MEMO CP-C/11

Date: March 17, 1977

From: V. McLane

Subject: Isomeric Cross Section Ratios and Sums (Re: Memo CP-D/22)

We very much like the proposal submitted in memo CP-D/22 as the first alternative. We would, however, like to propose a modification which would allow for further flexability.

Modified Proposal (Differences from Memo CP-D/22 marked by a line).

1) The code 'RAT' to be added to Dictionary 32 (to be applied only in agreed upon specific cases).

   RAT ratio of two partial cross sections of the same reaction

Note: We feel the addition of 'SUM' to Dictionary 32 is not necessary for this proposal. The addition of 'RAT' is useful, however, as a signal that the quantity is dimensionless.

2) The extension of the isomer field of the residual nucleus (SF4) to allow more than one isomer code separated by a slash or a plus sign. The use of the separators will be algebraic. (See example, below).

3) The addition of the isomer code 'T' to indicate total reaction cross sections within isomeric ratios.

4) The addition of the code 'ISM' to Dictionary 31

   ISM Partial cross-section populating one or more isomeric states as specified in subfield 4.

[The codes 'GND' and 'MS' could probably be removed.]

Examples:

1) For a cross section for the sum of two isomeric states (not equal to the total reaction cross section):

   REACTION (Z-S-A(...,...) Z^1-S^1-A^1-G+M2,ISM,SIG)

2) For an isomeric ratio:

   REACTION (Z-S-A(...,...) Z^1-S^1-A^1-M1+M2/G,ISM,RAT)

   REACTION (Z-S-A(...,...) Z^1-S^1-A^1-G/T,ISM,RAT)

MEMO CP-C/11 (Cont'd)

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