

$^{48}\text{Ca}(\text{d},\alpha),(\text{d},\alpha\gamma)$ 1974Da19,1974Fr10,1971Pa16

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

E=7 MeV (d, $\alpha\gamma$); measured $\alpha\gamma$; E=17 MeV; measured $\sigma(\text{E},\theta)$ DWBA analysis (1974Da19).

E=80.2 MeV; measured $\sigma(\text{E},\theta)$, DWBA analysis (1974Fr10).

E=11.0 MeV; measured $\sigma(\text{E},\theta)$, L assignments from comparison with transitions of known L value (1971Pa16).

 ^{46}K Levels

E(level) [†]	J ^π @	L&	Comments
0	2 ⁻	(1+3)	
587	3 ⁻	3	L: L=5 assigned by 1971Pa16.
691	4 ⁻	(3+5)	L: L=5 assigned by 1971Pa16.
886		5	L: L=3 assigned by 1971Pa16.
1370	3 ⁻	3	
1738	4 ⁻	(3)	
1941	1 ⁺	(0+2)	
3350 [‡]			
3610 [‡]			
4340 [‡]	3 ⁺ #	4	
4540 [‡]			
5950 [‡]	7 ⁺ #	6	

[†] From 1974Da19, except as noted; ΔE not given.

[‡] From 1974Fr10; ΔE not given.

From analysis by 1974Fr10.

@ From analysis of angular distributions (1974Da19) and decay arguments, except as noted.

& From 1974Da19, 1974Fr10.

 $\gamma(^{46}\text{K})$

E_γ [†]	I_γ	$\text{E}_i(\text{level})$	J_i^π	E_f	J_f^π
103.5 5	31 7	691	4 ⁻	587	3 ⁻
194.6 5	6.3 10	886		691	4 ⁻
587.3 5	100	587	3 ⁻	0	2 ⁻
679.0 5	5.0 13	1370	3 ⁻	691	4 ⁻
691.0 5	11.9 22	691	4 ⁻	0	2 ⁻
1151 2	6.6 23	1738	4 ⁻	587	3 ⁻
1941 2	29 12	1941	1 ⁺	0	2 ⁻

[†] From 1974Da19.

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Level Scheme
Intensities: Type not specified

Legend

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\text{max}}$

