

Report on the Sixth Asian Nuclear Reaction Database Development Workshop

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Abstract

The Sixth Asian Nuclear Reaction Database Development Workshop was held on September 15-17, 2015 at Hokkaido University, Sapporo, Japan. The workshop provided a good opportunity for sharing information and promoting cooperation on nuclear data activities in Asia. It was valuable and fruitful for participants in the workshop. A brief summary on the workshop is presented in this report.

The Hokkaido University Nuclear Reaction Data Centre (JCPRG) cooperates in nuclear data compilation with the International Network of Nuclear Reaction Data Centres (NRDC) under the auspices of the International Atomic Energy Agency (IAEA). The NRDC has 13 member institutes worldwide and collaborates in compilation of experimental nuclear reaction data. There are five Asian institutes in the NRDC; China Nuclear Data Centre (CNDC), China, Bhabha Atomic Research Centre (BARC), India, Hokkaido University Nuclear Reaction Data Centre (JCPRG) and JAEA Nuclear Data Center, Japan, and Korea Nuclear Data Center (KNDC), Korea. The four centres among the five, CNDC, BARC, JCPRG and KNDC, are in charge of compilation of domestic nuclear reaction data. The centre heads of the four institutes cooperate to promote nuclear data activities with special focus on compilation.

Under the cooperation, the Sixth Workshop on Asian Nuclear Reaction Database Development was held on September 15-17, 2015 at Hokkaido University, Sapporo, Japan. This workshop followed the workshops in Sapporo (Japan, 2010), Beijing (China, 2011), Pohang (Korea, 2012), Almaty (Kazakhstan, 2013) and Mumbai (India, 2014). A brief summary on the workshop is reported.

The topics of the workshop were sharing information on activities of the nuclear data centres, nuclear data compilation, data evaluation, computational simulations and other related subjects. The participants attended the workshop were from Austria, China, India, Japan, Kazakhstan, Korea, Mongolia, United States and Vietnam. In the workshop, 20 presentations related to their own researches and activities were presented.

There were two sessions in the first day. In the first session following the opening address of the Dean of Faculty of Science, Hokkaido University, the activities of each centres are presented. In addition to the NRDC centres in Austria, China, India, Japan and Korea, institutes in Kazakhstan, Mongolia and Vietnam were introduced. The second session was devoted to nuclear data compilation. In the session, compilation and related activities were presented.

In the second day, after the small excursion in the morning, the third session for nuclear data evaluation was started. There were eight talks in the session. At the end of the day, the workshop banquet was held.

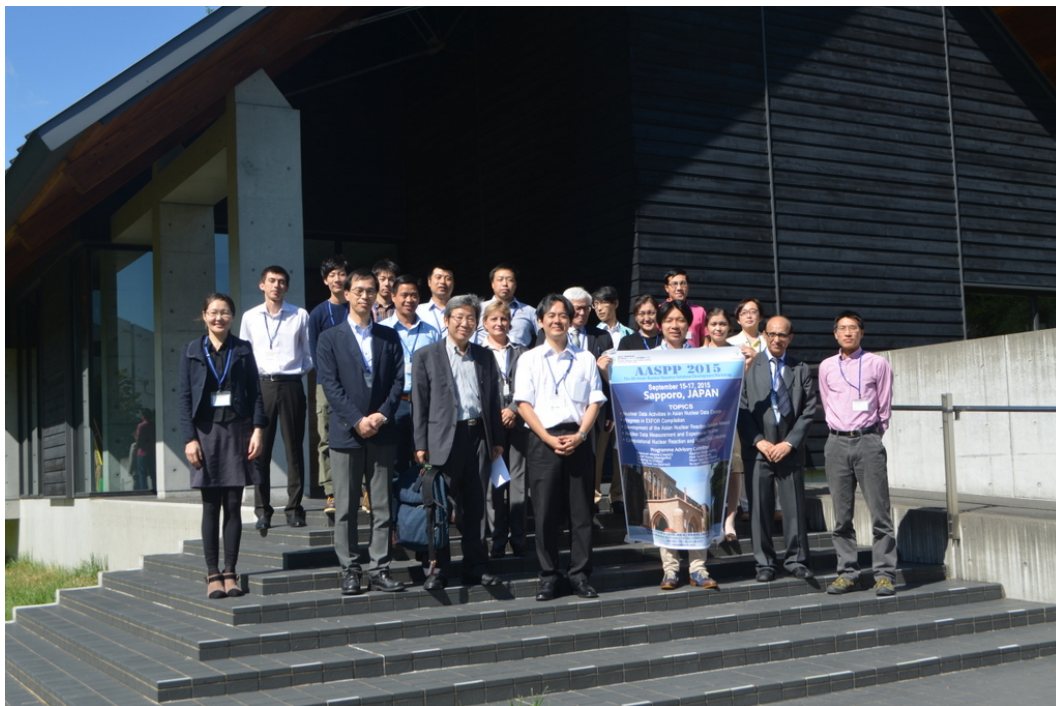


Figure 1: Group photo

The third and last day has two sessions. The morning session is involved in nuclear data measurements and application, which has four talks. Discussion and conclusion are followed as the fifth and last session.

Under the Asian cooperation, the Sixth Asian Nuclear Reaction Database Development Workshop was held on September 15-17, 2015 at Hokkaido University, Sapporo, Japan. There were twenty participants mostly from Asian countries. The workshop was very fruitful for participants and its continuation was requested. The next workshop will be held at Beijing, China. The details of the workshop are summarized in the proceedings [1].

Acknowledgement

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References

- [1] Eds.; A. Sarsembayeva, B. Zhou, N. Otsuka, “Proceedings of the Sixth AASPP Workshop on Asian Nuclear Reaction Database Development”, INDC(JPN)-0200, (2016)

Appendix

Programme

Sep. 15	
9:00-10:00	Registration
10:00-10:15	Opening & Welcome Address, Koichiro Ishimori (Hokkaido U., Japan)
Session 1	Asian Nuclear Data Center Activity, Chairperson: V. Semkova
10:15-10:40	Opening & Recently Progress of Nuclear Data Evaluations and Measurements in China, Zhigang Ge (CIAE, China)
10:40-11:05	Filtered neutron beam applications at DALAT research reactor, Tran Tuan Anh (NRI, Vietnam)
11:05-11:30	Recent Activities of Nuclear Data Physics Centre of India, Pritam Das Krishnani (BARC, India)
11:30-11:55	International Collaboration of Hokkaido University Nuclear Reaction Data Centre, Masayuki Aikawa (Hokkaido U., Japan)
11:55-13:20	Lunch
13:20-13:45	Overview of Compilation to the EXFOR Library in Mongolia, Myagmarjav Odsuren (NUM, Mongolia)
13:45-14:10	CANRDB: Current activities, issues and prospects, Nurgali Takibayev (KazNU, Kazakhstan)
14:10-14:35	Nuclear Data Services provided by IAEA-NDS, Valentina Semkova (IAEA, Austria)
14:35-15:00	Measurement of Charged particle-, Neutron-, and Photon-induced Reactions in Korea, Guinyun Kim (KNU, Korea)
15:00-15:15	Break
Session 2	Nuclear Data Compilation, Chairperson: M. Odsuren
15:15-15:40	Recent EXFOR Compilation in CNDC, Guochang Chen (CIAE, China)
15:40-16:05	Upgrade of Japanese editor for EXFOR compilation, Sarsembayeva Aiganym (Hokkaido U., Japan)
16:05-16:30	Recent charged-particle induced reaction data measurements performed in Kazakhstan, Nurzat Kenzhebayev (KazNU, Kazakhstan)
16:30-16:55	EXFOR Activity in Korea, Young-Ouk Lee (KAERI, Korea)
Sep. 16	
9:00-14:00	Meeting Activity
Section 3	Nuclear Data Evaluation, Chairperson: P.D. Krishnani/H. Masui
14:00-14:25	The Application of EMPIRE for Nuclear Data Evaluation of n+238U, Guochang Chen (CIAE, China)
14:25-14:50	The evaluations of 208Pb, 207Pb, 206Pb and 204Pb in CENDL-3.1, Xi Tao (CIAE, China)
14:50-15:15	Evaluation of deuteron-induced excitation functions for 186W(d,p)187W and 186W(d,2n)186Re, Jimin Wang (CIAE, China)
15:15-15:35	Break
15:35-16:00	Monte Carlo simulation for thick-target yields deduced from inverse kinematics, Shotaro Imai (Hokkaido U., Japan)
16:00-16:25	Evaluation of the photoabsorption cross section of few-nucleon systems with time-dependent method, Rie Sekine (Hokkaido U., Japan)

16:25-16:50	The container picture with two-alpha correlation for the ground state of ^{12}C , Bo Zhou (Hokkaido U, Japan)
16:50-17:15	The scattering cross sections for $6,7\text{Li}+n$ reactions, Ichinkhorloo Dagvadorj (Hokkaido U., Japan)
17:15-17:40	Computational cross sections of Bc absorption by hadrons, M. A. K. Lodhi (TTU, USA)
18:00-20:30	Banquet

Sep. 17

Section 4	Nuclear Data Measurement and Application, Chairperson: F. Ergashev/S. Ebata
9:25-9:50	(n,alpha) Reaction Cross Sections and Angular Distributions for Several MeV Neutrons, Myagmarjav Odsuren (NUM, Mongolia)
9:50-10:15	Nuclear data activities at Bangalore University, Rudraswamy Basavanna (Bangalore U., India)
10:15-10:25	Break
10:25-10:50	Investigation of the nuclear reaction $^{12}\text{C}(p,g)^{13}\text{N}$ at the proton energies below 1 MeV, Feruzjon Ergashev (INP, Uzbekistan)
10:50-11:15	Neutron resonances at crystalline structures in the thermal range, Nurgali Takibayev (KazNU, Kazakhstan)
11:15-13:00	Lunch
Section 5	Discussion and Conclusion, Chairperson: M. Aikawa
13:00-15:00	Discussions
15:00-15:15	Concluding Remark
