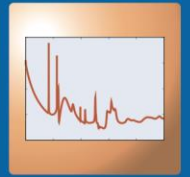




IAEA

International Atomic Energy Agency

Nuclear Data Newsletter



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From the Section Head

Greetings from (too) warm Vienna!

The first half of 2024 was marked by several large events. Of course, I will start with the celebration of the 60 years of Nuclear Data Services on 3 June.

Time flies, because I remember that I 'just' missed the 50 years celebration as that was one year before my arrival here. It was good to see some old friends online and in person here in Vienna, including some from the first hour of NDS in 1964, Hans Lemmel!

The celebration was directly (well, the next day) followed by the meeting of the International Nuclear Data Committee (INDC) where 15 nuclear data specialists from our Member States came together to advise on our program and to verify whether we are on the right track.

Another large event, certainly for NDS meeting standards, was CNR*24, the large conference on Compound Nucleus Reactions which IAEA hosted this time. Many exciting new developments are taking place in this field, much needed, since we still cannot measure everything, and nuclear model codes need to become better to cover for that! The photo in this Newsletter shows the attendance size for CNR*24.

Similarly large was the Decennial Technical Meeting on Atomic, Molecular and Plasma-Material Interaction Data for Fusion Science and Technology (AMPFI 2024) which was held at the University of Helsinki. With the recent rise of nuclear fusion initiatives all over the world, our work on atomic data for nuclear fusion plasmas and plasma-wall interactions is becoming increasingly important. While the already mentioned INDC is the advisory committee for nuclear data, the IFRC Subcommittee advises on atomic and molecular data, and their meeting was also held in June here in Vienna.

The other large network events were that of the Nuclear Structure and Decay Data (NSDD) in April and the Nuclear Reaction Data Centres (NRDC) in May.

Finally, I am proud to say that I have received the Los Alamos Oppenheimer coin from LANL's Deputy Director Mark Chadwick!

The photo below is with Melissa Denecke, our Director who retires end of August after more than 5 years at the Agency. As of 1 September, she will be succeeded by Tzanka Kokalova-Wheldon, who I will introduce in the next Newsletter.



Melissa Denecke, DIR-NAPC and Arjan Koning, SH-NDS

Announcements

Oppenheimer Coin for Dr. Koning

In the recognition of his career accomplishments in nuclear theory, simulation and nuclear data benefiting Los Alamos capabilities in applied nuclear science, Dr Koning was awarded Los Alamos Oppenheimer coin, which was handed over by the Los Alamos National Laboratory Deputy Director, Dr Mark Chadwick. Dr Koning has created TALYS, unique code used all over the world for making predictions of nuclear reactions. The accompanying letter also emphasized the leadership of Dr Koning under which worldwide collaboration in nuclear data projects was created at the IAEA - first under the CIELO project and then under INDEN.

The J. Robert Oppenheimer coin represents the highest accomplishments in scientific excellence and technical leadership, and it is the second coin awarded to the staff of Nuclear Data Section. Last year the same coin was awarded to Dr Roberto Capote Noy.



60 Years Nuclear Data Services 3 June 2024

Nuclear Data Section celebrated 60 years of Nuclear Data Services on the first day of the International Nuclear Data Committee (INDC) Meeting, 3 June 2024.

The event was attended by INDC Members, former staff members, in person and remotely, as well as the current staff members and in-house guests and collaborators. The overview of the accomplishments in the past 60 years, the importance and the future of the Nuclear Data Services were given by the respective DDG NA, Ms Najat Mokhtar, DIR-NAPC, Melissa Denecke, DIR-NEPK, Mr Wei Huang, and NDS Section Head, Arjan Koning. As N. Mokhtar stressed: “Technology development is necessarily a collaborative endeavour, and the service provided by the Nuclear Data Section to support this work is critically important in pushing innovation forward.”

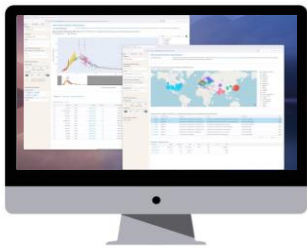
What followed were retrospectives from former staff members, including videos, recordings and presentations with the anecdotes of their time at NDS, and memories of the colleagues who are no longer with us. The celebration ended with small reception.



Computer Codes, Data Libraries and Web News

Nuclear Reaction Data Explorer

<https://nds.iaea.org/dataexplorer>
 Python 3 based, Open sourced project



Reaction based data plotter

- Input target and reaction to get evaluated and experimental datasets
 - Cross section
 - Thermal neutron cross section
 - Residual production cross section
 - Fission yield

EXFOR entry viewer

- Easy access without understanding of EXFOR format
 - Search by reactions
 - Entry viewer
 - Geographical analysis

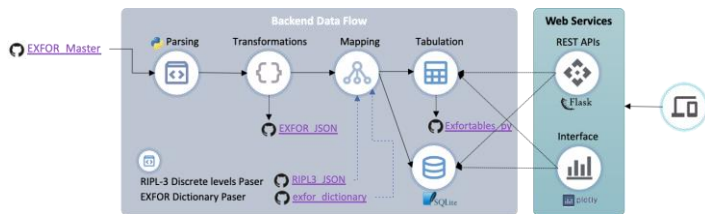
RESTful APIs

- Easy computational access
 - Reaction, EXFOR entry and definition of EXFOR keywords, RIPL-3 levels

In 2021, we launched the new Nuclear Reaction Data Explorer <https://nds.iaea.org/dataexplorer> to offer seamless access to experimental and evaluated nuclear reaction data. We renewed all interfaces and integrated the EXFOR Entry Viewer, offering an enhanced experience to view EXFOR entries.

- [Cross section](#)
- [Thermal neutron cross section](#)
- [Residual Production cross section](#)
- [Fission yield](#)

The previous version of Data Explorer relied on experimental data from C5 and EXFORTABLES, which required multiple preprocessing steps. To streamline data access and ensure rapid distribution, the IAEA NDS has developed EXFOR parsing software to process EXFOR data directly from the master format, reducing the time needed to provide data to users.



We also developed the Data Explorer APIs, designed to provide direct, efficient computational access to evaluated and experimental nuclear data. Utilizing the REST architectural style, these APIs ensure quick, reliable data retrieval through HTTP requests, offering addressability, stateless interactions, and a uniform interface.

* The previous version of the Data Explorer remains accessible at <https://nds.iaea.org/dataexplorer-2022>.

API Endpoints:

- Reactions API**
 Access comprehensive datasets with data tables used in the Nuclear Reaction Data Explorer.
<http://nds.iaea.org/dataexplorer/api/reactions>
- EXFOR Entry API**
 Retrieve detailed EXFOR entries, including subentries, bibliographic information, data, experimental conditions, and reactions.
<http://nds.iaea.org/dataexplorer/api/exfor/entry/>
- EXFOR Dictionary API**
 Explore dictionaries for facilities, institutes, methods, and detectors used in EXFOR entries.
<http://nds.iaea.org/dataexplorer/api/exfor/dict/>
- RIPL-3 Discrete Level API**
 Detailed level records and discrete levels from the RIPL-3 database.
<http://nds.iaea.org/dataexplorer/api/ripl3/levels/>

Author	Year	Entry ID	Points	E_min [MeV]	E_max [MeV]	EXFOR Reaction Code	Scale data
M.Ammer	2022	01033-010-0	1	7.920e+0	7.920e+0	(22-TI-IA,RI24-CR-SI,SI)	
N.E.Vila	2020	11650-010-0	10	6.478e+0	2.545e+1	(22-TI-IA,RI24-CR-SI,SI)	
S.Takaya	2017	01384-010-0	17	6.240e+0	5.052e+1	(22-TI-IA,RI24-CR-SI,SI)	
A.R.Uzman	2017	01338-010-0	7	1.040e+1	4.760e+1	(22-TI-IA,RI24-CR-SI,SI)	
M.S.Ludin	2016	01334-010-0	21	1.550e+1	3.920e+1	(22-TI-IA,RI24-CR-SI,SI)	
A.Hermann	1999	01089-010-0	113	6.950e+0	4.184e+1	(22-TI-IA,RI24-CR-SI,SI)	

Reaction View

<https://nds.iaea.org/dataexplorer/reactions/>

Entry number: 41614-004-0 (13-AL-27N/P12-MG-27,SI)G

Title: Neutron activation cross sections measured at RRI in neutron energy region 13.4 - 14.9 MeV

Author: A.A.Flatenkov, (RFUSRF)

Institute: (RFUSRF)

References: (RUND)CCP-0460,2016,

Reactions: 41614-004-0: (13-AL-27N/P12-MG-27,SI)G

ERR-UB	EN (MEV)	DATA [L]	ERR-T [L]	ERR-L [L]	MONET [L]	MONET-L [L]
0.012	13.47	79.7	2.03	0.83	125.46	0.795
0.012	13.66	74.6	2	0.976	134.98	0.925
0.012	13.86	76.8	1.97	0.945	123.43	0.491
0.012	14.24	79.8	2.59	0.934	121.71	0.462
0.012	14.26	71	1.94	0.472	118.58	0.41
0.012	14.44	72	1.9	0.443	116.35	0.378
0.012	14.63	67.1	2.07	0.651	113.59	0.385
0.012	14.81	64	1.94	0.49	110.94	0.437

EXFOR Entry Viewer

<https://nds.iaea.org/dataexplorer/exfor/geo>

Livechart data API

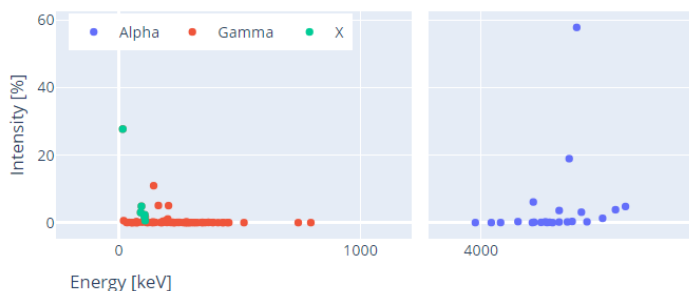
The Application Program Interface for Livechart, which allows users to feed data directly into scripts for further processing or plotting, has been heavily used by scientists that would like to perform custom data query and receive data back in a way that can easily be plugged into, for example, Python, Java, or Excel.

Since the advertising of “version 0” for testing, the API has been updated with users’ feedback, and it is now on version 1.

This API calls can easily be embedded in software packages that are then distributed on code sharing platforms like GitHub.

Besides the embedding in software packages, the API is very useful for one-off, on-the-fly data analysis in combination with Jupyter, using standard tools like Pandas or Plotly.

The picture below, generated by Plotly on Jupyter, shows the plot of the Energy vs. Intensity of the U-235 decay radiations, by radiation type. It takes only a couple of lines of code.



The same code, without plotting, can be used, for example, in analysing decay chains and finding what is their radiation signature.

Decay chain API are being developed and, if completed in time, will be highlighted in the next Newsletter.

The API guide can be found at

https://nds.iaea.org/relnsd/vcharthtml/api_v0_guide.html,

and the Notebook with examples at

https://iaea-nds.github.io/lc_api_notebook/

Staff

Alejandra Martinez



We welcome **Alejandra Martinez** who joined the Nuclear Data Section on 1 July 2024 as Software Engineer (Nuclear Data).

Prior to this position, Alejandra worked in the Research and Development Unit for the Technology Management Department at the Central American Corporation for Air Navigation Services in

Honduras, developing software solutions and tools such as flight planning and validation, flight route decodification and map visualization, air traffic flow management, messaging system for the air traffic control center, statistics and forecasting of flight operations, data processing and presentation for ADSB, creation and validation of notifications for aircrafts, enterprise risk management, automatic distribution of billing data for airlines, among other utilities.

She studied Computer Engineering at the Technological University of Honduras and subsequently completed a master’s degree in business administration with specialization in Finances at the Central American Technological University.

As a member of the Nuclear Data Services Unit, Alejandra will design, build and maintain software for the storage and dissemination of a wide range of nuclear data.

Khadija Benyahia



Khadija joined the Nuclear Data Section as a consultant in the Atomic and Molecular Data Unit in April 2024. She has spent the first three months of her time with the Unit populating the AMBDAS bibliographic database and assisting in the development of pwiDB, a new data resource holding plasma-material interaction data of relevance

to fusion energy research. She plans to return to the Agency for a further three months from August to continue this work and to extend the functionality of the CollisionDB database of plasma collisional processes. She speaks Arabic, French, English and Spanish fluently, as was recently highlighted in a video of her typical day made for the Department of Nuclear Applications:

<https://x.com/IAEANA/status/1812782965841137745>

NDS Meeting Reports

(TM = Technical Meeting, RCM = Research Coordination Meeting, CM = Consultants' Meeting, WS = Workshop, CRP = Coordinated Research Project)

Decennial IAEA Technical Meeting on Atomic, Molecular and Plasma–Material Interaction Data for Fusion Science and Technology

15-19 July 2024, Helsinki, Finland

Scientific Secretary: K. Heinola

61 participants and IAEA staff



Photo credit: Fredric Granberg

The Decennial Technical Meeting on Atomic, Molecular and Plasma-Material Interaction Data for Fusion Science and Technology (AMPPI 2024) was held at University of Helsinki, Finland. This meeting series has been previously organized in 1976, 1980, 1992, 2002 and 2014 to review the current fusion data needs of processes relevant for nuclear fusion plasmas and plasma-wall interactions, and to help set global priorities in fundamental fusion data activities. AMPPI 2024 was attended by 61 fusion experts representing 21 Member States, ITER and one private fusion enterprise. Keynote talks reviewed the global technical readiness level of fusion technologies and the foreseen new fusion data needs of ITER as it is going through major engineering updates by changing its first wall reactor components from beryllium-based into tungsten-based ones making it a full-tungsten machine. In addition to tungsten, processes related to molecules, injected impurity species, such as boron, as well as fuel permeation in reactor components were highlighted as some of the key near-term topics for fusion data.

More information can be found at

<https://amdis.iaea.org/meetings/decennial-2024/> and <https://conferences.iaea.org/e/AMPPI24>.

Summary report of the meeting will be published as INDC(NDS)-0907 and is in preparation.

Technical Meeting on Compound Nuclear Reactions and Related Topics (CNR*24)

8-12 July 2024, Vienna, Austria

Scientific Secretary: P. Dimitriou

91 participants and IAEA staff



The 7th international workshop on Compound-Nuclear Reactions and Related Topics was held from 8 to 12 July 2024 at the IAEA.

Following in the footsteps of previous workshops held in Yosemite National Park (2007), Bordeaux (2009), Prague (2011), Sao Paulo (2013), Tokyo (2015) and Berkeley (2018), the meeting brought together scientists from the fields of nuclear theory, experiment, nuclear astrophysics, data evaluation, and other applications. The primary goal was to provide a forum for reviewing the status of experimental and theoretical efforts in compound-nuclear reactions and related areas, discussing recent developments, and exploring how these improvements can be integrated into practical applications.

A total of 91 participants from 24 Member States including one international organization and IAEA staff attended the meeting. The scientific programme comprised of 12 keynote overview talks, 16 invited talks, 24 oral contributions, and 30 poster presentations. A special session in memory of Eric Bauge who passed away in May 2022 was held during the meeting.

Following topics were covered: nuclear reaction mechanisms; nuclear fission; surrogate methods; optical model; level densities and photon strength functions; R-matrix theory; nuclear structure for nuclear reactions; measurements relevant to compound-nuclear reactions; nuclear data evaluation; applications in nuclear astrophysics and experimental facilities.

More details of the meeting can be found on: <https://conferences.iaea.org/event/368/overview>.

The proceedings will be published online in EPJ Web of Conferences.

24th Meeting of the International Fusion Research Council Subcommittee on Atomic and Molecular Data for Fusion

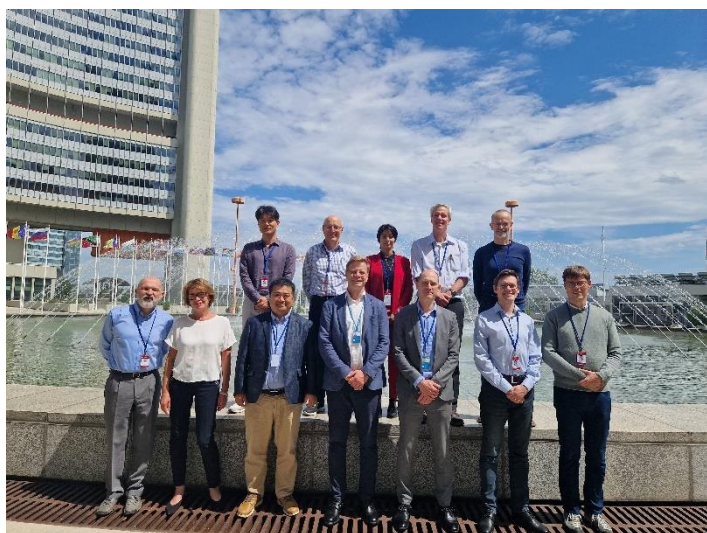
6-7 June 2024, Vienna, Austria

Scientific Secretary: C. Hill

13 participants and IAEA staff

The International Fusion Research Council Subcommittee on Atomic and Molecular Data for Fusion meets every two years to review the activities of the Atomic and Molecular Data Unit and to recommend policies and programmatic priorities for the coming biennium. At this June's meeting the Unit Head and Atomic Physicist gave a detailed account of the meetings, CRPs, databases, consultancies and networks organized since 2022 and recommendations were made concerning the future work of the Unit for 2026-27. Further details of the meeting are available at <https://amdis.iaea.org/meetings/ifrc-2024/>.

Summary report of the meeting will be published as INDC(NDS)-0906 and is in preparation.



Technical Meeting of the International Nuclear Data Committee (INDC)

3-7 June 2024, Vienna, Austria

Scientific Secretary: A. Koning

26 participants and IAEA staff



The 34th meeting of the INDC took place from 3 to 7 June 2024 and all participants attended in person. This year's meetings started off with the celebration of 60 years of Nuclear Data Services on the first day of the meeting. The meeting resumed its usual agenda as of 4 June. Nuclear Data Section gave an overview of the work performed since the last meeting, presented statistics and projects for the next biennium. Committee Members reported on the country specific developments and nuclear data needs.

It was agreed to have a virtual follow up meeting in 2025 to keep the members updated on the progress of the actions agreed.

The presentations, progress reports and nuclear data needs are accessible from the meeting webpage:

<https://conferences.iaea.org/event/333/>.

Technical Meeting of the International Network of Nuclear Reaction Data Centres (NRDC)

14-17 May 2024, Vienna, Austria

Scientific Secretary: N. Otsuka

26 participants and IAEA staff



26 participants representing 13 cooperative Centres from eight Member States (China, Hungary, India, Japan, Korea, Russia, Ukraine and USA) and two International Organizations (IAEA, NEA) attended the meeting. Main topics of the present meeting were the EXFOR transmission statistics, EXFOR coverage and quality control, revision of coding rules and manuals, EXFOR/CINDA dictionaries as well as improved tools for compilation and dissemination. The statements for copyright (CC BY 4.0 DEED) and DOI assignment for distribution of the network products and documents were approved. Several proposals on formats and tools were discussed and approved. All relevant data files and source codes are freely available from the NRDC website. This ensures sustainable production and distribution of EXFOR Files and supports the "Open Data" and "Open Source" policies discussed at NRDC 2023 meeting. A summary report of the meeting, including the list

of the 50 conclusions and 77 actions is available as INDC(NDS)-0902. All progress reports, working papers and slides are available from the meeting webpage (http://nds.iaea.org/nrdc/nrdc_2024/).

Technical Meeting of the International Network of Nuclear Structure and Decay Data (NSDD) Evaluators

15-19 April 2024, Vienna, Austria
 Scientific Secretary: P. Dimitriou
 43 participants and IAEA staff



The 25th Technical Meeting of the NSDD network took place at the IAEA Headquarters, from 15 to 19 April 2024. Representatives of the data centres and affiliated evaluators gathered to discuss the status of mass-chain evaluations, evaluation responsibilities, developments in analysis and checking codes, as well as ENSDF formats and policies. Priority activities for the subsequent two years were also agreed. This meeting had special significance as it marked the 50th anniversary of the NSDD network. To commemorate this milestone, a special opening session was planned, featuring a retrospective into the 50-year journey of the network. One session was dedicated to the memory of one of the most prolific evaluators of the network, teacher, and mentor, Balraj Singh, who passed away on 9 October 2023.

Summary report of the meeting will be published as INDC(NDS)-0901 and is in preparation.

Fourth RCM of the Recommended Input Parameter Library (RIPL-4) on Cross Section Calculations

18-22 March 2024, Vienna, Austria
 Scientific Secretary: R. Capote
 16 participants and IAEA staff

The main goal of the fourth RCM was to review the work done and agree on the final deliverables of the project as well as to define a time-line to produce a final publication. Details of the meeting, including book of abstracts and presentations given by the meeting participants can be found at <https://conferences.iaea.org/event/388/overview>. The meeting report is in preparation.

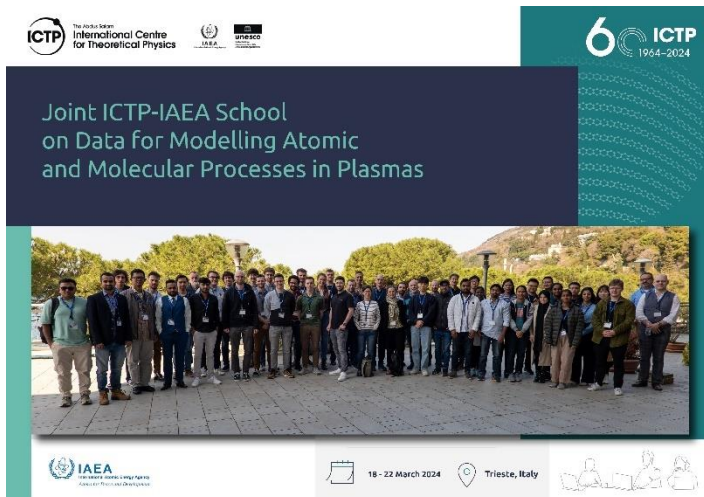


Joint ICTP-IAEA Workshop on Data for Modelling Atomic and Molecular Processes in Plasmas

18-22 March 2024, Vienna, Austria

Directors: S. Brezinsek, Dipti, C. Hill and Y. Ralchenko

Local organizer: S. Scandolo



This large Workshop, held in person at the ICTP in Trieste, was a 5-day series of lectures and computing practical exercises to help early-career plasma physicists develop an understanding of the techniques used to model and simulate the radiative and collisional properties of plasmas. Topics covered in detail included Atomic and Molecular Structure and Spectra, Collisional-Radiative Modelling, Line Shapes, Atomic Models of Dense Plasmas, and Experimental Spectroscopy for Fusion Applications. There were practical sessions on the Linux Command Line and Python, and the FLYCHK and PPP codes.

More information about the event can be found at <https://amdis.iaea.org/workshops/ictp-2024> and <https://indico.ictp.it/event/10462>.

Selected Charts, Reports and Documents

INDC(BLR)-0022 Neutron Data Evaluation of ^{243}Am , prepared by V.M. Maslov, V.G. Pronyaev, N.A. Tetereva, K.I. Zolotarev, July 2024.

INDC(JPN)-0209 Proceedings of the 2022 Symposium on Nuclear Data, 17-18 November 2022, Higashiosaka City, Osaka, Japan, Edited by N. Shigyo, A. Kimura and T. Sano, February 2024.

INDC(NDS)-0872 Updating Fission Yield Data for Applications, Summary Report of the Second Research Coordination Meeting, 19-23 December 2022, prepared by R. Vogt, A. Lovell, A. Tudora, T. Kawano, R. Capote, May 2024.

INDC(NDS)-0885 International Nuclear Data Evaluation Network (INDEN) on the Evaluation of Light Elements (5), Summary Report of the Consultants' Meeting, 29 August-1 September 2023, prepared by R.J. DeBoer, M. Pigni and P. Dimitriou, March 2024.

INDC(NDS)-0889 Evaluation of Photon Strength Function Data, Summary Report of the Consultants' Meeting, 9-11 October 2023, prepared by M. Wiedeking and P. Dimitriou, March 2024.

INDC(NDS)-0890 Decay Data for Monitoring Applications, Summary Report of the Technical Meeting, 23-25 October 2023, prepared by J. Chen, P. Dimitriou, April 2024.

INDC(NDS)-0891 Thermal Capture and Gamma Emission, Summary Report of the Consultants' Meeting, 23-25 October 2023, prepared by A. Hurst, E. Chimanski, and R. Capote Noy, August 2024.

INDC(NDS)-0896 The Formation and Properties of Molecules in Edge Plasmas, Summary Report of the First Research Coordination Meeting, 6-8 December 2023, prepared by C. Hill, December 2023.

INDC(NDS)-0902 Summary Report of the Technical Meeting on International Network of Nuclear Reaction Data Centres, prepared by N. Otuka and B. Pritychenko, August 2024.

INDC(NDS)-0903 The Upbend in the $(n,\gamma)^{57}\text{Fe}$ Photon Strength Function Data Revisited, prepared by J. Kopecky and I. Tomandl, August 2024.

INDC(NDS)-0905 Updating the fusion library FENDL-3.2b to FENDL-3.2c, prepared by D. Lopez Aldama and G. Schnabel, July 2024.

Available cost-free on request only for **teachers and scientists from developing countries:**

Chart of the Nuclides 2022 Japanese Nuclear Data Committee and Nuclear Data Center, Japan Atomic Energy Agency.

Karlsruher Nuklidkarte *Wall chart of the nuclides and folding chart with booklet, 10th edition (2018).*

In Memoriam

Stanislav Hlavac



On 12 July 2024 Stanislav Hlaváč, gifted experimental physicist and recognized EXFOR compiler, passed away at the age of 77. Stanislav was born experimentalist, mastered nanosecond fast timing techniques and performed first time-of-flight experiments with fast neutrons in the then Czechoslovakia. Considerable recognition brought him also the EU project DIAMINE for detection and imaging of antipersonal landmines by neutron backscattering. His expertise in neutron-induced reactions was appreciated by the National Nuclear Data Center, USA and since 2006 used for numerous US contributions to the experimental cross section data library EXFOR. Stanislav hosted the NRDC 2014 meeting (https://nds.iaea.org/nrdc/nrdc_2014/) in Smolenice, allowing to discuss EXFOR compilations in the beautiful castle owned by the SAS and known as famous venue for nuclear data events. Over a quarter of century, Stanislav collaborated with the Society for Heavy Ion Research (GSI) in Darmstadt and Max Planck Institute in Heidelberg. Stanislav contributed to development and use of the ultimate gamma-ray detector Crystal Ball, Two Arms Photon Spectrometer (TAPS) and the High Acceptance Di-Electron Spectrometer (HADES). Stanislav inspired young generation of physicists, loved sport and excelled in swimming. The international nuclear data community will miss his truly professional approach to neutron data compilation, deep sense for co-operation, his modest and friendly personality.

(written by Pavel Oblozinsky, July 2024)

Jim Ziegler



We regret to inform you that Jim Ziegler passed away on 14 May 2024.

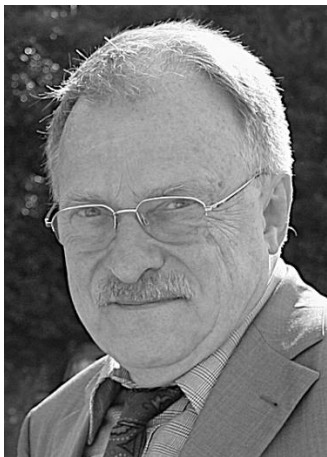
Jim graduated with a PhD in Nuclear Physics from Yale in 1967, started working for IBM right after and stayed until his retirement in 2000.

He was a major contributor to the Ion Beam community, and together with Jim Meyer initiated the Ion Beam Analysis (IBA) international conference series.

He was also one of the initiators of the Ion Implantation Technology Conference series (IIT) with strong industrial involvement and ran the associated summer school for many years. He was a stalwart of many conference series and will be remembered for his many active roles on international committees and as a regular delegate.

Jim was a dedicated scientist and pioneer in both radiation physics and computer engineering.

He received numerous awards for his scientific achievements. His work in advancing the knowledge of cosmic rays and radiation physics will continue to influence the scientific community and world at large for generations to come.

Eckart Grosse

We regret to inform you that Eckart passed away on 9 February 2024.

Eckart Grosse was a distinguished nuclear physicist known for his significant contributions to the field.

He pursued his studies in physics at the universities of Bonn and Heidelberg. He earned his diploma and Ph.D. under the guidance of Peter von Brentano at the Max Planck Institute for Nuclear Physics.

Throughout his career, Grosse worked on various groundbreaking experiments, including those at the Lawrence Berkeley National Laboratory in the USA and the Gesellschaft für Schwerionenforschung (GSI) in Germany. He was particularly noted for his work on gamma spectroscopy and the “back-bending” phenomenon.

Grosse was instrumental in the development of the Rossendorf Radiation Source ELBE, a superconducting electron accelerator.

His legacy continues to inspire the scientific community.

Nikolay Kornilov

We regret to inform you that Nikolay Kornilov passed away 18 March 2024.

He was an international scientist who dedicated to nuclear physics. From a scientific researcher at Institute of Physics and Power Engineers in Obninsk, Russia, to teacher and researcher at the IAEA, to professor at University of Louis Pasteur’s Institut de Recherches Subatomiques in Strasbourg, France, and visiting scientist at Joint Research Centre of the IRMM in Belgium, he was always passionate about nuclear physics, and has published more than 150 scientific papers in various journals.

Nikolay played a central role in our evaluations of prompt fission neutron spectra and was part of several CRP’s and other meetings.

Nuclear Data Services – Contact Points

For services to customers in USA and Canada:

US National Nuclear Data Center, Bldg. 197D, Brookhaven National Laboratory, P.O. Box 5000,
Upton, NY 11973-5000, USA.

Tel. +1 631-344-2902; Fax +1 631-344-2806;

Website: <http://www.nndc.bnl.gov/>

Email: nndc@bnl.gov

For information regarding on-line services, contact: B. Pritychenko: pritychenko@bnl.gov

For information regarding general NNDC services, contact: Letty Krejci: lkrejci@bnl.gov

For services to customers in OECD/NEA Data Bank member countries:

NEA Data Bank, OECD Nuclear Energy Agency, 46, quai Alphonse Le Gallo

F-92100 Boulogne-Billancourt, France.

Tel. +33 1 7321 (plus extension);

Website: <http://www.oecd-nea.org/databank/>

Contact: M. Fleming, Tel.: +33 1 73 21 28 22, Email: michael.fleming@oecd-nea.org;

For services to customers from the Russian Federation:

Neutron data: Russia Nuclear Data Center, Centr Jadernykh Dannyykh (CJD), Fiziko-Energeticheskij Institut, Ploschad Bondarenko,1,
249033 Obninsk, Kaluga Region, Russian Federation.

Tel. +7 08439-9-5803; Fax +7 08439-68235;

Photonuclear data: Centre for Photonuclear Experiments Data, Centr Dannyykh Fotoyadernykh Eksperimentov (CDFE),
Skobel'syn Institute of Nuclear Physics, Lomonosov Moscow State University, Leninskie Gory, 119 922 Moscow, Russian Federation.

Tel. +7 495-939-3483; Fax +7 495-939-0896;

Website: <http://cdfe.sinp.msu.ru/>

Contact: V.V. Varlamov, Email: varlamov@depni.sinp.msu.ru;

For services to customers in China:

China Nuclear Data Center, China Institute of Atomic Energy, P.O. Box 275(41), Beijing 102413, China.

Tel. +86 10-6935-7275; Fax +86 10-6935-8119

Contact: Ge Zhigang, Email: gezg@ciae.ac.cn;

Computer codes of US origin to all countries (there are charges and release restrictions):

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P.O. Box 2008, Oak Ridge, TN 37831-6003, USA.

Tel. +1 865-574-6176; Fax +1 865-241-4046;

Email: pdc@ornl.gov

Computer codes of non-US origin to all countries (there may be release restrictions):

NEA Data Bank (see above)

Email: programs@oecd-nea.org, Tel.: +33 1 73 21 28 30

IAEA-NDS on-line services at Website <https://nds.iaea.org/>

Users in India, China, Russia and neighbouring countries may use

IAEA-NDS mirror websites:

<http://www-nds.org.in> (India); <http://www-nds.ciae.ac.cn/> (China); <http://www-nds.atomstandard.ru/> (Russia).

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