

Table 15.12 from (1981AJ01): 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)	Refs.
0.261 \pm 0.6	< 0.5		(0.08 \pm 0.01) $\times 10^{-6}$		> 21 meV		10.4497 \pm 0.3 ^f	A, (1975BE23, 1976BE1B)
0.352 \pm 1					(3.4 \pm 0.4) $\times 10^{-2}$ b		10.5333 \pm 0.5 ^f	A, (1975BE23, 1976BE1B)
0.519 \pm 1			(0.49 \pm 0.10) $\times 10^{-6}$		> 40 meV		10.6932 \pm 0.3 ^f	(1975BE23, 1976BE1B)
0.527 \pm 1			0.2		0.37 \pm 0.07		10.7019 \pm 0.3 ^f	A, (1976BE1B)
0.634 \pm 1			(0.22 \pm 0.10) $\times 10^{-3}$		0.27 \pm 0.14		10.804 \pm 2 ^f	A, (1975BE23, 1976BE1B)
1.162 \pm 2	7.9 \pm 3	2.3	5.6	< 0.3	0.29 ^g		11.291	A, (1977NI03)
1.3188 \pm 0.5	41.4 \pm 1.1	34.6 \pm 0.9	6.8 \pm 0.5	< 0.3	4.2 \pm 0.7 ^g		11.4376	A, (1977NI03)
1.509 \pm 4	404.9 \pm 6.3	4.0 \pm 0.2	400.9 \pm 6.3	< 0.3	19.2 \pm 0.4 ^{g,h}	$\frac{1}{2}^+; T = \frac{3}{2}$	11.615	A, (1975HA39, 1977NI03)
1.688 \pm 3	37	36.5	0.5	< 0.3			11.782	A, (1977NI03)
1.788 \pm 3	24.5	24.5	0.03	< 0.3		$\frac{3}{2}^-; (\frac{5}{2}^-)$	11.875	A, (1977NI03)
1.884 \pm 3	21.5	21.2	0.3	< 0.3			11.965	A, (1977NI03)
2.025 \pm 4	14 \pm 5	12.0	1.7	0.6			12.096	A, (1977NI03)
2.077 \pm 3	47 \pm 7	30.2	16.6	2.2			12.145	A, (1977NI03)
2.272 \pm 4	22	21.7	0.3	< 0.3		(+)	12.327	A
2.450 \pm 4	44 \pm 3	28	0.3	5.5			12.493	A, (1977NI03)
2.482 \pm 8	58 \pm 4				4.6 \pm 0.7	$\frac{1}{2}^+; T = \frac{1}{2}$	12.523	A, (1975HA39, 1977NI03)
2.908 \pm 4	70	25	9.0	15			12.920	A, (1974WE06, 1977NI03)
2.93 \pm 10	81	n.r.	0.5	80			12.940	A
3.19	5.5	r					13.18	A
3.38 \pm 10	24	6	6.0	12			13.360	A, (1974WE06)
3.421 \pm 10	57	20.6	35	5.5	3.0 \pm 0.9		13.390	A, (1974WE06, 1975HA39, 1976KU01)
3.57 \pm 10	124	\approx 75	8.0	\approx 40			13.537	A, (1974WE06)
3.65 \pm 10	88	\approx 16	12.0	\approx 60			13.612	A, (1974WE06)
3.71		r					13.67	A
4.0	930		500		r		13.9	(1974WE06, 1975HA39)
4.1 \pm 100	98 \pm 10		25	r			14.0	(1974WE06, 1975WE09)
4.2 \pm 100				r			14.1	(1975WE09)
4.6 \pm 150	74 \pm 7		20	r	(r)		14.5	(1974WE06, 1975WE09)
4.8	149 \pm 18		39	r	(r)		14.7	(1972WE07, 1974WE06, 1975WE09)
4.83	750				r		14.71	(1975HA39)
5.08	158 \pm 19		20		r		14.95	(1974WE06, 1975WE09, 1976WE07)
5.16 \pm 130	28 \pm 3		9.0	r			15.0	(1974WE06, 1975WE09)
5.54 \pm 130	39 \pm 5		12	r	(r)		15.4	(1972WE07, 1974WE06, 1975WE09)
5.62	750				r		15.45	(1975HA39)
6.4 \pm 150	130 \pm 14		19	r			16.2	(1974WE06, 1975WE09)

Table 15.12 from (1981AJ01): 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)	Refs.
6.70	560				r		16.46	(1975HA39)
6.925	90 ± 10			r	r	$(\frac{3}{2}^{+}; \frac{1}{2})^{\text{c}}$	16.67	(1975HA39, 1975WE09, 1976WE07)
7.18 ± 180	110 ± 50			r		$\frac{5}{2}^{+}$	16.9	(1975WE09)
≈ 9					r	$\frac{1}{2}^{+}; \frac{1}{2}$	19	(1973WE04, 1974WE01)
10.0	sharp		(1000)		r	$\frac{3}{2}^{+}; (T = \frac{3}{2})$	19.5 ^e	(1973WE04, 1974WE01, 1974WE07, 1975HA39, 1976SN01, 1976WE07)
11.0	sharp				r	$\frac{3}{2}^{+}$	20.5	(1973WE04, 1974WE01, 1975HA39, 1976SN01, 1976WE07)
12.35					r		21.72	(1975HA39, 1976WE07)
13.65					r		22.94	(1975HA39, 1976SN01)
16.4					r	$(T = \frac{3}{2})$	25.5 ^e	(1975HA39, 1976SN01)
≈ 29					r		≈ 37	(1975HA39)

A: see references listed for this state in Table 15.11 of (1970AJ04) and Table 15.12 of (1976AJ04).

N

r = resonant.

n.r. = non-resonant.

^a See also Tables 15.5 in (1959AJ76) and 15.11 in (1970AJ04).

^b $\omega\gamma$ (in eV) (1969SI04).

^c See, however, (1976WE11).

^d (1970RA22, 1972RA03) suggest that this state has $T = \frac{3}{2}$: however, no analog state has been observed in ^{15}C (see, e.g., Fig. 13).

^e Not observed in $^{14}\text{N}(p, \gamma)^{15}\text{O}$ (1975HA39).

^f E_{x} measured directly ((1976BE1B) and R.P. Beukens, private communication).

^g $\Gamma_{\gamma 0}$. I am indebted to P.M. Endt for this correction.

^h See also (1971KU01).