

Table 13.7 from (1986AJ01): Resonances in ${}^9\text{Be}(\alpha, n){}^{12}\text{C}$ ^a

E_α ^b (MeV)	E_α ^c (MeV)	E_α ^d (MeV)	$\Gamma_{\text{c.m.}}$ (keV)	J^π	${}^{13}\text{C}^*$ ^e (MeV)
0.52	0.52		≈ 55 ^f	$(\frac{1}{2}^+)$	11.01
0.60	0.60		< 4 ^f		11.06
1.9	1.905	1.92	130	$(\frac{7}{2}^-)$	11.97
2.24		2.25	280		12.20
2.58	2.6	2.58	≈ 200	$(\frac{1}{2}^-)$	12.43
4.00	3.98	4.00	35 ± 3 ^g		13.41
4.18			570	$(\frac{3}{2}^+)$	13.54
4.50	4.47	4.50	≈ 350	$(\frac{5}{2}^+)$	13.75
5.0	5.02	5.0	≈ 200		14.12
5.40 ± 0.10	5.3		260	$(\frac{1}{2}^-, \frac{5}{2}^-)$	14.39 ± 0.1
	5.75	5.75	210		14.63
6.20 ± 0.05			380	$(\frac{3}{2}^+)$	14.94 ± 0.05
	6.44 ^h			$\frac{3}{2}^-; T = \frac{3}{2}$	15.1086
7.10 ± 0.05	7.00		220		15.56 ± 0.05
	7.75	7.8	210		16.01
7.95 ± 0.05			230		16.15 ± 0.05
9.10 ± 0.05		9.1	330		16.95 ± 0.05
9.7 ± 0.10	9.70		190		17.36 ± 0.1
10.2 ± 0.05			170		17.71 ± 0.05
11.05 ± 0.05			300		18.30 ± 0.05
11.70 ± 0.03	11.60		70		18.75 ± 0.03

^a For references see (1981AJ01).

^b Resonances in total neutron yield.

^c Resonances in n_1 group and for 4.4 MeV γ -rays.

^d Resonances in total cross section.

^e Not corrected for effects of Coulomb barrier penetration.

^f $\omega\gamma = 3.79$ and 0.88 eV, respectively (1968DA05).

^g J.L. Weil, private communication.

^h Anomalies in n_0 and n_1 yields at $E_\alpha = 6443.5 \pm 2.0$ keV: see Table 13.6 for parameters of 15.11 MeV state (1978HI06).