

$^{48}\text{Ca}(\text{p,t})$ 1973Cr02,1973Du02,1973Da02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. -c. Wu	NDS 91, 1 (2000)	15-Jul-2000

E=39 MeV (1973Cr02); measured $\sigma(E,\theta)$, DWBA analysis of angular distributions.

E=41.65 MeV (1973Da02); measured $\sigma(E,\theta)$; DWBA analysis of angular distributions.

Others: 1970He23, 1970Du01, 1968Pe07.

All information on levels above 10000 from 1973Da02.

 ^{46}Ca Levels

E(level)#	L@	Comments
0.0	0	
1347 2	2	
2423& 2	0	
2577& 2	4	
2978& 2	6	
3024& 2	2	
3613 2	3	
3637 2	2	
3860& 2	4	
3987 3	(3)	
4185& 2	5	L: L=(2) reported by 1973Du02.
4409& 2	3	
4431 3		
4493 3	(4)	
4732& 3	5	
4758 3	0	
4997 3	(4)	
5052& 5	(4)	
5153& 3	(4)	
5218 4		
5250& 3	4	
5316 4	(0)	
5381& 3	3	
5418 4		
5438 4	4	
5474 4	(3)	
5538& 3	(4)	
5601 4		
5639 4		
5691 4		
5724 4		1973Da02 reported doublet or multiplet at 5712 4.
5785 4		
5821 4		
5852 4		
5864 4	(6)	
5959 4	(2)	
5987 4	(6)	
6010 5		
6037 5	(4)	
6077 5		
6116 5	(2)	
6156 5		

Continued on next page (footnotes at end of table)

$^{48}\text{Ca}(\text{p,t})$ **1973Cr02,1973Du02,1973Da02 (continued)** ^{46}Ca Levels (continued)

E(level) [#]	L [@]	Comments
6201 5		
6252 5	(4)	
6267 5		
6309 5		
7055 [†] 7		
7492 [†] 7	(2)	
≈7830 ^a	0	
13895 [‡] 30		E(level): IAS $^{46}\text{K}(\text{g.s.})?$
14488 30	3	E(level): IAS $^{46}\text{K}(587)$.
14610 [‡] 30		E(level): IAS $^{46}\text{K}(691)?$
14795 30	5	E(level): IAS $^{46}\text{K}(885)$.
15279 30	3	E(level): IAS $^{46}\text{K}(1370)$.
15847 [‡] 30		E(level): IAS $^{46}\text{K}(1941)?$
16155 30	(0)	E(level): IAS $^{46}\text{K}(2222)$.
16721 30	(2)	E(level): IAS $^{46}\text{K}(2790)$.
≈17295		E(level): IAS $^{46}\text{K}(3383)?$

[†] Probable multiplet; from 1973Da02 only.

[‡] Proposed analog of probable unnatural-parity state (see ^{46}K Adopted Levels). If assignment is correct, this would represent one of the largest known violations of the zero-range, one-step DWBA selection rules for (p,t) reactions (1973Da02).

[#] From 1973Cr02, except as noted.

[@] From analysis of angular distributions (1973Cr02), except as noted.

[&] Weighted average of values from 1973Cr02 and 1973Da02.

^a From 1973Du02 only.