

Table 17.2 from (1986AJ04):  
Radiative transitions and lifetimes of  $^{17}\text{N}$  states <sup>a</sup>

$E_i$ (MeV)	$E_f$ (MeV)	Mult.	Branch (%)	$\Gamma_\gamma/\Gamma_W$ <sup>b</sup> (W.u.)	$\tau_m$
1.37	0	M1	100	$0.13 \pm 0.05$	$93 \pm 35$ fsec
1.85	0	E1	$86.5 \pm 2.5$		$41_{-9}^{+20}$ psec
	1.37	E1	$13.5 \pm 2.5$	$(3.2 \pm 1.5) \times 10^{-5}$	
1.91	0	E2	$77.0 \pm 2.5$	$0.9 \pm 0.2$	$11 \pm 2$ psec
	1.37	M1	$23.0 \pm 2.5$	$(5 \pm 1) \times 10^{-3}$ <sup>c</sup>	
2.53	0	M2	$11 \pm 1$	$0.22 \pm 0.04$	$33 \pm 3$ psec
	1.37	E1	$34 \pm 3$	$(1.0 \pm 0.2) \times 10^{-5}$	
	1.85	E2	$12.0 \pm 1.5$	$8.1 \pm 1.6$	
	1.91	E1	$41.0 \pm 2.5$		
3.13 <sup>d</sup>	1.91	M1	100	$0.06 \pm 0.02$	$275 \pm 80$ fsec
3.20 <sup>e</sup>	0	M1	$88 \pm 4$	$> 0.025$ <sup>f</sup>	$< 30$ fsec
	1.91	M1	$12 \pm 4$	$> 0.05$	
3.63 <sup>g</sup>	1.91	E2	$47 \pm 10$	$0.8 \pm 0.2$	$12 \pm 2$ psec
	3.13	M1	$53 \pm 10$	$0.010 \pm 0.03$	
3.66	1.85	E1	100	$> 7 \times 10^{-4}$	$< 350$ fsec
3.91	1.91	M1	100	$(8_{-3}^{+5}) \times 10^{-2}$ <sup>h</sup>	$52 \pm 22$ fsec
4.01	1.85		$\leq 15 \pm 5$ <sup>i</sup>		
	2.53	(M1)	$85 \pm 5$	0.55	$< 15$ fsec
4.21	1.37		100		$< 70$ fsec
4.42	1.91		100		( $< 60$ fsec)
5.17	2.53	E2	$37 \pm 7$	$> 15$	$< 60$ fsec
	3.13		$63 \pm 7$		
5.20	1.85		$\approx 42$		$< 95$ fsec
	1.91		$\approx 58$		
5.52	0		$\approx 50$		$< 100$ fsec
	1.37		$\approx 50$		
5.77	1.37		$\approx 25$		$< 120$ fsec
	1.91		$\approx 25$		
	4.01		$\approx 50$ <sup>i</sup>		

- <sup>a</sup> See Tables 17.5 in (1977AJ02, 1982AJ01) for references and additional detail.
- <sup>b</sup> Assuming pure multipole transitions and  $J^\pi$  from Table 17.1: see also Table 2 in the Introduction here.
- <sup>c</sup>  $\Gamma_\gamma/\Gamma_W = 0.4_{+1.3}^{-0.4}$  (E2).
- <sup>d</sup> Branches to  $^{17}\text{N}^*(0, 1.37, 18.5, 2.53)$  are, respectively,  $< 2$ ,  $< 5$ ,  $< 2$  and  $< 3\%$ .
- <sup>e</sup> Branches to  $^{17}\text{N}^*(1.37, 1.85, 2.53)$  are, respectively,  $< 5$ ,  $< 6$  and  $< 3\%$ .
- <sup>f</sup>  $\delta = -0.06 \pm 0.08$  or  $2.1 \pm 0.4$ . All other  $\delta$  are consistent with 0.
- <sup>g</sup> Branches to  $^{17}\text{N}^*(0, 1.37, 18.5, 2.53, 3.20)$  are, respectively,  $< 10$ ,  $< 10$ ,  $< 7$ ,  $< 3$  and  $< 2\%$ .
- <sup>h</sup> This number appears to be in error: see Table 2 in the Introduction here.
- <sup>i</sup> This branch is uncertain.