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Memo CP-D/400

Date: 3 June 2004
To: Distribution
From: O. Schwerer

Subject: **Proposed code for "Probability for emission of N particles"**

Reference: **Memo CP-A/154**

In this memo the dictionary 36 code

EM/NUM,PY (unit dimension YLD) is proposed for the probability for emission of N particles.

In the corresponding draft entry O1086 the REACTION is

(25-FE-56(P,X)1-H-1,EM/NUM,PY)

with the number of protons given under the heading PART-OUT and the DATA units PC/REAC.

I have the following comments:

1) Though we don't have such quantities yet (with the exception of the special case of fission neutrons), it is a consistent possibility to code such data as product yields. However this is probably not the only way of doing it, therefore I want feedback from other centers. I personally have no objection against this way of coding except the following question:

2) EM in SF5 for "emission" is reserved for the special case where the product particle is identical with the projectile and elastic scattering is explicitly excluded. Is this really meant here? (From a quick check of the preprint by Mukherjee et al. I could not tell.) If this is the case, then the words "excluding elastic scattering" must be added to the expansion in dictionary 36. If not, EM must not be given in SF5 and the code would be just **NUM,PY**. (If necessary the authors should be asked whether elastic scattering was actually excluded.)

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