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To: Distribution

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H.D. Lemmel and O. Schwerer

Subject: New particle code HE6 for Dictionary 33

Reference: Exfor 21705.012 (TRANS 2084)

1. In entry 21705 average kinetic energies for various light charged particles from ternary fission are given. The particle of which the average kinetic energy is given should be coded as particle considered in SF7 in addition to its appearance as reaction product (SF 4). Therefore the REACTION coding for subentries 8-11 should be changed to:

(N,F)1-H-1,TER,AKE,P	instead of	(N,F)1-H-1,TER,AKE
(N,F)1-H-2,TER,AKE,D	instead of	(N,F)1-H-2,TER,AKE
(N,F)1-H-3,TER,AKE,T	instead of	(N,F)1-H-3,TER,AKE
(N,F)2-HE-4,TER,AKE,A	instead of	(N,F)2-HE-4,TER,AKE

in order to be distinguishable from quantities like

(N,F)1-H-3,TER,AKE,FF	(Exfor 30521.003) or
(N,F)2-HE-4,TER,AKE,FF	(Exfor 30499.002).

The quantities TER,AKE,T and TER,AKE,A already exist in Dict.36, the others will be added.

Clearance: J.J. Schmidt



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The Exfor Manual does not mention this case explicitly; but an example given implies that SF7 (particle considered) must be coded in the case of differential ternary fission data. (Compare NNDC Manual, Lexfor page "Fission-2"; resp. NDS Manual page VIII.REACTION.6)

2. In subentry 21705.012 the average kinetic energy of He-6 particles from ternary fission is given. This should be coded

(N,F) 2-HE-6, TER, AKE, HE6.

We therefore propose to add the particle code HE6 to Dict. 33 (particle considered). This is to avoid introducing the Z-S-A formalism in SF7 which would require changes in computer programs.