

Table 15.12 from (1986AJ04): Resonances in  $^{14}\text{C} + \text{p}$  <sup>a</sup>

$E_p$ (MeV $\pm$ keV)	$\Gamma_{\text{c.m.}}$ (keV)	$\Gamma_n$ (keV)	$\Gamma_p$ (keV)	$\Gamma_\alpha$ (keV)	$\Gamma_\gamma$ (eV)	$J^\pi$	$E_x$ (MeV $\pm$ keV)
0.261 $\pm$ 0.6	< 0.5		$(0.08 \pm 0.01) \times 10^{-6}$		> 21 meV	$\frac{5}{2}^-$	10.4497 $\pm$ 0.3 <sup>d</sup>
0.352 $\pm$ 1					$(3.4 \pm 0.4) \times 10^{-2}$ <sup>b</sup>	$\frac{5}{2}^+$	10.5333 $\pm$ 0.5 <sup>d</sup>
0.519 $\pm$ 1			$(0.49 \pm 0.10) \times 10^{-6}$		> 40 meV	$\frac{9}{2}^+$	10.6932 $\pm$ 0.3 <sup>d</sup>
0.527 $\pm$ 1			0.2		0.37 $\pm$ 0.07	$\frac{3}{2}^-$	10.7019 $\pm$ 0.3 <sup>d</sup>
0.634 $\pm$ 1			$(0.22 \pm 0.10) \times 10^{-3}$		0.27 $\pm$ 0.14	$\frac{3}{2}^{(+)}$	10.804 $\pm$ 2 <sup>d</sup>
1.162 $\pm$ 2	7.9 $\pm$ 3	2.3	5.6	< 0.3	0.29 <sup>c</sup>	$\frac{1}{2}^-$	11.291
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 <sup>c</sup>	$\frac{1}{2}^+$	11.4376
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 <sup>c</sup>	$\frac{1}{2}^+; T = \frac{3}{2}$	11.615
1.688 $\pm$ 3	37	36.5	0.5	< 0.3		$\frac{3}{2}^+$	11.782
1.788 $\pm$ 3	24.5	24.5	0.03	< 0.3		$\frac{3}{2}^-, (\frac{5}{2}^-)$	11.875
1.884 $\pm$ 3	21.5	21.2	0.3	< 0.3		$\frac{1}{2}^-$	11.965
2.025 $\pm$ 4	14 $\pm$ 5	12.0	1.7	0.6		$\frac{5}{2}^+$	12.096
2.077 $\pm$ 3	47 $\pm$ 7	30.2	16.6	2.2		$\frac{3}{2}^-$	12.145
2.272 $\pm$ 4	22	21.7	0.3	< 0.3		$\frac{5}{2}^{(+)}$	12.327
2.450 $\pm$ 4	44 $\pm$ 3	28	0.3	5.5		$\frac{5}{2}^+; T = \frac{1}{2}$	12.493
2.482 $\pm$ 8	58 $\pm$ 4				4.6 $\pm$ 0.7	$\frac{5}{2}^+; T = \frac{3}{2}$	12.523
2.908 $\pm$ 4	70	25	9.0	15		$\frac{3}{2}^-$	12.920
2.93 $\pm$ 10	81	n.r.	0.5	80		$\frac{5}{2}^+$	12.940
3.19	5.5	r.					13.18
3.38 $\pm$ 10	24	6	6.0	12		$\frac{3}{2}^-$	13.360
3.421 $\pm$ 10	57	20.6	35	5.5	3.0 $\pm$ 0.9	$\frac{3}{2}^+$	13.390
3.57 $\pm$ 10	124	$\approx$ 75	8.0	$\approx$ 40		$\frac{3}{2}^-$	13.537

Table 15.12 from (1986AJ04): Resonances in  $^{14}\text{C} + \text{p}^a$  (continued)

$E_p$ (MeV $\pm$ keV)	$\Gamma_{\text{c.m.}}$ (keV)	$\Gamma_n$ (keV)	$\Gamma_p$ (keV)	$\Gamma_\alpha$ (keV)	$\Gamma_\gamma$ (eV)	$J^\pi$	$E_x$ (MeV $\pm$ keV)
3.65 $\pm$ 10	88	$\approx 16$	12.0	$\approx 60$		$\frac{1}{2}^+$	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
$\approx 9$					r.	$\frac{1}{2}^+; \frac{1}{2}$	19
10.0	sharp		(1000)		r.	$\frac{3}{2}^+; (T = \frac{3}{2})$	19.5 <sup>e</sup>
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 <sup>e</sup>

Table 15.12 from (1986AJ04): Resonances in  $^{14}\text{C} + \text{p}$  <sup>a</sup> (continued)

$E_p$ (MeV $\pm$ keV)	$\Gamma_{\text{c.m.}}$ (keV)	$\Gamma_n$ (keV)	$\Gamma_p$ (keV)	$\Gamma_\alpha$ (keV)	$\Gamma_\gamma$ (eV)	$J^\pi$	$E_x$ (MeV $\pm$ keV)
$\approx 29$					r.		$\approx 37$

r. = resonant.

n.r. = non-resonant.

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

<sup>b</sup>  $\omega_\gamma$  (in eV).

<sup>c</sup>  $\Gamma_{\gamma_0}$ . I am indebted to P.M. Endt for this correction.

<sup>d</sup>  $E_x$  measured directly: see [\(1981AJ01\)](#).

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