

Table 14.22 from (1976AJ04):  
 $^{14}\text{N}$  levels from  $^{13}\text{C}(\text{d}, \text{n})^{14}\text{N}$  and  $^{13}\text{C}(\text{}^3\text{He}, \text{d})^{14}\text{N}$

$^{14}\text{N}^*$ (MeV)	$J^\pi; T$	$l_p^a$	$l_p^b$
g.s.	$1^+; 0$	1	1
2.31	$0^+; 1$	1	1
3.95	$1^+; 0$	1	1
4.92	$0^-; 0$	0	0
5.11	$2^-; 0$	2	2
5.69	$1^-; 0$	0	0
5.83	$3^-; 0$	2	2
6.20	$1^+; 0$	isotropic <sup>c</sup>	1
6.44	$3^+; 0$	1 <sup>c</sup>	1
7.03	$2^+; 0$	1	1
7.97	$2^-; 0$	<sup>d</sup>	1, 2 <sup>g,h</sup>
8.06	$1^-; 1$	0 <sup>e</sup>	
8.49	$4^-; 0$	(3, 4) <sup>l</sup>	4 <sup>i</sup>
8.62	$0^+; 1$	0 <sup>f</sup> , 1 <sup>l</sup>	1 <sup>j</sup>
8.91	$3^-; 1$	2 <sup>c,l</sup>	2 <sup>g,k</sup>
8.98	$2^+; (0)$	(1, 2, 3)	
9.13	$2^-; 0$	2 <sup>l</sup>	
9.17	$2^+; 1$	(1, 3) <sup>l</sup>	
9.39	$2^-, 3^-; 0$	2 <sup>l</sup>	
9.51	$2^-; 1$	2 <sup>l</sup>	
9.70	$1^+; 0$	1 <sup>l</sup>	

<sup>a</sup>  $^{13}\text{C}(\text{d}, \text{n})^{14}\text{N}$ :  $E_d = 5.5$  and  $6$  MeV (1966FU10),  $4.5$ ,  $5.0$  and  $5.5$  MeV (1973BO10),  $6.5$  MeV (1975BO35).

<sup>b</sup>  $^{13}\text{C}(\text{}^3\text{He}, \text{d})^{14}\text{N}$ :  $E(\text{}^3\text{He}) = 15$  MeV (1966HO15, 1971FO05).

<sup>c</sup> (1973BO10).

<sup>d</sup> Angular distributions not complete because groups partly masked by contaminant.

<sup>e</sup> (1973BO10) report  $l = 1$  in their Table 1: this is a typographical error (see p. 367).

<sup>f</sup> Expected  $l = 1$  (1973BO10).

<sup>g</sup> See also (1969HO23).

<sup>h</sup> The width obtained for this state in  $^{13}\text{C}(\text{p}, \gamma)$ :  $(2J + 1)\Gamma_p = 12.6 \pm 3.6$  eV implies  $l_p = 2$  and therefore odd parity:  $\Gamma_p$  is then  $2.5 \pm 0.07$  eV, based on  $J = 2$  (1972BA56).

<sup>i</sup>  $\Gamma_p < 9.9 \times 10^{-2}$  eV (1971FO05).

<sup>j</sup>  $\Gamma_p < 18$  keV (1971FO05).

<sup>k</sup>  $\Gamma_p = 12.1$  keV (1971FO05).

<sup>l</sup> (1975BO35).