

Current status of the NSR project

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U.S. DEPARTMENT OF
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NSR Operation in FY2014

- Four people were directly involved in NSR operation (B. Pritychenko, E. Betak, B. Singh, J. Totans) plus help from the IAEA (V. Zerkin).
- FY 2014 challenges for NSR operation
 - NNDC move → Library move was completed in March of 2014
 - NSR database operation was migrated to new Linux servers
 - Funding issues hampered the compilation process
 - NSR Web application was upgraded to avoid SQL injections, and passed an IAEA scan that would allow to operate a parallel website
- We successfully operated in spite of all of the above.

FY2014 NSR Statistics

- NSR References
 - 3,130 new articles, 90% published in 2013-2014, 10% from the previous years (missing articles)
 - 220 modified (corrected) article entries
 - 1,898 keyworded article abstracts
- NSR computer operation
 - 102 database content updates
 - 232,107 Web retrievals worldwide (>50% by researchers)
- NSR Dictionaries content update
 - 1,488 new authors
 - 7 new journals
 - 257 new nuclides
 - 141 new reactions
 - 20 new decays

NSR Database Scope

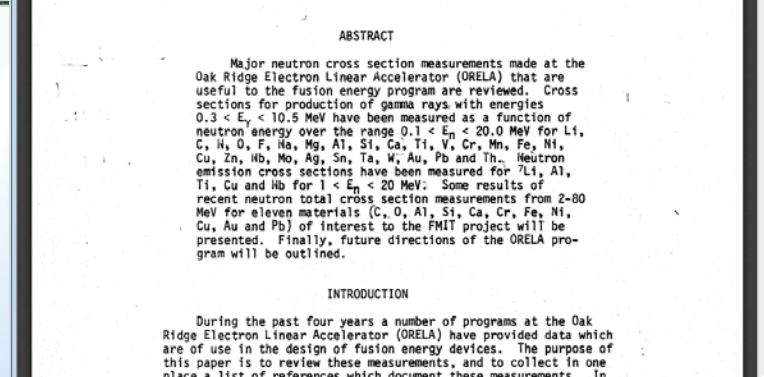
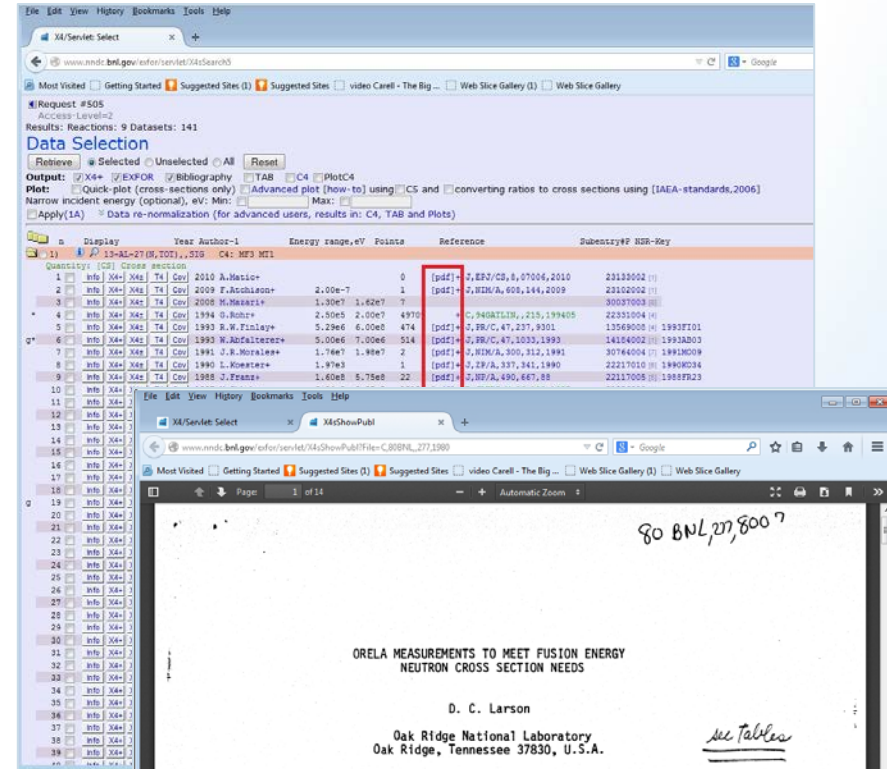
- We compile all low- and intermediate-energy references for broad use, not just nuclear structure and decay as before 90ies.
- Nuclear Reactions papers
 - CINDA database is no longer supported
 - Consequently NSR is filling the gap for NRDC network
 - Extended keywords allow to extract statistics using bibliography metadata
- Theoretical papers
 - NSR is the only USNDP database where nuclear theory papers are systematically compiled

NSR & EXFOR Cooperation

- NSR serves as an indicator for new EXFOR compilations, CINDA is completely based on NSR content imports.
- Last year, I reported “Currently we conduct an exploratory work on importing ~6,000 experimental references from EXFOR in collaboration with the NRDC network.” NSR in the past was a Nuclear Structure References database.
- NRDC 2014 action: A84.
- V. Zerkin has written a Java code, and started to produce NSR entries in collaboration with J. Totans; each entry is verified by NSR manager:
 - Phys. Rev. Lett. – 32 articles
 - Phys. Rev. D – 6 articles
 - Phys. Lett. B – 23 articles
- It may be ~1% of the total at this point but we will match EXFOR and NSR bibliographies.

E-library for NSR and EXFOR

- EXFOR/NRDC group has collected PDFs for all publications. Many thanks to S. Dunaeva, L. Vrapcenjak, V. Zerkhin, ... (IAEA).
- These papers are accessible for EXFOR compilers and at IAEA/NNDC.
- We have started to scan NSR publications.
- Joint project between NNDC and IAEA: scan everything and make it available using a common Web interface (NSR ???, ...).



E-library Present Status

- Everyone supports this idea.
- Very attractive option for researchers if copyright is not a problem.
- DOE PAGES (Public Access Gateway for Energy & Science):
Access journal articles and accepted manuscripts resulting from DOE research funding.
- NNDC library scan cost estimate was \$50 K in 2012.
- ORNL library scan requires travel funds for J. Totans, plus additional expenses.
- Financial issues are slowing us down. Under present conditions it may take years and years before this project will be completed.

Conclusions

- NSR project is in a good shape.
- We will continue to support nuclear structure evaluations and do our best to support nuclear reactions and theory.
- We will keep NSR website <http://www.nndc.bnl.gov/nsr> current and up-to-date.
- We will continue to improve NSR completeness and address research needs.
- We have started the import of missing references from EXFOR database.
- We have started to work on a joint E-library for EXFOR and NSR.