

**Proposed quantity PAR/M-,DA,G**

In memo CP-D/311 (200-05-03) quantities PAR/M-,DA,G and PAR/M+,DA,G, were proposed, for compilation of entry 31492, but not approved at the 2000 NRDC meeting. Instead, there was Action A40 on all to think of a new, more general way of coding such data. So far no proposals were received.

In memo CP-D/318 (2001-01-18) the proposal for PAR/M+,DA,G was withdrawn. However, we renewed the proposal for PAR/M-,DA,G and suggest to approve it until (or unless) another way of coding is proposed. The proposals we received by e-mail for entry 31492 were based on the wrong assumption that the data measured are for production of the ground state, which is not the case.

Attached are:

Memo CP-D/318 with supporting level scheme from CP-D/311  
(Relevant e-mails)

**Memo CP-D/318**

18 January 2001

From: O. Schwerer

To: Distribution

**Subject: EXFOR quantities PAR/M+,DA,G and PAR/M-,DA,G**

**Reference:** Action A40 of the 2000 NRDC Meeting  
Memos CP-D/311 and CP-D/301 (or WP2000-4)  
Entry 31492 (revised and extended on Preliminary TRANS 3106)

The above quantities had been proposed for compilation of entry 31492. However, they were not approved at the last NRDC meeting; Action A40 **on all** requests new proposals for a general way of coding such cases.

1) For the case **PAR/M-,DA,G** the dictionary entries for the relevant existing components read

PAR,DA,G = differential cross section for production of a certain gamma line, and

M- = excluding formation through isomeric transition.

Combining these 2 definitions precisely describes, in my opinion, the cases compiled in entry 31492.

Since no other proposal was received so far, we therefore renew our old proposal to approve the coding PAR/M-,DA,G.

2) The case for **PAR/M+,DA,G** is however different. Going back to the main reference of entry 31492, we found that the data in question actually are not of a partially cumulative type, as would correspond to M+, but are "delayed" without the prompt component, i.e. describe the de-excitation of an isomeric state (with half-lives in the millisecond range).

Therefore, these data can be compiled as ....(N,X)...-M,PAR,DA,G and no new code is needed.

The final version of TRANS 3106 will therefore contain the code PAR/M-,DA,G but not PAR/M+,DA,G (we withdraw our proposal for the latter one).

Differential  $\gamma$ -production cross section for the 343 keV line in  $^{206}\text{Pb}$ :

- a) prompt (without contribution from 125  $\mu\text{sec}$  level at 2200 keV): **PAR/M-,DA,G**
- b) delayed (with feeding from 125  $\mu\text{sec}$  level): (originally proposed: PAR/M+,DA,G, now coded -M,PAR,DA,G)

See Hongyu Zhou et al., NSE 134,106,2000 and 97TRIEST,1,625 EXFOR 31492)

