Adopted Levels, Gammas 2004Ti06

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

Q(β^-)=13606.45 *21*; S(n)=4062.22 *19*; S(p)=13943.75 *21*; Q(α)=−1.036×10^4 *9* 2012Wa38
Note: Current evaluation has used the following Q record 13606.7 194063.9 *1913933* 7 2003Au03.
See other reaction references in (1988Aj01).

^{9}Li Levels

Cross Reference (XREF) Flags

A ^{1}H(^{8}He,^{8}He)
B ^{7}Li(t,p)
C ^{9}Be(π^-,γ)
D ^{9}Be(n,p)
E ^{9}Be(t,^{3}He)
F ^{11}B(^{6}Li,^{8}B)
G ^{107}Ag(^{14}N,n^{8}Li)

E(level)	J$^\pi$	T$_{1/2}$	XREF	Comments
0.0	3/2$^-$	178.3 ms *4*	BCDEF	%β^-=100; %β^-n=50.8 *2* T=3/2; μ=3.4391 *6*; Q=−0.0274 *10* %β^-n from (1997Au04) based on a private communication to G. Audi in 1995 from Reedy et al.. Other values are %β^-n=50.0 *18* (1991Re02) and %β^-n=51.0 *10* (1992Te03). J^π: from ^{7}Li(t,p) (1971Yo04). Γ: From (1976Al02). Other measured values are 175 msec 1 (1974Au01), 175 msec 1 (1974Ro31), 176 msec 1 (1965Do13), 177 msec 3 (1970Ch07), and 172 msec 3 from (1966La04). The accepted value is recommended in other evaluations, see (2003Au02), though it is in poor agreement with previous values; no other high resolution ^{9}Li lifetime measurements have been conducted since 1976. The weighted average of all measurements is 177.3 msec 3.
2691 *5*	(1/2$^-$)		BCD F	%IT=100 E(level): from ^{7}Li(t,p) (1964Mi04). J^π: from ^{7}Li(t,p) (1971Yo04).
4301 *12*		88 keV *25*	B FG	%n≤100 E(level): from weighted average of 4310 keV *20* from ^{7}Li(t,p) and 4296 keV *15* from ^{107}Ag(^{14}N,^{8}Li+n). Γ: From weighted average of 100 keV *30* from ^{7}Li(t,p) and 60 keV *45* from ^{107}Ag(^{14}N,^{8}Li+n).
5380† *60*		0.6 MeV *1*	B	E(level): Γ: from ^{7}Li(t,p) (1971Yo04).
6430† *15*	≥9/2	40 keV *20*	B EF	E(level): from ^{7}Li(t,p). Γ: From ^{7}Li(t,p) (1978Aj02). J^π: from ^{7}Li(t,p).
16.0×10^3 *1*		<100 keV	A	%p≤100 T=5/2 E(level): Γ: from ^{1}H(^{8}He,^{8}He) (2003Ro07).
17.1×10^3 *2*		0.8 MeV *3*	A	%p≤100 T=5/2 E(level): Γ: from ^{1}H(^{8}He,^{8}He) (2003Ro07).
18.9×10^3 *1*		0.24 MeV *10*	A	%p≤100 T=5/2 E(level): Γ: from ^{1}H(^{8}He,^{8}He) (2003Ro07).

† Decay mode not specified.

Adopted Levels, Gammas 2004Ti06 (continued)

$\gamma(^{9}Li)$

E_i(level)	J_i^π	E_γ[†]	I_γ	E_f	J_f^π
2691	$(1/2^-)$	2691 *5*	100	0.0	$3/2^-$

[†] From level energy difference; recoil correction applied.

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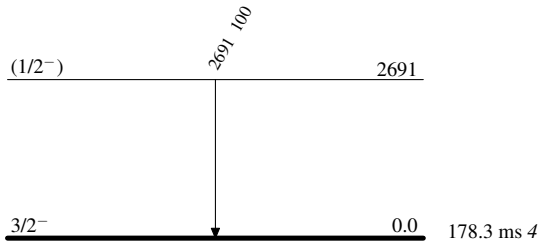
Level Scheme

Intensities: Type not specified



$^{9}_{3}Li_{6}$