Table 18.14 from (1987AJ02): Radiative decays in ^{18}F [a]

E_i (MeV)	$J_i^\pi; T$	E_f (MeV)	Branch (%)	
0.94	$3^+; 0$	0	100	
1.04	$0^+; 1$	0	100	
1.08	$0^-; 0$	0	100	
1.12	$5^+; 0$	0.94	100	
1.70	$1^+; 0$	0	29.8 ± 1.3	
		1.04	70.2 ± 1.3	
2.10	$2^-; 0$	0	38 ± 1	$\Gamma_\gamma = (4.6 \pm 2.2) \times 10^{-5}$ eV
		0.94	31 ± 1	$\Gamma_\gamma = (4.0 \pm 1.9) \times 10^{-5}$ eV
		1.08	31 ± 1	
2.52	$2^+; 0$	0	74.9 ± 1.8	$\delta = 3.0 \pm 1.0$
		0.94	21.5 ± 1.2	$\delta = -(1.5 \pm 0.6)$
		1.70	3.9 ± 0.6	$\delta = 0.94 \pm 0.4$
3.06	$2^+; 1$	0	23.2 ± 0.8	
		0.94	76.7 ± 0.8	
		1.04	0.11 ± 0.03	
3.13	$1^-; 0$	0	39 ± 2	$\delta = +(0.07 \pm 0.05)$
				$\Gamma_\gamma = (5.7 \pm 2) \times 10^{-4}$ eV
		1.04	34 ± 2	$\Gamma_\gamma = (7.3 \pm 2.7) \times 10^{-4}$ eV
		1.08	25 ± 2	$\Gamma_\gamma = (4.8 \pm 1.8) \times 10^{-4}$ eV
		1.70	2.0 ± 0.5	$\delta = +(0.22 \pm 0.15)$
3.36	$3^+; 0$	0	45 ± 5	
		0.94	9 ± 3	
		1.70	40 ± 4	
		2.10	< 3	
		2.52	6 ± 3	$\delta = -0.4^{+0.3}_{-0.5}$
3.72	$1^+; 0$	0	5 ± 2	
		1.04	91 ± 2	$\Gamma_\gamma = (1.3 \pm 0.2) \times 10^{-3}$ eV [c]
		3.06	4 ± 2	
3.79	$3^-; 0$	2.10	68 ± 4	$\delta = -(0.22 \pm 0.06)$
		2.52	2.2 ± 1.1	
		3.06	30 ± 3	$\delta = -(0.09 \pm 0.09)$

Table 18.14 from (1987AJ02): Radiative decays in ^{18}F [a] (continued)

E_i (MeV)	J_i^π; T	E_f (MeV)	Branch (%)	
3.84	2^+; 0	0	38 ± 2	$\delta = -(1.8 \pm 0.5)$
		0.94	8.9 ± 1.4	$\delta = -(0.3 \pm 0.3)$
		1.70	3.0 ± 1.0	
		3.06	50 ± 3	$\delta = -(0.1 \pm 0.3)$
4.12	3^+; 0	0	5 ± 3	
		3.06	95 ± 3	$\delta = +0.06 \pm 0.07$
4.23	2^-; 0	0	23 ± 2	$\delta = 0.15 \pm 0.15$
		0.94	49 ± 3	$\delta = 0.0 \pm 0.2$
		1.08	3.2 ± 1.0	
		1.70	9.3 ± 1.2	
		2.10	15 ± 5	
		3.13	0.9 ± 0.6	
4.36	1^+	3.06	100	
4.40	4^-; 0	0.94	13 ± 4	$\delta = -(0.2 \pm 0.3)$
		1.12	60 ± 6	$\delta = -(0.2 \pm 0.2)$
		2.10	27 ± 3	
4.65	4^+; 1	0.94	17 ± 3	
		1.12	83 ± 3	$\delta = 0.15 \pm 0.15$
4.75	0^+; 1	0	92 ± 4	
		1.70	8 ± 4	
4.85 [b]	5^-; 0	1.12	65 ± 4	
		3.79	35 ± 4	
4.86	1^-; 0	1.04	65 ± 11	
		1.08	8 ± 6	
		3.06	23 ± 7	$\delta = -(0.4 \pm 0.4)$
		3.13	4 ± 3	
4.96	2^+; 1	0	100	$\delta = 1.2 \pm 0.7$
5.30	4^+; 0	0.94	9 ± 2	$\delta = -(0.3 \pm 0.1)$
		1.12	7 ± 2	$\delta = -(1.1 \pm 0.5)$
		2.52	78 ± 3	$\Gamma_\gamma = 12 \pm 4$ meV [c]
		3.36	5 ± 1	$\delta = 2.5 \pm 0.8$

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Table 18.14 from (1987AJ02): Radiative decays in ^{18}F [a] (continued)

E_i (MeV)	J_i^π; T	E_f (MeV)	Branch (%)	
		4.65	1.3 ± 0.3	
5.50	$3^{(-)}$; 0	3.06	100	$\Gamma_\gamma = 2.1 \pm 0.7$ meV [c]
5.603	1^+	0	16.7 ± 2.3	
		1.04	3.8 ± 1.2	
		3.06	79.5 ± 5.9	$\Gamma_\gamma = 0.48 \pm 0.05$ eV [c]
5.605	1^-; $0+1$	0	6.7 ± 1.2	
		1.04	4.2 ± 0.8	
		1.08	54.3 ± 3.1	$\Gamma_\gamma = 0.87 \pm 0.07$ eV [c]
		3.06	2.6 ± 1.4	
		3.13	32.2 ± 2.5	$\delta = -0.05 \pm 0.02$
5.67	1^-; $0+1$	0	6.2 ± 0.4	$\delta = -0.01 \pm 0.04$
		1.04	8.1 ± 0.7	
		1.08	52 ± 3	$\Gamma_\gamma = 0.46 \pm 0.06$ eV [c]
		1.70	0.8 ± 0.3	
		2.10	0.4 ± 0.2	
		3.06	4.0 ± 0.4	$\delta = 0.04 \pm 0.06$
		3.13	28.5 ± 2.0	$\delta = +0.10 \pm 0.03$
5.79	2^-; 0	0.94	40 ± 8	
		1.08	60 ± 8	
6.10	4^-; 0	0.94	4.9 ± 0.9	$\Gamma_\gamma = 51 \pm 10$ meV [c]
		1.12	55 ± 3	
		2.10	27 ± 2	
		3.79	1.4 ± 0.3	
		4.12	1.8 ± 0.3	
		4.40	0.7 ± 0.3	
		4.65	8.7 ± 0.7	
6.10	(1^+); 0	0	24 ± 3	
		0.94	11 ± 3	
		2.10	20 ± 6	
		3.06	45 ± 5	
6.14	0^+; 1	0	50 ± 3	$\Gamma_\gamma > 1.6$ eV

Table 18.14 from (1987AJ02): Radiative decays in ^{18}F [a] (continued)

E_i (MeV)	J_i^π; T	E_f (MeV)	Branch (%)	
		1.70	12 ± 2	
		3.72	36 ± 3	
		4.36	2.1 ± 0.4	
		5.603	0.19 ± 0.02	
6.16	3^+; 1	0	0.2 ± 0.2	$\Gamma_\gamma = 0.96 \pm 0.26$ eV [c]
		0.94	51 ± 3	
		1.12	1.0 ± 0.1	
		2.52	5.5 ± 0.4	
		3.06	1.3 ± 0.3	
		3.79	11.6 ± 1.3	
		3.84	25.0 ± 1.6	
		4.12	1.5 ± 0.3	
		4.23	0.9 ± 0.3	
		4.40	2.0 ± 0.2	
6.242	3^-; $0+1$	0.94	4.6 ± 0.3	
		2.10	71.5 ± 3.0	$\Gamma_\gamma = 0.80 \pm 0.11$ eV [c]
		3.36	1.1 ± 0.4	
		3.79	10.6 ± 0.5	
		3.84	1.0 ± 0.2	
		4.12	0.5 ± 0.2	
		4.23	7.8 ± 0.4	
		4.40	2.9 ± 0.3	
6.241	3^-; $0+1$	0.94	4.1 ± 0.3	
		2.10	71.2 ± 3.0	$\Gamma_\gamma = 0.73 \pm 0.11$ eV [c]
		3.36	0.8 ± 0.3	
		3.79	11.6 ± 0.6	
		3.84	0.9 ± 0.2	
		4.12	1.1 ± 0.4	
		4.23	8.2 ± 0.4	
		4.40	2.1 ± 0.3	
6.26	1^+; 0	0	(100)	

Table 18.14 from (1987AJ02): Radiative decays in ^{18}F [a] (continued)

E_i (MeV)	J_i^π; T	E_f (MeV)	Branch (%)	
6.28	2^+; 1	0	0.3 ± 0.1	$\Gamma_\gamma = 1.8 \pm 0.5$ eV [c]
		0.94	67 ± 3	
		1.04	1.3 ± 0.1	
		1.70	5.7 ± 0.6	
		2.10	1.2 ± 0.3	
		2.52	0.3 ± 0.2	
		3.13	0.7 ± 0.3	
		3.36	2.3 ± 0.3	
		3.72	1.4 ± 0.5	
		3.84	15.8 ± 1.4	
		4.12	3.9 ± 0.2	
		4.36	0.5 ± 0.4	
6.31	3^+; 0	0	4.0 ± 0.7	$\Gamma_\gamma = 0.17 \pm 0.04$ eV [c]
		0.94	10.6 ± 1.0	
		1.70	3.0 ± 0.8	
		2.52	4.0 ± 0.5	
		3.06	57 ± 3	$\delta = -(0.03 \pm 0.10)$
		3.72	1.4 ± 0.7	
		3.84	4.6 ± 1.0	
		4.12	2.4 ± 1.7	
		4.96	13.0 ± 1.5	$\delta = -(0.01 \pm 0.14)$
6.39	2^+; $0+1$	0	1.5 ± 0.5	$\Gamma_\gamma = 0.44 \pm 0.18$ eV [c]
		0.94	75 ± 3	$\delta = -(0.25 \pm 0.10)$
		1.70	6.8 ± 1.7	
		3.84	14.1 ± 1.6	$\delta = 0.1 \pm 0.2$
		4.12	2.3 ± 0.5	
6.48	3^+; 0	0	13 ± 2	$\Gamma_\gamma = 74 \pm 21$ meV [c]
		0.94	33 ± 2	
		1.12	10 ± 2	
		1.70	4 ± 2	
		2.52	4 ± 2	

Table 18.14 from (1987AJ02): Radiative decays in ^{18}F [a] (continued)

E_i (MeV)	$J_i^\pi; T$	E_f (MeV)	Branch (%)	
		3.06	21 ± 3	
		3.79	4 ± 2	
		3.84	9 ± 2	
		4.96	2 ± 2	
6.57	$5^+; 0$	0.94	15.2 ± 1.6	
		3.36	83 ± 3	$\Gamma_\gamma = 26 \pm 5$ meV [c,d]
		5.30	2.3 ± 0.6	
6.64	$2^-; 1$	0.94	8.9 ± 0.6	$\Gamma_\gamma = 1.4 \pm 0.4$ eV [c]
		2.10	58 ± 3	
		3.13	22.0 ± 1.3	
		3.72	0.9 ± 0.2	
		3.79	2.4 ± 0.2	
		4.12	1.0 ± 0.3	
		4.86	2.6 ± 0.2	
		5.50	4.0 ± 0.3	
6.78	$4^+; 0$	0.94	12.6 ± 0.9	$\Gamma_\gamma = 0.31 \pm 0.08$ eV [c]
				$\delta = -(0.35 \pm 0.18)$
		1.12	25.2 ± 1.3	$\delta = -(1.4 \pm 1.1)$
		4.65	62 ± 2	$\delta = 0.13 \pm 0.13$
6.80	$1^+, 2, 3^+; (0)$	0	20 ± 2	
		0.94	20 ± 2	
		3.06	50 ± 3	
		3.84	3.0 ± 1.6	
		4.96	7.0 ± 1.7	
6.88	$3, 4^-; 0$	2.10	9 ± 2	
		4.65	91 ± 2	
7.34	$1^-; 1$	0	4 ± 0.5	
		1.08	54 ± 2	
		2.10	18 ± 1	
		3.06	1 ± 0.5	
		3.13	8 ± 0.5	

Table 18.14 from (1987AJ02): Radiative decays in ^{18}F [a] (continued)

E_i (MeV)	J_i^π; T	E_f (MeV)	Branch (%)	
		4.23	15 ± 0.6	
7.48	(2)	0.94	100	
7.52		0.94	5 ± 4	
		2.10	7 ± 5	
		3.79	33 ± 5	
		4.40	55 ± 7	
7.53	2^-	0	10 ± 3	
		0.94	14 ± 6	
		2.10	50 ± 9	
		3.79	26 ± 7	
7.59		0	18 ± 7	
		0.94	14 ± 12	
		1.12	9 ± 7	
		4.65	59 ± 16	

[a] For earlier references see Tables 18.11 in (1978AJ03) and 18.12 in (1983AJ01). See these tables also for upper limits for transitions to other states.

[b] (1982FR15): see reactions 6 and 23.

[c] Γ_γ = total radiative width for this state.

[d] $\Gamma_\alpha = \Gamma \approx 560$ eV, $\Gamma_p < 4.5$ eV.