

Nuclear Data Center (NDC) of KAERI

Progress Report to the
Technical Meeting of Nuclear Reaction Data Centers (NRDC)
9 - 12 April, 2019

Web: <http://atom.kaeri.re.kr/>

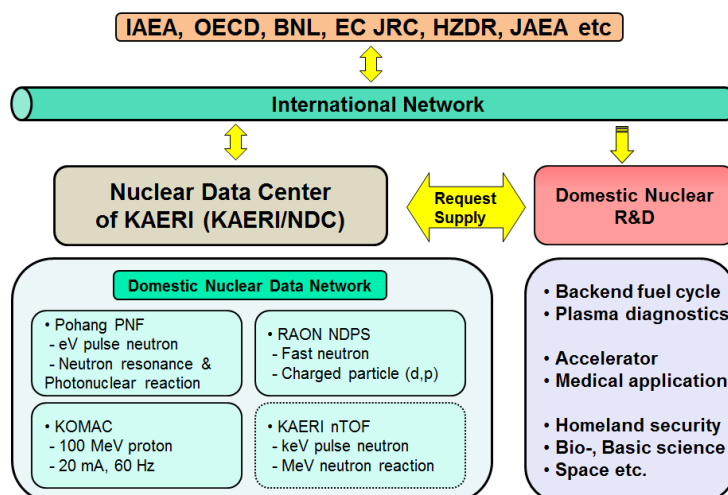
1. General

The Nuclear Data Center (NDC) of Korea Atomic Energy Research Institute (KAERI) is performing the following tasks:

- Evaluation and method development for nuclear reaction data
- Production and validation of atomic/molecular collision cross section
- Establishment of validation system of nuclear reaction/covariance data
- Measurement of nuclear data and development of facility
- Code development and analysis for reactor core and shielding

The KAERI/NDC has a director and 24 staff members (2 in evaluation, 2 in measurement, 2 in atomic and molecular data, 3 in processing and validation, 7 in reactor physics, 7 in accelerator) including 5 students and 1 secretaries.

Mission of center includes disseminating outcomes of international network as well as promoting domestic nuclear data activities and applications. KAERI/NDC is coordinating the measurements activities using domestic accelerators for the measurement of nuclear reaction data.



KAERI/NDC is performing nuclear data compilation/evaluation, processing and validation in collaborations with the international nuclear data network:

- Compilation of nuclear data into EXFOR under the guidance of IAEA/NDS
- Participating in the formal JEFF and WPEC subgroups of NEA
- Participating in IAEA CRP on photonuclear data and photon strength functions

2. EXFOR Activity

We are continuing data compilation for nuclear reaction data obtained in Korea under the guidance of IAEA/NDS.

Since last meeting, 4 Entries (30840, 30841, 30842, G3127) were entered at the EXFOR DB. 10 new entries were compiled and listed in Table 1. Five of total 10 entries were entered at the EXFOR and the others are Compiled status.

Table 1. Compilation statistics of KNDC

#	TRANS	ENTRY	SUBJECT	STATUS
1	3182	30840	Neutron	EXFOR
2	3182	30841	Neutron	EXFOR
3	3182	30842	Neutron	EXFOR
4	G041	G3127	Gamma	EXFOR
5	3186	30843	Neutron	EXFOR
6	G042	G3128	Gamma	EXFOR
7	G042	G3129	Gamma	EXFOR
8	G042	G3130	Gamma	EXFOR
9	G042	G3131	Gamma	EXFOR
10		G3132	Gamma	Compiled
11		G3133	Gamma	Compiled
12		D7023	Proton	Compiled
13		D7024	Proton	Compiled
14		30844	Neutron	Compiled

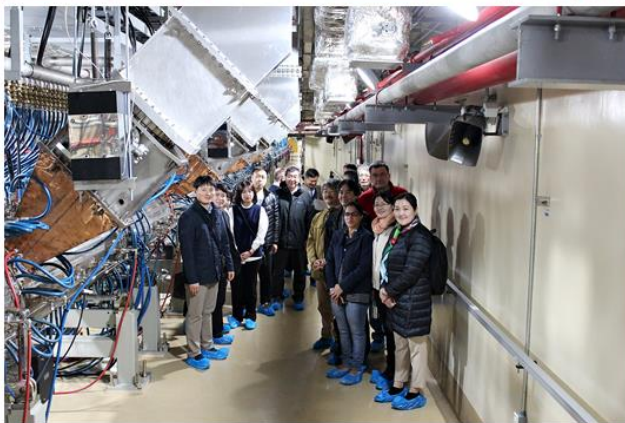
- **Checking Code**

The draft is checked through a checking tool of JCPRG.

<http://www.jcprg.org/exfor/tool/>

3. Cooperation with the Asian nuclear data centers

The 9th Asian Nuclear Reaction Database Development Workshop was organized by Nuclear Data Center of KAERI in cooperation with the IAEA from Nov. 12 – 15, 2018. The purpose of this workshop is to share the nuclear data activities such as measurement, evaluation, validation and compilation and to discuss the future collaboration in Asian nuclear data activities. Thirty participants were attended from China, India, Japan, Kazakhstan, Korea, Mongolia, Vietnam and the IAEA. 24 presentations were presented and the proceedings were published as INDC(KOR)-006.



4. Website service

KAERI/NDC website (<http://atom.kaeri.re.kr/>) was updated continuously.

The newly designed table of nuclides allows the user to easily navigate through the nuclides and will provide the nuclear data on a page describing the nuclide.