

Ukrainian Nuclear Data Centre

Progress Report, 2018/19

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Introduction

UkrNDC is subdivision within the Neutron Physics Laboratory at the Institute for Nuclear Research of the National Academy of Sciences of Ukraine

UKRNDC has:

- **3 permanent researchers**
- **They are also involved in the experimental neutron data measurements at the Kyiv research reactor**

Compilation

Continue collection and compilation of experimental data

New/renew entries sent to NDS:

- for neutron data: **3 entries**
- for charged particle: **40 entries**
- for photonuclear data: **14 entries**

Compilation (continue)

Review of compilation scope in

home journals and scientific issues:

- Nuclear Physics and Atomic Energy
- Ukrainian Journal of Physics
- Problems of Atomic Science and Technology,
Series: Nuclear Physics Investigations
- Uzhhorod University Scientific Herald, Series: Physics;
- Bulletin of Taras Shevchenko National University of Kyiv
Series: Physics & Mathematics
- East European Journal of Physics

Collaboration

Continue collaboration with the PD of the Taras Shevchenko National University of Kyiv:

- ***The teaching course "Nuclear Data for Science and Technology and Modern Computer Codes for Nuclear Data Processing" (38 hours) was lectured in 2018 for the fifth-course students***

Collaboration (continue)

Start activity within the framework of educational and scientific program of the INR of the NASU on the preparation of a doctor of philosophy in specialty 104 (Physics and Astronomy) :

- The teaching courses "*Experimental Methods at Atomic Power Engineering*" (60 hours) was prepared and it will be lectured during April-May 2019 for post-graduated students in the 2nd year of study.

Customer Services

The data from ENDF, ENSDF and EXFOR libraries was prepared and adapted on demand of the users from:

- **Department of Theoretical Physics of the INR of NASU**
- **Uzhgorod Institute of Electron Physics of NASU**
- **Scientific and Technical Complex "Nuclear Fuel Cycle" of KPTI of NASU**

**UKRNDC site is operating - for students and Ukrainian customers, who wish to prepare special libraries self-dependently.
Address: <http://ukrndc.kinr.kiev.ua>**

Experimental & Computational Activity

- **Determination of the total neutron cross section for ^{52}Cr on the filtered neutron beam with the energy 145 keV was done.**
- **Computer code FOR_Spectrum (for reduction and transformation of the output files after operation of the FILTER-8 code) was created.**
- **Neutron spectra after the composite interference filter that have been used in the experiments at the Kyiv research reactor were recalculated and prepared for input into EXFOR using a new keyword – SUPPL-INF (Supplemental information).**

Thank You

for Your attention!

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