

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

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

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

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

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

<sup>b</sup> See also [\(1976RA36\)](#).

<sup>c</sup> [\(1975BE44\)](#).