

THE MSU SINP CDFE IN THE NUCLEAR REACTION DATA CENTRES NETWORK

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About 50 years ago international community started the job in compilation, computer processing and dissemination of nuclear data essential to the development and application of nuclear sciences and technologies. The scope of the IAEA Network of Nuclear Reaction Data Centres (NRDC) includes nuclear data for both various applications, as well as for basic nuclear science. The important preparative and communication activities between 14 nuclear data centres from Austria, China, France, Hungary, India, Japan, Korea, France, Russia, Ukraine, USA are organized under the auspices of the IAEA. Each of the centres provides coverage for different geographical zones and/or specific types of nuclear data, thus together providing a complete service for users worldwide. 3 Russia centres participate now - Center of Nuclear Physics Data (CNPD), All Russian Scientific Research Institute of Experimental Physics, Sarov; Russian Nuclear Data Center (CJD), Institute of Physics and Power Engineering, Obninsk; Centre for Photonuclear Experiments Data (Centr Dannykh Fotoyadernykh Eksperimentov, CDFE), Moscow State University Skobeltsyn Institute of Nuclear Physics, Moscow. The NRDC Network coordinated by the IAEA Nuclear Data Section successfully collaborates in the maintenance and development of the digital EXFOR library, the most comprehensive nuclear reaction data collection [1-3]. More than 20000 experimental studies of neutron, charged-particle, and photon induced reaction data are accumulated [4]. In addition to the EXFOR library many other nuclear databases (DB) convenient for using in scientific research and educational processes are available through Internet.

The MSU SINP CDFE is responsible for providing photonuclear data for various organizations in Russia, primarily scientific and educational institutes and organization of Russian Academy of Science. All data are organized as relational DB on the CDFE Web-site (<http://cdfe.sinp.msu.ru>) [5] with powerful and flexible Search Engines. That gives to one the possibility for effective surfing the data needed for new nuclear reaction and nuclear structure physics researches.

1. IAEA Database "Experimental Nuclear Reaction Data (EXFOR)", <http://www-nds.iaea.org/exfor>.
2. USA National Nuclear Data Center Database "Nuclear reaction experimental data EXFOR", <http://www.nndc.bnl.gov/exfor/exfor00>.
3. CDFE "Nuclear Reaction Database (EXFOR)", <http://cdfe.sinp.msu.ru/exfor/index.php>.
4. N. Otuka et al., Nucl. Dat. Sheets 120, 272 (2014).
5. S. Yu.Komarov et al., Program and Abstracts of International Conference on Nuclear Data for Science and Technology, New York, USA, 04 – 08 March 2013. p. 253.

The speaker is a student or young scientist

No

Section

1. Experimental and theoretical studies of nuclear reactions

Primary author: Prof. VARLAMOV, Vladimir (Lomonosov Moscow State University, Skobeltsyn Institute of Nuclear Physics)

Presenter: Prof. VARLAMOV, Vladimir (Lomonosov Moscow State University, Skobeltsyn Institute of Nuclear Physics)

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