Nuclear Data Sheets

Perspectives from NSDD members



Nuclear Data Sheets

http://www.elsevier.com/wps/find/journaldescription.cws_home/622927/description#description

Description (from Elsevier)

 The Nuclear Data Sheets are current and are published monthly. They are devoted to nuclear structure data evaluations and to nuclear structure bibliographies. The journal is produced from two computer databases: Evaluated Nuclear Structure Data File (ENSDF) and Nuclear Structure References (NSR).

... The evaluations include the best experimental results for various radioactive decays and nuclear reaction studies. The adopted nuclear properties include the following:

- Level schemes and excitation energies
- Half-life, decay modes
- Spin-parity values and their bases
- Magnetic dipole moments
- Electric quadrupole moments
- Disintegration energies
- Radiations
- Transition probabilities
- Band structure

Decay schemes, level schemes, and isobaric chains are displayed

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Who Publishes in NDS?

• The Nuclear Structure and Decay Data Network

from the cover

 The present editorial resources allow only the publication of evaluated nuclear structure and radioactivity decay data received in ENSDF format from evaluators who are part of the international network

Nuclear Structure and Decay Data Network

- Members of the– International network (US, Australia, Argentina, France, Belgium, India, Russia, China, Japan, Kuwait, Bulgaria, Canada) operated under the auspices of the IAEA - ENSDF
- There is no competing evaluated Nuclear Structure and Decay Data information.
- This information is regarded as the **BEST** available

Why do we publish? (in peer reviewed journals)?

- Information Dissemination
- User demand
- Our funding Agencies want us to
- peer review adds credibility

Why not The Web

- Standardization
- Not the same

What is the Present NDS user base?

(discussion or silent meditation)

How have we gotten to the place that we are?

- In 2004 there was discussion leading to an end of the NSR Recent Reverences Issue
- Simultaneously there was discussion on possible publication of non-ENSDF related Articles (ENDF release was the motivation)
- These discussions were brought before the IAEA NSDD by the NDS editor, and there was no dissention from within the NSDD

What does the future hold?

- From the editor:
- it is my view that we should restrict the non-ENSDF based publications to space available basis only and , at least for now, to no more than one issue of NDS in a calendar year.
- At the moment there is a backlog of NDS accepted articles:
 - mass chains A=23, 64, 101, 122 and 234 must wait until 2007 in order to get published

As a member of NSDD and reviewer of NDS articles: What goes through my mind?

• Who can publish, who peer reviews, how independent is the peer review?



Nuclear

ENDE/B-VIL0: Next Generation Evaluated Nuclear Data Library for Nuclear Science and Technolog

Volume 108, Number 1, December 200

Benchmarking ENDF/B-VILO Sundar Mar

The NJOY Nuclear Data Processing Syste E. MacFadane

At present NDS is international

- ENDF is not internationally adopted
 - must be space for other similar articles
 - otherwise the integrity of the journal is completely lost
 - this becomes very complicated
- NSDD expected to see further discussion

Physor 2006, Vancouver September

What is best?

- Form a new journal (Quarterly)
- It happens all the time
- Possibly return to the NDS sections A&B
- Recent and future AFC and NNSA activities will provide gobs of new data that MUST be published.
- At present NDS has a well defined scope, it satisfies a user-base, and gives an outlet for an international evaluators network to publish data that is important to national and international interests.
- Why mess with a good thing?