

# Japan Charged-Particle Nuclear Reaction Data Group

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## Memo CP-E/015

**Date:** December 3, 2002  
**To:** Distribution  
**From:** OTUKA Naohiko and KATO Kiyoshi  
**Subject:** Spin rotation parameters

We are compiling a reference in which spin rotation parameters are given as a function of angle and energy transfer of an outgoing particle (T. Wakasa et al., Phys. Rev. **C59** (1999) 3177). To compile these measurements, we need the following quantity codes:

### Dictionary 36 (Quantities)

SS , POL/DA/DE , , D	NO	Spin rotation parameter D(SS) dA/dE
SL , POL/DA/DE , , D	NO	Spin rotation parameter D(SL) dA/dE
LS , POL/DA/DE , , D	NO	Spin rotation parameter D(LS) dA/dE

We have attached a sample coded entry.

### **Distribution:**

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**Sample of coded entry with proposed new code (E1718.020):**

T. Wakasa et al., Phys. Rev. C59 (1999) 3177 Fig.4

SUBENT	E1718020	20021130	E171802000001
BIB	6	19	E171802000002
REACTION	(1-H-2(P,X)0-NN-1,LS,POL/DA/DE,,D)		E171802000003
	DATA: Polarization transfer coefficient, D(L',S). See		E171802000004
	Eq.(1) in reference.		E171802000005
PART-DET	(N)		E171802000006
SAMPLE	Chemical-form of target is CD2.		E171802000007
	Physical-form of target is gas.		E171802000008
	Target-thickness is 338mg/cm**2.		E171802000009
ADD-RES	(COMP)1. Phase shift analysis.(D.V.Bugg and R.A.Bryan,		E171802000010
	phase-shift solution parametrized in the SAID		E171802000011
	program of Arnd and Roper, dated 1992.)		E171802000012
	2. Phase shift analysis.(R.A.Arndt and		E171802000013
	L.D.Roper, Scattering Analysis Interactive		E171802000014
	Dial-In program (SAID), phase-shift solution		E171802000015
	SP98, Virginia Polytechnic Institute and State		E171802000016
	University (unpublisehd).)		E171802000017
EN-SEC	(E-DGD,P/N)Energy transfer		E171802000018
STATUS	(TABLE)Data taken from ftp://ftp.aip.org/epaps/.		E171802000019
	Corresponding figure is Fig.4, p3182 in		E171802000020
	reference.		E171802000021
ENDBIB	19	0	E171802000022
NOCOMMON	0	0	E171802000023
DATA	3	20	E171802000024
E-DGD	DATA	DATA-ERR	E171802000025
MEV	NO-DIM	NO-DIM	E171802000026
25.0	-0.27	0.242	E171802000027
30.0	-0.331	0.111	E171802000028
35.0	-0.087	0.08	E171802000029
40.0	-0.076	0.059	E171802000030
45.0	-0.069	0.042	E171802000031
50.0	-0.003	0.033	E171802000032
55.0	-0.069	0.029	E171802000033
60.0	-0.058	0.029	E171802000034
65.0	-0.013	0.034	E171802000035
70.0	-0.09	0.041	E171802000036
75.0	-0.071	0.052	E171802000037
80.0	0.059	0.065	E171802000038
85.0	-0.013	0.079	E171802000039
90.0	0.073	0.095	E171802000040
95.0	0.019	0.112	E171802000041
100.0	0.006	0.127	E171802000042
105.0	0.029	0.144	E171802000043
110.0	0.068	0.158	E171802000044
115.0	0.08	0.174	E171802000045
120.0	0.079	0.186	E171802000046
ENDDATA	22	0	E171802000047
ENDSUBENT	46	0	E171802099999