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Memo CP-C/224

DATE: January 28, 1997  
TO: Distribution  
FROM: V. McLane *VM*  
SUBJECT: Thick Target Yields

I have been looking at thick-target yields and find a lot of inconsistencies 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 inconsistencies 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

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