

Table 14.27 from (1976AJ04): ^{14}N levels from $^{14}\text{N}(\text{p}, \text{p}')$, (d, d') , $(^3\text{He}, ^3\text{He}')$ and (α, α')

$^{14}\text{N}^*(\text{MeV} \pm \text{keV})$				L^k	Dominant config. ⁿ	$J^\pi; T$
(p, p')	(d, d')	$(^3\text{He}, ^3\text{He}')$	(α, α')			
2.313 ± 5^a	see text	h	see text		$(\text{p}_{\frac{1}{2}})^2$	$0^+; 1$
3.945 ± 5^a	f	h	j	2	$(\text{p}_{\frac{1}{2}})^2 + \text{c.e.}^o$	$1^+; 0$
4.910 ± 10^a	f	h	j	1, 3	$\text{p}_{\frac{1}{2}}\text{s}_{\frac{1}{2}}$	$0^-; 0$
5.104 ± 10^a	f	h	j	1, 3	$\text{p}_{\frac{1}{2}}\text{d}_{\frac{5}{2}}$	$2^-; 0$
5.69 ± 30^b	f	h	j	1, 3	$\text{p}_{\frac{1}{2}}\text{s}_{\frac{1}{2}}$	$1^-; 0$
5.83 ± 30^b	f	h	j	1, 3	$\text{p}_{\frac{1}{2}}\text{d}_{\frac{5}{2}}$	$3^-; 0$
6.23 ± 20^b	f	h	j,l		$(\text{s}_{\frac{1}{2}})^2$	$1^+; 0$
6.46 ± 20^b	f		j,l		$\text{s}_{\frac{1}{2}}\text{d}_{\frac{5}{2}}$	$3^+; 0$
7.03 ± 20^b	f	h	j	2	c.e. ^o	$2^+; 0$
7.97^c			m		$\text{p}_{\frac{1}{2}}\text{d}_{\frac{3}{2}}$	$2^-; 0$
8.06^c		$8.0 \rightarrow 11.0^i$			$\text{p}_{\frac{1}{2}}\text{s}_{\frac{1}{2}}$	$1^-; 1$
8.49^n						$(4^-); 1$
8.62^n					$(\text{s}_{\frac{1}{2}})^2$	$0^+; 1$
8.91^n					$\text{p}_{\frac{1}{2}}\text{d}_{\frac{5}{2}}$	$3^-; 0$
$9.17^{\text{d},\text{n}}$					c.e. ^o	$2^+; 1$
9.39^n						$2^-, 3^-; 0$
9.51^n					$\text{p}_{\frac{1}{2}}\text{d}_{\frac{5}{2}}$	$1^+; 0$
9.70^n					$(\text{p}_{\frac{1}{2}})^2$	$1^+; 0$
10.1^n					$\text{s}_{\frac{1}{2}}\text{d}_{\frac{5}{2}}$	$2^+, 1^+; 0$
11.2 ± 200^e	f,g	11.22 ± 50^h				
12.8 ± 400^c	f,g	12.77 ± 50^h				
17^{d}						
21.5^{d}						

- ^a (1953BO70).
- ^b (1956BU16). See also text, (1964EA04, 1971CU01), and Table 14.26.
- ^c (1964EA04, 1971CU01).
- ^d (1958TY46).
- ^e (1965DE21).
- ^f Observed: see (1970AJ04).
- ^g $E_x = 11.3$ and 13 MeV (1968HI14).
- ^h (1969BA06).
- ⁱ Unresolved structure (1969BA06).
- ^j (1966HA19).
- ^k From (α, α') : (1966HA19).
- ^l Relatively low cross section due to two-nucleon transition (1966HA19).
- ^m See also (1956MI17).
- ⁿ (1971CU01): p, p'.
- ^o c.e. = compound elastic.