^{9}Li β^- decay 2004Ti06,1993Ch06

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, C. G. Sheu, J. L. Godwin, et al.	NP A745 155 (2004)	31-Mar-2004

Parent: ^{9}Li: E=0.0; $J^{\pi}=3/2^-$; $T_{1/2}=178.3$ ms *4*; $Q(\beta^-)=13606.7$ *19*; $\%\beta^-$ decay=100.0

1976Al02: ^{9}Li(β^-), measured E_γ, I_γ, γ(t), $T_{1/2}$, delayed neutrons log *ft*.

1979Ga20: ^{9}Li(β^-), measured β-decay $T_{1/2}$.

1981La11: ^{9}Li(β^-), measured β-delayed E_α, β-α-coin. ^{9}Be levels deduced anti-analog character.

1986Cu01: ^{9}Li(β^-), measured β-decay $T_{1/2}$.

1988Sa04: ^{9}Li(β^-), measured β-decay $T_{1/2}$.

1990Ny01: ^{9}Li(β^-), measured β-delayed neutron, α spectra. Deduced log *ft*. ^{9}Be levels deduced branching ratios, B(GT). R-matrix analysis.

1991Bo31: ^{9}Li(β^-), measured continuum particle spectra following β-decay. Deduced log *ft*, Gamow-Teller transition strength, Γ, di-neutron, neutron halo roles.

2003Pr11: ^{9}Li(β^-), measured β-delayed E_α, α-α-coin. ^{9}Be deduced level J, π, β-branching strengths.

See Table 9.7 In (1984Aj01) for references.

^{9}Be Levels

E(level)	J^{π}	$T_{1/2}$	Comments
0.0	$3/2^-$	stable	T=1/2
2429.4 *13*	$5/2^-$	0.78 keV *13*	T=1/2
2.78×10^{3} *12*	$1/2^-$	1.10 MeV *12*	T=1/2
7940 *80*	$(5/2^-)$	≈1 MeV	T=1/2
11282 *22*	$(7/2^-)$	575 keV *50*	T=1/2
11810 *20*	$5/2^-$	400 keV *30*	J^{π}: from (2003Pr11).

β^- radiations

The probability for delayed neutron decay=50.8 *2*%.

E(decay)	E(level)	$I\beta^-$ [†]	Log *ft*	Comments
(1797 *20*)	11810	2.7 *2*	2.56 *4*	av Eβ=751.0 *94*
(2325 *22*)	11282	1.1 *2*	3.43 *8*	av Eβ=998 *11*
$(5.67\times10^{3}$ *8*)	7940	1.5 *5*	5.04 *15*	av Eβ=2623 *40*
$(1.083\times10^{4}$ *12*)	2780	15.8 *30*	5.34 *9*	av Eβ=5180 *60*
(11177.3 *23*)	2429.4	29.7 *30*	5.13 *5*	av Eβ=5353.8 *12*
(13606.7 *19*)	0.0	49.2 *9*	5.325 *8*	av Eβ=6561.93 *95*

[†] Absolute intensity per 100 decays.