NATIONAL NUCLEAR DATA CENTER

Bldg. 197D Brookhaven National Laboratory P. O. Box 5000 Upton, NY 11973-5000 U.S.A.

(Internet) "NNDC@BNL.GOV

Telephone: (516)344-2902 FAX: (516)344-2806

Memo CP-C/348

DATE: August 10, 2004 **TO**: Distribution **FROM**: V. McLane

SUBJECT: Angular distribution data

Re: Memo CP-C/346

I had forgotten to include the handling of coplanar data for particles on opposite sides on the incident beam. I had considered using the azimuthal angles 0 and 180 degrees, but a colleague thought this might be an unnecessary complication. Looking through the compiled data sets, I see this has been handled in some data sets by using negative angles. I think this is a good solution. Therefore, I propose that we allow negative angles for this purpose.

Also, a discussion of energy spectra and double differential data $d\sigma^2/d\Omega dE$ should be included. One issue that occurs to me for the case of double differential data is that we should allow the use of the headings ANG1, E1, *etc.*, without the use of ANG2, E2, *etc.*, for example for the following case:

REACTION
$$(z-s-a(P,2N)z-s-a,DA/DA/DE,N/N/N)$$

Would need to use in the data section to correlate the angle with the correct energy:

ANG1 ANG2 E1

Another issue is whether we should drop the quantity DA/CRL altogether, since it seems that the data are well specified by the particles given in SF7, that is, the energy or angle of a correlated pair is given there as the sum of the 2 particles.

I will draft a new LEXFOR entry. In the meantime, please let me know if you have any strong feelings on any of these questions.

Distribution:

M. Chiba, Sapporo
M. Mikhaylyukova, CJD
F. E. Chukreev, CAJaD
N. Otsuka, JCPDG
S. Dunaeva, NDS
O. Schwerer, NDS
S. Taova, Sarov
S. Takács, ATOMKI
O. Gritzay, KINR
F. T. Tárkányi, ATOMKI
K. Kato, JCPDG
V. Varlamov, CDFE

M. Kellett, NEADB CNDC

V. N. Manokhin, CJD NNDC Distribution

S. Maev, CJD