Memo CP-C/224

DATE: January 28, 1997

TO: Distribution

FROM: V.McLane

SUBJECT: Thick Target Yields

I have been looking at thick-target yields and find a lot of inconsistancies in the coded data and I have not been able to find a LEXFOR entry for thick-target yields for guidance. The literature has also not been of much help, as the same inconsistancies occur there.

Looking at the dictionaries and at EXFOR entries, I find a lot of confusion and would like to standardize things. A discussion of the current usage and recommendations follows.

1. The following quantities are defined: TTY and TTT (as well as TTT/DA, etc.).

    a. TTY is defined as thick-target yield.

    b. TTT is defined as thick-target yield per unit time.

2. The following units have been used in the files for TTY: B (or MB), PART/MUAHR, MCI/MUA, MCI/MUAHR, DPS/MUAHR, NUC/PART, and N/PART.

    a. B or MB should be coded as SIG,,TT.

    b. MCI/MUA and PART/MUAHR have the same dimensions and should be used for TTY.

    c. MCI/MUAHR and DPS/MUAHR have the same dimensions and should be used for TTT.

    d. NUC/PART is dimensionless. I suggest these be coded as PY,,TT.

    e. N/PART is also dimensionless. I suggest these be coded as MLT,N,TT.

If we are all agreed on the above, I would be willing to update the entries which need revision (there are not many), or to notify the other centers which entries need revision.

A proposed LEXFOR entry is attached.

Dictionary additions

The following are additions for those entries which I have looked for which codes do not exist in the current dictionary.

Dictionary 23 (Analysis)

TTUNF   calculated from thick-target yield using unfolding procedure

Dictionary 36 (Quantity)

,DA,A,TT/RSD   ang. distr. of alphas rel. to 90 deg. for thick target
,MLT,,TT   multiplicity for a thick target
,MLT,N,TT   neutron multiplicity for a thick target
,PY,,TT   product yield for a thick target