

# KARLSRUHE CHARGED PARTICLE GROUP

## Information

DAS/310(7)

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KERNFORSCHUNGSZENTRUM · D-7500 KARLSRUHE · POSTFACH 3640 · TELEX 7826-484

Memo CP-B/12

21.6.1977

Subject: Comments on Dict. Update 770527 and new Lab-Codes

Reference: Memo CP-D/28

CP-C/13

CP-B/10

CP-B/11

### 1. Splitting of Particle-Dictionaries 13,28,29,33.

A separation of particle dictionaries (28,29) for incoming and outgoing particles seems to be meaningful only, if the respective dictionaries imply all codes for the two subfields (including process codes from the present dict. 30 for SF3). In addition, the concept of Dict. update 770527 neglects particle codes in SF4 at all (especially fission fragments FF). Therefore, we would prefer completely separate dictionaries for each respective REACTION subfield and for the other BIB-keywords. Consequently, there should exist:

Dict. 13: Particle codes for use under the BIB-keywords  
PART-DET, RAD-DET, DECAY-DATA, DECAY-MON, EN-SEC  
etc. except of REACTION

Dict. 28: Codes for incident particles (REACTION SF2)

Dict. 29: Codes for outgoing particles and processes (REACTION SF3)  
(including the former Dict. 30)

Dict. 30: Codes for produced particles (REACTION SF4)  
Used when SF4 contains not the heaviest reaction product  
(cf. CB-B/11, item 4.)

Dict. 33: Codes for the "particles considered" (REACTION SF7)

## 2. Heading ISOMER in Dict. 24

Please refer to our objections in Memo CP-B/11, it. 5.

## 3. Keyword ASSUMED in Dict. 2

Please refer to our comment in CP-B/10, it. II.p.3

## 4. Keywords MONIT-REF and DECAY-MON in Dict. 2

It should be stated that if one of these keywords is present, the keyword MONITOR is obligatory. In addition, the explanations for the keyword MONITOR in Dict. 2 should contain a reference to the possible keywords MONIT-REF and DECAY-MON

## 5. Codes for product yield (PY) and fission yield (FY) in dict. 32 and 36.

We have the following comments on the change in the meaning of PY, the omission of its explanation in dict. 32, and the deletion of FY (and its derivatives):

The code PY (product yield) was introduced by us for such cases, where none of the codes SIG and TTY is applicable. For clarification we give again the definitions: <sup>+)</sup>

SIG refers to cross sections measured with thin targets and related to a well defined energy.

TTY means a cross section measured with a target thick enough to degrade the primary projectile energy well below the threshold of the reaction under consideration.

Both cases correspond to well reproducible experimental conditions and the data are not very sensitive to slight changes e.g. in target thickness or beam properties.

PY, however, was intended to be used in all other cases e.g. when the energy range corresponding to the degradation in the target does not cover the reaction threshold, thus introducing a strong sensitivity on target thickness and beam profile. Such data are not in all cases reproducible.

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<sup>+)</sup> See also NNDC-Bibliography BNL-NCS-50640, March 1977, Appendix B,1.

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In contrast, fission yield (FY) is in our opinion a well defined quantity giving the yield of specific fission products in percent of the (sometimes unknown) total fission cross section. Anyway, the code PY was never restricted to fission products. Such a restriction is now suggested by deleting the respective fission yield codes as well as by positioning the product yield codes under the heading "Fission Fragments" in Dict. 36. In our opinion, however, a code for cases, where SIG or TTY are not applicable, is necessary. Therefore we propose to keep the former explanation for PY in dict. 32 and especially to insert the combinations with PY in dict. 36 under a "general use" heading. The code FY (and its combinations) should be kept as special fission quantities.

6. Some comments of minor importance are:

- a) Please change in the text of line 300 000 3200005 I  
TERN to TER to retain a consequent nomenclature.
- b) We do not understand the meaning of the CINDA dictionary (No. 42) in  
EXFOR. Please explain the reasons for introducing it.

7. New lab-code THD proposed in Memo CP-C/13:

The combination: "Gesellschaft für Schwerionenforschung + Techn. Hochschule Darmstadt" is in general certainly wrong, since these are two independent establishments which cooperate incidentally as other lab's do. There should be separate lab-codes for both:

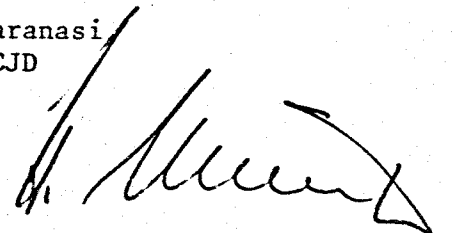
2GERTHD     Techn. Hochschule, Darmstadt  
2GERGSI     Gesellschaft für Schwerionenforschung, Darmstadt

The same is valid for the code 2GERHEI. Please introduce instead the following separate codes:

2GERHEI     University of Heidelberg  
2GERMPH     Max-Planck-Institut für Kernphysik, Heidelberg

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## 8. Preliminary Comment on Memo CP-D/30

CP-D/30 was received immediately before mailing the present Memo CP-B/12. We, therefore, want to give only the following comment on item 1. without going into further details.

In our opinion any time for objections against conclusions of the Kiev meeting can start only after receiving a written summary of the conclusions. Since we have neither received such a summary, nor - in this special case - the referred Memo 4C-1/116, we had no opportunity at all to agree or refuse this proposal.

We would appreciate very much to receive the meeting summary as soon as possible.

cc / address  
Lemuel  
Lessler  
Loseur  
Okamoto  
Schmidt  
Silwener  
Smith  
Yaphub von

FY corrected 22/9/20

CP-D/37 22/9/2