

Ukrainian Nuclear Data Centre:

Progress Report for period 2019-2021

**Technical Meeting on the International Network of NRDC
4 - 7 May 2021, Vienna, Austria (Virtual)**

O. Gritzay, O. Kalchenko

**Institute for Nuclear Research
pr. Nauky, 47, Kyiv, Ukraine, 03028**

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

e-mail: ogritzay@ukr.net

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:

- **2 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: **10 entries** (neutron spectra were included in 9 updated entries)
- for charged particle: **13 entries**
- for photonuclear data: **16 entries**

Compilation (continue)

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

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 2019-2020 for the fifth-course students***

Collaboration (continue)

Continue 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 01.04.16 (Physics of the nucleus, elementary particles and high energy) :

- The teaching courses "*Experimental Methods at Atomic Power Engineering*" (26 hours) and "*Modern Codes and Nuclear Data*" (26 hours) were prepared and lectured during 2019-2021 for post-graduated students in the 2nd year of study.

Customer Services

The data from ENDF, ENSDF and EXFOR libraries were prepared and adapted on demand of the users from our institute researchers and for ones from other institutes

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

Several computers codes from NEA DATA BANK were requested by KINR users and one of them PENELOPE-18 was transmitted to end user.

We are very thankful to NEA DATA BANK colleagues for reviving this activity and for their efforts in codes sending, especially in coronavirus situation.

Experimental & Computational Activity

- **Determination of the total neutron cross section for natural hafnium in the energy range 2- 145 keV has been completed.**
- **A new interference neutron filter with an average energy of 1.65 keV was simulated, based on the latest version of the evaluated nuclear data library ENDF/B-VIII.0.**
- **Determination of the total neutron cross section for chromium-52 on the filtered neutron beam with energy 59 keV is in process.**

Acknowledgement

*We are very thankful to **Naohiko** and **all colleagues** for comments in preparation of the final versions of the UkrNDC entries and also to **Lidija** for sending all requested articles needed for compilation, especially in this hard coronavirus situation.*

Thank You

for Your attention!

e-mail: ogritzay@ukr.net