Nuclear Data Section
International Atomic Energy Agency
P.O.Box 100, A-1400 Vienna, Austria

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Date: 29 February 2012
To: Distribution
From: N. Otsuka, S.P. Simakov

Subject: **Compilation of light-ion induced neutron spectra for applications**

Neutron sources employing the light-ion induced reactions on light element targets, e.g. ^{7}Li(p,xn), ^{7}Li(d,xn) and ^{9}Be(d,xn), are often used for cross section measurements, detector calibration, material irradiation and validation of the neutron transport through the shielding.

Theoretical modeling of the differential cross sections for these reactions encounters the difficulties due to the scarcity of the experimental data for validation. As a result the complete evaluated nuclear data files for several charged-particle induced reactions are not available until now. Therefore the collection of numerical data for the experimental energy differential neutron production cross sections and thick target yields in EXFOR has high importance.

There are still many relevant experimental results missed in the EXFOR library. Many measurements were done and published in period 1960-1980. In these articles the data are usually presented as numerous data points, histogram or even as curve in figures.

Though we did not identify neutron spectra in high-energy region above 1 GeV during preparation of the list, they would be also useful when available (see “Spallation portal” http://www-nds.iaea.org/spallations/ and links to the EXFOR Entries there).

Therefore we encourage NRDC Centres to compile neutron double differential cross sections and thick target yields induced by light ions with energies below and above 1 GeV.

Distribution:

blokhin@ippe.ru
cgc@ciae.ac.cn
chiba@earth.sgu.ac.jp
emmeric.dupont@oecd.org
fukahori.tokio@jaea.go.jp
ganesan555@gmail.com
gezg@ciae.ac.cn
hongwei@ciae.ac.cn
jhchang@kaeri.re.kr
j.roberts@iaea.org
kaltchenko@kinr.kiev.ua
katakura.junichi@jaea.go.jp
kato@nucl.sci.hokudai.ac.jp
kiralyb@atomki.hu
l.vrapcenjak@iaea.org
kiyoshi.matsumoto@oecd.org
manuel.bossant@oecd.org
manokhin@ippe.ru
mmarina@ippe.ru
mwherman@bnl.gov
nicolas.soppera@oecd.org
nklimova@kinr.kiev.ua
n.otsuka@iaea.org
nrdc@jcprg.org
oblozinsky@bnl.gov
ogritzay@kinr.kiev.ua
otto.schwerer@aon.at
pritychenko@bnl.gov
pronyaev@ippe.ru
r.forrest@iaea.org
samaev@obninsk.ru
s.babykina@polyn.kiae.su
scyang@kaeri.re.kr
s.simakov@iaea.org
stakacs@atomki.hu
stanislav.hlavac@savba.sk
sv.dunaeva@gmail.com
taova@expd.vniief.ru
tarkanyi@atomki.hu
vvvarlamov@gmail.com
vlasov@kinr.kiev.ua
v.semkova@iaea.org
v.zerkin@iaea.org
yolee@kaeri.re.kr
zhuangyx@ciae.ac.cn

cc:

alexander.prokofiev@tsl.uu.se
babam@cyric.tohoku.ac.jp
bem@ujf.cas.cz
hagi@post.kek.jp
larry.greenwood@pnnl.gov
majerle@ujf.cas.cz
mashnik@lanl.gov
noriaki.nakao@shimz.co.jp
ulrich.fischer@kit.edu
uwamino@riken.jp
xavier.ledoux@cea.fr

Experimental neutron spectra and angular distributions from light charged-particle induced reactions.
("Table" in source means data from authors are available.)

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Targ.	Proj.	Unit	Emin (eV)	Emax (eV)	Lab.	Author	Publication	Vol	Page	Year	Source	Centre	Additional reference
Li	d	PYT2	1.5+7	2.3+7	1CACCRC	M.A.Lone+	J,NIM	143	331	1977	Point	C1837.003	
Li	p	PYT2	1.5+7	2.3+7	1CACCRC	M.A.Lone+	J,NIM	143	331	1977	Point	C1837.005	
Be9	d	PYT2	1.5+7	2.3+7	1CACCRC	M.A.Lone+	J,NIM	143	331	1977	Point	C1837.002	
Be9	p	PYT2	1.5+7	2.3+7	1CACCRC	M.A.Lone+	J,NIM	143	331	1977	Point	C1837.004	
Li	d	PYTA	1.5+7	2.3+7	1CACCRC	M.A.Lone+	J,NIM	143	331	1977	Point	C1837.007	NBIR-77-1279,5,1977
Li	p	PYTA	1.5+7	2.3+7	1CACCRC	M.A.Lone+	J,NIM	143	331	1977	Point	C1837.009	NBIR-77-1279,5,1977
Be9	d	PYTA	1.5+7	2.3+7	1CACCRC	M.A.Lone+	J,NIM	143	331	1977	Point	C1837.006	NBIR-77-1279,5,1977
Be9	p	PYTA	1.5+7	2.3+7	1CACCRC	M.A.Lone+	J,NIM	143	331	1977	Point	C1837.008	NBIR-77-1279,5,1977
Li	p	arb.	3.5+7	6.5+7	1USADAV	H.I.Amols+	J,MED	4	486	1977	Curve	NNDC	
Li	d	arb.	3.5+7		1USADAV	H.I.Amols+	J,MED	4	486	1977	Curve	NNDC	
Li	p	PYTA	3.5+7	6.5+7	1USADAV	H.I.Amols+	J,MED	4	486	1977	Table	C1835.003	
Li	d	PYTA	3.5+7		1USADAV	H.I.Amols+	J,MED	4	486	1977	Table	C1835.005	
Be9	p	arb.	3.5+7	6.5+7	1USADAV	H.I.Amols+	J,MED	4	486	1977	Curve	NNDC	
Be9	d	arb.	3.5+7		1USADAV	H.I.Amols+	J,MED	4	486	1977	Curve	NNDC	
Be9	p	PYTA	3.5+7	6.5+7	1USADAV	H.I.Amols+	J,MED	4	486	1977	Table	C1835.002	
Be9	d	PYTA	3.5+7		1USADAV	H.I.Amols+	J,MED	4	486	1977	Table	C1835.004	
Li	d	PYT2	3.5+7		1USADAV	D.L.Johnson+	J,JNM	85-86	467	1979	Curve	NNDC	BNL-NCS-51245,99,1980
Li	d	PYTA	3.5+7		1USADAV	D.L.Johnson+	J,JNM	85-86	467	1979	Point	NNDC	BNL-NCS-51245,99,1980
Be9	d	DAE	8.8+6	1.8+7	1USALRL	K.A.Weaver+	J,NSE	52	35	1973	Point	F0218.002	UCRL-51310,1972
Be9	d	PYT2	8.8+6	1.8+7	1USALRL	K.A.Weaver+	J,NSE	52	35	1973	Point	F0218.003	UCRL-51310,1972

C	d	PYT2	1.8+7		1USALRL	K.A.Weaver+	J,NSE	52	35	1973	Point	F0218.005	UCRL-51310,1972
Li	d	PYT2	1.9+7		1USALRL	K.A.Weaver+	J,NSE	52	35	1973	Point	F0218.004	UCRL-51310,1972
2H	d	DAE	1.9+7		1USALRL	K.A.Weaver+	J,NSE	52	35	1973	Point	F0218.006	UCRL-51310,1972
Be9	d	DA	4.0+6	1.8+7	1USALRL	K.A.Weaver+	J,NSE	52	35	1973	Point	F0218	UCRL-51310,1972
Be9	d	PYTA	3.0+6	2.0+7	1USALRL	K.A.Weaver+	J,NSE	52	35	1973	Point	F0218	UCRL-51310,1972
Li	d	PYTA	5.0+6	1.9+7	1USALRL	K.A.Weaver+	J,NSE	52	35	1973	Point	F0218	UCRL-51310,1972
C	d	PYTA	1.2+7	1.8+7	1USALRL	K.A.Weaver+	J,NSE	52	35	1973	Point	F0218	UCRL-51310,1972
2H	d	DA	1.7+7	1.9+7	1USALRL	K.A.Weaver+	J,NSE	52	35	1973	Point	CNPD	UCRL-51310,1972
2H	d	PYTA	8.0+6	1.9+7	1USALRL	K.A.Weaver+	J,NSE	52	35	1973	Table	CNPD	UCRL-51310,1972
Li	d	PYT2	1.3+7	3.4+7	1USANRL	A.N.Goland+	J,IRE	22	1776	1975	Point	NNDC	
Li	d	PYTA	1.3+7	3.4+7	1USANRL	A.N.Goland+	J,IRE	22	1776	1975	Table	NNDC	
Li	d	PYT2	3.5+7		1USANRL	L.S.August+	R,NBSIR	77-1279	31	1977	Point	NNDC	
Be9	h	PYT2	8.1+7		1USANRL	L.S.August+	R,NBSIR	77-1279	31	1977	Point	NNDC	
Be9	d	PYT2	4.0+7		1USAORL	M.J.Saltmarsh+	J,NIM	145	81	1977	Point	C1832.002-005	
Be9	d	PYTA	4.0+7		1USAORL	M.J.Saltmarsh+	J,NIM	145	81	1977	Table	C1832.006-009	
Li	d	PYT2	8.0+6	1.5+7	1USATNL	C.E.Nelson+	R,NBSIR	77-1279	1	1977	Point	NNDC	
Li	p	PYT2	1.5+7		1USATNL	C.E.Nelson+	R,NBSIR	77-1279	1	1977	Point	NNDC	
Li	d	PYTA	8.0+6	1.5+7	1USATNL	C.E.Nelson+	R,NBSIR	77-1279	1	1977	Table	NNDC	
Li	p	PYTA	1.5+7		1USATNL	C.E.Nelson+	R,NBSIR	77-1279	1	1977	Table	NNDC	
Be9	d	PYT2	1.6+7	5.0+7	2BLGLVN	J.P.Meulders+	J,PMB	20	235	1975	Histogram	O1923.002	PRELIM.O046
12C	d	PYT2	1.6+7	5.0+7	2BLGLVN	J.P.Meulders+	J,PMB	20	235	1975	Histogram	O1923.003	PRELIM.O046
Cu	d	PYT2	1.6+7	5.0+7	2BLGLVN	J.P.Meulders+	J,PMB	20	235	1975	Histogram	O1923.004	PRELIM.O046
Mo	d	PYT2	1.6+7	3.3+7	2BLGLVN	J.P.Meulders+	J,PMB	20	235	1975	Histogram	O1923.005	PRELIM.O046
Ta181	d	PYT2	3.3+7	5.0+7	2BLGLVN	J.P.Meulders+	J,PMB	20	235	1975	Histogram	O1923.006	PRELIM.O046
Au197	d	PYT2	1.6+7	5.0+7	2BLGLVN	J.P.Meulders+	J,PMB	20	235	1975	Histogram	O1923.007	PRELIM.O046
Be9	d	PYTA	1.6+7	5.0+7	2BLGLVN	J.P.Meulders+	J,PMB	20	235	1975	Table	O1923.008	PRELIM.O046
C12	d	PYTA	1.6+7	5.0+7	2BLGLVN	J.P.Meulders+	J,PMB	20	235	1975	Table	O1923.009	PRELIM.O046

Cu	d	PYTA	1.6+7	5.0+7	2BLGLVN	J.P.Meulders+	J,PMB	20	235	1975	Table	O1923.010	PRELIM.O046
Mo	d	PYTA	1.6+7	3.3+7	2BLGLVN	J.P.Meulders+	J,PMB	20	235	1975	Table	O1923.011	PRELIM.O046
Ta181	d	PYTA	1.6+7	5.0+7	2BLGLVN	J.P.Meulders+	J,PMB	20	235	1975	Table	O1923.012	PRELIM.O046
Au197	d	PYTA	1.6+7	5.0+7	2BLGLVN	J.P.Meulders+	J,PMB	20	235	1975	Table	O1923.013	PRELIM.O046
Li	P	PYT2?	3.6+7	6.3+7	2BLGLVN	H.Schuhmacher+	J,NIM/A	421	284	1999	Histogram	NEA DB	
Be9	d	PYT2	4.0+7	5.4+7	2GERKFK	G.W.Schweimer	J,NP/A	100	537	1967	Table	O1924.002,016	PRELIM.O046
C	d	PYT2	4.0+7	5.4+7	2GERKFK	G.W.Schweimer	J,NP/A	100	537	1967	Table	O1924.003,017	PRELIM.O046
Al	d	PYT2	4.0+7	5.4+7	2GERKFK	G.W.Schweimer	J,NP/A	100	537	1967	Table	O1924.004,018	PRELIM.O046
Fe	d	PYT2	5.4+7		2GERKFK	G.W.Schweimer	J,NP/A	100	537	1967	Table	O1924.005	PRELIM.O046
Co	d	PYT2	5.4+7		2GERKFK	G.W.Schweimer	J,NP/A	100	537	1967	Table	O1924.006	PRELIM.O046
Ni	d	PYT2	5.4+7		2GERKFK	G.W.Schweimer	J,NP/A	100	537	1967	Table	O1924.007	PRELIM.O046
Cu	d	PYT2	4.0+7	5.4+7	2GERKFK	G.W.Schweimer	J,NP/A	100	537	1967	Table	O1924.008,019	PRELIM.O046
Nb	d	PYT2	5.4+7		2GERKFK	G.W.Schweimer	J,NP/A	100	537	1967	Table	O1924.009	PRELIM.O046
Mo	d	PYT2	5.4+7		2GERKFK	G.W.Schweimer	J,NP/A	100	537	1967	Table	O1924.010	PRELIM.O046
Pd	d	PYT2	5.4+7		2GERKFK	G.W.Schweimer	J,NP/A	100	537	1967	Table	O1924.011	PRELIM.O046
Ag	d	PYT2	4.0+7	5.4+7	2GERKFK	G.W.Schweimer	J,NP/A	100	537	1967	Table	O1924.012,020	PRELIM.O046
Ta	d	PYT2	5.4+7		2GERKFK	G.W.Schweimer	J,NP/A	100	537	1967	Table	O1924.013	PRELIM.O046
Pt	d	PYT2	5.4+7		2GERKFK	G.W.Schweimer	J,NP/A	100	537	1967	Table	O1924.014	PRELIM.O046
Au197	d	PYT2	4.0+7	5.4+7	2GERKFK	G.W.Schweimer	J,NP/A	100	537	1967	Table	O1924.015,021	PRELIM.O046
Be9	d	PYTA	9.4+6	1.4+7	2GERKFK	H.J.Brede+	J,NIM/A	274	332	1989	Table	D0523.002-003, 005	
Be9	p	PYTA	1.7+7	2.2+7	2GERKFK	H.J.Brede+	J,NIM/A	274	332	1989	Table	D0523.004	
Li	d	PYT2	3.2+7		2JPN?	M.Sugimoto+	P,JAERI-M-	91-170	137	1991	Table	E2358	in compilation
LI	d	PYT2	7.0+7	2.1+8	2JPNIPC	N.Nakao+	J,NIM/A	420	218	1999	Table	E2298	in compilation
Li	d	PYT2	4.0+7	9.0+7	2JPNJAE	M.Baba+	J,NIM/A	428	454	1999	Table	E1808.003	
Li	p	PYT2	2.5+8	3.9+8	2JPNOSA	Y.Iwamoto+	J,NIM/B	629	43	2011	Table	E2297.002	
Li	p	PYT2	2.0+7	4.0+7	2JPNTOH	Y.Uwamino+	J,NIM/A	389	463	1997	Table	E1826.005	

Li	d	DAE	2.5+7		2JPNTOH	M.Hagiwara+	J,JNM	417	1284	2011	Table	E2322	in compilation
Li	d	DA	2.5+7		2JPNTOH	M.Hagiwara+	J,JNM	417	1284	2011	Table	E2322	in compilation
Li	d	CS		4.0+7	2JPNTOH	M.Hagiwara+	J,JNM	417	1267	2011	Table	E2323	in compilation
Li	d	TTT	4.0+7		2JPNTOH	M.Hagiwara+	J,JNM	417	1267	2011	Table	E2323	in compilation
Al27	d	TTT	4.0+7		2JPNTOH	M.Hagiwara+	J,JNM	417	1267	2011	Table	E2323	in compilation
C	d	TTT	4.0+7		2JPNTOH	M.Hagiwara+	J,JNM	417	1267	2011	Table	E2323	in compilation
C	p	PYT2	5.0+7		2JPNTOH	M.Baba+	C,2004SANTA	1	884	2004	Table	E1856	
C	p	PYT2	7.0+7		2JPNTOH	M.Baba+	C,2004SANTA	1	884	2004	Point	JCPRG	
W	p	PYT2	5.0+7		2JPNTOH	M.Baba+	C,2004SANTA	1	884	2004	Table	E1856	
W	p	PYT2	7.0+7		2JPNTOH	M.Baba+	C,2004SANTA	1	884	2004	Point	JCPRG	
Li	d	PYT2	4.0+7		2JPNTOH	M.Baba+	C,2004SANTA	1	884	2004	Table	E1986.002	
Li	d	DAE	4.0+7		2JPNTOH	M.Baba+	C,2004SANTA	1	884	2004	Table	E1986.005	
Li	p	DAE	7.0+7		2JPNTOH	M.Baba+	C,2004SANTA	1	884	2004	Plot	JCPRG	E2110?
Li	d	CS	7.0+6	4.0+7	2JPNTOH	M.Baba+	C,2004SANTA	1	884	2004		JCPRG	E2323?
Li	d	TTT	4.0+7		2JPNTOH	M.Baba+	C,2004SANTA	1	884	2004		JCPRG	E2323?
Li	d	PYT2	2.5+7		2JPNTOH	M.Baba+	J,JNM	307-311	1715	2002	Table	E1893	
Li	d	TTT	2.5+7		2JPNTOH	M.Baba+	J,JNM	307-311	1715	2002	Table	E1893.002	
C	d	PYT2	4.0+7		2JPNTOH	M.Hagiwara+	J,JNM	329-333	218	2004	Table	E1985.002	
Al27	d	PYT2	4.0+7		2JPNTOH	M.Hagiwara+	J,JNM	329-333	218	2004	Table	E1985.003	
Al27	d	CS	2.1+7	3.9+7	2JPNTOH	M.Hagiwara+	J,JNM	329-333	218	2004	Table	E1985	
C	d	CS	2.3+7	4.0+7	2JPNTOH	M.Hagiwara+	J,JNM	329-333	218	2004	Table	E1985.007	
Li	d	PYT2	2.5+7		2JPNTOH	T.Aoki+	J,NST	41	399	2004	Table	E1893	
Be9	d	PYT2	2.5+7		2JPNTOH	T.Aoki+	J,NST	41	399	2004	Table	E1893	
Li	d	TTT	2.5+7		2JPNTOH	T.Aoki+	J,NST	41	399	2004	Table	E1893.022	
Be9	d	TTT	2.5+7		2JPNTOH	T.Aoki+	J,NST	41	399	2004	Table	E1893.023	
Li	d	PYT2	4.0+7		2JPNTOH	M.Hagiwara+	J,FST	48	1320	2005	Table	E1986.002	

Li	d	PYTA	4.0+7		2JPNTOH	M.Hagiwara+	J,FST	48	1320	2005	Table	E1986.003	
Li	d	PYT	4.0+7		2JPNTOH	M.Hagiwara+	J,FST	48	1320	2005	Table	E1986.004	
Li	d	DAE	4.0+7		2JPNTOH	M.Hagiwara+	J,FST	48	1320	2005	Table	E1986.005	
Be9	d	PYT2	2.0+7	4.0+7	2JPNTOK	Y.Uwamino+	J,NIM/A	271	546	1988	Point	E2296.002-010	
C	d	1/AE	3.3+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Cu	d	1/AE	3.3+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Pb	d	1/AE	3.3+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
C	h	1/AE	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Cu	h	1/AE	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Pb	h	1/AE	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
C	a	1/AE	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Cu	a	1/AE	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Pb	a	1/AE	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
C	d	1/A	3.3+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Cu	d	1/A	3.3+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Pb	d	1/A	3.3+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
C	p	1/A	3.0+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Cu	p	1/A	3.0+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Fe	p	1/A	3.0+0		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Pb	p	1/A	3.0+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
C	d	1/A	3.3+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Cu	d	1/A	3.3+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Fe	d	1/A	3.3+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Pb	d	1/A	3.3+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
C	h	1/A	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Cu	h	1/A	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation

Fe	h	1/A	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Pb	h	1/A	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
C	a	1/A	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Cu	a	1/A	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Fe	a	1/A	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
Pb	a	1/A	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Point	E2343	in compilation
C	p	YLD	3.0+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Table	E2343	in compilation
Cu	p	YLD	3.0+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Table	E2343	in compilation
Fe	p	YLD	3.0+0		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Table	E2343	in compilation
Pb	p	YLD	3.0+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Table	E2343	in compilation
C	d	YLD	3.3+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Table	E2343	in compilation
Cu	d	YLD	3.3+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Table	E2343	in compilation
Fe	d	YLD	3.3+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Table	E2343	in compilation
Pb	d	YLD	3.3+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Table	E2343	in compilation
C	h	YLD	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Table	E2343	in compilation
Cu	h	YLD	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Table	E2343	in compilation
Fe	h	YLD	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Table	E2343	in compilation
Pb	h	YLD	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Table	E2343	in compilation
C	a	YLD	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Table	E2343	in compilation
Cu	a	YLD	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Table	E2343	in compilation
Fe	a	YLD	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Table	E2343	in compilation
Pb	a	YLD	6.5+7		2JPNTOK	K.Shin+	J,PR/C	29	1307	1984	Table	E2343	in compilation
Li7	P	DAP	8.1+6	1.4+7	2JPNTOK	K.Hisatake+	J,JPJ	15	741	1960	Point	E2216	In compilation
B11	P	DAP	8.1+6	1.4+7	2JPNTOK	K.Hisatake+	J,JPJ	15	741	1960	Point	E2216	In compilation
Al27	P	DAP	8.1+6	1.4+7	2JPNTOK	K.Hisatake+	J,JPJ	15	741	1960	Point	E2216	In compilation
Be9	d	1/AE	6.5+7		2SF JVV	Z.Radivojevic+	J,NIM/B	183	212	2001	Table	O1050.003	

C	d	1/AE	5.0+7		2SF JVV	Z.Radivojevic+	J,NIM/B	183	212	2001	Table	O1050.002	
Be9	d	1/A	6.5+7		2SF JVV	Z.Radivojevic+	J,NIM/B	183	212	2001	Table	O1050.005	
C	d	1/A	5.0+7		2SF JVV	Z.Radivojevic+	J,NIM/B	183	212	2001	Table	O1050.004	
C	d	1/AE	4.0+7		2SF JVV	G.Lhersonneau+	J,NIM/A	603	228	2009	Point	O1746.002	
C	d	1/A	4.0+7		2SF JVV	G.Lhersonneau+	J,NIM/A	603	228	2009	Point	O1746.005.1	
C	d	YLD	4.0+7		2SF JVV	G.Lhersonneau+	J,NIM/A	603	228	2009	Point	O1746.008.1	
D2O	d	1/AE	4.0+7		2SF JVV	G.Lhersonneau+	J,NIM/A	603	228	2009	Point	O1746.002	
D2O	d	1/A	4.0+7		2SF JVV	G.Lhersonneau+	J,NIM/A	603	228	2009	Point	O1746.007.1	
D2O	d	YLD	4.0+7		2SF JVV	G.Lhersonneau+	J,NIM/A	603	228	2009	Point	O1746.010.1	
WTR	d	1/AE	4.0+7		2SF JVV	G.Lhersonneau+	J,NIM/A	603	228	2009	Point	O1746.004	
WTR	d	1/A	4.0+7		2SF JVV	G.Lhersonneau+	J,NIM/A	603	228	2009	Point	O1746.006.1	
WTR	d	YLD	4.0+7		2SF JVV	G.Lhersonneau+	J,NIM/A	603	228	2009	Point	O1746.009.1	
Li7	P	Arb.	2.2+7	1.4+8	2SWDUPP	M.Oesterlund+	J,NIM/B	241	419	2005	Point		
Li	p	DAE	3.0+7	5.0+7	2UK NIN	C.J.Batty+	J,NIM	68	273	1969	Curve	O0650.002	
Li	p	DA	3.0+7	5.0+7	2UK NIN	C.J.Batty+	J,NIM	68	273	1969	Curve	O0650.003	
D	p	DA	3.0+7	5.0+7	2UK NIN	C.J.Batty+	J,NIM	68	273	1969	Curve	O0650.004	
T	p	DA	3.0+7	5.0+7	2UK NIN	C.J.Batty+	J,NIM	68	273	1969	Curve	O0650.005	
Be9	p	DA	3.0+7	5.0+7	2UK NIN	C.J.Batty+	J,NIM	68	273	1969	Curve	O0650.006	
Be9	p	DAE	3.0+7	5.0+7	2UK NIN	A.S.Clough+	J,NP/A	143	385	1970	Point	CNPD	To be in F0789
B10	p	DAE	3.0+7	5.0+7	2UK NIN	A.S.Clough+	J,NP/A	143	385	1970	Point	CNPD	To be in F0789
B11	P	DAE	3.0+7	5.0+7	2UK NIN	A.S.Clough+	J,NP/A	143	385	1970	Point	CNPD	To be in F0789
C13	p	DAE	3.0+7	5.0+7	2UK NIN	A.S.Clough+	J,NP/A	143	385	1970	Point	CNPD	To be in F0789
Li	d		1.6+7	1.7+7	3CZRUFJ	P.Bem+	Internal report					NDS	
D	d	PYT2	1.2+7		3CZRUFJ	P.Bem+	J,NIM/A	425	522	1999	Point	D0273.002	
D	p	PYT2	1.5+7		3CZRUFJ	P.Bem+	J,NIM/A	425	522	1999	Point	D0273.003	
D	d	PYTA	1.2+7		3CZRUFJ	P.Bem+	J,NIM/A	425	522	1999	Point	D0273.004	

D	p	PYTA	1.5+7		3CZRUFJ	P.Bem+	J,NIM/A	425	522	1999	Point	D0273.005	
He4	d	PYT2	1.7+7		3CZRUFJ	P.Bem+	J,NIM/A	466	509	2001	Point	D0278.002	
He4	d	PYTA	1.7+7		3CZRUFJ	P.Bem+	J,NIM/A	466	509	2001	Point	D0278.003	
Be9	d	PYT2	2.1+7		4RUSFEI	V.K.Daruga+	J,SJA	24	71	1968	Point	A0897.002	
Li	d	PYT2	2.1+7		4RUSFEI	V.K.Daruga+	S,SJA	30	493	1971	Point	A0898.002	
Li	p	DAE	1.5+7	3.0+7	1USADAV	M.W.McNaughton+	J,NIM	130	555	1975	Curve	NNDC	
Be9	p	DAE	1.5+7	2.0+7	1USADAV	M.W.McNaughton+	J,NIM	130	555	1975	Curve	NNDC	
Li	p	DAE	2.9+7	2.0+8	1USALAS	R.C.Byrd+	J, NIM/A	274	494	1989	Point	NNDC	
Be9	d	PYT2	7.0+6		1USAANL	D.L.Smith+	J,NIM/A	241	507	1985	Table	C1858.002-021	R,ANL/NDM-90,1985
Be9	d	PYT2	2.6+6	7.0+6	1USAANL	J.W.Meadows	R,ANL/NDM	124		1991	Table	NNDC	