

EXFOR に変換したデータ

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今年度も、昨年同様に EXFOR に変換されたデータを2本の TRANS テープに編集して IAEA に送った。それらは E007 と E008 である。E007 は 1989 年に送った E005 と E006 のすべてのエントリーを含むが、E007 からはそれまでに発見された E005 と E006 のエラーは取り除かれている。

E008 には 8 エントリーが入っているが、これらは 1989 年度に NRDF に入力されたデータから変換したものである。

これで、IAEA の NDS の E エリア マスター・ファイルは E004 E007 と E008 の 3 本になった。

以下に E エリア マスター・ファイルに登録されたデータのインデックス・リストを掲げる。

REACTION-UNIT	ENERGY RANGE(EV)	LAB	YR	AUTHOR	REFERENCE	ACC.#	PTS
1-H-1(D,D)1-H-1,PAR,DA	5.60+07	2JPNOSA	84	HATANAKA+	J,NP/A,426,77,84	E0839002	38
1-H-1(D,D)1-H-1,PAR,DA	5.60+07	2JPNOSA	84	HATANAKA+	J,NP/A,426,77,84	E0839004	35
1-H-1(D,D)1-H-1,PAR,POL/DA,,ANA	5.60+07	2JPNOSA	84	HATANAKA+	J,NP/A,426,77,84	E0839003	38
1-H-1(D,D)1-H-1,PAR,POL/DA,,ANA	5.60+07	2JPNOSA	84	HATANAKA+	J,NP/A,426,77,84	E0839005	38
1-H-1(D,D)1-H-1,PAR,POL/DA,,ANA	5.60+07	2JPNOSA	84	HATANAKA+	J,NP/A,426,77,84	E0839006	25
1-H-1(D,EL)1-H-1,PAR,POL/DA,,ANA	5.60+07	2JPNOSA	83	HATANAKA+	J,NIM,217,397,83	E0783002	24
1-H-2(P,EL)1-H-2,PAR,DA	6.48+07	2JPNKTO	82	SHIMIZU+	J,NP/A,382,242,82	E0804002	57
1-H-2(P,EL)1-H-2,PAR,DA	6.48+07	2JPNKTO	82	SHIMIZU+	J,NP/A,382,242,82	E0804003	57
5-B-10(P,HE3)4-BE-8,PAR,DA	5.19+07	2JPNTOK	83	YASUE+	J,NP/A,408,205,83	E0942006	18
5-B-10(P,HE3)4-BE-8,PAR,DA	5.19+07	2JPNTOK	83	YASUE+	J,NP/A,408,205,83	E0942007	18
5-B-10(P,HE3)4-BE-8,PAR,DA	5.19+07	2JPNTOK	83	YASUE+	J,NP/A,408,205,83	E0942008	14
5-B-10(P,HE3)4-BE-8,PAR,DA	5.19+07	2JPNTOK	83	YASUE+	J,NP/A,408,205,83	E0942009	12
5-B-10(P,T)5-B-8,PAR,DA	5.19+07	2JPNTOK	83	YASUE+	J,NP/A,408,205,83	E0942002	20
5-B-10(P,T)5-B-8,PAR,DA	5.19+07	2JPNTOK	83	YASUE+	J,NP/A,408,205,83	E0942003	20
6-C-13(P,D)6-C-12,PAR,DA	6.50+07	2JPNOSA	82	KATO+	J,PR/C,25,97,82	E0668004	19
6-C-13(P,D)6-C-12,PAR,POL/DA,,ANA	6.50+07	2JPNOSA	82	KATO+	J,PR/C,25,97,82	E0668005	14
6-C-13(P,HE3)5-B-11,PAR,DA	6.50+07	2JPNOSA	82	KATO+	J,PR/C,25,97,82	E0668006	11
6-C-13(P,HE3)5-B-11,PAR,DA	6.50+07	2JPNOSA	82	KATO+	J,PR/C,25,97,82	E0668010	12
6-C-13(P,HE3)5-B-11,PAR,POL/DA,,ANA	6.50+07	2JPNOSA	82	KATO+	J,PR/C,25,97,82	E0668007	12
6-C-13(P,HE3)5-B-11,PAR,POL/DA,,ANA	6.50+07	2JPNOSA	82	KATO+	J,PR/C,25,97,82	E0668011	12
6-C-13(P,T)6-C-11,PAR,DA	6.50+07	2JPNOSA	82	KATO+	J,PR/C,25,97,82	E0668002	14
6-C-13(P,T)6-C-11,PAR,DA	6.50+07	2JPNOSA	82	KATO+	J,PR/C,25,97,82	E0668008	14
6-C-13(P,T)6-C-11,PAR,POL/DA,,ANA	6.50+07	2JPNOSA	82	KATO+	J,PR/C,25,97,82	E0668003	14
6-C-13(P,T)6-C-11,PAR,POL/DA,,ANA	6.50+07	2JPNOSA	82	KATO+	J,PR/C,25,97,82	E0668009	14
7-N-14(P,D)7-N-13,PAR,DA	2.10+07	2JPNTSU	82	AOKI+	J,NP/A,382,269,82	E0788004	23
7-N-14(P,D)7-N-13,PAR,DA	2.10+07	2JPNTSU	82	AOKI+	J,NP/A,382,269,82	E0788006	10
7-N-14(P,D)7-N-13,PAR,POL/DA,,ANA	2.10+07	2JPNTSU	82	AOKI+	J,NP/A,382,269,82	E0788005	26
7-N-14(P,D)7-N-13,PAR,POL/DA,,ANA	2.10+07	2JPNTSU	82	AOKI+	J,NP/A,382,269,82	E0788007	12
7-N-14(P,SCT)7-N-14,PAR,DA	2.10+07	2JPNTSU	82	AOKI+	J,NP/A,382,269,82	E0788008	15
7-N-14(P,SCT)7-N-14,PAR,DA	2.10+07	2JPNTSU	82	AOKI+	J,NP/A,382,269,82	E0788010	16
7-N-14(P,SCT)7-N-14,PAR,POL/DA,,ANA	2.10+07	2JPNTSU	82	AOKI+	J,NP/A,382,269,82	E0788003	15
7-N-14(P,SCT)7-N-14,PAR,POL/DA,,ANA	2.10+07	2JPNTSU	82	AOKI+	J,NP/A,382,269,82	E0788009	16
7-N-14(P,SCT)7-N-14,PAR,POL/DA,,ANA	2.10+07	2JPNTSU	82	AOKI+	J,NP/A,382,269,82	E0788011	16
8-O-16(P,INL)8-O-16,PAR,DA	6.50+07	2JPNOSA	84	HOSONO+	J,PR/C,30,746,84	E0928002	12
8-O-16(P,INL)8-O-16,PAR,DA	6.50+07	2JPNOSA	84	HOSONO+	J,PR/C,30,746,84	E0928004	13
8-O-16(P,INL)8-O-16,PAR,POL/DA,,ANA	6.50+07	2JPNOSA	84	HOSONO+	J,PR/C,30,746,84	E0928003	13
8-O-16(P,INL)8-O-16,PAR,POL/DA,,ANA	6.50+07	2JPNOSA	84	HOSONO+	J,PR/C,30,746,84	E0928005	13
8-O-16(P,N)9-F-16,PAR,DA	3.50+07	3AULAML	82	OHNUMA+	J,PL/B,112,206,82	E0691002	15
8-O-16(P,N)9-F-16,PAR,DA	9.90+07	3AULAML	82	OHNUMA+	J,PL/B,112,206,82	E0691003	8
8-O-16(P,N)9-F-16,PAR,DA	1.35+08	3AULAML	82	OHNUMA+	J,PL/B,112,206,82	E0691004	18
8-O-16(P,N)9-F-16,PAR,DA	3.50+07	2JPNTOH	82	ORIHARA+	J,PRL,49,1318,82	E0776002	15
8-O-16(P,N)9-F-16,PAR,DA	3.50+07	2JPNTOH	82	ORIHARA+	J,PRL,49,1318,82	E0776003	15
8-O-16(P,N)9-F-16,PAR,POL/DA,,ANA	1.35+08	3AULAML	82	OHNUMA+	J,PL/B,112,206,82	E0691005	10
12-MG-24(P,D)12-MG-23,PAR,DA	6.50+07	2JPNOSA	84	HATANAKA+	J,PR/C,29,13,84	E0796004	13
12-MG-24(P,D)12-MG-23,PAR,DA	6.50+07	2JPNOSA	84	HATANAKA+	J,PR/C,29,13,84	E0796005	26
12-MG-24(P,D)12-MG-23,PAR,DA	8.00+07	2JPNOSA	84	HATANAKA+	J,PR/C,29,13,84	E0796007	18
12-MG-24(P,D)12-MG-23,PAR,DA	6.50+07	2JPNOSA	84	HATANAKA+	J,PR/C,29,13,84	E0796009	26
12-MG-24(P,D)12-MG-23,PAR,DA	8.00+07	2JPNOSA	84	HATANAKA+	J,PR/C,29,13,84	E0796011	18
12-MG-24(P,D)12-MG-23,PAR,POL/DA,,ANA	6.50+07	2JPNOSA	84	HATANAKA+	J,PR/C,29,13,84	E0796006	15
12-MG-24(P,D)12-MG-23,PAR,POL/DA,,ANA	8.00+07	2JPNOSA	84	HATANAKA+	J,PR/C,29,13,84	E0796008	17
12-MG-24(P,D)12-MG-23,PAR,POL/DA,,ANA	6.50+07	2JPNOSA	84	HATANAKA+	J,PR/C,29,13,84	E0796010	16
12-MG-24(P,D)12-MG-23,PAR,POL/DA,,ANA	8.00+07	2JPNOSA	84	HATANAKA+	J,PR/C,29,13,84	E0796012	17
12-MG-24(P,EL)12-MG-24,PAR,DA	8.00+07	2JPNOSA	84	HATANAKA+	J,PR/C,29,13,84	E0796002	26
12-MG-24(P,EL)12-MG-24,PAR,POL/DA,,ANA	8.00+07	2JPNOSA	84	HATANAKA+	J,PR/C,29,13,84	E0796003	26
12-MG-24(P,N)13-AL-24,PAR,DA	3.50+07	2JPNTOH	82	ORIHARA+	J,PRL,48,469,82	E0646002	16

REACTION-UNIT	ENERGY RANGE(EV)	LAB	YR	AUTHOR	REFERENCE	ACC.#	PTS
12-MG-24(P,N)13-AL-24,PAR,DA	3.50+07	2JPNTOH	82	ORIHARA+	J,PRL,48,469,82	E0646003	15
13-AL-27(HE3,D)14-SI-28,PAR,DA	6.01+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0835007	14
13-AL-27(HE3,D)14-SI-28,PAR,DA	6.01+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0835008	13
13-AL-27(HE3,D)14-SI-28,PAR,DA	3.97+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0835009	11
13-AL-27(HE3,D)14-SI-28,PAR,DA	3.97+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0835010	11
13-AL-27(HE3,D)14-SI-28,PAR,DA	4.00+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0835013	4
13-AL-27(HE3,D)14-SI-28,PAR,DA	4.00+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0835014	4
13-AL-27(HE3,EL)13-AL-27,PAR,DA	6.01+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0835005	21
13-AL-27(HE3,EL)13-AL-27,PAR,DA	3.97+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0835006	9
13-AL-27(HE3,EL)13-AL-27,PAR,DA	4.00+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0835012	6
20-CA-40(P,INL)20-CA-40,PAR,DA	6.50+07	2JPNOSA	82	HOSONO+	J,PR/C,26,1440,82	E0817002	12
20-CA-40(P,INL)20-CA-40,PAR,DA	6.50+07	2JPNOSA	82	HOSONO+	J,PR/C,26,1440,82	E0817003	11
20-CA-40(P,INL)20-CA-40,PAR,DA	6.50+07	2JPNOSA	82	HOSONO+	J,PR/C,26,1440,82	E0817004	13
20-CA-40(P,INL)20-CA-40,PAR,POL/DA,,ANA	6.50+07	2JPNOSA	82	HOSONO+	J,PR/C,26,1440,82	E0817005	12
20-CA-40(P,INL)20-CA-40,PAR,POL/DA,,ANA	6.50+07	2JPNOSA	82	HOSONO+	J,PR/C,26,1440,82	E0817006	11
20-CA-40(P,INL)20-CA-40,PAR,POL/DA,,ANA	6.50+07	2JPNOSA	82	HOSONO+	J,PR/C,26,1440,82	E0817007	12
20-CA-40(P,SCT)20-CA-40,PAR,DA	6.50+07	2JPNOSA	81	EJIRI+	J,PR/C,24,2001,81	E0795002	13
20-CA-40(P,SCT)20-CA-40,PAR,DA	6.50+07	2JPNOSA	81	EJIRI+	J,PR/C,24,2001,81	E0795003	28
20-CA-40(P,SCT)20-CA-40,PAR,DA	6.50+07	2JPNOSA	81	EJIRI+	J,PR/C,24,2001,81	E0795004	13
20-CA-40(P,SCT)20-CA-40,PAR,DA	6.50+07	2JPNOSA	81	EJIRI+	J,PR/C,24,2001,81	E0795005	13
20-CA-40(P,SCT)20-CA-40,PAR,DA	6.50+07	2JPNOSA	81	EJIRI+	J,PR/C,24,2001,81	E0795006	12
20-CA-40(P,SCT)20-CA-40,PAR,DA	6.50+07	2JPNOSA	81	EJIRI+	J,PR/C,24,2001,81	E0795007	30
20-CA-40(P,SCT)20-CA-40,PAR,DA	6.50+07	2JPNOSA	81	EJIRI+	J,PR/C,24,2001,81	E0795008	13
20-CA-40(P,SCT)20-CA-40,PAR,DA	6.50+07	2JPNOSA	81	EJIRI+	J,PR/C,24,2001,81	E0795009	13
20-CA-40(P,SCT)20-CA-40,PAR,DA	6.50+07	2JPNOSA	81	EJIRI+	J,PR/C,24,2001,81	E0795010	14
20-CA-40(P,SCT)20-CA-40,PAR,DA	6.50+07	2JPNOSA	81	EJIRI+	J,PR/C,24,2001,81	E0795011	26
20-CA-40(P,SCT)20-CA-40,PAR,DA	6.50+07	2JPNOSA	81	EJIRI+	J,PR/C,24,2001,81	E0795012	6
20-CA-40(P,SCT)20-CA-40,PAR,DA	6.50+07	2JPNOSA	81	EJIRI+	J,PR/C,24,2001,81	E0795013	6
20-CA-40(P,SCT)20-CA-40,PAR,DA	6.50+07	2JPNOSA	81	EJIRI+	J,PR/C,24,2001,81	E0795014	14
20-CA-40(P,SCT)20-CA-40,PAR,DA	6.50+07	2JPNOSA	81	EJIRI+	J,PR/C,24,2001,81	E0795015	13
20-CA-40(P,SCT)20-CA-40,PAR,DA	6.50+07	2JPNOSA	81	EJIRI+	J,PR/C,24,2001,81	E0795016	14
26-FE-54(P,N)27-CO-54,PAR,DA	3.50+07	2JPNTOH	81	ORIHARA+	J,PRL,47,301,81	E0772002	14
26-FE-54(P,N)27-CO-54,PAR,DA	3.50+07	2JPNTOH	81	ORIHARA+	J,PRL,47,301,81	E0772003	14
26-FE-54(P,N)27-CO-54,PAR,DA	3.50+07	2JPNTOH	81	ORIHARA+	J,PRL,47,301,81	E0772004	14
26-FE-54(P,N)27-CO-54,PAR,DA	3.50+07	2JPNTOH	81	ORIHARA+	J,PRL,47,301,81	E0772005	14
26-FE-54(P,N)27-CO-54,PAR,DA	3.50+07	2JPNTIT	82	OHNUMA+	J,PTP,67,353,82	E0830004	14
26-FE-54(P,N)27-CO-54,PAR,DA	3.50+07	2JPNTIT	82	OHNUMA+	J,PTP,67,353,82	E0830007	14
26-FE-56(P,N)27-CO-56,PAR,DA	2.00+07	2JPNTOH	81	ORIHARA+	J,PL/B,106,171,81	E0769002	13
26-FE-56(P,N)27-CO-56,PAR,DA	2.80+07	2JPNTOH	81	ORIHARA+	J,PL/B,106,171,81	E0769003	12
26-FE-56(P,N)27-CO-56,PAR,DA	3.20+07	2JPNTOH	81	ORIHARA+	J,PL/B,106,171,81	E0769004	16
26-FE-56(P,N)27-CO-56,PAR,DA	3.50+07	2JPNTOH	81	ORIHARA+	J,PL/B,106,171,81	E0769005	13
26-FE-56(P,N)27-CO-56,PAR,DA	2.80+07	2JPNTIT	82	OHNUMA+	J,PTP,67,353,82	E0830002	17
26-FE-56(P,N)27-CO-56,PAR,DA	3.20+07	2JPNTIT	82	OHNUMA+	J,PTP,67,353,82	E0830003	16
26-FE-56(P,N)27-CO-56,PAR,DA	2.80+07	2JPNTIT	82	OHNUMA+	J,PTP,67,353,82	E0830005	17
26-FE-56(P,N)27-CO-56,PAR,DA	3.20+07	2JPNTIT	82	OHNUMA+	J,PTP,67,353,82	E0830006	16
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771003	15
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771004	15
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771005	15
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771006	15
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771007	15
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771008	14
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771009	15
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771010	15
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771011	15
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771012	15

REACTION-UNIT	ENERGY RANGE(EV)	LAB	YR	AUTHOR	REFERENCE	ACC.#	PTS
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771013	15
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771014	15
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771015	15
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771016	15
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771017	13
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771018	10
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771019	11
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771020	14
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771021	13
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771022	13
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771023	13
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771024	13
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771025	12
27-CO-59(D,HE3)26-FE-58,PAR,DA	3.33+07	2JPNTOH	82	NIWANO+	J,NP/A,377,148,82	E0771026	8
28-NI-58(P,A)27-CO-55,PAR,DA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775002	27
28-NI-58(P,A)27-CO-55,PAR,DA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775008	9
28-NI-58(P,A)27-CO-55,PAR,DA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775032	9
28-NI-58(P,A)27-CO-55,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775005	27
28-NI-58(P,A)27-CO-55,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775011	9
28-NI-58(P,A)27-CO-55,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775014	9
28-NI-58(P,A)27-CO-55,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775017	9
28-NI-58(P,A)27-CO-55,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775034	9
28-NI-58(P,INL)28-NI-58,PAR,DA	6.50+07	2JPNOSA	83	FUJIWARA+	J,NP/A,410,137,83	E0780002	13
28-NI-58(P,INL)28-NI-58,PAR,DA	6.50+07	2JPNOSA	83	FUJIWARA+	J,NP/A,410,137,83	E0780003	15
28-NI-58(P,INL)28-NI-58,PAR,DA	6.50+07	2JPNOSA	83	FUJIWARA+	J,NP/A,410,137,83	E0780004	12
28-NI-58(P,INL)28-NI-58,PAR,DA	6.50+07	2JPNOSA	83	FUJIWARA+	J,NP/A,410,137,83	E0780005	12
28-NI-60(P,A)27-CO-57,PAR,DA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775003	27
28-NI-60(P,A)27-CO-57,PAR,DA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775009	15
28-NI-60(P,A)27-CO-57,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775006	27
28-NI-60(P,A)27-CO-57,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775012	14
28-NI-60(P,A)27-CO-57,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775015	14
28-NI-60(P,A)27-CO-57,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775018	15
28-NI-62(P,A)27-CO-59,PAR,DA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775004	23
28-NI-62(P,A)27-CO-59,PAR,DA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775010	15
28-NI-62(P,A)27-CO-59,PAR,DA	1.01+06	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775020	13
28-NI-62(P,A)27-CO-59,PAR,DA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775021	13
28-NI-62(P,A)27-CO-59,PAR,DA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775024	13
28-NI-62(P,A)27-CO-59,PAR,DA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775025	14
28-NI-62(P,A)27-CO-59,PAR,DA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775028	15
28-NI-62(P,A)27-CO-59,PAR,DA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775029	15
28-NI-62(P,A)27-CO-59,PAR,DA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775033	15
28-NI-62(P,A)27-CO-59,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775007	24
28-NI-62(P,A)27-CO-59,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775013	15
28-NI-62(P,A)27-CO-59,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775016	15
28-NI-62(P,A)27-CO-59,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775019	15
28-NI-62(P,A)27-CO-59,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775022	13
28-NI-62(P,A)27-CO-59,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775023	10
28-NI-62(P,A)27-CO-59,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775026	13
28-NI-62(P,A)27-CO-59,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775027	14
28-NI-62(P,A)27-CO-59,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775030	15
28-NI-62(P,A)27-CO-59,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775031	13
28-NI-62(P,A)27-CO-59,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	80	TAGISHI+	J,NP/A,339,262,80	E0775035	15
31-GA-71(P,N)32-GE-71,PAR,DA	3.50+07	2JPNTOH	83	ORIHARA+	J,PRL,51,1328,83	E0841002	10
31-GA-71(P,N)32-GE-71,PAR,DA	3.50+07	2JPNTOH	83	ORIHARA+	J,PRL,51,1328,83	E0841003	6
31-GA-71(P,N)32-GE-71,PAR,DA	3.50+07	2JPNTOH	83	ORIHARA+	J,PRL,51,1328,83	E0841004	6

REACTION-UNIT	ENERGY RANGE (EV)	LAB	YR	AUTHOR	REFERENCE	ACC.#	PTS
31-GA-71 (P,N)32-GE-71, PAR, DA	3.50+07	2JPNTOH	83	ORIHARA+	J, PRL, 51, 1328, 83	E0841005	6
40-ZR-90 (P, INL)40-ZR-90, PAR, DA	6.50+07	2JPNOSA	81	FUJIWARA+	J, PL/B, 106, 51, 81	E0782002	17
40-ZR-90 (P, INL)40-ZR-90, PAR, DA	6.50+07	2JPNOSA	81	FUJIWARA+	J, PL/B, 106, 51, 81	E0782003	14
40-ZR-90 (P, INL)40-ZR-90, PAR, DA	6.50+07	2JPNOSA	81	FUJIWARA+	J, PL/B, 106, 51, 81	E0782004	16
40-ZR-90 (P, INL)40-ZR-90, PAR, DA	6.50+07	2JPNOSA	81	FUJIWARA+	J, PL/B, 106, 51, 81	E0782005	15
40-ZR-90 (P, INL)40-ZR-90, PAR, DA	6.50+07	2JPNOSA	81	FUJIWARA+	J, PL/B, 106, 51, 81	E0782006	19
40-ZR-90 (P, INL)40-ZR-90, PAR, DA	6.50+07	2JPNOSA	81	FUJIWARA+	J, PL/B, 106, 51, 81	E0782007	15
46-PD-104 (P, P)46-PD-104, PAR, DA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833016	38
46-PD-104 (P, P)46-PD-104, PAR, DA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833024	33
46-PD-104 (P, P)46-PD-104, PAR, POL/DA, , ANA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833002	39
46-PD-104 (P, P)46-PD-104, PAR, POL/DA, , ANA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833004	39
46-PD-104 (P, P)46-PD-104, PAR, POL/DA, , ANA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833012	34
46-PD-104 (P, P)46-PD-104, PAR, POL/DA, , ANA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833020	36
46-PD-106 (P, SCT)46-PD-106, PAR, DA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833017	34
46-PD-106 (P, SCT)46-PD-106, PAR, DA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833025	34
46-PD-106 (P, SCT)46-PD-106, PAR, POL/DA, , ANA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833006	32
46-PD-106 (P, SCT)46-PD-106, PAR, POL/DA, , ANA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833013	35
46-PD-106 (P, SCT)46-PD-106, PAR, POL/DA, , ANA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833021	36
46-PD-108 (P, SCT)46-PD-108, PAR, DA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833018	29
46-PD-108 (P, SCT)46-PD-108, PAR, DA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833026	29
46-PD-108 (P, SCT)46-PD-108, PAR, POL/DA, , ANA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833007	34
46-PD-108 (P, SCT)46-PD-108, PAR, POL/DA, , ANA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833014	32
46-PD-108 (P, SCT)46-PD-108, PAR, POL/DA, , ANA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833022	29
46-PD-110 (P, SCT)46-PD-110, PAR, DA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833019	38
46-PD-110 (P, SCT)46-PD-110, PAR, DA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833027	33
46-PD-110 (P, SCT)46-PD-110, PAR, POL/DA, , ANA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833003	37
46-PD-110 (P, SCT)46-PD-110, PAR, POL/DA, , ANA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833005	16
46-PD-110 (P, SCT)46-PD-110, PAR, POL/DA, , ANA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833015	38
46-PD-110 (P, SCT)46-PD-110, PAR, POL/DA, , ANA	2.20+07	2JPNTSU	83	AOKI+	J, NP/A, 394, 413, 83	E0833023	36
50-SN-118 (D, T)50-SN-117, PAR, DA	3.30+07	2JPNTOH	83	MASAYUKI S	J, JPJ, 52, 1134, 83	E0961002	15
50-SN-118 (D, T)50-SN-117, PAR, DA	3.30+07	2JPNTOH	83	MASAYUKI S	J, JPJ, 52, 1134, 83	E0961003	15
50-SN-118 (D, T)50-SN-117, PAR, DA	3.30+07	2JPNTOH	83	MASAYUKI S	J, JPJ, 52, 1134, 83	E0961004	15
50-SN-118 (D, T)50-SN-117, PAR, DA	3.30+07	2JPNTOH	83	MASAYUKI S	J, JPJ, 52, 1134, 83	E0961005	15
50-SN-124 (P, T)50-SN-122, PAR, DA	3.49+07	2JPNKYU	82	MATABA+	J, PR/C, 25, 2819, 82	E0799002	18
50-SN-124 (P, T)50-SN-122, PAR, DA	4.51+07	2JPNKYU	82	MATABA+	J, PR/C, 25, 2819, 82	E0799003	20
50-SN-124 (P, T)50-SN-122, PAR, DA	5.47+07	2JPNKYU	82	MATABA+	J, PR/C, 25, 2819, 82	E0799004	22
50-SN-124 (P, T)50-SN-122, PAR, DA	6.50+07	2JPNKYU	82	MATABA+	J, PR/C, 25, 2819, 82	E0799005	19
50-SN-124 (P, T)50-SN-122, PAR, DA	3.49+07	2JPNKYU	82	MATABA+	J, PR/C, 25, 2819, 82	E0799006	18
50-SN-124 (P, T)50-SN-122, PAR, DA	4.51+07	2JPNKYU	82	MATABA+	J, PR/C, 25, 2819, 82	E0799007	21
50-SN-124 (P, T)50-SN-122, PAR, DA	5.47+07	2JPNKYU	82	MATABA+	J, PR/C, 25, 2819, 82	E0799008	21
50-SN-124 (P, T)50-SN-122, PAR, DA	6.50+07	2JPNKYU	82	MATABA+	J, PR/C, 25, 2819, 82	E0799009	19
58-CE-140 (P, N)59-PR-140, PAR, DA	3.80+07	2JPNTOH	82	ORIHARA+	J, PL/B, 118, 283, 82	E0777002	11
58-CE-140 (P, N)59-PR-140, PAR, DA	3.80+07	2JPNTOH	82	ORIHARA+	J, PL/B, 118, 283, 82	E0777003	11
58-CE-140 (P, N)59-PR-140, PAR, DA	3.80+07	2JPNTOH	82	ORIHARA+	J, PL/B, 118, 283, 82	E0777004	8
62-SM-144 (A, INL)62-SM-144, PAR, DA	1.09+08	2JPNKON	82	YAMAGATA+	J, NP/A, 381, 277, 82	E0836003	4
62-SM-144 (A, INL)62-SM-144, PAR, DA	9.90+07	2JPNKON	82	YAMAGATA+	J, NP/A, 381, 277, 82	E0836004	7
62-SM-144 (A, INL)62-SM-144, PAR, DA	8.40+07	2JPNKON	82	YAMAGATA+	J, NP/A, 381, 277, 82	E0836005	11
62-SM-144 (A, INL)62-SM-144, PAR, DA	1.09+08	2JPNKON	82	YAMAGATA+	J, NP/A, 381, 277, 82	E0836006	5
62-SM-144 (A, INL)62-SM-144, PAR, DA	9.90+07	2JPNKON	82	YAMAGATA+	J, NP/A, 381, 277, 82	E0836007	7
62-SM-144 (A, INL)62-SM-144, PAR, DA	8.40+07	2JPNKON	82	YAMAGATA+	J, NP/A, 381, 277, 82	E0836008	12
68-ER-166 (P, SCT)68-ER-166, PAR, DA	6.50+07	2JPNKTO	84	ICHIHARA+	J, PR/C, 29, 1228, 84	E0809002	44
68-ER-166 (P, SCT)68-ER-166, PAR, DA	6.50+07	2JPNKTO	84	ICHIHARA+	J, PR/C, 29, 1228, 84	E0809004	44
68-ER-166 (P, SCT)68-ER-166, PAR, DA	6.50+07	2JPNKTO	84	ICHIHARA+	J, PR/C, 29, 1228, 84	E0809006	40
68-ER-166 (P, SCT)68-ER-166, PAR, DA	6.50+07	2JPNKTO	84	ICHIHARA+	J, PR/C, 29, 1228, 84	E0809008	34
68-ER-166 (P, SCT)68-ER-166, PAR, POL/DA, , ANA	6.50+07	2JPNKTO	84	ICHIHARA+	J, PR/C, 29, 1228, 84	E0809003	44

REACTION-UNIT	ENERGY RANGE(EV)	LAB	YR	AUTHOR	REFERENCE	ACC.#	PTS
68-ER-166(P,SCT)68-ER-166,PAR,POL/DA,,ANA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809005	44
68-ER-166(P,SCT)68-ER-166,PAR,POL/DA,,ANA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809007	39
68-ER-166(P,SCT)68-ER-166,PAR,POL/DA,,ANA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809009	32
68-ER-168(P,SCT)68-ER-168,PAR,DA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809010	44
68-ER-168(P,SCT)68-ER-168,PAR,DA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809012	45
68-ER-168(P,SCT)68-ER-168,PAR,DA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809014	40
68-ER-168(P,SCT)68-ER-168,PAR,DA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809016	20
68-ER-168(P,SCT)68-ER-168,PAR,POL/DA,,ANA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809011	43
68-ER-168(P,SCT)68-ER-168,PAR,POL/DA,,ANA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809013	43
68-ER-168(P,SCT)68-ER-168,PAR,POL/DA,,ANA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809015	39
68-ER-168(P,SCT)68-ER-168,PAR,POL/DA,,ANA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809017	21
70-YB-174(P,SCT)70-YB-174,PAR,DA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809018	45
70-YB-174(P,SCT)70-YB-174,PAR,DA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809020	44
70-YB-174(P,SCT)70-YB-174,PAR,DA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809022	38
70-YB-174(P,SCT)70-YB-174,PAR,DA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809024	21
70-YB-174(P,SCT)70-YB-174,PAR,POL/DA,,ANA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809019	46
70-YB-174(P,SCT)70-YB-174,PAR,POL/DA,,ANA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809021	47
70-YB-174(P,SCT)70-YB-174,PAR,POL/DA,,ANA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809023	38
70-YB-174(P,SCT)70-YB-174,PAR,POL/DA,,ANA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809025	21
70-YB-176(P,SCT)70-YB-176,PAR,DA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809026	43
70-YB-176(P,SCT)70-YB-176,PAR,DA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809028	43
70-YB-176(P,SCT)70-YB-176,PAR,DA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809030	33
70-YB-176(P,SCT)70-YB-176,PAR,DA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809032	24
70-YB-176(P,SCT)70-YB-176,PAR,POL/DA,,ANA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809027	42
70-YB-176(P,SCT)70-YB-176,PAR,POL/DA,,ANA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809029	43
70-YB-176(P,SCT)70-YB-176,PAR,POL/DA,,ANA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809031	33
70-YB-176(P,SCT)70-YB-176,PAR,POL/DA,,ANA	6.50+07	2JPNKTO	84	ICHIHARA+	J,PR/C,29,1228,84	E0809033	21
82-PB-208(A,INL)82-PB-208,PAR,DA	1.19+08	2JPNKON	82	YAMAGATA+	J,NP/A,381,277,82	E0836011	5
82-PB-208(A,INL)82-PB-208,PAR,DA	8.90+07	2JPNKON	82	YAMAGATA+	J,NP/A,381,277,82	E0836012	4
82-PB-208(A,INL)82-PB-208,PAR,DA	8.40+07	2JPNKON	82	YAMAGATA+	J,NP/A,381,277,82	E0836013	8
82-PB-208(A,INL)82-PB-208,PAR,DA	1.19+08	2JPNKON	82	YAMAGATA+	J,NP/A,381,277,82	E0836014	5
82-PB-208(A,INL)82-PB-208,PAR,DA	8.90+07	2JPNKON	82	YAMAGATA+	J,NP/A,381,277,82	E0836015	4
82-PB-208(A,INL)82-PB-208,PAR,DA	8.40+07	2JPNKON	82	YAMAGATA+	J,NP/A,381,277,82	E0836016	8
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	6.43+07	2JPNTOK	81	TANAKA+	J,PL/B,104,205,81	E0770002	18
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	6.43+07	2JPNTOK	81	TANAKA+	J,PL/B,104,205,81	E0770003	18
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	6.43+07	2JPNTOK	81	TANAKA+	J,PL/B,104,205,81	E0770004	18
82-PB-208(D,HE3)81-TL-207,PAR,DA	5.00+07	2JPNOSA	82	HAYAKAWA+	J,PRL,49,1624,82	E0803006	10
82-PB-208(D,HE3)81-TL-207,PAR,DA	5.00+07	2JPNOSA	82	HAYAKAWA+	J,PRL,49,1624,82	E0803007	10
82-PB-208(D,HE3)81-TL-207,PAR,DA	5.00+07	2JPNOSA	82	HAYAKAWA+	J,PRL,49,1624,82	E0803008	10
82-PB-208(HE3,INL)82-PB-208,PAR,DA	1.40+08	2JPNKON	83	YAMAGATA+	J,PL/B,123,169,83	E0774002	7
82-PB-208(HE3,INL)82-PB-208,PAR,DA	1.40+08	2JPNKON	83	YAMAGATA+	J,PL/B,123,169,83	E0774003	24
82-PB-208(HE3,INL)82-PB-208,PAR,DA	1.40+08	2JPNKON	83	YAMAGATA+	J,PL/B,123,169,83	E0774004	7
82-PB-208(HE3,INL)82-PB-208,PAR,DA	1.40+08	2JPNKON	83	YAMAGATA+	J,PL/B,123,169,83	E0774005	7
82-PB-208(HE3,INL)82-PB-208,PAR,DA	1.40+08	2JPNKON	83	YAMAGATA+	J,PL/B,123,169,83	E0774006	7
82-PB-208(HE3,INL)82-PB-208,PAR,DA	1.40+08	2JPNKON	83	YAMAGATA+	J,PL/B,123,169,83	E0774007	16
82-PB-208(HE3,INL)82-PB-208,PAR,DA	1.40+08	2JPNKON	83	YAMAGATA+	J,PL/B,123,169,83	E0774008	14
82-PB-208(HE3,INL)82-PB-208,PAR,DA	1.40+08	2JPNKON	83	YAMAGATA+	J,PL/B,123,169,83	E0774009	15
82-PB-208(HE3,INL)82-PB-208,PAR,DA	1.40+08	2JPNKON	83	YAMAGATA+	J,PL/B,123,169,83	E0774010	15
82-PB-208(P,INL)82-PB-208,PAR,DA	6.50+07	2JPNOSA	82	HAYAKAWA+	J,PRL,49,1624,82	E0803002	15
82-PB-208(P,INL)82-PB-208,PAR,DA	6.50+07	2JPNOSA	82	HAYAKAWA+	J,PRL,49,1624,82	E0803003	14
82-PB-208(P,INL)82-PB-208,PAR,DA	6.50+07	2JPNOSA	82	HAYAKAWA+	J,PRL,49,1624,82	E0803004	18
82-PB-208(P,INL)82-PB-208,PAR,DA	6.50+07	2JPNOSA	84	FUJIWARA+	J,JPR/C,45,C4-453,84	E0932002	15
82-PB-208(P,INL)82-PB-208,PAR,DA	6.50+07	2JPNOSA	84	FUJIWARA+	J,JPR/C,45,C4-453,84	E0932003	6
82-PB-208(P,INL)82-PB-208,PAR,DA	6.50+07	2JPNOSA	84	FUJIWARA+	J,JPR/C,45,C4-453,84	E0932004	6
82-PB-208(P,INL)82-PB-208,PAR,DA	6.50+07	2JPNOSA	84	FUJIWARA+	J,JPR/C,45,C4-453,84	E0932005	9

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REACTION-UNIT	ENERGY RANGE(EV)	LAB	YR	AUTHOR	REFERENCE	PAGE ACC.#	6 PTS
82-PB-208(P,INL)82-PB-208,PAR,DA	6.50+07	2JPNOSA	84	FUJIWARA+	J,JPR/C,45,C4-453,84	E0932006	10
82-PB-208(P,INL)82-PB-208,PAR,DA	6.50+07	2JPNOSA	84	FUJIWARA+	J,JPR/C,45,C4-453,84	E0932007	7
82-PB-208(P,INL)82-PB-208,PAR,DA	6.50+07	2JPNOSA	84	FUJIWARA+	J,JPR/C,45,C4-453,84	E0932008	8
82-PB-208(P,T)82-PB-206,PAR,DA	2.20+07	2JPNTSU	79	TOBA+	J,PR/C,20,1204,79	E0405004	13
82-PB-208(P,T)82-PB-206,PAR,DA	2.20+07	2JPNTSU	79	TOBA+	J,PR/C,20,1204,79	E0405006	18
82-PB-208(P,T)82-PB-206,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	79	TOBA+	J,PR/C,20,1204,79	E0405005	13
82-PB-208(P,T)82-PB-206,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	79	TOBA+	J,PR/C,20,1204,79	E0405007	18
83-BI-209(D,HE3)82-PB-208,PAR,DA	5.00+07	2JPNOSA	82	HAYAKAWA+	J,PRL,49,1624,82	E0803005	6

REACTION-UNIT	ENERGY RANGE(EV)	LAB	YR	AUTHOR	REFERENCE	ACC.#	PTS
6-C-12(D,P)6-C-13,PAR,DA	3.00+07	2JPN	85	OHNUMA+	J,NP/A,448,205,85	E1144002	21
6-C-12(D,P)6-C-13,PAR,DA	3.00+07	2JPN	85	OHNUMA+	J,NP/A,448,205,85	E1144003	21
6-C-12(D,P)6-C-13,PAR,DA	3.00+07	2JPN	85	OHNUMA+	J,NP/A,448,205,85	E1144004	17
6-C-12(D,P)6-C-13,PAR,DA	3.00+07	2JPN	85	OHNUMA+	J,NP/A,448,205,85	E1144005	16
6-C-12(D,P)6-C-13,PAR,DA	3.00+07	2JPN	85	OHNUMA+	J,NP/A,448,205,85	E1144006	17
6-C-12(D,P)6-C-13,PAR,DA	3.00+07	2JPN	85	OHNUMA+	J,NP/A,448,205,85	E1144007	14
6-C-12(D,P)6-C-13,PAR,DA	3.00+06	2JPN	85	OHNUMA+	J,NP/A,448,205,85	E1144008	14
6-C-12(D,P)6-C-13,PAR,DA	3.00+07	2JPN	85	OHNUMA+	J,NP/A,448,205,85	E1144009	17
6-C-12(D,P)6-C-13,PAR,DA	3.00+07	2JPN	85	OHNUMA+	J,NP/A,448,205,85	E1144010	21
6-C-12(D,P)6-C-13,PAR,DA	3.00+07	2JPN	85	OHNUMA+	J,NP/A,448,205,85	E1144011	21
6-C-12(D,P)6-C-13,PAR,DA	3.00+07	2JPN	85	OHNUMA+	J,NP/A,448,205,85	E1144012	16
6-C-12(D,P)6-C-13,PAR,DA	3.00+07	2JPN	85	OHNUMA+	J,NP/A,448,205,85	E1144013	19
6-C-12(D,P)6-C-13,PAR,DA	3.00+07	2JPN	85	OHNUMA+	J,NP/A,448,205,85	E1144014	19
6-C-12(3-LI-6,EL)6-C-12,PAR,DA	1.50+08	2JPN	87	TANAKA+	J,PR/C,36,2146,87	E1132002	10
6-C-12(3-LI-7,4-BE-7)5-B-12,PAR,DA	1.50+08	2JPN	JPN	NAKAYAMA+		E1135002	5
6-C-12(3-LI-7,4-BE-7)5-B-12,PAR,DA	1.50+08	2JPN	JPN	NAKAYAMA+		E1135003	5
6-C-13(P,EL)6-C-13,PAR,DA	3.50+07	2JPN	86	OHNUMA+	J,NP/A,456,61,86	E1145003	16
6-C-13(P,EL)6-C-13,PAR,POL/DA	3.50+07	2JPN	86	OHNUMA+	J,NP/A,456,61,86	E1145004	17
6-C-13(P,INL)6-C-13,PAR,DA	3.50+07	2JPN	86	OHNUMA+	J,NP/A,456,61,86	E1145008	17
6-C-13(P,INL)6-C-13,PAR,DA	3.50+07	2JPN	86	OHNUMA+	J,NP/A,456,61,86	E1145010	17
6-C-13(P,INL)6-C-13,PAR,DA	3.50+07	2JPN	86	OHNUMA+	J,NP/A,456,61,86	E1145012	17
6-C-13(P,INL)6-C-13,PAR,POL/DA	3.50+07	2JPN	86	OHNUMA+	J,NP/A,456,61,86	E1145009	17
6-C-13(P,INL)6-C-13,PAR,POL/DA	3.50+07	2JPN	86	OHNUMA+	J,NP/A,456,61,86	E1145011	17
6-C-13(P,INL)6-C-13,PAR,POL/DA	3.50+07	2JPN	86	OHNUMA+	J,NP/A,456,61,86	E1145013	17
6-C-13(P,N)7-N-13,PAR,DA	3.50+07	2JPN	86	OHNUMA+	J,NP/A,456,61,86	E1145005	23
6-C-13(P,N)7-N-13,PAR,DA	3.50+07	2JPN	86	OHNUMA+	J,NP/A,456,61,86	E1145006	22
6-C-13(P,N)7-N-13,PAR,DA	3.50+07	2JPN	86	OHNUMA+	J,NP/A,456,61,86	E1145007	23
9-F-19(P,A)8-0-16,PAR,DA	1.00+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120002	34
9-F-19(P,A)8-0-16,PAR,DA	1.02+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120003	34
9-F-19(P,A)8-0-16,PAR,DA	1.04+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120004	35
9-F-19(P,A)8-0-16,PAR,DA	1.06+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120005	35
9-F-19(P,A)8-0-16,PAR,DA	1.08+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120006	33
9-F-19(P,A)8-0-16,PAR,DA	1.10+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120007	32
9-F-19(P,A)8-0-16,PAR,DA	1.12+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120008	34
9-F-19(P,A)8-0-16,PAR,DA	1.14+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120009	33
9-F-19(P,A)8-0-16,PAR,DA	1.00+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120010	35
9-F-19(P,A)8-0-16,PAR,DA	1.02+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120011	31
9-F-19(P,A)8-0-16,PAR,DA	1.04+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120012	32
9-F-19(P,A)8-0-16,PAR,DA	1.06+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120013	33
9-F-19(P,A)8-0-16,PAR,DA	1.08+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120014	33
9-F-19(P,A)8-0-16,PAR,DA	1.40+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120015	33
9-F-19(P,A)8-0-16,PAR,DA	1.12+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120016	33
9-F-19(P,A)8-0-16,PAR,DA	1.14+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120017	31
9-F-19(P,A)8-0-16,PAR,DA	1.00+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120018	33
9-F-19(P,A)8-0-16,PAR,DA	1.02+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120019	33
9-F-19(P,A)8-0-16,PAR,DA	1.04+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120020	32
9-F-19(P,A)8-0-16,PAR,DA	1.06+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120021	36
9-F-19(P,A)8-0-16,PAR,DA	1.08+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120022	32
9-F-19(P,A)8-0-16,PAR,DA	1.10+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120023	33
9-F-19(P,A)8-0-16,PAR,DA	1.12+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120024	32
9-F-19(P,A)8-0-16,PAR,DA	1.14+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120025	32
9-F-19(P,A)8-0-16,PAR,DA	1.00+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120026	34
9-F-19(P,A)8-0-16,PAR,DA	1.02+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120027	33
9-F-19(P,A)8-0-16,PAR,DA	1.04+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120028	34
9-F-19(P,A)8-0-16,PAR,DA	1.06+07	2JPN	84	TAKASHI IN	J,JPJ,53,4158,84	E1120029	33

REACTION-UNIT	ENERGY RANGE(EV)	LAB	YR	AUTHOR	REFERENCE	ACC.#	PTS
9-F-19(P,A)8-0-16,PAR,DA	1.00+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120030	34
9-F-19(P,A)8-0-16,PAR,DA	1.10+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120031	33
9-F-19(P,A)8-0-16,PAR,DA	1.12+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120032	32
9-F-19(P,A)8-0-16,PAR,DA	1.14+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120033	34
9-F-19(P,A)8-0-16,PAR,DA	1.00+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120034	35
9-F-19(P,A)8-0-16,PAR,DA	1.02+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120035	34
9-F-19(P,A)8-0-16,PAR,DA	1.04+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120036	34
9-F-19(P,A)8-0-16,PAR,DA	1.06+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120037	33
9-F-19(P,A)8-0-16,PAR,DA	1.08+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120038	32
9-F-19(P,A)8-0-16,PAR,DA	1.10+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120039	32
9-F-19(P,A)8-0-16,PAR,DA	1.12+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120040	32
9-F-19(P,A)8-0-16,PAR,DA	1.14+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120041	32
9-F-19(P,A)8-0-16,PAR,DA	1.00+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120042	34
9-F-19(P,A)8-0-16,PAR,DA	1.02+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120043	29
9-F-19(P,A)8-0-16,PAR,DA	1.04+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120044	31
9-F-19(P,A)8-0-16,PAR,DA	1.06+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120045	30
9-F-19(P,A)8-0-16,PAR,DA	1.08+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120046	31
9-F-19(P,A)8-0-16,PAR,DA	1.10+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120047	33
9-F-19(P,A)8-0-16,PAR,DA	1.12+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120048	30
9-F-19(P,A)8-0-16,PAR,DA	1.14+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120049	30
9-F-19(P,A)8-0-16,PAR,DA	1.00+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120050	22
9-F-19(P,A)8-0-16,PAR,DA	1.02+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120051	23
9-F-19(P,A)8-0-16,PAR,DA	1.04+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120052	26
9-F-19(P,A)8-0-16,PAR,DA	1.06+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120053	29
9-F-19(P,A)8-0-16,PAR,DA	1.08+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120054	29
9-F-19(P,A)8-0-16,PAR,DA	1.10+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120055	31
9-F-19(P,A)8-0-16,PAR,DA	1.12+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120056	31
9-F-19(P,A)8-0-16,PAR,DA	1.14+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120057	30
9-F-19(P,A)8-0-16,PAR,DA	1.00+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120058	19
9-F-19(P,A)8-0-16,PAR,DA	1.02+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120059	20
9-F-19(P,A)8-0-16,PAR,DA	1.04+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120060	22
9-F-19(P,A)8-0-16,PAR,DA	1.06+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120061	25
9-F-19(P,A)8-0-16,PAR,DA	1.08+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120062	22
9-F-19(P,A)8-0-16,PAR,DA	1.10+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120063	24
9-F-19(P,A)8-0-16,PAR,DA	1.12+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120064	25
9-F-19(P,A)8-0-16,PAR,DA	1.14+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120065	25
9-F-19(P,A)8-0-16,PAR,DA	1.00+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120066	11
9-F-19(P,A)8-0-16,PAR,DA	1.02+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120067	9
9-F-19(P,A)8-0-16,PAR,DA	1.04+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120068	9
9-F-19(P,A)8-0-16,PAR,DA	1.06+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120069	11
9-F-19(P,A)8-0-16,PAR,DA	1.08+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120070	10
9-F-19(P,A)8-0-16,PAR,DA	1.10+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120071	11
9-F-19(P,A)8-0-16,PAR,DA	1.12+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120072	11
9-F-19(P,A)8-0-16,PAR,DA	1.14+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120073	12
9-F-19(P,A)8-0-16,PAR,DA	1.00+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120074	10
9-F-19(P,A)8-0-16,PAR,DA	1.02+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120075	10
9-F-19(P,A)8-0-16,PAR,DA	1.04+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120076	12
9-F-19(P,A)8-0-16,PAR,DA	1.06+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120077	12
9-F-19(P,A)8-0-16,PAR,DA	1.08+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120078	11
9-F-19(P,A)8-0-16,PAR,DA	1.10+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120079	11
9-F-19(P,A)8-0-16,PAR,DA	1.12+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120080	12
9-F-19(P,A)8-0-16,PAR,DA	1.14+07	2JPNKYU	84	TAKASHI IN	J,JPJ,53,4158,84	E1120081	12
12-MG-24(A,HE3)12-MG-25,PAR,DA	8.09+07	2JPNOSA	86	KRAUSHAAR+	J,PR/C,34,1530,86	E1150002	12
12-MG-24(A,HE3)12-MG-25,PAR,DA	8.09+07	2JPNOSA	86	KRAUSHAAR+	J,PR/C,34,1530,86	E1150003	12
12-MG-24(3-LI-7,4-BE-7)11-NA-24,PAR,DA	1.50+08	2JPNJPN		NAKAYAMA+		E1135004	7

REACTION-UNIT	ENERGY RANGE(EV)	LAB	YR	AUTHOR	REFERENCE	ACC.#	PTS
12-MG-24(3-LI-7,4-BE-7)11-NA-24,PAR,DA	1.50+08	2JPNJPN		NAKAYAMA+		E1135005	7
12-MG-25(A,HE3)12-MG-26,PAR,DA	8.09+07	2JPNOSA	86	KRAUSHAAR+	J,PR/C,34,1530,86	E1150004	13
12-MG-25(A,HE3)12-MG-26,PAR,DA	8.09+07	2JPNOSA	86	KRAUSHAAR+	J,PR/C,34,1530,86	E1150005	8
12-MG-25(A,HE3)12-MG-26,PAR,DA	8.09+07	2JPNOSA	86	KRAUSHAAR+	J,PR/C,34,1530,86	E1150006	11
12-MG-25(A,HE3)12-MG-26,PAR,DA	8.09+07	2JPNOSA	86	KRAUSHAAR+	J,PR/C,34,1530,86	E1150007	9
12-MG-25(A,HE3)12-MG-26,PAR,DA	8.09+07	2JPNOSA	86	KRAUSHAAR+	J,PR/C,34,1530,86	E1150008	3
12-MG-25(A,HE3)12-MG-26,PAR,DA	8.09+07	2JPNOSA	86	KRAUSHAAR+	J,PR/C,34,1530,86	E1150009	7
12-MG-25(A,HE3)12-MG-26,PAR,DA	8.09+07	2JPNOSA	86	KRAUSHAAR+	J,PR/C,34,1530,86	E1150010	8
12-MG-25(A,HE3)12-MG-26,PAR,DA	8.09+07	2JPNOSA	86	KRAUSHAAR+	J,PR/C,34,1530,86	E1150011	13
12-MG-25(A,HE3)12-MG-26,PAR,DA	8.09+07	2JPNOSA	86	KRAUSHAAR+	J,PR/C,34,1530,86	E1150012	13
12-MG-25(A,HE3)12-MG-26,PAR,DA	8.09+07	2JPNOSA	86	KRAUSHAAR+	J,PR/C,34,1530,86	E1150013	12
12-MG-25(A,HE3)12-MG-26,PAR,DA	8.09+07	2JPNOSA	86	KRAUSHAAR+	J,PR/C,34,1530,86	E1150014	8
13-AL-27(HE3,D)14-SI-28,PAR,DA	6.01+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0868007	14
13-AL-27(HE3,D)14-SI-28,PAR,DA	6.01+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0868008	13
13-AL-27(HE3,D)14-SI-28,PAR,DA	3.97+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0868009	11
13-AL-27(HE3,D)14-SI-28,PAR,DA	4.00+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0868010	4
13-AL-27(HE3,D)14-SI-28,PAR,DA	3.97+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0868011	11
13-AL-27(HE3,D)14-SI-28,PAR,DA	4.00+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0868012	4
13-AL-27(HE3,EL)13-AL-27,PAR,DA	6.01+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0868004	21
13-AL-27(HE3,EL)13-AL-27,PAR,DA	3.97+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0868005	9
13-AL-27(HE3,EL)13-AL-27,PAR,DA	4.00+07	1USAWAU	83	SNOVER+	J,PR/C,27,493,83	E0868006	6
13-AL-27(3-LI-7,4-BE-7)12-MG-27,PAR,DA	1.50+08	2JPNJPN		NAKAYAMA+		E1135006	5
13-AL-27(3-LI-7,4-BE-7)12-MG-27,PAR,DA	1.50+08	2JPNJPN		NAKAYAMA+		E1135007	5
14-SI-28(3-LI-7,4-BE-7)13-AL-28,PAR,DA	1.50+08	2JPNJPN		NAKAYAMA+		E1135008	7
14-SI-28(3-LI-7,4-BE-7)13-AL-28,PAR,DA	1.50+08	2JPNJPN		NAKAYAMA+		E1135009	7
20-CA-40(P,INL)20-CA-40,PAR,DA	6.51+07	2JPNKON	87	YAMAGATA+	J,PR/C,36,573,87	E1134002	8
20-CA-40(P,INL)20-CA-40,PAR,DA	6.51+07	2JPNKON	87	YAMAGATA+	J,PR/C,36,573,87	E1134003	8
20-CA-40(P,INL)20-CA-40,PAR,DA	6.51+07	2JPNKON	87	YAMAGATA+	J,PR/C,36,573,87	E1134004	8
20-CA-40(P,INL)20-CA-40,PAR,DA	6.51+07	2JPNKON	87	YAMAGATA+	J,PR/C,36,573,87	E1134005	8
20-CA-40(P,INL)20-CA-40,PAR,DA	6.51+07	2JPNKON	87	YAMAGATA+	J,PR/C,36,573,87	E1134006	8
20-CA-48(P,INL)20-CA-48,PAR,DA	6.50+07	2JPNOSA	85	FUJITA+	J,PR/C,32,425,85	E0933002	14
20-CA-48(P,INL)20-CA-48,PAR,DA	6.50+07	2JPNOSA	85	FUJITA+	J,PR/C,32,425,85	E0933003	14
20-CA-48(P,INL)20-CA-48,PAR,DA	6.50+07	2JPNOSA	85	FUJITA+	J,PR/C,32,425,85	E0933004	12
20-CA-48(P,INL)20-CA-48,PAR,DA	6.50+07	2JPNOSA	85	FUJITA+	J,PR/C,32,425,85	E0933005	12
20-CA-48(P,INL)20-CA-48,PAR,DA	6.50+07	2JPNOSA	85	FUJITA+	J,PR/C,32,425,85	E0933011	11
20-CA-48(P,INL)20-CA-48,PAR,DA	6.50+07	2JPNOSA	85	FUJITA+	J,PR/C,32,425,85	E0933012	11
20-CA-48(P,INL)20-CA-48,PAR,DA	6.50+07	2JPNOSA	85	FUJITA+	J,PR/C,32,425,85	E0933013	11
22-TI-48(3-LI-7,4-BE-7)21-SC-48,PAR,DA	1.50+08	2JPNJPN		NAKAYAMA+		E1135010	3
22-TI-48(3-LI-7,4-BE-7)21-SC-48,PAR,DA	1.50+08	2JPNJPN		NAKAYAMA+		E1135011	3
24-CR-50(P,D)24-CR-49,PAR,DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931002	10
24-CR-50(P,D)24-CR-49,PAR,DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931003	6
24-CR-50(P,D)24-CR-49,PAR,DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931004	9
24-CR-50(P,D)24-CR-49,PAR,DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931005	9
24-CR-50(P,D)24-CR-49,PAR,DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931006	8
24-CR-50(P,D)24-CR-49,PAR,DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931007	8
24-CR-50(P,D)24-CR-49,PAR,DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931008	8
24-CR-50(P,D)24-CR-49,PAR,DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931009	8
24-CR-50(P,D)24-CR-49,PAR,DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931010	8
24-CR-50(P,D)24-CR-49,PAR,DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931011	8
24-CR-50(P,D)24-CR-49,PAR,DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931012	8
24-CR-50(P,D)24-CR-49,PAR,DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931013	7
24-CR-50(P,D)24-CR-49,PAR,DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931014	9
24-CR-50(P,D)24-CR-49,PAR,DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931015	10
24-CR-50(P,D)24-CR-49,PAR,DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931016	10
24-CR-50(P,D)24-CR-49,PAR,DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931017	9

REACTION-UNIT	ENERGY RANGE(EV)	LAB	YR	AUTHOR	REFERENCE	ACC.#	PTS
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931073	9
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931074	10
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931075	10
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931076	10
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931077	10
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931078	9
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931079	8
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931080	8
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931081	9
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931082	9
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931083	8
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931084	8
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931085	7
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931086	10
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931087	10
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931088	10
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931089	10
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931090	9
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931091	10
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931092	9
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931093	8
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931094	10
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931095	10
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931096	10
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931097	6
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931098	10
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931099	8
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931100	7
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931101	6
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931102	7
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931103	7
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931104	6
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931105	8
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931106	8
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931107	9
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931108	8
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931109	8
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931110	8
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931111	10
24-CR-50(P,D)24-CR-49, PAR, DA	5.50+07	2JPNOSA	85	FUJITA+	J,NP/A,435,7,85	E0931112	9
26-FE-56(P,N)27-CO-56, PAR, DA	1.70+07	2JPNTOH	83	ORIHARA+	J,NP/A,403,317,83	E1187002	11
26-FE-56(P,N)27-CO-56, PAR, DA	1.70+07	2JPNTOH	83	ORIHARA+	J,NP/A,403,317,83	E1187003	11
26-FE-56(P,N)27-CO-56, PAR, DA	1.70+07	2JPNTOH	83	ORIHARA+	J,NP/A,403,317,83	E1187004	10
26-FE-56(P,N)27-CO-56, PAR, DA	1.70+07	2JPNTOH	83	ORIHARA+	J,NP/A,403,317,83	E1187005	9
28-NI-58(14-SI-28, INL)28-NI-58, PAR, DA	1.10+08	2JPNJAE	86	SUGIYAMA+	J,PL/B,176,302,86	E1154006	18
28-NI-58(14-SI-28, 12-MG-26)30-ZN-60	1.10+08	2JPNJAE	86	SUGIYAMA+	J,PL/B,176,302,86	E1154018	1
28-NI-58(14-SI-28, 13-AL-27)29-CU-59	1.10+08	2JPNJAE	86	SUGIYAMA+	J,PL/B,176,302,86	E1154017	1
28-NI-58(14-SI-28, 14-SI-29)28-NI-57, PAR, DA	1.10+08	2JPNJAE	86	SUGIYAMA+	J,PL/B,176,302,86	E1154009	3
28-NI-58(14-SI-28, 14-SI-29)28-NI-57	1.10+08	2JPNJAE	86	SUGIYAMA+	J,PL/B,176,302,86	E1154015	1
28-NI-58(14-SI-28, 14-SI-30)28-NI-56, PAR, DA	1.10+08	2JPNJAE	86	SUGIYAMA+	J,PL/B,176,302,86	E1154010	4
28-NI-58(14-SI-28, 14-SI-30)28-NI-56	1.10+08	2JPNJAE	86	SUGIYAMA+	J,PL/B,176,302,86	E1154016	1
28-NI-62(14-SI-28, INL)28-NI-62, PAR, DA	1.10+08	2JPNJAE	86	SUGIYAMA+	J,PL/B,176,302,86	E1154004	16
28-NI-62(14-SI-28, 12-MG-26)30-ZN-64	1.10+08	2JPNJAE	86	SUGIYAMA+	J,PL/B,176,302,86	E1154014	1
28-NI-62(14-SI-28, 13-AL-27)29-CU-63	1.10+08	2JPNJAE	86	SUGIYAMA+	J,PL/B,176,302,86	E1154013	1
28-NI-62(14-SI-28, 14-SI-28)28-NI-62, PAR, DA	1.10+08	2JPNJAE	86	SUGIYAMA+	J,PL/B,176,302,86	E1154005	16

REACTION-UNIT	ENERGY RANGE(EV)	LAB	YR	AUTHOR	REFERENCE	ACC.#	PTS
28-NI-62(14-SI-28,14-SI-28)28-NI-62,PAR,DA	1.10+08	2JPNJAE	86	SUGIYAMA+	J,PL/B,176,302,86	E1154007	4
28-NI-62(14-SI-28,14-SI-28)28-NI-62	1.10+08	2JPNJAE	86	SUGIYAMA+	J,PL/B,176,302,86	E1154011	1
28-NI-62(14-SI-28,14-SI-30)28-NI-60,PAR,DA	1.10+08	2JPNJAE	86	SUGIYAMA+	J,PL/B,176,302,86	E1154008	5
28-NI-62(14-SI-28,14-SI-30)28-NI-60	1.10+08	2JPNJAE	86	SUGIYAMA+	J,PL/B,176,302,86	E1154012	1
36-KR-78(P,T)36-KR-76,PAR,DA	5.19+07	2JPNKTO	81	MATSUKI+	J,NP/A,370,1,81	E0800002	18
36-KR-78(P,T)36-KR-76,PAR,DA	5.19+07	2JPNKTO	81	MATSUKI+	J,NP/A,370,1,81	E0800003	16
36-KR-78(P,T)36-KR-76,PAR,DA	5.19+07	2JPNKTO	81	MATSUKI+	J,NP/A,370,1,81	E0800004	19
36-KR-78(P,T)36-KR-76,PAR,DA	5.19+07	2JPNKTO	81	MATSUKI+	J,NP/A,370,1,81	E0800005	16
36-KR-78(P,T)36-KR-76,PAR,DA	5.19+07	2JPNKTO	81	MATSUKI+	J,NP/A,370,1,81	E0800006	17
36-KR-78(P,T)36-KR-76,PAR,DA	5.19+07	2JPNKTO	81	MATSUKI+	J,NP/A,370,1,81	E0800007	13
36-KR-78(P,T)36-KR-76,PAR,DA	5.19+07	2JPNKTO	81	MATSUKI+	J,NP/A,370,1,81	E0800008	18
36-KR-78(P,T)36-KR-76,PAR,DA	5.19+07	2JPNKTO	81	MATSUKI+	J,NP/A,370,1,81	E0800009	18
36-KR-78(P,T)36-KR-76,PAR,DA	5.19+07	2JPNKTO	81	MATSUKI+	J,NP/A,370,1,81	E0800010	12
36-KR-78(P,T)36-KR-76,PAR,DA	5.19+07	2JPNKTO	81	MATSUKI+	J,NP/A,370,1,81	E0800011	16
36-KR-78(P,T)36-KR-76,PAR,DA	5.19+07	2JPNKTO	81	MATSUKI+	J,NP/A,370,1,81	E0800012	12
40-ZR-92(P,T)40-ZR-90,PAR,DA	1.70+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117003	16
40-ZR-92(P,T)40-ZR-90,PAR,DA	1.85+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117005	9
40-ZR-92(P,T)40-ZR-90,PAR,DA	2.01+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117007	9
40-ZR-92(P,T)40-ZR-90,PAR,DA	2.10+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117009	15
40-ZR-92(P,T)40-ZR-90,PAR,DA	2.15+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117011	11
40-ZR-92(P,T)40-ZR-90,PAR,DA	2.20+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117013	29
40-ZR-92(P,T)40-ZR-90,PAR,DA	2.25+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117015	9
40-ZR-92(P,T)40-ZR-90,PAR,DA	2.85+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117025	14
40-ZR-92(P,T)40-ZR-90,PAR,POL/DA,,ANA	1.70+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117002	16
40-ZR-92(P,T)40-ZR-90,PAR,POL/DA,,ANA	1.85+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117004	9
40-ZR-92(P,T)40-ZR-90,PAR,POL/DA,,ANA	2.01+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117006	9
40-ZR-92(P,T)40-ZR-90,PAR,POL/DA,,ANA	2.10+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117008	15
40-ZR-92(P,T)40-ZR-90,PAR,POL/DA,,ANA	2.15+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117010	11
40-ZR-92(P,T)40-ZR-90,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117012	30
40-ZR-92(P,T)40-ZR-90,PAR,POL/DA,,ANA	2.25+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117014	9
40-ZR-92(P,T)40-ZR-90,PAR,POL/DA,,ANA	2.85+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117024	14
50-SN-116(P,D)50-SN-115,PAR,DA	5.04+07	2JPNKYU	84	MATOBAA+	J,PL/B,149,50,84	E0929002	12
50-SN-116(P,D)50-SN-115,PAR,DA	5.04+07	2JPNKYU	84	MATOBAA+	J,PL/B,149,50,84	E0929003	12
50-SN-116(P,D)50-SN-115,PAR,DA	5.04+07	2JPNKYU	84	MATOBAA+	J,PL/B,149,50,84	E0929004	12
56-BA-138(P,T)56-BA-136,PAR,DA	1.85+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117017	12
56-BA-138(P,T)56-BA-136,PAR,DA	2.00+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117019	10
56-BA-138(P,T)56-BA-136,PAR,DA	2.10+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117021	10
56-BA-138(P,T)56-BA-136,PAR,DA	2.20+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117023	15
56-BA-138(P,T)56-BA-136,PAR,DA	2.85+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117027	14
56-BA-138(P,T)56-BA-136,PAR,POL/DA,,ANA	1.85+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117016	12
56-BA-138(P,T)56-BA-136,PAR,POL/DA,,ANA	2.00+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117018	10
56-BA-138(P,T)56-BA-136,PAR,POL/DA,,ANA	2.10+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117020	10
56-BA-138(P,T)56-BA-136,PAR,POL/DA,,ANA	2.20+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117022	15
56-BA-138(P,T)56-BA-136,PAR,POL/DA,,ANA	2.85+07	2JPNTSU	85	YAGI+	J,PR/C,31,120,85	E1117026	14
62-SM-154(A,EL)62-SM-154,PAR,DA,,REL	1.20+08	2JPNKTO	87	ICHIHARA+	J,PR/C,35,931,87	E1137002	62
62-SM-154(A,INL)62-SM-154,PAR,DA	1.20+08	2JPNKTO	87	ICHIHARA+	J,PR/C,35,931,87	E1137003	60
62-SM-154(A,INL)62-SM-154,PAR,DA	1.20+08	2JPNKTO	87	ICHIHARA+	J,PR/C,35,931,87	E1137004	64
62-SM-154(A,INL)62-SM-154,PAR,DA	1.20+08	2JPNKTO	87	ICHIHARA+	J,PR/C,35,931,87	E1137005	55
82-PB-208(A,INL)82-PB-208,PAR,DA	1.09+08	2JPNKTO	86	KURIHARA+	J,NP/A,457,45,86	E1141029	10
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPNKTO	86	KURIHARA+	J,NP/A,457,45,86	E1141002	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPNKTO	86	KURIHARA+	J,NP/A,457,45,86	E1141003	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPNKTO	86	KURIHARA+	J,NP/A,457,45,86	E1141004	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPNKTO	86	KURIHARA+	J,NP/A,457,45,86	E1141005	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPNKTO	86	KURIHARA+	J,NP/A,457,45,86	E1141006	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPNKTO	86	KURIHARA+	J,NP/A,457,45,86	E1141007	12

REACTION-UNIT	ENERGY RANGE(EV)	LAB	YR	AUTHOR	REFERENCE	ACC.#	PTS
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141008	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141009	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141010	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141011	11
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141012	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141013	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141014	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141015	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141016	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141017	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141018	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141019	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141020	10
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141021	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141022	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141023	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141024	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141025	12
82-PB-208(A,2-HE-6)82-PB-206,PAR,DA	1.09+08	2JPN	86	KURIHARA+	J,NP/A,457,45,86	E1141026	12
82-PB-208(P,INL)82-PB-206,PAR,DA	6.50+07	2JPN	85	FUJITA+	J,PR/C,32,425,85	E0933010	13

REACTION-UNIT	ENERGY RANGE(EV)	LAB	YR	AUTHOR	REFERENCE	ACC.#	PTS
6-C-12(A,EL)6-C-12,PAR,DA	6.50+07	2JPNTOK	83	YASUE+	J,NP/A,394,29,83	E1191002	34
6-C-12(A,INL)6-C-12,PAR,DA	6.50+07	2JPNTOK	83	YASUE+	J,NP/A,394,29,83	E1191003	31
6-C-12(A,INL)6-C-12,PAR,DA	6.50+07	2JPNTOK	83	YASUE+	J,NP/A,394,29,83	E1191004	30
6-C-12(6-C-12,EL)6-C-12,PAR,DA	1.40+08	2JPNTOK	85	KUBONO+	J,PL/B,163,75,85	E1188002	65
6-C-12(6-C-12,EL)6-C-12,PAR,DA	1.59+08	2JPNTOK	85	KUBONO+	J,PL/B,163,75,85	E1188006	62
6-C-12(6-C-12,INL)6-C-12,PAR,DA	1.40+08	2JPNTOK	85	KUBONO+	J,PL/B,163,75,85	E1188003	65
6-C-12(6-C-12,INL)6-C-12,PAR,DA	1.40+08	2JPNTOK	85	KUBONO+	J,PL/B,163,75,85	E1188004	24
6-C-12(6-C-12,INL)6-C-12,PAR,DA	1.40+08	2JPNTOK	85	KUBONO+	J,PL/B,163,75,85	E1188005	26
6-C-12(6-C-12,INL)6-C-12,PAR,DA	1.59+08	2JPNTOK	85	KUBONO+	J,PL/B,163,75,85	E1188007	64
6-C-12(6-C-12,INL)6-C-12,PAR,DA	1.59+08	2JPNTOK	85	KUBONO+	J,PL/B,163,75,85	E1188008	13
6-C-12(9-F-19,9-F-19)6-C-12,PAR,DA	6.38+07	2JPNKYU	84	TACHIKAWA+	J,PL/B,139,267,84	E1177008	30
9-F-19(6-C-12,INL)9-F-19,PAR,DA	3.00+07	2JPNKYU	84	TACHIKAWA+	J,PL/B,139,267,84	E1177003	68
9-F-19(6-C-12,INL)9-F-19,PAR,DA	4.03+07	2JPNKYU	84	TACHIKAWA+	J,PL/B,139,267,84	E1177005	114
9-F-19(6-C-12,INL)9-F-19,PAR,DA	4.03+07	2JPNKYU	84	TACHIKAWA+	J,PL/B,139,267,84	E1177006	28
9-F-19(6-C-12,INL)9-F-19,PAR,DA	4.03+07	2JPNKYU	84	TACHIKAWA+	J,PL/B,139,267,84	E1177007	9
9-F-19(6-C-12,INL)9-F-19,PAR,DA	5.00+07	2JPNKYU	84	TACHIKAWA+	J,PL/B,139,267,84	E1177010	67
9-F-19(6-C-12,INL)9-F-19,PAR,DA	5.00+07	2JPNKYU	84	TACHIKAWA+	J,PL/B,139,267,84	E1177011	52
9-F-19(6-C-12,INL)9-F-19,PAR,DA	5.00+07	2JPNKYU	84	TACHIKAWA+	J,PL/B,139,267,84	E1177012	38
9-F-19(6-C-12,INL)9-F-19,PAR,DA	6.01+07	2JPNKYU	84	TACHIKAWA+	J,PL/B,139,267,84	E1177014	66
9-F-19(6-C-12,INL)9-F-19,PAR,DA	6.01+07	2JPNKYU	84	TACHIKAWA+	J,PL/B,139,267,84	E1177015	66
9-F-19(6-C-12,INL)9-F-19,PAR,DA	6.01+07	2JPNKYU	84	TACHIKAWA+	J,PL/B,139,267,84	E1177016	51
13-AL-27(A,EL)13-AL-27,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206099	23
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206002	15
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206008	15
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206009	15
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206010	15
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206071	13
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206072	15
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206073	6
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206074	16
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206075	17
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206076	8
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206077	8
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206078	5
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206079	12
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206080	13
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206081	9
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206082	12
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206083	13
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206084	13
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206085	5
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206086	16
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206087	14
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206088	15
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206089	11
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206090	14
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206091	12
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206092	15
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206093	13
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206094	12
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206095	9
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206096	6
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206097	5
13-AL-27(A,HE3)13-AL-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206098	5
13-AL-27(A,T)14-SI-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206003	13

REACTION-UNIT	ENERGY RANGE(EV)	LAB	YR	AUTHOR	REFERENCE	ACC.#	PTS
13-AL-27(A,T)14-SI-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206062	15
13-AL-27(A,T)14-SI-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206063	15
13-AL-27(A,T)14-SI-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206064	15
13-AL-27(A,T)14-SI-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206065	15
13-AL-27(A,T)14-SI-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206066	15
13-AL-27(A,T)14-SI-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206067	15
13-AL-27(A,T)14-SI-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206068	15
13-AL-27(A,T)14-SI-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206069	15
13-AL-27(A,T)14-SI-28,PAR,DA	6.45+07	2JPNTOK	82	YASUE+	J,NP/A,391,377,82	E1206070	15
13-AL-27(3-LI-7,4-BE-7)12-MG-27,PAR,DA	1.50+08	2JPNJPN	86	NAKAYAMA+	J,PR/C,34,366,86	E1199002	12
13-AL-27(3-LI-7,4-BE-7)12-MG-27,PAR,DA	1.50+08	2JPNJPN	86	NAKAYAMA+	J,PR/C,34,366,86	E1199003	12
13-AL-27(3-LI-7,4-BE-7)12-MG-27,PAR,DA	1.50+08	2JPNJPN	86	NAKAYAMA+	J,PR/C,34,366,86	E1199004	12
13-AL-27(3-LI-7,4-BE-7)12-MG-27,PAR,DA	1.50+08	2JPNJPN	86	NAKAYAMA+	J,PR/C,34,366,86	E1199005	11
13-AL-27(3-LI-7,4-BE-7)12-MG-27,PAR,DA	1.50+08	2JPNJPN	86	NAKAYAMA+	J,PR/C,34,366,86	E1199006	10
13-AL-27(3-LI-7,4-BE-7)12-MG-27,DA/DE	1.50+08	2JPNJPN	86	NAKAYAMA+	J,PR/C,34,366,86	E1199007	12
20-CA-48(P,INL)20-CA-48,PAR,DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195002	15
20-CA-48(P,INL)20-CA-48,PAR,POL/DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195003	15
26-FE-56(P,EL)26-FE-56,PAR,DA	6.50+07	2JPNKTO	81	SAKAGUCHI+	J,PL/B,99,92,81	E1201002	27
26-FE-56(P,EL)26-FE-56,PAR,POL/DA	6.50+07	2JPNKTO	81	SAKAGUCHI+	J,PL/B,99,92,81	E1201003	28
27-CO-59(P,EL)27-CO-59,PAR,DA	6.50+07	2JPNKTO	81	SAKAGUCHI+	J,PL/B,99,92,81	E1201004	32
27-CO-59(P,EL)27-CO-59,PAR,POL/DA	6.50+07	2JPNKTO	81	SAKAGUCHI+	J,PL/B,99,92,81	E1201005	32
28-NI-58(P,EL)28-NI-58,PAR,DA	6.50+07	2JPNKTO	81	SAKAGUCHI+	J,PL/B,99,92,81	E1201006	29
28-NI-58(P,EL)28-NI-58,PAR,POL/DA	6.50+07	2JPNKTO	81	SAKAGUCHI+	J,PL/B,99,92,81	E1201007	31
28-NI-58(P,INL)28-NI-58,PAR,DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195004	11
28-NI-58(P,INL)28-NI-58,PAR,DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195006	10
28-NI-58(P,INL)28-NI-58,PAR,DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195008	10
28-NI-58(P,INL)28-NI-58,PAR,DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195010	14
28-NI-58(P,INL)28-NI-58,PAR,DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195012	10
28-NI-58(P,INL)28-NI-58,PAR,DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195014	9
28-NI-58(P,INL)28-NI-58,PAR,DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195016	12
28-NI-58(P,INL)28-NI-58,PAR,DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195018	10
28-NI-58(P,INL)28-NI-58,PAR,POL/DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195005	11
28-NI-58(P,INL)28-NI-58,PAR,POL/DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195007	10
28-NI-58(P,INL)28-NI-58,PAR,POL/DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195009	10
28-NI-58(P,INL)28-NI-58,PAR,POL/DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195011	14
28-NI-58(P,INL)28-NI-58,PAR,POL/DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195013	10
28-NI-58(P,INL)28-NI-58,PAR,POL/DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195015	9
28-NI-58(P,INL)28-NI-58,PAR,POL/DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195017	12
28-NI-58(P,INL)28-NI-58,PAR,POL/DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195019	10
28-NI-60(P,EL)28-NI-60,PAR,DA	6.50+07	2JPNKTO	81	SAKAGUCHI+	J,PL/B,99,92,81	E1201008	29
28-NI-60(P,EL)28-NI-60,PAR,POL/DA	6.50+07	2JPNKTO	81	SAKAGUCHI+	J,PL/B,99,92,81	E1201009	30
28-NI-60(P,INL)28-NI-60,PAR,DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195020	9
28-NI-60(P,INL)28-NI-60,PAR,DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195022	9
28-NI-60(P,INL)28-NI-60,PAR,DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195024	8
28-NI-60(P,INL)28-NI-60,PAR,POL/DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195021	9
28-NI-60(P,INL)28-NI-60,PAR,POL/DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195023	9
28-NI-60(P,INL)28-NI-60,PAR,POL/DA	6.50+07	2JPNOSA	86	HOSONO+	J,NP/A,454,237,86	E1195025	8
28-NI-62(P,EL)28-NI-62,PAR,DA	6.50+07	2JPNKTO	81	SAKAGUCHI+	J,PL/B,99,92,81	E1201010	30
28-NI-62(P,EL)28-NI-62,PAR,POL/DA	6.50+07	2JPNKTO	81	SAKAGUCHI+	J,PL/B,99,92,81	E1201011	18
28-NI-64(P,EL)28-NI-64,PAR,DA	6.50+07	2JPNKTO	81	SAKAGUCHI+	J,PL/B,99,92,81	E1201012	32
28-NI-64(P,EL)28-NI-64,PAR,POL/DA	6.50+07	2JPNKTO	81	SAKAGUCHI+	J,PL/B,99,92,81	E1201013	33
67-HO-165(A,P+X),,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223002	22
67-HO-165(A,P+X),,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223003	22
67-HO-165(A,P+X),,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223004	22
67-HO-165(A,P+X),,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223005	21

REACTION-UNIT	ENERGY RANGE(EV)	LAB	YR	AUTHOR	REFERENCE	ACC.#	PTS
67-HO-165(A,P+X),,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223006	21
67-HO-165(A,P+X),,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223007	19
67-HO-165(A,P+X),,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223008	16
67-HO-165(A,P+X),,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223009	15
67-HO-165(A,P+X),,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223010	12
67-HO-165(A,P+X),,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223011	10
67-HO-165(A,P+X),,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223012	8
67-HO-165(A,P+X),,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223013	11
67-HO-165(A,P+X),,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223014	11
67-HO-165(A,P+X),,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223015	11
67-HO-165(A,P+X),,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223016	10
67-HO-165(A,P+X),,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223017	9
67-HO-165(A,P+X),,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223018	7
67-HO-165(A,P+2N)68-ER-166,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223020	17
67-HO-165(A,P+2N)68-ER-166,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223021	16
67-HO-165(A,P+3N)68-ER-165,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223023	17
67-HO-165(A,P+3N)68-ER-165,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223024	11
67-HO-165(A,P+4N)68-ER-164,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223026	14
67-HO-165(A,P+4N)68-ER-164,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223027	13
67-HO-165(A,P+4N)68-ER-164,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223028	10
67-HO-165(A,P+5N)68-ER-163,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223031	13
67-HO-165(A,P+5N)68-ER-163,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223032	13
67-HO-165(A,P+5N)68-ER-163,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223033	9
67-HO-165(A,P+6N)68-ER-162,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223035	9
67-HO-165(A,P+6N)68-ER-162,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223036	9
67-HO-165(A,P+6N)68-ER-162,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223037	10
67-HO-165(A,P+7N)68-ER-161,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223040	8
67-HO-165(A,P+7N)68-ER-161,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223041	6
67-HO-165(A,P+7N)68-ER-161,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223042	7
67-HO-165(A,P+8N)68-ER-160,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223044	7
67-HO-165(A,P+8N)68-ER-160,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223045	5
67-HO-165(A,P+8N)68-ER-160,,DA/DE	1.09+08	2JPNOSA	85	SHIBATA+	J,NP/A,441,445,85	E1223046	4
82-PB-208(P,EL)82-PB-208,PAR,DA	6.50+07	2JPNKTO	81	SAKAGUCHI+	J,PL/B,99,92,81	E1201014	50
82-PB-208(P,EL)82-PB-208,PAR,POL/DA	6.50+07	2JPNKTO	81	SAKAGUCHI+	J,PL/B,99,92,81	E1201015	52