

Table 13.16 from (1976AJ04): Resonances in $^{12}\text{C}(n, n)^{12}\text{C}$ ^a

E_{res} (MeV \pm keV)	Γ_{cm} (keV)	$^{13}\text{C}^*$ (MeV)	l_n	J^π		Refs.
		3.09	0	$\frac{1}{2}^+$	$\theta^2 = 0.185$ ^b	(1970ME1C)
2.079 ± 3 ^c	6	6.864	2	$\frac{5}{2}^+$	f	(1961LA1A, 1963PI03, 1968DA1F, 1973HO39, 1975HE02)
2.819 ± 3 ^d	1.2 ± 0.3	7.547				(1968CI1A, 1975HE02)
2.94 ± 10 ^c	124 ± 7	7.66	2	$\frac{3}{2}^+$		(1973FA06, 1973HO39, 1975HU01)
3.472 ± 15 ^c	1000 ± 50	8.149	2	$\frac{3}{2}^+$	$\theta^2 = 0.35$ ^f	(1961FO07, 1973FA06, 1973HO39, 1975HU01)
4.259 ± 15 ^c	210 ± 15	8.875	1	$\frac{1}{2}^-$	$\Gamma_{\text{el}}/\Gamma = 1.00$ ^f	(1961FO07, 1972GA13, 1973FA06, 1973HO39)
4.935 ± 4	5	9.498	1	$(\frac{1}{2}^-, \frac{3}{2}^-)$	1.00 ^f	(1961FO07, 1969DA13, 1972GA13, 1975HE02)
5.368 ± 5	26 ± 3	9.897	1	$\frac{3}{2}^-$	0.70 ± 0.10 ^f	(1961FO07, 1969DA13, 1972GA13, 1975HE02)
6.294 ± 5	53 ± 4	10.751	3	$\frac{7}{2}^-$	0.70 ± 0.10	(1961FO07, 1969DA13, 1972GA13, 1975HE02)
6.5		10.9				(1961FO07)
6.558 ± 8	37 ± 4	10.994	(0)	$(\frac{1}{2}^+)$	0.40 ± 0.10	(1961FO07, 1972GA13)
6.7		11.1				(1961FO07)
(7.4)	(250)	(11.8)		$(\geq \frac{5}{2})$		(1961FO07)
7.759 ± 8	(200)	12.102		$(> \frac{7}{2})$		(1961FO07, 1969DA13)
(8.1)	(150)	(12.4)				(1961FO07)
9.3	370	13.5				(1961FO07)
11.1	450	15.2		$(\geq \frac{3}{2})$		(1961FO07)
12.1	230	16.1				(1961FO07)
15.8 ^e	≈ 460	19.5	1	$(\frac{1}{2}, \frac{3}{2})^-$		(1968BO34)
19.6 ± 200	≈ 1000	23.0				(1965HA21, 1968BO34, 1970DE14)

^a See Table 13.10 in (1970AJ04) for earlier references. See also (1973MU14).

^b $\gamma_n^2 = 540$ keV, radius = 4.80 fm (1970ME1C: single bound state + hard sphere scattering). See also (1970UT1A).

^c See also (1973AB07).

^d See also (1973KN06).

^e Resonance in elastic scattering: see also Table 13.17.

^f See also Table 13.18 and Table I in (1973DA17).