - DOI: 10.1088/1748-0221/11/12/C12005.
9. **Burtebayev N.** et al. Investigation of the elastic and inelastic scattering of alpha-particles from C-13 in the energy range 26.6-65 MeV // International journal of modern physics E-Nuclear Physics. – 2016. – Vol. 25, № 10. – P. 1650078. - DOI:10.1142/S0218301316500786.
10. **Burtebayev N.** et al. Refraction effects in the α and He-3 scattering on N-14 nuclei at energies about 50 MeV // Acta physica polonica B. – 2016. – Vol. 47, № 8. – P. 2017-2032. - DOI: 10.5506/APhysPolB.47.2017.