

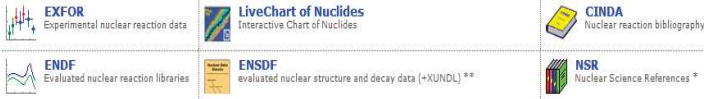
About the IAEA

Founded in 1957 as the “Atoms for Peace” organization of the United Nations.



Nuclear Data Section

Work on nuclear data libraries:
<http://www-nds.iaea.org/>



NuDat 2.6 selected evaluated nuclear structure data **	R1PL reference parameters for nuclear model calculations	IBANDL Ion Beam Analysis Nuclear Data Library	Charged particle reference cross section Beam monitor reactions
PGAA Prompt gamma rays from neutron capture	FENDL-2.1 Fusion Evaluated Nuclear Data Library, Version 2.1	Photonuclear cross sections and spectra up to 140MeV	IRDF International Reactor Dosimetry and Fusion File
NAA Neutron Activation Analysis Portal	Safeguards Data recommendations, August 2008	Medical Portal Data for Medical Applications	Standards • Neutron cross-sections, 2006 • Decay data, 2005



Department of Nuclear Applications

IAEA Departments: Nuclear Applications, Nuclear Energy, NS and Security, Safeguards, Technical Cooperation

2012

Food and Agriculture, Human Health, Programme of Action for Cancer Therapy - PACT, Environment, Water Resources, Radioisotope Production and Radiation Technology, Nuclear Science

Nuclear Sciences and Applications

In Focus: 50th Anniversary of the IAEA's Nuclear Sciences and Applications Laboratories in Seibersdorf

Events: 8 - 13 October, 24th Fusion Energy Conference, San Diego, USA.

About Us: Mission & Role, Contact, follow us on twitter



Atomic and Molecular Data Unit

www-amdis.iaea.org

International Atomic Energy Agency
Atomic Molecular Data Services
 Provided by the Nuclear Data Section

Atomic and Molecular Data Unit Activities

The Atomic and Molecular Data Unit operates within the Nuclear Data Section of the International Atomic Energy Agency, Vienna, Austria. The primary objective of the Atomic and Molecular Data Unit is to establish and maintain internationally recommended numerical databases on atomic and molecular collision and radiative processes, atomic and molecular structure characteristics, particle-solid surface interaction processes and physico-chemical and thermo-mechanical material properties for use in fusion energy research and other plasma science and technology applications.

Our Unit achieves its objectives by coordinating the activities of the International Atomic and Molecular Data Center Network (ICM) and Code Center Network (CCN), initiation and conducting international Coordinated Research Projects (CRPs), organization of various types of Expert Meetings, publication of technical reports on meetings and research activities and using other forms (research contracts, research agreements, consultations) for stimulation of the generation, collection and critical assessment of the required atomic, molecular (AM) and plasma material interaction (PMI) data information.

The activity of Our Unit is supervised and biennially reviewed by the Subcommittee on Atomic and Molecular Data for Fusion of the International Fusion Research Council (IFRC-A4M Subcommittee), an advisory body to the Agency's Director General.



Data Evaluation

Joint IAEA-ITAMP Technical Meeting on Uncertainty Assessment for Theoretical Atomic and Molecular Scattering Data, Cambridge, MA, 7-9 Jul 2014



ICTP Workshop on PMI

2014 Joint ICTP-IAEA Conference on Models and Data for Plasma-Material Interaction in Fusion Devices, ICTP, Trieste, 3-7 Nov 2014



Meeting on A+M+PMI data for fusion

Decennial IAEA Technical Meeting on Atomic, Molecular and Plasma-Material Interaction Data for Fusion Science and Technology, Daejeon, 15-19 Dec 2014



Coordinated Research Projects

- Spectroscopic and Collisional Data for Tungsten from 1 eV to 20 keV (2010-2015)
- Atomic and Molecular Data for State-Resolved Modelling of Hydrogen and Helium and Their Isotopes in Fusion Plasma (2011-2016)
- Data for Erosion and Tritium Retention in Beryllium Plasma-Facing Materials (2012-2017)
- Plasma-Wall Interaction with Irradiated Tungsten and Tungsten Alloys in Fusion Devices (2013-2018)
- Plasma-wall Interaction with Reduced-activation Steel Surfaces in Fusion Devices (2015-2019/2020)
- Data for Neutral Beam Processes in Fusion Plasma (tentative for 2016+)



Work on A+M (+PMI) Data...

- Our tools: meetings, consultancies, coordinated research projects and the IAEA good name.
- Encourage data development and evaluation.
- Scientific challenge: uncertainty assessment for calculated collision data.
- Organizational challenge: database management with widely distributed sources.
- Social challenge: Strengthening the network of researchers working on A+M data for fusion.

Welcome to this 2nd week workshop!

