

Energy levels and branching ratios [02Ti10].

<sup>6</sup><sub>3</sub>Li

$E^*$	$J^\pi$	$T$	$\Gamma_{\gamma o}$	$B(E2)$	$S_N$	$T_{1/2}$ or	Ref.	Branching ratios in percentage	
[keV]			[meV]	$[e^2 fm^4]$	(p,d)	$\Gamma_{cm}$		$E_f^*$ :	0.0
								$J_f^\pi$ :	1 <sup>+</sup>
0.0	1 <sup>+</sup>	0			0.62	Stable	69Ba05		
2186(2)	3 <sup>+</sup>	0	44.0(34)	25.6(20)	0.71	24(2) keV	02Ti10	x	
3562.9(1)	0 <sup>+</sup>	1	8190(170)		0.26	8.2(2) eV	02Ti10 02Li05	x	
4312(22)	2 <sup>+</sup>	0	5.4(28)		0.14	1.3(1) MeV	02Ti10	x	
5366(15)	2 <sup>+</sup>	1	270(50)		0.27	541(20) keV	69Ba05	x	
5650(50)	1 <sup>+</sup>	0			incl	1.5(2) MeV	02Ti10		
15800	3 <sup>+</sup>					18.0(8) MeV	02Ti10		
17985(25)	2 <sup>-</sup>	1				3.00(1) MeV	02Ti10		
21500	0 <sup>-</sup>								
23000(2)	4 <sup>+</sup>					12(2) MeV	02Ti10		
24779(54)	3 <sup>-</sup>	1				6.7(1) MeV	02Ti10		
24890(55)	4 <sup>-</sup>	1				5.3(1) MeV	02Ti10		
26590(65)	2 <sup>-</sup>	1				8.7(1) MeV	02Ti10		
31000	3 <sup>+</sup>								
			02Ti10	02Ti10	69Ba05		Ref.		

Additional data on this isotope can be found in [04Na14, 02Li05, 01Na29, 00Go35, 95Oh03, 90Mo10].  
*Abundance:* 7.59(4) %.

Data for this isotope are considered in vol. LB I/18A.

Energy levels and branching ratios [02Ti10].

<sup>7</sup><sub>3</sub>Li

$E^*$	$2J^\pi$	$2T$	$\Gamma_{\gamma o}$	$T_{1/2}$ or	Ref.	Branching ratios in percentage	
[keV]			[meV]	$\Gamma_{cm}$		$E_f^*$ :	0.0
						$2J_f^\pi$ :	3 <sup>-</sup>
0.0	3 <sup>-</sup>	1	2.8(16)·10 <sup>-4</sup>	Stable			
477.612(3)	1 <sup>-</sup>	1	6.30(31)	73(2) fs	02Ti10	x	
4630(9)	7 <sup>-</sup>	1		93(8) keV		x	
6680(50)	5 <sup>-</sup>	1		0.88(+20-10) MeV			
7459.5(10)	5 <sup>-</sup>	1	600(300)	89(7) keV	02Ti10		
9670(100)	7 <sup>-</sup>			≈400 keV			
9850	3 <sup>-</sup>			≈1200 keV			
11240(30)	3 <sup>-</sup>	3		260(35) keV	05Ko10		
13700				≈500 keV			
14700				≈700 keV			
			02Ti10		Ref.		

Additional data on this isotope can be found in [01Na29].  
*Abundance:* 92.41(4) %.

Data for this isotope are considered in vol. LB I/18A.

Energy levels and branching ratios [04Ti06].

**<sup>8</sup>Li**

$E^*$	$J^\pi$	$L$	$I_p$	$C^2S$	$n\ell j$	$C^2S$	$C^2S_p^+$	$n\ell j$	$T_{1/2}$ or	Ref.
[keV]		(t,p)	(t,p)	(t, $\alpha$ )		(d, $\tau$ )	theor		$\Gamma_{\text{cm}}$	
0.0	$2^+$	2	1.0	1.059	1p3/2	1.63	0.9+0.1	p3/2+p1/2	838(6) ms	78Aj02 88Li27
980.8(1)	$1^+$	0	0.6	0.636	1p3/2	0.61	0.21+0.2	p3/2+p1/2	8(3) fs	78Aj02 88Li27
2255(3)	$3^+$	2	1.9	0.693	1p3/2	0.48	0.35	p3/2	33(6) keV	78Aj02 88Li27
3210	$1^+$								$\approx 1$ MeV	
5400	$\langle 0,1 \rangle^+$								0.6 MeV	
6100(100)	$\langle 3 \rangle$								$\approx 1$ MeV	
6530(20)	$4^+$	$\geq 4$	0.2			0.092			35(15) keV	78Aj02 77Oo01
7100(100)									$\approx 400$ keV	
8000	$\langle 1^+ \rangle$								$\approx 1$ MeV	
9000									$\approx 6$ MeV	
10822(6)	$0^+$								$< 12$ keV	
			78Aj02			77Oo01	88Li27			Ref.
				88Li27				67Co32		Ref.

Additional data on this isotope can be found in [93Bo24, 91Br14, 91Ly01].

 $I_p$  is a relative intensity of protons in the center-of-mass system at  $25^\circ$  [78Aj02].Uncertainties in  $E^*$  and  $T_{1/2}$  are given in Supplement.

Energy levels and branching ratios [04Ti06]. Part 2

**<sup>8</sup>Li**

$E^*$	$J^\pi$	Branching ratios in percentage
[keV]		$E_f^*$ : $J_f^\pi$ :
		0.0 $2^+$
980.8(1)	$1^+$	x
2255(3)	$3^+$	x

Energy levels [04Ti06, 03Ro07].

**<sup>9</sup>Li**

$E^*$	$2J^\pi$	$2T$	$L$	$I_p$	$T_{1/2}$ or	Ref.
[keV]			(t,p)	(t,p)	$\Gamma_{\text{cm}}$	
0.0	$3^-$	3	0	1.0	178.3(4) ms	78Aj02
2691(5)	$1^-$			0.2		04Ti06
4296(15)	$\langle 5^- \rangle$		$\langle 1 \rangle$	2.4	100(30) keV	03Mo12
5380(60)					0.6(1) MeV	
6430(15)	$\geq 9$		$\geq 4$	0.4	40(20) keV	78Aj02
16000(100)					$< 100$ keV	03Ro07
17100(200)					800(300) keV	03Ro07

${}^9_3\text{Li}$ 

$E^*$	$2J^\pi$	$2T$	$L$	$I_p$	$T_{1/2}$ or	Ref.
[keV]			(t,p)	(t,p)	$\Gamma_{\text{cm}}$	
18900(100)				78Aj02	240(100) keV	03Ro07 Ref.

$I_p$  is a relative intensity of protons in the center-of-mass system at  $25^\circ$  [78Aj02].

Low-energy neutron capture in  $^8\text{Li}$  important for astrophysics is considered in [03Mo12].