Table 12.11 from (1975AJ02): ^{12}C states from ^{10}B(^{3}He, p)^{12}C

E_x [a] (MeV ± keV)	$\Gamma_{c.m.}$ [c] (keV)	Γ_γ/Γ	Alpha decay [d,j]		Parity [d,k]	$J^\pi; T$
			^{8}Be$_{g.s.}$	^{8}Be*(2.9)		
4.44						
7.655 ± 6		3×10^{-4} [e]	yes		natural	0^+
9.645 ± 6	36 ± 6		yes	yes	natural	
10.849 ± 25	320 ± 30		strong	yes	natural	
11.841 ± 25	245 ± 30		no	yes	unnatural	
12.713 ± 6		0.025 ± 0.01 [f]	no	yes	unnatural	1^+
13.29 ± 30	430 ± 100		no	yes	unnatural	≥ 1 [d]
	290 ± 70 [d]					
14.083 ± 15	252 ± 15		yes	yes	natural	(2^-) [g]
	320 ± 50 [d]					
15.108 ± 6		> 0.95 [h,i]				$1^+; 1$
16.108 ± 6			weak	strong	natural	(2^-)
16.58			yes	yes	natural	
20.5 ± 100 [b]						

[a] (1962BR10). Excitation energies based on $Q_0 = 19.693$ MeV and Po $\alpha = 5.3056$ MeV: see also (1958MO99, 1959AL96).

[b] (1970BO39). Previous work by (1967CO1F) is unpublished.

[c] (1962BR10).

[d] (1966WA16).

[e] (1961AL23): The cascade decay (via 4.44) is $(3.3 \pm 0.9) \times 10^{-4}$ of the total decay. This is 50 times stronger than the direct g.s. decay (via pairs). $\Gamma_{rad}/\Gamma = (3.5 \pm 1.2) \times 10^{-4}$ (1964HA23): see Table 12.9.

[f] Branching ratios to ^{12}C*(0, 4.4) are $85 \pm 4\%$ and $15 \pm 4\%$, respectively (1972AL03): see Table 12.9.

[g] Proton-α correlations require $J \geq 2$ (1966WA16).

[h] (1965AL1B): $\Gamma_\alpha/\Gamma < 0.05$.

[i] Branching ratios to ^{12}C*(0, 4.4, 7.7, 12.7) are, respectively, $92 \pm 2\%$, $2.3 \pm 0.9\%$, $2.6 \pm 0.7\%$, $1.4 \pm 0.4\%$ (1972AL03): see Table 12.9. Gamma rays are observed with energies $E_\gamma = 15.11, 10.71 \pm 0.05, 7.48 \pm 0.03$, 4.44 and 2.38 ± 0.02 MeV (1972AL03).

[j] (1968KR02).

[k] (1965AL1B).