

Table 14.20 from (1981AJ01):
 ^{14}N levels from $^{14}\text{N}(p, p')$, (d, d') , $(^3\text{He}, ^3\text{He}')$ and (α, α')

$^{14}\text{N}^*(\text{MeV} \pm \text{keV})$				L^e	Dominant config. ⁿ	$J^\pi; T$
(p, p') ^a	(d, d')	$(^3\text{He}, ^3\text{He}')$	(α, α')			
2.31	see text	c	see text		$(p_{\frac{1}{2}})^2$	$0^+; 1$
3.95	b	c	e	2	$(p_{\frac{1}{2}})^2 + \text{c.e.}^h$	$1^+; 0$
4.91	b	c	e	1, 3	$p_{\frac{1}{2}}s_{\frac{1}{2}}$	$0^-; 0$
5.11	b	c	e	1, 3	$p_{\frac{1}{2}}d_{\frac{5}{2}}$	$2^-; 0$
5.69	b	c	e	1, 3	$p_{\frac{1}{2}}s_{\frac{1}{2}}$	$1^-; 0$
5.83	b	c	e	1, 3	$p_{\frac{1}{2}}d_{\frac{5}{2}}$	$3^-; 0$
6.20	b	c	e,f		$(s_{\frac{1}{2}})^2$	$1^+; 0$
6.44	b		e,f		$s_{\frac{1}{2}}d_{\frac{5}{2}}$	$3^+; 0$
7.03	b	c	e	2	c.e. ^h	$2^+; 0$
7.97					$p_{\frac{1}{2}}d_{\frac{3}{2}}$	$2^-; 0$
8.06		8.0 \rightarrow 11.0 ^d			$p_{\frac{1}{2}}s_{\frac{1}{2}}$	$1^-; 1$
8.49						$4^-; 1$
8.62					$(s_{\frac{1}{2}})^2$	$0^+; 1$
8.91					$p_{\frac{1}{2}}d_{\frac{5}{2}}$	$3^-; 0$
9.17					c.e. ^h	$2^+; 1$
9.39						$2^-, 3^-; 0$
9.51					$p_{\frac{1}{2}}d_{\frac{5}{2}}$	$1^+; 0$
9.70					$(p_{\frac{1}{2}})^2$	$1^+; 0$
10.1					$s_{\frac{1}{2}}d_{\frac{5}{2}}$	$2^+, 1^+; 0$
11.2 ± 200	f,g	11.22 ± 50^c				
12.8 ± 400	f,g	12.77 ± 50^c				
17						
21.5						

^a For references see [Table 14.27 in \(1976AJ04\)](#). Angular distributions are reported at $E_p = 29.8$ MeV to all the states with $E_x \leq 8.49$ MeV ([1980FO05](#)).

^b Observed: see ([1970AJ04](#)).

^c Observed: see ([1969BA06](#)).

^d Unresolved structure.

^e ([1966HA19](#)).

^f Relatively low cross section due to two-nucleon transition.

^g ([1971CU01](#)): pp' .

^h c.e. = compound elastic.