^{112}Cd(d,p), ^{114}Cd(d,t) 1969Go03

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 111, 1471 (2010)	1-May-2009

^{112}Cd(d,p): E=13 MeV.
Other: 1964Ro17.

^{113}Cd Levels

E(level)	J^{π}‡	L†	C^2S	Comments
0.0	$1/2^+$	0	0.34	
270 *10*	$11/2^-$	5	0.40	
300 *10*	$3/2^+$	2	0.40	
320 *10*	$5/2^+$	2	0.14	
460 *10*	$7/2^+$	4	0.26	
530 *10*	$7/2^+$	4	0.36	
590 *10*	$(5/2^+)$	2	0.05	
680 *10*	$(3/2^+)$	2	0.27	
760 *10*	$1/2^+$	0	0.14	
820 *10*	$7/2^+$	4	0.12	
880 *10*	$1/2^+$	0	0.07	
900 *10*	$3/2^+$	2	0.21	
960 *10*				
980 *10*	$1/2^+$	0	0.04	
1010 *10*				
1130 *20*				
1170 *20*				
1200 *10*		2,3		J^{π}: authors assign $J^{\pi}=7/2^+$ but it is not compatible with given L. A level at 1195.4 has been adopted with $J^{\pi}=5/2^+,7/2^+,9/2^+$.
1280 *10*	$(3/2^+)$	2	0.03	
1320 *10*				
1390 *20*				
1430 *10*	$(3/2^+)$	2	0.06	
1450 *20*				
1490 *15*	$(3/2^+)$	2	0.06	
1540 *10*				
1580 *10*	$(7/2^-)$	(3)	0.02	
1610 *10*	$(5/2^+)$	2	0.02	
1670 *10*	$(3/2^+)$	(2)	0.02	
1810 *10*				
1840 *10*		1,2		
1880 *10*				
1900 *10*	$(1/2^+)$	(0)	0.02	
1990 *10*				
2040 *10*	$7/2^-$	3	0.04	
2080 *10*	$(1/2^+)$	(0)	0.01	
2110 *10*	$(7/2^-)$	(3)	0.02	
2120 *20*				
2140 *20*	$(1/2^+)$	(0)		
2170 *10*	$3/2^-$	1	0.04	
2180 *10*	$3/2^-$	1	0.03	
2240 *10*		(3)		
2270 *10*				
2310 *10*	$(3/2^-)$	(1)	0.01	
2330 *10*				
2370 *10*				
2410 *10*		(4)		

Continued on next page (footnotes at end of table)

^{112}Cd(d,p), ^{114}Cd(d,t) 1969Go03 (continued)

^{113}Cd Levels (continued)

E(level)	J^{π}‡	L†	C^2S	E(level)	J^{π}‡	L†	C^2S	E(level)	J^{π}‡	L†	C^2S
2440 *10*				2630 *10*	$(1/2^+)$	(0)	0.04	2770 *10*	$(3/2^-)$	(1)	0.02
2540 *10*	$(7/2^-)$	(3)	0.03	2690 *10*				2810 *10*	$1/2^+$	0	0.03
2580 *10*	$(3/2^-)$	(1)	0.02	2750 *10*							

† Deduced from proton angular distributions at 16 angles, θ=5°−115° compared with DWBA calculations. For L≥3 the agreement with DWBA is rather poor.

‡ Determined from L by use of the shell model. The d5/2 shell-model state is almost full, while the d3/2 state is almost empty. For L=2, J was therefore assigned 5/2 or 3/2 from a comparison of σ(d,t) and σ(d,p).