

4th RCM on Recommended Input Parameter Library (RIPL-4) for Fission Cross Section Calculations

Monday 18 March 2024 - Friday 22 March 2024

Building C

Book of Abstracts

Contents

RIPL-4 update on the mass, nuclear level densities and fission segments in the framework of mean field models	1
Fission barriers of actinides from multidimensionally-constrained relativistic mean field model	1
Static properties of the heaviest nuclei, including actinides and odd-A, from a macroscopic-microscopic perspective	1
Systematic calculation of fission barriers for Th, U, and Pu isotopes using Cassini-oval description of the nuclear shapes	1
Status on D1M fission paths	1
Coupled-channel optical model potential for even-even and odd-A actinides using extended couplings	1
Realistic fission transmission coefficients in the statistical Hauser-Feshbach compound-nucleus reaction theory	1
Cross-section calculations of fast neutron induced reactions on $^{238-242}\text{Pu}$ targets	2
Nuclear data evaluation using CCONE code for Actinides	2
Theoretical calculation for $n+^{238}\text{U}$, ^{239}Pu reactions	2
TALYS-2 and slight progress in actinide fitting	2
RIPL discrete levels: how data are prepared?	2
Overview of gamma-ray strength function CRP results	2
RIPLpy: the official Python3 interface for RIPL-4	2

Opening and Presentations / 8

RIPL-4 update on the mass, nuclear level densities and fission segments in the framework of mean field models

Corresponding Author: sgoriely@astro.ulb.ac.be

Opening and Presentations / 9

Fission barriers of actinides from multidimensionally-constrained relativistic mean field model

Corresponding Author: sgzhou@itp.ac.cn

Presentation of results (II) / 10

Static properties of the heaviest nuclei, including actinides and odd-A, from a macroscopic-microscopic perspective

Corresponding Author: michal.kowal@ncbj.gov.pl

Presentation of results (II) / 11

Systematic calculation of fission barriers for Th, U, and Pu isotopes using Cassini-oval description of the nuclear shapes

Presentation of results (II) / 12

Status on D1M fission paths

Corresponding Author: stephane.hilaire@cea.fr

Presentation of results (III) / 13

Coupled-channel optical model potential for even-even and odd-A actinides using extended couplings

Corresponding Author: martyanov@gmail.com

Presentation of results (III) / 14

Realistic fission transmission coefficients in the statistical Hauser-Feshbach compound-nucleus reaction theory

Corresponding Author: toshihiko.kawano@gmail.com

Presentation of results (III) / 15

Cross-section calculations of fast neutron induced reactions on 238-242Pu targets

Presentation of results (IV) / 16

Nuclear data evaluation using CCONE code for Actinides

Corresponding Author: iwamoto.osamu@jaea.go.jp

Presentation of results (IV) / 17

Theoretical calculation for n+238U, 239Pu reactions

Presentation of results (IV) / 18

TALYS-2 and slight progress in actinide fitting

Corresponding Author: a.koning@iaea.org

Presentation of results (V) / 19

RIPL discrete levels: how data are prepared?

Corresponding Author: m.verpelli@iaea.org

Presentation of results (V) / 20

Overview of gamma-ray strength function CRP results

Corresponding Author: p.dimitriou@iaea.org

Presentation of results (VI) / 21

RIPLpy: the official Python3 interface for RIPL-4

Corresponding Author: mumpower@lanl.gov