

Table 15.23 from (1970AJ04): Resonances in $^{14}\text{N} + \text{p}$

E_p (keV)	Γ_{lab} (keV)	$\omega\Gamma_\gamma$ (eV)	Particles out	J^π	E_x (MeV)	Refs.
278.1 ± 0.4	1.7 ± 0.5	0.014	γ	$\frac{1}{2}^+$	7.5522	(1951DU08, 1955BA83, 1957PIZZ, 1959PO79, 1960TA17, 1963HE11)
1061.6 ± 1.4	3.9 ± 0.7	0.95	γ	$\frac{3}{2}^+$	8.2833	(1951DU08, 1956TA16, 1957HA03, 1959GA05, 1959HE47, 1959VA04, 1959VA08, 1963HE11, 1966EV01)
1550 ± 6	34	0.16	γ	$\frac{1}{2}^+$	8.739	(1951DU08, 1956TA16, 1957BO58, 1957HA03, 1966EV01)
1742.0 ± 1.2^a	4 ± 1	0.21	γ	$\frac{3}{2}^+$	8.918	(1951DU08, 1956TA16, 1957BO58, 1957HA03, 1959BA16, 1959VA08, 1963CO13, 1966EV01)
1806.4 ± 1.5^a	4.2 ± 0.4	0.52	γ	$(\frac{1}{2}, \frac{3}{2})^-$	8.9781	(1951DU08, 1956TA16, 1957BO58, 1957HA03, 1959VA08, 1963CO13, 1966EV01)
2348 ± 3	10.8 ± 0.5	2.4	γ	$\frac{5}{2}^-$	9.483	(1951DU08, 1957BO58, 1959VA08, 1967EV02, 1967LA05, 1967LA10, 1969OC1B)
2368 ± 32	300 ± 26		γ	$\frac{3}{2}^+ (\frac{1}{2}^+)$	9.50	(1957BO58, 1959VA08, 1967EV02, 1967LA05, 1967LA10)
2479 ± 1.7	9.4 ± 0.5	3.3	γ	$\frac{3}{2}^-$	9.606	(1951DU08, 1959VA08, 1967EV02, 1967LA05, 1967LA10, 1969OC1B)
2537 ± 4	2 ± 1		p	$(\frac{7}{2}, \frac{9}{2})^-$	9.660	(1967LA05, 1967LA10)
2600 ± 50	1270 ± 50	46	γ	$(\frac{1}{2}, \frac{3}{2})^+$	9.72	(1951DU08)
3200 ± 8	17 ± 4		p	+	10.278	(1957BO58, 1959VA08, 1967KU1M)
3390 ± 10	50		γ, p		10.46	(1957BO58, 1959VA08, 1969OC1B)
3880 ± 15	97		p_0	$\frac{7}{2}^+$	10.91	(1959BA16, 1967KU1M, 1969WE02)
3908 ± 7	90		$\gamma, \text{p}_0, \text{p}_1$	$\frac{1}{2}^+$	10.939	(1956BA34, 1969OC1B, 1969WE02)
3998 ± 7	22		p_0, p_1	$\frac{1}{2}^-$	11.023	(1956BA34, 1969WE02)
4130 ± 15	< 10		p_0		11.15	(1969WE02)
4190 ± 15	39		γ, p_0	$(\frac{1}{2}, \frac{3}{2})^+$	11.20	(1969OC1B, 1969WE02)
4575 ± 15	< 10		p_0		11.561	(1969WE02)
4580 ± 15	27		p_0	$\frac{5}{2}^-$	11.57	(1969WE02)
4580	150		γ		11.57	(1969OC1B)
4630 ± 15	27		p_0	$\frac{3}{2}^- (\frac{1}{2}^-)$	11.61	(1969WE02)
4740 ± 15	< 10		p_0		11.71	(1969WE02)
4780 ± 15	85		p_0, p_1	$\frac{5}{2}^+$	11.75	(1956BA34, 1969WE02)
4881 ± 10	54		p_0, p_1	$\frac{5}{2}^-$	11.846	(1956BA34, 1969WE02)
5020 ± 15	32		p_0	$\frac{5}{2}^-$	11.98	(1969WE02)
5180 ± 15	172		p_0, p_1	$\frac{5}{2}^+$	12.12	(1969WE02)
5550 ± 15	64		$\text{p}_0, \text{p}_1, \text{p}_2$	$\frac{5}{2}^- (\frac{3}{2}^-)$	12.47	(1969WE02)
5900	≈ 250		γ		12.8	(1969OC1B)
5920	10		p	+	12.82	(1967KU1M)
6100	30		$\text{p}_0 \rightarrow \text{p}_2, \alpha_0$	$\frac{5}{2}^+$	12.9	(1967KU1M, 1968SH11)
6600	broad		(p_2, α_0)	$\frac{5}{2}^+$	13.45	(1968SH11, 1969OC1B)
6640			$(\text{p}_0), \text{p}_2$	$(\frac{5}{2}, \frac{3}{2})^+$	13.49	(1968SH11)
6760			α_0	$\frac{5}{2}^+$	13.60	(1968SH11)
6870			p_2	$\frac{5}{2}^-$	13.70	(1968SH11)

Table 15.23 from (1970AJ04): Resonances in $^{14}\text{N} + \text{p}$ (continued)

E_p (keV)	Γ_{lab} (keV)	$\omega\Gamma_\gamma$ (eV)	Particles out	J^π	E_x (MeV)	Refs.
6960			p1, p2, p4, α_0	$\frac{3}{2}^-$	13.79	(1968SH11)
7050	≈ 150		γ		13.87	(1969OC1B)
7370			α_0	$\frac{5}{2}^-$	14.17	(1968SH11)
7500	≈ 800		n, p2, α_0		14.3	(1964KU06, 1968SH11)
7550			α_0	$\frac{5}{2}^+$	14.34	(1968SH11)
7700			n		14.5	(1964KU06)
7950	170 ± 50		n		14.71	(1964KU06)
8200			n		14.94	(1964KU06)
9050			n		15.73	(1964KU06)
9400			n		16.1	(1964KU06)
9850 ± 50	600 ± 100		n		16.48	(1964KU06)

^a Comparison of analog states in ^{15}N and ^{15}O shows that there should be a (as yet unreported) state in ^{15}O at $E_x \approx 8.95$ MeV. This corresponds to $E_p \approx 1.75$ MeV, and the analysis of the $E_p = 1.74$ and 1.81 MeV resonances is therefore possible in error (E.K. Warburton, private communication).