

Memo CP-D/24

Memo 4C-3 (200)

To: Distribution

17 March 1977

From: H.D. Lemmel

Lemmel

Subject: Secondary Energies
Addition to Manual proposed

Reference: Memo 4C-1/113, entry 30139.005

For those who did not receive Memo 4C-1/113: This memo criticized one of our Exfor entries, because the column-heading E-EXC used did not refer to the residual nucleus.

In fact, in the Exfor Manual we cannot verify a rule which says that E-EXC must always refer to the residual nucleus. Thus we do not consider our entry as wrong. (According to our agreements, Memo 4C-1/113 should have referred to the relevant Manual page.)

However, this reminds me of the early Exfor discussions, when all secondary-energy column-headings (E and its derivatives) were left rather undefined, because we could not find a solution how to define them, except by free text under the BIB-keyword EN-SEC. At that time we did not believe that such complex data would be machine-processed without human intervention. In the present entry the existing FLAG signals to be cautious with fully automatic machine processing.

NNCSC points out that this vague treatment of secondary energies will lead to mistakes in any machine processing of the data. A computer-intelligible definition of the secondary-energy column-headings seems therefore desirable, and I submit a proposal as attached.

Entry 30139 will be revised only when converting it to REACTION formalism.

Clearance: J.J. Schmidt

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J.J. Schmidt

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Proposed Exfor Manual entryEN-SEC

This keyword is not obligatory. Free text may be given without coded information.

It may also be used to define secondary-energy column-headings (E and its derivatives). In this case coded information is given in the following format

EN-SEC (heading,particle) ADDITIONAL FREE TEXT IF ANY

The heading-field contains the secondary-energy column-heading to be explained;

the particle-field contains the particle or nuclide to which the secondary-energy column-heading refers. The code is

either a particle-code from Dictionary 13,
or a nuclide coded in the standard format as described on page (*)

More than one secondary-energy column-heading may be explained this way, for example

EN-SEC (E1,G)
(E2,N)
(E-EXC,3-LI-7)

A secondary-energy column-heading which is not defined under EN-SEC, always refers to the same particle to which the code DE (or equivalent such as SPC) within the ISO-, NUC-, CMPD-QUANT resp. REACTION code refers.

(*) page number to be inserted. This seems to be one of those items which are given in the dictionary 2 and in Lexfor but not in the main part of the Manual where it should be.