^{40}Ca(α,2pnγ) 1974Al23

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja, E. A. Mccutchan	NDS 133, 1 (2016)	30-Sep-2015

1974Al23: E(α)=51 MeV from cyclotron at Research Institute of Physics, Stockholm. Measured Eγ, $\gamma\gamma$-coin, $\gamma(\theta)$ with with Ge(Li) detectors.

^{41}Ca Levels

E(level)[†]	J$^\pi$[‡]	Comments
0	7/2$^-$	
3201.1 *5*	9/2$^+$	
3369.9 *10*	11/2$^+$	
3831.0 *12*	15/2$^+$	
3915.3 *12*	13/2$^+$	
5219.0 *15*	(13/2,17/2)$^+$	
6826 *2*		J$^\pi$: (19/2) from 1974Al23.

† From 1974Al23.
‡ From Adopted Levels.

$\gamma(^{41}$Ca)

E$_\gamma$[†]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.[‡]	δ[†]	Comments
168.8 *5*	3369.9	11/2$^+$	3201.1	9/2$^+$	D(+Q)	+0.05 *+6−8*	A$_2$=−0.21 *3*, A$_4$=−0.06 *6*.
461.1 *5*	3831.0	15/2$^+$	3369.9	11/2$^+$	E2[#]		A$_2$=+0.40 *2*, A$_4$=+0.20 *3*.
545.4 *5*	3915.3	13/2$^+$	3369.9	11/2$^+$	D(+Q)	−0.02 *+9−8*	A$_2$=+0.31 *8*, A$_4$=+0.02 *10*.
1388.0 *10*	5219.0	(13/2,17/2)$^+$	3831.0	15/2$^+$	D		A$_2$=−0.23 *8*, A$_4$=−0.03 *11*.
1607 *2*	6826		5219.0	(13/2,17/2)$^+$			δ(E2/M1)=−1.8 from tentative values of A$_2$=−0.92, A$_4$=+0.29.
3201.1 *5*	3201.1	9/2$^+$	0	7/2$^-$	D(+Q)	−0.02 *+2−4*	A$_2$=−0.28 *3*, A$_4$=+0.05 *6*.
3369.9 *10*	3369.9	11/2$^+$	0	7/2$^-$	M2+E3[#]	+0.34 *+59−21*	A$_2$=+0.84 *9*, A$_4$=+0.17 *10*.

† From 1973Al23.
‡ From angular distribution.
# From angular distribution and transition strengths calculated using halflife in Adopted Levels.

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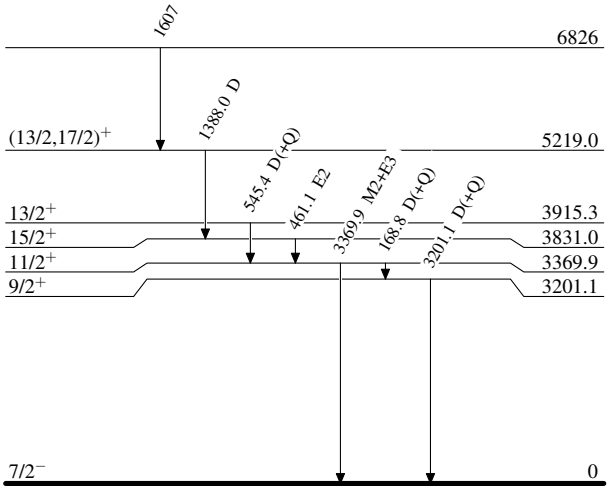
Level Scheme



$^{41}_{20}Ca_{21}$