## Text Search in EXFOR

# **Text search in EXFOR**

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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**

- kerma simple search by text-pattern
   -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. &

factor\*kerma\*energy
 factor&kerma&energy
 factor&kerma&energy
 energy&factor&kerma
 2) Entry found. Any order of patterns.
 equivalent to the provious 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
```

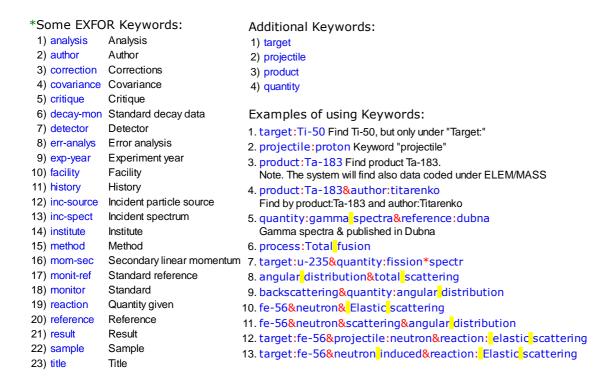
## Search in interpreted EXFOR

```
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 INSTUTUTE 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 quontities
```

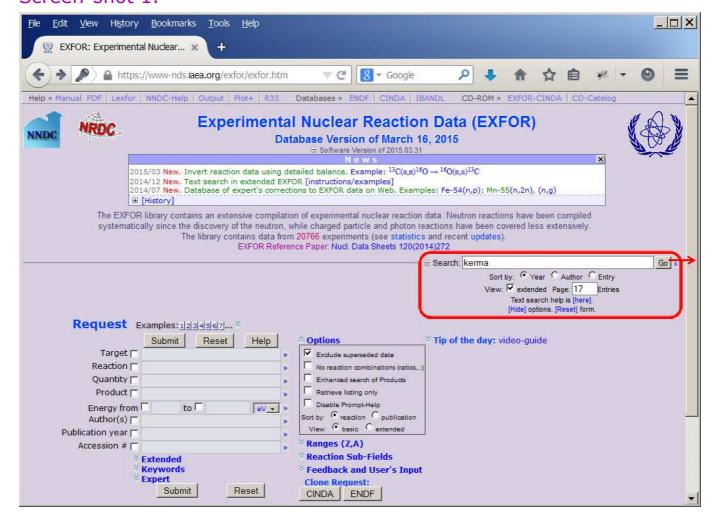
# Search by additional information of EXFOR database, combining features

```
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
```

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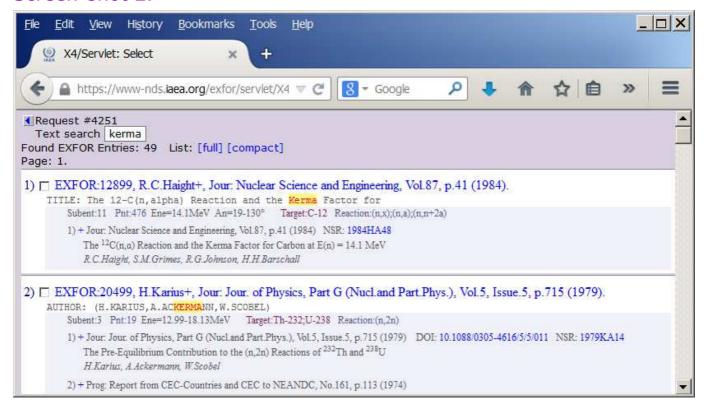


# Screen-shot 1.

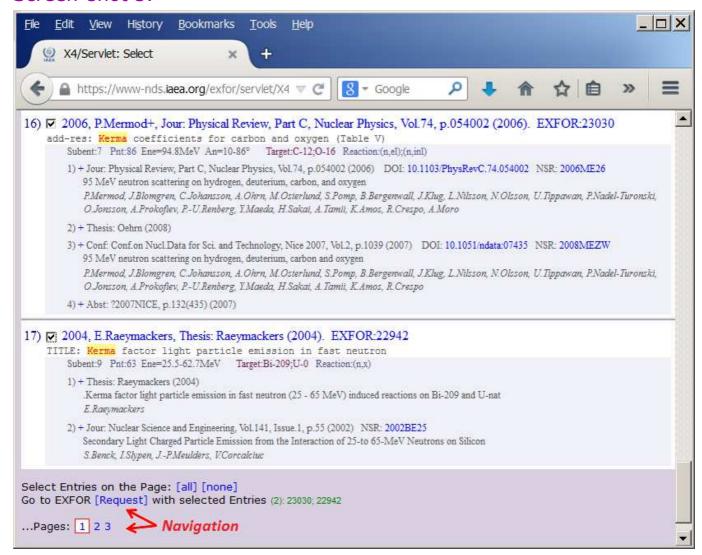


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# Screen-shot 2.



# Screen-shot 3.



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