

Table 17.8 from (1982AJ01): Resonances in $^{13}\text{C}(\alpha, n)$ and $^{13}\text{C}(\alpha, \alpha)$ ^a

E_{res} (MeV \pm keV)	$\Gamma_{\text{c.m.}}$ (keV)	Γ_{α}/Γ	J^{π}	E_x (MeV)
1.0563 ± 1.5 ^b	1.5 ± 0.2		$\frac{5}{2}$	7.1676
1.3367 ± 1.5	$0.6^{+0.2}_{-0.1}$			7.3820
1.3406 ± 1.5	$0.8^{+0.3}_{-0.2}$			7.3849
1.590 ± 2	≤ 1		$\frac{7}{2}^{-}$	7.576
1.745 ± 6	≤ 15		$\frac{5}{2}^{+}$	7.694
2.083 ± 8	75	0.03	$\frac{1}{2}^{-}$	7.953
2.250 ± 8	110	0.05	$\frac{3}{2}^{+}$	8.080
2.407 ± 8	70	0.11	$\frac{3}{2}^{-}$	8.200
2.604 ± 4	9 ± 3	0.44	$\frac{1}{2}^{+}$	8.351
2.680 ± 3	4 ± 3	0.08	$\frac{5}{2}^{+}$	8.409
2.763 ± 3	7 ± 3	0.97	$\frac{7}{2}^{+}$	8.472
2.808 ± 3	5 ± 3	0.26	$\frac{5}{2}^{-}$	8.507
3.059 ± 5	50 ± 3	0.06	$\frac{3}{2}^{-}$	8.699
(3.1)	broad		$\frac{1}{2}^{-}$	(8.7)
3.318 ± 8	101 ± 3	0.50	$\frac{3}{2}^{+}$	8.897
3.415 ± 4	21 ± 3	0.04	$\frac{7}{2}^{-}$	8.971
3.645 ± 4	4 ± 3	0.45	$\frac{1}{2}^{-}$	9.147
(3.69)	3	1.00	$\frac{7}{2}^{-}$	(9.18)
3.714 ± 4	5.5 ± 1	0.20	$\frac{5}{2}^{+}$	9.200
4.096 ± 4	15 ± 1	0.85	$\frac{5}{2}^{-}$	9.492
(4.3)			$\frac{3}{2}^{-}$	(9.6)
4.394 ± 5	16 ± 1	0.70	$\frac{7}{2}^{+}$	9.719
4.465 ± 15	≈ 25	0.90	$\frac{3}{2}^{+}$	9.774
4.583 ± 5	14			9.864
4.600 ± 15	≈ 10			9.877
4.730 ± 20	≈ 80	0.78	$\frac{5}{2}^{+}$	9.976
4.820 ± 20	≈ 100			10.045
(4.94)	138	0.85	$\frac{5}{2}^{+}$	(10.14)
4.993 ± 5	45	0.15	$\frac{7}{2}^{-}$	10.177
(5.08)	122	0.60	$\frac{7}{2}^{+}$	(10.2)
5.200 ± 15	150		$\frac{5}{2}^{+}, \frac{7}{2}^{-}$	10.336

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E_{res} (MeV \pm keV)	$\Gamma_{\text{c.m.}}$ (keV)	Γ_{α}/Γ	J^{π}	E_x (MeV)
5.315 ± 3^c	14 ± 3			10.423
5.40	75 ± 30		$\frac{5}{2}^+, \frac{7}{2}^-$	10.49
5.492 ± 3^c	51 ± 2		$\frac{7}{2}^-, \frac{9}{2}^+$	10.559
(5.68)	≤ 25	1.00	$(\frac{7}{2}^+)$	(10.70)
5.778 ± 3^c	74 ± 3		$\frac{1}{2}^+, \frac{7}{2}^-$	10.777
5.945 ± 3^c	46 ± 2		$\frac{5}{2}$	10.905
6.117 ± 3^c	31 ± 3			11.036
6.167	5.0 ± 1.1		$\frac{1}{2}^-; T = \frac{3}{2}$	11.075 ± 0.005
6.380 ± 3^c	80 ± 3			11.238
6.883 ± 3^c	65 ± 2			11.622
7.051 ± 10	40 ± 25			11.750
7.136 ± 15	12 ± 3			11.815
7.384 ± 15				12.005
7.52 ± 20	150 ± 50			12.11
7.736 ± 15	100 ± 30			12.274
7.88 ± 20				12.38
7.927 ± 15				12.420
7.975	8 ± 2		$\frac{3}{2}^-; T = \frac{3}{2}$	12.457 ± 0.005
8.156 ± 15	75 ± 30			12.595
8.253 ± 15	≈ 5			12.669
8.44 ± 25				12.81
8.59 ± 20	≥ 150			12.93
8.611	6 ± 2		$\frac{1}{2}^+; T = \frac{3}{2}$	12.943 ± 0.006
8.675	≤ 3		$\frac{5}{2}^-; T = \frac{3}{2}$	12.992 ± 0.006
8.72 ± 20				13.03
8.785 ± 15	16 ± 4			13.076
9.319 ± 15	≈ 120			13.484
9.483 ± 15	250 ± 100			13.609

^a See references listed in [Tables 17.8 of \(1977AJ02\)](#) and [17.6 of \(1971AJ02\)](#). See also [Table 17.12 here](#).

^b See also [\(1976RA36\)](#).

^c [\(1975BE44\)](#).