

Japan Charged-Particle Nuclear Reaction Data Group

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Memo CP-E/088

Date: February 20, 2006
To: Distribution
From: OTSUKA Naohiko
Subject: Dictionary 33 (Particles), 209 (Compounds) and 227 (Nuclides)

Particle, compound and nuclide codes listed below are used in entries but lacked in our dictionary. Many of them were in old dictionaries (dictionaries 9, 27 and 28).

Remarks:

- 1) Are the definitions of “metastable” in EXFOR and Nuclear Wallet Cards same?
- 2) What is flag –A in the metastable states field in Dictionary 227?

Dictionary 33 (Particles)

KN	Kaons, negative
KP	Kaons, positive

Dictionary 209 (Compounds)

7 - N - CMP	Nitrogen compound
8 - O - CMP	Oxygen compound
9 - F - CMP	Fluorine compound
11 - NA - CMP	Sodium compound
13 - AL - CMP	Aluminium compound
14 - SI - CMP	Silicon compound
15 - P - CMP	Phosphorus compound
16 - S - CMP	Sulphur compound
17 - CL - CMP	Chlorine compound
19 - K - CMP	Potassium compound
23 - V - CMP	Vanadium compound
24 - CR - CMP	Chromium compound
25 - MN - CMP	Manganese compound
29 - CU - CMP	Copper compound

30-ZN-CMP	Zinc compound
33-AS-CMP	Arsenic compound
35-BR-CMP	Bromine compound
37-RB-CMP	Rubidium compound
40-ZR-CMP	Zirconium compound
47-AG-CMP	Silver compound
53-I-CMP	Iodine compound
55-CS-CMP	Cesium compound
56-BA-CMP	Barium compound
60-ND-CMP	Neodymium compound
80-HG-CMP	Mercury compound
83-BI-CMP	Bismuth compound
90-TH-CMP	Thorium compound
92-U-CMP	Uranium compound

Dictionary 227 (Nuclides)

2-HE-2	
7-N-11	no ground state and 1 metastable state in wallet cards
39-Y-102	no ground state and 2 metastable states in wallet cards
41-NB-86	
41-NB-102	no ground state and 2 metastable states in wallet cards
43-TC-90	no ground state and 2 metastable states in wallet cards
45-RH-94	no ground state and 2 metastable states in wallet cards
45-RH-110	no ground state and 2 metastable states in wallet cards
45-RH-112	no ground state and 2 metastable states in wallet cards
47-AG-119	no ground state and 2 metastable states in wallet cards
51-SB-137	Sb in dictionary should be SB.
51-SB-138	Sb in dictionary should be SB.
57-LA-124	no ground state and 2 metastable states in wallet cards
57-LA-126	no ground state and 2 metastable states in wallet cards
59-PR-130	
59-PR-134	no ground state and 2 metastable states in wallet cards
61-PM-135	no ground state and 2 metastable states in wallet cards
61-PM-136	no ground state and 2 metastable states in wallet cards
61-PM-156	no ground state and 1 metastable state in wallet cards
75-RE-172	no ground state and 2 metastable states in wallet cards
77-IR-173	no ground state and 2 metastable states in wallet cards
78-PT-203	
78-PT-204	

81-TL-186 no ground state and 2 metastable states in wallet cards
 81-TL-188 no ground state and 2 metastable states in wallet cards
 81-TL-190 no ground state and 2 metastable states in wallet cards
 84-PO-193 no ground state and 2 metastable states in wallet cards
 84-PO-212 no ground state and 1 metastable state in wallet cards
 91-PA-219 no ground state and 1 metastable state in wallet cards
 91-PA-220
 95-AM-235 no ground state and 1 metastable state in wallet cards
 95-AM-236
 97-BK-246 no ground state and 1 metastable state in wallet cards
 99-ES-246 no ground state and 1 metastable state in wallet cards
 108-HS-262
 108-HS-270
 111-RG-272
 113-* -278

(4 super heavy elements in A0054 have proper codes in Dictionary 227.)

List of relevant entries:

REACTION (SF1)			
10542	006	19-K-CMP	
	006	17-CL-CMP	
	011	37-RB-CMP	
	011	35-BR-CMP	
	012	55-CS-CMP	
	012	53-I-CMP	
11026	036	13-AL-CMP	
	038	60-ND-CMP	
12923	004	40-ZR-CMP	
13729	002	56-BA-CMP	
20161	002	90-TH-CMP	
20886	002-034	55-CS-CMP	
21180	003	47-AG-CMP	
21653	015	33-AS-CMP	
21660	011,023	9-F-CMP	
21660	012-013,019	11-NA-CMP	
22241	003	23-V-CMP	
22241	004	25-MN-CMP	
22507	002,017	13-AL-CMP	

A0118	005	8 - O - CMP	
	008	9 - F - CMP	
C0879	002-017	29 - CU - CMP	
D0047	006	92 - U - CMP	
D0048	006	92 - U - CMP	
F0341	006-007	8 - O - CMP	
	008-009	9 - F - CMP	
O0213	008,014	11 - NA - CMP	
O0629	002	47 - AG - CMP	
O0631	002	47 - AG - CMP	
O0633	002	47 - AG - CMP	
O0635	003	47 - AG - CMP	
O0636	002	47 - AG - CMP	
O0722	024-031	29 - CU - CMP	
O0722	032-033	30 - ZN - CMP	
O0768	008-028 055-100 312-337	55 - CS - CMP	
	041-054	80 - HG - CMP	
	299-308	83 - BI - CMP	
O0834	020-021	90 - TH - CMP	
O0901	069	7 - N - CMP	
	072	8 - O - CMP	
	073	11 - NA - CMP	
	076	15 - P - CMP	
	077	16 - S - CMP	
	078	17 - CL - CMP	
	079	19 - K - CMP	
O1017	002	24 - CR - CMP	
O1174	002-003	53 - I - CMP	
O1264	002	80 - HG - CMP	
T0159	002	11 - NA - CMP	
	005	13 - AL - CMP	
	006	14 - SI - CMP	
REACTION (SF2)			
E1717	002-006	KN	
J1717	002-006	KN	
O0848	019	KP	

O0953	020	KP	
REACTION (SF3)			
E1590	002-006	2 - HE - 2	
O1140	002-003	2 - HE - 2	
REACTION (SF4)			
21701	003	41 - NB - 102	
22241	002	22 - TI - CMP	
	003	23 - V - CMP	
	004	25 - MN - CMP	
A0052	002	108 - HS - 270	
A0054	003-004	111 - * - 276	Use 111 - RG - 276
	004	111 - * - 277	Use 111 - RG - 277
	005	110 - * - 277	Use 110 - DS - 277
	005	110 - * - 278	Use 110 - DS - 278
A0055	003	108 - HS - 262	
A0071	004	99 - ES - 246	
A0084	108	41 - NB - 86	
	133	43 - TC - 90	
	160	45 - RH - 94	
A0095	078	45 - RH - 110	
A0099	307	57 - LA - 124	
	309	57 - LA - 126	
	326	59 - PR - 130	
	330	59 - PR - 134	
	347	61 - PM - 135	
	348	61 - PM - 136	
	587	39 - Y - 102	
	608	41 - NB - 102	
	657	45 - RH - 110	
	659	45 - RH - 112	
	687	47 - AG - 119	
	755	51 - SB - 137	
A0106	044	81 - TL - 190	
	046	81 - TL - 188	
	048	81 - TL - 186	
	096	78 - PT - 204	
	097	78 - PT - 203	
	139	77 - IR - 173	

	253	61-PM-136	
	254	61-PM-135	
	280	59-PR-130	
A0108	087	39-Y-102	
	105	41-NB-102	
	147	45-RH-110	
	149	45-RH-112	
	171	47-AG-119	
	230	51-SB-137	
	231	51-SB-138	
A0113	176	81-TL-188	
	178	81-TL-186	
A0118	004	84-P0-212	
A0208	003	84-P0-212	
A0410	002	97-BK-246	
A0476	004	84-P0-193	
A0510	217	43-TC-90	
A0590	010,023,	84-P0-212	
A0519	007	84-P0-212	
A0719	024,029	84-P0-212	
B0114	004,007	84-P0-212	
C0792	005	2-HE-2	
C0823	002-003,008	2-HE-2	
C0979	002	2-HE-2	
C1333	005-006	84-P0-212	
E1604	002-003	2-HE-2	
E1740	006,014	91-PA-220	
	007,015	91-PA-219	
E1749	007	91-PA-219	
	008	91-PA-220	
E1822	002-012 014-018	7-N-11	
E1853	011	61-PM-156	
E1887	002	95-AM-236	
E1853	011	61-PM-156	
E1887	002	95-AM-236	
E1888	002-003	95-AM-236	
E1919	002	111-RG-272	

E1920	002	113 - * - 278	
O0407	050-051	45 - RH - 110	
	158	41 - NB - 102	
O0769	005	61 - PM - 135	
	006	61 - PM - 136	
	273	75 - RE - 172	
	318	77 - IR - 173	
	417	81 - TL - 186	
	419	81 - TL - 188	
	421	81 - TL - 190	
O0784	084	77 - IR - 173	
	123	75 - RE - 172	
	338	61 - PM - 136	
	339	61 - PM - 135	
O0825	007	45 - RH - 110	
	008	45 - RH - 112	
O0833	013	61 - PM - 135	
	014	61 - PM - 136	
	281	75 - RE - 172	
	326	77 - IR - 173	
	425	81 - TL - 186	
	427	81 - TL - 188	
	429	81 - TL - 190	
	688	41 - NB - 102	
	752	45 - RH - 110	
	754	45 - RH - 112	

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