

EXFOR Compilation of RIBF data in 2017

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Nuclear reaction data are used in various fields, *e.g.* nuclear physics, engineering and medicine. Accessible databases are therefore required worldwide. One such database open to the public is the EXFOR (EXchange FORmat) library, which is maintained by the International Network of Nuclear Reaction Data Centres (NRDC) under the auspices of the International Atomic Energy Agency (IAEA).¹⁾ The Hokkaido University Nuclear Reaction Data Centre (JCPRG)²⁾ is a member of NRDC and compiles charged-particle and photon induced nuclear reaction data obtained in the institutes located in Japan. About 10% of charged-particle nuclear reaction data in the EXFOR library is contributed by JCPRG.

Our compilation process involves the following steps. Papers in agreement with the EXFOR scope are basically surveyed in peer-reviewed journals. Information to be compiled includes bibliographic information, experimental setup, physical quantities and numerical data, respectively. The information is retrieved from the papers, formatted and input into the database. During the compilation process, the corresponding authors are contacted for queries over the contents of paper and requests for numerical data.

JCPRG has cooperated with the RIKEN Nishina Center for compilation of data obtained in RIBF since 2010. In this article, we report our activities related to the RIBF data. In 2017, we compiled three new papers including the experiment data of RIBF. Out of the three papers, the corresponding authors of two papers provided us the numerical data for compilation. The compiled data are accessible by the entry numbers listed in Table 1.

Figure 1 shows the number of papers compiled from 2011 and already reserved for compilation in 2018. The number in 2017 is rather small in comparison with the yearly average of 13.7 papers between 2011 and 2016 due to reassignment of compilation staff. Thirteen papers were already reserved for compilation as listed in Table 1. The entries of ten papers among them have been prepared in the EXFOR format and are waiting for transmission to IAEA.

We have established an effective procedure to compile all new publications during the last seven-year collaboration with the RIKEN Nishina Center. Therefore, most of the recent experimental nuclear reaction data are provided by the corresponding authors. This cooperation is valuable and effective, and therefore it

is needed to be continued for rapid and reliable compilation.

Table 1. Entry numbers assigned to papers of RIBF data compiled and to be compiled.

Status	Entry number			Total
Compiled	E2506 ³⁾	E2518 ⁴⁾	E2539 ⁵⁾	3
	E2500 ⁶⁾	E2504 ⁷⁾	E2507 ⁸⁾	
	E2511 ⁹⁾	E2515 ¹⁰⁾	E2516 ¹¹⁾	
Compiling	E2522 ¹²⁾	E2542 ¹³⁾	E2543 ¹⁴⁾	13
	E2549 ¹⁵⁾	E2553 ¹⁶⁾	E2554 ¹⁷⁾	
	E2557 ¹⁸⁾			

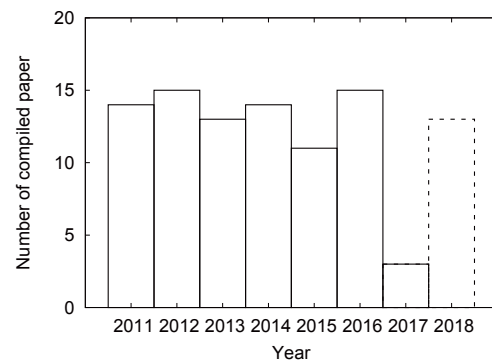


Fig. 1. Number of papers including RIBF data already compiled until 2017 and reserved for compilation in 2018.

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