



HOKKAIDO
UNIVERSITY

Japan Nuclear Reaction Data Centre (JCPRG) Progress Report

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Nuclear Reaction Data Centre (JCPRG)

Hokkaido University

JAPAN

Introduction

- Members
 - 1 professor, 2 senior and 6 postdoc researchers (Working Group members)
 - Centre Meeting, Advisory Board and Steering Committee members
- Duration
 - 4 years remaining (~ FY2015)
- Collaboration
 - IAEA and International Nuclear Reaction Data Centres (NRDC)
 - Meme Media Laboratory, Hokkaido University
 - RIKEN
 - Japan Atomic Energy Agency (JAEA)



Main Objectives

- Main Objectives of JCPRG
 - Compilation of charged-particle and γ induced nuclear reaction data obtained in Japan
 - Evaluation of light nuclei reaction, especially astrophysically important, data
 - Development of collaboration among Asian and international nuclear reaction data centres
 - Education for graduate school students



Objectives of Collaboration

- IAEA and NRDC
 - Compilation of charged-particle and γ induced nuclear reaction data
- Meme Media Laboratory
 - Software development
- RIKEN
 - Compilation of recent and old RIKEN data
 - Research of nuclear transformation
 - Research of astrophysical nuclear reaction data
- JAEA
 - Education for graduate school students
 - Evaluation of nuclear reaction data in light nuclei
 - Cooperation for international nuclear reaction data centre network



Budgets

- We have 4 budgets fixed and being applied.

Title/Organization	Main Purpose	Amount/Year
Hokkaido University	Research/Education	\1,000,000
AASPP of JSPS	Travel expenses	\5,500,000
RIKEN Collaboration	Employment	[Applying]
Grants-in-Aid for Scientific Research	Compilation	[Applying]



Compilation

- NRDF
 - 50 new papers of charged-particle and photonuclear reaction data were compiled for NRDF.
- EXFOR
 - 50 new and 65 revised/deleted entries were transmitted as 7 trans files (E065-E068, K011, R024-R025) to the NDS open area.
- Nuclear Reaction Data Files for Astrophysics (NRDF/A)
 - 428 bibliographic records were updated.



System development

- Data Retrieval System
 - 4 different scopes of retrieval systems
 - NRDF (<http://www.jcprg.org/nrdf/>)
 - NRDF/A (<http://www.jcprg.org/nrdfa/>)
 - EXFOR/ENDF (<http://www.jcprg.org/exfor/>) -> WP-2012-40
 - CINDA (<http://www.jcprg.org/cinda/>)
- Coding Software
 - Software for compilation
 - "HENDEL" editor
 - "GSYS" digitizer -> WP-2012-41
- Mail Archive System
 - Information sharing for compilers
 - "Stock" system -> WP-2012-40



Asian Collaboration

- Workshops
 - Workshop organized by CNDC in Beijing on Sep. 5-9
 - Workshop organized by JCPRG in Sapporo on Nov. 10-12
- Researcher interchanges
 - Researchers from China, India, Kazakhstan, Korea and Mongolia
-> WP-2012-43

