Table 13.9 from (1981AJ01): Resonances in ^{9}Be(α, α_0) [a]

E_α (MeV)	Γ_{cm} (keV)	l_α	J^π	^{13}C* (MeV)
1.93 [b]	180 [b]	1, 0	$\frac{5}{2}^+$	11.98
3.80	343	0, 2	$\frac{3}{2}^-$ [c]	13.28
4.00	58	(4, 6)	$(\frac{9}{2}^-)$	13.42
4.20	685	1, 3	$\frac{5}{2}^+$ [d]	13.56
4.50	247	1, 3	$\frac{3}{2}^+$ [d]	13.76
5.00	75	2, 4	$\frac{5}{2}^-$ [e]	14.11
5.075	73	3, 5	$\frac{7}{2}^+$ [e]	14.162
(5.50)	400	(1, 3)	$(\frac{5}{2}^+)$	(14.46)
6.44	[f]		$\frac{3}{2}^-; T = \frac{3}{2}$	15.11

[a] (1973GO15): from analysis in the single-level approximation. This assumes the J^π ordering suggested by (1965LI09).

[b] This resonance is reported by (1974SA16). It is not clear whether the Γ is in the cm or lab systems. Γ_α is given as 72 keV.

[c] Favored by the analysis but the assignment is not certain and more than one state may be involved.

[d] (1973DE14) suggest the opposite ordering [$\frac{3}{2}^+$, $\frac{5}{2}^+$]: see Table 13.8.

[e] An equally good fit to the data is obtained with a $\frac{7}{2}^-$ state at 5.0 MeV and a $(\frac{3}{2}, \frac{5}{2}, \frac{7}{2})^+$ state at 5.08 MeV.

[f] Weak anomaly at $E_\alpha = 6443.5 \pm 2.0$ keV: see Table 13.7 for parameters of 15.11 MeV state, and reaction 4 (1978HI06).