

Table 15.11 from (1991JA01): Resonances in $^{14}\text{C} + \text{p}$ ^a

E_p (MeV \pm keV)	$\Gamma_{\text{c.m.}}$ (keV)	Γ_n (keV)	Γ_p (keV)	Γ_α (keV)	Γ_γ (eV)	J^π	E_x (MeV \pm keV)
0.261 ± 0.6^f	< 0.5		$(0.08 \pm 0.01) \times 10^{-6}$		$(0.29 \pm 0.05) \text{ meV}^b$	$\frac{5}{2}^-$	10.4497 ± 0.3^d
0.352 ± 1^f					$37 \pm 6 \text{ meV}^b$	$\frac{5}{2}^+$	10.5333 ± 0.5^d
0.519 ± 1^f			$(0.49 \pm 0.10) \times 10^{-6}$		$3.1 \pm 0.5 \text{ meV}^b$	$\frac{9}{2}^+$	10.6932 ± 0.3^d
0.527 ± 1^f			0.2		0.37 ± 0.07^g	$\frac{3}{2}^-$	10.7019 ± 0.3^d
0.634 ± 1^f			$(0.22 \pm 0.10) \times 10^{-3}$		0.27 ± 0.14^h	$\frac{3}{2}^{(+)}$	10.804 ± 2^d
1.162 ± 2	7.9 ± 3	2.3	5.6	< 0.3	0.29 ^c	$\frac{1}{2}^-$	11.291
1.3188 ± 0.5	41.4 ± 1.1	34.6 ± 0.9	6.8 ± 0.5	< 0.3	4.2 ± 0.7^c	$\frac{1}{2}^+$	11.4376
1.509 ± 4	404.9 ± 6.3	4.0 ± 0.2	400.9 ± 6.3	< 0.3	19.2 ± 0.4^c	$\frac{1}{2}^+; T = \frac{3}{2}$	11.615
1.668 ± 3	37	36.5	0.5	< 0.3		$\frac{3}{2}^+$	11.763
1.788 ± 3	24.5	24.5	0.03	< 0.3		$\frac{3}{2}^-, (\frac{5}{2}^-)$	11.875
1.884 ± 3	21.5	21.2	0.3	< 0.3		$\frac{1}{2}^-$	11.965
2.025 ± 4	14 ± 5	12.0	1.7	0.6		$\frac{5}{2}^+$	12.096
2.077 ± 3	47 ± 7	30.2	16.6	2.2		$\frac{3}{2}^-$	12.145
2.272 ± 4	22	21.7	0.3	< 0.3		$\frac{5}{2}^{(+)}$	12.327
2.450 ± 4	44 ± 3	28	0.3	5.5		$\frac{5}{2}^+; T = \frac{1}{2}$	12.493
2.482 ± 8	58 ± 4				4.6 ± 0.7	$\frac{5}{2}^+; T = \frac{3}{2}$	12.523
2.908 ± 4	70	25	9.0	15		$\frac{3}{2}^-$	12.920
2.93 ± 10	81	n.r.	0.5	80		$\frac{5}{2}^+$	12.940
3.19	5.5	r					13.18
3.38 ± 10	24	6	6.0	12		$\frac{3}{2}^-$	13.360
3.421 ± 10	57	20.6	35	5.5	3.0 ± 0.9	$\frac{3}{2}^+$	13.390
3.57 ± 10	124	≈ 75	8.0	≈ 40		$\frac{3}{2}^-$	13.537

Table 15.11 from (1991JA01): Resonances in $^{14}\text{C} + \text{p}^a$ (continued)

E_p (MeV \pm keV)	$\Gamma_{\text{c.m.}}$ (keV)	Γ_n (keV)	Γ_p (keV)	Γ_α (keV)	Γ_γ (eV)	J^π	E_x (MeV \pm keV)
3.65 \pm 10	88	≈ 16	12.0	≈ 60		$\frac{1}{2}^+$	13.612
3.71		r					13.67
4.0	930		500		r	$\frac{1}{2}^+$	13.9
4.1 \pm 100	98 \pm 10		25	r		$\frac{5}{2}^+$	14.0
4.2 \pm 100				r		$(\frac{3}{2})$	14.1
4.6 \pm 150	74 \pm 7		20	r	(r)	$\frac{3}{2}^-$	14.5
4.8	149 \pm 18		39	r	(r)	$\frac{3}{2}^+$	14.7
4.83	750				r		14.71
5.08	158 \pm 19		20		r	$\frac{3}{2}^+$	14.95
5.16 \pm 130	28 \pm 3		9.0	r		$\frac{3}{2}^+$	15.0
5.54 \pm 130	39 \pm 5		12	r	(r)	$\frac{3}{2}^-$	15.4
5.62	750				r		15.45
6.4 \pm 150	130 \pm 14		19	r		$\frac{3}{2}^+$	16.2
6.70	560				r		16.46
6.925	90 \pm 10			r	r	$(\frac{3}{2}^+; \frac{1}{2})$	16.67
7.18 \pm 180	110 \pm 50			r		$\frac{5}{2}$	16.9
≈ 9					r	$\frac{1}{2}^+; \frac{1}{2}$	19
10.0	sharp		(1000?)		r	$\frac{3}{2}^+; (T = \frac{3}{2})$	19.5 ^e
11.0	sharp				r	$\frac{3}{2}^+$	20.5
12.35					r		21.72
13.65					r		22.94
16.4					r	$(T = \frac{3}{2})$	25.5 ^e

Table 15.11 from (1991JA01): Resonances in $^{14}\text{C} + \text{p}$ ^a (continued)

E_p (MeV \pm keV)	$\Gamma_{\text{c.m.}}$ (keV)	Γ_n (keV)	Γ_p (keV)	Γ_α (keV)	Γ_γ (eV)	J^π	E_x (MeV \pm keV)
≈ 29					r		≈ 37

r = resonant

n.r. = non-resonant

^a See [Tables 15.5 in \(1959AJ76\)](#), [15.11 in \(1970AJ04\)](#) and [15.12 in \(1981AJ01\)](#) for references and additional comments.

^b ω_γ .

^c Γ_{γ_0} . I am indebted to P.M. Endt for this correction.

^d E_x measured directly: see [\(1981AJ01\)](#).

^e Analog not observed in $^{14}\text{N}(p, \gamma)^{15}\text{O}$.

^f Resonances are observed at $E_p = 262, 351, 520, 528$ and 635 keV [± 1 keV] [\(1990GO25\)](#). See also [Table 15.5](#). I am indebted to Drs. J. Gorres and M. Wiescher for sending me these results prior to publication.

^g $\omega_\gamma = 840 \pm 130$ meV [\(1990GO25\)](#).

^h $\omega_\gamma = 270 \pm 40$ meV [\(1990GO25\)](#).