

Table 20.3 from (1987AJ02): Radiative transitions in  $^{20}\text{F}$  <sup>a</sup>

$E_i$ (MeV)	$J_i^\pi$	$E_f$ (MeV)	Branching (%)	$\delta$
0.66	$3^+$	0	100	$0.10 \pm 0.05$
0.82	$4^+$	0	$36 \pm 3$	
		0.66	$64 \pm 3^d$	
0.98	$1^-$	0	100	f
1.06	$1^+$	0	100	
1.31	$2^-$	0	100	f
1.82	$5^+$	0.82	$\geq 95$	$-0.03 \pm 0.07$
1.84	$2^-$	0	100	
1.97	$(3^-)$	0	$16 \pm 4$	$-0.06 \pm 0.14$
		0.82	$55 \pm 3$	$+0.27 \pm 0.30$
		1.31	$29 \pm 3$	
2.04	$2^+$	0	$8.1 \pm 1.9$	
		0.66	$91.9 \pm 1.9$	$0.08_{-0.1}^{+0.06}$
2.19	$3^+$	0	$53.7 \pm 2.1$	$0 \pm 0.09$
		$0.82^d$	$46.3 \pm 2.1$	$+0.07 \pm 0.10$
2.86 <sup>b</sup>	$(3^-)$	0	(100)	
2.966 <sup>c</sup>	$3^+$	0	$23 \pm 3$	
		0.66	$21 \pm 3$	
		0.82	$56 \pm 3$	
2.968	$(4^-)$	0.82	$39 \pm 4$	
		1.97	$61 \pm 4$	
3.17 <sup>b</sup>	$(1^+)$	0.98	$> 95$	
3.49 <sup>c</sup>	$1^+$	0	$63 \pm 4$	
		1.06	$22 \pm 4$	
		1.31	$8 \pm 2$	
		1.84	$7 \pm 2$	
3.53	$0^+$	1.06	100	
3.59	$(1, 2)^+$	0	$30.5 \pm 2.4$	
		0.66	$9.8 \pm 1.2$	
		0.98	$3.5 \pm 1.0$	
		2.04	$50 \pm 3$	
		2.19	$7 \pm 3$	

Table 20.3 from (1987AJ02): Radiative transitions in  $^{20}\text{F}$  <sup>a</sup> (continued)

$E_i$ (MeV)	$J_i^\pi$	$E_f$ (MeV)	Branching (%)	$\delta$
3.68	1, 2	0 <sup>d</sup>	$66 \pm 4$	
		1.06	$34 \pm 4$	
3.97	1 <sup>+</sup>	0.98	$24 \pm 6$	
		1.31	$76 \pm 6$	
4.08	(1) <sup>+</sup>	0	$34 \pm 3$	
		1.06	$66 \pm 3$	
4.28	(1, 2) <sup>+</sup>	1.06	100	
4.37	(2) <sup>+</sup>	0.82	$7 \pm 3$	
		0.98	$34 \pm 5$	
		2.97	$59 \pm 5$	
4.51	1 <sup>+</sup> , 2	0.66	100	
5.32	0 – 2	0	$34 \pm 7$	
		0.98	$66 \pm 7$	
5.56	1 <sup>-</sup>	0	$29 \pm 4$	
		1.31	$37 \pm 5$	
		3.53	$34 \pm 7$	
5.94	2 <sup>-</sup>	0	$6.4 \pm 0.4$	
		0.66	$22.7 \pm 1.4$	
		0.98	$11 \pm 3$	
		1.97	$24.2 \pm 1.4$	
		2.04	$2.5 \pm 0.5$	
		2.19	$4.1 \pm 0.6$	
		2.97	$2.5 \pm 0.7$	
		3.49	$9.1 \pm 1.2$	
		3.59	$7.8 \pm 1.6$	
		3.68	$7.2 \pm 0.8$	
6.02	2 <sup>-</sup>	3.97	$(2.7 \pm 0.9)$	
		0	$24.3 \pm 1.2$	
		0.66	$3.05 \pm 0.17$	
		0.98	$15.1 \pm 0.7$	
		1.31	$0.83 \pm 0.21$	
		1.84	$5.3 \pm 0.4$	

Table 20.3 from (1987AJ02): Radiative transitions in  $^{20}\text{F}$  <sup>a</sup> (continued)

$E_i$ (MeV)	$J_i^\pi$	$E_f$ (MeV)	Branching (%)	$\delta$
6.05	0 - 2	1.97	$1.04 \pm 0.23$	
		2.04	$0.68 \pm 0.15$	
		2.19	$3.8 \pm 0.4$	
		2.97	$8.9 \pm 0.5$	
		3.49	$20.8 \pm 1.1$	
		3.59	$13.6 \pm 2.4$	
		4.08	$2.6 \pm 0.4$	
		1.31	$21 \pm 2$	
		1.84	$36 \pm 3$	
		3.49	$15 \pm 5$	
6.60 <sup>g</sup>	0 <sup>+</sup> , 1 <sup>+</sup>	3.53	$(28 \pm 3)$	
		0	$8.5 \pm 0.6$	
		0.98	$1.29 \pm 0.10$	
		1.06	$3.4 \pm 0.3$	
		1.31	$2.21 \pm 0.13$	
		1.84	$1.62 \pm 0.11$	
		2.04	$4.9 \pm 0.3$	
		3.49	$2.31 \pm 0.18$	
		3.53	$2.05 \pm 0.21$	
		3.59	$4.7 \pm 0.3$	
		3.68	$0.99 \pm 0.18$	
		3.97	$0.82 \pm 0.12$	
		4.08	$(0.90 \pm 0.13)$	
		4.28	$1.42 \pm 0.20$	
		4.37	$0.83 \pm 0.14$	
		4.51	$0.53 \pm 0.17$	
		5.32	$1.5 \pm 0.5$	
		5.56	$2.4 \pm 0.4$	
		5.94	$15.0 \pm 1.5$	
		6.02	$40 \pm 3$	
6.05	$4.8 \pm 0.5$			
e				

- <sup>a</sup> Branching ratios from (1983HU12) and from the earlier work displayed in Tables 20.5 in (1978AJ03) and 20.4 in (1983AJ01). Branching ratios renormalized to add to 100%, except for  $^{20}\text{F}^*(6.60)$ .
- <sup>b</sup> The population of  $^{20}\text{F}^*(2.86)$  and the  $\gamma$ -decay of  $^{20}\text{F}^*(3.17)$  are not observed by (1983HU12) [(n,  $\gamma$ )]. See also (1987AL06).
- <sup>c</sup> See, however, Table 20.5 in (1978AJ03).
- <sup>d</sup> Transition not observed by (1983HU12) because of a background problem.
- <sup>e</sup> For higher states see Tables 20.6 and 20.7.
- <sup>f</sup> Pure E1.
- <sup>g</sup> See Table 20.8.