

**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/282**

**DATE:** May 15, 2001  
**TO:** Distribution  
**FROM:** V. McLane  
**SUBJECT:** Spin-spin data

The current accepted convention for spin-spin data is spins anti-parallel – spins parallel. In looking at the EXFOR data, all but 2 data sets are coded this way (one area 1 and 1 area 2). I am updating the LEXFOR Manual to reflect this, and the area 1 data set. I have also updated the area 2 data set and will send it to NEA Data Bank.

**Definitions:**  $\sigma_{SS} = (\sigma_{\uparrow\downarrow} - \sigma_{\uparrow\uparrow})/2$  Spin-spin cross section  
 $\Delta\sigma = \sigma_{\uparrow\downarrow} - \sigma_{\uparrow\uparrow}$  Difference cross section  
where  $\sigma_{\uparrow\uparrow}$  = cross section for incident-projectile and target spins parallel  
 $\sigma_{\uparrow\downarrow}$  = cross section for incident-projectile and target spins anti-parallel

**Distribution:**

M. Chiba, Sapporo  
F. E. Chukreev, CAJaD  
S. Dunaeva, Sarov  
O. Gritzay, KINR  
K. Kato, JCPDG  
M. Kellett, NEADB  
V. N. Manokhin, CJD

S. Maev, CJD  
O. Schwerer, NDS  
S. Takács, ATOMKI  
F. T. Tárkányi, ATOMKI  
V. Varlamov, CDFE  
Zhuang Youxiang, CNDC  
NNDC File