

# 13-Al-27 (n, p) 12-Mg-27

Abundance (%)	=	100			
Q	=	-1.82799 MeV	E <sub>thr</sub>	=	1.89632 MeV
T <sub>1/2</sub>	=	9.458 m			
E <sub>γ</sub>	=	843.76 ± 0.03 keV	I <sub>γ</sub>	=	71.8 ± 0.4      β <sup>-</sup>
E <sub>γ</sub>	=	1014.44 ± 0.04 keV	I <sub>γ</sub>	=	28.0 ± 0.4      β <sup>-</sup>
IRDF-90			- eval.		- Apr 1990 D. Hetrick, C. Fu, M. Wagner et al.
D-99 (JENDL/D-99)			- eval.		- Mar 1996 K. Kobayashi, Y. Uno.
ENDF/B-VI			- eval.		- Sep 1994 P. Young.
JENDL-3.2			- eval.		- Mar 1988 Y. Harima, H. Kitazawa, T. Fukahori.
JEF-2			- eval.		- Jun 1986 EC Blancet Technology, Task B2.
CENDL-2			- eval.		- Aug 1991 B. Yu, S. Chiba, Y. Harima et al.

**Tabl. 1**

U-235						
	IRDF-90	D-99	ENDF/B-VI	JENDL-3	JEF-2	CENDL-2
10%	3.70	3.90	3.70	3.90	3.70	3.70
50%	5.60	5.70	5.60	5.80	5.60	5.70
90%	8.20	8.20	8.25	8.40	8.30	8.40
<b>ACS</b>	<b>3.85E-03</b>	<b>4.25E-03</b>	<b>3.85E-03</b>	<b>4.15E-03</b>	<b>3.94E-03</b>	<b>4.12E-03</b>

**Tabl. 2**

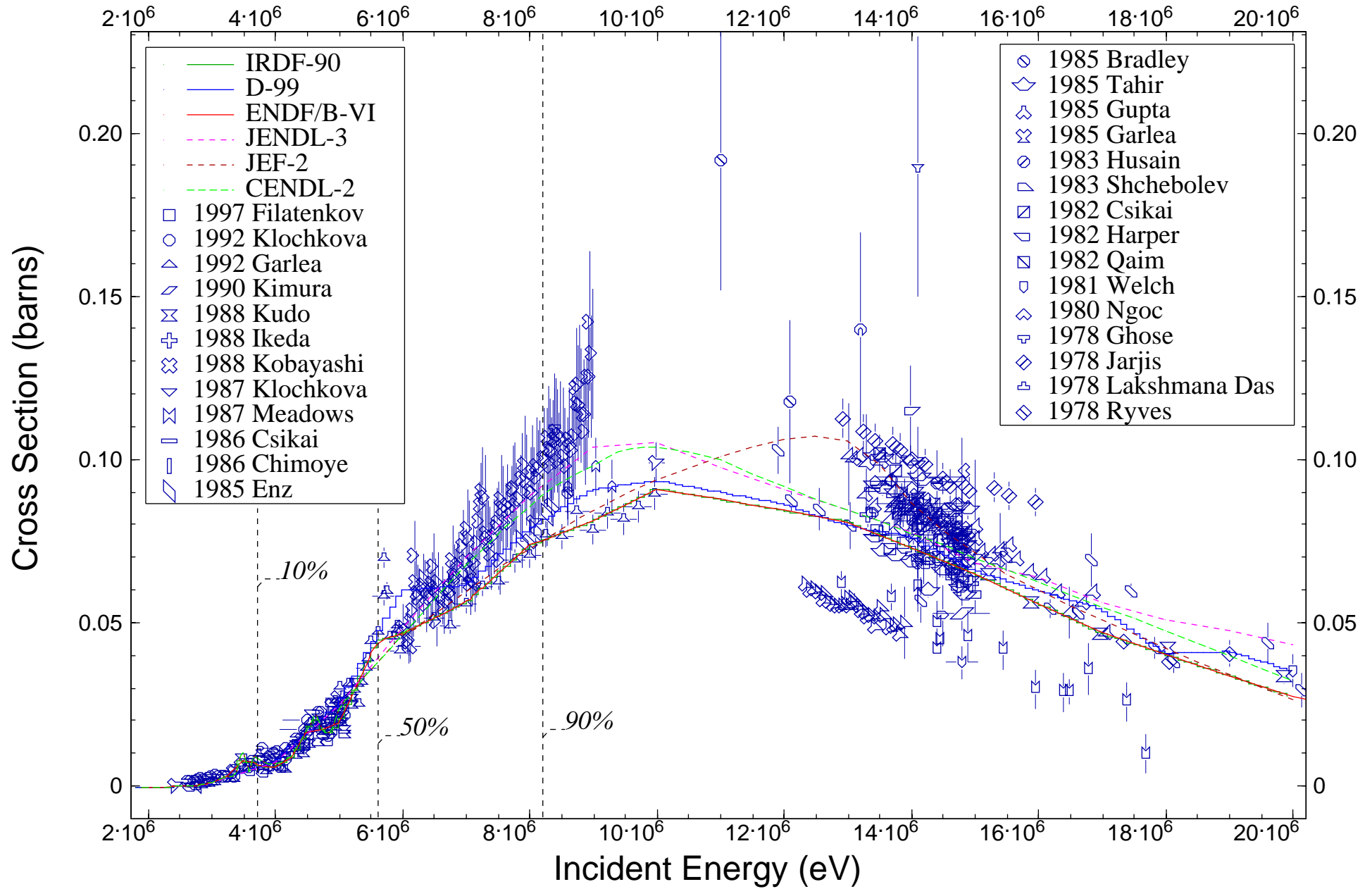
Cf-252						
	IRDF-90	D-99	ENDF/B-VI	JENDL-3	JEF-2	CENDL-2
10%	3.80	4.00	3.80	4.00	3.80	3.80
50%	5.80	5.90	5.824300	6.00	5.80	5.90
90%	8.70	8.60	8.70	8.80	8.80	8.80
<b>ACS</b>	<b>4.77E-03</b>	<b>5.28E-03</b>	<b>4.77E-03</b>	<b>5.19E-03</b>	<b>4.89E-03</b>	<b>5.14E-03</b>

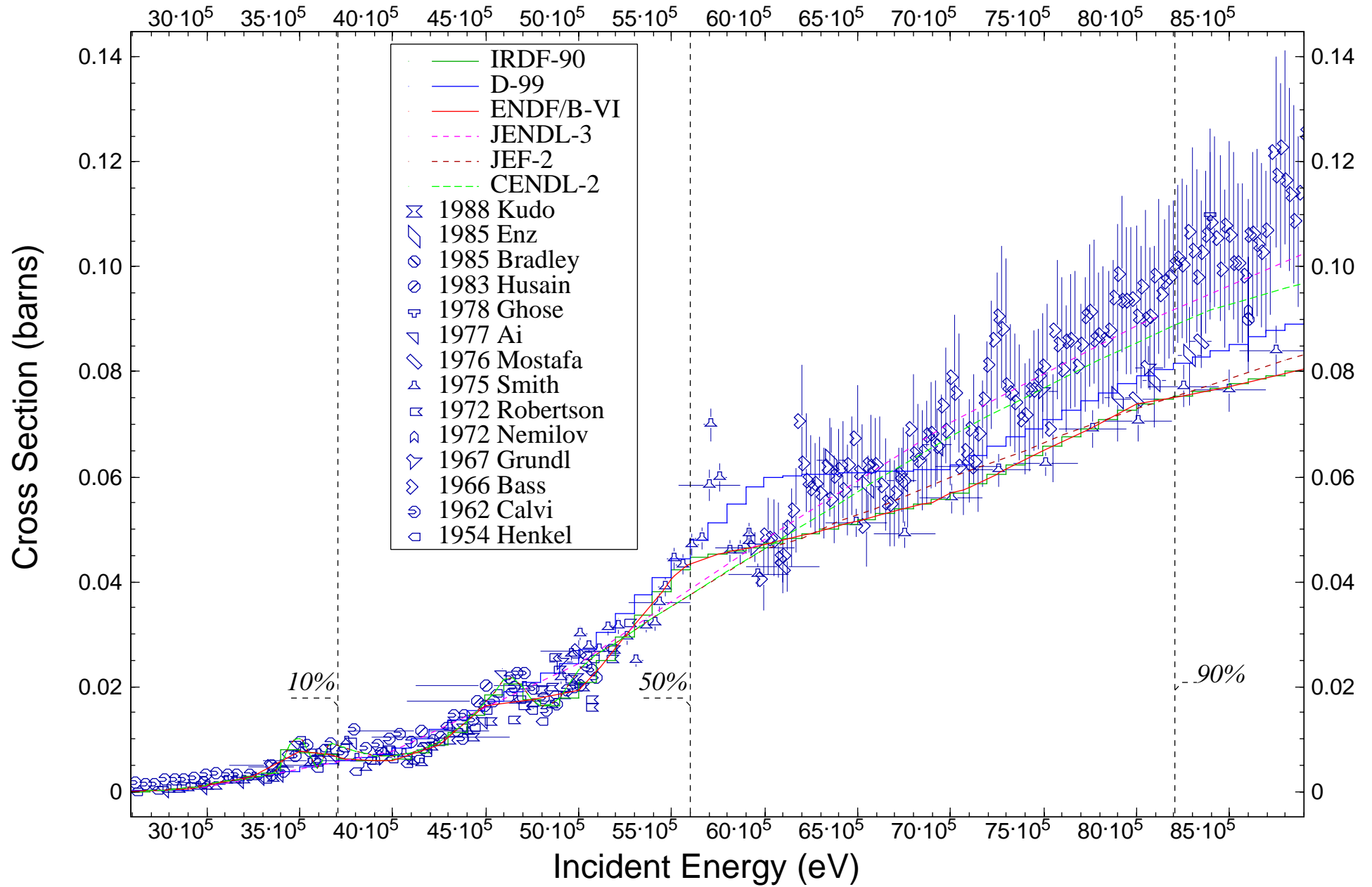
**Tabl. 3**

1.5+07	1.5+07	1	1USAARK	J,PR/C,1,1233	7004 L.HUSAIN,	10088002
1.5+07	1.5+07	1	1USASMU	J,NP/A,170,193	7107 G.N.SALAITA	10186004
2.8+06	4.0+06	24	1USAANL	J,NSE,58,314	7511 D.L.SMITH,	10238020
4.0+06	5.9+06	40	1USAANL	J,NSE,58,314	7511 D.L.SMITH,	10238021
5.4+06	1.0+07	18	1USAANL	J,NSE,58,314	7511 D.L.SMITH,	10238022
2.4+06	1.4+07	12	1USALAS	J,NSE,30,39	6710 J.A.GRUNDL	10417006
1.5+07	1.5+07	1	1USAARK	T,SIGG	76 R.A.SIGG	10776003
1.5+07	1.5+07	1	1USAARK	J,NP,35,353	62 J.KANTELE,	11196006
1.3+07	1.4+07	3	1USAARK	J,NP,35,353	62 J.KANTELE,	11196007
1.5+07	1.5+07	1	1USAORL	R,ORNL-3672	6501 J.E.STRAIN,	11263010
1.4+07	1.5+07	1	1CANCR	J,CJP,31,267	53 E.B.PAUL,	11274010
1.5+07	1.5+07	1	1USATNC	J,BAP,4,97(G2)	5903 O.M.HUDSON JR,	11453002
1.3+07	1.7+07	28	1USATNC	J,BAP,4,97(G2)	5903 O.M.HUDSON JR,	11453003
1.3+07	1.5+07	3	1USATNC	J,BAP,4,97(G2)	5903 O.M.HUDSON JR,	11453004
1.4+07	1.4+07	1	1USALAS	J,PR,88,1309	5212 S.G.FORBES	11474003
1.5+07	1.5+07	1	1USAARK	J,PR,115,989	59 A.POULARIKAS,	11484003
1.4+07	1.4+07	1	1USABRN	J,PR,125,1011	62 F.L.HASSLER,	11492004
1.2+07	1.8+07	15	1USAКТY	J,PR,128,1276	62 F.GABBARD,	11494004
1.2+07	1.4+07	40	1USANRD	J,NP/A,98,65	6705 J.M.FERGUSON,	11512004
1.4+07	1.4+07	1	1USAGIT	J,NP/A,122,679	68 N.RANAKUMAR,	11515002
2.6+06	5.2+06	38	1USALAS	W,HENKEL	54 R.L.HENKEL	11524002
1.4+07	1.4+07	1	1USAAUB	J,JP/G,8,153	8201 R.C.HARPER,	12730002
2.0+07	2.3+07	2	1USAHO	J,BAP,26,708	8105 P.WELCH,	12912002

1.5+07	1.5+07	1	1USAANL	J,ANE,14,489	8709 J.W.MEADOWS,	12969002
1.4+07	1.4+07	1	2JPNKON	J,JPJ,12,443	5705 S.YASUMI	20280002
1.4+07	1.4+07	1	2JPNKON	J,JPJ,16,1869	6110 M.SAKISAKA,	20329002
1.5+07	1.5+07	1	2UK NPL	J,JNE,27,531	7308 J.C.ROBERTSON,	20799005
4.3+06	5.3+06	18	2UK NPL	J,ANE,26,(1),1	72 J.C.ROBERTSON,	20822007
1.5+07	1.5+07	1	2SWDLND	R,LUNF-D6-3021	7811 P.ANDERSSON,	20842002
1.5+07	1.9+07	4	2UK NPL	J,JP/G,4,(11),1783	78 T.B.RYVES,	20867005
1.5+07	1.5+07	1	2ITYTUR	J,NP,51,337	6402 C.G.BONAZZOLA,	20888003
1.4+07	1.5+07	27	2ITYNAP	J,NC/B,54,53	6803 P.CUZZOCREA,	20890002
1.4+07	1.4+07	1	2GERHAM	W,LANGMANN	6209 LANGMANN	20903003
1.2+07	2.1+07	17	2UK HAR	J,NP,19,(5),535	6011 G.S.MANI,	20921002
2.6+06	5.1+06	49	2ITYCAT	J,NP,39,621	6212 G.CALVI,	20924003
6.0+06	9.0+06	121	2GERFRK	R,EANDC(E)-66,64	6602 R.BASS,	20928006
4.4+06	8.4+06	6	2UK BIR	J,NSP/B,9,10	7610 A.B.M.G.MOSTAFA	21049002
1.4+07	1.4+07	1	2GERHAM	J,ZN/A,16,227	61 H.POLLEHN,	21352013
1.3+07	1.3+07	1	2UK GLS	J,PM,2,785	57 G,	21375005
1.5+07	1.5+07	1	2FR LYO	J,JPR,21,377	6005 M.J.DEPRAZ,	21419003
1.4+07	1.4+07	1	2UK HAR	J,PPS/A,70,195	5703 D.L.ALLAN	21487003
1.4+07	1.4+07	1	2GERHAM	J,AKE,19,107	7204 R.MOGHARRAB,	21509002
1.3+07	1.6+07	5	2UK BIA	J,JP/G,4,3,445	78 R.A.JARJIS	21673002
1.3+07	1.5+07	9	2UK BIA	J,JP/G,4,3,445	78 R.A.JARJIS	21673004
1.5+07	1.5+07	1	2AUSIRK	T,SCHANTL	70 W.SCHANTL	21846014
3.0+06	4.5+06	13	2UK BIA	J,ARI,34,(4),731	83 H.A.HUSAIN,	21879002
6.4+06	8.3+06	7	2GERTHS	J,ADP,42,(3),283	85 W.ENZ,	22012002
1.3+07	1.5+07	9	2UK BIR	J,IPA,23,439	8509 TAHIR	22028002
1.3+07	1.5+07	9	2UK BIR	J,IPA,23,439	8509 TAHIR	22028003
1.3+07	1.5+07	9	2UK BIR	J,IPA,23,439	8509 TAHIR	22028004
1.3+07	1.5+07	9	2UK BIR	J,IPA,23,439	8509 TAHIR	22028005
1.3+07	1.5+07	9	2UK BIR	J,IPA,23,439	8509 TAHIR	22028006
1.3+07	1.5+07	6	2JPNJAE	R,JAERI-1312	88 Y.IKEDA,	22089007
1.4+07	1.4+07	1	2JPNKTO	C,88MITO,261	88 K.KOBAYASHI,	22093004
5.0+06	5.0+06	1	2JPNTSU	C,88MITO,1021	88 K.KUDO,	22094002
1.5+07	2.0+07	6	2JPNTSU	C,88MITO,1021	88 K.KUDO,	22094003
1.4+07	1.4+07	1	2JPNKTO	J,NSE,106,332	90 I.KIMURA,	22214009
1.3+01	1.5+01	8	2JPNJAE 2JPNTIT	J,NST,30,870	9309 Y.IKEDA,	22312003
1.4+07	1.4+07	1	3INDTAT	J,PR,167,1091	6803 P.N.TIWARI,	30011002
1.5+07	1.5+07	1	3INDBOS	J,NP,83,157	6607 B.MITRA,	30013005
1.4+07	1.4+07	1	3INDAUW	J,NP/A,138,85	6911 P.RAMA PRASAD,	30088007
1.5+07	1.5+07	1	3POLLOU	P,INR-1464,12	7305 J.DRESLER,	30263003
1.5+07	1.5+07	1	3INDMUA	J,NC/A,3,(3),467	7106 R.PRASAD,	30336005
1.4+07	1.4+07	1	3INDMUA	C,60WALTAIR,297	6002 C.S.KHURANA,	30403003
2.8+06	4.6+06	16	3CHFSHI	J,NSF,14,(4),1	7712 C.E.AI,	30457002
1.4+07	1.4+07	1	3INDAUW	J,PRM,11,(5),595	7811 N.LAKSHMANA DAS,	30517002
8.4+06	8.4+06	1	3BURRAS	R,IAEA/TA-1390	7810 A.M.GHOSE	30554002
1.5+07	1.5+07	1	3HUNELU	T,NGOC	80 P.N.NGOC,	30562003
1.3+07	1.5+07	6	3HUNKOS	C,82ANTWER,,414	8209 J.CSIKAI	30640003
1.5+07	1.5+07	1	3INDMUA	J,PRM,24,637	85 J.P.GUPTA,	30707004
1.5+07	1.5+07	1	3RUMCIP	J,RRP,30,(8),673	85 I.GARLEA,	30804002
1.4+07	1.5+07	5	3TAICHM	J,ZP/A,235,69	8609 T.CHIMOYE,	30821003
1.3+07	1.5+07	12	3HUNKOS	J,ZP/A,325,69	86 J.CSIKAI,	30933003
1.5+07	1.5+07	1	3INDSAH	J,PPS,77,508	61 S.K.MUKHERJEE,	31161002
1.5+07	1.5+07	1	3RUMBUC	J,RRP,37,(1),19	92 I.GARLEA,	31459009
8.6+06	1.2+07	3	3MALUSM	C,85CHIANG,,19	8502 D.A.BRADLEY,	32106003

8.0+06 9.3+06	4	4CCPRI	R,YK-9,53	72 JU.A.NEMILOV.JU.N	.40135003
1.4+07 1.4+07	1	4CCPTIL	J,AE,39,137	7508 D.V.ALEKSANDROV,	40433003
1.5+07 1.5+07	1	4CCPCCP	J,AE,44,(2),171	7802 V.I.MELENT'JEV,	40471002
1.5+07 1.5+07	1	4CCPMIM	J,AE,54,(6),417	8306 V.T.SHCHEBOLEV,	40676002
1.4+07 1.4+07	1	4CCPTIL	C,87KIEV,3,315	8709 L.I.KLOCHKOVA,	40998002
1.4+07 1.4+07	1	4RUSTIL	J,YK,,(1),27	92 L.I.KLOCHKOVA,	41118002
1.3+07 1.5+07	8	4RUSRI	R,INDC(CCP)-402	9701 A.A.FILATENKOV,	41240005
1.5+07 1.5+07	1	2GERJUL	J,NP/A,382,255	8207 S.M.QAIM	68017002

$^{27}\text{Al}(n,p)^{27}\text{Mg}$ 

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