



**HOKKAIDO**  
UNIVERSITY



Nuclear Reaction  
Data Centre (JCPRG)  
Faculty of Science, Hokkaido University

# JCPRG Progress Report 2019-2021

May 4-7, 2021

**Tetsuaki Tada**

**Nuclear Reaction Data Centre (JCPRG)  
Hokkaido University  
JAPAN**

# Nuclear Reaction Data Centre (JCPRG), Hokkaido University

<b>JCPRG Member</b>	
<b>Staff</b>	M. Kimura
<b>Researchers (compilers)</b>	T. Tada, Q. Zhao, S. Shin
<b>Senior Researchers</b>	K. Kato, M. Fujimoto
<b>Supporting staff</b>	M. Aikawa, H. Noto, M. Chiba, T. Katayama
<b>Steering Committee</b>	Horiguchi, Kimura, Hirabayashi, Arimura, Kamiyama



# Data Compilation at JCPRG in 2019 and 2020

Two Databases are compiled at JCPRG. EXFOR and NRDF

Compilation Working Group	
EXFOR	Aikawa, Shin, Tada, Zhao, Kimura
NRDF	Aikawa, Katayama, Kato, Noto

**EXFOR:** 64 new entries + 33 revisions

**NRDF** (original database developed by JCPRG): 64 new entries



## EXFOR Compilation at JCPRG in 2019

EXFOR: 38 new and 31 revised entries were compiled at JCPRG since the last NRDC meeting.

TRANS	TRANS Status	ENTRY Tot.	ENTRY New	ENTRY Rev.
<b>E123</b>	Final (2019/07/24)	9	7	2
<b>E124</b>	Final (2020/1/20)	21	21	0
<b>E125</b>	Final (2020/1/21)	16	0	16
<b>K019</b>	Final (2019/10/04)	7	7	0
<b>K020</b>	Final (2020/01/21)	5	3	2
<b>R030</b>	Final (2020/02/04)	11	0	11
<b>Total</b>		69	38	31



## EXFOR Compilation at JCPRG in 2020

EXFOR: 26 new and 2 revised entries were compiled at JCPRG since the last NRDC meeting.

TRANS	TRANS Status	ENTRY Tot.	ENTRY New	ENTRY Rev.
<b>E126</b>	Final (2020/07/02)	9	8	1
<b>E127</b>	Final (2020/8/11)	5	5	0
<b>E128</b>	Final (2020/8/19)	6	6	0
<b>E129</b>	Final (2020/10/17)	4	3	1
<b>E130</b>	Final (2020/10/28)	4	4	0
<b>Total</b>		28	26	2



# Software for Compilation and Data retrieving system

## Software for Database Coding

Editor “HENDEL”, <http://www.jcprg.org/manuals/hendel/>

Digitizer “GSYS”, <http://www.jcprg.org/gsys/gsys-e.html>

## Data Retrieval System

NRDF: <http://www.jcprg.org/nrdf/>

NRDF/A: <http://www.jcprg.org/nrdfa/>

EXFOR/ENDF <http://www.jcprg.org/exfor/>



# Summary

Compilation of charged-particle reaction data in Japan

64 EXFOR and NRDF new entries since the last NRDC meeting.

Evaluation of nuclear reaction database

Development of AI-based nuclear database

Collaborations with domestic and international institutes

IAEA, NRDC, RIKEN, JAEA, ATOMKI,...

