

Web retrieval tool supporting citation of EXFOR data

See A5

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Growing EXFOR contents, availability via Web, improving capacity of retrieval software make EXFOR more and more popular among physicists and other users. EXFOR Web interface became pretty stable, well developed and available on several well known sites. Authors of scientific publications more and more refer to data available via Web interface. And NRDC have to recommend up to date method for citation of EXFOR works and provide appropriate tools if necessary. Also important is to inform nuclear data users' community about these recommendations.

Currently we see citations, like:

[39] G. Gleason, Thermal neutron (n, γ) cross sections and resonance integrals – Part 2. Private communication to NEA-Data Bank, Exfor Accession No. 10662014. <<http://www-nds.iaea.org/exfor/exfor00.htm>>.

Ewart, H.A., Blann, M., 1960. EXFOR C1012.

In Fig. 3, we have compared our thick target yield values with the data reported by Zatolokin [5] (see also [8]).

[5] B.V. Zatolokin, I.O. Konstantinov, N.N. Krasnov, Thick target yields of ^{34m}Cl and ^{38}Cl produced by various charged particles on phosphorus, sulphur and chlorine targets, Int. J. Appl. Radiat. Isot. 27 (1976) 159.

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[8] O. Schwerer, Experimental Nuclear Reaction Data (EXFOR), provided by NDS, IAEA (Database version of June 29, 2007). Available from <<http://www-nds.iaea.org/exfor/exfor00.htm>>.

There is "Citation Guidelines for Nuclear Data Retrieved from Databases Resident at the Nuclear Data Centers Network" written by Victoria McLane on behalf of the Nuclear Data Centers Network, 1996:

<http://www-nds.iaea.org/ndspub/documents/online/citgl.pdf>

About citation of EXFOR data it gives:

Example:

A.B. Author, et al., *J. Nucl. Phys.* 12, 345 (1979). Data retrieved from the CSISRS database, file EXFOR 12345.002 dated April 5, 1980 [Source] .

What is wrong with current recommendations? Obviously, missing Internet address of used Web service (URL). Second, even knowing Web address of the EXFOR interface, user has to fill a Request-Form (which is, by the way, different on different sites), submit request, to select data for display. It is not so difficult, but still need some efforts from user. Third, citation guide should be known (advertised) for authors and publishers.

What could be done on retrieval system side is to introduce (and advertise) "standard" way of accessing via Web given dataset (Entry, Subentry), for example:

<http://www-nds.iaea.org/EXFOR?C1012>

ENTRY Accession Number

<http://www-nds.iaea.org/EXFOR?C1012.002>

SUBENT Accession Number

The link will work for EXFOR entire Entry and particular Subentry.

The request will be re-directed to appropriate program, e.g. currently at NDS – Java Servlet:

<http://nds121.iaea.org/exfor2/servlet/X4sGetSubent?plus=1&sub=C1012>

Although, real method, program name and parameters could be changed with time, the initial address will be guaranteed by IAEA-NDS and can be used for publications from now on.

If other centres would like to provide similar links, they can also implement:

<http://www.nndc.bnl.gov/EXFOR?10004>

<http://www.nea.fr/EXFOR?10004>

<http://a-center/EXFOR?10004>

Finally, recommended reference could be following:

A.B. Author, et al., *J. Nucl. Phys.* **12**, 345 (1979). Data retrieved from the EXFOR database (version of April 5, 2008), Web: <http://www-nds.iaea.org/EXFOR?12345.002>

Or, short form using ENTRY:

Ewart H.A., Blann M., 1960, EXFOR database: <http://www-nds.iaea.org/EXFOR?C0112>

If this method will be accepted on NRDC-2008 meeting, NRDC could propose it as common method of EXFOR data citation on the next Nuclear Data Conference in Korea. Of course, every EXFOR Web retrieval system having this method implemented, should have a note how to use it.