

# Ukrainian Nuclear Data Centre

## Progress Report

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# Introduction

**UkrNDC** is subdivision within the Neutron Physics Department 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: **3 entry**
- for charged particle: **14 entries**
- for photonuclear data: **9 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**

### in the journal

Bulletin of the Russian Academy of Sciences, Series: 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 2014 for the fifth-course students*
- *The teaching courses "Experimental Methods at Atomic Power Engineering" (38 hours) is lectured in 2015 for third-year students*

# Collaboration (continue)

**Start collaboration with the Power Systems Physics Department of the Physics and Technology Institute of National Technical University of Ukraine "Kyiv Polytechnic Institute":**

- ***The teaching course "Nuclear and Thermonuclear Power " (48 hours) is lectured in 2015 for fourth-year students of this department***

# Collaboration (continue)

We continue collaboration with Pavel Sukhoi State Technical University of Gomel

in frame of the task on *Development and Organization of Scientific Methodology and Information Databases for Nuclear Technology Calculations* in the Republic of Belarus

# Customer Services

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

- **Uzhgorod Institute of Electron Physics of NASU**
- **Department of Nuclear Physics of the INR of NASU**
- **Nuclear Reactors Theory Department**

**UKRNDC site is operating - for students and Ukrainian customers, who wish to prepare special libraries self-dependently.**

**Address: <http://ukrndc.kinr.kiev.ua>**

**Ukrainian version of the UkrNDC site has been updated.  
English version updating is in progress.**



# Experimental Neutron Data Measurements

- The total neutron cross sections for chromium were measured using a method of the average energy shift at the neutron filtered beam of the Kyiv Research Reactor
- The measurements of the total neutron cross section for natural carbon in the energy region  $90 \div 160$  keV were fulfilled using a method of the modified filtered beams at the KRR
- The total neutron cross sections for cerium-142 were measured using a neutron filtered beam with the average energy 5.6 keV

*Thank You*

*for Your attention!*

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