

Table 7.8 from (2002TI10): ${}^7\text{Be}$ level parameters ^a from ${}^3\text{He} + {}^4\text{He}$

E_x (MeV \pm keV)	J^π	l_α	LS term	θ_α^2 ^b	θ_p^2
4.57 ± 50	$\frac{7}{2}^-$	3	${}^2\text{F}_{7/2}$	0.70 ± 0.04	
6.73 ± 100	$\frac{5}{2}^-$	3	${}^2\text{F}_{5/2}$	1.36 ± 0.13	0.000 ± 0.002
7.21 ± 60	$\frac{5}{2}^-$	3	${}^4\text{P}_{5/2}$	0.010 ± 0.001	0.26 ± 0.02
9.27 ± 100	$\frac{7}{2}^-$	3	${}^4\text{D}_{7/2}$	0.70 ± 0.26	$0.29^{+0.09}_{-0.18}$ ^c
10.0 ^d	$\frac{3}{2}^-$	1	$({}^4\text{P}_{3/2})$		
≈ 10.0 ^e	$\frac{1}{2}^-$		$({}^4\text{P}_{1/2})$		
11.00 ± 50 ^f	$\frac{3}{2}^-$	1	$({}^2\text{P}_{3/2}, {}^2\text{D}_{3/2})$		0.13 ± 0.02 ^g

^a See also Table 7.10 (1966LA04). For references see Table 7.7 in (1979AJ01).

^b $\gamma_\lambda^2 2\mu R^2 / 3\hbar^2$. $R = 4.0$ fm.

^c $\theta_{p1}^2 = 1.8 \pm 0.5$.

^d $\Gamma = 1.8$ MeV.

^e Broad.

^f $\Gamma = 0.4 \pm 0.05$ MeV; $T = \frac{3}{2}$.

^g θ_{p2}^2 .