

INDC International Nuclear Data Committee

Proceedings of the
**Fourth Asian Nuclear Reaction Database Development
Workshop**

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Compilation of Experimental Nuclear Reaction Data Measured in Central Asia

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The Institutes of Nuclear Physics (INP) in Almaty and Tashkent been active in measurements of nuclear reaction data (**Fig. 1**). The charged-particle induced reaction data measured by the cyclotrons of the INP Almaty and Tashkent as well as the neutron-induced reaction data measured at the research reactor of the INP Almaty have been the major contributors to the current EXFOR library from these countries. The cyclotron of the INP Almaty is active, and the cyclotron of the INP Tashkent currently used for isotope production is planned to be back to nuclear reaction experiments in the near future. All experimental works from these countries and compiled in EXFOR are listed in **Appendices 1** and **2**, and have been utilized by EXFOR users. For example, proton and alpha induced reaction activation cross sections measured by V.N. Levkovskij [1] are known to show good agreements with later experimental data sets (if the original data are renormalized due to change in the monitor cross section), and it is one of the most frequently cited experimental nuclear data from Kazakhstan.

Recently the IAEA Nuclear Data Section has performed checking of EXFOR completeness for radioisotope production cross sections by using the reference lists in Landolt-Börnstein compilation [2], and found some experimental works from Kazakhstan and Uzbekistan are missing in EXFOR. All of them are published in domestic journals (*Izvestiya Akademii Nauk Kazakhskii SSR Seriya Fizika i Matematiches*, *Izvestiya Akademii Nauk Uzbekiskoi SSR Seriya Fizika i Matematiches*). Especially there is no EXFOR entry compiled from the latter journal, and the situation may indicate that systematic scanning of articles for EXFOR compilation have not been performed for these journals though it is not easy to find these journals in libraries outside these countries. Furthermore, it was mentioned during this workshop (The 4th Asian Nuclear Reaction Database Development Workshop, Almaty, Kazakhstan, 23-25 October 2013) that about half of experimental works from INP Almaty are still missing in EXFOR [3]. Appendices 1 and 2 show that digitized data are sometimes compiled instead of the original data provided by authors from Kazakhstan and Uzbekistan even for the experimental works published recently.