

Text search in EXFOR

WP2015-33

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This search is based on exact matching of text-pattern with EXFOR text. The system is trying to find text in the so-called EXFOR interpreted, i.e. in the descriptive part of original EXFOR text (codes and free text, but excluding numerical data) extended by explanation of EXFOR codes from dictionaries and additional information from other databases. Several patterns can be used for search in different combinations using wildcards and logical operations. Search can be limited by specifying sections of EXFOR text defined by EXFOR structure (Keywords). Reserved symbols are: [*****], [**&**] and [**:**]. See below examples of search.

Basics

- 1) `kerma` simple search by text-pattern
- 2) `-kerma` search by text-pattern (trying to find "Feshbach-Kerman-Koonin")
- 3) `PFNS` search text: "PFNS"

Using blank (space symbols)

- 1) `kerma` blank (space) is important: this example ignores text "Ackermann"
- 2) `kerma factor` text pattern can include blank
- 3) `kerma factor` multiple blanks are squeezed to single blank (equivalent to previous line)
- 4) `factor kerma` find "factor kerma", but not "kerma factor" (order of words is important)
- 5) `Los Alamos` find text "Los Alamos" as it is done in text editors

Searching patterns in any order: using symbol & as logical AND.

- 1) `kerma&factor` search Entries having both patterns in any sequence, i.e. system will find Entries having `kerma*factor` and `factor*kerma`
- 2) `los alamos&noda` search EXFOR entries having text "Los Alamos" and "Noda" in any order

Wildcards: *

- 1) `factor*kerma` using * as wildcard with meaning 'anything' including empty space
- 2) `factor*kerma*energy` all 3 words must be in the text in the given order, namely: `factor*kerma*energy`
- 3) `mb*mev` using * as symbol for search, but not as wildcard (i.e. as part of the text pattern)

Comparing * vs. &

- 1) `factor*kerma*energy` 1 Entry found. Fixed order of patterns.
- 2) `factor&kerma&energy` 12 Entry found. Any order of patterns.
- 3) `energy&factor&kerma` 12 Entry found. Any order of patterns (equivalent to the previous line).

Search with specifying Keywords (see list of Keywords below*)

- 1) `title:kerma` search text-pattern only in titles
- 2) `author:kerma` search only among authors
- 3) `method:reactivity` search only in descriptions of method
- 4) `method:(REAC)` search by EXFOR code for "Reactivity measurement" in METHOD keyword

Search in interpreted EXFOR

- 1) `Journal de Physique` search by journal name (original EXFOR usually contains only code "JPR/C")
- 2) `de Physique, Vol.27` search by name and volume
- 3) `institute:los alamos` search Los Alamos mentioned in INSTITUTE keyword
- 4) `facility:los alamos` search experiments measured in Los Alamos
- 5) `reference:Los Alamos` search references published in Los Alamos
- 6) `conf:Los Alamos` search conference materials published in Los Alamos
- 7) `quantity:partial` search only in interpreted descriptions of quantities

Search by additional information of EXFOR database, combining features

- 1) `1974GRYM` search specific pattern (NSR Keynumber)
- 2) `10.1103/PhysRevLett.33.1440` search specific pattern DOI
- 3) `NSR:1974GR*` search only among NSR Keynumbers (via Reference code)
- 4) `facility:los alamos&author:noda` search experiments measured in Los Alamos by author Noda

***Some EXFOR Keywords:**

- 1) **analysis** Analysis
- 2) **author** Author
- 3) **correction** Corrections
- 4) **covariance** Covariance
- 5) **critique** Critique
- 6) **decay-mon** Standard decay data
- 7) **detector** Detector
- 8) **err-analys** Error analysis
- 9) **exp-year** Experiment year
- 10) **facility** Facility
- 11) **history** History
- 12) **inc-source** Incident particle source
- 13) **inc-spect** Incident spectrum
- 14) **institute** Institute
- 15) **method** Method
- 16) **mom-sec** Secondary linear momentum
- 17) **monit-ref** Standard reference
- 18) **monitor** Standard
- 19) **reaction** Quantity given
- 20) **reference** Reference
- 21) **result** Result
- 22) **sample** Sample
- 23) **title** Title

Additional Keywords:

- 1) **target**
- 2) **projectile**
- 3) **product**
- 4) **quantity**

Examples of using Keywords:

1. **target:Ti-50** Find Ti-50, but only under "Target:"
2. **projectile:proton** Keyword "projectile"
3. **product:Ta-183** Find product Ta-183.
Note. The system will find also data coded under ELEM/MASS
4. **product:Ta-183&author:titarenko**
Find by product:Ta-183 and author:Titarenko
5. **quantity:gamma|spectra&reference:dubna**
Gamma spectra & published in Dubna
6. **process:Total|fusion**
7. **target:u-235&quantity:fission*spectr**
8. **angular|distribution&total|scattering**
9. **backscattering&quantity:angular|distribution**
10. **fe-56&neutron&Elastic|scattering**
11. **fe-56&neutron&scattering&angular|distribution**
12. **target:fe-56&projectile:neutron&reaction:|elastic|scattering**
13. **target:fe-56&neutron|induced&reaction:|Elastic|scattering**

Screen-shot 1.

The screenshot shows the EXFOR website interface. At the top, there is a navigation menu with links like 'Manual', 'Lexfor', 'NNDC-Help', etc. The main heading is 'Experimental Nuclear Reaction Data (EXFOR) Database Version of March 16, 2015'. Below this, there is a 'News' section with recent updates. A search bar is prominently displayed, containing the text 'kerma'. To the right of the search bar is a 'Go' button. Below the search bar, there are options for sorting (Year, Author, Entry) and viewing (extended, basic). The 'extended' view is selected, and the page number is set to 17. There are also links for 'Text search help' and 'Reset form'. Below the search bar, there is a 'Request' section with various search criteria like Target, Reaction, Quantity, Product, Energy from, Author(s), Publication year, and Accession #. There are 'Submit' and 'Reset' buttons for this section. To the right of the search bar, there is an 'Options' section with checkboxes for 'Exclude superseded data', 'No reaction combinations', etc. There is also a 'Tip of the day' section with a video guide link. At the bottom, there are buttons for 'CINDA' and 'ENDF'.

Screen-shot 2.

File Edit View History Bookmarks Tools Help

X4/Servlet: Select

https://www.nds.iaea.org/exfor/servlet/X4

Request #4251
Text search
Found EXFOR Entries: 49 List: [full] [compact]
Page: 1.

1) EXFOR:12899, R.C.Haight+, Jour: Nuclear Science and Engineering, Vol.87, p.41 (1984).
TITLE: The $^{12}\text{C}(n,\alpha)$ Reaction and the **Kerma** Factor for
Subent:11 Pnt:476 Ene=14.1MeV An=19-130° Target:C-12 Reaction:(n,x):(n,a):(n,n+2a)
1) + Jour: Nuclear Science and Engineering, Vol.87, p.41 (1984) NSR: 1984HA48
The $^{12}\text{C}(n,\alpha)$ Reaction and the Kerma Factor for Carbon at $E(n) = 14.1$ MeV
R.C.Haight, S.M.Grimes, R.G.Johnson, H.H.Barschall

2) EXFOR:20499, H.Karius+, Jour: Jour. of Physics, Part G (Nucl.and Part.Phys.), Vol.5, Issue.5, p.715 (1979).
AUTHOR: (H.KARIUS, A.ACKERMANN, W.SCOBEL)
Subent:3 Pnt:19 Ene=12.99-18.13MeV Target:Th-232;U-238 Reaction:(n,2n)
1) + Jour: Jour. of Physics, Part G (Nucl.and Part.Phys.), Vol.5, Issue.5, p.715 (1979) DOI: 10.1088/0305-4616/5/5/011 NSR: 1979KA14
The Pre-Equilibrium Contribution to the (n,2n) Reactions of ^{232}Th and ^{238}U
H.Karius, A.Ackermann, W.Sobel
2) + Prog. Report from CEC-Countries and CEC to NEANDC, No.161, p.113 (1974)

Screen-shot 3.

File Edit View History Bookmarks Tools Help

X4/Servlet: Select

https://www.nds.iaea.org/exfor/servlet/X4

16) 2006, P.Mermod+, Jour: Physical Review, Part C, Nuclear Physics, Vol.74, p.054002 (2006). EXFOR:23030
add-res: **Kerma** coefficients for carbon and oxygen (Table V)
Subent:7 Pnt:86 Ene=94.8MeV An=10-86° Target:C-12;O-16 Reaction:(n,el):(n,inf)
1) + Jour: Physical Review, Part C, Nuclear Physics, Vol.74, p.054002 (2006) DOI: 10.1103/PhysRevC.74.054002 NSR: 2006ME26
95 MeV neutron scattering on hydrogen, deuterium, carbon, and oxygen
P.Mermod, J.Blomgren, C.Johansson, A.Ohrn, M.Osterlund, S.Pomp, B.Bergerwall, J.Klug, L.Nilsson, N.Olsson, U.Tippawan, P.Nadel-Turonski, O.Jonsson, A.Prokofiev, P.-U.Renberg, Y.Maeda, H.Sakai, A.Tamii, K.Amos, R.Crespo, A.Moro
2) + Thesis: Oehrn (2008)
3) + Conf: Conf.on NuclData for Sci. and Technology, Nice 2007, Vol.2, p.1039 (2007) DOI: 10.1051/ndata:07435 NSR: 2008MEZW
95 MeV neutron scattering on hydrogen, deuterium, carbon and oxygen
P.Mermod, J.Blomgren, C.Johansson, A.Ohrn, M.Osterlund, S.Pomp, B.Bergerwall, J.Klug, L.Nilsson, N.Olsson, U.Tippawan, P.Nadel-Turonski, O.Jonsson, A.Prokofiev, P.-U.Renberg, Y.Maeda, H.Sakai, A.Tamii, K.Amos, R.Crespo
4) + Abst: ?2007NICE, p.132(435) (2007)

17) 2004, E.Raeymackers, Thesis: Raeymackers (2004). EXFOR:22942
TITLE: **Kerma** factor light particle emission in fast neutron
Subent:9 Pnt:63 Ene=25.5-62.7MeV Target:Bi-209;U-0 Reaction:(n,x)
1) + Thesis: Raeymackers (2004)
Kerma factor light particle emission in fast neutron (25 - 65 MeV) induced reactions on Bi-209 and U-nat
E.Raeymackers
2) + Jour: Nuclear Science and Engineering, Vol.141, Issue.1, p.55 (2002) NSR: 2002BE25
Secondary Light Charged Particle Emission from the Interaction of 25-to 65-MeV Neutrons on Silicon
S.Benck, I.Slypen, J.-P.Meulders, V.Corcalciuc

Select Entries on the Page: [all] [none]
Go to EXFOR [Request] with selected Entries (2): 23030; 22942

...Pages: **Navigation**