

Table 14.12 from (1976AJ04): Radiative decays in ^{14}N ^a

E_i (MeV)	$J_i^\pi; T$	E_f (MeV)	$J_f^\pi; T$	Branch (%)	Γ_γ (eV)	Refs.
2.31	$0^+; 1$	0	$1^+; 0$	100	$(7.6 \pm 0.5) \times 10^{-3}$	Table 14.13
3.95	$1^+; 0$	0	$1^+; 0$	^A 3.9 ± 0.2 ^b	(M1) $(5.8 \pm 1.2) \times 10^{-4}$ (E2) $(4.81 \pm 0.33) \times 10^{-3}$	(1967OL02, 1968RO1C)
		2.31	$0^+; 1$	4.2 ± 1.4 ^A 96.1 ± 0.3 ^b	0.140 ± 0.013	(1972RE10) (1967OL02, 1968RO1C)
4.92	$0^-; 0$	0	$1^+; 0$	95.8 ± 1.4 97 ± 3	$(8.4 \pm 1.6) \times 10^{-2}$	(1972RE10)
		2.31	$0^+; 1$	0.4 ± 0.7 ≤ 2		(1972RE10), Table 14.13 (1965NE06; see also 1966GO15)
		3.95	$1^+; 0$	1.3 ± 1.0 ≤ 2 ≤ 0.5		(1972RE10) (1965NE06) (1972RE10) (1966GO15)
5.11	$2^-; 0$	0	$1^+; 0$	^A 79.9 ± 1.0 ^b	$(4.0 \pm 0.5) \times 10^{-5}$ ^d	(1966GO15, 1968AL12)
		2.31	$0^+; 1$	^A 19.7 ± 1.2 ^b		
		3.95	$1^+; 0$	(0.7 ± 0.4)		(1966GO15)
5.69	$1^-; 0$	0	$1^+; 0$	37 ± 2 40 ± 3 40 ± 4 36 ± 4 31.6 ± 1.9		(1963AL21) (1964WA09) (1966CA07) (1966GO15) (1972RE10)
		2.31	$0^+; 1$	35.6 ± 1.2 63 ± 2 60 ± 3 60 ± 5	$(4.2 \pm 0.8) \times 10^{-2}$ ^d	mean (1963AL21); Table 14.13 (1964WA09) (1966CA07)

Table 14.12 from (1976AJ04): Radiative decays in ^{14}N ^a (continued)

E_i (MeV)	$J_i^\pi; T$	E_f (MeV)	$J_f^\pi; T$	Branch (%)	Γ_γ (eV)	Refs.
5.83	$3^-; 0$	0	$1^+; 0$	64 ± 4	$(2.7 \pm 0.3) \times 10^{-5} \text{ d}$	(1966GO15)
				64.7 ± 1.9		(1972RE10)
				63.1 ± 1.2		mean
				$\leq 0.4^e$		(1972RE10)
				$\leq 0.3^e$		(1972RE10)
				25 ± 5		(1965WA06)
				25 ± 4		(1966CA07)
				29 ± 4		(1966GO15)
				26.5 ± 2.5		mean
				< 3		(1966GO15)
6.20	$1^+; 0$	0	$1^+; 0$	< 1	$(4.1 \pm 0.5) \times 10^{-3} \text{ d}$	(1966GO15)
				< 1		(1966GO15)
				< 1		(1966GO15)
				75 ± 5		(1965WA06, 1966CA07)
				71 ± 4		(1966GO15, 1968AL12)
				73 ± 3		mean
				24 ± 3		(1964WA09)
				25 ± 4		(1966CA07)
				21 ± 3		(1966GO15)
				23.0 ± 1.9		mean
2.31	$0^+; 1$	2.31	$0^+; 1$	76 ± 3	$(4.1 \pm 0.5) \times 10^{-3} \text{ d}$	(1964WA09); Table 14.13
				72 ± 5		(1966CA07)
				79 ± 3		(1966GO15)
				76.7 ± 2.0		mean
3.95	$1^+; 0$	< 1	(1966GO15)			

Table 14.12 from (1976AJ04): Radiative decays in ^{14}N ^a (continued)

E_i (MeV)	$J_i^\pi; T$	E_f (MeV)	$J_f^\pi; T$	Branch (%)	Γ_γ (eV)	Refs.				
6.44	$3^+; 0$	5.11 0	$2^-; 0$ $1^+; 0$	< 1	$(7.3 \pm 0.4) \times 10^{-4}$ ^d	(1966GO15)				
				65 ± 3		(1964WA09)				
				73 ± 5		(1959RO54, 1966CA07)				
				74 ± 4		(1966GO15)				
		3.95	$1^+; 0$	69.4 \pm 2.2		21 ± 2	mean			
						20 ± 4	(1964WA09)			
						19 ± 4	(1966CA07)			
						20.5 \pm 1.6	(1966GO15)			
							7 ± 3	mean		
							^A 7 ± 2	(1966CA07)		
7.03	$2^+; 0$	5.11 ^g	$2^-; 0$	< 2	(M1)(9.1 ± 1.3) $\times 10^{-2}$ (E2)(3.3 ± 0.9) $\times 10^{-2}$ (E2)(6.2 ± 1.4) $\times 10^{-4}$ < (11 ± 3) $\times 10^{-4}$	(1966GO15)				
				91 ± 4		(1966GO15)				
		5.83 0	$3^-; 0$ $1^+; 0$	98.6 ± 0.3 ^A		(1965WA06)				
				0.5 ± 0.1		(1967OL02, 1968RO1C)				
		2.31 3.95	$0^+; 1$ $1^+; 0$	0.9 ± 0.25		(1967OL02, 1968RO1C)				
				other states		≤ 0.4	(1967OL02)			
				7.97 ^h		$2^-; 0$	0	55 ± 3	$\omega\Gamma_p\Gamma_\gamma/\Gamma = 0.012$	(1960HE14)
							3.95	45 ± 3	$= 0.010$	(1960HE14)
		8.06	$1^-; 1$	0		$1^+; 0$	80.3 ± 0.6	10.3	(1960HE14)	
							2.31	1.40 ± 0.14	0.2	(1972RE10); Table 14.24
3.95	12.7 ± 0.4				1.6		(1972RE10)			

Table 14.12 from (1976AJ04): Radiative decays in $^{14}\text{N}^a$ (continued)

E_i (MeV)	$J_i^\pi; T$	E_f (MeV)	$J_f^\pi; T$	Branch (%)	Γ_γ (eV)	Refs.		
8.49 ^j	$4^-; 0$	4.92	$0^-; 0$	1.86 ± 0.14	0.3	(1972RE10)		
		5.11	$2^-; 0$	0.25 ± 0.14	0.03	(1972RE10)		
		5.69	$1^-; 0$	3.5 ± 0.4	0.5	(1972RE10)		
		5.11	$2^-; 0$	100	$(5.61 \pm 2.0) \times 10^{-3}$	(1965DE19, 1966CA07, 1967GA12)		
		8.62	$0^+; 1$	0	$1^+; 0$	23	1.20	(1959WA16)
		3.95	$1^+; 0$	24	1.26	(1959WA16)		
8.79	$0^-; 1$	5.69	$1^-; 0$	13	0.69	(1956LE28, 1957WI27, 1959WA16)		
		6.20	$1^+; 0$	40		(1957WI27)		
		0	$1^+; 0$		43 ± 9	(1960WA12)		
8.91	$3^-; 1$	3.95	$1^+; 0$		0.9 ± 0.3	(1960WA12)		
		0	$1^+; 0$		$(6.6 \pm 2.2) \times 10^{-3}$	(1968CL05)		
8.96 ^j	$5^+; 0$	5.11	$2^-; 0$	5.5 ± 2.5	$\omega\Gamma_\gamma = 0.040$	(1959WA04)		
		5.83	$3^-; 0$	89 ± 3	$= 0.65$	(1959WA04)		
		6.44	$3^+; 0$	3 ± 1	$= 0.022$	(1959WA04)		
		7.03	$2^+; 0$	1.4 ± 0.8	$= 0.010$	(1959WA04)		
		0	$1^+; 0$	< 1		(1967BL22, 1967GA12)		
		6.44	$3^+; 0$	100	$\left\{ \begin{array}{l} \Gamma_p/\Gamma_\gamma = 4.1 \pm 0.5 \\ \Gamma_\gamma = (1.36 \pm 0.21) \times 10^{-3} \end{array} \right.$	(1965DE19, 1966CA07, 1967GA12)		
9.13	$2^-; 0$	0	$1^+; 0$	> 80	$\omega\Gamma_\gamma \approx 0.03$	(1965DE19)		
9.17	$2^+; 1$	0	$1^+; 0$	79 ± 4	7.7 ± 0.9	(1959HA11, 1960RO13, 1963PR03, 1967GA12, 1968CL05)		
		2.31	$0^+; 1$	1.1 ± 0.4	0.11 ± 0.4	(1963PR03, 1968CL05)		
		5.11	$2^-; 0$	< 1		(1960RO13)		
		5.69	$1^-; 0$	< 6	0.3 ± 0.25	(1960RO13, 1968CL05)		

Table 14.12 from (1976AJ04): Radiative decays in $^{14}\text{N}^a$ (continued)

E_i (MeV)	$J_i^\pi; T$	E_f (MeV)	$J_f^\pi; T$	Branch (%)	Γ_γ (eV)	Refs.		
9.39	$2^-; 3^-; 0$	5.83	$3^-; 0$	3 ± 2	0.33	(1960RO13)		
		6.44	$3^+; 0$	8 ± 2	0.78 ± 0.35	(1960RO13, 1968CL05)		
				6.3 ± 0.5	0.85 ± 0.15	(1963PR03)		
		7.03	$2^+; 0$	3 ± 1	0.3 ± 0.15	(1960RO13, 1968CL05)		
				3.5 ± 0.5	0.34 ± 0.05	(1963PR03)		
			i			(1975NO1F)		
		9.51	$2^-; 1$	3.95	$1^+; 0$	6 ± 1	0.37	(1959WA04)
				5.11	$2^-; 0$	78 ± 3	4.8	(1959WA04)
				5.83	$3^-; 0$	16 ± 2	1.0	(1959WA04)
		10.23	$1^{(-)}; 0$	2.31	$0^+; 1$		4 ± 1.3	(1963RO17)
		10.43	$2^+; 1$	0	$1^+; 0$	82 ± 6	12.1 ± 1.5	(1960RO13, 1968CL05)
				2.31	$0^+; 1$	< 1		(1964RO03)
				3.95	$1^+; 0$	< 2		(1964RO03)
				5.11	$2^-; 0$	2 ± 1	0.3 ± 0.2	(1960RO13, 1968CL05)
				5.69	$1^-; 0$	< 3		(1964RO03)
		5.83	$3^-; 0$	< 1		(1964RO03)		
		6.44	$3^+; 0$	8 ± 1	1.2 ± 0.4	(1960RO13, 1968CL05)		
		7.03	$2^+; 0$	6 ± 1	0.88 ± 0.31	(1960RO13, 1968CL05)		
10.81 ^k	$5^+; 0$	6.44	$3^+; 0$	100	$\Gamma_\gamma/\Gamma = 4.1 \pm 0.8\%$	(1972NO08)		

A = Adopted.

^a See also [Table 14.9 in \(1970AJ04\)](#) and [Tables 14.13 and 14.20](#) here.

^b Means of branching ratio values quoted in [Table 14.9 \(1970AJ04\)](#).

^c See also [\(1972NY02, 1974RAZD\)](#).

^d Corrected for branching: see [Table 14.13](#).

^e See also [\(1966GO15\)](#).

^f 5.83 \rightarrow 5.11: $E_\gamma = 728.3 \pm 1.0$ keV ([1966AL10](#)): the plane polarization of the γ -rays leads to odd parity for $^{14}\text{N}^*(5.83)$ ([1962RO21](#)).

^g See also [\(1964WA09\)](#).

^h $\Gamma_\gamma/\Gamma = 0.7 \pm 0.2\%$; $(2J + 1)\Gamma_p = 12.6 \pm 3.6$ eV ([1972BA56](#)); $\Gamma = 2.5 \pm 0.7$ eV (J.W. Noe, private communication).

ⁱ Decays predominantly to $^{14}\text{N}^*(5.11, 5.83, 8.9)$: ≈ 5 meV each ([1975NO1F](#)).

^j $\Gamma = 27 \times 10^{-3}$ and 7×10^{-3} eV, respectively for $^{14}\text{N}^*(8.49, 8.96)$ (J.W. Noe, private communication).

^k $\Gamma = 0.39 \pm 0.16$ eV (J.W. Noe, private communication).