

Adopted Levels, Gammas 1998Ti06

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	D. R. Tilley, C. Cheves, J. Kelley, S. Raman, H. Weller		NP A636,249 (1998)	21-Apr-1997

$Q(\beta^-)=7024.47$ 3; $S(n)=6601.34$ 3; $S(p)=10639$ 3; $Q(\alpha)=-8126.3$ 23 [2012Wa38](#)

Note: Current evaluation has used the following Q record 7024.53 8 6601.32 11 10640 3 -8125.7 26 [1997Au04](#).

See other reaction references in [1998Ti06](#).

 ^{20}F LevelsCross Reference (XREF) Flags

A	^{20}O β^- decay	E	$^{19}\text{F}(n,n)$, $^{19}\text{F}(n,2n)$
B	$^{14}\text{N}(^7\text{Li},p)$	F	$^{19}\text{F}(n,\alpha)$
C	$^{18}\text{O}(^3\text{He},p)$	G	$^{19}\text{F}(d,p)$
D	$^{19}\text{F}(n,\gamma)$ E=th		

E(level)	J^π	$T_{1/2}$	XREF	Comments
0.0	2^+	11.07 s 6	ABCD G	$\% \beta^- = 100$ T=1; $\mu = +2.0935$ 9 (1989Ra17); $Q = -0.042$ 3 (1989Ra17) $T_{1/2}$: Weighted av: 11.56 s 5 (1962Ma00), 11.36 s 7 (1963AaAA), 10.31 s 7 (1967Yu01), 10.996 s 20(1975Al27), 11.08 s 1(1976Ge08), 11.063 s 23 (1978Be61).
656.02 3	3^+	305 fs 21	ABCD G	$\Gamma_\gamma = 1.5 \times 10^{-3}$ eV 1.
822.73 3	4^+	55 ps 4	BCD G	$\Gamma_\gamma = 8.34 \times 10^{-6}$ eV 55.
983.59 3	1^-	1.36 ps 6	ABCD G	$\Gamma_\gamma = 3.36 \times 10^{-4}$ eV 15.
1056.848 4	1^+	5.1 fs 11	ABCD G	
1309.19 3	2^-	1.30 ps 6	ABCD G	$\Gamma_\gamma = 3.52 \times 10^{-4}$ eV 16.
1823.8 16	5^+	≤ 45 fs	BC G	
1843.80 3	2^-	46 fs 3	A CD G	$\Gamma_\gamma = 9.97 \times 10^{-3}$ eV 69.
1970.83 4	(3^-)	0.42 ps 6	BCD G	$\Gamma_\gamma = 10.8 \times 10^{-4}$ eV 11.
2043.98 3	2^+	2.7 fs 5	BCD G	$\Gamma_\gamma = 0.169$ eV 28.
2194.30 3	(3^+)	2.9 fs 8	BCD G	$\Gamma_\gamma = 0.161$ eV 33.
2864.86 10	(3^-)	20 fs 3	BCD G	$\Gamma_\gamma = 22.7 \times 10^{-3}$ eV 28.
2966.11 3	3^+	3.6 fs 8	BCD G	$\Gamma_\gamma = 12.7 \times 10^{-2}$ eV 18.
2968.0 15	(4^-)		BC G	
3171.69 14	(1^+)		BCD G	
3488.41 3	1^+	8.1 fs 5	ABCD G	$\Gamma_\gamma = 56.3 \times 10^{-3}$ eV 33.
3526.31 4	0^+	3.8 fs 4	CD G	$\Gamma_\gamma = 0.120$ eV 13.
3586.54 3	$(1,2)^+$	0.76 fs 4	BCD G	
3589.80 4			BCD G	
3669 3			BC	
3680.17 4	1,2	15.4 fs 16	BCD G	
3761.0 20	$(2^-, 3^+)$		BC G	
3965.07 4	1^+	4.8 fs 15	BCD G	
4082.17 4	$(1)^+$	2.5 fs 5	BCD G	
4199.3 27			B G	
4208.1 26			C G	
4277.09 4	$(1,2)^+$	5 fs 3	BCD G	
4312.0 26	$(0,1)^+$	3.5 fs 4	G	
4371.47 11	(2^+)	< 3 fs	B D G	
4509 3	$1^+, (2^+)$		B G	
4518 4			BC	
4584.6 30			B G	
4591.72 7			CD G	
4722 12			C	

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Adopted Levels, Gammas 1998Ti06 (continued) ^{20}F Levels (continued)

E(level)	J^π	$T_{1/2}$	XREF	Comments
4731.2 29	(3 ⁻ ,4,5 ⁺)		B G	
4744 12			C	
4764.8 27			BC G	
4892.76 17			B D G	
4899.4 28			C G	
5041.5 31	(2) ⁻		BC G	
5066.8 31	(1 ⁻ ,2,3 ⁺)		B G	
5130 3	(2 ⁻ ,3,4 ⁺)		BC G	
5226.1 4	(1,2) ⁻	0.97 fs 76	BCD G	
5255 15				
5282.79 17		2.3 fs 9	BCD G	
5319.17 4	0,1,2	3.4 fs 8	BCD G	
5346.1 33			C G	
5352 3			B G	
5407 3			BC G	
5452.1 38			BC G	
5457.2 32			G	
5465.89 17	(1,2,3) ⁺		D G	
5555.34 4	1,2 ⁺	4.2 fs 10	CD G	
5574 6			BC	
5588 2			G	
5623.13 6			BCD G	
5645 12			C	
5661 12			C	
5710 6			C G	
5725 10			B	
5764.9 34	(3) ⁺		BC G	
5795 14			C	
5810.1 4	(1 ⁺)		B D G	
5936.13 3	2 ⁻	<1.4 fs	CD G	
5939.10 10			CD G	
5951 4				
6007 14			C	
6017.78 3	2 ⁻	2.3 fs 8	B D G	
6044.98 8	0,1,2		CD G	
6065 14			C	
6079 14			C	
6095 14			C	
6111 14			C	
6136 14			C	
6154 14			BC	
6189 14			BC	
6213 14			C	
6251 14			C	
6287 14			C	
6299.1 3			B D	
6335 14			BC	
6355 14			BC	
6391 14			BC	
6413 14			BC	
6444 14			C	
6458 14			C	
6481 14			BC	
6509 14			C	
6519 3	0 ⁺			T=2
6578 14			BC	

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Adopted Levels, Gammas 1998Ti06 (continued) ^{20}F Levels (continued)

E(level)	J ^π	T _{1/2}	XREF	Comments
6627.0 3	2 ⁻	0.31 keV 2	DE	%IT=0.45 10; %n=99.55 10 Γ _γ =1.39 eV 18
6642.6 3	(3,4)	<0.08 keV	D	%IT=?; %n=?
6647.5 4	1 ⁻	1.59 keV 10	DE	%IT=0.101 20; %n=99.899 20 Γ _γ =1.59 eV 24
6693.4 6	1 ⁻	13.8 keV 8	B DE	%IT=?; %n=100
6766.1 9	(2 ⁻ ,3,4 ⁺)	≤0.6 keV	B D	%IT=?; %n=?
6825 5			B E	%n=100
6856.7 10	2	10 keV 2	D	%IT=0.035 11; %n=99.965 11
6905 [†] 8				
6936 [†] 4			B	
6967.8 10	1 ⁻	5 keV 1	B DE	%IT=0.048 19; %n=99.952 19
7067.0? 12	0 ⁻	2.4 keV 6	DE	%IT=?; %n=? T _{1/2} : tentative value.
7080	(1 ⁺)	24 keV	B E	%n=100
7166 2	2 ⁽⁺⁾	8 keV 1	B DEF	%IT=0.079 18; %n=99.921 18
7232 [†] 7			B	
7283 [†] 4			B	
7319 8	(1)	33 keV	B DE	%IT=0.009; %n=100
7370 20	(1)	19 keV	B E	%n=100
7420 20	(2 ⁺)	10 keV	B DE	%IT=?; %n=100
7495 5	(2)	80 keV	B DE	%IT=0.0035; %n=100
7655 5	(2 ⁺)	65 keV	B DE	%IT=0.0060; %n=100
7734 6		140 keV	B E	%n=100
7843 11	1 ⁻	50 keV 10	B D	%IT=?; %n=100 T _{1/2} : tentative value.
7985 4	1	14 keV 2	B D	%IT=?; %n=100
805×10 ^{1†} 10	2 ⁺			T=2
8062 [†] 8			B	
8113 4		195 keV	B DE	%IT=0.006; %n=100
8147 6		15 keV	B E	%n=100
8268 [†] 12			B	
8349 [†] 4			B	
8421		27 keV	E	%n=100
8500		140 keV	E	%n=100
8720		≤30 keV	B E	%n=100
8770		76 keV	B E	%n=100
8940		73 keV	B E	%n=100
9010 [†]			B	
9200			E	%n=100
9520		110 keV	E	%n=100
9650		100 keV	E	%n=100
9830		33 keV	E	%n=100
9850		120 keV	E	%n=100
9886? 10			E	%n=100
9900		≤30 keV	E	%n=100
9929? 10			E	%n=100
9981? 10			E	%n=100
10024 10		150 keV	EF	%n=?; %α=?
10100 50			F	%n=?; %α=?
10228 10	0 ⁻ ,1	≈200 keV	EF	%n=?; %α=?
10480 10		≈10 keV	EF	%n=?; %α=?
10641 10	1,2	70 keV	E	%n=100

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Adopted Levels, Gammas 1998Ti06 (continued) ^{20}F Levels (continued)

E(level)	J^π	$T_{1/2}$	XREF	Comments
10807 10	0 ⁻ ,1	≈310 keV	EF	%n=?; %α=?
10990		190 keV	E	%n=100
11045? 10		≈30 keV	E	%n=100
11130? 10		<25 keV	E	%n=100
11244? 10		<25 keV	E	%n=100
11287? 10			E	%n=100
11490 50			F	%n=?; %α=?
12000			F	%n=?; %α=?
1220×10 ¹ 10			F	%n=?; %α=?
12400			F	%n=?; %α=?
12700			F	%n=?; %α=?
13200			F	%n=?; %α=?
13700			EF	%n=?; %α=?
14000			F	%n=?; %α=?

† Decay mode not specified.

 $\gamma(^{20}\text{F})$

$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	δ	Comments
656.02	3 ⁺	656.00 3	100.	0.0	2 ⁺	[M1+E2]	0.10 5	B(M1)(W.u.)=0.252 17
822.73	4 ⁺	166.78 5	66.8 24	656.02	3 ⁺	[M1]		B(M1)(W.u.)=5.72×10 ⁻² 48
		822.69 4	33.2 24	0.0	2 ⁺	[E2]		B(E2)(W.u.)=2.76 29
983.59	1 ⁻	983.53 4	100.	0.0	2 ⁺	[E1]		B(E1)(W.u.)=7.04×10 ⁻⁴ 32
1056.848	1 ⁺	1056.78 3	100.	0.0	2 ⁺	[M1]		$\Gamma_\gamma=8.9\times 10^{-2}$ eV 19; B(M1)(W.u.)=3.59 78
1309.19	2 ⁻	252.65 23	1.0 3	1056.848	1 ⁺	[E1]		B(E1)(W.u.)=4.4×10 ⁻⁴ 13
		325.73 14	4.9 4	983.59	1 ⁻	[M1]		B(M1)(W.u.)=2.38×10 ⁻² 23
		653.2 3	2.4 4	656.02	3 ⁺	[E1]		B(E1)(W.u.)=6.1×10 ⁻⁵ 11
		1309.17 3	91.7 6	0.0	2 ⁺	[E1]		B(E1)(W.u.)=2.87×10 ⁻⁴ 14
1823.8	5 ⁺	1001.7 12	100.	822.73	4 ⁺			I_γ : authors report % $I_\gamma\geq 95$.
1843.80	2 ⁻	534.60 8	1.9 3	1309.19	2 ⁻	[M1]		B(M1)(W.u.)=5.9×10 ⁻² 10
		1187.70 6	6.7 6	656.02	3 ⁺	[E1]		B(E1)(W.u.)=7.96×10 ⁻⁴ 85
		1843.74 3	91.3 7	0.0	2 ⁺	[E1]		B(E1)(W.u.)=2.90×10 ⁻³ 22
1970.83	(3 ⁻)	661.63 99	29.7 30	1309.19	2 ⁻	[M1]		B(M1)(W.u.)=5.27×10 ⁻² 94
		987.20 99	0.8 4	983.59	1 ⁻	[E2]		B(E2)(W.u.)=3.5 18
		1148.05 4	51.9 27	822.73	4 ⁺	[E1]		B(E1)(W.u.)=7.4×10 ⁻⁴ 12
								δ : $\delta=+0.27$ 30.
		1970.73 99	17.7 17	0.0	2 ⁺	[E1]		B(E1)(W.u.)=4.98×10 ⁻⁵ 88
								δ : $\delta=-0.06$ 14.
2043.98	2 ⁺	734.84 12	0.7 3	1309.19	2 ⁻	[E1]		B(E1)(W.u.)=5.9 28
		1387.90 3	91.8 6	656.02	3 ⁺	[M1]		B(M1)(W.u.)=2.8 5
								δ : $\delta=0.08$ +6-10.
		2043.89 6	7.5 6	0.0	2 ⁺	[M1]		B(M1)(W.u.)=7.1×10 ⁻² 14
2194.30	(3 ⁺)	885.0 3	1.8 4	1309.19	2 ⁻	[E1]		B(E1)(W.u.)=8.3×10 ⁻³ 31
		1371.53 4	51.2 19	822.73	4 ⁺	[M1]		B(M1)(W.u.)=1.52 45
								δ : $\delta(E2/M1)=-0.07$ 10.
		2194.16 3	47.0 19	0.0	2 ⁺	[M1]		B(M1)(W.u.)=0.34 10
								δ : $\delta(E2/M1)=0.00$ 9.
2864.86	(3 ⁻)	670.1 6	7. 3	2194.30	(3 ⁺)	[E1]		B(E1)(W.u.)=1.07×10 ⁻² 39
		820.9 4	12. 5	2043.98	2 ⁺	[E1]		B(E1)(W.u.)=9.7×10 ⁻³ 39
		894.1 5	7. 3	1970.83	(3 ⁻)	[M1]		B(M1)(W.u.)=0.107 39
		1020.9 4	7. 3	1843.80	2 ⁻	[M1]		B(M1)(W.u.)=7.2×10 ⁻² 26

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Adopted Levels, Gammas 1998Ti06 (continued)

$\gamma(^{20}\text{F})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	Comments
2864.86	(3 ⁻)	1555.0 4	12. 3	1309.19	2 ⁻	[M1]	B(M1)(W.u.)=3.42×10 ⁻² 88
		2042.0 6	12. 5	822.73	4 ⁺	[E1]	B(E1)(W.u.)=6.3×10 ⁻⁴ 26
		2208.5 7	5. 3	656.02	3 ⁺	[E1]	B(E1)(W.u.)=2.0×10 ⁻⁴ 11
2966.11	3 ⁺	2864.68 13	38. 7	0.0	2 ⁺	[E1]	B(E1)(W.u.)=7.3×10 ⁻⁴ 17
		771.71 10	2.4 6	2194.30	(3 ⁺)	[M1]	B(M1)(W.u.)=0.31 10
		2143.26 3	58.3 16	822.73	4 ⁺	[M1]	B(M1)(W.u.)=0.357 76
		2309.96 6	12.2 11	656.02	3 ⁺	[M1]	B(M1)(W.u.)=5.9×10 ⁻² 14
		2965.90 9	27.1 14	0.0	2 ⁺	[M1]	B(M1)(W.u.)=6.3×10 ⁻² 14
2968.0	(4 ⁻)	997.21 5	61 4	1970.83	(3 ⁻)		
		2145.21 5	39 4	822.73	4 ⁺		
3171.69	(1 ⁺)	2187.96 20	100.	983.59	1 ⁻		Authors report %I _γ >95.
3488.41	1 ⁺	1644.50 8	7.4 6	1843.80	2 ⁻	[E1]	B(E1)(W.u.)=1.87×10 ⁻³ 21
		2179.09 4	9.2 7	1309.19	2 ⁻	[E1]	B(E1)(W.u.)=9.98×10 ⁻⁴ 97
		2431.43 99	7.1 29	1056.848	1 ⁺	[M1]	B(M1)(W.u.)=1.32×10 ⁻² 55
		2504.54 18	3.8 5	983.59	1 ⁻	[E1]	B(E1)(W.u.)=2.71×10 ⁻⁴ 39
		3488.13 4	72.6 25	0.0	2 ⁺	[M1]	B(M1)(W.u.)=4.58×10 ⁻² 32
3526.31	0 ⁺	2469.34 4	100.	1056.848	1 ⁺	[M1]	B(M1)(W.u.)=0.378 41
3586.54	(1,2) ⁺	620.44 5	2.6 3	2966.11	3 ⁺		
		1392.22 5	8.8 7	2194.30	(3 ⁺)		
		1542.50 4	31.1 15	2043.98	2 ⁺		
		1742.7 3	0.7 3	1843.80	2 ⁻		
		2529.55 99	10.2 31	1056.848	1 ⁺		
		2602.75 9	4.0 4	983.59	1 ⁻		
		2930.31 10	9.8 7	656.02	3 ⁺		
		3586.23 6	32.9 16	0.0	2 ⁺		
3589.80		1545.87 16	6.1 9	2043.98	2 ⁺		
		2933.76 25	10.7 13	656.02	3 ⁺		
		3589.47 8	83.2 15	0.0	2 ⁺		
3680.17	1,2	1836.50 22	8.6 11	1843.80	2 ⁻		
		2370.88 21	4.3 11	1309.19	2 ⁻		
		2623.18 8	23.5 16	1056.848	1 ⁺		
		3023.90 99	17.1 19	656.02	3 ⁺		
		3679.91 23	46.5 23	0.0	2 ⁺		
3965.07	1 ⁺	793.36 19	5. 2	3171.69	(1 ⁺)		
		2120.95 16	10. 2	1843.80	2 ⁻		
		2655.74 6	58. 3	1309.19	2 ⁻		
		2981.25 18	26. 3	983.59	1 ⁻		
4082.17	(1) ⁺	2038.08 18	9.9 13	2043.98	2 ⁺		
		3025.10 99	50.0 23	1056.848	1 ⁺		
		3098.1 4	4.6 13	983.59	1 ⁻		
		4081.77 10	35.5 22	0.0	2 ⁺		
4277.09	(1,2) ⁺	2232.9 9	19. 3	2043.98	2 ⁺		
		3219.89 12	56. 3	1056.848	1 ⁺		
		3293.23 22	24. 3	983.59	1 ⁻		
4371.47	(2 ⁺)	691.4 3	6. 3	3680.17	1,2		
		3387.56 11	94. 3	983.59	1 ⁻		
4509	1 ⁺ ,(2 ⁺)	3852.3 4	100	656.02	3 ⁺		
4591.72		3534.4 4	40. 7	1056.848	1 ⁺		
		3607.8 3	60. 7	983.59	1 ⁻		
4892.76		1306.2 3	45. 8	3586.54	(1,2) ⁺		
		2697.9 5	20. 5	2194.30	(3 ⁺)		
		4070.0 6	35. 8	822.73	4 ⁺		
5282.79		4225.8 7	43. 10	1056.848	1 ⁺		
		5282.1 6	57. 10	0.0	2 ⁺		

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Adopted Levels, Gammas 1998Ti06 (continued)

$\gamma({}^{20}\text{F})$ (continued)					
$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π
5319.17	0,1,2	3475.3 4	6. 2	1843.80	2 ⁻
		4009.3 5	12. 4	1309.19	2 ⁻
		4262.5 9	4. 2	1056.848	1 ⁺
		4335.09 13	56. 4	983.59	1 ⁻
		5318.32 25	23. 3	0.0	2 ⁺
5465.89	(1,2,3) ⁺	2600.3 6	100.	2864.86	(3 ⁻)
5555.34	1,2 ⁺	2690.5 3	3.5 6	2864.86	(3 ⁻)
		3711.0 5	7.1 17	1843.80	2 ⁻
		4245.65 8	54.7 22	1309.19	2 ⁻
		4899.2 9	4.1 12	656.02	3 ⁺
		5554.59 11	30.6 20	0.0	2 ⁺
5623.13		3578.6 5	16. 4	2043.98	2 ⁺
		4313.29 25	31. 5	1309.19	2 ⁻
		4639.0 4	40. 5	983.59	1 ⁻
		5622.5 6	14. 4	0.0	2 ⁺
5936.13	2 ⁻	1853.96 22	0.89 14	4082.17	(1) ⁺
		1970.95 99	0.68 20	3965.07	1 ⁺
		2255.82 4	5.93 34	3680.17	1,2
		2346.30 16	1.43 27	3589.80	
		2349.55 13	2.11 20	3586.54	(1,2) ⁺
		2447.58 4	9.61 47	3488.41	1 ⁺
		2969.7 4	1.09 20	2966.11	3 ⁺
		3070.9 3	1.36 20	2864.86	(3 ⁻)
		3741.44 11	3.95 34	2194.30	(3 ⁺)
		3891.39 25	1.23 20	2043.98	2 ⁺
		3964.85 4	30.04 94	1970.83	(3 ⁻)
		4092.2 4	1.16 20	1843.80	2 ⁻
		4626.50 99	0.55 14	1309.19	2 ⁻
		4878.8 6	0.61 14	1056.848	1 ⁺
5939.10		4951.91 25	4.02 40	983.59	1 ⁻
		5279.27 10	28.7 11	656.02	3 ⁺
		5935.10 11	6.61 65	0.0	2 ⁺
		2352.44 21	19. 3	3586.54	(1,2) ⁺
		3894.2 4	13. 3	2043.98	2 ⁺
		4095.01 23	31. 3	1843.80	2 ⁻
		4954.5 7	24. 3	983.59	1 ⁻
6017.78	2 ⁻	5938.1 9	12. 3	0.0	2 ⁺
		1935.50 5	2.02 14	4082.17	(1) ⁺
		2052.8 6	0.14 3	3965.07	1 ⁺
		2337.58 14	0.39 8	3680.17	1,2
		2427.83 4	5.26 21	3589.80	
		2431.08 99	9.69 77	3586.54	(1,2) ⁺
		2529.20 99	16.05 74	3488.41	1 ⁺
		3051.43 4	8.22 34	2966.11	3 ⁺
		3152.1 4	0.39 8	2864.86	(3 ⁻)
		3823.05 9	2.93 17	2194.30	(3 ⁺)
		3973.47 20	0.66 8	2043.98	2 ⁺
		4046.71 23	1.00 8	1970.83	(3 ⁻)
		4173.54 5	4.62 18	1843.80	2 ⁻
		4708.19 12	1.44 11	1309.19	2 ⁻
		6044.98	0,1,2	4960.3 4	0.75 8
5033.50 4	17.16 62			983.59	1 ⁻
5360.93 10	3.29 15			656.02	3 ⁺
6016.72 6	26.01 90			0.0	2 ⁺
2079.72 21	5.6 10			3965.07	1 ⁺
2458.0 4	3.1 5			3586.54	(1,2) ⁺

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas 1998Ti06 (continued)

$\gamma({}^{20}\text{F})$ (continued)								
$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	Comments	
6044.98	0,1,2	2556.35	15	8.2	15	3488.41	1 ⁺	
		4200.56	7	55.4	21	1843.80	2 ⁻	
		4735.22	10	27.7	18	1309.19	2 ⁻	
6627.0	2 ⁻	2544.7	3	2.1	1	4082.17	(1) ⁺	[E1] B(E1)(W.u.)=4.2×10 ⁻³ 19
		3100.5	3	8	1	3526.31	0 ⁺	
		3138.2	3	3	1	3488.41	1 ⁺	[E1] B(E1)(W.u.)=2.7×10 ⁻³ 10
		4582.4	3	1.5	1	2043.98	2 ⁺	[E1] B(E1)(W.u.)=4.4×10 ⁻⁴ 31
		4656.8	3	46	4	1970.83	(3) ⁻	[M1] B(M1)(W.u.)=0.30 7
		4782.3	3	8	2	1843.80	2 ⁻	[M1] B(M1)(W.u.)=0.048 17
		5316.9	3	31	2	1309.19	2 ⁻	[M1] B(M1)(W.u.)=0.14 3
		5970.0	3	6	1	656.02	3 ⁺	[E1] B(E1)(W.u.)=7.9×10 ⁻⁴ 22
6642.6	(3,4)	6625.8	3	2.0	5	0.0	2 ⁺	[E1] B(E1)(W.u.)=1.9×10 ⁻⁴ 6
		3676.1	3	35	9	2966.11	3 ⁺	
		5819.0	3	23	7	822.73	4 ⁺	
		5985.6	3	42	7	656.02	3 ⁺	
6647.5	1 ⁻	3158.7	4	14	5	3488.41	1 ⁺	[E1] B(E1)(W.u.)=0.014 6
		4602.9	4	59	6	2043.98	2 ⁺	[E1] B(E1)(W.u.)=0.019 4
		5589.8	4	9	4	1056.848	1 ⁺	[E1] B(E1)(W.u.)=0.0016 8
		5662.9	4	18	4	983.59	1 ⁻	[M1] B(M1)(W.u.)=0.076 21

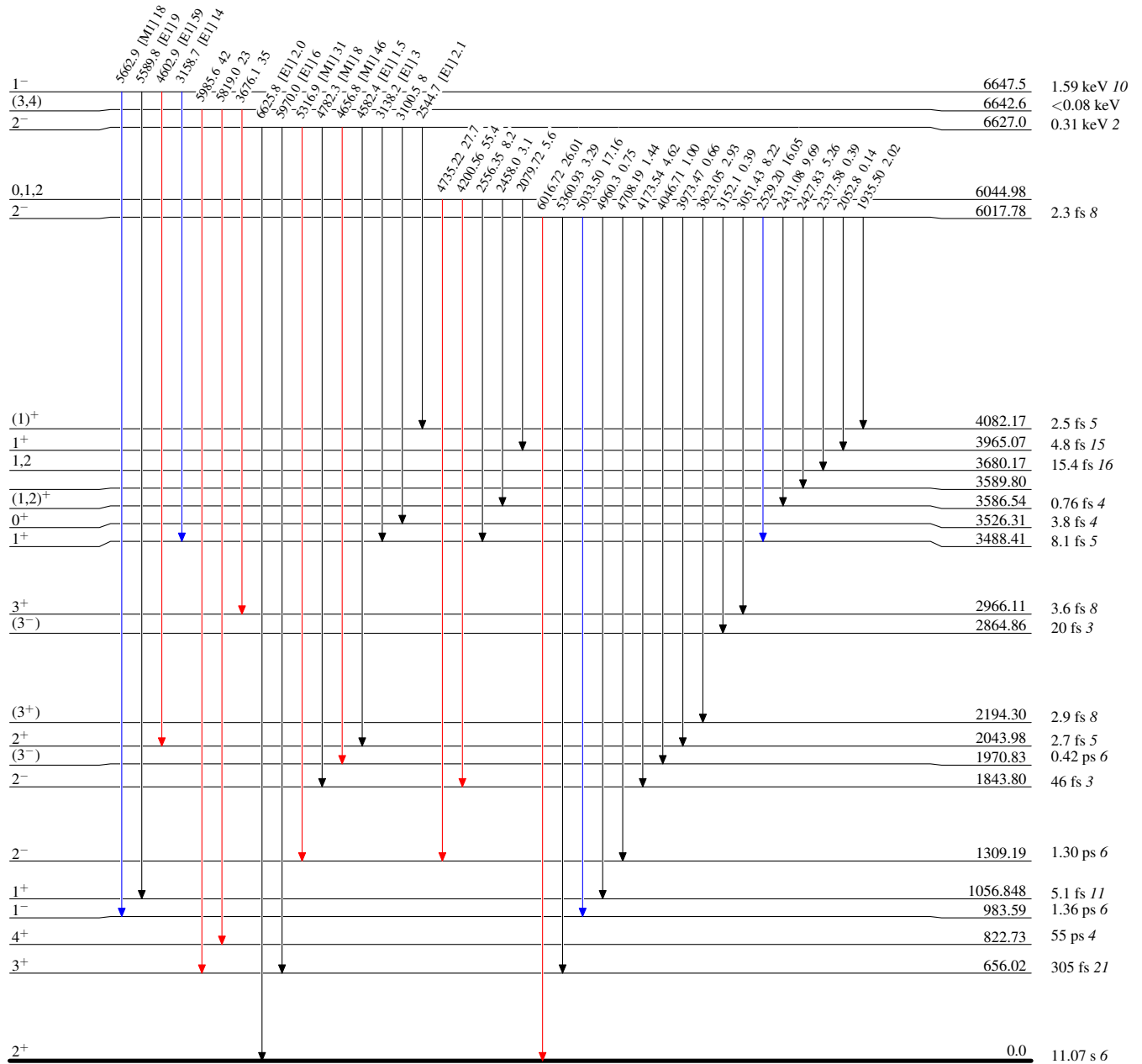
Adopted Levels, Gammas 1998Ti06

Level Scheme

Intensities: Type not specified

Legend

- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$






$^{20}\text{F}_{11}$

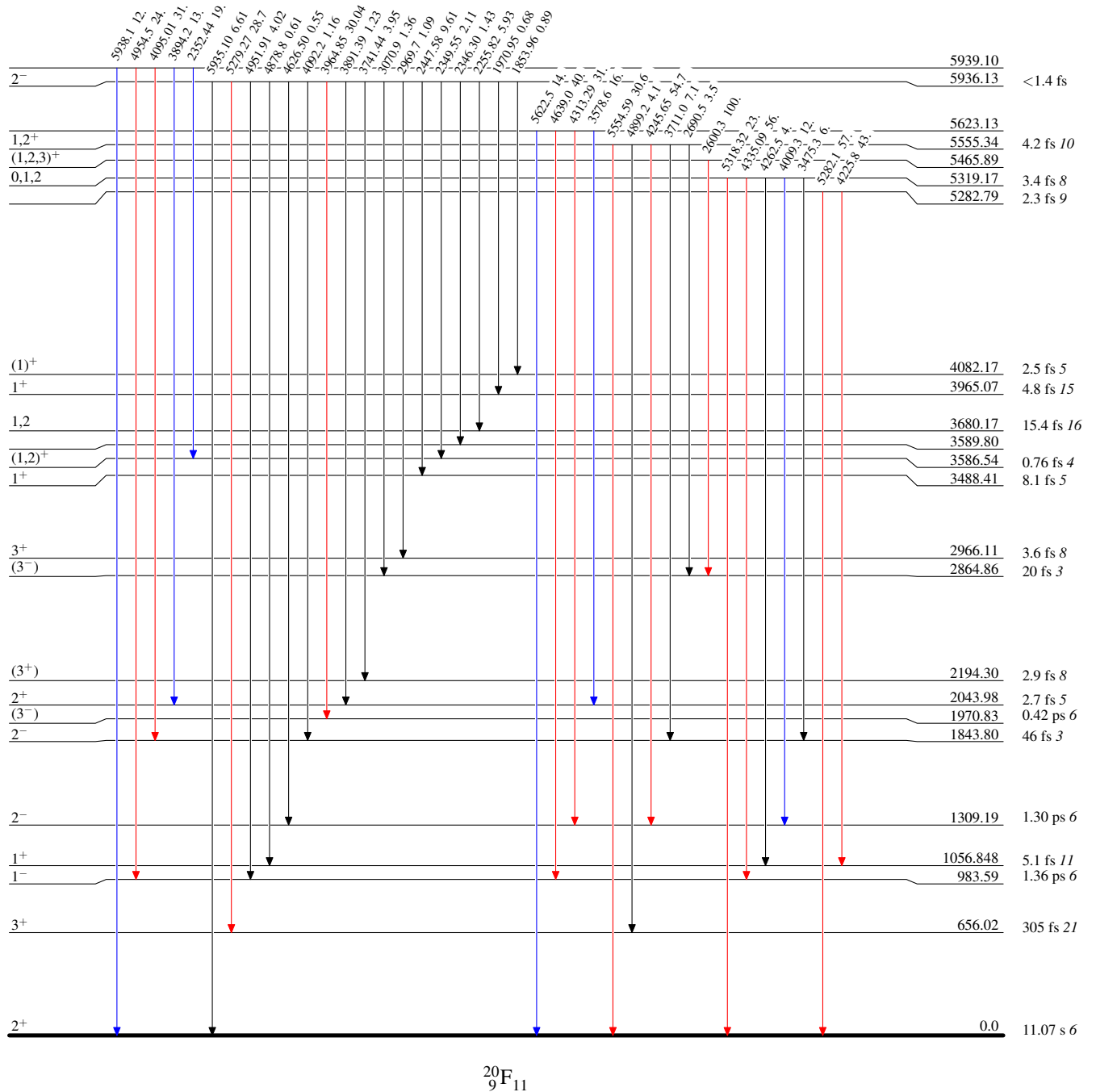
Adopted Levels, Gammas 1998Ti06

Level Scheme (continued)

Intensities: Type not specified

Legend

-  $I_\gamma < 2\% \times I_\gamma^{\max}$
 $I_\gamma < 10\% \times I_\gamma^{\max}$
 $I_\gamma > 10\% \times I_\gamma^{\max}$



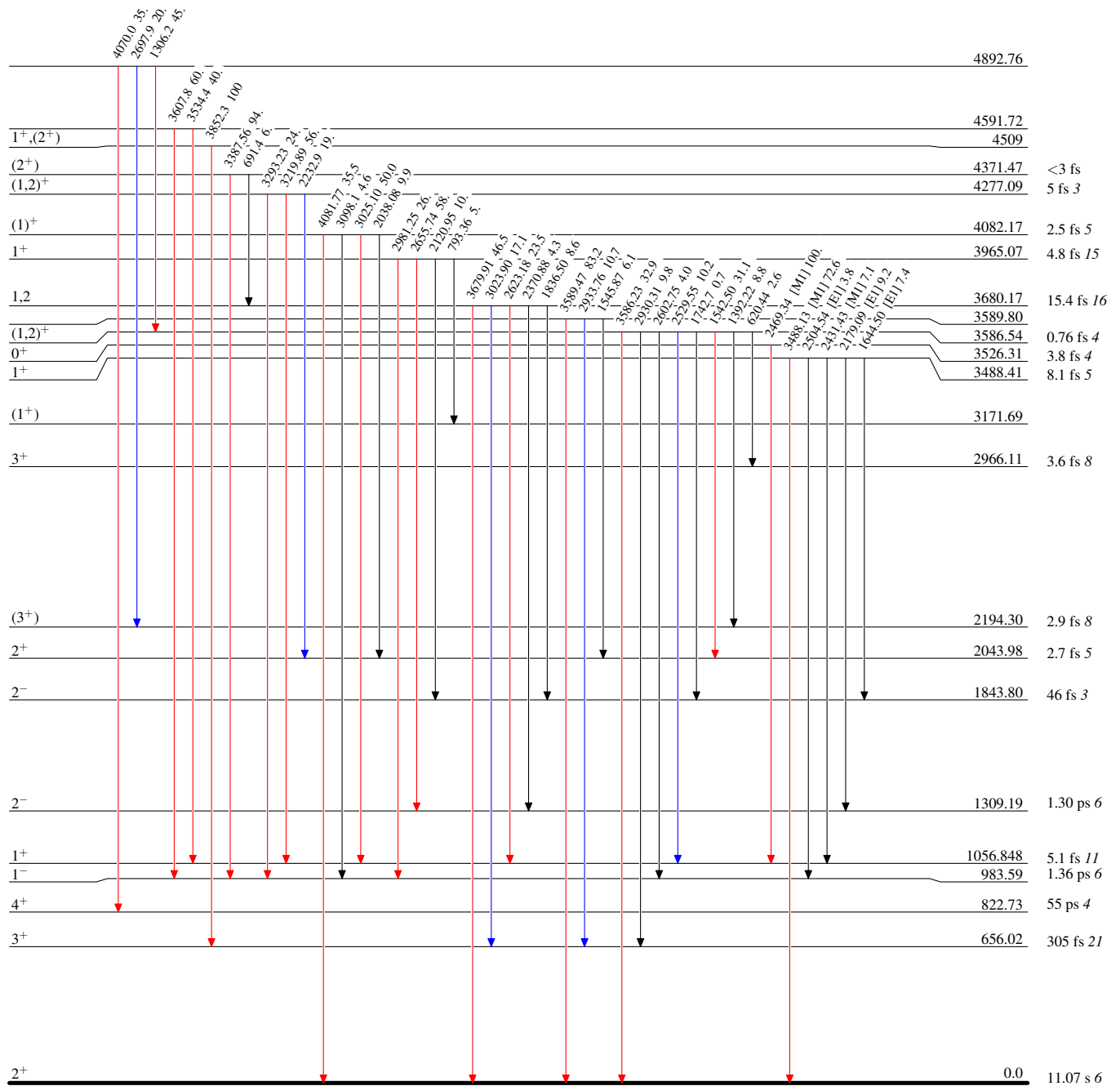
Adopted Levels, Gammas 1998Ti06

Level Scheme (continued)

Intensities: Type not specified

Legend

- $I_{\gamma} < 2\% \times I_{\gamma}^{max}$
- $I_{\gamma} < 10\% \times I_{\gamma}^{max}$
- $I_{\gamma} > 10\% \times I_{\gamma}^{max}$



$^{20}_{9}\text{F}_{11}$

Adopted Levels, Gammas 1998Ti06

Level Scheme (continued)

Intensities: Type not specified

Legend

- $I_\gamma < 2\% \times I_{\gamma_{max}}$ (black arrow)
- $I_\gamma < 10\% \times I_{\gamma_{max}}$ (blue arrow)
- $I_\gamma > 10\% \times I_{\gamma_{max}}$ (red arrow)

