

Table 9.2 from (2004TI06): Energy levels of ${}^9\text{Be}$

E_x (MeV \pm keV)	$J^\pi; T$	Γ_{cm} (keV)	Decay	Reactions
g.s.	$\frac{3}{2}^-; \frac{1}{2}$		stable	2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 41, 42, 44, 45, 47, 48, 50, 51, 52, 54
1.684 ± 7	$\frac{1}{2}^+$	217 ± 10	γ, n	4, 9, 10, 13, 16, 18, 19, 21, 23, 24, 33, 39, 42, 44
2.4294 ± 1.3	$\frac{5}{2}^-$	0.78 ± 0.13	γ, n, α	4, 9, 10, 11, 12, 16, 17, 18, 19, 21, 22, 23, 24, 26, 27, 33, 34, 35, 36, 38, 39, 41, 42, 44, 50
2.78 ± 120	$\frac{1}{2}^-$	1080 ± 110	n	4, 9, 12, 19, 42, 50
3.049 ± 9	$\frac{5}{2}^+$	282 ± 11	γ, n	4, 9, 16, 18, 19, 21, 23, 24, 33, 39, 42, 44
4.704 ± 25	$(\frac{3}{2})^+$	743 ± 55	γ, n	4, 9, 16, 19, 21, 23, 24, 42, 50
5.59 ± 100^a	$(\frac{3}{2})^-$	1330 ± 360	γ, n	19, 35
$6.38 \pm 60^{a,b}$	$\frac{7}{2}^-$	1210 ± 230	γ, n	9, 11, 16, 17, 18, 19, 21, 23, 24, 26, 34, 35, 38, 44
$6.76 \pm 60^{a,b}$	$\frac{9}{2}^+$	1330 ± 90	γ, n	16, 19
7.94 ± 80^c	$(\frac{5}{2})^-$	≈ 1000		12, 19, 35
11.283 ± 24	$(\frac{7}{2})^-$	575 ± 50	n	9, 12, 16, 19, 24, 34, 35, 38, 39
11.81 ± 20	$\frac{5}{2}^-$	400 ± 30	γ, n	9, 12, 13, 41, 50
13.79 ± 30	$\pi = -$	590 ± 60	γ, n	9, 16, 19, 41
14.3922 ± 1.8^d	$\frac{3}{2}^-; \frac{3}{2}$	0.381 ± 0.033	γ, n, α	9, 16, 19, 23, 39, 41
14.48 ± 90	$(\frac{5}{2})^-; \frac{1}{2}$	≈ 800		19, 34, 35, 39
15.10 ± 50^a		350 ± 180	γ	16, 19, 41
15.97 ± 30	$T = \frac{1}{2}$	≈ 300	γ	16, 19, 41
16.671 ± 8	$(\frac{5}{2})^+; \frac{1}{2}$	41 ± 4	γ	9, 16, 19, 39
16.9752 ± 0.8^e	$\frac{1}{2}^-; \frac{3}{2}$	0.389 ± 0.010	γ, n, p, d	4, 5, 6, 15, 16, 19
17.298 ± 7	$(\frac{5}{2})^-$	200	γ, n, p, d, α	5, 6, 7, 13, 16, 19

Table 9.2 from (2004TI06): Energy levels of ^9Be (continued)

E_x (MeV \pm keV)	$J^\pi; T$	Γ_{cm} (keV)	Decay	Reactions
17.493 \pm 7	$(\frac{7}{2})^+; \frac{1}{2}$	47	γ, n, p, d, α	5, 6, 7, 16, 19
18.02 \pm 50			γ	16
18.58 \pm 40			γ, n, p, d, α	6, 16
18.650 \pm 50 ^{a,f}	$(\frac{5}{2}^-; \frac{3}{2})$	300 \pm 100	p	19
19.20 \pm 50			n, p, d, t	6, 19
19.420 \pm 50 ^a			γ	13, 16, 19
(19.9 \pm 200)			γ, n	13
20.51 \pm 30 ^a			γ, p, d	13, 19
20.75 \pm 30 ^a			γ, n, p, t	13, 16, 19
(21.4 \pm 200)			γ, n	13
(22.4 \pm 200)			broad	γ, n
(23.8 \pm 200)		γ, n	13	
(27.0 \pm 500)		broad	γ, n	13

^a See reaction 19 and Table 9.11.

^b (1991DI03). See reaction 19; see also (1991GL02). See, however, reaction 35 and Table 9.12.

^c See reactions 12 and 35.

^d See Table 9.4.

^e See Table 9.5.

^f Spin assignment from (1985PN01).