WP2010-32

Nuclear Data Section
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Memo CP-D/619

Date: 25 February 2010
To: Distribution
From: N. Otsuka

Subject: **Clarification of usage of MLT and PY in LEXFOR**

According to the current LEXFOR "Thick- and Thin-Target Yields", PY and MLT are used yields of product and outgoing particle (or radiation), respectively. Because this is not very clear from the current LEXFOR entry, we propose update of the current entry.

Note that we concluded
PRT be used for the outgoing particle, i.e. SF3, or SF7
PRD be used for reaction product, i.e. SF4
in the Conclusion 10 of the NRDC 2002 Meeting (Paris). This is consistent with the current LEXFOR entry.

Thick- and Thin-Target Yields (continued)

4. Other representations of thick target yields

a) Thick Target Product Yields: thick target yield of a reaction product coded in SF4 (Reaction Product), where the value is given in units of number of nuclei as a function of incident beam current.

REACTION Coding: `TTY/PY` in SF 6.
Units: a code from Dictionary 25 with dimension PYT, *e.g.*, `PRD/MUAHR`

b) Thick Target Yield Multiplicities: yield of an outgoing particle (or radiation) coded in SF3 (Process) or SF7 (Particle considered), where the value is given as the number of particles as a function of incident beam current.

REACTION Coding: `TTY/MLT` in SF 6.
Units: a code from Dictionary 25 with dimension PYT, *e.g.*, `PRT/MUAHR`

5. Data measured on a thick target and not corrected for target thickness (use General Quantity Modifier `TT` in REACTION SF8).

…

b) Thick Target Product Yields: thick target yield of a reaction product coded in SF4 (Reaction Product), where the value is given in units of number of nuclei per incident projectile.

REACTION Coding: `PY` in SF 6; modifier `TT` in SF8.
Units: a code from Dictionary 25 with dimension YLD, *e.g.*, `PRD/INC`

c) Thick Target Yield Multiplicities: yield of an outgoing particle (or radiation) coded in SF3 (Process) or SF7 (Particle considered), where the value is given as the number of particles per incident projectile.

REACTION Coding: `MLT` in SF 6, `TT` in SF8.
Units: a code from Dictionary 25 with dimension YLD, *e.g.*, `PRT/INC`

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