

**Ukrainian Nuclear Data Center: Progress Report for period 2023-2024.
Summary of Nuclear Data Activity by Staff of the Ukrainian Nuclear Data
Center
June 2023 – May 2024**

O. Gritzay, O. Kalchenko

IAEA Technical Meeting, 14-17 May 2024
Vienna, Austria

Web: <http://ukrndc.kinr.kiev.ua/>

E-mail: ogritzay@ukr.net

Ukrainian Nuclear Data Centre (UkrNDC) is subdivision within the Neutron Physics Laboratory at the Institute for Nuclear Research of the National Academy of Sciences of Ukraine.

Compilation

We continue collection and compilation of experimental neutron, charged particle and photonuclear data. Numbers of the new/renew EXFOR's entries sent to the NDS IAEA by UkrNDC are the following:

- for charged particle data – 2 new entries (D5079, D5196 (16 subentries));
- for photonuclear data – 7 new entries (G4102÷G4108 (30 subentries)) and 1 updated entry (G4094).

We realize review of compilation scope in home journals:

- Nuclear Physics and Atomic Energy;
- Ukrainian Journal of Physics;
- Problems of Atomic Science and Technology, Series Nuclear Physics Investigations;
- East European Journal of Physics.

Collaboration

We continue our collaboration with the Nuclear Physics Department of Taras Shevchenko National University of Kyiv.

The teaching course “Nuclear Data for Science and Technology and modern computer codes for nuclear data processing” (42 hours) was lectured in 2023-2024 for the fifth-course students of the NPD KNU. This course includes the following items: ENDF/B libraries, EXFOR system, ENSDF library, the use of the PREPRO codes in work with the ENDF/B libraries, the introduction to NJOY code system, the Network of Nuclear Reaction Data Centers and the use of the on-line services.

We continue our activity within the framework of educational and scientific program of the Institute for Nuclear Research of the National Academy of Sciences of Ukraine on the preparation of a doctor of philosophy in specialty 01.04.16 (physics of the nucleus, elementary particles and high energies).

- The teaching course “Modern codes and nuclear data” (26 hours) was lectured in September-October 2023 for post-graduate students in the 2-nd year of study.
- The teaching course “Experimental methods of nuclear power engineering” (26 hours) was lectured in January-February 2024 for post-graduate students in the 1-st year of study.

Customer Services

The UkrNDC site is operating. Ukrainian customers, especially students and those physicists, who wish to prepare the point-wise and multi-group cross sections self-dependently, but do not have a good experience in it, use this site very often. Address of the UkrNDC site: <http://ukrndc.kinr.kiev.ua>.

Experimental and Computational Activity

Calculations for improvement of the interference neutron filters with the average energies 2 keV – 150 keV are fulfilled.

Through Russian war, the Kyiv research reactor does not operate, so experimental investigation did not fulfilled.

Acknowledgement

We are very thankful to Naohiko Otsuka and all colleagues for comments in preparation of the final versions of the UkrNDC entries.