Brookhaven Nat. Lab. DAT 324-0

MEMO CP/C-45

Date: September 22, 1978
From: V. McLane
Subject: New Process Codes XN and XP (Proposed at 3rd NRDC Meeting, Paris).

It is proposed that where mass or element distributions of produce nuclei have been measured and presented as a function of the number of outgoing nucleons (i.e. neutrons and protons), that these be coded by introducing the process codes XN and XP in SF3 of the REACTION keyword:

XN = variable number of neutrons
XP = variable number of protons

The numerical values of the multiplicity factors "X" and "Y" would be entered into the data Tables under the data-heading keywords N-OUT and P-OUT, respectively.

This formation is only permitted if all reaction subfields but SF3 and SF4 remain unchanged.

Proposal:

1. Add to Dictionary 24 (Data-heading keywords):

   N-OUT number of emitted neutrons (Family I)
   P-OUT number of emitted protons (Family I)

2. Add to Dictionary 30 (Process)

   XN - variable number of emitted neutrons
   XP - variable number of emitted protons

3. Add to EXFOR under REACTION SF3:

   e.) in cases where mass or element distributions of product nuclei have been measured _and_ the Z and/or A value acts as an independent variable, a variable sum of outgoing neutrons and protons may be indicated in SF3 using the process codes XN, YP or XN + YP. The numerical values of the multiplicity factors X and Y are entered in the data Table under the data-heading keywords N-OUT and P-OUT, respectively. See LEXFOR Reaction Products.

4. Add to EXFOR under REACTION SF4:

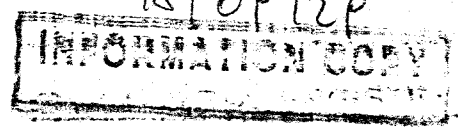   c.) When SF3 includes the codes F, X, XN or XP, ----

Also required will be an addition to the LEXFOR entry on Reaction Products which is being rewritten.

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VMc/bMc

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