

Table 16.20 from (1993TI07): Structure in $^{14}\text{N} + \text{d}$ ^a

E_d (MeV)	Resonant channel	$\Gamma_{\text{c.m.}}$ (keV)	$J^\pi; T$	E_x (MeV)
1.4	n_0, α_0	300 ^e	0^+ ^e	22.0
1.7 ± 0.1	$\gamma_0, \text{p}_0, \text{p}_1, \alpha_0, \alpha_1, \alpha_2, \alpha_3$	400 ^e	1^- ^e	22.2
1.85	n_0, α_0	175	2^+ ^e	22.35
2.0 ± 0.1	$\text{p}_0, \text{p}_1, \alpha_0, \alpha_3$	350 ^e	3^- ^e	22.5
2.272 ± 0.005 ^b	$\text{p}_0, \text{p}_{1+2}, (\text{p}_3), \text{p}_4, \text{p}_5, \alpha_0, \alpha_2$			22.722
2.40 ± 0.05 ^c	γ_0 ^d , p_0, p_1	500 ^e	$1^-; 1$	22.83
2.5	α_0			22.9
2.6	$(\text{n}_0), \alpha_0, \alpha_1$	200 ^e	4^+ ^e	23.0
2.8	$(\text{n}_0), \text{p}_0, \text{p}_1, \text{d}_0$	350 ^e	2^+ ^e	23.2
3.24	$\text{p}_0, \text{p}_{1+2}, \text{p}_4, \text{p}_5, \text{p}_6, \text{d}_0, \alpha_3$			23.57
4.2	$\gamma_0, (\text{p}_0), \text{d}_0, \gamma_{15.1}$			24.4
4.58	$(\text{p}_0), \text{d}_0, \gamma_{15.1}$			24.74
4.9	n_0, p_0			25.0
5.95	$\text{d}_1, \gamma_{15.1}$			25.9
7.1	$\gamma_{15.1}$			26.9
7.4	d_2			27.2
7.7	d_1			27.5
(8.5)	$(\gamma_{15.1})$			(28.2)
10.2	d_2			29.7

^a For earlier references see [Table 16.14 in \(1977AJ02\)](#) and [16.16 in \(1982AJ01, 1986AJ04\)](#).

^b $(\Gamma_{\text{d}_0} \Gamma_i / \Gamma^2) \times 10^{-3}$ are greater than 1.6 ± 0.4 , 0.27 ± 0.13 , 0.41 ± 0.15 and 0.07 ± 0.05 for the $\alpha_2, \text{p}_0, \text{p}_{1+2}$, and p_3 groups.

^c If this resonance is fitted with a single-level Breit-Wigner shape, penetrability effects could lower the resonance energy by as much as 50 keV, assuming $l = 1$.

^d The angular distribution of γ_0 is consistent with E1.

^e See references in [\(1986AJ04\)](#).