

$^{46}\text{Ca}(\text{d,p})$ 1966Be08,1965Bj02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	T. W. Burrows	NDS 108, 923 (2007)	20-Feb-2007

All data are from 1966Be08, except as noted. Both groups measured $\sigma(\theta)$ (spectrometer,emulsion) and performed DWBA analysis.

There is good agreement between the two sets of data. See 1966Be08 for a discussion of the differences for states at 3296, 5311, 5459, and 5842 keV. Others: see 1977Ha45.

1965Bj02: E=10 MeV. $\theta(\text{C.M.})\approx 10^\circ-180^\circ$; 24 angles.

1966Be08: E=7 MeV. Overall energy resolution=12 keV. $\theta(\text{C.M.})=30^\circ-150^\circ$; 24 angles.

 ^{47}Ca Levels

E(level)	J^π^\dagger	L^\ddagger	$C^2S'^\#$	E(level)	L^\ddagger	$C^2S'^\#$
0.0		3	2.1	5254 5	&	&
2017 5		1	3.9	5305 5	2,(3)	0.06,(0.40)
2580 5		2	0.08	5325 5	4	1.7
2600 5		0	0.05	5427 5	3,(2)	0.47,(0.08)
2849 5	$1/2^- @$	1 @	0.10	5459 5	3,(2)	0.74,(0.12)
2874 5	$(1/2^-) @$	1 @	0.53	5488 5	1	0.09
3296 5	$(1/2^-) @$	1 @	0.07	5639 5	3,(2)	0.54,(0.07)
3425 5				5760 5	(1)	0.08
4019 5		1	0.06	5809 5	3,(2)	0.68,(0.10)
4057 5	$(1/2^-)$	1	1.2	5842 5	3,(2)	0.76,(0.11)
4103 5				5866 5	1 &a	0.04 &a
4402 5		1	0.07	6062 5	3,(2)	1.0,(0.13)
4785 5		3	0.81	6191 ^a 10		
4807 5	$(1/2^-)$	1	0.30	6270 ^a 10		
5189 5	$(1/2^-)$	1	0.24	6366 ^a 10		
5220 5				6555 ^a 10		

† From sharp minimum in $\sigma(\theta)$ at back angles.

‡ For $E(\text{level})\leq 6.1$ MeV absence of an L value indicates a non-stripping character for $\sigma(\theta)$.

$\#$ Uncertainty due to DWBA was 10 to 20% for most transitions, larger for 1f5/2 and 1d3/2.

@ Results in various stripping and pickup reactions are discrepant. See comment in Adopted Levels.

& $\sigma(\theta)$ uncertain forward of 90° .

^a From 1965Bj02.