^{41}S β^- decay (1.99 s) 1998WiZV

History

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

Parent: ^{41}S: E=0; $T_{1/2}$=1.99 s *5*; Q(β^-)=8300 *70*; %β^- decay=100.0

^{41}S-Q(β^-): From 2012Wa38.

1998WiZV: ^{41}S produced from projectile fragmentation of ^{48}Ca on Be target at NSCL and separated using the A1200 fragment separator. Ions were identified with a Si detector and then implanted on Al targets that were attached to a rotatable wheel. Ge and thin plastic β detectors were used for Eγ, $\gamma\gamma$-coin and $\beta\gamma\gamma$-coin measurements. Beam on/ beam off and beam line tuning allowed γ rays to specific decays and the β decay half-life to be measured. Main γ rays from the decay of ^{41}S are listed by 1998WiZV, but no level scheme is available from these authors. The evaluators have placed 130.2γ, 761.0γ and 553.6γ based on reaction work of 2002Li55, 2003Ol03.

^{41}Cl Levels

E(level)	J$^\pi$ [†]
0	(1/2$^+$)
130.2 *7*	(3/2$^+$)
891.2 *10*	(5/2$^+$)
1444.8 *12*	(7/2$^+$)

[†] From Adopted Levels.

γ(^{41}Cl)

E$_\gamma$ [†]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
130.2[‡] *7*	130.2	(3/2$^+$)	0	(1/2$^+$)
553.6[‡] *7*	1444.8	(7/2$^+$)	891.2	(5/2$^+$)
761.0[‡] *7*	891.2	(5/2$^+$)	130.2	(3/2$^+$)
[x]1266.2 *7*				
[x]1404.8 *7*				

[†] From 1998WiZV.

[‡] Placement by the evaluators based on reaction data from 2002Li55, 2003Ol03, and 2013Sz02.

[x] γ ray not placed in level scheme.

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Decay Scheme