Table 15.12 from (1976AJ04): Resonances in $^{14}C + p$ [a]

E_p (MeV ± keV)	$\Gamma_{c.m.}$ (keV)	Γ_n (keV)	Γ_p (keV)	Γ_α (keV)	Γ_γ (eV)	J^π	E_x (MeV ± keV)	Refs.
0.261 ± 0.6	< 0.5		$(0.08 \pm 0.01) \times 10^{-6}$		> 21 meV	$\frac{5}{2}^-$	10.4497 ± 0.3 [f]	A, (1975BE23, 1976BE1B)
0.352 ± 1					$(3.4 \pm 0.4) \times 10^{-2}$ [b]	$\frac{5}{2}^+$	10.5333 ± 0.5 [f]	A, (1975BE23, 1976BE1B)
0.519 ± 1			$(0.49 \pm 0.10) \times 10^{-3}$		> 40 meV	$\frac{5}{2}^+$	10.6932 ± 0.3 [f]	(1975BE23, 1976BE1B)
0.527 ± 1			0.2		0.37 ± 0.07	$\frac{3}{2}^-$	10.7019 ± 0.3 [f]	A, (1976BE1B)
0.634 ± 1			$(0.22 \pm 0.10) \times 10^{-3}$		0.27 ± 0.14	$\frac{3}{2}(+)$	10.804 ± 2 [f]	A, (1975BE23, 1976BE1B)
1.162 ± 2	7.9 ± 3	2.3	5.6	< 0.3	0.29	$\frac{1}{2}^-$	11.291	A
1.3188 ± 0.5	41.4 ± 1.1	34.6 ± 0.9	6.8 ± 0.5	< 0.3	4.2 ± 0.7	$\frac{1}{2}^+$	11.4375	A
1.509 ± 4	404.9 ± 6.3	4.0 ± 0.2	400.9 ± 6.3	< 0.3	19.2 ± 0.4	$\frac{1}{2}^+; T = \frac{3}{2}$	11.615	A, (1971KU01, 1975HA39)
1.688 ± 3	37	36.5	0.5	< 0.3		$\frac{3}{2}^+$	11.782	A
1.788 ± 3	24.5	24.5	0.03	< 0.3		$\frac{3}{2}^-, (\frac{5}{2}^-)$	11.875	A
1.884 ± 3	21.5	21.2	0.3	< 0.3		$\frac{1}{2}^-$	11.965	A
2.025 ± 4	14 ± 5	12.0	1.7	0.6		$\frac{5}{2}^+$	12.096	A
2.077 ± 3	47 ± 7	30.2	16.6	2.2		$\frac{3}{2}^-$	12.145	A
2.272 ± 4	22	21.7	0.3	< 0.3		$\frac{5}{2}(+)$	12.327	A
2.450 ± 4	44 ± 3	28	0.3	5.5		$\frac{5}{2}^+; T = \frac{1}{2}$	12.493	A, (1971YO03)
2.482 ± 8	58 ± 4				4.6 ± 0.7	$\frac{5}{2}^+; T = \frac{3}{2}$	12.522	A, (1971KU01, 1971YO03, 1975HA39)
2.908 ± 4	70	25	9.0	15		$\frac{3}{2}^-$	12.920	A, (1972RA03, 1974WE06)
2.93 ± 10	81	n.r.	0.5	80		$\frac{5}{2}^+$	12.940	(1972RA03)
3.19	5.5						13.18	A
3.38 ± 10	24	6	6.0	12		$\frac{3}{2}^-$	13.360	A, (1972RA03, 1974WE06)
3.42 ± 10	57	20.6	35	5.5	3.0 ± 0.9	$\frac{5}{2}^+$ [d]	13.390	A, (1970RA22, 1972RA03, 1974WE06, 1975HA39, 1976KU01)
3.57 ± 10	124	≈ 75	8.0	≈ 40		$\frac{3}{2}^-$	13.537	(1972RA03, 1974WE06)
3.65 ± 10	88	≈ 16	12.0	≈ 60		$\frac{1}{2}^+$	13.612	(1972RA03, 1974WE06)
3.71 [c]							13.67	A
4.0 [c]	930		500		r	$\frac{1}{2}^+$	13.9	(1974WE06, 1975HA39)
4.1 ± 100	98 ± 10		25	r		$\frac{5}{2}^+$	14.0	(1974WE06, 1975WE09)
4.2 ± 100				r		$(\frac{3}{2}^-)$	14.1	(1975WE09)
4.6 ± 150	74 ± 7		20	r	(r)	$\frac{3}{2}^-$	14.5	(1974WE06, 1975WE09)
4.8	149 ± 18		39	r	(r)	$\frac{3}{2}^+$	14.7	(1972WE07, 1974WE06, 1975WE09)
4.83	750				r		14.71	(1975HA39)
5.08	158 ± 19		20			$\frac{3}{2}^+$	14.95	(1974WE06, 1975WE09)
5.16 ± 130	28 ± 3		9.0	r		$\frac{3}{2}^+$	15.0	(1974WE06, 1975WE09)
5.54 ± 130	39 ± 5		12	r	(r)	$\frac{5}{2}^-$	15.4	(1972WE07, 1974WE06, 1975WE09)
5.62	750				r		15.45	(1975HA39)
6.4 ± 150	130 ± 14		19	r		$\frac{3}{2}^+$	16.2	(1974WE06, 1975WE09)
6.70	560				r		16.46	(1975HA39)
6.85 ± 180	100 ± 50			r		$\frac{5}{2}, \frac{3}{2}^+$	16.6	(1975WE09)
6.925	90 ± 10			r	r	$\frac{3}{2}^+; \frac{1}{2}$	16.67	(1975HA39)
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)
11.0	sharp				r	$\frac{3}{2}^+$	20.5	(1973WE04, 1974WE01, 1975HA39)
12.35					r		21.72	(1975HA39)
13.65					r		22.94	(1975HA39)
16.4					r	$(T = \frac{3}{2})$	25.5 [e]	(1975HA39)
≈ 29							≈ 37	(1975HA39)

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

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 and private communication).

[c] See also (1972RA1C).

[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: Isobar Diagram). See also (1971KU1B, 1972WE07, 1975HA39).

[e] Not observed in ^{14}N(p, γ)^{15}O (1975HA39).

[f] E_x measured directly ((1976BE1B) and R.P. Beukens, private communication).