Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Huo Junde	NDS 110,2689 (2009)	31-Mar-2007

Q(β^-)=−8288.1 *5*; S(n)=10686 *7*; S(p)=7528.9 *25*; Q(α)=−8039 *3* 2012Wa38
Note: Current evaluation has used the following Q record −8300 1810685 77528.8 *25*−8039.8 *29* 2003Au03.

^{53}Fe Levels

Cross Reference (XREF) Flags

A	^{53}Fe IT decay	E	^{50}Cr(α,nγ)	I	^{56}Fe(^{3}He,^{6}He)
B	^{53}Co ε decay (240 ms)	F	^{54}Fe(p,d),(pol p,d)	J	^{54}Fe(γ,n)
C	^{53}Co ε decay (247 ms)	G	^{54}Fe(d,t)		
D	^{28}Si(^{32}S,α2pnγ)	H	^{54}Fe(^{3}He,α), (pol ^{3}He,α)		

E(level)[a]	J$^\pi$	T$_{1/2}$[@]	XREF	Comments
0.0[e]	7/2$^-$[†]	8.51 min *2*	ABCDEFGHIJ	%ε+%β^+=100 T$_{1/2}$: from weighted average of 8.51 min *2* 1965Eb01, 8.51 min *25* (1976Bo19), 8.45 min*12* (1968De27), 8.80 min *24* (1961Ra06), 8.5 min *3* (bare)(1995Ir01); see also 1959Ju40, 1954Nu22.
741.11[c] *10*	3/2$^-$[#]	63.5 ns *14*	DEFGH J	XREF: F(745). μ=−0.386 *15* (2005St24).
774.42[b] *11*	1/2$^-$	2.0 ns *2*	EFG J	J$^\pi$: γ from 5/2$^-$ is ΔJ=2, E2; L(p,d)=1.
1328.01[d] *24*	9/2$^-$[#]	17 fs *7*	AB DEFGH	
1423.5[b] *3*	5/2$^-$[#]	2.8 ps *7*	DEFGH	
1696.32[c] *18*	7/2$^-$[†]	1.4 ps *+21−7*	DEFGH J	
1896			G	
2042.6 *10*	3/2$^-$	0.24 ps *5*	EFGH	J$^\pi$: L(p,d)=1, T$_{1/2}$ exclude M3 for observed γ to 7/2$^-$.
2315 *5*	1/2$^+$		F	J$^\pi$: L(^{3}He,d)=0.
2339.24[e] *25*	11/2$^-$[#]	53 fs *12*	A DEFGH	
2405 *4*	5/2$^-$[‡]		F H	
2479? *2*		35 fs *8*	EF	
2557.3[b] *4*	9/2$^-$		D	J$^\pi$: γ to 7/2$^-$ is M1, γ to 5/2$^-$ is E2.
2680 *12*	3/2$^+$,5/2$^+$		H	J$^\pi$: L(^{3}He,α)=2.
2829.0 *20*		35 fs *14*	E G	
2842.8[g] *5*	11/2$^-$		D	J$^\pi$: From angular distributions and correlations of both populating and depopulating transitions of level.
2844.8 *20*	7/2$^-$	33 fs *12*	EF H	J$^\pi$: L(p,d)=3 and analyzing power data in (p,d).
2892			F	
2915 *5*	7/2$^-$,5/2$^-$		F	J$^\pi$: L(p,d)=3.
2926 *5*	(1/2$^+$)		GH	XREF: G(2922). J$^\pi$: L(^{3}He,α)=(0).
2944 *3*	3/2$^-$,1/2$^-$		F	J$^\pi$: L(p,d)=1.
2966.9 *20*	1/2$^+$	78 fs *15*	EFGH	XREF: F(2976). J$^\pi$: L(p,d)=0.
3040.4[i] *3*	19/2$^-$	2.54 min *2*	A CDE G	%IT=100 T$_{1/2}$: from weighted average of 2.58 min *3* (1967Es06), 2.51 min *2* (1968De27), 2.65 min *6* (1974FiZI). 2.48 min *5* (bare) (1995Ir01). J$^\pi$: from analysis of B(EL)(W.u.), B(M+L)(W.u.) and Iγ to 7/2$^-$, 9/2$^-$, 11/2$^-$ levels.

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Adopted Levels, Gammas (continued)

^{53}Fe Levels (continued)

E(level)[a]	Jπ	$T_{1/2}$[@]	XREF	Comments
3175.9[d] 5	13/2−[#]	<132 fs	DE	
3311.9[c] 5	11/2−		D	Jπ: γ to 9/2− is M1+E2, γ to 7/2− is E2.
3333 3	7/2−[†]		FGH	XREF: G(3321).
3399 3	3/2+[†]		FGH	XREF: G(3393).
3462.7[e] 6	15/2−[#]		DE G	
3567 3	7/2−		FGH	Jπ: L=3 in (p,d), (^{3}He,α) and analyzing power data in (p,d).
3697 3	1/2−,3/2−		F H	XREF: H(3703). Jπ: L=1 in (p,d), (^{3}He,α).
3774.0[f] 5	13/2−		D	Jπ: γ to 11/2− is M1, γ to 9/2− is E2.
3776 5	5/2−,7/2−		F H	XREF: H(3785). Jπ: L=3 in (p,d), (^{3}He,α). E(level): from weighted average of 3774 5 (p,d) and 3785 12 (^{3}He,α).
3803 5	1/2−,3/2−		F H	XREF: H(3813). Jπ: L=1 in (p,d), (^{3}He,α).
3852 5	1/2−,3/2−		F H	Jπ: L=1 in (p,d), (^{3}He,α).
3892 5	7/2−,5/2−		F H	XREF: H(3897). Jπ: L(p,d)=3.
4005.4[d] 5	17/2−		D	Jπ: γ to 19/2− is M1+E2, γ to 15/2−.
4149 5			F	
4170 12	3/2+,5/2+		H	Jπ: L(^{3}He,α)=2.
4250 3	7/2−		E GHI	XREF: G(4256)H(4256)I(4264). Jπ: L(p,d)=3 and analyzing power data in (p,d). E(level): IAS of ^{53}Mn(g.s.) 7/2−.
4253.0[b] 8	(13/2−)		D	Jπ: γ to 11/2− is (M1+E2), γ to 9/2− is (E2).
4451 5			F	
4555.0[g] 5	15/2−		D	Jπ: γ to 13/2− is M1, γ′s to 11/2− is E2.
4557 7	7/2−,5/2−		F	Jπ: L(p,d)=3.
4575 15	3/2+,5/2+		H	Jπ: L(^{3}He,α)=2.
4604 10			F	
4637 15	7/2−,5/2−		H	Jπ: L(^{3}He,α)=3.
4671 10			F	
4698 15			H	
4764 10			F	
4784.9 9	13/2		D	Jπ: γ to 11/2− is D.
4801 10			F	
4812.8 21			E	
4839 15	(7/2−,5/2−)		H	Jπ: L(^{3}He,α)=(3).
4884 10	7/2−,5/2−		F H	XREF: H(4901). Jπ: L=3 in (^{3}He,α), (p,d).
4931.1 10	(15/2−)		D	Jπ: γ to 13/2− is (M1+E2), γ to 11/2− is (E2).
5093 5			F	
5185 7	3/2+,5/2+		F H	XREF: H(5200). Jπ: L(^{3}He,α)=2.
5339.5[f] 6	17/2−		D	Jπ: γ to 15/2− is M1+E2, γ to 13/2− is E2.
5340.1[c] 10	13/2−,15/2−		D	Jπ: γ′s to 11/2−.
5454 5			F H	XREF: H(5438).
5478 7	3/2+,5/2+		F	Jπ: L(p,d)=2.
5536 15			H	
5568 7	3/2+,5/2+		F H	XREF: H(5577). Jπ: L(^{3}He,α)=2.
5606 8			F	
5672 15			H	

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Adopted Levels, Gammas (continued)

^{53}Fe Levels (continued)

E(level)[a]	J$^\pi$	T$_{1/2}$[@]	XREF	Comments
5722			H	
5751.7 *7*			D	
5897.2 *7*	15/2$^-$		D	J$^\pi$: γ's to 13/2$^-$ and to 17/2$^-$.
5960 *6*			F	
5994 *9*			F H	XREF: H(6002).
6072.0 *11*			D	
6110 *15*			H	
6152 *9*			F	
6179 *8*			F	
6294 *15*			H	
6365.4[h] *11*	21/2$^-$	<2.8 ps	D	T$_{1/2}$: RDDS method (2005Du19), decay curve of 3325 transition was least-squares fitted with two lifetime components, one of which was fixed to a value corresponding to lower limit of the lifetime of th 25/2$^-$ state.
6388 *8*	1/2$^+$		F	J$^\pi$: L(p,d)=0.
6419 *9*			F H	
6449 *15*	3/2$^+$,5/2$^+$		H	J$^\pi$: L(^{3}He,α)=2, model dependent choice.
6504 *9*	1/2$^+$		F	J$^\pi$: L(p,d)=0.
6528 *20*	5/2$^-$,7/2$^-$		H	J$^\pi$: L(^{3}He,α)=3, model dependent choice.
6569 *10*	(3/2)$^-$		F H	XREF: H(6583). J$^\pi$: L(p,d)=1, (^{3}He,α) model dependent choice. E(level): IAS of 3/2$^-$ level in ^{53}Mn.
6689.3 *21*	17/2$^-$		D	J$^\pi$: γ to 15/2$^-$ is M1+E2.
6696 *20*	3/2$^+$,5/2$^+$		H	J$^\pi$: L(^{3}He,α)=2, model dependent choice.
6800 *10*			F H	XREF: H(6820).
6828.6[i] *11*	23/2$^-$		D	J$^\pi$: γ to 21/2$^-$ is M1, γ to 19/2$^-$ is E2.
6831 *10*			F H	XREF: H(6845).
6935 *3*	17/2$^-$		D	J$^\pi$: γ to 15/2$^-$ is M1+E2.
6942 *10*	1/2$^+$		F H	XREF: H(6958). J$^\pi$: L(p,d)=0.
7028 *10*	1/2$^+$		F H	XREF: H(7042). J$^\pi$: L(p,d)=0.
7122 *10*	1/2$^+$		F H	XREF: H(7135). J$^\pi$: L(p,d)=0.
7139 *3*	(19/2$^-$)		D	J$^\pi$: γ to 152- is (E2).
7181.3 *12*	(21/2)$^-$		D	J$^\pi$: γ to 19/2$^-$ is (M1+E2), γ to 17/2$^-$ is (E2).
7213 *20*	3/2$^+$,5/2$^+$		H	J$^\pi$: L(^{3}He,α)=2, model dependent choice.
7214 *3*			D	J$^\pi$: γ to 15/2$^-$.
7263 *10*	(3/2)$^+$		F H	XREF: H(7273). J$^\pi$: L(p,d)=2, model dependent choice. E(level): IAS of 3/2$^+$ level in ^{53}Mn.
7304 *15*			F H	XREF: H(7307).
7327.8[h] *11*	25/2$^-$	18.2 ps *22*	D	T$_{1/2}$: RDDS method (2005Du19). J$^\pi$: γ to 23/2$^-$ is M1+E2, γ to 21/2$^-$ is E2.
7364 *15*	3/2$^+$,5/2$^+$		F H	XREF: H(7372). J$^\pi$: L(^{3}He,α)=2, model dependent choice.
8273.8 *12*	25/2$^-$	<0.14[&] ps	D	J$^\pi$: γ to 23/2$^-$ is M1+E2, γ to 21/2$^-$ is E2.
8544.2 *12*	23/2$^-$		D	J$^\pi$: γ to 25/2$^-$ is M1+E2, γ to (21/2)$^-$ is (M1+E2).
9098.3[i] *13*	27/2$^-$	<0.14[&] ps	D	J$^\pi$: γ to 25/2$^-$ is M1+E2, γ to 23/2$^-$ is E2.
9287.8 *12*	(25/2$^-$)		D	
9550.0 *15*	(25/2)		D	J$^\pi$: γ to 23/2$^-$ is (D), γ to 25/2$^-$.
9880.6 *13*	27/2$^-$	<0.14[&] ps	D	J$^\pi$: γ's to 25/2$^-$ are M1+E2, γ to 27/2$^-$.
10876 *3*	(27/2$^-$)		D	J$^\pi$: γ to 25/2$^-$ is (M1+E2), γ to 23/2$^-$ is (E2).
11192.1[h] *14*	(29/2$^-$)	<0.14[&] ps	D	J$^\pi$: γ's to 27/2$^-$ is (M1+E2), γ to 25/2$^-$ is (E2).

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Adopted Levels, Gammas (continued)

^{53}Fe Levels (continued)

E(level)[a]	J^π	XREF	Comments
11690 *4*	27/2	D	J^π: γ to $25/2^-$ is D.
12593 *4*		D	

† From L and analyzing power in (^{3}He,α).
‡ From coupled reaction channel analysis in (^{3}He,α).
# From $\gamma(\theta)$ and linear polarization data in (α,nγ).
@ From (α,nγ), except as noted.
& Effective half-life, see ^{28}Si(^{32}S,α2pnγ).
[a] Levels connected by γ ray are from a least-squares fit. Others from (p,d)(pol p,d), except as noted.
[b] Band(A): $1/2^-$ band, α=+1/2.
[c] Band(a): $1/2^-$ band, α=−1/2.
[d] Band(B): yrast cascade based on g.s., α=+1/2.
[e] Band(b): yrast cascade based on g.s., α=−1/2.
[f] Band(C): γ sequence based on $11/2^-$, α=+1/2.
[g] Band(c): γ sequence based on $11/2^-$, α=−1/2.
[h] Band(D): γ sequence based on $19/2^-$, α=−1/2.
[i] Band(d): γ sequence based on $19/2^-$, α=+1/2.

Adopted Levels, Gammas (continued)

γ(^{53}Fe)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†@]	δ	Comments
741.11	3/2$^-$	741.1 *1*	100	0.0	7/2$^-$	E2		B(E2)(W.u.)=0.00337 *8*
774.42	1/2$^-$	33.31 *2*	100	741.11	3/2$^-$	D		
1328.01	9/2$^-$	1328.2 *3*	100	0.0	7/2$^-$	M1(+E2)	−0.11 *2*	B(M1)(W.u.)=0.55 *23*; B(E2)(W.u.)=8 *5*
1423.5	5/2$^-$	647	26	774.42	1/2$^-$	E2		B(E2)(W.u.)=31 *8*
		682.6 *3*	100	741.11	3/2$^-$	M1+E2	+0.36 *+6−2*	B(M1)(W.u.)=0.017 *5*; B(E2)(W.u.)=11 *3*
1696.32	7/2$^-$	272.8[#] *1*	8[#] *1*	1423.5	5/2$^-$	M1+E2[#]		
		955.20 *15*	100[#] *9*	741.11	3/2$^-$	E2[#]		B(E2)(W.u.)=4.E+1 *+5−4*
		1696[#] *1*	5[#] *1*	0.0	7/2$^-$	M1+E2[#]		
2042.6	3/2$^-$	2042.6	100	0.0	7/2$^-$	[E2]		B(E2)(W.u.)=5.6 *12*
2339.24	11/2$^-$	1011.2 *2*	100	1328.01	9/2$^-$	M1(+E2)	+0.11 *2*	B(M1)(W.u.)=0.35 *8*; B(E2)(W.u.)=9 *4*
		2338.3 *5*	15 *2*	0.0	7/2$^-$	M1+E2		Eγ: from (^{28}Si,2pnγ); Iγ: from ^{53}Fe IT decay.
2479?		1738[b] *1*	100	741.11	3/2$^-$	D,E2		
2557.3	9/2$^-$	861.3[#] *4*	33[#] *7*	1696.32	7/2$^-$	M1[#]		
		1134.2[#] *6*	100[#] *8*	1423.5	5/2$^-$	E2[#]		
		2558[#] *1*	31[#] *7*	0.0	7/2$^-$	M1+E2[#]		
2829.0		2828.9 *20*	100	0.0	7/2$^-$	D,E2		
2842.8	11/2$^-$	503.1[#] *4*	15[#] *3*	2339.24	11/2$^-$			
		1514[#] *1*	10[#] *2*	1328.01	9/2$^-$	M1[#]		
		2843[#] *1*	100[#] *8*	0.0	7/2$^-$	E2[#]		
2844.8	7/2$^-$	2844.7 *20*	100	0.0	7/2$^-$	M1+E2		
2966.9	1/2$^+$	2225.7 *20*	100	741.11	3/2$^-$	E1		
3040.4	19/2$^-$	701.1[‡] *1*	100[‡]	2339.24	11/2$^-$	[E4][‡]		B(E4)(W.u.)=0.256 *6*
		1712.6[‡] *3*	1.3[‡] *1*	1328.01	9/2$^-$	[M5][‡]		B(M5)(W.u.)=5.3 *5*
		3040.6[‡] *5*	0.06[‡] *1*	0.0	7/2$^-$	[E6][‡]		B(E6)(W.u.)=0.4 *1*
3175.9	13/2$^-$	836.4[#] *4*	100[#] *4*	2339.24	11/2$^-$	M1+E2[#]		
		1847[#] *1*	12[#] *1*	1328.01	9/2$^-$	E2[#]		
3311.9	11/2$^-$	755.2[#] *5*	22[#] *5*	2557.3	9/2$^-$	M1+E2[#]		
		1614.9[#] *8*	100[#] *10*	1696.32	7/2$^-$	E2[#]		
3462.7	15/2$^-$	287.1[#] *1*	100[#] *3*	3175.9	13/2$^-$	M1[#]		Additional information 1.
		1123.6[#] *6*	23[#] *2*	2339.24	11/2$^-$	E2[#]		Additional information 2.
3774.0	13/2$^-$	931.0[#] *5*	100[#] *6*	2842.8	11/2$^-$	M1+E2[#]		
		1434[#] *1*	32[#] *5*	2339.24	11/2$^-$	M1[#]		
		2445[a#] *1*	99[a#] *12*	1328.01	9/2$^-$	E2[#]		
4005.4	17/2$^-$	542.2[#] *2*	83[#] *4*	3462.7	15/2$^-$			
		965.0[#] *6*	100[#] *10*	3040.4	19/2$^-$	M1+E2[#]		

$^{53}_{26}Fe_{27}$-5

Adopted Levels, Gammas (continued)

γ(^{53}Fe) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†@]	δ	Comments
4253.0	(13/2$^-$)	1695[#] *1*	100[#] *15*	2557.3	9/2$^-$	(E2)[#]		
		1914[#] *1*	69[#] *16*	2339.24	11/2$^-$	(M1+E2)[#]		
4555.0	15/2$^-$	780.7[#] *4*	100[#] *6*	3774.0	13/2$^-$	M1[#]		
		1091.8[#] *6*	35[#] *5*	3462.7	15/2$^-$	&		
		1244[#] *1*	7[#] *3*	3311.9	11/2$^-$	E2[#]		
		1379.1[#] *7*	17[#] *2*	3175.9	13/2$^-$	M1+E2[#]		
		1712[#] *1*	32[#] *4*	2842.8	11/2$^-$	E2[#]		
		2216[#] *1*	60[#] *5*	2339.24	11/2$^-$	E2[#]		
4784.9	13/2	2445[a#] *1*	100[a#]	2339.24	11/2$^-$	D[#]		
4812.8		1350 *2*	100	3462.7	15/2$^-$			
4931.1	(15/2$^-$)	1157[#] *1*	100[#] *16*	3774.0	13/2$^-$	(M1+E2)[#]		
		2592[#] *2*	58[#] *10*	2339.24	11/2$^-$	(E2)[#]		
5339.5	17/2$^-$	784.4[#] *5*	21[#] *6*	4555.0	15/2$^-$	M1[#]		
		1334[#] *1*	18[#] *6*	4005.4	17/2$^-$	&		
		1566[#] *1*	34[#] *6*	3774.0	13/2$^-$	E2[#]		
		1876[#] *1*	100[#] *4*	3462.7	15/2$^-$	M1+E2[#]		
5340.1	13/2$^-$,15/2$^-$	2028[#] *1*	97[#] *17*	3311.9	11/2$^-$			
		3001[#] *2*	100[#] *23*	2339.24	11/2$^-$			
5751.7		1196.7[#] *6*	59[#] *14*	4555.0	15/2$^-$			
		1746[#] *1*	100[#] *18*	4005.4	17/2$^-$			
		2576[#] *2*	36[#] *9*	3175.9	13/2$^-$			
5897.2	15/2$^-$	1112[#] *1*	43[#] *13*	4784.9	13/2	D[#]		
		1342.1[#] *7*	100[#] *22*	4555.0	15/2$^-$	&		
		1892[#] *1*	65[#] *13*	4005.4	17/2$^-$	D[#]		
		2434[#] *2*	43[#] *9*	3462.7	15/2$^-$	&		
		2722[#] *2*	70[#] *9*	3175.9	13/2$^-$	M1+E2[#]		
6072.0		1287.1[#] *7*	100[#]	4784.9	13/2	[#]		
6365.4	21/2$^-$	2360[#] *2*	1.3[#] *3*	4005.4	17/2$^-$	E2[#]		Additional information 3.
		3325[#] *2*	100[#] *3*	3040.4	19/2$^-$	M1+E2[#]	≈−1	δ: Angular distribution for transition requires considerable ΔJ=2 admixture.
6689.3	17/2$^-$	3226[#] *2*	100[#]	3462.7	15/2$^-$	M1+E2[#]		
6828.6	23/2$^-$	463.2[#] *4*	1.5[#] *3*	6365.4	21/2$^-$	M1[#]		
		3788[#] *2*	100[#] *3*	3040.4	19/2$^-$	E2[#]		Additional information 4.
6935	17/2$^-$	3472[#] *3*	100[#]	3462.7	15/2$^-$	M1+E2[#]		Additional information 5.

$^{53}_{26}Fe_{27}$-6

Adopted Levels, Gammas (continued)

γ(^{53}Fe) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†@]	Comments
7139	(19/2$^-$)	3676[#] *3*	100[#]	3462.7	15/2$^-$	(E2)[#]	
7181.3	(21/2)$^-$	3175[#] *2*	91[#] *18*	4005.4	17/2$^-$	(E2)[#]	
		4140[#] *3*	100[#] *9*	3040.4	19/2$^-$	(M1+E2)[#]	
7214		3751[#] *3*	100[#]	3462.7	15/2$^-$		
7327.8	25/2$^-$	499.3[#] *2*	35[#] *2*	6828.6	23/2$^-$	M1+E2[#]	
		962.6[#] *5*	100[#] *4*	6365.4	21/2$^-$	E2[#]	
8273.8	25/2$^-$	945.8[#] *6*	24[#] *2*	7327.8	25/2$^-$	&	
		1445[#] *1*	100[#] *3*	6828.6	23/2$^-$	M1+E2[#]	
		1908[#] *1*	36[#] *14*	6365.4	21/2$^-$	E2[#]	
8544.2	23/2$^-$	1217[#] *1*	8×10^1[#] *3*	7327.8	25/2$^-$	M1+E2[#]	
		1362[#] *1*	10×10^1[#] *5*	7181.3	(21/2)$^-$	(M1+E2)[#]	
		1715[#] *1*	10×10^1[#] *3*	6828.6	23/2$^-$	&	
		2179[#] *2*	10×10^1[#] *3*	6365.4	21/2$^-$	M1+E2[#]	
9098.3	27/2$^-$	1771[#] *1*	100[#] *6*	7327.8	25/2$^-$	M1+E2[#]	
		2269[#] *2*	0.9[#] *3*	6828.6	23/2$^-$	E2[#]	
9287.8	(25/2$^-$)	743[#] *1*	6×10^1[#] *3*	8544.2	23/2$^-$	(M1)[#]	
		1960[#] *1*	91[#] *18*	7327.8	25/2$^-$		
		2107[#] *1*	10×10^1[#] *3*	7181.3	(21/2)$^-$	(E2)[#]	
9550.0	(25/2)	1276[#] *1*	7[#] *3*	8273.8	25/2$^-$		
		2722[#] *2*	10×10^1[#] *3*	6828.6	23/2$^-$	(D)[#]	Mult.: ΔJ=(1) transition from R_{150-97}=0.72 *22*.
9880.6	27/2$^-$	782.3[#] *5*	20[#] *6*	9098.3	27/2$^-$	&	
		1606[#] *1*	97[#] *11*	8273.8	25/2$^-$	M1+E2[#]	
		2554[#] *2*	100[#] *9*	7327.8	25/2$^-$	M1+E2[#]	
10876	(27/2$^-$)	3548[#] *3*	75[#] *25*	7327.8	25/2$^-$	(M1+E2)[#]	
		4048[#] *4*	10×10^1[#] *4*	6828.6	23/2$^-$	(E2)[#]	
11192.1	(29/2$^-$)	1311[#] *1*	7[#] *3*	9880.6	27/2$^-$	(M1+E2)[#]	
		2094[#] *1*	100[#] *8*	9098.3	27/2$^-$	(M1+E2)[#]	
		3865[#b] *3*	8[#] *3*	7327.8	25/2$^-$	(E2)[#]	
11690	27/2	4362[#] *3*	100[#]	7327.8	25/2$^-$	D[#]	Mult.: ΔJ=(1) transition from R_{150-97}=0.54 *11*.
12593		903.4[#] *6*	100[#]	11690	27/2		

[†] From (α,nγ), except as noted.

$^{53}_{26}Fe_{27}$-7

Adopted Levels, Gammas (continued)

$\gamma(^{53}Fe)$ (continued)

‡ From ^{53}Fe IT decay.
# From ^{28}Si(^{32}S,α2pnγ).
@ From comparison to RUL and from (α,nγ).
& ΔJ=0 transition.
a Multiply placed with intensity suitably divided.
b Placement of transition in the level scheme is uncertain.

$^{53}_{26}Fe_{27}$-8

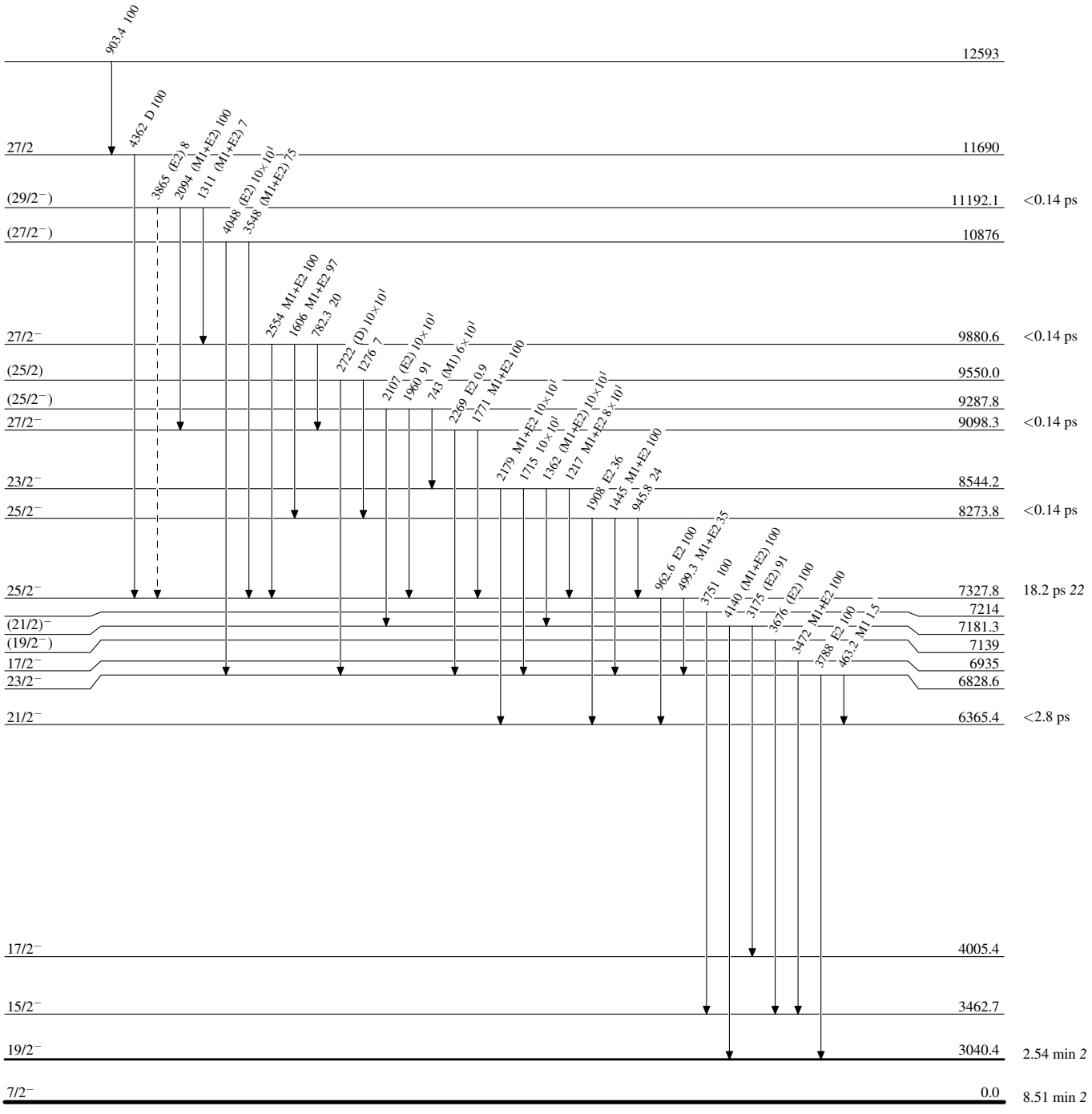
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)

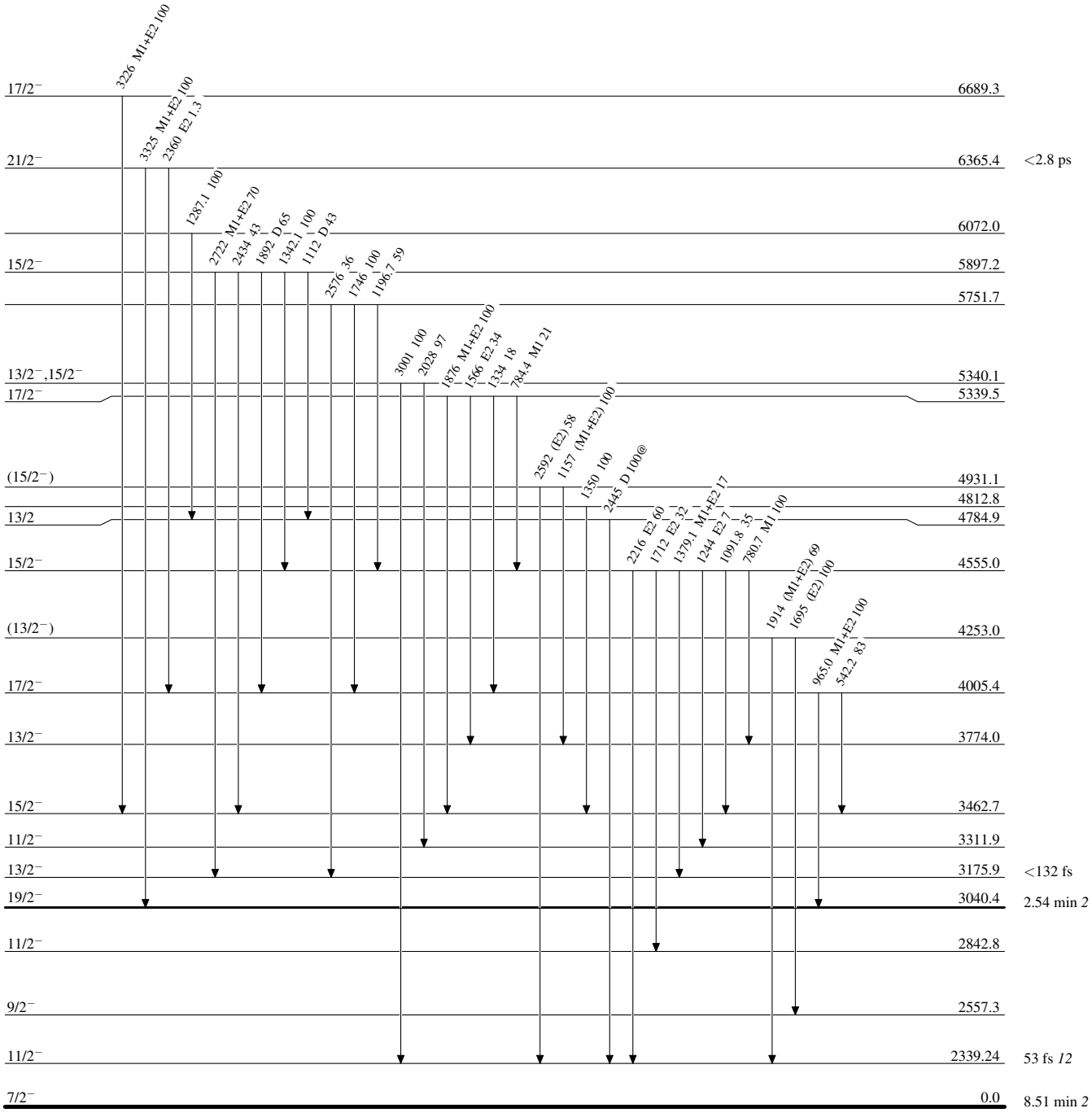


$^{53}_{26}Fe_{27}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
@ Multiply placed: intensity suitably divided



$^{53}_{26}Fe_{27}$

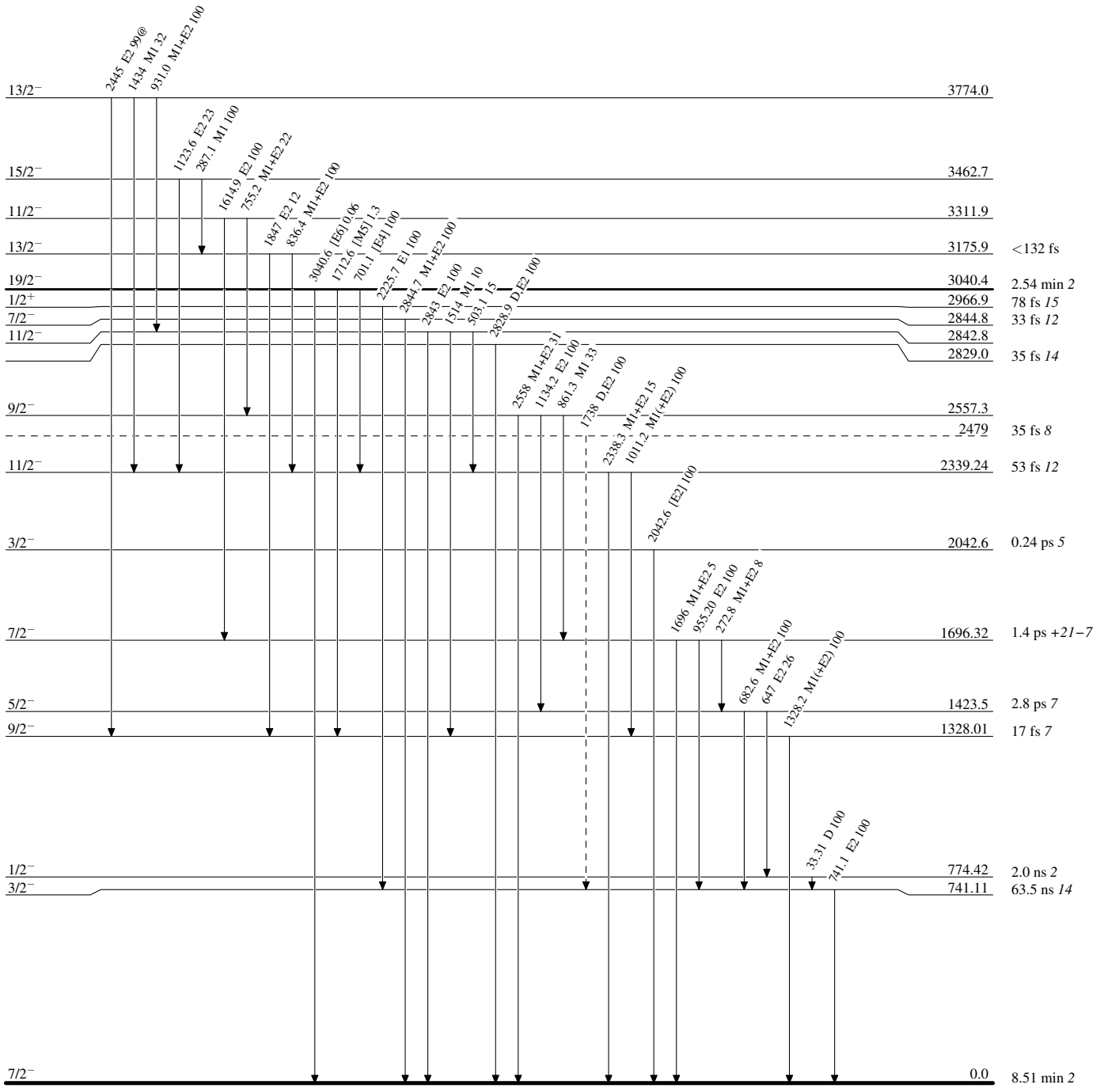
Adopted Levels, Gammas

Legend

Level Scheme (continued)

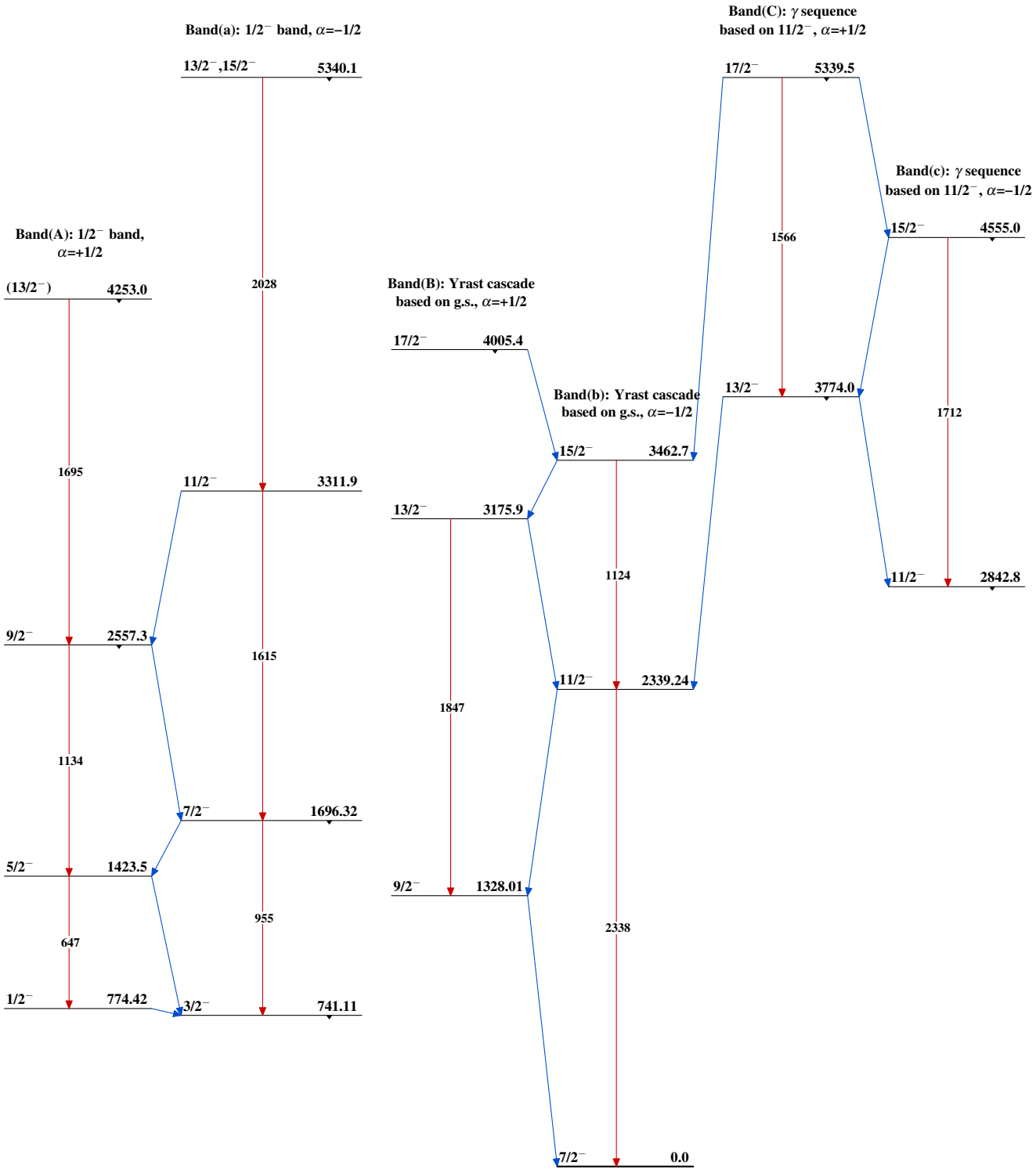
Intensities: Relative photon branching from each level
@ Multiply placed: intensity suitably divided

- - - - - - ► γ Decay (Uncertain)



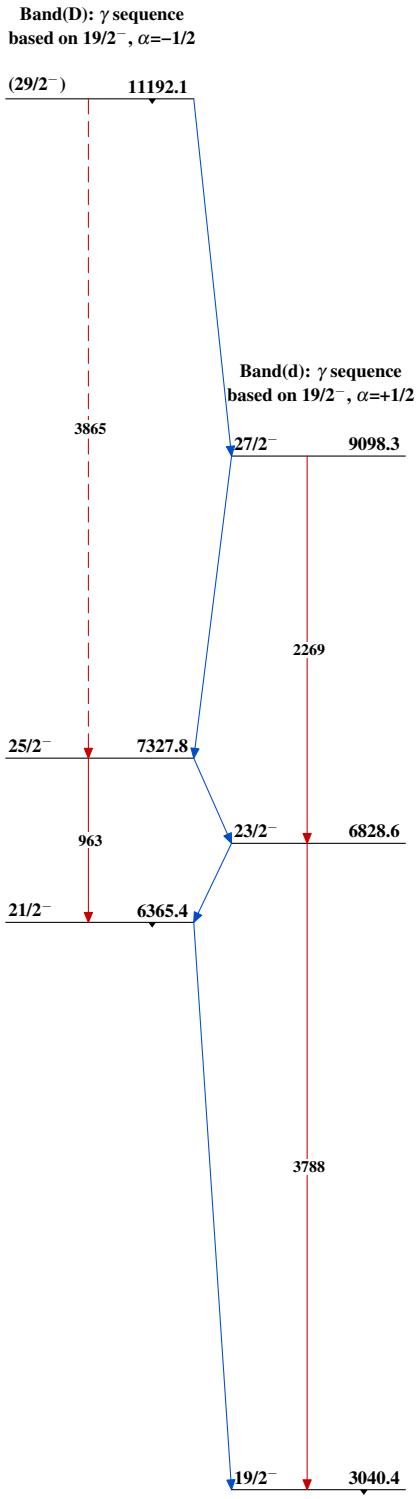
$^{53}_{26}Fe_{27}$

Adopted Levels, Gammas



$^{53}_{26}Fe_{27}$

Adopted Levels, Gammas (continued)



$^{53}_{26}Fe_{27}$