Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	T. D. Johnson and W. D. Kulp(a)	NDS 129, 1 (2015)	27-Jul-2015

Q(β^-)=−1861.7 *11*; S(n)=8428.15 *12*; S(p)=9422.0 *11*; Q(α)=−7314.9 *11* 2012Wa38
Q(β^-n)=−13668 *14*, Q(εp)=−8903.3 *11*.

^{87}Sr Levels

Levels that occur in only one decay mode and are questioned there are not included here.

Cross Reference (XREF) Flags

A	^{86}Kr(α,3nγ), ^{84}Kr(α,nγ)	E	^{87}Sr IT decay	I	^{87}Sr(p,p′)
B	^{86}Sr(d,p),(pol d,p)	F	^{87}Y ε decay (79.8 h)	J	^{87}Rb β^- decay
C	^{86}Sr(n,γ) E=th	G	^{88}Sr(^{3}He,α),(p,d),(^{12}C,^{13}C),	K	^{87}Y ε decay (13.37 h)
D	^{87}Rb(p,nγ), (p,n)	H	^{89}Y(d,α), ^{89}Y(p,^{3}He)	L	^{82}Se(^{9}Be,4nγ)

E(level)[†]	J$^\pi$[‡]	T$_{1/2}$[#]	XREF	Comments
0.0[d]	9/2$^+$	stable	ABCDEFGHIJKL	μ=−1.0928 *7*; Q=+0.305 *2* J$^\pi$: from paramagnetic resonance (1976Fu06) and laser spectroscopy (1987An02,1987Bu11,1990Li28). π from L(d,p)=4. Configuration is g$_{9/2}$. μ: from 2011StZZ evaluation as quoted in 1990Bu12 and based on data of 1972Ol01; other: −1.0936030 *13* cited in 2011StZZ, −1.089274 *7* from 1974Sa25, −1.0924 *7* (1987An02). Q: from 2006Sa21; calculated by combining the B/Q value from RCC theory and the measured B value from the 4D$^2_{5/2}$ state of singly ionized ^{87}Sr from Barwood, et al., Phys. Rev. A 67, 013402 (2003). other: +0.323b *20* (2004Yu05), +0.327b *24* (2002Ma09), +0.335 *20* (1977He21), +0.36 (1962Bu14).
388.5287 *23*	1/2$^-$	2.815 h *12*	ABCDEFGHI L	%ε=0.30 *8*; %IT=99.70 *8* μ=+0.624 *4* J$^\pi$: from laser spectrometry (1987An02,1987Bu11,1990Li28) and π from L(d,p)=1. T$_{1/2}$: from IT decay. %ε,%IT: from ^{87m}Sr ε+β+ decay. μ: from 2011StZZ evaluation and based on data of 1990Bu12; other: +0.787 *9* (1987An02).
873.339 *6*	3/2$^-$	1.7 ps *7*	ABCD FGHI	J$^\pi$: L=1 in (pol d,p) (1986Bu14) and $\gamma(\theta)$ and linear polarization measurements in (α,nγ) (1981Ek01).
1228.427 *16*	5/2$^+$	1.0 ps *4*	ABCD GHI	J$^\pi$: from E1 γ to 3/2$^-$ level and E2 γ to 9/2$^+$.
1253.941 *13*	5/2$^-$	2.8 ps *+28−9*	ABCD GHI	J$^\pi$: L=3 in (^{3}He,α), E2 γ to J$^\pi$=1/2$^-$ level. T$_{1/2}$: other: 0.25 ps *+23−9* from (p,nγ), but this value is considered by evaluator as not probable because of a large BE2W for 865 γ.
1740.0[d] *4*	13/2$^+$	0.28 ps *9*	A G L	J$^\pi$: E2 γ to J$^\pi$=9/2$^+$; from γ yield function in (α,nγ) it follows that 1740 γ is part of the yrast cascade.
1742.0[@] *9*	5/2$^+$,7/2$^+$		B HI	XREF: H(1739)I(1740). J$^\pi$: from L=3 from 1/2$^-$ in (d,α).
1770.48 *2*	5/2$^+$	5.5 ps *+63−21*	ABCD G I	J$^\pi$: L=2 in (d,p), E2 γ to J$^\pi$=9/2$^+$ level.
1920.49 *13*	7/2$^+$	0.14[c] ps *3*	A D GHI	J$^\pi$: Coupled-channel analysis in (^{3}He,α) and γ linear polarization and angular distribution in (α,nγ) give 7/2$^+$.

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Adopted Levels, Gammas (continued)

^{87}Sr Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	XREF	Comments
2110.07 *2*	3/2⁻	0.092[c] ps *+21−16*	A CD GHI	Jπ: L=1 in (^{3}He,α), L=3 from 9/2⁺ in (p,p′).
2153.5 *6*	(11/2)⁺	<0.09 ps	A GHI	XREF: H(2166). Jπ: M1+E2 γ to 9/2⁺, coupled-channel analysis in (^{3}He,α) gives 11/2⁺. $T_{1/2}$: from (p,nγ).
2169.43 *2*	1/2⁺	≥0.15 ps	ABCD H	XREF: H(2166). Jπ: L(d,p)=0, but a γ to 5/2⁻ level suggests an interesting configuration allowing a competitive M2 transtion. $T_{1/2}$: from (p,nγ).
2235.7 *10*	9/2⁺	0.15 ps *4*	AB D G I	Jπ: L=4 in (^{3}He,α) and angular distribution and polarization in (α,nγ).
2262 *8*			I	
2414.520 *20*	3/2⁻,5/2⁻	0.13[c] ps *4*	ABCD HI	XREF: H(2413). Jπ: L=3 from 9/2⁺ in (p,p′), γ to 1/2⁻ rules out 7/2⁻ or higher.
2420.4 *8*	(5/2⁻)	0.08 ps *4*	A GH	XREF: H(2413). Jπ: L=3 in (^{3}He,α) leads to 5/2⁻,7/2⁻. γ excitation function for (α,nγ) suggests 5/2⁻.
2488 *8*	⁻		I	Jπ: L=3 from 9/2⁺ in (p,p′).
2532.8[@] *3*	7/2⁺,9/2⁺		B D G	XREF: D(2531)G(2536). Jπ: L=4 in (^{3}He,α).
2536.3 *6*	11/2⁻	0.19 ps *8*	A D	XREF: D(2531). Jπ: E1 γ to 9/2⁺ and M1 γ from 13/2⁻.
2539 *8*	⁻		D HI	XREF: D(2552)H(2550). Jπ: L=3 from 9/2⁺ in (p,p′).
2550.0 *7*	(7/2)⁺	0.22 ps *7*	A D H	XREF: D(2552)H(2550). Jπ: M1 γ to 5/2⁺; γ(θ), linear polarization, and excitation function in (α,nγ) favor Jπ=(7/2)⁺.
2555.0 *7*	(9/2)⁻	0.06 ps *4*	A D GHI	XREF: D(2552)H(2550). Jπ: L=3 from 9/2⁺ in (p,p′); Jπ=(9/2⁻) from coupled-channel analysis in (^{3}He,α).
2596.0 *5*	13/2⁻	1.0 ps *3*	A G I L	Jπ: L=3 from 9/2⁺ in (p,p′) which gives π=−, and J=13/2 is the only J value from (α,nγ) with π=−.
2633 *6*	1/2⁻,3/2⁻		D GHI	E(level): weighted average of 2631 *15* from (p,n), 2633 *20* from (p,d), 2630 *15* from (d,α), and 2634 *8* from (p,p′). Jπ: L=1 in (p,d).
2656 *9*	5/2⁻,7/2⁻		G	Jπ: L=3 in (p,d).
2676.880 *20*	3/2⁺		BCD I	XREF: D(2682)I(2681).
2679 *10*	1/2⁻,3/2⁻		D G	XREF: D(2682). Jπ: L=1 in (^{3}He,α).
2682.0 *5*	(3/2)⁺	0.25 ps *9*	A D I	XREF: D(2682)I(2681). Jπ: M1 γ to 5/2⁺; γ(θ), linear polarization, and excitation function in (α,nγ) favor Jπ=(3/2)⁺.
2707.5 *5*	7/2⁺,9/2⁺	0.55 ps *14*	A D GHI	Jπ: L=4 in (^{3}He,α).
2803.15[@] *24*			B D I	XREF: D(2810).
2818.89[@] *18*	9/2⁺		B D	XREF: D(2810).
2821.0 *5*	(9/2)⁺	0.7 ps *3*	A D	XREF: D(2810). Jπ: from γ(θ), linear polarization, and excitation function in (α,nγ).
2831.2[d] *5*	15/2⁻	<0.35 ps	A G I L	Jπ: L=3 from 9/2⁺ in (p,p′); coupled-channel analysis of of (^{3}He,α) gives Jπ=15/2⁻.
2850.54 *3*	1/2⁻,3/2⁻		BCD G	Jπ: L=1 in (^{3}He,α).
2893 *8*	(⁻)		I	Jπ: L=(3) from 9/2⁺ in (p,p′).
2904.1[@] *9*			B D	
2920.8 *12*	7/2⁺,9/2⁺		AB d GH	XREF: B(2921)d(2925)H(2925).

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Adopted Levels, Gammas (continued)

^{87}Sr Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	XREF	Comments
				Jπ: L=4 in (^{3}He,α).
2921.12 *5*	3/2$^-$		BCD HI	XREF: B(2921)D(2925)H(2925). Jπ: L=3 from 9/2$^+$ in (p,p′) and primary γ from 1/2$^+$ in (n,γ).
2940.73 *3*	1/2$^+$		BCD HI	XREF: H(2925).
2980 *7*	$^-$		D I	E(level): weighted average of 2980 *8* from (p,p′) and 2975 *15* from (p,n). Jπ: L=3 from 9/2$^+$ in (p,p′).
3007.21 *4*	3/2$^-$		CD I	XREF: D(3016). Jπ: L=3 from 9/2$^+$ in (p,p′), primary γ from 1/2$^+$ in (n,γ).
3019.208 *20*	1/2$^-$,3/2$^-$		CD GH	XREF: D(3016). Jπ: L=1 in (^{3}He,α).
3035.5 *5*			A I	
3047.2 *3*			B	
3066.358 *22*	(1/2$^-$,3/2)		BCD H	Jπ: primary γ from 1/2$^+$ in (n,γ) and γ′s to 5/2$^-$ and 1/2$^-$.
3102 *7*			D I	E(level): weighted average of 3103 *8* from (p,p′) and 3098 *15* from (p,n).
3117.4 *6*	13/2$^-$	0.38 ps *12*	A I	XREF: I(3121). Jπ: M1 γ to 11/)-: γ(θ) and linear polarization in (α,nγ) gives 13/2$^-$.
3118.50[@] *15*			B D I	XREF: D(3126)I(3121).
3125.28 *4*	1/2$^+$		BCD	XREF: D(3126). Jπ: L = 0 in (d,p) and (pol d, p).
3136 *6*	5/2$^-$,7/2$^-$		G I	E(level): weighted average of 3133 *8* from (p,p′) and 3140 *10* from (^{3}He,α). Jπ: L=3 in (^{3}He,α).
3151.57 *3*	(3/2)$^+$		BCD H	XREF: D(3151)H(3156). Jπ: L=2 in (d,p); isobaric analog to one of the members of the unresolved 11960 doublet in ^{87}Y with Jπ=(3/2)$^+$ and (5/2)$^+$ while the other part of this doublet is assigned to the 3166 level [Jπ=(5/2)$^+$].
3155.0 *15*			A D HI	XREF: D(3151,3167)H(3156).
3166.38[@] *9*	(5/2)$^+$		B D HI	XREF: D(3167)H(3156)I(3172). Jπ: L=2 in (d,p) and Jπ=(5/2$^+$) in (pol d,p).
3232.27 *6*	(1/2,3/2)		BCD	XREF: B(3220). Jπ: primary γ from 1/2$^+$ in (n,γ) and γ to 1/2$^-$.
3249.4[d] *5*	(17/2)$^-$	1.3 ps *+16–6*	A I L	Jπ: from γ(θ), linear polarization, and excitation function in (α,nγ).
3258.85 *3*	5/2$^+$		BCD	Jπ: L=2 in (d,p) and γ to 9/2$^+$.
3271 *9*	9/2$^+$		GHI	XREF: G(3260)H(3274)I(3278). Jπ: L=0 from 9/2$^+$ in (p,p′). E(level): weighted average of 3278 *8* from (p,p′) and 3260 *10* from (^{3}He,α).
3277.50 *5*	5/2$^+$		BCD H	XREF: H(3274).
3371.55 *4*	1/2$^+$,3/2,5/2$^+$		C	Jπ: primary γ from 1/2$^+$ in (n,γ) and γ to 5/2$^+$.
3385.32[@] *11*	5/2$^+$		B H	XREF: H(3397).
3390.9[d] *5*	(19/2$^-$)		A I L	Jπ: L=(5) from 9/2$^+$ in (p,p′), (D) γ to 17/2. From γ yield functions in (α,nγ), it follows that 142 γ is part of the yrast cascade.
3415.76 *4*	1/2$^{(-)}$,3/2$^{(-)}$		BC I	Jπ: L=(5) from 9/2$^+$ in (p,p′), primary γ from 1/2$^+$ in (n,γ), and γ to 1/2$^-$ and 5/2$^-$.
3425.56 *4*	(5/2$^-$)		C GH	XREF: H(3434). Jπ: L=3 in (^{3}He,α) and γ to 1/2$^-$. Fed by a primary from 1/2$^+$ in (n,γ), so there is a conflict as the 5/2$^-$ assignment would require the primary to have mult=M2.

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Adopted Levels, Gammas (continued)

^{87}Sr Levels (continued)

E(level)[†]	Jπ[‡]	XREF	Comments
3431.39 *4*	1/2⁻,3/2,5/2⁺	BC H	XREF: H(3434). Jπ: primary γ from 1/2⁺ in (n,γ) and γ to 5/2⁻.
3447 *8*	(⁻)	I	Jπ: L=(5) from 9/2⁺ in (p,p′).
3483 *8*		I	
3507.09 *5*	(3/2)⁺	C H	Jπ: L=3 from 1/2⁻ in (d,α) and the 3118γ branching to 1/2⁻ is too strong to be M2 so 5/2⁺ can be ruled out.
3521 *9*	5/2⁻,7/2⁻	G I	E(level): weighted average of 3528 *8* from (p,p′) and 3510 *10* from (^{3}He,α). Jπ: L=3 in (^{3}He,α).
3547.9 *6*	5/2⁺	B	
3551 *8*	(⁻)	I	Jπ: L=(5) from 9/2⁺ in (p,p′).
3591.07 *16*	(3/2⁺,5/2⁺)	B	Jπ: L(d,p) = (2).
3602.61 *4*	3/2⁺	BC	
3607.63 *3*	1/2⁺,3/2,5/2⁺	C I	XREF: I(3612). Jπ: primary γ from 1/2⁺ in (n,γ) and γ to 5/2⁺.
3610.9[d] *6*	(21/2)	A L	Jπ: (D) γ to 19/2, from γ yield functions in (α,nγ) it follows that 220 γ is part of the yrast cascade.
3628.1[@] *3*	(1/2⁻,3/2⁻)	B GHI	XREF: G(3620)I(3635). Jπ: L=(1) in (^{3}He,α).
3657 *8*		I	
3668.39 *20*		B	
3674.19 *6*	(3/2⁺)	BC I	XREF: B(3673.97)I(3679). Jπ: primary γ in thermal (n,γ) and γ to 5/2⁻ level and L=(2) in (pol d,p).
3682.3[@] *5*	7/2⁺,9/2⁺	B G I	XREF: I(3679). Jπ: L=4 in (^{3}He,α).
3685.9 *6*	(17/2)	L	
3691 *8*		I	
3705.7[@] *3*		B H	XREF: H(3713).
3716.81 *4*	1/2,3/2,5/2⁺	C HI	XREF: H(3713)I(3716). Jπ: primary γ from 1/2⁺ in (n,γ) and γ to 1/2⁻.
3718.0[d] *6*	(19/2)	A I L	XREF: I(3716). Jπ: from γ yield functions and correlation of alignment to initial J in (α,nγ).
3731.35 *7*	3/2	BC I	XREF: I(3736). Jπ: primary γ from 1/2⁺ in (n,γ) and γ′s to 5/2⁺ and 5/2⁻.
3739.7[@] *11*		B I	XREF: I(3736).
3750 *10*	7/2⁺,9/2⁺	G	Jπ: L=4 in (^{3}He,α).
3765.49 *7*	1/2⁻,3/2,5/2	BC H	XREF: H(3772). Jπ: primary γ from 1/2⁺ in (n,γ) and γ to 5/2⁻.
3776.00 *4*	3/2⁺	BC HI	XREF: H(3772). Jπ: primary γ in thermal (n,γ). and L=2 (d,p) and comparison to DWBA calculations.
3792.28[@] *17*		B G I	
3824 *8*		I	
3872.24 *5*	1/2⁺	BC	Jπ: L(d,p)=0.
3874 *8*	(⁻)	I	Jπ: L=(5) from 9/2⁺ in (p,p′).
3880.63[@] *23*	7/2⁺,9/2⁺	B G	Jπ: L=4 in (^{3}He,α).
3894 *8*		I	
3919.51[@] *17*		B HI	XREF: H(3934).
3943.4[@] *3*		B HI	XREF: H(3934).
3951.45 *4*	1/2,3/2,5/2⁺	C	Jπ: primary γ from 1/2⁺ in (n,γ).
3958.667 *12*	3/2⁺	BC	Jπ: L=2 in (d,p) and γ to 1/2⁻.
3960 *10*	5/2⁻,7/2⁻	G	Jπ: L=3 in (^{3}He,α).
3981 *8*	(⁺)	I	Jπ: L=(4) from 9/2⁺ in (p,p′).
4020 *20*	7/2⁺,9/2⁺	G	Jπ: L=4 in (^{3}He,α).

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Adopted Levels, Gammas (continued)

^{87}Sr Levels (continued)

E(level)†	Jπ‡	XREF	Comments
4026.41 *4*	1/2⁻,3/2	C HI	XREF: H(4025). Jπ: primary γ from 1/2⁺ in (n,γ) and γ to 5/2⁻.
4031.5@ *4*	7/2⁺,9/2⁺	B GH	XREF: G(4020)H(4025). Jπ: L=4 in (^{3}He,α).
4051.1 *4*		B	
4056.35 *4*	1/2,3/2,5/2⁺	BC	Jπ: primary γ from 1/2⁺ in (n,γ).
4080.79 *5*	(3/2⁺,5/2⁺)	BC HI	XREF: H(4096). Jπ: primary γ from 1/2⁺ in (n,γ) and L=(2) in (d,p).
4090 *8*		I	
4114.6@ *4*	(5/2⁻,7/2⁻)	B G	Jπ: L=(3) in (^{3}He,α).
4116 *8*	(⁺)	I	Jπ: L=(4) from 9/2⁺ in (p,p′).
4150 *8*	(⁻)	I	Jπ: L=(5) from 9/2⁺ in (p,p′).
4164.97 *2*	1/2(⁻),3/2(⁻)	C I	Jπ: L=(5) from 9/2⁺ in (p,p′) and primary γ from 1/2⁺ in (n,γ).
4171.9e *6*	(17/2⁺)	L	Jπ: From DCO ratio in (^{9}Be,4nγ) and cascade placement.
4180 *20*	5/2⁻,7/2⁻	G	Jπ: L=3 in (^{3}He,α).
4182.36 *5*	1/2⁺	BC	Jπ: L(d,p)=0.
4187 *8*	(⁺)	I	Jπ: L=(2) from 9/2⁺ in (p,p′).
4196.82 *5*	3/2⁺	BC	Jπ: L=2 in (d,p) and γ to 1/2⁻.
4224.03 *3*	1/2⁺,3/2⁺	C I	Jπ: L=4 from 9/2⁺ in (p,p′) and primary γ from 1/2⁺ in (n,γ).
4235.66 *6*	3/2⁺,5/2⁺	BC I	Jπ: L=2 in (d,p).
4251.6@ *4*	7/2⁺,9/2⁺	B G I	Jπ: L=4 in (^{3}He,α).
4288 *8*		I	
4310.19 *18*		B	
4323@ *8*		I	
4337.06 *4*	1/2⁺,3/2	BC I	Jπ: primary γ from 1/2⁺ in (n,γ) and γ′s to 1/2⁻ and 5/2⁺.
4354.50@ *24*	(5/2⁻,7/2⁻)	B G I	Jπ: L=(3) in (^{3}He,α).
4379.72@ *12*		B I	
4413.65@ *24*	&	B G I	XREF: G(4420).
4433.4@ *4*	&	B G I	XREF: G(4420)I(4435).
4435.60 *5*	1/2⁺,3/2	BC G I	XREF: G(4420)I(4435). Jπ: primary γ from 1/2⁺ in (n,γ) and γ′s to 1/2⁻ and 5/2⁺.
4440.4d *8*	(23/2)	A L	Jπ: presumably dipole γ to 21/2⁺; from γ yield functions in (α,nγ) it follows that 829 γ is part of the yrast cascade.
4442.6 *4*		B	
4449.47 *25*		B	
4462.6@ *6*	&	B G I	XREF: G(4470). Jπ: Both 4462.6 and 4485.0 levels possibly correspond to the 4470 level in XREF=γ and therefore no J assignment is adopted.
4485.9@ *7*	&	B G	XREF: G(4470). Jπ: Both 4462.6 and 4485.0 levels possibly correspond to the 4470 level in XREF=γ and therefore no J assignment is adopted.
4501 *8*		I	
4514.3@ *3*	*a*	B G	XREF: G(4530). Jπ: Assigned (7/2⁺,9/2⁺) in XREF=G, however overlaps with several levels so no J adopted.
4536.56 *5*	1/2⁻,3/2	C	Jπ: primary γ from 1/2⁺ in (n,γ) and γ to 5/2⁻.
4540.8@ *3*	*a*	B G I	XREF: G(4530)I(4546). Jπ: Assigned (7/2⁺,9/2⁺) in XREF=G, however overlaps with several levels so no J adopted.
4551.19 *6*	1/2⁺,3/2	C I	XREF: I(4546,4559). Jπ: primary γ from 1/2⁺ in (n,γ) and γ′s to 1/2⁻ and 5/2⁺.
4564.9 *3*		B I	XREF: I(4559).
4571.4e *6*	(19/2⁺)	L	Jπ: DCO ratios and cascade placement.

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Adopted Levels, Gammas (continued)

^{87}Sr Levels (continued)

E(level)†	Jπ‡	XREF	Comments
4584.9 *3*		B I	
4595.6 *3*		B	
4604.86 *4*	1/2,3/2,5/2+	BC	Jπ: primary γ from 1/2+ in (n,γ).
4618.5@ *5*	*b*	B G I	XREF: G(4620)I(4612).
4631.7@ *3*	*b*	B G I	XREF: G(4620).
4644.07 *4*	1/2+,3/2	BC	Jπ: primary γ from 1/2+ in (n,γ) and γ to 5/2+.
4651.28 *5*	1/2+,3/2,5/2+	C I	XREF: I(4659). Jπ: primary γ from 1/2+ in (n,γ) and γ to 5/2+.
4653.2 *3*		B I	XREF: I(4659).
4671.8e *6*	(21/2+)	L	Jπ: DCO ratio and cascade placement.
4676.3 *4*		B I	
4684.61 *3*	1/2−,3/2	C I	Jπ: primary γ from 1/2+ in (n,γ) and γ′s to 1/2− and 5/2−.
4689.3 *7*		B	
4695.8 *5*		B	
4708.16@ *23*		B G I	XREF: G(4720)I(4716).
4717.8@ *4*	5/2−,7/2−	B G I	XREF: G(4720)I(4716). Jπ: L=3 in (^{3}He,α).
4751 *8*		I	
4783.75 *4*	1/2+,3/2,5/2+&	C G I	XREF: G(4780)I(4785). Jπ: primary γ from 1/2+ in (n,γ) and γ to 5/2+.
4789.87 *6*	3/2&	BC G I	XREF: G(4780)I(4785). Jπ: primary γ from 1/2+ in (n,γ) and γ′s to 5/2+ and 5/2−.
4799.42@ *16*	&	B G	XREF: G(4780).
4822.78 *25*		B	
4826.84 *6*	1/2+,3/2	C	Jπ: primary γ from 1/2+ in (n,γ) and γ′s to 1/2− and 5/2+.
4846.46@ *20*	1/2−,3/2−	B G	XREF: G(4860). Jπ: L=1 in (^{3}He,α).
4878 *8*		I	
4887.22 *22*		B	
4905.2 *7*		B	
4921.90 *4*		C I	XREF: I(4918).
4925.6@ *4*		B I	XREF: I(4918).
4934.24@ *23*	&	B G	XREF: G(4950).
4943.3@ *4*	&	B G I	XREF: G(4950)I(4951).
4948.63@ *24*	&	B G I	XREF: G(4950)I(4951).
4953.11 *6*	1/2,3/2,5/2+&	C G I	XREF: G(4950)I(4951). Jπ: primary γ from 1/2+ in (n,γ).
4964.32 *4*	1/2+,3/2&	C G	XREF: G(4950). Jπ: primary γ from 1/2+ in (n,γ) and γ′s to 1/2− and 5/2+.
4969.1@ *5*	&	B G	XREF: G(4950).
4975.1 *4*		B	
4990.7 *3*		B	
5020 *20*	5/2−,7/2−	G	Jπ: L=3 in (^{3}He,α).
5063.08 *4*	1/2+,3/2,5/2+	C	Jπ: primary γ from 1/2+ in (n,γ) and γ to 5/2+.
5067.58 *5*	1/2+,3/2,5/2+	C	Jπ: primary γ from 1/2+ in (n,γ) and γ to 5/2+.
5082.46 *6*	1/2,3/2,5/2+	C	Jπ: primary γ from 1/2+ in (n,γ).
5091.04 *3*	1/2,3/2,5/2+	C	Jπ: primary γ from 1/2+ in (n,γ).
5106.55 *9*	1/2−,3/2−	C G	XREF: G(5120). Jπ: L=1 in (^{3}He,α).
5120 *8*	5/2−,7/2−	G I	E(level): from (p,p′). Jπ: L=3 in (^{3}He,α).
5142.3 *3*	1/2,3/2,5/2+	C	Jπ: γ to 1/2+.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{87}Sr Levels (continued)

E(level)[†]	Jπ[‡]	XREF	Comments
5169 *8*		I	
5173.7[e] *7*	(23/2$^+$)	L	Jπ: From DCO ratio and cascade placement.
5207.25 *6*	1/2$^+$,3/2	C	Jπ: primary γ from 1/2$^+$ in (n,γ) and γ′s to 1/2$^-$ and 5/2$^+$.
5260 *20*	5/2$^-$,7/2$^-$	G	XREF: G(5260). Jπ: L=3 in (^{3}He,α).
5282.37 *10*	1/2$^-$,3/2$^-$	C G	XREF: G(5260). Jπ: L=1 in (^{3}He,α).
5296.15 *6*	1/2$^+$,3/2	C	Jπ: primary γ from 1/2$^+$ in (n,γ) and γ′s to 1/2$^-$ and 5/2$^+$.
5333.29 *8*	1/2,3/2,5/2$^+$	C	Jπ: primary γ from 1/2$^+$ in (n,γ).
5379.02 *8*	1/2$^-$,3/2	C	Jπ: primary γ from 1/2$^+$ in (n,γ) and γ to 5/2$^-$.
5397.14 *6*	1/2,3/2,5/2$^+$	C	Jπ: primary γ from 1/2$^+$ in (n,γ).
5420 *20*	5/2$^-$,7/2$^-$	G	Jπ: L=3 in (^{3}He,α).
5560 *20*	5/2$^-$,7/2$^-$	G	Jπ: L=3 in (^{3}He,α).
5647.33 *7*	1/2$^-$,3/2	C	Jπ: primary γ from 1/2$^+$ in (n,γ) and γ to 1/2$^-$ and 5/2$^-$.
5673.18 *6*	1/2,3/2,5/2$^+$	C	Jπ: primary γ from 1/2$^+$ in (n,γ).
5770 *20*	5/2$^-$,7/2$^-$	G	Jπ: L=3 in (^{3}He,α).
5811.16 *4*	1/2,3/2,5/2$^+$	C	Jπ: primary γ from 1/2$^+$ in (n,γ).
5843.34 *5*	3/2	C	Jπ: primary γ from 1/2$^+$ in (n,γ) and γ to 5/2$^-$ and 5/2$^+$.
5885.3[e] *8*	(25/2$^+$)	L	Jπ: DCO ratio and cascade placement.
5920 *20*	5/2$^-$,7/2$^-$	G	Jπ: L=3 in (^{3}He,α).
5943.16 *6*	3/2	C	Jπ: primary γ from 1/2$^+$ in (n,γ) and γ to 5/2$^-$ and 5/2$^+$.
6074.44 *8*	1/2$^+$,3/2,5/2$^+$	C	Jπ: primary γ from 1/2$^+$ in (n,γ) and γ to 5/2$^+$.
6074.7 *7*	(25/2$^+$)	L	E(level): The high spin of this level makes it unlikely to be the 6074.44 level populated in (n,γ). Jπ: From DCO ratio and cascade placement.
6093.68 *6*	1/2$^+$,3/2	C	Jπ: primary γ from 1/2$^+$ in (n,γ) and γ′s 1/2$^-$ and 5/2$^+$.
6189.07 *6*	1/2$^{(+)}$,3/2,5/2$^+$	C	Jπ: primary γ from 1/2$^+$ in (n,γ) and γ to (5/2)$^+$.
6374.1[e] *9*	(27/2$^+$)	L	Jπ: From DCO ratio and cascade placement.
6674.6[e] *10*	(29/2$^+$)	L	Jπ: DCO ratio and cascade placement.
7032.43 *8*	1/2$^-$,3/2	C	Jπ: primary γ from 1/2$^+$ in (n,γ) and γ to 5/2$^-$.
7442.5[e] *10*	31/2$^{(+)}$		Jπ: From DCO ratio and cascade placement.
10720 *20*	3/2$^-$	G	E(level): isobaric analog to ^{87}Rb gs (Jπ=3/2$^-$). Jπ: L=1 in (^{3}He,α), isobaric analog to ^{87}Rb gs (Jπ=3/2$^-$).
11120 *20*	5/2$^-$	G	E(level): isobaric analog to the 403 level in ^{87}Rb. Jπ: L=3 in (^{3}He,α); isobaric analog to the 403 level in ^{87}Rb (Jπ=5/2$^-$).
11550 *20*	1/2$^-$	G	E(level): isobaric analog to the 845 level in ^{87}Rb. Jπ: L=1 in (^{3}He,α); isobaric analog to the 845 level in ^{87}Rb (Jπ=1/2$^-$).

† From least-squares fit to γ-ray energies for levels with depopulating γ rays.
‡ From (d,p), (pol d,p), unless indicated otherwise.
# From (α,nγ),(α,3nγ), unless indicated otherwise.
@ From (d,p).
& Jπ=1/2$^-$,3/2$^-$ from L=1 for the level observed in (^{3}He,α).
a Jπ=(7/2$^+$,9/2$^+$) from L=(4) for the level observed in (^{3}He,α).
b Jπ=1/2$^-$,3/2$^-$ or Jπ=5/2$^-$,7/2$^-$ from L=1+3 for the level observed in (^{3}He,α).
c Weighted average from (α,nγ),(α,3nγ) and (p,nγ).
d Band(A): γ cascade based on g.s.
e Band(B): γ cascade based on 17/2$^{(+)}$.

Adopted Levels, Gammas (continued)

γ(^{87}Sr)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ[‡]	α[c]	Comments
388.5287	1/2⁻	388.5276[#] *23*	100	0.0	9/2⁺	M4		0.213	α(K)=0.181 *3*; α(L)=0.0266 *4*; α(M)=0.00456 *7* α(N)=0.000557 *8*; α(O)=3.13×10^{-5} *5* B(M4)(W.u.)=11.24 *6* Mult.: from α_K and K/L from ^{87m}Sr IT decay.
873.339	3/2⁻	484.805[#] *5*	100	388.5287	1/2⁻	M1+E2	+0.19 *5*	0.00286 *5*	α(K)=0.00253 *5*; α(L)=0.000277 *5*; α(M)=4.66×10^{-5} *8* α(N)=5.85×10^{-6} *10*; α(O)=3.81×10^{-7} *6* B(M1)(W.u.)=0.11 *5*; B(E2)(W.u.)=19 *+17−10*
1228.427	5/2⁺	355.08[@] *3*	17.9[@] *11*	873.339	3/2⁻	E1(+M2)	≤+0.005	0.00270	α(K)=0.00239 *4*; α(L)=0.000259 *4*; α(M)=4.34×10^{-5} *6* α(N)=5.42×10^{-6} *8*; α(O)=3.46×10^{-7} *5* B(E1)(W.u.)>0.00081; B(M2)(W.u.)<1 δ: from RUL. δ=+0.07 +2-5 is reported in (α,3nγ).
		1228.44[@] *3*	100[@] *3*	0.0	9/2⁺	E2		3.78×10^{-4}	α(K)=0.000324 *5*; α(L)=3.50×10^{-5} *5*; α(M)=5.88×10^{-6} *9* α(N)=7.38×10^{-7} *11*; α(O)=4.81×10^{-8} *7*; α(IPF)=1.259×10^{-5} *18* B(E2)(W.u.)=7.5 *23*
1253.941	5/2⁻	380.57[@] *3*	18.7[@] *16*	873.339	3/2⁻				
		865.411[@] *22*	100[@] *3*	388.5287	1/2⁻	E2		8.17×10^{-4} *12*	α(K)=0.000723 *11*; α(L)=7.93×10^{-5} *12*; α(M)=1.331×10^{-5} *19* α(N)=1.665×10^{-6} *24*; α(O)=1.068×10^{-7} *15* B(E2)(W.u.)=15 *+5−15*
1740.0	13/2⁺	1739.8[&] *4*	100[&]	0.0	9/2⁺	E2		3.67×10^{-4} *6*	α(K)=0.0001605 *23*; α(L)=1.718×10^{-5} *24*; α(M)=2.88×10^{-6} *4* α(N)=3.63×10^{-7} *5*; α(O)=2.38×10^{-8} *4*; α(IPF)=0.000186 *3* B(E2)(W.u.)=5.5 *17*
1770.48	5/2⁺	517.3[&] *10*	31[&] *9*	1253.941	5/2⁻	(E1)		1.04×10^{-3}	α(K)=0.000919 *14*; α(L)=9.92×10^{-5} *15*; α(M)=1.662×10^{-5} *25* α(N)=2.08×10^{-6} *3*; α(O)=1.344×10^{-7} *20* B(E1)(W.u.)=7.E−5 *+4−7*
		542.04 *3*	45 *3*	1228.427	5/2⁺	M1(+E2)	−0.04 *8*	0.00218 *4*	α(K)=0.00193 *3*; α(L)=0.000210 *3*; α(M)=3.53×10^{-5} *6* α(N)=4.43×10^{-6} *7*; α(O)=2.90×10^{-7} *5* B(M1)(W.u.)=(0.0059 *+21−59*); B(E2)(W.u.)=(0.04 *+15−4*)
		1770.48 *3*	100 *3*	0.0	9/2⁺	E2		3.75×10^{-4}	α(K)=0.0001552 *22*; α(L)=1.661×10^{-5} *24*; α(M)=2.79×10^{-6} *4*

$^{87}_{38}Sr_{49}$-8

Adopted Levels, Gammas (continued)

γ(^{87}Sr) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ[‡]	α[c]	Comments
									α(N)=3.51×10^{-7} *5*; α(O)=2.31×10^{-8} *4*; α(IPF)=0.000200 *3* B(E2)(W.u.)=0.13 *+5−13*
1920.49	7/2$^+$	691.8[&] *4*	20[&] *7*	1228.427	5/2$^+$				
		1920.49 *13*	100 *3*	0.0	9/2$^+$	M1+E2	+0.70 *5*	3.96×10^{-4}	α(K)=0.0001342 *19*; α(L)=1.432×10^{-5} *20*; α(M)=2.40×10^{-6} *4* α(N)=3.03×10^{-7} *5*; α(O)=2.00×10^{-8} *3*; α(IPF)=0.000245 *4* B(M1)(W.u.)=0.013 *3*; B(E2)(W.u.)=1.9 *5*
2110.07	3/2$^-$	856.07 *3*	7.4 *12*	1253.941	5/2$^-$				E$_\gamma$,I$_\gamma$: weighted average from (α,3nγ),(α,nγ) and (p,nγ).
		881.51 *13*	0.56 *12*	1228.427	5/2$^+$	(E1)		3.19×10^{-4}	α(K)=0.000283 *4*; α(L)=3.03×10^{-5} *5*; α(M)=5.08×10^{-6} *8* α(N)=6.38×10^{-7} *9*; α(O)=4.17×10^{-8} *6* B(E1)(W.u.)=2.4×10^{-5} *9*
		1236.72 *3*	100 *16*	873.339	3/2$^-$	M1+E2		3.73×10^{-4}	α(K)=0.000319 *5*; α(L)=3.44×10^{-5} *5*; α(M)=5.77×10^{-6} *9* α(N)=7.26×10^{-7} *11*; α(O)=4.76×10^{-8} *7*; α(IPF)=1.25×10^{-5} *16* E$_\gamma$: from (n,γ); others: 1236.5 *4* from (α,3nγ),(α,nγ), 1237.50 *6* from (p,nγ).
		1721.61 *3*	19 *3*	388.5287	1/2$^-$				
2153.5	(11/2)$^+$	2153.5[&] *7*	100[&]	0.0	9/2$^+$	M1+E2	−0.80 *10*	4.78×10^{-4} *8*	α(K)=0.0001086 *16*; α(L)=1.156×10^{-5} *17*; α(M)=1.94×10^{-6} *3* α(N)=2.44×10^{-7} *4*; α(O)=1.617×10^{-8} *23*; α(IPF)=0.000355 *6* B(M1)(W.u.)>0.013; B(E2)(W.u.)>2.0
2169.43	1/2$^+$	915.56 *8*	0.98 *18*	1253.941	5/2$^-$	(M2)		1.65×10^{-3}	α(K)=0.001456 *21*; α(L)=0.0001609 *23*; α(M)=2.71×10^{-5} *4* α(N)=3.40×10^{-6} *5*; α(O)=2.22×10^{-7} *4* B(M2)(W.u.)<159 E$_\gamma$,I$_\gamma$: From (n,γ).
		1296.00[a] *3*	100[b] *15*	873.339	3/2$^-$	(E1)		2.62×10^{-4}	α(K)=0.0001376 *20*; α(L)=1.464×10^{-5} *21*; α(M)=2.45×10^{-6} *4* α(N)=3.09×10^{-7} *5*; α(O)=2.03×10^{-8} *3*; α(IPF)=0.0001070 *15* B(E1)(W.u.)<0.00096 I$_\gamma$: From (n,γ).
2235.7	9/2$^+$	2235.7[&] *10*	100[&]	0.0	9/2$^+$	E2(+M1)	>4	5.35×10^{-4}	α(K)=0.0001012 *15*; α(L)=1.077×10^{-5} *16*; α(M)=1.81×10^{-6} *3* α(N)=2.28×10^{-7} *4*; α(O)=1.502×10^{-8} *21*; α(IPF)=0.000421 *6* B(M1)(W.u.)<0.00098; B(E2)(W.u.)>2.0

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Adopted Levels, Gammas (continued)

$\gamma(^{87}Sr)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ[‡]	α[c]	Comments
2414.520	$3/2^-,5/2^-$	643.83 *9*	0.85 *16*	1770.48	$5/2^+$	(E1)		6.23×10^{-4}	α(K)=0.000552 *8*; α(L)=5.94×10^{-5} *9*; α(M)=9.95×10^{-6} *14* α(N)=1.249×10^{-6} *18*; α(O)=8.10×10^{-8} *12* B(E1)(W.u.)=7.E−5 *3*
		1541.20 *3*	21 *3*	873.339	$3/2^-$				
		2026.02 *6*	100 *10*	388.5287	$1/2^-$				
2420.4	$(5/2^-)$	1166.9[&] *12*	100[&] *4*	1253.941	$5/2^-$	D+Q			α(K)=0.000361 *6*; α(L)=3.89×10^{-5} *7*; α(M)=6.53×10^{-6} *11* α(N)=8.21×10^{-7} *13*; α(O)=5.38×10^{-8} *8*; α(IPF)=3.7×10^{-6} *6* Mult.: D+Q from ^{86}Kr(α,3nγ) and from π(1254) and π(2420).
		1546.7[&] *10*	76[&] *29*	873.339	$3/2^-$				
2536.3	$11/2^-$	2536.7[&] *7*	100[&]	0.0	$9/2^+$	E1+M2	−0.09 *4*	1.02×10^{-3} *2*	α(K)=4.88×10^{-5} *11*; α(L)=5.15×10^{-6} *12*; α(M)=8.63×10^{-7} *19* α(N)=1.087×10^{-7} *24*; α(O)=7.19×10^{-9} *16*; α(IPF)=0.000970 *15* B(E1)(W.u.)=0.00011 *5*; B(M2)(W.u.)=0.6 *7* δ: from RUL and δ=−0.18 *+13−22* from (α,3nγ).
2550.0	$(7/2)^+$	1321.6[&] *7*	100[&]	1228.427	$5/2^+$	M1+E2			
2555.0	$(9/2)^-$	2555.0[&] *7*	100[&]	0.0	$9/2^+$	E1(+M2)	+0.03 *3*	1.04×10^{-3}	α(K)=4.76×10^{-5} *8*; α(L)=5.03×10^{-6} *8*; α(M)=8.42×10^{-7} *13* α(N)=1.061×10^{-7} *16*; α(O)=7.02×10^{-9} *11*; α(IPF)=0.000986 *14* B(E1)(W.u.)=(0.0003 *2*); B(M2)(W.u.)=(0.2 *+4−2*)
2596.0	$13/2^-$	855.9[&] *3*	100[&]	1740.0	$13/2^+$	E1(+M2)	−0.10 *12*	3.39×10^{-4}	α(K)=0.000300 *5*; α(L)=3.22×10^{-5} *5*; α(M)=5.39×10^{-6} *8* α(N)=6.77×10^{-7} *10*; α(O)=4.42×10^{-8} *7* B(E1)(W.u.)=0.0006 *2*; B(M2)(W.u.)=(30 *+90−30*)
2676.880	$3/2^+$	566.55 *10*	1.3 *3*	2110.07	$3/2^-$				
		1422.99 *4*	6.8 *10*	1253.941	$5/2^-$				E_γ: There is a possibility for a second placement from the 6074 level, but the evaluators are adopting the placement suggested by 1986Wi16 in (n,γ).
		1803.47 *3*	17 *3*	873.339	$3/2^-$				
		2288.23 *6*	100 *12*	388.5287	$1/2^-$				
2682.0	$(3/2)^+$	911.5[&] *5*	100[&]	1770.48	$5/2^+$	M1+E2	−0.5 *+3−13*	6.90×10^{-4} *24*	α(K)=0.000611 *21*; α(L)=6.6×10^{-5} *3*; α(M)=1.11×10^{-5} *5* α(N)=1.40×10^{-6} *6*; α(O)=9.14×10^{-8} *24* B(M1)(W.u.)=0.09 *4*; B(E2)(W.u.)=3.E+1 *+4−3*
2707.5	$7/2^+,9/2^+$	787.0[&] *4*	100[&]	1920.49	$7/2^+$	M1(+E2)	0.00 *9*	9.39×10^{-4}	α(K)=0.000832 *12*; α(L)=8.99×10^{-5} *13*;

$^{87}_{38}Sr_{49}$-10

Adopted Levels, Gammas (continued)

γ(^{87}Sr) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ[‡]	α[c]	Comments
									α(M)=1.509×10^{-5} *22* α(N)=1.90×10^{-6} *3*; α(O)=1.249×10^{-7} *18* B(M1)(W.u.)=(0.082 *21*)
2821.0	(9/2)$^+$	1050.5[&] *5*	100[&]	1770.48	5/2$^+$	E2		5.17×10^{-4}	α(K)=0.000458 *7*; α(L)=4.98×10^{-5} *7*; α(M)=8.35×10^{-6} *12* α(N)=1.047×10^{-6} *15*; α(O)=6.78×10^{-8} *10* B(E2)(W.u.)=28 *12*
2831.2	15/2$^-$	235.2[&] *5*	6.7[&]	2596.0	13/2$^-$	(M1)		0.01662	α(K)=0.01467 *22*; α(L)=0.001636 *25*; α(M)=0.000275 *5* α(N)=3.45×10^{-5} *6*; α(O)=2.23×10^{-6} *4* B(M1)(W.u.)>0.30
		1091.3[&] *3*	100[&]	1740.0	13/2$^+$	E1+(M2)	+0.12 *17*	0.00022 *6*	α(K)=0.00020 *5*; α(L)=2.1×10^{-5} *6*; α(M)=3.5×10^{-6} *9* α(N)=4.5×10^{-7} *12*; α(O)=2.9×10^{-8} *8* B(E1)(W.u.)>0.00067
2850.54	1/2$^-$,3/2$^-$	740.58 *4*	4.2 *7*	2110.07	3/2$^-$				
		1977.11 *3*	100 *14*	873.339	3/2$^-$				
2920.8	7/2$^+$,9/2$^+$	2920.7[&] *12*	100[&]	0.0	9/2$^+$				
2921.12	3/2$^-$	811.09 *12*	17 *4*	2110.07	3/2$^-$				
		1667.12 *6*	100 *17*	1253.941	5/2$^-$				
2940.73	1/2$^+$	1712.09 *11*	100 *17*	1228.427	5/2$^+$				
		2552.24 *6*	<2217	388.5287	1/2$^-$				
3007.21	3/2$^-$	1753.24 *16*	5.5 *11*	1253.941	5/2$^-$				
		2133.87 *10*	22.8 *25*	873.339	3/2$^-$				
		2618.95 *10*	100 *11*	388.5287	1/2$^-$				
3019.208	1/2$^-$,3/2$^-$	1248.55 *6*	2.1 *3*	1770.48	5/2$^+$				
		1765.23 *3*	30 *5*	1253.941	5/2$^-$				
		2145.87 *6*	19.8 *20*	873.339	3/2$^-$				
		2630.70 *6*	100 *11*	388.5287	1/2$^-$				
3035.5		882.0[&] *8*	100[&] *30*	2153.5	(11/2)$^+$				I_γ: Based on branching from level scheme from (α,3nγ),(α,nγ) shown in 1981Ek01.
		1295.5[&] *3*	100[&] *42*	1740.0	13/2$^+$				I_γ: Based on branching from level scheme from (α,3nγ),(α,nγ) shown in 1981Ek01.
3066.358	(1/2$^-$,3/2)	1812.37 *3*	40 *6*	1253.941	5/2$^-$				
		2193.04 *6*	100 *10*	873.339	3/2$^-$				
		2677.87 *6*	70 *8*	388.5287	1/2$^-$				
3117.4	13/2$^-$	521.0[&] *7*	63[&] *4*	2596.0	13/2$^-$	M1+E2	+0.29 *16*	0.00245 *9*	α(K)=0.00217 *8*; α(L)=0.000238 *10*; α(M)=3.99×10^{-5} *16* α(N)=5.01×10^{-6} *19*; α(O)=3.26×10^{-7} *11* B(M1)(W.u.)=0.15 *5*; B(E2)(W.u.)=5.E+1 *+6−5*

$^{87}_{38}Sr_{49}$-11

Adopted Levels, Gammas (continued)

γ(^{87}Sr) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ[‡]	α[c]	Comments
3117.4	13/2$^-$	581.3[&] *5*	100[&] *4*	2536.3	11/2$^-$	M1+E2	+0.047 *+12−23*	0.00185	α(K)=0.001640 *24*; α(L)=0.000179 *3*; α(M)=3.00×10^{-5} *5* α(N)=3.77×10^{-6} *6*; α(O)=2.47×10^{-7} *4* B(M1)(W.u.)=0.18 *6*; B(E2)(W.u.)=1.3 *8*
3125.28	1/2$^+$	1896.87 *5*	36 *6*	1228.427	5/2$^+$				
		2251.89 *6*	100 *10*	873.339	3/2$^-$				
3151.57	(3/2)$^+$	737.07 *15*	4.5 *10*	2414.520	3/2$^-$,5/2$^-$				
		1041.56 *10*	7.8 *14*	2110.07	3/2$^-$				
		1381.18 *5*	47 *8*	1770.48	5/2$^+$				
		1923.27 *6*	22 *4*	1228.427	5/2$^+$				
		2762.68 *6*	100 *10*	388.5287	1/2$^-$				
3155.0		3154.9[&] *15*	100[&]	0.0	9/2$^+$				
3232.27	(1/2,3/2)	2843.64 *7*	100	388.5287	1/2$^-$				
3249.4	(17/2)$^-$	418.2[&] *2*	100[&]	2831.2	15/2$^-$	M1+E2		0.0052 *12*	B(M1)(W.u.)=0.12 *+13−12* α(K)=0.0046 *11*; α(L)=0.00052 *13*; α(M)=8.7×10^{-5} *22* α(N)=1.1×10^{-5} *3*; α(O)=6.7×10^{-7} *14* BM1 calculated assuming a small mixing ratio as the known mixing ratios for transitions for isotope seem to be consistently small at less then 0.5 (absolute) with with one exception for the 2235γ from the 2235 keV level.
3258.85	5/2$^+$	581.83 *10*	24 *5*	2676.880	3/2$^+$				
		844.35 *3*	100 *18*	2414.520	3/2$^-$,5/2$^-$				
		1148.76 *9*	29 *5*	2110.07	3/2$^-$				
		1488.59 *13*	25 *5*	1770.48	5/2$^+$				
		3258.56 *13*	84 *8*	0.0	9/2$^+$				
3277.50	5/2$^+$	2049.05 *12*	20 *3*	1228.427	5/2$^+$				
		2404.02 *7*	100 *11*	873.339	3/2$^-$				
		2888.94 *16*	20 *3*	388.5287	1/2$^-$				
3371.55	1/2$^+$,3/2,5/2$^+$	1600.94 *8*	15.3 *25*	1770.48	5/2$^+$				
		2498.33 *7*	100 *10*	873.339	3/2$^-$				
3390.9	(19/2$^-$)	141.5[&] *2*	100[&]	3249.4	(17/2)$^-$	(M1)		0.0630	α(K)=0.0555 *8*; α(L)=0.00628 *10*; α(M)=0.001058 *16* α(N)=0.0001323 *20*; α(O)=8.46×10^{-6} *13*
3415.76	1/2$^{(-)}$,3/2$^{(-)}$	1246.31 *4*	100 *14*	2169.43	1/2$^+$				
		2161.63 *21*	40 *7*	1253.941	5/2$^-$				
		3027.16 *13*	36.7 *24*	388.5287	1/2$^-$				
3425.56	(5/2$^-$)	2196.89 *13*	15.1 *19*	1228.427	5/2$^+$				
		2552.24 *6*	<205	873.339	3/2$^-$				
		3036.86 *9*	100 *5*	388.5287	1/2$^-$				

$^{87}_{38}Sr_{49}$-12

Adopted Levels, Gammas (continued)

$\gamma(^{87}Sr)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	Comments
3431.39	$1/2^-,3/2,5/2^+$	2177.39 *8*	100	1253.941	$5/2^-$		
3507.09	$(3/2)^+$	2278.71 *7*	100 *11*	1228.427	$5/2^+$		
		3118.47 *9*	34.1 *19*	388.5287	$1/2^-$		
3602.61	$3/2^+$	1832.12 *4*	100 *15*	1770.48	$5/2^+$		
		2729.45 *17*	32 *6*	873.339	$3/2^-$		
3607.63	$1/2^+,3/2,5/2^+$	666.80 *13*	10.8 *22*	2940.73	$1/2^+$		
		1497.29 *7*	44 *7*	2110.07	$3/2^-$		
		2378.6 *5*	59 *7*	1228.427	$5/2^+$		
		2734.09 *8*	100 *11*	873.339	$3/2^-$		
3610.9	(21/2)	220.0[&] *2*	100[&]	3390.9	$(19/2^-)$	(D)	
3674.19	$(3/2^+)$	823.50 *17*	18.3 *46*	2850.54	$1/2^-,3/2^-$		
		1563.7 *4*	100 *17*	2110.07	$3/2^-$		
		2419.98 *18*	58.7 *83*	1253.941	$5/2^-$		
		2445.52 *11*	80.7 *92*	1228.427	$5/2^+$		
		3285.87 *14*	<121	388.5287	$1/2^-$		
3685.9	(17/2)	1945.8 *7*	100	1740.0	$13/2^+$		
3716.81	$1/2,3/2,5/2^+$	795.58 *25*	5.0 *18*	2921.12	$3/2^-$		
		3328.25 *9*	100 *5*	388.5287	$1/2^-$		
3718.0	(19/2)	327.1[&] *3*	100[&]	3390.9	$(19/2^-)$	(D)	
3731.35	3/2	2477.36 *8*	100 *11*	1253.941	$5/2^-$		
		2503.2 *4*	40 *4*	1228.427	$5/2^+$		
3765.49	$1/2^-,3/2,5/2$	1351.01 *11*	32 *6*	2414.520	$3/2^-,5/2^-$		
		2511.73 *13*	100 *13*	1253.941	$5/2^-$		
3776.00	$3/2^+$	709.67 *5*	17 *3*	3066.358	$(1/2^-,3/2)$		
		925.21 *9*	8.3 *13*	2850.54	$1/2^-,3/2^-$		
		2902.66 *7*	100 *10*	873.339	$3/2^-$		
3872.24	$1/2^+$	1702.76 *13*	9.3 *21*	2169.43	$1/2^+$		
		2101.93 *25*	14 *3*	1770.48	$5/2^+$		
		2998.95 *7*	100 *12*	873.339	$3/2^-$		
3951.45	$1/2,3/2,5/2^+$	580.03 *9*	26 *5*	3371.55	$1/2^+,3/2,5/2^+$		
		1781.95 *5*	100 *18*	2169.43	$1/2^+$		
3958.667	$3/2^+$	3085.27 *1*	100 *6*	873.339	$3/2^-$		
		3570.21 *11*	46 *3*	388.5287	$1/2^-$		
4026.41	$1/2^-,3/2$	1611.84 *5*	100 *16*	2414.520	$3/2^-,5/2^-$		
		2772.51 *8*	84 *9*	1253.941	$5/2^-$		
4056.35	$1/2,3/2,5/2^+$	1115.50 *17*	7.7 *17*	2940.73	$1/2^+$		
		2828.06 *14*	20.3 *25*	1228.427	$5/2^+$		
		3182.62 *10*	100 *5*	873.339	$3/2^-$		
		3667.78 *10*	41.6 *25*	388.5287	$1/2^-$		
4080.79	$(3/2^+,5/2^+)$	1061.52 *5*	29 *5*	3019.208	$1/2^-,3/2^-$		E_γ: There is a possibility for a second placement from the 4863 keV level, but the evaluators are adopting the placement suggested by 1986Wi16 in (n,γ).
		3207.58 *9*	100	873.339	$3/2^-$		

$^{87}_{38}Sr_{49}$-13

Adopted Levels, Gammas (continued)

γ(^{87}Sr) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]
4164.97	$1/2^{(-)},3/2^{(-)}$	557.23 *6*	5.1 *9*	3607.63	$1/2^+,3/2,5/2^+$	
		1145.71 *3*	45 *7*	3019.208	$1/2^-,3/2^-$	
		1224.26 *3*	5.5 *9*	2940.73	$1/2^+$	
		1243.80 *9*	4.6 *8*	2921.12	$3/2^-$	
		1995.46 *3*	100 *15*	2169.43	$1/2^+$	
		2054.88 *7*	28 *4*	2110.07	$3/2^-$	
		2394.79 *15*	5.3 *7*	1770.48	$5/2^+$	
		2911.24 *13*	3.9 *5*	1253.941	$5/2^-$	
		3291.72 *9*	29.2 *15*	873.339	$3/2^-$	
4171.9	$(17/2^+)$	1340.8 *7*	65 *12*	2831.2	$15/2^-$	
		2431.7 *7*	100 *18*	1740.0	$13/2^+$	
4182.36	$1/2^+$	465.53 *5*	25 *5*	3716.81	$1/2,3/2,5/2^+$	
		2072.8 *6*	99 *13*	2110.07	$3/2^-$	
		2411.73 *13*	18.3 *22*	1770.48	$5/2^+$	
		3309.2 *4*	38.4 *20*	873.339	$3/2^-$	
		3793.78 *10*	100 *5*	388.5287	$1/2^-$	
4196.82	$3/2^+$	765.25 *16*	4.6 *11*	3431.39	$1/2^-,3/2,5/2^+$	
		2426.37 *8*	33 *4*	1770.48	$5/2^+$	
		2942.76 *7*	100 *11*	1253.941	$5/2^-$	
		2968.58 *16*	19 *3*	1228.427	$5/2^+$	
		3808.39 *12*	33.1 *21*	388.5287	$1/2^-$	
4224.03	$1/2^+,3/2^+$	1547.08 *3*	100 *16*	2676.880	$3/2^+$	
		2453.63 *10*	15.4 *17*	1770.48	$5/2^+$	
		2995.86 *12*	50 *7*	1228.427	$5/2^+$	
		3350.58 *10*	21.9 *12*	873.339	$3/2^-$	
4235.66	$3/2^+,5/2^+$	1084.13 *13*	14 *3*	3151.57	$(3/2)^+$	
		1169.26 *13*	24 *5*	3066.358	$(1/2^-,3/2)$	
		2981.77 *9*	36 *4*	1253.941	$5/2^-$	
		3007.01 *11*	100 *7*	1228.427	$5/2^+$	
4337.06	$1/2^+,3/2$	571.74 *15*	1.7 *4*	3765.49	$1/2^-,3/2,5/2$	
		662.71 *11*	2.2 *5*	3674.19	$(3/2^+)$	
		911.34 *25*	100 *15*	3425.56	$(5/2^-)$	
		965.67 *13*	2.1 *5*	3371.55	$1/2^+,3/2,5/2^+$	
		2227.05 *12*	6.8 *9*	2110.07	$3/2^-$	
		2566.50 *7*	35 *4*	1770.48	$5/2^+$	
		3948.55 *12*	4.5 *3*	388.5287	$1/2^-$	
4435.60	$1/2^+,3/2$	1019.61 *11*	5.2 *11*	3415.76	$1/2^{(-)},3/2^{(-)}$	
		1158.04 *9*	11.6 *20*	3277.50	$5/2^+$	
		1428.46 *5*	19 *3*	3007.21	$3/2^-$	
		2664.4 *7*	28 *3*	1770.48	$5/2^+$	
		4046.92 *10*	100 *6*	388.5287	$1/2^-$	
4440.4	(23/2)	829.4[&] *8*	100[&]	3610.9	(21/2)	(D)
4536.56	$1/2^-,3/2$	1120.71 *16*	12.1 *25*	3415.76	$1/2^{(-)},3/2^{(-)}$	

$^{87}_{38}Sr_{49}$-14

Adopted Levels, Gammas (continued)

$\gamma(^{87}Sr)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.‡
4536.56	$1/2^-,3/2$	1411.19 *6*	44 *7*	3125.28	$1/2^+$	
		2122.04 *9*	94 *10*	2414.520	$3/2^-,5/2^-$	
		3282.72 *10*	100 *6*	1253.941	$5/2^-$	
4551.19	$1/2^+,3/2$	876.94 *10*	3.8 *8*	3674.19	$(3/2^+)$	
		1273.61 *18*	2.6 *7*	3277.50	$5/2^+$	
		1399.48 *12*	4.0 *8*	3151.57	$(3/2)^+$	
		3677.91 *9*	100 *6*	873.339	$3/2^-$	
		4162.6 *5*	22 *7*	388.5287	$1/2^-$	
4571.4	$(19/2^+)$	399.5 *7*	73 *9*	4171.9	$(17/2^+)$	(D)
		885.4 *7*	<6	3685.9	(17/2)	
		1180.6 *7*	46 *6*	3390.9	$(19/2^-)$	
		1322.1 *7*	100 *6*	3249.4	$(17/2)^-$	(D)
4604.86	$1/2,3/2,5/2^+$	828.68 *9*	17 *4*	3776.00	$3/2^+$	
		874.05 *21*	8 *3*	3731.35	3/2	
		997.11 *8*	31 *5*	3607.63	$1/2^+,3/2,5/2^+$	
		1453.37 *6*	67 *11*	3151.57	$(3/2)^+$	
		1538.51 *4*	100 *14*	3066.358	$(1/2^-,3/2)$	
4644.07	$1/2^+,3/2$	927.39 *8*	18 *3*	3716.81	$1/2,3/2,5/2^+$	
		1137.01 *9*	15 *3*	3507.09	$(3/2)^+$	
		1212.30 *18*	7.9 *21*	3431.39	$1/2^-,3/2,5/2^+$	
		1366.36 *15*	11.0 *21*	3277.50	$5/2^+$	
		1385.19 *6*	32 *5*	3258.85	$5/2^+$	
		2873.7 *3*	100 *11*	1770.48	$5/2^+$	
		3415.8 *3*	21 *4*	1228.427	$5/2^+$	
		3770.46 *10*	70 *4*	873.339	$3/2^-$	
4651.28	$1/2^+,3/2,5/2^+$	934.45 *3*	100 *18*	3716.81	$1/2,3/2,5/2^+$	
		2236.95 *19*	43 *7*	2414.520	$3/2^-,5/2^-$	
		2880.63 *10*	36 *4*	1770.48	$5/2^+$	
4671.8	$(21/2^+)$	100.4 *4*	100 *9*	4571.4	$(19/2^+)$	
		954.0 *7*	53 *7*	3718.0	(19/2)	(D)
		985.8 *7*	<4	3685.9	(17/2)	
		1060.9 *7*	22 *3*	3610.9	(21/2)	
		1281.0 *7*	25 *4*	3390.9	$(19/2^-)$	
4684.61	$1/2^-,3/2$	953.10 *12*	21 *4*	3731.35	3/2	
		1076.91 *4*	74 *12*	3607.63	$1/2^+,3/2,5/2^+$	
		1559.42 *6*	74 *12*	3125.28	$1/2^+$	
		1665.43 *4*	<100	3019.208	$1/2^-,3/2^-$	
		1677.37 *7*	53 *9*	3007.21	$3/2^-$	
		3431.18 *23*	13 *2*	1253.941	$5/2^-$	
		3811.07 *12*	100 *6*	873.339	$3/2^-$	
		4295.93 *13*	45 *3*	388.5287	$1/2^-$	
4783.75	$1/2^+,3/2,5/2^+$	1276.6 *3*	4.2 *13*	3507.09	$(3/2)^+$	
		1632.08 *8*	19 *3*	3151.57	$(3/2)^+$	

$^{87}_{38}Sr_{49}$-15

Adopted Levels, Gammas (continued)

$\gamma(^{87}Sr)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π
4783.75	$1/2^+,3/2,5/2^+$	1933.23 *4*	50 *8*	2850.54	$1/2^-,3/2^-$
		2369.36 *16*	17.3 *24*	2414.520	$3/2^-,5/2^-$
		3555.10 *9*	100 *5*	1228.427	$5/2^+$
		3910.32 *11*	37.2 *21*	873.339	$3/2^-$
4789.87	3/2	1187.31 *12*	11.2 *22*	3602.61	$3/2^+$
		2375.38 *12*	14.9 *17*	2414.520	$3/2^-,5/2^-$
		3535.92 *9*	66 *4*	1253.941	$5/2^-$
		3561.07 *22*	100 *5*	1228.427	$5/2^+$
		3916.30 *12*	32.0 *24*	873.339	$3/2^-$
4826.84	$1/2^+,3/2$	1455.23 *7*	48 *8*	3371.55	$1/2^+,3/2,5/2^+$
		2717.4 *4*	12 *3*	2110.07	$3/2^-$
		3056.60 *13*	24.6 *18*	1770.48	$5/2^+$
		4438.12 *11*	100 *5*	388.5287	$1/2^-$
4921.90		1314.28 *4*	100 *15*	3607.63	$1/2^+,3/2,5/2^+$
		2245.06 *9*	92 *10*	2676.880	$3/2^+$
		2506.95 *18*	50 *7*	2414.520	$3/2^-,5/2^-$
		3693.34 *11*	63 *4*	1228.427	$5/2^+$
4953.11	$1/2,3/2,5/2^+$	770.77 *9*	13.2 *24*	4182.36	$1/2^+$
		2031.96 *7*	100 *12*	2921.12	$3/2^-$
		4079.84 *16*	19.4 *15*	873.339	$3/2^-$
		4564.35 *15*	11.5 *9*	388.5287	$1/2^-$
4964.32	$1/2^+,3/2$	627.32 *6*	22 *4*	4337.06	$1/2^+,3/2$
		781.85 *10*	12.1 *24*	4182.36	$1/2^+$
		799.26 *7*	18 *3*	4164.97	$1/2^{(-)},3/2^{(-)}$
		1199.04 *16*	10.0 *21*	3765.49	$1/2^-,3/2,5/2$
		2854.25 *7*	74 *8*	2110.07	$3/2^-$
		3736.1 *5*	43.1 *24*	1228.427	$5/2^+$
		4575.54 *11*	100 *5*	388.5287	$1/2^-$
5063.08	$1/2^+,3/2,5/2^+$	1111.68 *6*	31 *5*	3951.45	$1/2,3/2,5/2^+$
		1286.94 *8*	44 *8*	3776.00	$3/2^+$
		2648.52 *7*	100 *11*	2414.520	$3/2^-,5/2^-$
		2893.55 *15*	34 *5*	2169.43	$1/2^+$
		3834.68 *14*	39 *3*	1228.427	$5/2^+$
		4189.65 *11*	92 *5*	873.339	$3/2^-$
5067.58	$1/2^+,3/2,5/2^+$	1915.99 *5*	100 *16*	3151.57	$(3/2)^+$
		2126.47 *14*	54 *7*	2940.73	$1/2^+$
		2653.09 *8*	93 *10*	2414.520	$3/2^-,5/2^-$
		3297.24 *17*	21.8 *19*	1770.48	$5/2^+$
		3839.2 *3*	35 *7*	1228.427	$5/2^+$
5082.46	$1/2,3/2,5/2^+$	1130.94 *6*	99 *16*	3951.45	$1/2,3/2,5/2^+$
		4209.24 *14*	34.7 *24*	873.339	$3/2^-$
		4693.93 *15*	100 *7*	388.5287	$1/2^-$
5091.04	$1/2,3/2,5/2^+$	1034.64 *4*	45 *7*	4056.35	$1/2,3/2,5/2^+$

$^{87}_{38}Sr_{49}$-16

γ(^{87}Sr) (continued)

E_i(level)	J^π_i	E_γ†	I_γ†	E_f	J^π_f	Mult.‡
5091.04	1/2,3/2,5/2$^+$	1064.63 *7*	18 *3*	4026.41	1/2$^-$,3/2	
		1132.54 *8*	24 *4*	3958.667	3/2$^+$	
		1659.66 *4*	100 *15*	3431.39	1/2$^-$,3/2,5/2$^+$	
		1665.43 *4*	<5	3425.56	(5/2$^-$)	
		2921.50 *8*	72 *7*	2169.43	1/2$^+$	
		4218.02 *19*	7.6 *6*	873.339	3/2$^-$	
5106.55	1/2$^-$,3/2$^-$	1050.28 *17*	8.6 *17*	4056.35	1/2,3/2,5/2$^+$	
		2099.46 *17*	33 *5*	3007.21	3/2$^-$	
		4717.76 *12*	100 *5*	388.5287	1/2$^-$	
5142.3	1/2,3/2,5/2$^+$	1864.3 *3*	80 *24*	3277.50	5/2$^+$	
		2974.0 *5*	100 *28*	2169.43	1/2$^+$	
5173.7	(23/2$^+$)	501.9 *4*	100 *7*	4671.8	(21/2$^+$)	(D)
		1562.8 *7*	11 *2*	3610.9	(21/2)	
5207.25	1/2$^+$,3/2	1791.65 *11*	8.2 *16*	3415.76	1/2$^{(-)}$,3/2$^{(-)}$	
		2530.24 *9*	26 *3*	2676.880	3/2$^+$	
		2792.66 *25*	4.6 *7*	2414.520	3/2$^-$,5/2$^-$	
		3436.76 *14*	10.4 *9*	1770.48	5/2$^+$	
		3978.65 *10*	100 *5*	1228.427	5/2$^+$	
		4333.9 *3*	3.0 *5*	873.339	3/2$^-$	
		4818.9 *4*	5.3 *16*	388.5287	1/2$^-$	
5282.37	1/2$^-$,3/2$^-$	2157.13 *23*	31 *6*	3125.28	1/2$^+$	
		4408.74 *20*	27 *4*	873.339	3/2$^-$	
		4893.73 *12*	100 *6*	388.5287	1/2$^-$	
5296.15	1/2$^+$,3/2	759.57 *17*	5.2 *13*	4536.56	1/2$^-$,3/2	
		3186.08 *9*	100 *5*	2110.07	3/2$^-$	
		4067.75 *13*	11.4 *8*	1228.427	5/2$^+$	
		4422.44 *13*	37.7 *24*	873.339	3/2$^-$	
		4907.5 *4*	4.2 *8*	388.5287	1/2$^-$	
5333.29	1/2,3/2,5/2$^+$	2266.85 *10*	68 *8*	3066.358	(1/2$^-$,3/2)	
		2918.69 *24*	24 *5*	2414.520	3/2$^-$,5/2$^-$	
		4459.90 *11*	100 *5*	873.339	3/2$^-$	
5379.02	1/2$^-$,3/2	774.29 *15*	5.5 *13*	4604.86	1/2,3/2,5/2$^+$	
		4124.93 *13*	16.8 *10*	1253.941	5/2$^-$	
		4505.50 *12*	100 *6*	873.339	3/2$^-$	
5397.14	1/2,3/2,5/2$^+$	1172.97 *12*	34 *6*	4224.03	1/2$^+$,3/2$^+$	
		1890.05 *5*	100 *15*	3507.09	(3/2)$^+$	
		1965.72 *17*	27 *6*	3431.39	1/2$^-$,3/2,5/2$^+$	
		2720.17 *13*	63 *8*	2676.880	3/2$^+$	
		5008.68 *20*	30 *3*	388.5287	1/2$^-$	
5647.33	1/2$^-$,3/2	2044.77 *8*	100 *11*	3602.61	3/2$^+$	
		2414.93 *9*	69 *7*	3232.27	(1/2,3/2)	
		2970.6 *3*	20 *5*	2676.880	3/2$^+$	
		4392.7 *3*	35 *10*	1253.941	5/2$^-$	

$^{87}_{38}Sr_{49}$-17

Adopted Levels, Gammas (continued)

$\gamma(^{87}Sr)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]
5647.33	$1/2^-,3/2$	5258.74 *18*	36 *3*	388.5287	$1/2^-$	
5673.18	$1/2,3/2,5/2^+$	1028.64 *19*	13 *3*	4644.07	$1/2^+,3/2$	
		1714.49 *8*	55 *9*	3958.667	$3/2^+$	
		3563.20 *13*	98 *9*	2110.07	$3/2^-$	
		4798.1 *6*	23 *11*	873.339	$3/2^-$	
		5284.63 *13*	100 *6*	388.5287	$1/2^-$	
5811.16	$1/2,3/2,5/2^+$	1614.44 *10*	17 *3*	4196.82	$3/2^+$	
		1646.04 *7*	24 *4*	4164.97	$1/2^{(-)},3/2^{(-)}$	
		1938.92 *8*	27 *5*	3872.24	$1/2^+$	
		2035.24 *7*	100 *11*	3776.00	$3/2^+$	
		2385.70 *11*	21.6 *25*	3425.56	$(5/2^-)$	
		3396.51 *9*	47.3 *25*	2414.520	$3/2^-,5/2^-$	
		3700.86 *11*	25.4 *16*	2110.07	$3/2^-$	
5843.34	3/2	1192.01 *5*	89 *14*	4651.28	$1/2^+,3/2,5/2^+$	
		1971.15 *6*	100 *16*	3872.24	$1/2^+$	
		4589.04 *18*	23.8 *17*	1253.941	$5/2^-$	
		4615.0 *3*	41 *4*	1228.427	$5/2^+$	
5885.3	$(25/2^+)$	711.6 *4*	100	5173.7	$(23/2^+)$	(D)
5943.16	3/2	990.11 *14*	33 *7*	4953.11	$1/2,3/2,5/2^+$	
		1606.02 *8*	100 *17*	4337.06	$1/2^+,3/2$	
		2167.42 *15*	87 *12*	3776.00	$3/2^+$	
		4688.97 *13*	83 *5*	1253.941	$5/2^-$	
		4714.5 *5*	40 *6*	1228.427	$5/2^+$	
		5074.1 *15*	16 *10*	873.339	$3/2^-$	
6074.44	$1/2^+,3/2,5/2^+$	2018.06 *11*	100 *13*	4056.35	$1/2,3/2,5/2^+$	
		2308.94 *10*	86.1 *99*	3765.49	$1/2^-,3/2,5/2$	
		4304.18 *21*	45.1 *66*	1770.48	$5/2^+$	
		5200.56 *21*	27.0 *25*	873.339	$3/2^-$	
6074.7	$(25/2^+)$	901.0 *4*	100 *9*	5173.7	$(23/2^+)$	(D)
		1634.1 *7*	10 *2*	4440.4	(23/2)	
6093.68	$1/2^+,3/2$	1869.44 *10*	33 *6*	4224.03	$1/2^+,3/2^+$	
		2816.6 *4*	8.4 *21*	3277.50	$5/2^+$	
		2834.89 *8*	100 *11*	3258.85	$5/2^+$	
		3172.48 *20*	14.7 *16*	2921.12	$3/2^-$	
		3924.28 *22*	13.7 *16*	2169.43	$1/2^+$	
		5220.12 *13*	62 *3*	873.339	$3/2^-$	
		5704.95 *20*	27 *3*	388.5287	$1/2^-$	
6189.07	$1/2^{(+)},3/2,5/2^+$	1362.24 *7*	36 *6*	4826.84	$1/2^+,3/2$	
		2929.83 *25*	10.0 *19*	3258.85	$5/2^+$	
		3122.51 *13*	29.0 *19*	3066.358	$(1/2^-,3/2)$	
		3512.21 *10*	100 *6*	2676.880	$3/2^+$	
		5315.3 *4*	23 *5*	873.339	$3/2^-$	
6374.1	$(27/2^+)$	299.4 *7*	91 *10*	6074.7	$(25/2^+)$	

$^{87}_{38}Sr_{49}$-18

Adopted Levels, Gammas (continued)

$\gamma(^{87}Sr)$ (continued)

E_i(level)	J_i^π	E_γ [†]	I_γ [†]	E_f	J_f^π	Mult. [‡]
6374.1	$(27/2^+)$	488.8 *7*	100 *8*	5885.3	$(25/2^+)$	(D)
6674.6	$(29/2^+)$	300.5 *4*	100	6374.1	$(27/2^+)$	(D)
7032.43	$1/2^-,3/2$	1941.42 *19*	13 *3*	5091.04	$1/2,3/2,5/2^+$	
		2495.79 *8*	100 *11*	4536.56	$1/2^-,3/2$	
		2976.1 *7*	4.5 *24*	4056.35	$1/2,3/2,5/2^+$	
		4618.3 *9*	2.4 *11*	2414.520	$3/2^-,5/2^-$	
		5778.7 *4*	5.2 *7*	1253.941	$5/2^-$	
		6159.0 *4*	6.9 *11*	873.339	$3/2^-$	
7442.5	$31/2^{(+)}$	767.9 *4*	100	6674.6	$(29/2^+)$	(D)

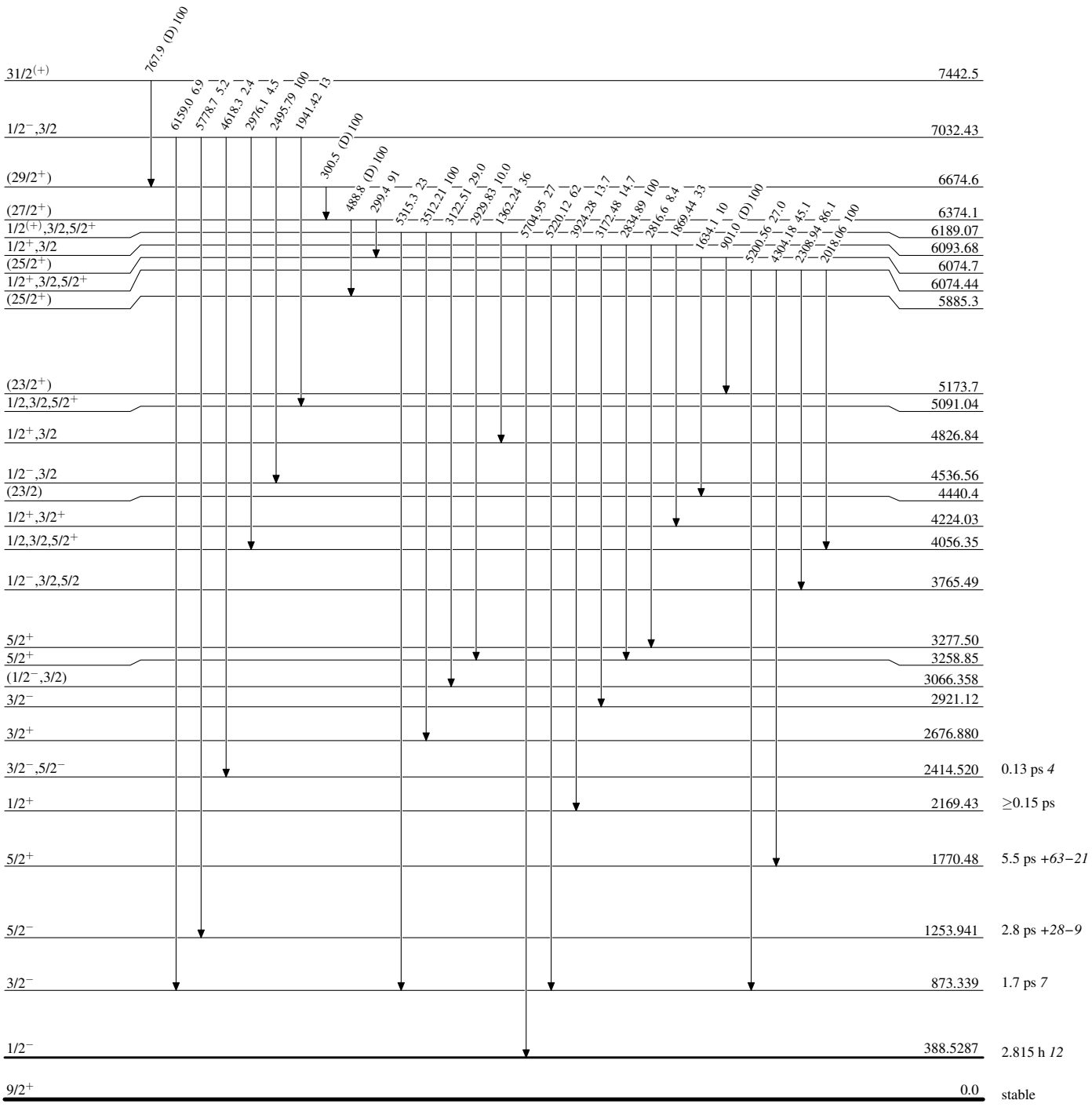
† From (n,γ), unless indicated otherwise.
‡ From (α,3nγ),(α,nγ), unless indicated otherwise.
# From ^{87}Y ε+β+ decay. The other values are less precise and those from (p,nγ) deviate from these values by more than two standard deviations.
@ Weighted average from (n,γ), (p,nγ), (α,3nγ), and (α,nγ).
& Only from (α,3nγ),(α,nγ).
a Weighted average from (n,γ), (p,nγ), (α,3nγ), and (α,nγ).
b Only from (^{9}Be,4nγ).
c Additional information 1.

$^{87}_{38}Sr_{49}$-19

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

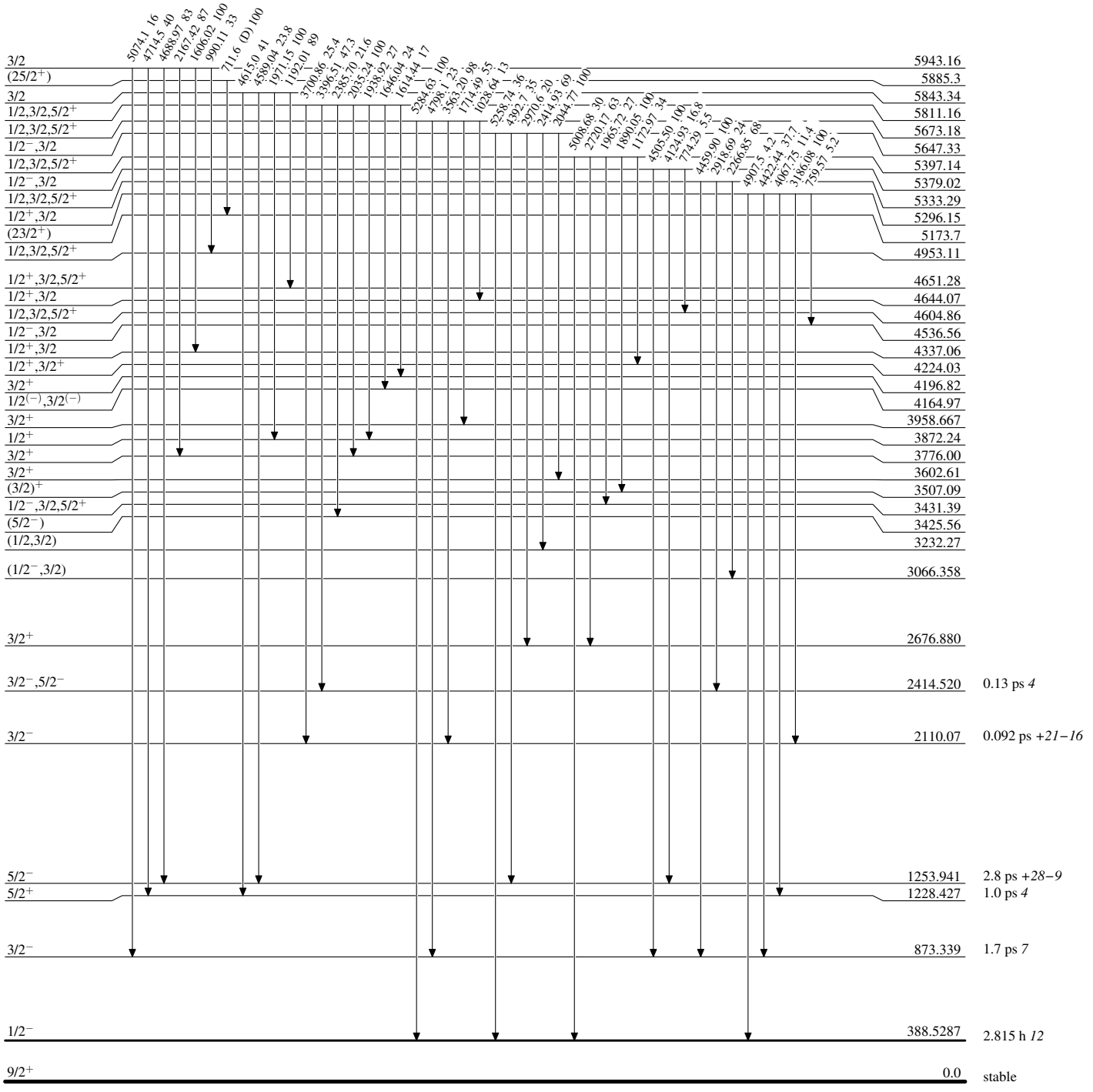


$^{87}_{38}Sr_{49}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

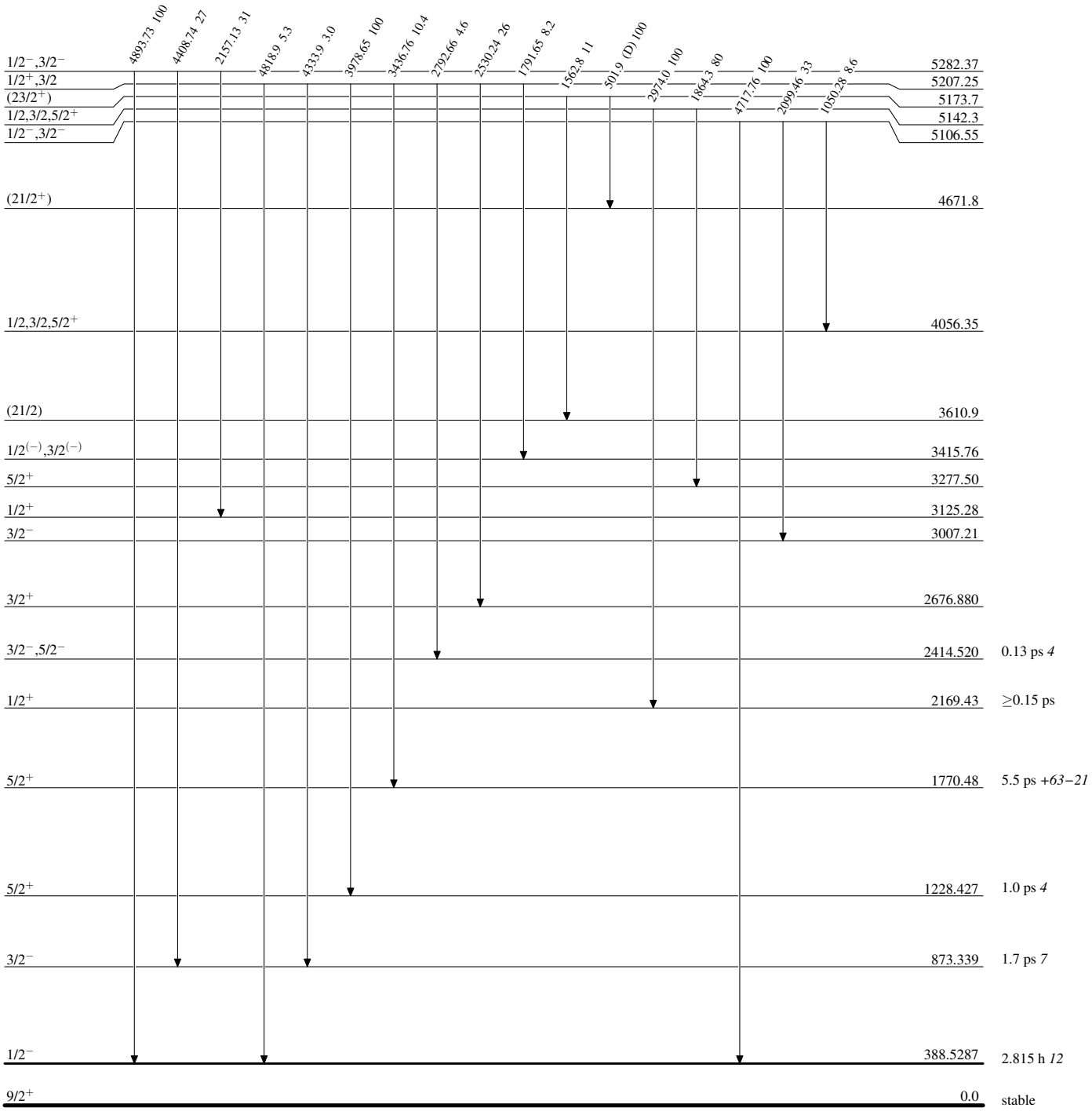


$^{87}_{38}Sr_{49}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

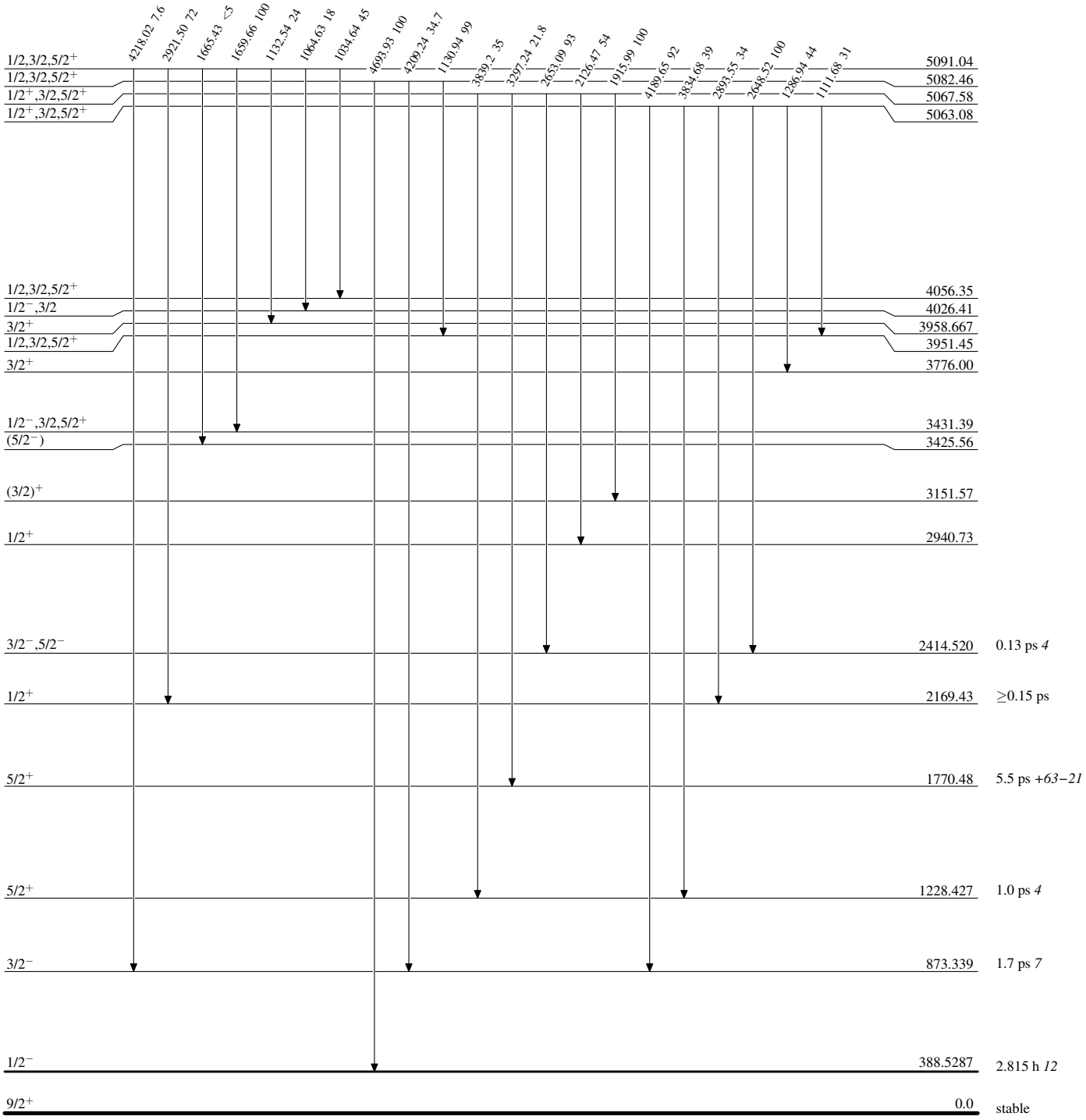


$^{87}_{38}Sr_{49}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

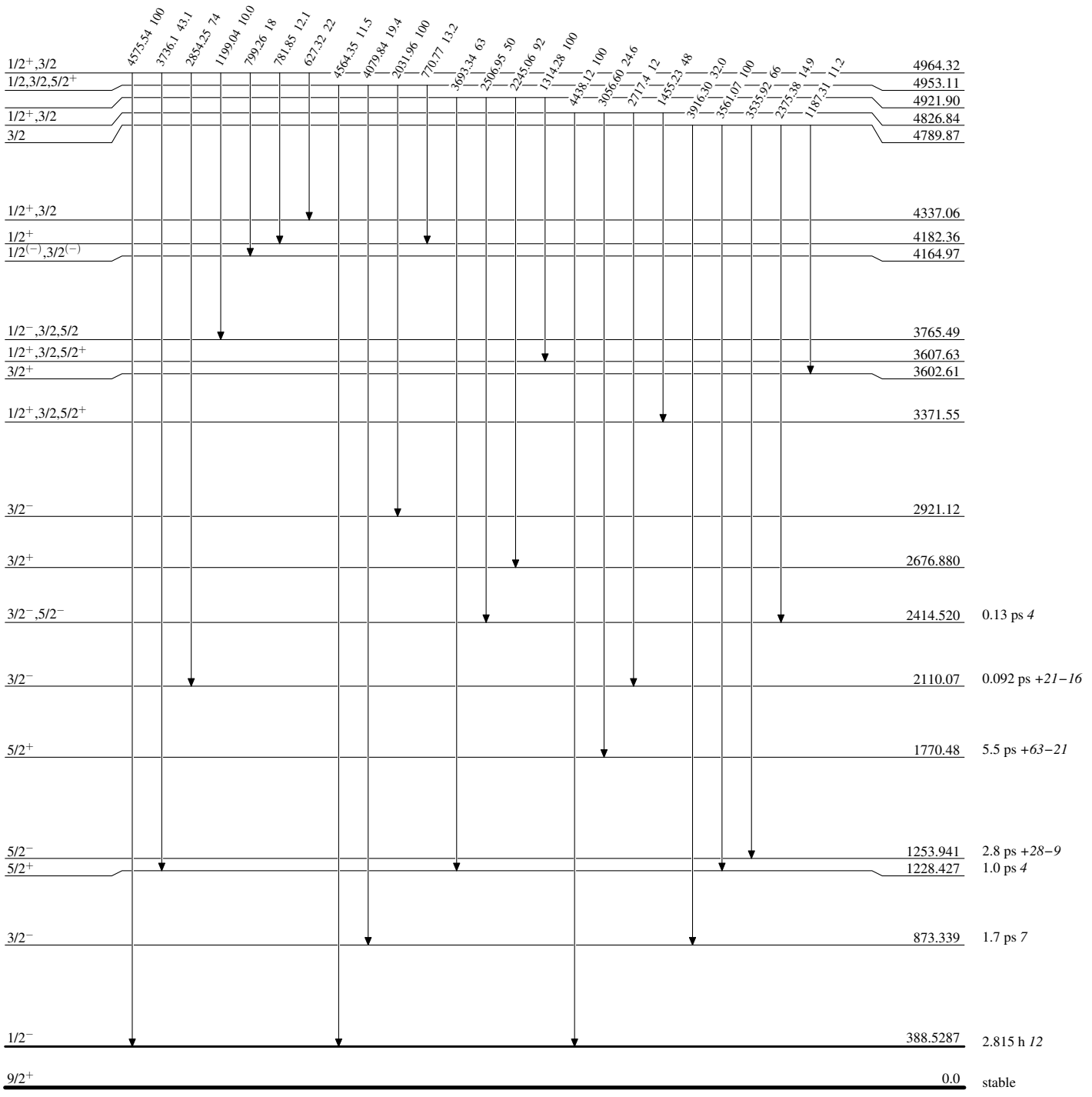


$^{87}_{38}Sr_{49}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

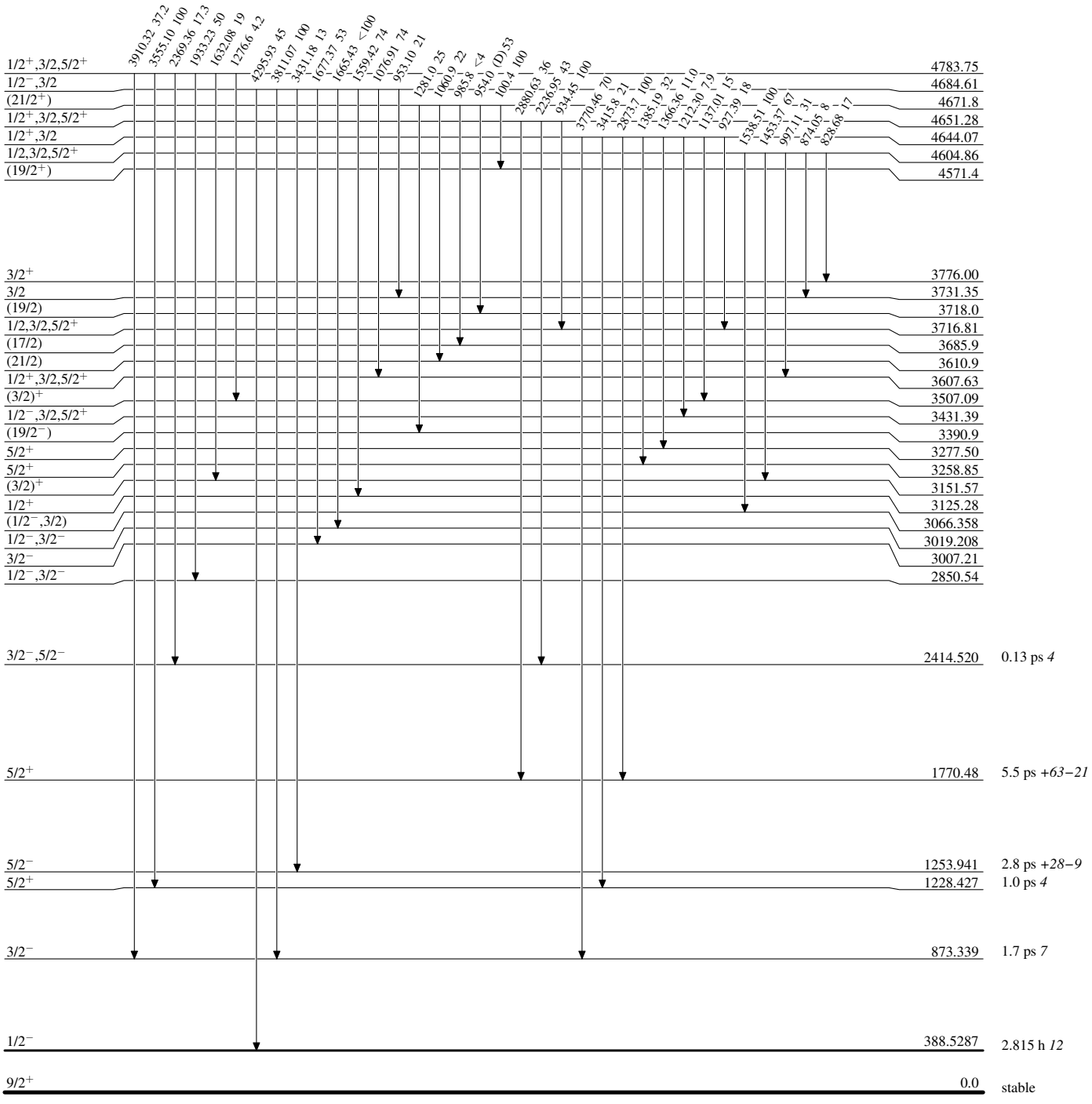


$^{87}_{38}Sr_{49}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

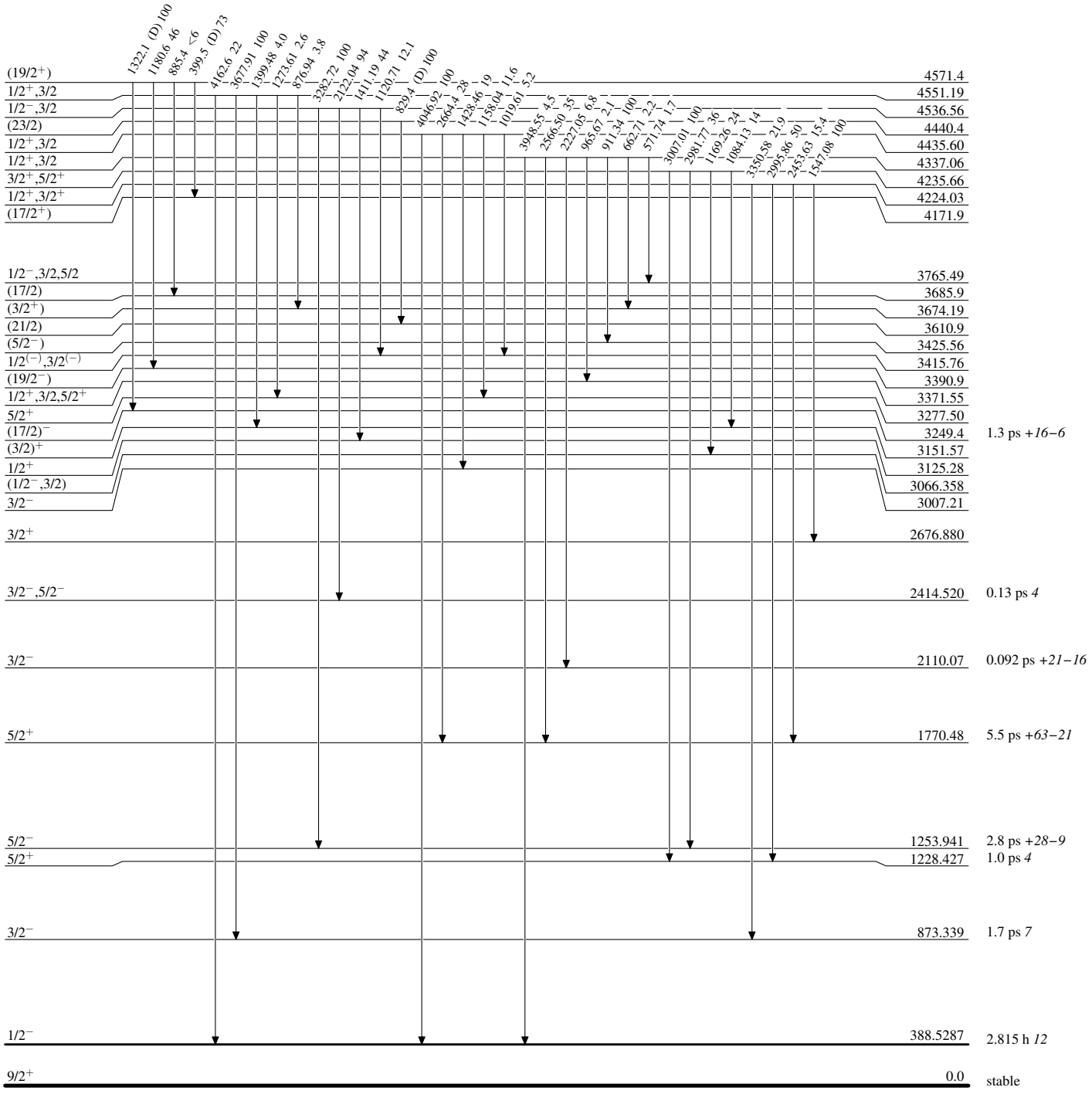


$^{87}_{38}Sr_{49}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

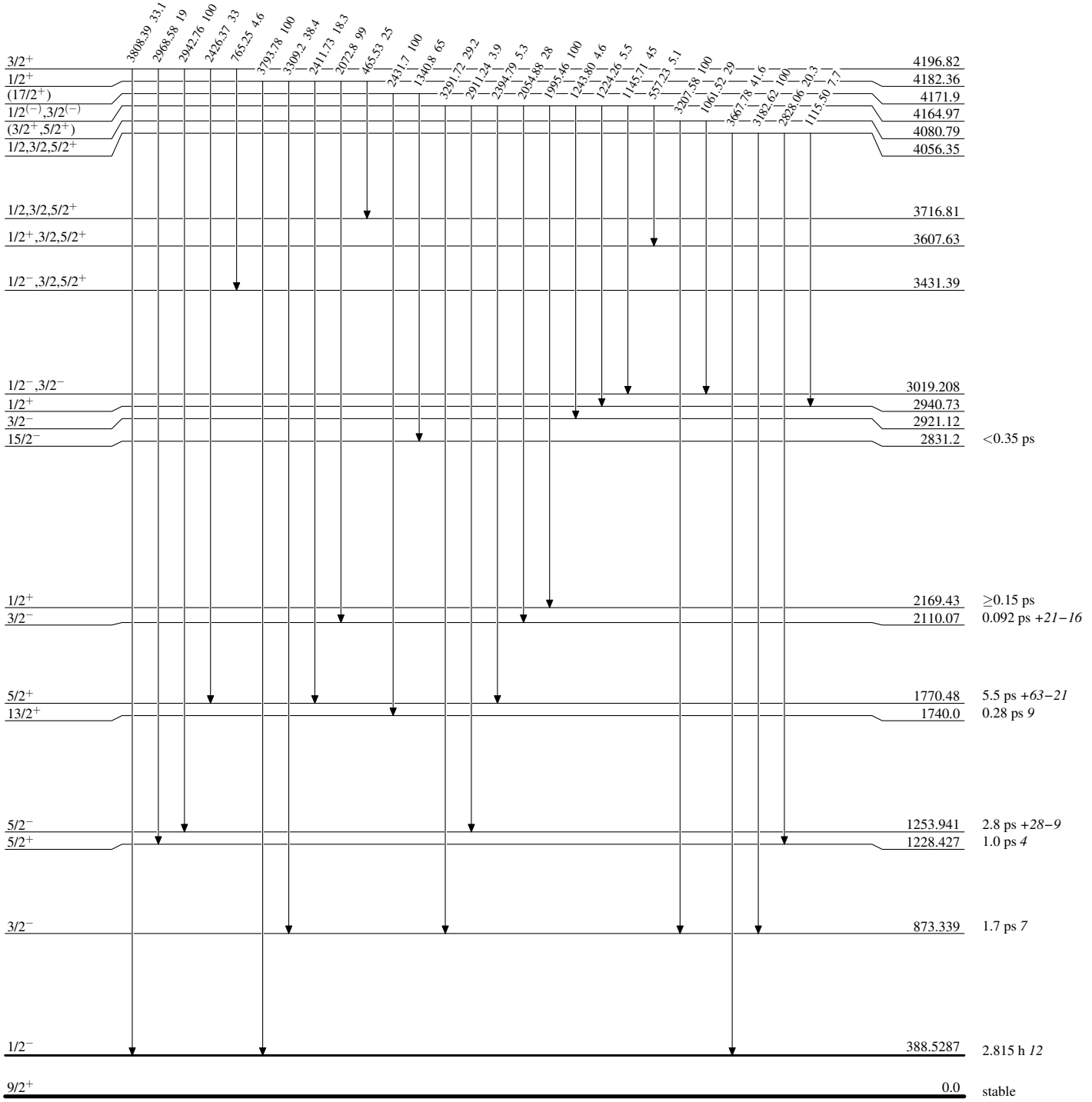


$^{87}_{38}Sr_{49}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

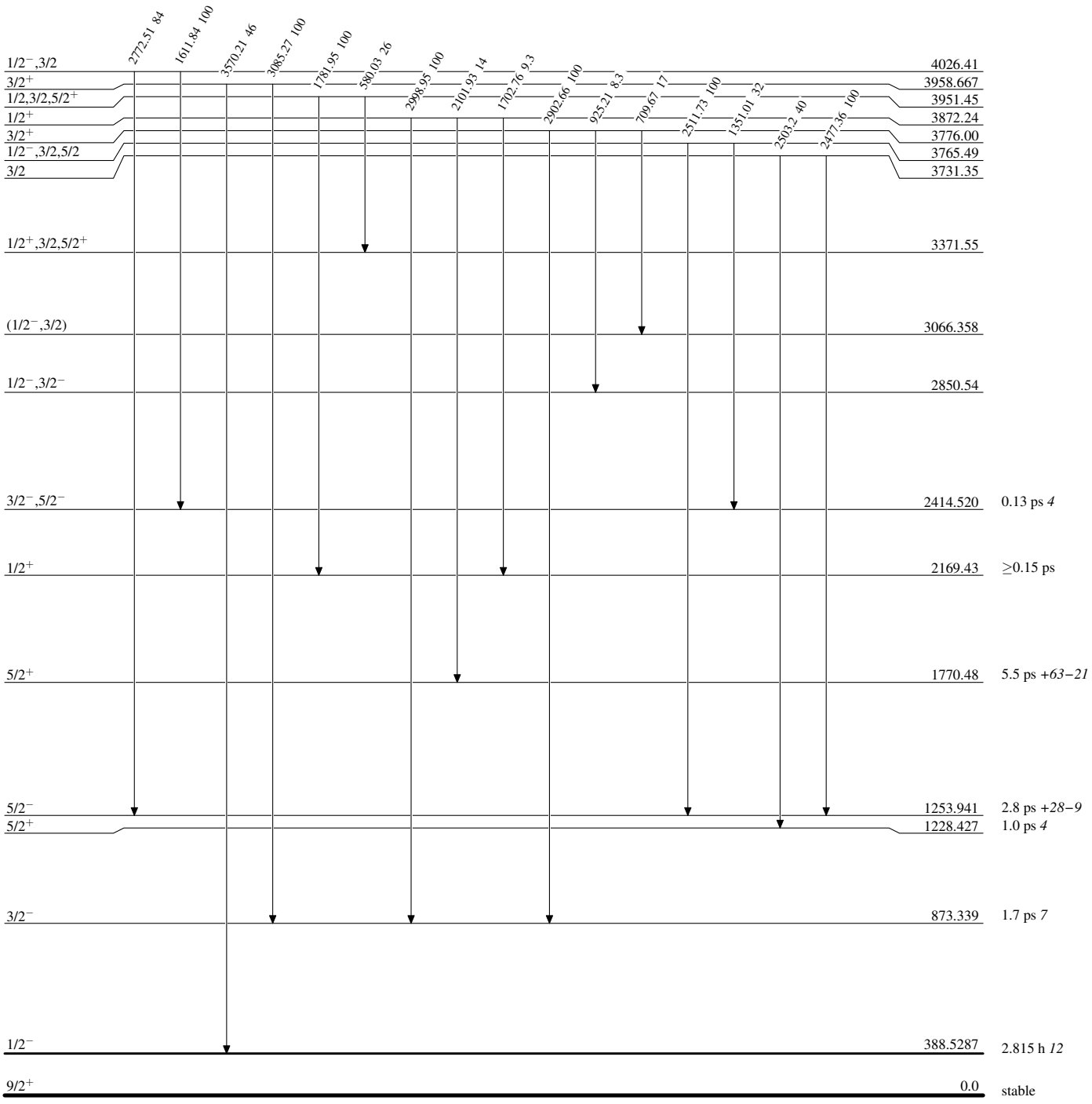


$^{87}_{38}Sr_{49}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

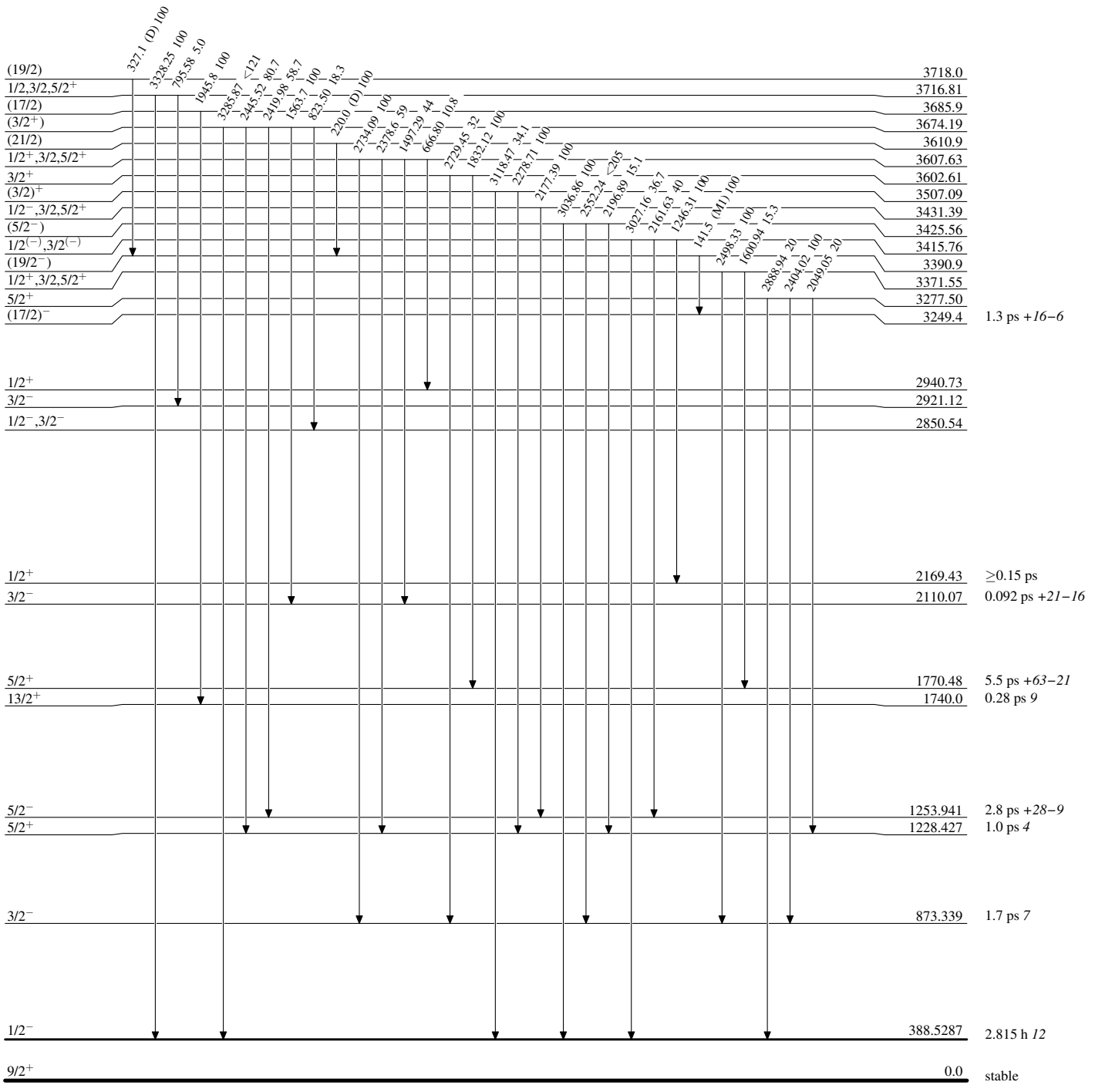


$^{87}_{38}Sr_{49}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

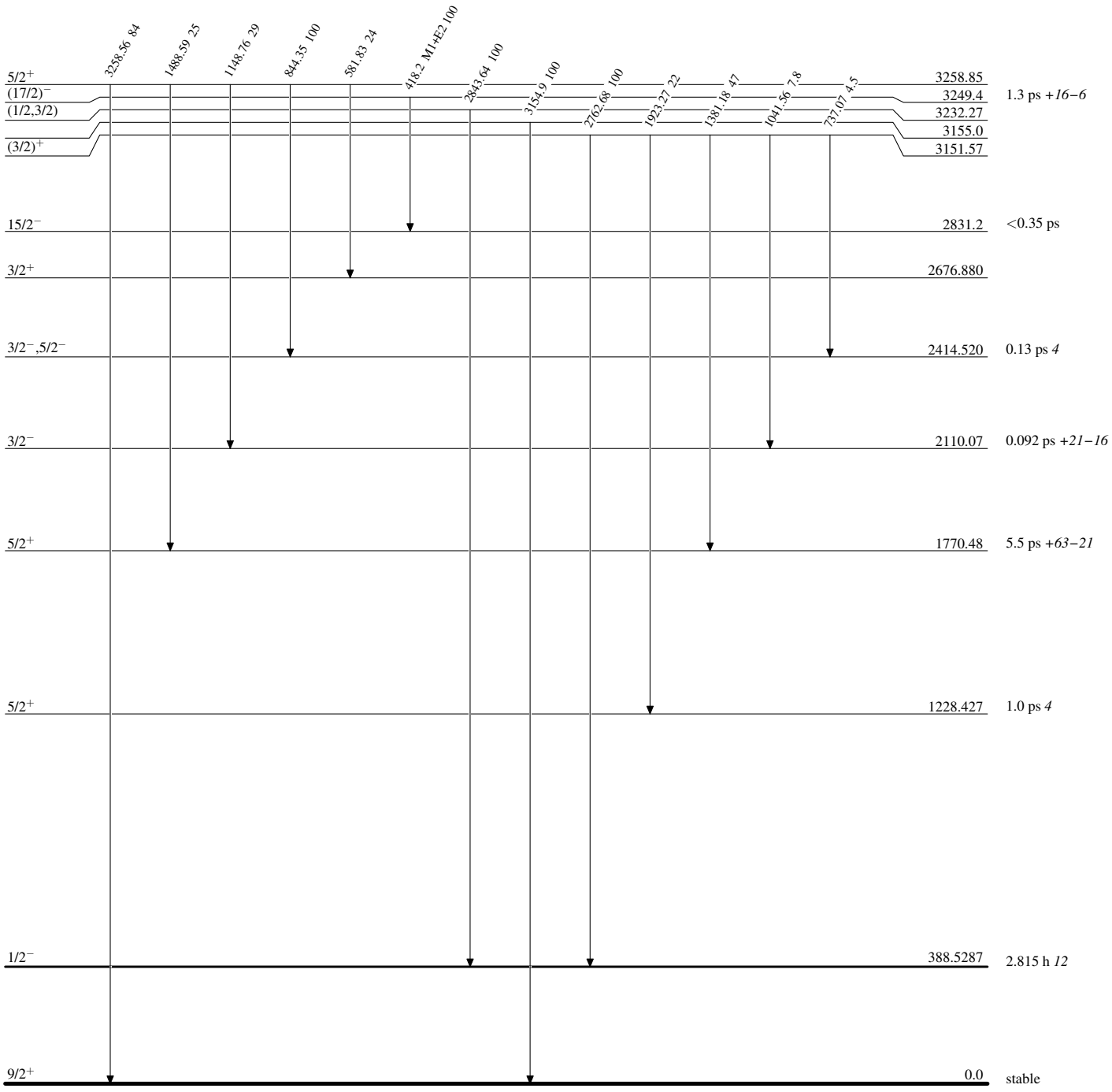


$^{87}_{38}Sr_{49}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

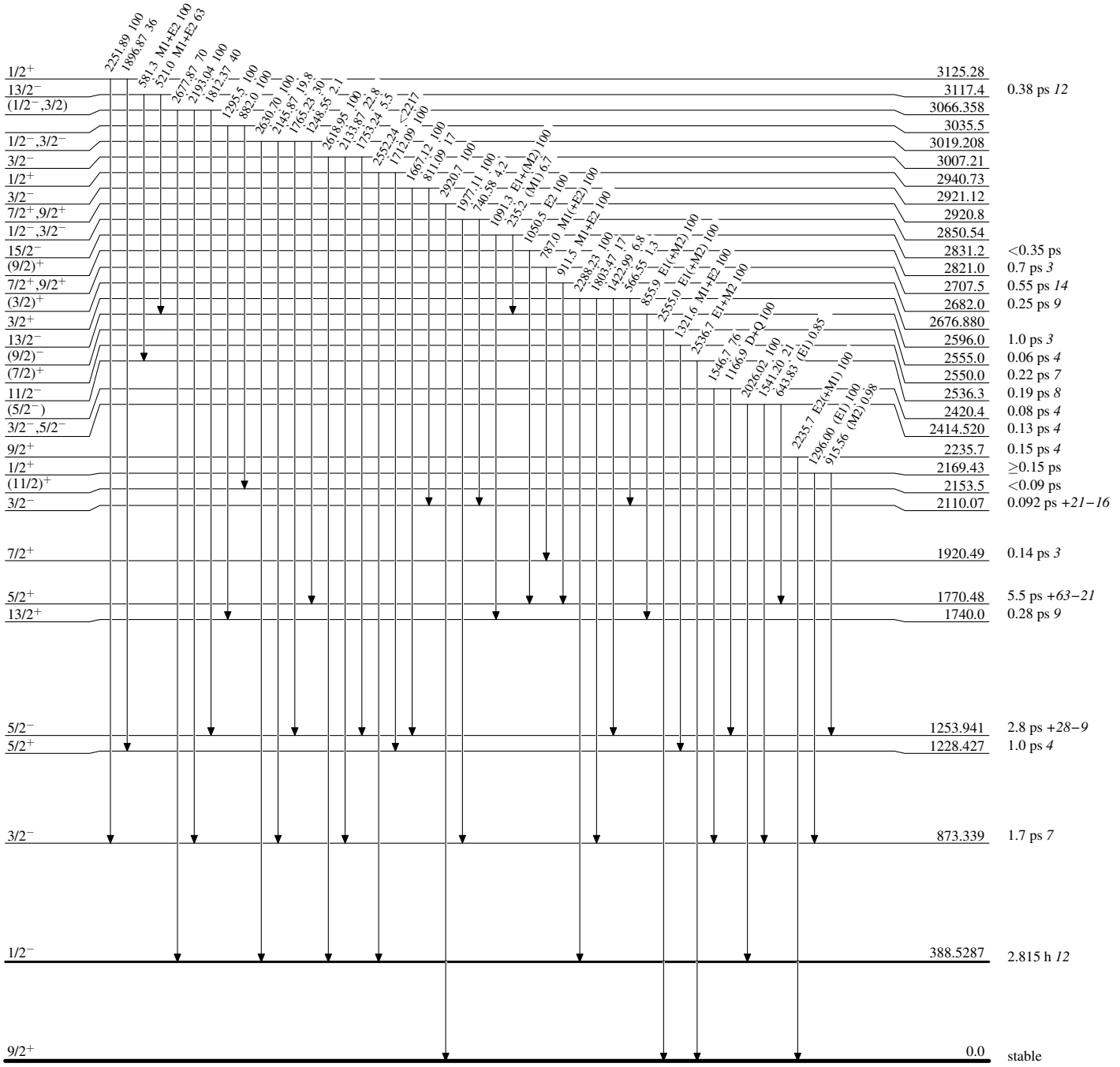


$^{87}_{38}Sr_{49}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

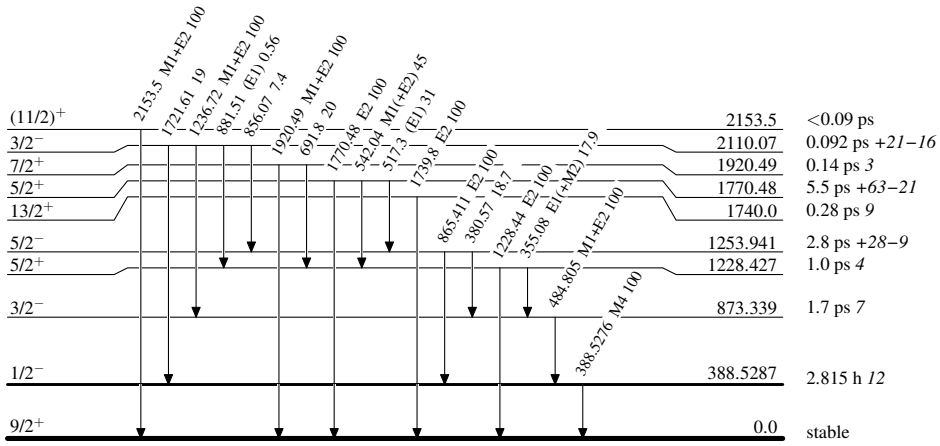


$^{87}_{38}Sr_{49}$

Adopted Levels, Gammas

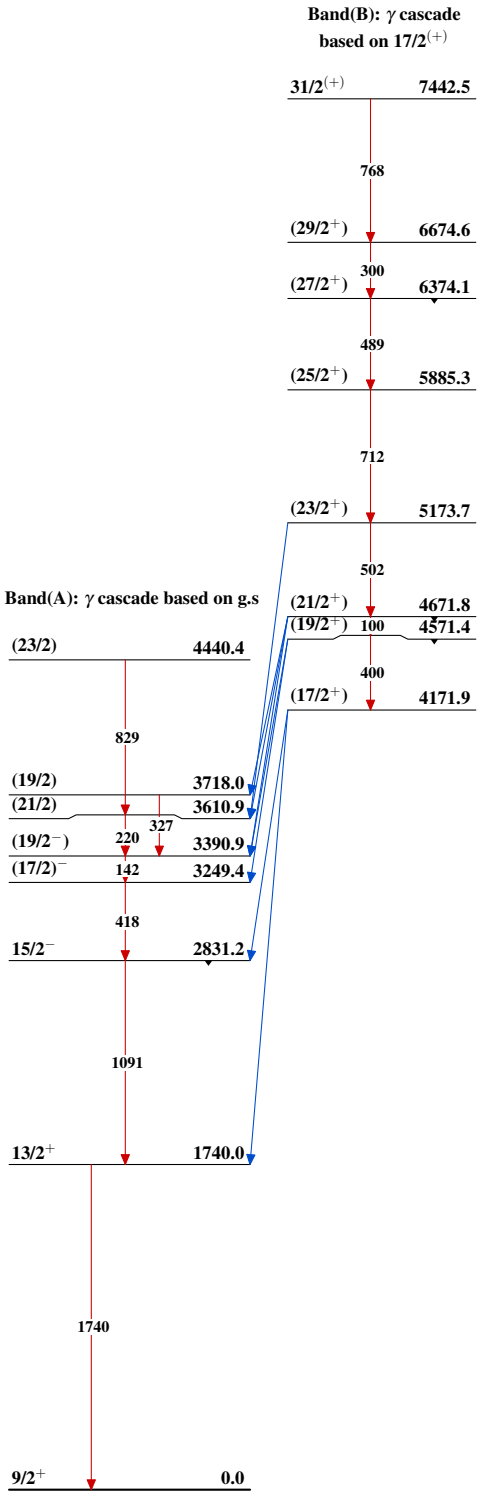
Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{87}_{38}Sr_{49}$

Adopted Levels, Gammas



$^{87}_{38}Sr_{49}$