Adopted Levels, Gammas

Type	Author	Citation	Literature Cutoff Date
	History		
Full Evaluation	John Cameron, Jun Chen and Balraj Singh, Ninel Nica	NDS 113,365 (2012)	15-Jan-2012

Q(β^-)=−813.87 *20*; S(n)=10310.82 *6*; S(p)=8386.37 *19*; Q(α)=−7849.1 *11* 2012Wa38
Note: Current evaluation has used the following Q record −813.87 2010310.87 *6* 8386.3919-7849.1 *11* 2011AuZZ.
S(2n)=18890.67 *6*, S(2p)=21481.7 *19* (2011AuZZ).
Values in 2003Au03: S(n)=10310.85 *7*, S(2n)=18890.64 *6*. Others are the same as in 2011AuZZ.

^{37}Cl Levels

Cross Reference (XREF) Flags

A	^{37}S β^- decay (5.05 min)	G	^{26}Mg(^{14}N,2pnγ)	M	^{37}Cl(n,n′γ)
B	^{37}Ar ε decay (35.011 d)	H	^{27}Al(^{12}C,2pγ)	N	^{37}Cl(p,p′γ),(p,p)
C	^{2}H(^{36}S,^{37}Clγ)	I	^{27}Al(^{19}F,2αpγ)	O	Coulomb excitation
D	^{3}H(^{35}Cl,pγ)	J	^{34}S(α,pγ),(α,p)	P	^{38}Ar(pol d,^{3}He),(d,^{3}He)
E	^{24}Mg(^{16}O,3pγ)	K	^{36}S(p,γ),(p,p)	Q	^{40}Ca(μ^-,ν2npγ)
F	^{24}Mg(^{18}O,αpγ)	L	^{36}Cl(n,p):resonance		

E(level)[†]	J$^\pi$[‡#]	T$_{1/2}$[a]	XREF	Comments
0	3/2$^+$	stable	ABCDEFGHIJK MNOPQ	μ=+0.6841236 *4* (1972Bl07,1989Ra17,2011StZZ) Q=−0.06493 *2* (1972St38,1989Ra17,2011StZZ) μ: using NMR method. Q: using the method atomic beam magnetic resonance. Others: −0.068 *10* (1986El09), −0.0644 *7* (1993Su36); also from 2005St24. J$^\pi$: L(pol d,^{3}He)=2 and L-1/2 from analyzing power. Nuclear rms charge radius=3.384 fm *17* (2004An14 evaluation); same value in 2008 update of 2004An14.
1726.58 *4*	1/2$^+$	0.13 ps *2*	A C JK MNOPQ	XREF: A(?). J$^\pi$: L(pol d,^{3}He)=0. T$_{1/2}$: weighted average of 0.13 ps *4* from (α,pγ), 0.143 ps *14* from (n,n′γ), 0.13 ps *3* from (p,p′γ) and 0.12 ps *2* from coulomb excitation.
3086.12 *7*	5/2$^+$	37 fs *8*	A E JK MN Q	J$^\pi$: from $\gamma(\theta)$ in (α,pγ) and (p,γ); negative parity is excluded by RUL in (α,pγ). T$_{1/2}$: weighted average of 23 fs *8* from (p,γ), 69 fs *20* from (n,n′γ), 46 fs *10* from (p,p′γ). Additional information 1.
3103.52 *2*	7/2$^-$	14.7 ps *12*	A CDEFGHIJK MN PQ	J$^\pi$: L(pol d,^{3}He)=3 and L+1/2 from analyzing power. T$_{1/2}$: weighted average of 14 ps *2* from ^{3}He(^{35}Cl,pγ), 15.2 ps *28* from ^{26}Mg(^{14}N,2pnγ), 13.6 ps *21* from ^{27}Al(^{12}C,2pγ), 11 ps *6* from (p,p′γ), 19 ps *3* from (α,pγ). Others: 33 ps *4* from (α,pγ); 1.5 ps *4* from (n,n′γ). Additional information 2.
3287.2 *11*			J	Additional information 3.
3626.82 *6*	3/2$^+$	31 fs *14*	A JK N PQ	J$^\pi$: L(pol d,^{3}He)=2 and L-1/2 from analyzing power. T$_{1/2}$: weighted average of 31 fs *16* from (α,pγ), 35 fs *14* from (p,γ) and 28 fs *14* from (p,p′γ). Additional information 4.
3707.79 *9*	3/2$^+$	44 fs *14*	A JK MN	J$^\pi$: from $\gamma(\theta)$ in (α,pγ) and (p,γ); negative parity is excluded by RUL′s in (p,γ). T$_{1/2}$: weighted average of 42 fs *17* from (α,pγ), 35 fs *14* from (p,γ) and 66 fs *21* from (p,p′γ). Additional information 5.
3741.19 *10*	5/2$^-$	21 fs *7*	A C JK N	J$^\pi$: from $\gamma(\theta)$ and γ-polarization in (α,pγ) and allowed β^- decay.

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Adopted Levels, Gammas (continued)

^{37}Cl Levels (continued)

E(level)[†]	Jπ[‡#]	$T_{1/2}$[a]	XREF	Comments
				$T_{1/2}$: weighted average of 22 fs *17* from (α,pγ) and 21 fs *7* from (p,γ). Additional information 6.
4009.99 *5*	9/2$^-$	22.8 ps *14*	A DEFGHIJK N	Jπ: from $\gamma(\theta)$ and γ-polarization in (α,pγ); R(ADO) in ^{24}Mg(^{16}O,3pγ). $T_{1/2}$: weighted average of 24 ps *3* from ^{3}H(^{35}Cl,pγ), 23.6 ps *14* from ^{26}Mg(^{14}N,2pnγ), 22.7 ps *14* from ^{27}Al(^{12}C,2pγ), 21 ps *2* from (α,pγ). Additional information 7.
4016.27 *9*	3/2$^+$	0.11 ps *4*	A JK N P	Jπ: L(pol d,^{3}He)=2 and L-1/2 from analyzing power; $\gamma(\theta)$ in (p,γ). $T_{1/2}$: weighted average of 0.10 ps *4* from (p,γ) and 0.13 ps *6* from (p,p′γ). 0.13 ps *+18−8* from (α,pγ). Additional information 8.
4176.64 *9*	3/2$^-$	0.8 ps *+14−4*	A JK N	Jπ: from $\theta(\theta)$ in (p,γ); positive parity is excluded by γ to 7/2$^-$. $T_{1/2}$: from (p,p′γ). Additional information 9.
4262 *12*	5/2$^+$		P	Jπ: L(pol d,^{3}He)=2 and L+1/2 from analyzing power.
4268.87 *9*	1/2	42 fs *14*	JK N	Jπ: from $\gamma(\theta)$ in (p,γ) and (p,p′γ). Additional information 10.
4272.58 *10*	7/2$^-$	76 fs *28*	A E JK N	Jπ: from $\gamma(\theta)$ in (p,γ), RUL′s exclude the positive parity; R(ADO) in ^{24}Mg(^{16}O,3pγ). $T_{1/2}$: from (p,γ). 0.19 ps *+21−7* from (p,p′γ). Additional information 11.
4396.32 *14*	5/2	13 fs *5*	A JK N	Jπ: from $\gamma(\theta)$ in (p,γ). $T_{1/2}$: from (p,γ). 0.19 ps *+12−7* from (α,pγ). Additional information 12.
4459.97 *15*	7/2$^-$	55 fs *20*	A E JK N	Jπ: from $\gamma(\theta)$ and RUL′s in (p,γ); R(ADO) in ^{24}Mg(^{16}O,3pγ). $T_{1/2}$: weighted average of 42 fs *31* from (α,pγ) and 60 fs *20* from (p,γ). Additional information 13.
4546.08 *6*	11/2$^-$	2.0 ps *6*	EFG IJK N	Jπ: from $\gamma(\theta)$ and γ-polarization in (α,pγ). $T_{1/2}$: weighted average of 3.3 ps *8* from ^{26}Mg(^{14}N,2pnγ) and 1.7 ps *4* from (α,pγ). Additional information 14.
4801.21 *11*	5/2$^+$	<7 fs	K P	XREF: P(4813). Jπ: L(pol d,^{3}He)=2 and L+1/2 from analyzing power. Additional information 15.
4810.9 *3*	7/2	>0.35 ps	JK N	Jπ: from $\gamma(\theta)$ in (p,γ) and (α,pγ). Additional information 16.
4837.61 *10*	5/2	4 fs *2*	K	Jπ: from $\gamma(\theta)$ in (p,γ).
4853.96 *13*	3/2	<3.5 fs	JK	Jπ: from $\gamma(\theta)$ in (p,γ). $T_{1/2}$: from (p,γ). 87 fs *35* from (α,pγ). Additional information 17.
4903.91 *15*	7/2$^+$	24 fs *10*	E K	Jπ: from $\gamma(\theta)$ and RUL′s in (p,γ); R(ADO) in ^{24}Mg(^{16}O,3pγ). $T_{1/2}$: from (p,γ). Additional information 18.
4920.87 *15*	9/2$^-$	55 fs *31*	E J N	Jπ: from R(ADO) in ^{24}Mg(^{16}O,3pγ) and Hauser-Feshbach analysis in (α,pγ). $T_{1/2}$: from (α,pγ). Additional information 19.
4923 *4*	(5/2$^-$,7/2)	<0.14 ps	J	Jπ: from Hauser-Feshbach analysis in (α,pγ).

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Adopted Levels, Gammas (continued)

^{37}Cl Levels (continued)

E(level)†	Jπ‡#	$T_{1/2}$a	XREF	Comments
				$T_{1/2}$: from (α,pγ).
				Additional information 20.
4960.8 *5*	3/2	14 fs *6*	K	Jπ: from $\gamma(\theta)$ in (p,γ).
				$T_{1/2}$: from (p,γ).
4974 *3*			J	Additional information 21.
5009.3 *8*	(1/2 to 7/2$^+$)	5 fs *3*	K	Jπ: γ to 3/2$^+$.
				$T_{1/2}$: from (p,γ).
5055.2 *5*	(1/2 to 5/2$^+$)		K	Jπ: γ to 1/2$^+$.
5059.1 *7*	(3/2$^-$ to 7/2$^+$)		JK N	Jπ: γ's to 3/2$^+$ and 7/2$^-$.
				Additional information 22.
5143? *5*			K	
5228.7 *7*	(1/2 to 7/2$^+$)	<7 fs	K	Jπ: γ to 3/2$^+$.
				$T_{1/2}$: from (p,γ).
5270.95 *8*	13/2$^-$	2.0 ps *3*	EFGHIJ N	Jπ: from $\gamma(\theta)$ and γ-polarization in (α,pγ).
				$T_{1/2}$: weighted average of 3 ps *1* from ^{26}Mg(^{14}N,2pnγ), 1.9 ps *3* from (α,pγ).
				Additional information 23.
5283 *3*	(1/2 to 5/2$^+$)		K	Jπ: γ to 1/2$^+$.
5307.4 *5*	(1/2$^+$ to 5/2$^+$)		JK	Jπ: γ's to 1/2$^+$ and 5/2$^+$.
				Additional information 24.
5317.1 *7*	(3/2 to 7/2$^+$)		JK	Jπ: γ's to 3/2$^+$, 5/2$^+$ and 5/2$^-$.
5350 *20*			N	Additional information 25.
5372.5 *6*	(1/2$^-$ to 5/2$^+$)		K	Jπ: γ's to 1/2$^+$ and 5/2$^-$.
5379 *4*	(3/2$^-$,5/2,9/2)	104 fs *38*	J	Jπ: from $\gamma(\theta)$ in (α,pγ) and γ to 7/2$^-$.
				Additional information 26.
5407 *20*	(1/2,3/2)		J	Jπ: from $\gamma(\theta)$ in (α,pγ).
				Additional information 27.
5490.68 *11*	5/2$^+$	15 fs *6*	K P	XREF: P(5516).
				Jπ: L(pol d,^{3}He)=2 and L+1/2 from analyzing power.
				Additional information 28.
5528.4 *6*	9/2	0.21 ps *7*	K	Jπ: from $\gamma(\theta)$ in (p,γ).
5547.17 *9*	11/2$^-$@	0.14 ps *5*	E J	Additional information 29.
5570.1 *3*	(3/2$^-$ to 7/2)	12 fs *6*	K	Jπ: γ's to 5/2$^+$, 5/2$^-$ and 7/2$^-$.
5595.05 *10*	9/2$^+$@		E J	Additional information 30.
5617.9 *9*	(1/2$^-$ to 9/2$^-$)		K	Jπ: γ's to 3/2$^+$, 5/2$^-$.
5645.3 *3*	3/2$^+$,5/2$^+$	<8 fs	K	Jπ: from $\gamma(\theta)$, γ-decays and γ-feedings in (p,γ).
5700.9 *5*	9/2$^-$	<0.2 ps	JK	Jπ: from $\gamma(\theta)$, γ-decays and γ-feedings in (p,γ) and (α,pγ).
				Additional information 31.
5705.33 *7*	11/2$^-$@	0.16 ps *5*	E	Additional information 32.
5726.3 *3*	7/2$^-$	15 fs *6*	K	Jπ: from $\gamma(\theta)$, γ-decays and γ-feedings in (p,γ).
5909.3 *6*	(3/2$^-$ to 9/2$^+$)		K	Jπ: γ's to 7/2$^-$, 5/2$^+$.
5915.0 *5*	(1/2$^-$ to 7/2$^-$)		K	Jπ: γ's to 1/2$^+$, 5/2$^-$.
5931 *4*	(3/2$^-$ to 9/2)		J	Jπ: from $\gamma(\theta)$ in (α,pγ) and γ to 7/2$^-$.
				Additional information 33.
5944 *2*	(1/2 to 9/2$^-$)		K	Jπ: γ to 3/2$^+$.
5978 *2*	5/2$^+$		K P	Jπ: L(pol d,^{3}He)=2 and L+1/2 from analyzing power.
				Additional information 34.
5985.9 *8*	(1/2$^+$ to 5/2)		K	Jπ: γ's to 3/2$^+$, 5/2$^+$ and γ-feeding.
6000.5 *9*	13/2		I	Jπ: from $\gamma(\theta)$ in ^{27}Al(^{19}F,2αpγ).
				Additional information 35.
6015.3 *5*	(3/2,5/2)	6 fs *5*	K	Jπ: from $\gamma(\theta)$ in (p,γ).
6042.2 *5*	(1/2 to 5/2)	14 fs *8*	K	Jπ: from γ-feeding in (p,γ).
6046.17 *8*	11/2$^+$@	>1.4 ps	E IJ	Additional information 36.

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Adopted Levels, Gammas (continued)

^{37}Cl Levels (continued)

E(level)[†]	Jπ[‡#]	$T_{1/2}$[a]	XREF	Comments
6196.42 *24*	11/2$^-$ [@]	0.22 ps *6*	E J	Additional information 37.
6305.1 *8*	(1/2 to 7/2$^-$)		K	Jπ: γ to 1/2$^+$.
6323.8 *4*	(3/2 to 7/2)		K	Jπ: γ to 5/2$^+$, 5/2$^-$.
6358 *3*	(1/2$^+$ to 7/2$^+$)		K	Jπ: γ to 3/2$^+$ and 5/2$^+$.
6372 *2*	5/2$^+$		K P	Jπ: L(pol d,^{3}He)=2 and L+1/2 from analyzing power. Additional information 38.
6415 *2*	(1/2 to 5/2$^+$)		K	Jπ: γ to 1/2$^+$.
6488.3 *8*	(3/2 to 9/2$^-$)		K	Jπ: γ to 3/2$^+$.
6601 *5*	(7/2$^-$ to 13/2$^-$)		J	Jπ: γ's to 9/2$^-$, 11/2$^-$. Additional information 39.
6668.9 *8*	3/2$^+$,5/2$^+$		K P	Jπ: L(d,^{3}He)=2. Additional information 40.
6701.8 *4*	5/2$^+$	<3.5 fs	K P	XREF: P(6714). Additional information 41. Jπ: L(pol d,^{3}He)=2 and L+1/2 from analyzing power.
6732 *5*	(1/2 to 9/2$^-$)		K	Jπ: γ to 3/2$^+$.
6799.55 *9*	13/2$^+$ [@]	0.41 ps *7*	E	
7020.49 *9*	15/2$^+$	2.1 ps *10*	E HIJ	Jπ: from γ(θ) in ^{27}Al(^{19}F,2αpγ) and (α,pγ); R(ADO) in ^{24}Mg(^{16}O,3pγ). Additional information 42.
7079.4 *12*	5/2$^+$		K P	Jπ: L(pol d,^{3}He)=2 and L+1/2 from analyzing power. Additional information 43.
7150 *2*	(1/2 to 9/2$^-$)		K	Jπ: γ to 3/2$^+$.
7200 *4*	(7/2$^-$ to 15/2$^-$)		J	Jπ: γ to 11/2$^-$. Additional information 44.
7224.4 *5*	(5/2,3/2$^+$)	<7 fs	K	Jπ: γ(θ), γ-decays and γ-feedings in (p,γ).
7254.5 *18*	(1/2 to 9/2$^-$)		K	Jπ: γ to 3/2$^+$.
7269.2 *4*	13/2$^+$ [@]		E	Additional information 45.
7300 *2*	5/2$^+$		K P	XREF: P(7323). Jπ: L(pol d,^{3}He)=2 and L+1/2 from analyzing power. Additional information 46.
7452.97 *8*	15/2$^-$ [@]	0.13 ps *4*	E	Additional information 47.
7561.47 *18*	13/2$^+$ [@]		E	Additional information 48.
7686.8 *5*	(1/2 to 9/2$^-$)	13 fs *5*	K	Jπ: γ to 3/2$^+$.
7735 *10*	(7/2$^-$ to 15/2$^-$)		J	Jπ: γ to 11/2$^-$. Additional information 49.
7857.88 *15*	15/2$^+$ [@]	0.85 ps *15*	E	Additional information 50.
7924 *20*	1/2$^-$		P	Jπ: L(pol d,^{3}He)=1 and L-1/2 from analyzing power. Additional information 51.
7987 *20*	(7/2$^-$ to 15/2$^-$)		J	Jπ: γ to 11/2$^-$. Additional information 52.
8071.0 *3*	15/2$^-$ [@]		E	Additional information 53.
8177.5 *14*	5/2$^+$		I P	Jπ: L(pol d,^{3}He)=2 and L+1/2 from analyzing power. Additional information 54.
8530.10 *13*	15/2$^+$ [@]		E	Additional information 55.
8670.7 *11*	15/2$^-$ [@]		E J	Additional information 56.
8702.18 *20*	17/2$^+$ [@]		E	Additional information 57.
8715.4 *15*	15/2$^-$ [@]		E	Additional information 58.
8812.18 *18*	17/2$^+$ [@]	0.38 ps *11*	E	Additional information 59.
8884.5 *5*	(1/2 to 7/2$^-$)		K	Jπ: γ to 1/2$^+$.
8911.09 *13*	19/2$^-$	0.68 ps *8*	A E	Additional information 60.
8928.8 *5*	(1/2 to 9/2$^-$)		K	Jπ: γ to 3/2$^+$.

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Adopted Levels, Gammas (continued)

^{37}Cl Levels (continued)

E(level)[†]	Jπ[‡#]	XREF		Comments
8938.2 *5*	(1/2 to 9/2$^-$)	K		Jπ: γ to 3/2$^+$.
8948.94 *28*		K		
8987.85 *28*	(1/2 to 9/2$^-$)	K		Jπ: γ to 3/2$^+$.
9027.15 *28*	(3/2,5/2$^+$)	K		Jπ: from γ(θ), γ-decays and γ-feedings in (p,γ).
9034.83 *28*		K		
9046.31 *28*	3/2	K		Jπ: from γ(θ) in (p,γ).
9066.06 *28*	3/2	K		Jπ: from γ(θ) in (p,γ).
9090.7 *4*		K		
9100.39 *28*	(1/2,3/2,5/2$^+$)	K		Jπ: from γ(θ) and γ-decays in (p,γ).
9112.26 *28*	(1/2,3/2,5/2$^+$)	K		Jπ: from γ(θ) and γ-decays in (p,γ).
9133.86 *28*	3/2	K		Jπ: from γ(θ) and γ-decays in (p,γ).
9137.65 *28*	3/2	K		Jπ: from γ(θ) and γ-decays in (p,γ).
9147.18 *28*	(1/2 to 9/2$^-$)	K		Jπ: γ to 3/2$^+$.
9169.4 *7*	17/2$^+$	E K		Jπ: from R(ADO) in ^{24}Mg(^{16}O,3pγ). Additional information 61.
9170.92 *28*	(1/2 to 7/2$^-$)	K		Jπ: γ to 1/2$^+$. E(level): Doublet of 9170.04 and 9170.92 in (p,γ).
9187.55 *28*	(1/2$^+$,3/2,5/2$^+$)	K		Jπ: from γ(θ) and γ-decays in (p,γ).
9194 *3*		K		
9203.31 *28*	3/2$^+$,5/2$^+$	K		Jπ: from γ(θ) and γ-decays in (p,γ).
9208.76 *28*	3/2$^+$,5/2$^+$	K		E(level): possible doublet of 9203.31. Jπ: from the level of 9203.31.
9215.37 *28*	3/2	K		Jπ: from γ(θ) and γ-decays in (p,γ).
9220.92 *28*	1/2[&]	K		
9234.63 *28*	(1/2$^+$,3/2,5/2$^+$)[&]	K		
9260.51 *28*	5/2$^+$	K	P	XREF: P(9264). Jπ: 3/2,5/2$^+$ from γ(θ) and RUL′s of γ-decays in (p,γ); L(d,p)=2 and L+1/2 from A_y(θ) from (pol d,p).
9285.21 *28*	1/2[&]	K		
9293.58 *28*	(3/2$^-$,5/2,7/2$^+$)[&]	K		
9297.57 *28*	(3/2$^-$,5/2$^+$)[&]	K		
9300.19 *28*	3/2[&]	K		
9309.83 *28*	(1/2$^+$,3/2,5/2$^+$)[&]	K		
9326.95 *28*	(1/2$^+$,3/2,5/2$^+$)[&]	K		
9329.18 *28*	(3/2,5/2)[&]	K		
9341.15 *28*	(1/2,3/2)[&]	K		
9355.45 *28*	(3/2$^-$,5/2,7/2$^+$)[&]	K		
9360.60 *28*		K		
9373.25 *28*	5/2[&]	K		
9377.63 *28*	(1/2 to 5/2$^+$)[&]	K		
9385.41 *28*		K		
9386.77 *28*		K		
9393.38 *28*	(1/2$^+$,3/2,5/2$^+$)[&]	K		
9402.82 *28*		K		
9411.87 *28*		K		
9428.71 *21*	17/2$^-$ [@]	E		Additional information 62.
9434.92 *28*	5/2	K		E(level): possible doublet of 9435.79. Jπ: from the level of 9435.79.
9435.79 *28*	5/2[&]	K		
9436.48 *28*		K		
9448.25 *28*	(1/2$^+$,3/2,5/2$^+$)[&]	K		

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Adopted Levels, Gammas (continued)

^{37}Cl Levels (continued)

E(level)[†]	Jπ[‡#]	$T_{1/2}$[a]	XREF	Comments
9452.53 *28*	(1/2$^+$,3/2,5/2$^+$)		K	
9461.96 *28*	5/2[&]		K P	XREF: P(9465). E(level): 9465 *71* in (d,p) is arbitrarily associated with 9461.96 level. L(d,p)=2 and L+1/2 from analyzing powers gives 5/2$^+$ for this level or any of the other levels in vicinity.
9473.54 *28*	(1/2,3/2,5/2$^+$)[&]		K	
9475.97 *28*	3/2		K	
9494.65 *28*	(3/2,5/2$^+$)[&]		K	
9500.09 *28*	5/2$^+$[&]		K	
9501.16 *28*	(3/2$^-$,5/2,7/2$^+$)[&]		K	
9509 *3*			K	
9518.09 *28*	(1/2,3/2,5/2$^+$)[&]		K	
9522.08 *28*			K	
9546.69 *28*	(5/2,7/2$^+$)[&]	0.41 eV *7*	K	
9548.44 *28*			K	
9549.12 *28*			K	
9563 *2*			K	
9568 *2*			K	
9572.37 *28*	1/2[&]		K	
9581.9 *3*			K	
9587.7 *3*			K	
9592.4 *3*			K	
9613.3 *3*			K	
9614.1 *3*			K	
9616.5 *3*			K	
9620 *2*			K	
9622.0 *3*			K	
9634.4 *3*			K	
9642.5 *3*			K	
9643.3 *3*			K	
9647.3 *3*			K	
9657.6 *4*			K	
9659.1 *4*			K	
9670.9 *4*			K	
9671.3 *4*			K	
9698.4 *4*			K	
9700.2 *4*			K	
9707.4 *4*			K	
9712.1 *4*			K	
9712.9 *4*			K	
9718.8 *4*			K	
9722.4 *4*			K	
9726.5 *4*			K	
9727.8 *4*			K	
9734.8 *4*			K	
9744.4 *4*			K	
9751.1 *4*			K	
9758.2 *4*			K	
9764.4 *4*			K	
9768.6 *4*	7/2[&]		K	
9772 *2*			K	
9776.0 *4*			K	
9777.9 *4*			K	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{37}Cl Levels (continued)

E(level)†	Jπ‡#	XREF	Comments
9781.3 *4*		K	
9784 *2*		K	
9795.3 *5*	19/2+ @	E K	Additional information 63.
9803.7 *4*		K	
9807.5 *4*		K	
9809.9 *4*		K	
9812.7 *4*		K	
9815.4 *4*	(1/2 to 5/2)&	K	
9818 *3*		K	
9822.3 *4*		K	
9827.9 *4*		K	
9833.5 *4*		K	
9838.2 *4*		K	
9841.2 *3*		K	
9845.6 *4*	(3/2,5/2)&	K	
9858.6 *4*		K	
9859.7 *4*		K	
9864 *2*		K	
9868.5 *4*		K	
9872 *2*		K	
9875.3 *4*		K	
9887.6 *4*		K	
9893.4 *4*		K	
9898.2 *4*		K	
9904.7 *4*		K	
9911.7 *4*		K	
9912.4 *4*		K	
9928.5 *4*		K	
9932.7 *4*		K	
9940.6 *4*		K	
9944.7 *4*		K	
9949.4 *3*		K	
9953.7 *4*		K	
9960.3 *3*		K	
9974.4 *3*		K	
9983.8 *3*		K	
9986.3 *3*		K	
9987.2 *3*		K	
9992.1 *3*		K	
9995.6 *3*		K	
10001.8 *3*		K	
10010.6 *3*		K	
10018.2 *3*		K	
10025.7 *3*		K	
10029.4 *3*		K	
10041.0 *3*		K	
10042.8 *3*		K	
10049.0 *3*		K	
10050.3 *3*		K	
10058.8 *3*		K	
10060.1 *3*		K	
10068.1 *3*		K	
10071.4 *3*		K	
10080.7 *3*	(3/2,5/2)&	K	
10084.8 *3*		K	
10086.2 *3*		K	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{37}Cl Levels (continued)

E(level)†	Jπ‡#	XREF		Comments
10091.9 *3*			K	
10096.4 *3*			K	
10103.0 *4*	17/2+@	E	K	Additional information 64.
10105.4 *3*			K	
10109.0 *3*			K	
10116 *3*			K	
10123 *3*			K	
10137.1 *3*			K	
10139.9 *4*			K	
10142.5 *4*			K	
10144.0 *4*			K	
10151.4 *4*			K	
10169.3 *4*			K	
10174.9 *4*	(1/2 to 5/2+)&		K	
10179.6 *4*			K	
10183.2 *4*	7/2&		K	
10184.5 *4*	(1/2+,3/2,5/2+)&		K	
10190.9 *4*	(3/2,5/2+)&		K	
10197.3 *4*			K	
10200.7 *4*			K	
10201.3 *4*			K	
10207.8 *4*	3/2&		K	
10212.4 *4*			K	
10217.7 *4*			K	
10220.6 *4*	(3/2−,5/2+)&		K	
10221.9 *4*	7/2−&		K	T=5/2
10225.8 *4*	(3/2−,5/2,7/2+)&		K	
10227.6 *4*	(3/2−,5/2+)&		K	
10233.6 *4*	(1/2+,3/2,5/2+)&		K	
10236.1 *4*	7/2&		K	
10247.5 *4*			K	
10251.3 *4*			K	
10255.3 *4*	(3/2,5/2)&		K	
10258.2 *4*	(3/2−,5/2,7/2+)&		K	
10262.7 *4*	(3/2−,5/2,7/2+)&		K	
10268.5 *4*	1/2&		K	
10273.2 *4*	3/2&		K	
10275.3 *4*	7/2−&		K	
10285.8 *4*	(1/2+,3/2,5/2+)&		K	
10289.8 *4*			K	
10292.7 *4*			K	
10294.5 *4*	3/2&		K	
10296.9 *4*	(5/2−,7/2+)&		K	
10305.2 *4*	(1/2,3/2,5/2+)&		K	
10308.1 *4*	19/2−@	E	K	Additional information 65.
10312.3 *4*	3/2+,5/2+&		KL	
10314.5 *4*	(1/2+,3/2,5/2+)&		KL	
10318.3 *4*			KL	
10322 *3*			K	

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Adopted Levels, Gammas (continued)

^{37}Cl Levels (continued)

E(level)†	Jπ‡#	XREF
10346 *3*	(3/2,5/2)&	K
10361 *3*		K
10369 *3*		K
10392 *3*		K
10413 *3*	(3/2,5/2)&	K
10424 *3*		K
10454 *3*		K
10459 *3*		K
10489 *3*		K
10494 *3*		K
10497 *3*		K
10514 *3*		K
10522 *3*		K
10528 *3*		K
10532 *3*		K
10539 *3*		K
10556 *3*		K
10559 *3*		K
10564 *3*		K
10567 *3*		K
10571.3 *5*	19/2+@	E
10575 *3*		K
10587 *3*		K
10593 *3*		K
10598 *3*		K
10713		K
10748		K
10778		K
10962.81 *21*	21/2−@	E
11398.9 *4*	23/2−@	E
11432.6 *5*	21/2+@	E
11974.1 *14*	(21/2+)@	E
12476.2 *7*	23/2−@	E
13841.1 *8*	25/2−@	E
13843.1 *9*	(25/2+)@	E
15448 *3*	(27/2−)@	E
17008.9 *13*	(29/2+)@	E

† From adopted Eγ′s when measured γ-ray energies are available. In other cases weighted averages are taken of values available from different reactions.

‡ In particle-transfer reactions, target $J^\pi=0^+$ for ^{34}S in (α,p) reaction, $J^\pi=0^+$ for ^{38}Ar in (d,^{3}He) reaction.

From analyzing power measurement or/and from angular distribution and linear polarization measurements of γ-rays. In particle-transfer reactions, target $J^\pi=0^+$ for ^{34}S in (α,p) reaction, $J^\pi=0^+$ for ^{38}Ar in (d,^{3}He) reaction. When assigning J^π to a level based on γ transitions from this level to a level of known J^π, evaluators use the following rules: if Eγ<4 MeV, transitions are only considered to be E1,M1 or E2; if Eγ>4 MeV, M2 and E3 are considered to be possible.

@ From R(ADO) in ^{24}Mg(^{16}O,3pγ).

& From γ(θ) and RUL′s of γ-decays in (p,γ).

a $T_{1/2}$ from measurements using DSAM (Doppler-Shift-Attenuation -Method) and/or RDM (Recoil-Distance-Method) in (α,pγ), (p,γ), (p,p′γ), (n,n′γ), (HI,xnγ) and Coulomb excitation. Weighted averages taken when available.

Adopted Levels, Gammas (continued)

γ(^{37}Cl)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
1726.58	1/2$^+$	1726.4 *2*	100	0	3/2$^+$	M1+E2	−0.25 *2*	B(M1)(W.u.)=0.031 *5*; B(E2)(W.u.)=2.3 *5* Additional information 66.
3086.12	5/2$^+$	1359.5	<0.50	1726.58	1/2$^+$			Additional information 67.
		3086.2 *2*	100	0	3/2$^+$	M1+E2	+0.74 *2*	B(M1)(W.u.)=0.013 *3*; B(E2)(W.u.)=2.6 *6* Additional information 68.
3103.52	7/2$^-$	1377.0	<0.10	1726.58	1/2$^+$			Additional information 69.
		3103.37 *2*	100	0	3/2$^+$	M2+E3	+0.18 *1*	B(M2)(W.u.)=0.62 *5*; B(E3)(W.u.)=11.1 *15* δ: weighted average of +0.16 *3* from ^{26}Mg(^{14}N,2pnγ), +0.12 *3* from ^{27}Al(^{19}F,2αpγ), +0.18 *1* from (α,pγ) and (p,γ). Additional information 70.
3287.2		3285 *3*		0	3/2$^+$			Additional information 71.
3626.82	3/2$^+$	523.2	<0.88	3103.52	7/2$^-$			Additional information 72.
		540.7	<1.8	3086.12	5/2$^+$			Additional information 73.
		1900.2	75 *4*	1726.58	1/2$^+$	D(+Q)	+0.033 *10*	δ: or +3.5 *11*. Additional information 74.
		3626.1 *8*	100 *4*	0	3/2$^+$	D(+Q)	+0.018 *10*	δ: from (p,γ), or +3.6 *2*. Others: +0.12 *9* or +2.5 *8* from (α,pγ). Additional information 75.
3707.79	3/2$^+$	604	<1.4	3103.52	7/2$^-$			Additional information 76.
		621.7	13.7 *14*	3086.12	5/2$^+$	D+Q	+0.19 *16*	Additional information 77.
		1981.2	23 *4*	1726.58	1/2$^+$	M1+E2	+1.1 *4*	B(M1)(W.u.)=0.005 *3*; B(E2)(W.u.)=5 *3* δ: from (p,γ), or +6 *4*. Additional information 78.
		3707.9 *8*	100 *4*	0	3/2$^+$	D+Q	−0.45 *4*	δ: from (p,p′g), or +5.8 *11*. Other: −1.4 *8* from (α,pγ). Additional information 79.
3741.19	5/2$^-$	638	<2.0	3103.52	7/2$^-$			Additional information 80.
		655	<2.0	3086.12	5/2$^+$			Additional information 81.
		2014.4	<1.0	1726.58	1/2$^+$			Additional information 82.
		3741.05 *10*	100	0	3/2$^+$	E1(+M2)	+0.034 *16*	B(E1)(W.u.)=(0.00054 *18*); B(M2)(W.u.)=(0.20 *21*) δ: weighted average of +0.07 *3* from (α,pγ) and +0.024 *16* from (p,γ). Additional information 83.
4009.99	9/2$^-$	384.5	<4	3626.82	3/2$^+$			Additional information 84.
		723.6 *10*		3287.2				Additional information 85.
		906.33 *7*	100 *2*	3103.52	7/2$^-$	M1+E2	+0.56 *4*	B(M1)(W.u.)=0.00066 *5*; B(E2)(W.u.)=0.89 *12* δ: weighted average of +0.54 *6* from ^{26}Mg(^{14}N,2pnγ), +0.51 *2* from ^{27}Al(^{19}F,2αpγ), +0.73 *4* from (α,pγ). Additional information 86.
		925.2	<1.4	3086.12	5/2$^+$			Additional information 87.
		2284.6	<2.9	1726.58	1/2$^+$			Additional information 88.
		4009.6 *1*	44.9 *15*	0	3/2$^+$			δ: δ(H/O)=0.0 *1* from ^{26}Mg(^{14}N,2pnγ), −0.03 *16* from ^{27}Al(^{19}F,2αpγ), +0.22 *2* from (α,pγ). Additional information 89.

$^{37}_{17}Cl_{20}$-10

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
4016.27	3/2+	275.2	<2.1	3741.19	5/2−			Additional information 90.
		308.5	<2.1	3707.79	3/2+			Additional information 91.
		389.4	<2.1	3626.82	3/2+			Additional information 92.
		912.7	<2.1	3103.52	7/2−			Additional information 93.
		930.0	100 *6*	3086.12	5/2+	M1+E2	−0.16 *6*	B(M1)(W.u.)=0.11 *5*; B(E2)(W.u.)=12 *10* δ: from (p,γ). Other: +0.04 *12* from (α,pγ). Additional information 94.
		2289.6	40 *4*	1726.58	1/2+	M1+E2	−0.20 *12*	B(M1)(W.u.)=0.0030 *12*; B(E2)(W.u.)=0.08 *+10−8* δ: from (p,γ), or −1.1 *3*. Additional information 95.
		4016.0	69 *6*	0	3/2+	M1+E2	−0.49 *12*	B(M1)(W.u.)=0.0008 *4*; B(E2)(W.u.)=0.042 *23* δ: from (p,γ), or −5 *3*. Additional information 96.
4176.64	3/2−	435.6	4.8 *24*	3741.19	5/2−			Additional information 97.
		468.8	<5	3707.79	3/2+			Additional information 98.
		549.8	62 *5*	3626.82	3/2+	D(+Q)	+0.01 *3*	δ: from (p,γ), or +3.5 *4*. Additional information 99.
		1073	21 *5*	3103.52	7/2−	Q(+O)	+0.06 *12*	Additional information 100.
		1090.5	50 *5*	3086.12	5/2+	D(+Q)	−0.03 *5*	Additional information 101.
		2450.0	<10	1726.58	1/2+			Additional information 102.
		4176.4	100 *5*	0	3/2+	D+Q	+0.13 *20*	δ: from (p,γ), or +2.5 *12*. Additional information 103.
4268.87	1/2	527.8	<1.0	3741.19	5/2−			Additional information 104.
		561.1	<2.0	3707.79	3/2+			Additional information 105.
		642.0	<2.0	3626.82	3/2+			Additional information 106.
		1165.3	<1.0	3103.52	7/2−			Additional information 107.
		1183 *3*	<1.0	3086.12	5/2+			Additional information 108.
		2543 *4*	100	1726.58	1/2+			Additional information 109.
		4268.6	<3.0	0	3/2+			Additional information 110.
4272.58	7/2−	531.5	2.1 *11*	3741.19	5/2−			Additional information 111.
		564.7	<1.1	3707.79	3/2+			Additional information 112.
		645.7	<1.1	3626.82	3/2+			Additional information 113.
		1169.06 *9*	100 *1*	3103.52	7/2−	D+Q	−0.06 *2*	Additional information 114.
		1186.4	3.2 *11*	3086.12	5/2+			Additional information 115.
		2545.8	<2.1	1726.58	1/2+			Additional information 116.
		4272.3	<2.1	0	3/2+			Additional information 117.
4396.32	5/2	655.2	2 *1*	3741.19	5/2−			Additional information 118.
		688.5	<2.0	3707.79	3/2+			Additional information 119.
		769.5	<2.0	3626.82	3/2+			Additional information 120.
		1292.7	<2.0	3103.52	7/2−			Additional information 121.
		1310.2	<2.0	3086.12	5/2+			Additional information 122.
		2669.6	<3.1	1726.58	1/2+			Additional information 123.

$^{37}_{17}Cl_{20}$-11

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ †	I_γ ‡	E_f	J_f^π	Mult.#	δ#	Comments
4396.32	5/2	4396.07 *20*	100 *1*	0	$3/2^+$	D(+Q)	+0.04 *3*	Additional information 124.
4459.97	$7/2^-$	718.9	<1.8	3741.19	$5/2^-$			Additional information 125.
		752.2	<1.8	3707.79	$3/2^+$			Additional information 126.
		833.1	<1.8	3626.82	$3/2^+$			Additional information 127.
		1357.1 *3*	100 *2*	3103.52	$7/2^-$	D+Q	−0.16 *3*	δ: from (p,γ). Others: +1.7 *7* from (α,pγ), −1.27 *8* or −0.16 *4* or +1.26 *10* from (p,γ). Additional information 128.
		1374.4 *2*	75.4 *18*	3086.12	$5/2^+$	D(+Q)	+0.02 *2*	Additional information 129.
		2733.3	<7	1726.58	$1/2^+$			Additional information 130.
		4459.7	<7	0	$3/2^+$			Additional information 131.
4546.08	$11/2^-$	535.8 *1*	100	4009.99	$9/2^-$	M1+E2	+0.07 *2*	B(M1)(W.u.)=0.069 *21*; B(E2)(W.u.)=4 *3* δ: weighted average of +0.09 *2* from ^{27}Al(^{19}F,2αγ) and +0.04 *2* from (α,pγ). −0.02 *2* from ^{26}Mg(^{14}N,2pnγ). Additional information 132.
		1442.6 *1*	<5	3103.52	$7/2^-$			Additional information 133.
4801.21	$5/2^+$	1060.1	<2.0	3741.19	$5/2^-$			Additional information 134.
		1093.4	<2.0	3707.79	$3/2^+$			Additional information 135.
		1174.4	<2.0	3626.82	$3/2^+$			Additional information 136.
		1697.6	<2.0	3103.52	$7/2^-$			Additional information 137.
		1715.0	<1.0	3086.12	$5/2^+$			Additional information 138.
		3074.5	<2.0	1726.58	$1/2^+$			Additional information 139.
		4800.9	100	0	$3/2^+$	M1+E2	−0.236 *14*	B(M1)(W.u.)>0.025; B(E2)(W.u.)>0.19 Additional information 140.
4810.9	7/2	1069.8	21 *3*	3741.19	$5/2^-$	D(+Q)	+0.03 *2*	Additional information 141.
		1103.1	<1.0	3707.79	$3/2^+$			Additional information 142.
		1184.1	<1.0	3626.82	$3/2^+$			Additional information 143.
		1708	<2.0	3103.52	$7/2^-$			Additional information 144.
		1724.7	<1.0	3086.12	$5/2^+$			Additional information 145.
		3084.2	<1.0	1726.58	$1/2^+$			Additional information 146.
		4820 *15*	100	0	$3/2^+$			Additional information 147.
4837.61	5/2	1096.5	<1.4	3741.19	$5/2^-$			
		1129.8	<1.4	3707.79	$3/2^+$			
		1210.8	<1.4	3626.82	$3/2^+$			
		1734.0	6.9 *28*	3103.52	$7/2^-$			
		1751.4	32 *4*	3086.12	$5/2^+$			
		3110.9	<1.4	1726.58	$1/2^+$			
		4837.3	100 *6*	0	$3/2^+$	D+Q	+0.047 *13*	
4853.96	3/2	1112.9	25 *3*	3741.19	$5/2^-$			
		1146.2	<9	3707.79	$3/2^+$			
		1227.1	63 *6*	3626.82	$3/2^+$			
		1750.3	<16	3103.52	$7/2^-$			
		1767.8	53 *6*	3086.12	$5/2^+$			

$^{37}_{17}Cl_{20}$-12

Adopted Levels, Gammas (continued)

$\gamma(^{37}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
4853.96	3/2	3127.2	100 *28*	1726.58	$1/2^+$	D(+Q)	0.00 *8*	
		4853.6	72 *19*	0	$3/2^+$			Additional information 148.
4903.91	$7/2^+$	1163.1	<3.8	3741.19	$5/2^-$			
		1196.4	<3.8	3707.79	$3/2^+$			
		1277.4	<3.8	3626.82	$3/2^+$			
		1800.6	<5	3103.52	$7/2^-$			
		1818.1 *4*	25 *9*	3086.12	$5/2^+$	D(+Q)	+0.03 *5*	Additional information 149.
		3177.5	<10	1726.58	$1/2^+$			
		4903.7 *23*	100 *9*	0	$3/2^+$	Q(+O)	+0.04 *5*	Additional information 150.
4920.87	$9/2^-$	911.2 *5*	35 *14*	4009.99	$9/2^-$			Additional information 151.
		1816 *3*	100 *14*	3103.52	$7/2^-$			Additional information 152.
4923	$(5/2^-,7/2)$	4923	100	0	$3/2^+$			Additional information 153.
4960.8	3/2	1219.7	<5	3741.19	$5/2^-$			
		1253.0	<2.4	3707.79	$3/2^+$			
		1334.0	<2.4	3626.82	$3/2^+$			
		1857.2	<3.5	3103.52	$7/2^-$			
		1874.6	100 *6*	3086.12	$5/2^+$			
		3234.1	<6	1726.58	$1/2^+$			
		4960.4	18 *6*	0	$3/2^+$			
4974		962 *4*	82	4009.99	$9/2^-$			Additional information 154.
		1870 *4*	100	3103.52	$7/2^-$			Additional information 155.
5009.3	$(1/2 \text{ to } 7/2^+)$	1268.2	<2.0	3741.19	$5/2^-$			
		1301.5	<2.0	3707.79	$3/2^+$			
		1382.5	<2.0	3626.82	$3/2^+$			
		1905.7	<3.0	3103.52	$7/2^-$			
		1923.1	<3.0	3086.12	$5/2^+$			
		3282.6	<5	1726.58	$1/2^+$			
		5008.9	100	0	$3/2^+$			
5055.2	$(1/2 \text{ to } 5/2^+)$	1314.1	<4	3741.19	$5/2^-$			
		1347.4	<4	3707.79	$3/2^+$			
		1428.4	<14	3626.82	$3/2^+$			
		1951.6	<7	3103.52	$7/2^-$			
		1969.0	<14	3086.12	$5/2^+$			
		3328.5	43 *12*	1726.58	$1/2^+$			
		5054.8	100 *12*	0	$3/2^+$			
5059.1	$(3/2^- \text{ to } 7/2^+)$	1318.0	<9	3741.19	$5/2^-$			
		1351.3	<9	3707.79	$3/2^+$			
		1432.3	18 *9*	3626.82	$3/2^+$			
		1955.5	27 *9*	3103.52	$7/2^-$			
		1972.9	36 *9*	3086.12	$5/2^+$			
		3332.4	<9	1726.58	$1/2^+$			
		5058.7	100 *15*	0	$3/2^+$			

$^{37}_{17}Cl_{20}$-13

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
5228.7	(1/2 to 7/2$^+$)	1487.6	<4	3741.19	5/2$^-$			
		1520.9	<4	3707.79	3/2$^+$			
		1601.8	11 *3*	3626.82	3/2$^+$			
		2125.0	<4	3103.52	7/2$^-$			
		2142.5	<4	3086.12	5/2$^+$			
		3501.9	<8	1726.58	1/2$^+$			
		5228.3	100 *3*	0	3/2$^+$			
5270.95	13/2$^-$	724.5 *1*	100	4546.08	11/2$^-$	M1+E2	+0.11 *3*	B(M1)(W.u.)=0.028 *5*; B(E2)(W.u.)=2.3 *13* δ: weighted average of +0.12 *4* from ^{26}Mg(^{14}N,2pnγ), +0.13 *3* from ^{27}Al(^{19}F,2αpγ), +0.07 *4* from (α,pγ). Additional information 156.
		1260.6	<1	4009.99	9/2$^-$			Additional information 157.
5283	(1/2 to 5/2$^+$)	3555.7	100	1726.58	1/2$^+$			
5307.4	(1/2$^+$ to 5/2$^+$)	1566.3	<20	3741.19	5/2$^-$			
		1599.6	<20	3707.79	3/2$^+$			
		1680.5	<20	3626.82	3/2$^+$			
		2203.7	<20	3103.52	7/2$^-$			
		2221.2	100 *20*	3086.12	5/2$^+$			
		3580.6	50 *14*	1726.58	1/2$^+$			
		5307.0	50 *14*	0	3/2$^+$			Additional information 158.
5317.1	(3/2 to 7/2$^+$)	1576.0	67 *16*	3741.19	5/2$^-$			
		1609.3	<4	3707.79	3/2$^+$			
		1690.2	<9	3626.82	3/2$^+$			
		2213.4	<7	3103.52	7/2$^-$			
		2230.9	100 *22*	3086.12	5/2$^+$			
		3590.3	<7	1726.58	1/2$^+$			
		5316.7	56 *16*	0	3/2$^+$			
5372.5	(1/2$^-$ to 5/2$^+$)	x						I_γ: absolute intensity=20. Additional information 159.
		1631.4	100 *13*	3741.19	5/2$^-$			
		1664.7	<20	3707.79	3/2$^+$			
		1745.6	<15	3626.82	3/2$^+$			
		2268.8	<15	3103.52	7/2$^-$			
		2286.3	<15	3086.12	5/2$^+$			
		3645.7	100 *13*	1726.58	1/2$^+$			
		5372.1	<38	0	3/2$^+$			
5379	(3/2$^-$,5/2,9/2)	2274 *4*	100	3103.52	7/2$^-$			Additional information 160. δ: δ(O/Q)=+0.4 *1* for J=3/2, δ(Q/D)<−7 for J=5/2, δ(Q/D)=−0.09 *3* for J=9/2 from (α,pγ).
5407	(1/2,3/2)	3680 *20*	100	1726.58	1/2$^+$			Additional information 161. δ: δ(Q/D)=+0.3 *1* or −3.7 *11* for J=3/2 in (α,pγ).

$^{37}_{17}Cl_{20}$-14

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ †	I_γ ‡	E_f	J_f^π	Mult.#	δ#	Comments
5490.68	5/2$^+$	x						I_γ: absolute intensity=15. Additional information 162.
		1749.6	<17	3741.19	5/2$^-$			
		1782.8	100.0000 *3*	3707.79	3/2$^+$	M1+E2	+0.09 *5*	B(M1)(W.u.)=0.08 *4*; B(E2)(W.u.)=0.7 *+9−7* δ: from (p,γ), or −7 *2*.
		1863.8	<33	3626.82	3/2$^+$			
		2387.0	67 *17*	3103.52	7/2$^-$	E1+M2	−0.71 *15*	B(E1)(W.u.)=0.00042 *22*; B(M2)(W.u.)=1.7×10^2 *10*
		2404.5	67 *17*	3086.12	5/2$^+$			
		3763.9	<17	1726.58	1/2$^+$			
		5490.2	50 *17*	0	3/2$^+$			
5528.4	9/2	x						I_γ: absolute intensity=20. Additional information 163.
		1517.1	100 *13*	4009.99	9/2$^-$	D(+Q)	−0.04 *4*	δ: from (p,γ), or −0.5 *6*.
		1787.3	<13	3741.19	5/2$^-$			
		1820.6	<25	3707.79	3/2$^+$			
		1901.5	<13	3626.82	3/2$^+$			
		2424.7	<13	3103.52	7/2$^-$			
		2442.2	<13	3086.12	5/2$^+$			
		3801.6	<19	1726.58	1/2$^+$			
		5528.0	<6	0	3/2$^+$			
5547.17	11/2$^-$	626.4 *2*	5 *2*	4920.87	9/2$^-$			Additional information 164.
		1001.2 *1*	100 *10*	4546.08	11/2$^-$			Additional information 165.
		1538 *4*	17 *5*	4009.99	9/2$^-$			Additional information 166.
		2443.8 *2*	63 *12*	3103.52	7/2$^-$			Additional information 167.
5570.1	(3/2$^-$ to 7/2)	1110.1	12.0 *27*	4459.97	7/2$^-$			
		1829.0	12.0 *27*	3741.19	5/2$^-$			
		1862.3	<2.7	3707.79	3/2$^+$			
		1943.2	<2.7	3626.82	3/2$^+$			
		2466.4	100 *3*	3103.52	7/2$^-$			
		2483.9	9.3 *27*	3086.12	5/2$^+$			
		3843.3	<8	1726.58	1/2$^+$			
		5569.6	<2.7	0	3/2$^+$			
5595.05	9/2$^+$	691.3 *3*	22 *6*	4903.91	7/2$^+$			Additional information 168.
		2491.6 *2*	61 *6*	3103.52	7/2$^-$			Additional information 169.
		2508.9 *2*	100	3086.12	5/2$^+$			Additional information 170.
5617.9	(1/2$^-$ to 9/2$^-$)	1876.8	14 *6*	3741.19	5/2$^-$			
		1910.1	<5	3707.79	3/2$^+$			
		1991.0	<5	3626.82	3/2$^+$			
		2514.2	<5	3103.52	7/2$^-$			
		2531.7	<5	3086.12	5/2$^+$			
		3891.1	<6	1726.58	1/2$^+$			
		5617.4	100 *6*	0	3/2$^+$			

$^{37}_{17}Cl_{20}$-15

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
5645.3	3/2$^+$,5/2$^+$	x						I_γ: absolute intensity= 15. Additional information 171.
		1904.2	<9	3741.19	5/2$^-$			
		1937.5	21 *7*	3707.79	3/2$^+$			
		2018.4	<7	3626.82	3/2$^+$			
		2541.6	<21	3103.52	7/2$^-$			
		2559.1	100 *14*	3086.12	5/2$^+$			
		3918.5	<11	1726.58	1/2$^+$			
		5644.8	<14	0	3/2$^+$			
5700.9	9/2$^-$	x						I_γ: absolute intensity=21. Additional information 172.
		1154.9	83 *17*	4546.08	11/2$^-$	D(+Q)	+0.03 *6*	δ: from (p,γ), −0.27 *3* from (α,pγ). Additional information 173.
		1240.9	100 *17*	4459.97	7/2$^-$	D(+Q)	−0.01 *3*	Additional information 174.
		1428.4	67 *17*	4272.58	7/2$^-$			Additional information 175.
		1696 *4*		4009.99	9/2$^-$	[D+Q]	−0.7 *1*	Additional information 176.
		1959.8	<33	3741.19	5/2$^-$			Additional information 177.
		2074.0	<17	3626.82	3/2$^+$			Additional information 178.
		2597.2	<33	3103.52	7/2$^-$	[D+Q]	+0.2 *1*	Additional information 179.
		2614.7	<33	3086.12	5/2$^+$			Additional information 180.
		3974.1	<17	1726.58	1/2$^+$			Additional information 181.
		5700.4	<33	0	3/2$^+$			Additional information 182.
5705.33	11/2$^-$	157.6 *3*	1.7 *9*	5547.17	11/2$^-$			Additional information 183.
		434.4 *1*	5.2 *17*	5270.95	13/2$^-$			Additional information 184.
		784.4 *3*	12 *2*	4920.87	9/2$^-$			Additional information 185.
		1159.2 *1*	100 *4*	4546.08	11/2$^-$	M1		B(M1)(W.u.)=0.042 *14* Additional information 186.
		1244.6 *6*	6.9 *17*	4459.97	7/2$^-$			Additional information 187.
		1432.4 *5*	15.5 *17*	4272.58	7/2$^-$			Additional information 188.
		1694.6 *3*	39 *3*	4009.99	9/2$^-$	M1+E2	+0.17 *7*	B(M1)(W.u.)=0.0051 *17*; B(E2)(W.u.)=0.18 *16* Additional information 189.
		2601.9 *1*	30 *4*	3103.52	7/2$^-$			Additional information 190.
5726.3	7/2$^-$	x						I_γ: absolute intensity= 30. Additional information 191.
		1715.0	17 *8*	4009.99	9/2$^-$	D(+Q)	−0.09 *12*	
		1985.2	100 *8*	3741.19	5/2$^-$	D+Q	+0.30 *6*	
		2018.5	<7	3707.79	3/2$^+$			
		2099.4	<8	3626.82	3/2$^+$			
		2622.6	<8	3103.52	7/2$^-$			
		2640.1	<8	3086.12	5/2$^+$			
		3999.5	<8	1726.58	1/2$^+$			
		5725.8	<13	0	3/2$^+$			

$^{37}_{17}Cl_{20}$-16

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ †	I_γ ‡	E_f	J_f^π	Mult.#	δ#	Comments
5909.3	(3/2$^-$ to 9/2$^+$)	2805.6	67 *17*	3103.52	7/2$^-$			
		2823.1	100 *17*	3086.12	5/2$^+$			
5915.0	(1/2$^-$ to 7/2$^-$)	2173.9	17 *8*	3741.19	5/2$^-$			
		4188.2	50 *8*	1726.58	1/2$^+$			
		5914.5	100 *8*	0	3/2$^+$			
5931	(3/2$^-$ to 9/2)	2826 *4*	100	3103.52	7/2$^-$			Additional information 192. δ: δ(O/Q)=+0.3 *1* for J=3/2, δ(Q/D)=0.0 *1* for J=5/2, δ(Q/D)=−0.6 *1* for J=7/2, δ(Q/D)=+0.09 *7* for J=9/2 from (α,pγ).
5944	(1/2 to 9/2$^-$)	x						I_γ: absolute intensity=30. Additional information 193.
		5943.5	100 *14*	0	3/2$^+$			
5978	5/2$^+$	2351.1	33 *17*	3626.82	3/2$^+$			
		2891.8	33 *17*	3086.12	5/2$^+$			
		5977.5	100 *17*	0	3/2$^+$			
5985.9	(1/2$^+$ to 5/2)	x						I_γ: absolute intensity=20. Additional information 194.
		2278.0	63 *13*	3707.79	3/2$^+$			
		2899.7	100 *18*	3086.12	5/2$^+$			
		5985.4	38 *13*	0	3/2$^+$			
6000.5	13/2	1454.6 *6*		4546.08	11/2$^-$	D(+Q)	−0.03 *15*	δ: from ^{27}Al(^{19}F,2αpγ). Additional information 195.
6015.3	(3/2,5/2)	x						I_γ: absolute intensity=12. Additional information 196.
		2274.2	71 *14*	3741.19	5/2$^-$			
		2388.4	100 *14*	3626.82	3/2$^+$			
		2929.1	23 *9*	3086.12	5/2$^+$			
		6014.8	57 *14*	0	3/2$^+$			
6042.2	(1/2 to 5/2)	2415.3	100 *14*	3626.82	3/2$^+$			
		6041.7	43 *14*	0	3/2$^+$			
6046.17	11/2$^+$	451.2 *1*	15.7 *12*	5595.05	9/2$^+$			Additional information 197.
		1125.4 *4*	8 *2*	4920.87	9/2$^-$			Additional information 198.
		1142.4 *2*	6.4 *17*	4903.91	7/2$^+$			Additional information 199.
		1500.1 *3*	9 *2*	4546.08	11/2$^-$			Additional information 200.
		2036.1 *1*	100 *7*	4009.99	9/2$^-$	E1+M2	+0.18 *4*	Additional information 201.
6196.42	11/2$^-$	1275.4 *3*	100	4920.87	9/2$^-$			Additional information 202.
6305.1	(1/2 to 7/2$^-$)	x						I_γ: absolute intensity=10. Additional information 203.
		4578.2	29 *14*	1726.58	1/2$^+$			
		6304.5	100 *14*	0	3/2$^+$			
6323.8	(3/2 to 7/2)	x						I_γ: absolute intensity=30. Additional information 204.
		2582.7	100 *14*	3741.19	5/2$^-$			

$^{37}_{17}Cl_{20}$-17

Adopted Levels, Gammas (continued)

$\gamma(^{37}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
6323.8	(3/2 to 7/2)	3237.5	<43	3086.12	$5/2^+$			
		6323.2	100 *14*	0	$3/2^+$			
6358	($1/2^+$ to $7/2^+$)	x						I_γ: absolute intensity=40. Additional information 205.
		2731.1	100.0000 *3*	3626.82	$3/2^+$			
		3271.7	100.0000 *3*	3086.12	$5/2^+$			
6372	$5/2^+$	x						I_γ: absolute intensity=30. Additional information 206.
		6371.4	100 *7*	0	$3/2^+$			
6415	(1/2 to $5/2^+$)	2146.1	88 *25*	4268.87	1/2			
		2707.1	63 *25*	3707.79	$3/2^+$			
		2788.1	100 *25*	3626.82	$3/2^+$			
6488.3	(3/2 to $9/2^-$)	x						I_γ: absolute intensity=30. Additional information 207.
		6487.7	100 *29*	0	$3/2^+$			
6601	($7/2^-$ to $13/2^-$)	2060 *20*	43 *7*	4546.08	$11/2^-$			Additional information 208.
		2590 *5*	100 *7*	4009.99	$9/2^-$			Additional information 209. δ: δ(Q/D)=−3.7 *6* for J=7/2, −0.4 *1* for J=9/2, δ(O/Q)=+0.3 *1* for J=11/2 from (α,pγ).
6668.9	$3/2^+$,$5/2^+$	x						I_γ: absolute intensity=25. Additional information 210.
		6668.3	100 *13*	0	$3/2^+$			
6701.8	$5/2^+$	x						I_γ: absolute intensity= 30. Additional information 211.
		2241.8	100 *13*	4459.97	$7/2^-$	D(+Q)	+0.09 *10*	δ: from (p,γ).
		6701.1	75 *13*	0	$3/2^+$	D(+Q)	−0.01 *5*	
6732	(1/2 to $9/2^-$)	x						I_γ: absolute intensity=30. Additional information 212.
		6731.3	100 *14*	0	$3/2^+$			
6799.55	$13/2^+$	753.4 *1*	100 *9*	6046.17	$11/2^+$			Additional information 213.
		1204.4 *2*	20 *5*	5595.05	$9/2^+$			Additional information 214.
		1252.4 *3*	43 *5*	5547.17	$11/2^-$			Additional information 215.
		2253.4 *2*	30 *5*	4546.08	$11/2^-$			Additional information 216.
7020.49	$15/2^+$	220.9 *1*	5.7 *5*	6799.55	$13/2^+$			Additional information 217.
		974.4 *1*	21 *4*	6046.17	$11/2^+$			Additional information 218.
		1749.4 *1*	100	5270.95	$13/2^-$	D(+Q)	−0.05 *7*	Additional information 219.
7079.4	$5/2^+$	7078.7	100	0	$3/2^+$			
7150	(1/2 to $9/2^-$)	x						I_γ: absolute intensity=30. Additional information 220.
		7149.3	100 *14*	0	$3/2^+$			
7200	($7/2^-$ to $15/2^-$)	1005 *15*	22 *11*	6196.42	$11/2^-$			Additional information 221.
		2278 *5*	100 *18*	4920.87	$9/2^-$			Additional information 222.

$^{37}_{17}Cl_{20}$-18

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
7200	(7/2$^-$ to 15/2$^-$)	2655 *5*	100 *18*	4546.08	11/2$^-$			Additional information 223.
7224.4	(5/2,3/2$^+$)	x						I_γ: absolute intensity=15. Additional information 224.
		5497.4	55 *27*	1726.58	1/2$^+$			
		7223.6	100 *27*	0	3/2$^+$			
7254.5	(1/2 to 9/2$^-$)	x						I_γ: absolute intensity=20. Additional information 225.
		7253.7	100 *13*	0	3/2$^+$			
7269.2	13/2$^+$	1222.7 *4*	100	6046.17	11/2$^+$			Additional information 226.
7300	5/2$^+$	x						I_γ: absolute intensity=20. Additional information 227.
		5573.0	33 *17*	1726.58	1/2$^+$			
		7299.2	100 *17*	0	3/2$^+$			
7452.97	15/2$^-$	653.6 *2*	5.6 *15*	6799.55	13/2$^+$			Additional information 228.
		1256.4 *3*	9 *3*	6196.42	11/2$^-$			Additional information 229.
		1747.6 *1*	100 *11*	5705.33	11/2$^-$			Additional information 230.
		1906.0 *1*	58 *6*	5547.17	11/2$^-$			Additional information 231.
		2181.6 *1*	42 *4*	5270.95	13/2$^-$	M1+E2	−0.20 *7*	B(M1)(W.u.)=0.0022 *8*; B(E2)(W.u.)=0.06 *5* Additional information 232.
		2906.8 *1*	86 *11*	4546.08	11/2$^-$			Additional information 233.
7561.47	13/2$^+$	761.6 *2*	100	6799.55	13/2$^+$			Additional information 234.
7686.8	(1/2 to 9/2$^-$)	x						I_γ: absolute intensity=40. Additional information 235.
		7685.9	100 *17*	0	3/2$^+$			
7735	(7/2$^-$ to 15/2$^-$)	1540 *10*		6196.42	11/2$^-$			Additional information 236.
		1680 *20*		6046.17	11/2$^+$			Additional information 237.
		3180 *20*		4546.08	11/2$^-$			Additional information 238.
7857.88	15/2$^+$	296.1 *2*	4.4 *2*	7561.47	13/2$^+$			Additional information 239.
		588.1 *6*	9 *5*	7269.2	13/2$^+$			Additional information 240.
		837.4 *3*	13 *5*	7020.49	15/2$^+$			Additional information 241.
		1058.1 *2*	100 *11*	6799.55	13/2$^+$			Additional information 242.
7987	(7/2$^-$ to 15/2$^-$)	3440 *20*	100	4546.08	11/2$^-$			Additional information 243.
8071.0	15/2$^-$	2800.4 *4*	100	5270.95	13/2$^-$			Additional information 244.
8177.5	5/2$^+$	1157.2 *10*		7020.49	15/2$^+$			Additional information 245.
8530.10	15/2$^+$	671.6 *2*	38 *19*	7857.88	15/2$^+$			Additional information 246.
		1730.6 *1*	100 *25*	6799.55	13/2$^+$	D		Additional information 247.
8670.7	15/2$^-$	3399.6 *11*	100	5270.95	13/2$^-$	D+Q	−0.09 *3*	Additional information 248 −0.09 *3* for J=15/2 from (α,pγ).
8702.18	17/2$^+$	1681.6 *2*	100 *6*	7020.49	15/2$^+$			Additional information 249.
		1903.2 *5*	39 *10*	6799.55	13/2$^+$	Q		Additional information 250.
8715.4	15/2$^-$	3444.3 *15*	100	5270.95	13/2$^-$	D		Additional information 251.
8812.18	17/2$^+$	281.6 *3*	15 *3*	8530.10	15/2$^+$			Additional information 252.

$^{37}_{17}Cl_{20}$-19

Adopted Levels, Gammas (continued)

$\gamma(^{37}Cl)$ (continued)

E_i(level)	J_i^π	E_γ [†]	I_γ [‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
8812.18	$17/2^+$	741.5 *3*	13 *5*	8071.0	$15/2^-$	D		Additional information 253.
		1791.6 *3*	100 *26*	7020.49	$15/2^+$	M1+E2	−0.25 *10*	B(M1)(W.u.)=0.0045 *19*; B(E2)(W.u.)=0.3 *3* Additional information 254.
		2012.7 *3*	85 *8*	6799.55	$13/2^+$	Q		Additional information 255.
8884.5	(1/2 to $7/2^-$)	x						I_γ: absolute intensity=30. Additional information 256.
		7157.2	100	1726.58	$1/2^+$			
		8883.4	56	0	$3/2^+$			
8911.09	$19/2^-$	1458.1 *1*	100	7452.97	$15/2^-$	Q		Additional information 257.
8928.8	(1/2 to $9/2^-$)	x						I_γ: absolute intensity=25. Additional information 258.
		5842.2	67	3086.12	$5/2^+$			
		8927.6	100	0	$3/2^+$			
8938.2	(1/2 to $9/2^-$)	x						I_γ: absolute intensity=15. Additional information 259.
		3977.2	8	4960.8	3/2			
		5311.0	23	3626.82	$3/2^+$			
		8937.0	100	0	$3/2^+$			
8987.85	(1/2 to $9/2^-$)	5360.6	25	3626.82	$3/2^+$			
		8986.7	100	0	$3/2^+$			
9027.15	($3/2,5/2^+$)	x						I_γ: absolute intensity=10. Additional information 260.
		3381.7	5	5645.3	$3/2^+,5/2^+$			
		4850.2	9	4176.64	$3/2^-$			
		5010.5	11	4016.27	$3/2^+$			
		5285.7	23	3741.19	$5/2^-$			
		5318.9	18	3707.79	$3/2^+$			
		5940.5	27	3086.12	$5/2^+$			
		7299.8	11	1726.58	$1/2^+$			
		9026.0	100	0	$3/2^+$			
9046.31	3/2	x						I_γ: absolute intensity=15. Additional information 261.
		3400.8	3.7	5645.3	$3/2^+,5/2^+$			
		4036.8	9	5009.3	(1/2 to $7/2^+$)			
		4649.7	6	4396.32	5/2			
		4869.3	13	4176.64	$3/2^-$	D(+Q)	0.00 *2*	δ: or +3.8 *3*.
		5304.9	6	3741.19	$5/2^-$			
		5338.1	11	3707.79	$3/2^+$	D(+Q)	−0.02 *7*	δ: or +4.3 *14*.
		5419.1	9	3626.82	$3/2^+$	D+Q	+0.23 *5*	δ: or +2.0 *14*.
		9045.1	100	0	$3/2^+$	D+Q	+0.08 *2*	δ: or +2.87 *17*.
9066.06	3/2	x						I_γ: absolute intensity=8. Additional information 262.

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
9066.06	3/2	3837.1	2.0	5228.7	(1/2 to 7/2$^+$)			
		4211.8	2.0	4853.96	3/2			
		4228.2	2.0	4837.61	5/2			
		4264.6	6	4801.21	5/2$^+$			
		4669.4	4	4396.32	5/2	D+Q	−0.17 *5*	
		5049.4	4	4016.27	3/2$^+$	D(+Q)	0.00 *5*	δ: or +3.9 *8*.
		5324.6	10	3741.19	5/2$^-$			
		5357.9	16	3707.79	3/2$^+$			
		5438.8	18	3626.82	3/2$^+$			
		5979.4	14	3086.12	5/2$^+$	D(+Q)	+0.02 *2*	δ: or −5.2 *5*.
		7338.7	6	1726.58	1/2$^+$			
		9064.9	100	0	3/2$^+$	D+Q	+0.042 *8*	δ: or +3.3 *1*.
9100.39	(1/2,3/2,5/2$^+$)	x						I_γ: absolute intensity=10. Additional information 263.
		2431.4	1.5	6668.9	3/2$^+$,5/2$^+$			
		2742.3	3.0	6358	(1/2$^+$ to 7/2$^+$)			
		3482.3	1.5	5617.9	(1/2$^-$ to 9/2$^-$)			
		4090.8	3.0	5009.3	(1/2 to 7/2$^+$)			
		4831.2	3.0	4268.87	1/2			
		5083.7	17	4016.27	3/2$^+$			
		5392.2	1.5	3707.79	3/2$^+$			
		7373.0	6	1726.58	1/2$^+$			
		9099.2	100	0	3/2$^+$			
9112.26	(1/2,3/2,5/2$^+$)	x						I_γ: absolute intensity=10. Additional information 264.
		2788.3	3.5	6323.8	(3/2 to 7/2)			
		3883.3	1.8	5228.7	(1/2 to 7/2$^+$)			
		4056.8	5	5055.2	(1/2 to 5/2$^+$)			
		4258.0	3.5	4853.96	3/2			
		4843.0	3.5	4268.87	1/2			
		4935.3	19	4176.64	3/2$^-$			
		5095.6	5	4016.27	3/2$^+$			
		5485.0	1.8	3626.82	3/2$^+$			
		7384.9	14	1726.58	1/2$^+$			
		9111.1	100	0	3/2$^+$			
9133.86	3/2	x						I_γ: absolute intensity=5. Additional information 265.
		2718.8	23	6415	(1/2 to 5/2$^+$)			
		3643.0	23	5490.68	5/2$^+$			
		3761.2	6	5372.5	(1/2$^-$ to 5/2$^+$)			
		4124.3	20	5009.3	(1/2 to 7/2$^+$)			
		4279.6	17	4853.96	3/2	D(+Q)	+0.01 *4*	δ: or +3.7 *6*.

$^{37}_{17}Cl_{20}$-21

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ †	I_γ ‡	E_f	J_f^π	Mult.#	δ#	Comments
9133.86	3/2	4864.6	2.9	4268.87	1/2			
		5392.4	31	3741.19	$5/2^-$	D(+Q)	+0.07 *5*	δ: A_2=−0.18 *5*.
		5425.6	6	3707.79	$3/2^+$			
		5506.6	9	3626.82	$3/2^+$			
		6047.2	29	3086.12	$5/2^+$	D(+Q)	−0.04 *4*	δ: or −3.9 *7*.
		7406.5	6	1726.58	$1/2^+$			
		9132.6	100	0	$3/2^+$	D(+Q)	+0.03 *2*	δ: or +3.4 *3*.
9137.65	3/2	x						I_γ: absolute intensity=10. Additional information 266.
		3095.3	1.5	6042.2	(1/2 to 5/2)			
		3228.2	5	5909.3	($3/2^-$ to $9/2^+$)			
		4128.1	1.5	5009.3	(1/2 to $7/2^+$)			
		4299.8	1.5	4837.61	5/2			
		4336.2	3.1	4801.21	$5/2^+$			
		4868.4	14	4268.87	1/2	D(+Q)	−0.01 *2*	
		4960.7	1.5	4176.64	$3/2^-$			
		5121.0	1.5	4016.27	$3/2^+$			
		5429.4	6	3707.79	$3/2^+$			
		6051.0	3.1	3086.12	$5/2^+$			
		9136.4	100	0	$3/2^+$	D(+Q)	0.00 *2*	δ: or +4.1 *4*.
9147.18	(1/2 to $9/2^-$)	x						I_γ: absolute intensity=8. Additional information 267.
		9146.0	100	0	$3/2^+$			
9169.4	$17/2^+$	467.3 *9*	13 *7*	8702.18	$17/2^+$			Additional information 268.
		2148.7 *12*	100 *20*	7020.49	$15/2^+$			Additional information 269.
		2369.6 *15*	47 *13*	6799.55	$13/2^+$			Additional information 270.
9170.92	(1/2 to $7/2^-$)	x						I_γ: absolute intensity=10. Additional information 271.
		4774.3	2.8	4396.32	5/2			
		4901.7	2.8	4268.87	1/2			
		5154.3	2.8	4016.27	$3/2^+$			
		6084.3	2.8	3086.12	$5/2^+$			
		7443.5	14	1726.58	$1/2^+$			
		9169.7	100	0	$3/2^+$			
9187.55	($1/2^+$,3/2,$5/2^+$)	x						I_γ: absolute intensity=14. Additional information 272.
		2518.6	73	6668.9	$3/2^+$,$5/2^+$			
		2815.4	36	6372	$5/2^+$			
		3272.4	55	5915.0	($1/2^-$ to $7/2^-$)			
		3569.5	73	5617.9	($1/2^-$ to $9/2^-$)			
		3814.8	55	5372.5	($1/2^-$ to $5/2^+$)			
		3879.9	55	5307.4	($1/2^+$ to $5/2^+$)			

$^{37}_{17}Cl_{20}$-22

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
9187.55	(1/2$^+$,3/2,5/2$^+$)	4128.2	18	5059.1	(3/2$^-$ to 7/2$^+$)			
		5010.5	55	4176.64	3/2$^-$			
		5170.9	64	4016.27	3/2$^+$			
		5479.3	45	3707.79	3/2$^+$			
		5560.3	18	3626.82	3/2$^+$			
		6100.9	36	3086.12	5/2$^+$			
		7460.2	100	1726.58	1/2$^+$			
		9186.3	100	0	3/2$^+$			
9203.31	3/2$^+$,5/2$^+$	x						I_γ: absolute intensity=8. Additional information 273.
		4242.2	16	4960.8	3/2			
		4934.1	10	4268.87	1/2			
		5461.8	22	3741.19	5/2$^-$			
		5495.1	8	3707.79	3/2$^+$			
		6116.6	18	3086.12	5/2$^+$			
		7475.9	12	1726.58	1/2$^+$			
		9202.1	100	0	3/2$^+$			
9215.37	3/2	x						I_γ: absolute intensity=15. Additional information 274.
		2546.4	7	6668.9	3/2$^+$,5/2$^+$			
		3237.2	11	5978	5/2$^+$			
		3271.2	5	5944	(1/2 to 9/2$^-$)			
		3569.9	2.3	5645.3	3/2$^+$,5/2$^+$			
		3842.7	9	5372.5	(1/2$^-$ to 5/2$^+$)			
		3907.7	2.3	5307.4	(1/2$^+$ to 5/2$^+$)			
		3986.4	11	5228.7	(1/2 to 7/2$^+$)			
		4377.5	5	4837.61	5/2			
		4946.1	18	4268.87	1/2			
		5038.4	5	4176.64	3/2$^-$	D(+Q)	+0.01 *4*	δ: or −1.8 *2*.
		5198.7	5	4016.27	3/2$^+$			
		5473.9	2.3	3741.19	5/2$^-$			
		6128.7	7	3086.12	5/2$^+$			
		7488.0	5	1726.58	1/2$^+$			
		9214.1	100	0	3/2$^+$	D(+Q)	−0.005 *13*	δ: or +4.0 *2*.
9220.92	1/2	x						I_γ: absolute intensity=2. Additional information 275.
		2551.9	1.6	6668.9	3/2$^+$,5/2$^+$			
		3848.2	7	5372.5	(1/2$^-$ to 5/2$^+$)			
		4211.4	3.3	5009.3	(1/2 to 7/2$^+$)			
		4366.7	7	4853.96	3/2			
		4951.7	5	4268.87	1/2			
		5204.3	7	4016.27	3/2$^+$			

$^{37}_{17}Cl_{20}$-23

Adopted Levels, Gammas (continued)

$\gamma(^{37}Cl)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ ‡	E_f	J_f^π	Comments
9220.92	1/2	5593.6	11	3626.82	$3/2^+$	
		6134.3	1.6	3086.12	$5/2^+$	
		7493.5	18	1726.58	$1/2^+$	
		9219.7	100	0	$3/2^+$	
9234.63	$(1/2^+,3/2,5/2^+)$	x				I_γ: absolute intensity=10. Additional information 276.
		4005.7	7	5228.7	(1/2 to $7/2^+$)	
		5057.6	22	4176.64	$3/2^-$	
		5607.4	15	3626.82	$3/2^+$	
		6148.0	29	3086.12	$5/2^+$	
		7507.2	100	1726.58	$1/2^+$	
		9233.4	46	0	$3/2^+$	
9260.51	$5/2^+$	x				I_γ: absolute intensity=18. Additional information 277.
		2888.4	2.9	6372	$5/2^+$	
		3218.2	2.9	6042.2	(1/2 to 5/2)	
		3274.5	2.9	5985.9	($1/2^+$ to 5/2)	
		3316.4	2.9	5944	(1/2 to $9/2^-$)	
		3642.4	6	5617.9	($1/2^-$ to $9/2^-$)	
		4031.6	2.9	5228.7	(1/2 to $7/2^+$)	
		4205.1	9	5055.2	(1/2 to $5/2^+$)	
		4422.6	9	4837.61	5/2	
		4459.0	2.9	4801.21	$5/2^+$	
		4863.9	2.9	4396.32	5/2	
		5083.5	17	4176.64	$3/2^-$	
		5519.0	9	3741.19	$5/2^-$	
		5552.3	20	3707.79	$3/2^+$	
		7533.1	100	1726.58	$1/2^+$	
		9259.3	46	0	$3/2^+$	
9285.21	1/2	x				I_γ: absolute intensity=8. Additional information 278.
		2980.0	12	6305.1	(1/2 to $7/2^-$)	
		3667.1	12	5617.9	($1/2^-$ to $9/2^-$)	
		3912.5	12	5372.5	($1/2^-$ to $5/2^+$)	
		4056.3	16	5228.7	(1/2 to $7/2^+$)	
		4324.1	12	4960.8	3/2	
		4447.3	12	4837.61	5/2	
		5016.0	16	4268.87	1/2	
		5108.2	8	4176.64	$3/2^-$	
		5268.5	100	4016.27	$3/2^+$	
		5577.0	12	3707.79	$3/2^+$	
		5657.9	64	3626.82	$3/2^+$	

$^{37}_{17}Cl_{20}$-24

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
9285.21	1/2	7557.8	20	1726.58	$1/2^+$			
		9284.0	72	0	$3/2^+$			
9293.58	$(3/2^-,5/2,7/2^+)$	x						I_γ: absolute intensity=25. Additional information 279.
		3920.9	47	5372.5	$(1/2^-$ to $5/2^+)$			
		3976.3	53	5317.1	$(3/2$ to $7/2^+)$			
		5276.9	53	4016.27	$3/2^+$			
		5585.3	100	3707.79	$3/2^+$			
		5666.3	63	3626.82	$3/2^+$			
		6189.4	63	3103.52	$7/2^-$			
		9292.3	16	0	$3/2^+$			
9297.57	$(3/2^-,5/2^+)$	x						I_γ: absolute intensity=15. Additional information 280.
		2218.1	26	7079.4	$5/2^+$			
		4837.3	26	4459.97	$7/2^-$			
		5556.1	39	3741.19	$5/2^-$			
		5589.3	48	3707.79	$3/2^+$			
		5670.3	48	3626.82	$3/2^+$			
		6193.4	52	3103.52	$7/2^-$			
		6210.9	13	3086.12	$5/2^+$			
		7570.2	17	1726.58	$1/2^+$			
		9296.3	100	0	$3/2^+$			
9300.19	3/2	x						I_γ: absolute intensity=15. Additional information 281.
		3654.7	5	5645.3	$3/2^+,5/2^+$			
		4240.8	7	5059.1	$(3/2^-$ to $7/2^+)$			
		4445.9	5	4853.96	3/2			
		4462.3	11	4837.61	5/2			
		6196.0	2.3	3103.52	$7/2^-$			
		6213.5	32	3086.12	$5/2^+$			
		7572.8	32	1726.58	$1/2^+$	(D+Q)	+0.11 *6*	δ: or −2.2 *5*.
		9298.9	100	0	$3/2^+$	(D+Q)	−0.04 *3*	δ: or +5.6 *11*.
9309.83	$(1/2^+,3/2,5/2^+)$	x						I_γ: absolute intensity=6. Additional information 282.
		6223.1	6	3086.12	$5/2^+$			
		7582.4	5	1726.58	$1/2^+$			
		9308.6	100	0	$3/2^+$			
9326.95	$(1/2^+,3/2,5/2^+)$	x						I_γ: absolute intensity=10. Additional information 283.
		2911.8	1.4	6415	$(1/2$ to $5/2^+)$			
		3681.5	1.4	5645.3	$3/2^+,5/2^+$			
		3954.2	4	5372.5	$(1/2^-$ to $5/2^+)$			

$^{37}_{17}Cl_{20}$-25

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ †	I_γ ‡	E_f	J_f^π	Comments
9326.95	(1/2$^+$,3/2,5/2$^+$)	4098.0	4	5228.7	(1/2 to 7/2$^+$)	
		4267.6	1.4	5059.1	(3/2$^-$ to 7/2$^+$)	
		5057.7	1.4	4268.87	1/2	
		5310.3	1.4	4016.27	3/2$^+$	
		5585.4	1.4	3741.19	5/2$^-$	
		5618.7	1.4	3707.79	3/2$^+$	
		5699.7	4	3626.82	3/2$^+$	
		6240.3	1.4	3086.12	5/2$^+$	
		7599.5	100	1726.58	1/2$^+$	
		9325.7	1.4	0	3/2$^+$	δ: δ(Q/D)=+0.08 *3* or −2.1 *2*.
9329.18	(3/2,5/2)	x				I_γ: absolute intensity=10. Additional information 284.
		3419.7	11	5909.3	(3/2$^-$ to 9/2$^+$)	
		4021.5	7	5307.4	(1/2$^+$ to 5/2$^+$)	
		4527.7	7	4801.21	5/2$^+$	
		5056.3	7	4272.58	7/2$^-$	
		5587.7	15	3741.19	5/2$^-$	
		5701.9	11	3626.82	3/2$^+$	
		6225.0	74	3103.52	7/2$^-$	δ: δ(Q/D)=+0.09 *3* for J=5/2.
		7601.8	100	1726.58	1/2$^+$	
		9327.9	100	0	3/2$^+$	
9341.15	(1/2,3/2)	x				I_γ: absolute intensity=7. Additional information 285.
		3968.4	2.1	5372.5	(1/2$^-$ to 5/2$^+$)	
		4033.5	2.1	5307.4	(1/2$^+$ to 5/2$^+$)	
		4331.6	9	5009.3	(1/2 to 7/2$^+$)	
		4380.1	2.1	4960.8	3/2	
		4486.9	6	4853.96	3/2	
		4503.2	2.1	4837.61	5/2	
		5324.5	2.1	4016.27	3/2$^+$	
		5599.6	2.1	3741.19	5/2$^-$	
		5632.9	2.1	3707.79	3/2$^+$	
		5713.9	28	3626.82	3/2$^+$	
		7613.7	40	1726.58	1/2$^+$	δ: δ(Q/D)=+0.28 *6* or −3.7 *5* for J=3/2.
		9339.9	100	0	3/2$^+$	δ: δ(Q/D)=−0.26 *6* or $\delta\geq$10 for J=3/2.
9355.45	(3/2$^-$,5/2,7/2$^+$)	x				I_γ: absolute intensity=4. Additional information 286.
		3982.7	12	5372.5	(1/2$^-$ to 5/2$^+$)	
		4394.4	41	4960.8	3/2	
		4517.5	94	4837.61	5/2	
		4895.1	12	4459.97	7/2$^-$	
		5082.6	29	4272.58	7/2$^-$	

$^{37}_{17}Cl_{20}$-26

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ †	I_γ ‡	E_f	J_f^π	Mult.#	δ#	Comments
9355.45	(3/2$^-$,5/2,7/2$^+$)	5338.8	24	4016.27	3/2$^+$			
		5613.9	47	3741.19	5/2$^-$			
		5728.2	12	3626.82	3/2$^+$			
		6251.3	100	3103.52	7/2$^-$			
		9354.2	41	0	3/2$^+$			
9373.25	5/2	x						I_γ: absolute intensity=4. Additional information 287.
		1686.4		7686.8	(1/2 to 9/2$^-$)			
		2148.8		7224.4	(5/2,3/2$^+$)			
		2671.3		6701.8	5/2$^+$	D(+Q)	0.00 *4*	
		3001.1	11	6372	5/2$^+$			
		3049.3	6	6323.8	(3/2 to 7/2)			
		3357.8	6	6015.3	(3/2,5/2)			
		3395.1	6	5978	5/2$^+$			
		3882.4	17	5490.68	5/2$^+$	D+Q	+0.13 *7*	δ: or +0.95 *17*.
		4065.6	11	5307.4	(1/2$^+$ to 5/2$^+$)			
		4313.9	6	5059.1	(3/2$^-$ to 7/2$^+$)			
		4412.2	22	4960.8	3/2	D+Q	+0.031 *12*	
		4468.8	11	4903.91	7/2$^+$			
		4519.0	17	4853.96	3/2	D(+Q)	−0.001 *16*	
		4535.3	78	4837.61	5/2	D(+Q)	−0.011 *15*	
		4562.0	6	4810.9	7/2	D(+Q)	−0.08 *10*	
		4571.7	28	4801.21	5/2$^+$	D+Q	−0.04 *2*	
		4912.9	11	4459.97	7/2$^-$	D+Q	−0.05 *2*	
		5100.4	28	4272.58	7/2$^-$	D(+Q)	−0.018 *13*	
		5356.6	22	4016.27	3/2$^+$			
		5631.7	11	3741.19	5/2$^-$	D(+Q)	+0.07 *6*	
		5665.0	6	3707.79	3/2$^+$	D(+Q)	0.00 *2*	
		6269.1	67	3103.52	7/2$^-$	D+Q	+0.027 *10*	
		6286.6	28	3086.12	5/2$^+$	D+Q	+0.08 *3*	
		9372.0	100	0	3/2$^+$	D+Q	+0.020 *6*	
9377.63	(1/2 to 5/2$^+$)	x						I_γ: absolute intensity=4. Additional information 288.
		3399.5	2.5	5978	5/2$^+$			
		3468.2	1.3	5909.3	(3/2$^-$ to 9/2$^+$)			
		3732.1	1.3	5645.3	3/2$^+$,5/2$^+$			
		3886.7	1.3	5490.68	5/2$^+$			
		4539.7	2.5	4837.61	5/2			
		4576.1	1.3	4801.21	5/2$^+$			
		5108.4	1.3	4268.87	1/2			
		5200.6	1.3	4176.64	3/2$^-$			
		5360.9	1.3	4016.27	3/2$^+$			

$^{37}_{17}Cl_{20}$-27

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Comments
9377.63	(1/2 to 5/2$^+$)	6273.5	1.3	3103.52	7/2$^-$	
		6290.9	1.3	3086.12	5/2$^+$	
		7650.2	3.8	1726.58	1/2$^+$	
		9376.4	100	0	3/2$^+$	
9386.77		x				I_γ: absolute intensity=8. Additional information 289.
		2654.7	5	6732	(1/2 to 9/2$^-$)	
		2898.3	18	6488.3	(3/2 to 9/2$^-$)	
		2971.6	14	6415	(1/2 to 5/2$^+$)	
		4157.8	9	5228.7	(1/2 to 7/2$^+$)	
		4327.4	9	5059.1	(3/2$^-$ to 7/2$^+$)	
		4425.7	9	4960.8	3/2	
		4548.9	9	4837.61	5/2	
		4990.1	32	4396.32	5/2	
		5117.5	9	4268.87	1/2	
		5209.7	9	4176.64	3/2$^-$	
		5370.1	18	4016.27	3/2$^+$	
		5645.3	5	3741.19	5/2$^-$	
		5678.5	41	3707.79	3/2$^+$	
		5759.5	18	3626.82	3/2$^+$	
		6300.1	9	3086.12	5/2$^+$	
		7659.3	100	1726.58	1/2$^+$	
		9385.5	77	0	3/2$^+$	
9393.38	(1/2$^+$,3/2,5/2$^+$)	x				I_γ: absolute intensity=15. Additional information 290.
		3021.2	15	6372	5/2$^+$	
		3351.0	10	6042.2	(1/2 to 5/2)	
		3377.9	15	6015.3	(3/2,5/2)	
		3449.2	15	5944	(1/2 to 9/2$^-$)	
		4020.6	10	5372.5	(1/2$^-$ to 5/2$^+$)	
		4164.4	30	5228.7	(1/2 to 7/2$^+$)	
		4432.3	40	4960.8	3/2	
		4539.1	10	4853.96	3/2	
		4555.5	15	4837.61	5/2	
		5124.1	10	4268.87	1/2	
		5216.3	15	4176.64	3/2$^-$	
		5376.7	5	4016.27	3/2$^+$	
		5685.1	80	3707.79	3/2$^+$	
		6306.7	10	3086.12	5/2$^+$	
		7665.9	45	1726.58	1/2$^+$	
		9392.1	100	0	3/2$^+$	
9428.71	17/2$^-$	517.8 *3*	12 *5*	8911.09	19/2$^-$	Additional information 291.

$^{37}_{17}Cl_{20}$-28

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ †	I_γ ‡	E_f	J_f^π	Mult.#	δ#	Comments
9428.71	17/2$^-$	1975.6 *3*	100 *20*	7452.97	15/2$^-$			Additional information 292.
		4158.4 *13*	20 *5*	5270.95	13/2$^-$	E2		Additional information 293.
9435.79	5/2	x						I_γ: absolute intensity=20.
								Additional information 294.
		3526.3	6	5909.3	(3/2$^-$ to 9/2$^+$)			
		4128.1	10	5307.4	(1/2$^+$ to 5/2$^+$)			
		4380.3	6	5055.2	(1/2 to 5/2$^+$)			
		5039.1	6	4396.32	5/2			
		5166.5	13	4268.87	1/2			
		5694.3	16	3741.19	5/2$^-$			
		7708.3	100	1726.58	1/2$^+$			δ: δ(Q/D)=+0.37 *6* or −6.3 *+27−18* for J=3/2.
		9434.5	100	0	3/2$^+$			δ: δ(Q/D)=0.00 *6* or +3.8 *5* for J=3/2.
9448.25	(1/2$^+$,3/2,5/2$^+$)	x						I_γ: absolute intensity=40.
								Additional information 295.
		6361.5	50	3086.12	5/2$^+$			
		7720.8	50	1726.58	1/2$^+$			
		9447.0	100	0	3/2$^+$			
9452.53	(1/2$^+$,3/2,5/2$^+$)	x						I_γ: absolute intensity=6.
								Additional information 296.
		2720.4	1.5	6732	(1/2 to 9/2$^-$)			
		3474.4	1.5	5978	5/2$^+$			
		3537.3	1.5	5915.0	(1/2$^-$ to 7/2$^-$)			
		4397.0	4	5055.2	(1/2 to 5/2$^+$)			
		4442.9	1.5	5009.3	(1/2 to 7/2$^+$)			
		4491.4	1.5	4960.8	3/2			
		4598.3	4	4853.96	3/2			
		4651.0	2.9	4801.21	5/2$^+$			
		5275.5	4	4176.64	3/2$^-$			
		5435.8	4	4016.27	3/2$^+$			
		5711.0	1.5	3741.19	5/2$^-$			
		5825.2	1.5	3626.82	3/2$^+$			
		7725.1	7	1726.58	1/2$^+$			
		9451.2	100	0	3/2$^+$			
9461.96	5/2	x						I_γ: absolute intensity=15.
								Additional information 297.
		2973.5	2.2	6488.3	(3/2 to 9/2$^-$)			
		3446.5	4	6015.3	(3/2,5/2)			
		3483.8	2.2	5978	5/2$^+$			
		3517.8	2.2	5944	(1/2 to 9/2$^-$)			
		4089.2	2.2	5372.5	(1/2$^-$ to 5/2$^+$)			
		4402.6	2.2	5059.1	(3/2$^-$ to 7/2$^+$)			
		4500.9	2.2	4960.8	3/2	D+Q	−0.19 *4*	

$^{37}_{17}Cl_{20}$-29

Adopted Levels, Gammas (continued)

$\gamma(^{37}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
9461.96	5/2	4557.5	4	4903.91	$7/2^+$			
		4660.4	2.2	4801.21	$5/2^+$			
		5001.6	7	4459.97	$7/2^-$	D(+Q)	−0.01 *5*	
		5065.3	7	4396.32	5/2	D+Q	−0.11 *7*	
		5284.9	13	4176.64	$3/2^-$	D(+Q)	−0.013 *9*	
		5445.3	4	4016.27	$3/2^+$			
		5720.4	2.2	3741.19	$5/2^-$			
		5834.6	100	3626.82	$3/2^+$	D(+Q)	−0.011 *4*	
		6375.2	4	3086.12	$5/2^+$	D+Q	−0.17 *5*	δ: or +1.8 *2*.
		9460.7	22	0	$3/2^+$			
9473.54	(1/2,3/2,5/2$^+$)	x						I_γ: absolute intensity=20. Additional information 298.
		3828.0	4	5645.3	$3/2^+$,$5/2^+$			
		3855.4	2.0	5617.9	($1/2^-$ to $9/2^-$)			
		4100.8	4	5372.5	($1/2^-$ to $5/2^+$)			
		4619.3	4	4853.96	3/2			
		5204.3	10	4268.87	1/2			
		5456.8	12	4016.27	$3/2^+$			
		5846.2	6	3626.82	$3/2^+$			
		7746.1	18	1726.58	$1/2^+$			
		9472.2	100	0	$3/2^+$			
9475.97	3/2	x						I_γ: absolute intensity=5. Additional information 299.
		2325.9	2.2	7150	(1/2 to $9/2^-$)			
		3460.5	2.2	6015.3	(3/2,5/2)			
		3857.9	2.2	5617.9	($1/2^-$ to $9/2^-$)			
		4247.0	2.2	5228.7	(1/2 to $7/2^+$)			
		4466.4	7	5009.3	(1/2 to $7/2^+$)			
		4621.7	2.2	4853.96	3/2			
		4638.0	2.2	4837.61	5/2			
		5079.3	9	4396.32	5/2			
		5206.7	2.2	4268.87	1/2			
		5459.3	2.2	4016.27	$3/2^+$			
		5734.4	2.2	3741.19	$5/2^-$			
		5767.7	13	3707.79	$3/2^+$			
		5848.7	2.2	3626.82	$3/2^+$			
		6389.3	13	3086.12	$5/2^+$			
		7748.5	43	1726.58	$1/2^+$	(D+Q)	+0.04 *4*	δ: or −1.9 *3*.
		9474.7	100	0	$3/2^+$	(D+Q)	−0.05 *6*	δ: or +5.1 *+12−10*.
9494.65	(3/2,5/2$^+$)	x						I_γ: absolute intensity=22. Additional information 300.
		2825.6	8	6668.9	$3/2^+$,$5/2^+$			

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
9494.65	(3/2,5/2$^+$)	3122.5	5	6372	5/2$^+$			
		4121.9	5	5372.5	(1/2$^-$ to 5/2$^+$)			
		4439.2	10	5055.2	(1/2 to 5/2$^+$)			
		4656.7	2.5	4837.61	5/2			
		4693.1	5	4801.21	5/2$^+$			
		5098.0	2.5	4396.32	5/2			
		5225.4	13	4268.87	1/2			
		5753.1	5	3741.19	5/2$^-$			
		5786.4	30	3707.79	3/2$^+$			
		6407.9	2.5	3086.12	5/2$^+$			
		7767.2	8	1726.58	1/2$^+$			
		9493.3	100	0	3/2$^+$			
9500.09	5/2$^+$	x						I_γ: absolute intensity=10. Additional information 301.
		3141.9	2.2	6358	(1/2$^+$ to 7/2$^+$)			
		3854.6	2.2	5645.3	3/2$^+$,5/2$^+$			
		4539.0	2.2	4960.8	3/2			
		5230.8	4	4268.87	1/2			
		5791.8	4	3707.79	3/2$^+$			
		5872.8	7	3626.82	3/2$^+$			
		7772.6	78	1726.58	1/2$^+$	Q+O	−0.21 *6*	δ: or 3.1 *5* from γ(θ).
		9498.8	100	0	3/2$^+$	Q+O	−0.12 *8*	δ: Others: 0.44 *5* or 6.5 *+16−12*.
9501.16	(3/2$^-$,5/2,7/2$^+$)	x						I_γ: absolute intensity=13. Additional information 302.
		4596.7	1.3	4903.91	7/2$^+$			
		5228.2	1.3	4272.58	7/2$^-$			
		6397.0	7	3103.52	7/2$^-$			
		6414.4	7	3086.12	5/2$^+$			
		9499.8	100	0	3/2$^+$			
9518.09	(1/2,3/2,5/2$^+$)	x						I_γ: absolute intensity=13. Additional information 303.
		2438.6	13	7079.4	5/2$^+$			
		2849.1	8	6668.9	3/2$^+$,5/2$^+$			
		3532.0	8	5985.9	(1/2$^+$ to 5/2)			
		3872.6	13	5645.3	3/2$^+$,5/2$^+$			
		4145.3	21	5372.5	(1/2$^-$ to 5/2$^+$)			
		4289.1	4	5228.7	(1/2 to 7/2$^+$)			
		4462.6	4	5055.2	(1/2 to 5/2$^+$)			
		5248.8	46	4268.87	1/2			
		5341.0	4	4176.64	3/2$^-$			
		5501.4	42	4016.27	3/2$^+$			
		6431.4	4	3086.12	5/2$^+$			

$^{37}_{17}Cl_{20}$-31

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ [†]	I_γ [‡]	E_f	J_f^π	Comments
9518.09	(1/2,3/2,5/2$^+$)	7790.6	100	1726.58	1/2$^+$	
		9516.8	96	0	3/2$^+$	
9522.08		x				I_γ: absolute intensity=20. Additional information 304.
		3536.0	20	5985.9	(1/2$^+$ to 5/2)	
		3577.9	7	5944	(1/2 to 9/2$^-$)	
		3795.6	7	5726.3	7/2$^-$	
		4561.0	7	4960.8	3/2	
		4617.6	10	4903.91	7/2$^+$	
		4684.2	7	4837.61	5/2	
		4720.5	13	4801.21	5/2$^+$	
		5061.7	30	4459.97	7/2$^-$	
		5505.4	100	4016.27	3/2$^+$	
		6435.4	33	3086.12	5/2$^+$	
		7794.6	10	1726.58	1/2$^+$	
		9520.8	23	0	3/2$^+$	
9546.69	(5/2,7/2$^+$)	x				I_γ: absolute intensity=15. Additional information 305.
		4537.1	1.5	5009.3	(1/2 to 7/2$^+$)	
		4585.6	5	4960.8	3/2	
		4642.2	9	4903.91	7/2$^+$	
		4735.5	1.5	4810.9	7/2	
		5150.0	1.5	4396.32	5/2	
		5273.8	8	4272.58	7/2$^-$	
		5530.0	5	4016.27	3/2$^+$	
		9545.4	100	0	3/2$^+$	
9549.12		4493.6	14	5055.2	(1/2 to 5/2$^+$)	
		4737.9	21	4810.9	7/2	
		5152.4	54	4396.32	5/2	
		5921.8	100	3626.82	3/2$^+$	
		6444.9	21	3103.52	7/2$^-$	
		7821.7	54	1726.58	1/2$^+$	
		9547.8	93	0	3/2$^+$	
9572.37	1/2	x				I_γ: absolute intensity=6. Additional information 306.
		3530.0	2.9	6042.2	(1/2 to 5/2)	
		3556.9	4	6015.3	(3/2,5/2)	
		3586.3	1.4	5985.9	(1/2$^+$ to 5/2)	
		3954.2	1.4	5617.9	(1/2$^-$ to 9/2$^-$)	
		4343.4	4	5228.7	(1/2 to 7/2$^+$)	
		5303.1	14	4268.87	1/2	
		5864.1	4	3707.79	3/2$^+$	

$^{37}_{17}Cl_{20}$-32

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ †	I_γ ‡	E_f	J_f^π	Comments
9572.37	1/2	5945.0	1.4	3626.82	$3/2^+$	
		9571.0	100	0	$3/2^+$	
9768.6	7/2	9769		0	$3/2^+$	
9795.3	$19/2^+$	1093.3 *6*	8 *4*	8702.18	$17/2^+$	Additional information 307.
		2774.6 *6*	100 *10*	7020.49	$15/2^+$	Additional information 308.
9815.4	(1/2 to 5/2)	9815		0	$3/2^+$	δ: δ(Q/D)=+0.139 *8* for J=3/2, −0.292 *8* for J=5/2.
9845.6	(3/2,5/2)	9845		0	$3/2^+$	δ: δ(Q/D)=+0.18 *3* for J=3/2, −0.156 *22* for J=5/2.
9949.4		4806.1	6	5143?		
		5932.6	2.5	4016.27	$3/2^+$	
		6862.6	14	3086.12	$5/2^+$	
		8221.8	2.5	1726.58	$1/2^+$	
		9948.0	100	0	$3/2^+$	
9960.3		4904.8	2.2	5055.2	(1/2 to $5/2^+$)	
		8232.7	100	1726.58	$1/2^+$	
		9958.9	9	0	$3/2^+$	
9974.4		6887.6	6	3086.12	$5/2^+$	
		8246.8	22	1726.58	$1/2^+$	
		9973.0	100	0	$3/2^+$	
10029.4		4973.8	1.0	5055.2	(1/2 to $5/2^+$)	
		8301.8	100	1726.58	$1/2^+$	
		10027.9	2.1	0	$3/2^+$	
10080.7	(3/2,5/2)	10081		0	$3/2^+$	δ: δ(Q/D)=+0.64 *3* for J=3/2, +0.058 *22* for J=5/2.
10103.0	$17/2^+$	1574.6 *3*	100	8530.10	$15/2^+$	Additional information 309.
10142.5		10143		0	$3/2^+$	
10174.9	(1/2 to $5/2^+$)	x				I_γ: absolute intensity=15. Additional information 310.
		4259.6	10	5915.0	($1/2^-$ to $7/2^-$)	
		4556.7	15	5617.9	($1/2^-$ to $9/2^-$)	
		5213.7	6	4960.8	3/2	
		6158.1	19	4016.27	$3/2^+$	
		6547.5	8	3626.82	$3/2^+$	
		8447.3	13	1726.58	$1/2^+$	
		10173.4	100	0	$3/2^+$	
10179.6		x				I_γ: absolute intensity=30. Additional information 311.
		5341.6	25	4837.61	5/2	
		5378.0	7	4801.21	$5/2^+$	
		5906.6	14	4272.58	$7/2^-$	
		6437.9	32	3741.19	$5/2^-$	
		7075.3	50	3103.52	$7/2^-$	
		7092.7	100	3086.12	$5/2^+$	
		8452.0	7	1726.58	$1/2^+$	

$^{37}_{17}Cl_{20}$-33

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ †	I_γ ‡	E_f	J_f^π	Comments
10179.6		10178.1	14	0	$3/2^+$	
10183.2	7/2	x				I_γ: absolute intensity=15. Additional information 312.
		5173.5	2.2	5009.3	(1/2 to $7/2^+$)	
		6006.0	2.2	4176.64	$3/2^-$	
		6166.4	2.2	4016.27	$3/2^+$	
		6474.8	9	3707.79	$3/2^+$	
		7096.3	36	3086.12	$5/2^+$	
		8455.6	100	1726.58	$1/2^+$	
		10181.7	38	0	$3/2^+$	
10184.5	$(1/2^+,3/2,5/2^+)$	x				I_γ: absolute intensity=21. Additional information 313.
		5279.9	8	4903.91	$7/2^+$	
		5346.5	8	4837.61	5/2	
		5787.7	13	4396.32	5/2	
		5911.5	21	4272.58	$7/2^-$	
		6007.3	8	4176.64	$3/2^-$	
		6167.7	8	4016.27	$3/2^+$	
		6476.1	13	3707.79	$3/2^+$	
		6557.1	17	3626.82	$3/2^+$	
		7097.6	46	3086.12	$5/2^+$	
		8456.9	92	1726.58	$1/2^+$	
		10183.0	100	0	$3/2^+$	
10190.9	$(3/2,5/2^+)$	x				I_γ: absolute intensity=20. Additional information 314.
		5389.3	4	4801.21	$5/2^+$	
		5794.1	9	4396.32	5/2	
		6449.2	4	3741.19	$5/2^-$	
		6482.5	4	3707.79	$3/2^+$	
		6563.5	4	3626.82	$3/2^+$	
		8463.3	45	1726.58	$1/2^+$	
		10189.4	100	0	$3/2^+$	
10197.3		x				I_γ: absolute intensity=30. Additional information 315.
		5800.5	6	4396.32	5/2	
		6180.5	29	4016.27	$3/2^+$	
		6488.9	2.9	3707.79	$3/2^+$	
		6569.9	2.9	3626.82	$3/2^+$	
		7093.0	2.9	3103.52	$7/2^-$	
		7110.4	62	3086.12	$5/2^+$	
		10195.8	100	0	$3/2^+$	

$^{37}_{17}Cl_{20}$-34

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ †	I_γ ‡	E_f	J_f^π	Mult.#	δ#	Comments
10200.7		x						I_γ: absolute intensity=25. Additional information 316.
		4214.5	15	5985.9	(1/2$^+$ to 5/2)			
		4630.3	10	5570.1	(3/2$^-$ to 7/2)			
		4672.0	5	5528.4	9/2			
		5362.7	45	4837.61	5/2			
		5389.4	25	4810.9	7/2			
		5803.9	20	4396.32	5/2			
		5927.7	5	4272.58	7/2$^-$			
		5931.3	5	4268.87	1/2			
		6183.9	5	4016.27	3/2$^+$			
		6188.8	10	4009.99	9/2$^-$			
		6459.0	5	3741.19	5/2$^-$			
		6492.3	5	3707.79	3/2$^+$			
		6573.3	100	3626.82	3/2$^+$			
		7096.4	90	3103.52	7/2$^-$			
		7113.8	5	3086.12	5/2$^+$			
		10199.2	25	0	3/2$^+$			
10207.8	3/2	x						I_γ: absolute intensity=18. Additional information 317.
		4562.2	7	5645.3	3/2$^+$,5/2$^+$			
		4716.8	7	5490.68	5/2$^+$			
		5152.2	3.6	5055.2	(1/2 to 5/2$^+$)			
		5246.6	7	4960.8	3/2	D+Q	+0.13 *6*	δ: or +2.5 *5*.
		5369.8	18	4837.61	5/2			
		5811.0	7	4396.32	5/2	D(+Q)	+0.01 *9*	
		6030.6	11	4176.64	3/2$^-$	D(+Q)	−0.02 *2*	δ: or +4.2 *6*.
		6191.0	54	4016.27	3/2$^+$	D(+Q)	−0.002 *11*	Mult.,δ: or +3.9 *2*.
		6499.4	46	3707.79	3/2$^+$	D(+Q)	−0.009 *12*	δ: or +4.0 *2*.
		6580.4	14	3626.82	3/2$^+$			
		7120.9	7	3086.12	5/2$^+$			
		8480.2	11	1726.58	1/2$^+$			
		10206.3	100	0	3/2$^+$	D+Q	+0.067 *12*	δ: or +3.02 *12*.
10212.4		x						I_γ: absolute intensity=20. Additional information 318.
		2957.8	3.8	7254.5	(1/2 to 9/2$^-$)			
		4268.1	1.9	5944	(1/2 to 9/2$^-$)			
		4566.8	1.9	5645.3	3/2$^+$,5/2$^+$			
		5374.4	11	4837.61	5/2			
		5401.1	1.9	4810.9	7/2			
		5410.8	1.9	4801.21	5/2$^+$			
		5815.6	3.8	4396.32	5/2			

$^{37}_{17}Cl_{20}$-35

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ †	I_γ ‡	E_f	J_f^π	Comments
10212.4		6195.6	3.8	4016.27	$3/2^+$	
		6470.7	3.8	3741.19	$5/2^-$	
		6504.0	17	3707.79	$3/2^+$	
		10210.9	100	0	$3/2^+$	
10217.7		x				I_γ: absolute intensity=14. Additional information 319.
		4308.1	6	5909.3	($3/2^-$ to $9/2^+$)	
		4572.1	3.1	5645.3	$3/2^+$,$5/2^+$	
		4726.7	9	5490.68	$5/2^+$	
		4910.0	6	5307.4	($1/2^+$ to $5/2^+$)	
		5406.4	3.1	4810.9	7/2	
		5757.2	3.1	4459.97	$7/2^-$	
		5944.7	3.1	4272.58	$7/2^-$	
		6476.0	3.1	3741.19	$5/2^-$	
		6509.3	63	3707.79	$3/2^+$	
		6590.2	3.1	3626.82	$3/2^+$	
		7130.8	53	3086.12	$5/2^+$	
		10216.2	100	0	$3/2^+$	
10220.6	($3/2^-$,$5/2^+$)	x				I_γ: absolute intensity=10. Additional information 320.
		3915.3	1.6	6305.1	(1/2 to $7/2^-$)	
		4729.6	5	5490.68	$5/2^+$	
		5165.0	3.1	5055.2	(1/2 to $5/2^+$)	
		5366.2	5	4853.96	3/2	
		6478.9	1.6	3741.19	$5/2^-$	
		6512.2	9	3707.79	$3/2^+$	
		7116.3	9	3103.52	$7/2^-$	
		7133.7	3.1	3086.12	$5/2^+$	
		8493.0	3.1	1726.58	$1/2^+$	
		10219.1	100	0	$3/2^+$	
10221.9	$7/2^-$	x				I_γ: absolute intensity=10. Additional information 321.
		3863.7	2.7	6358	($1/2^+$ to $7/2^+$)	δ: δ(Q/D)=−0.06 *24*.
		4495.3	2.7	5726.3	$7/2^-$	δ: δ(Q/D)=+0.03 *27*.
		4651.5	5	5570.1	($3/2^-$ to 7/2)	δ: δ(Q/D)=+0.29 *8*.
		4849		5372.5	($1/2^-$ to $5/2^+$)	δ: δ(Q/D)=−0.02 *12*.
		5163		5059.1	($3/2^-$ to $7/2^+$)	δ: δ(Q/D)=+0.14 *10*.
		5410.6	5	4810.9	7/2	δ: δ(Q/D)=+0.27 *20* or +1 *1*.
		5420.3	1.4	4801.21	$5/2^+$	
		5761.4	1.4	4459.97	$7/2^-$	δ: δ(Q/D)=+0.07 *5* or +2 *2*.
		5826		4396.32	5/2	δ: δ(Q/D)=−0.7 *3*.
		6480.2	1.4	3741.19	$5/2^-$	δ: δ(Q/D)=−0.8 *3* or +4 *1*.

$^{37}_{17}Cl_{20}$-36

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
10221.9	7/2$^-$	7117.6	100	3103.52	7/2$^-$	M1(+E2)	0.00 *2*	δ: δ(Q/D)=+0.02 *2*.
		7135.0	1.4	3086.12	5/2$^+$			
10225.8	(3/2$^-$,5/2,7/2$^+$)	x						I_γ: absolute intensity=20. Additional information 322.
		4655.4	6	5570.1	(3/2$^-$ to 7/2)			
		4734.8	6	5490.68	5/2$^+$			
		5216.1	6	5009.3	(1/2 to 7/2$^+$)			
		5765.3	6	4459.97	7/2$^-$			
		6209.0	23	4016.27	3/2$^+$			
		6517.4	65	3707.79	3/2$^+$			
		7121.5	10	3103.52	7/2$^-$			
		7138.9	100	3086.12	5/2$^+$			
		10224.3	35	0	3/2$^+$			
10227.6	(3/2$^-$,5/2$^+$)	x						I_γ: absolute intensity=30. Additional information 323.
		4283.3	15	5944	(1/2 to 9/2$^-$)			
		4736.6	15	5490.68	5/2$^+$			
		5266.4	30	4960.8	3/2			
		5389.6	20	4837.61	5/2			
		5426.0	10	4801.21	5/2$^+$			
		5830.8	10	4396.32	5/2			
		6210.8	20	4016.27	3/2$^+$			
		6519.2	15	3707.79	3/2$^+$			
		6600.1	20	3626.82	3/2$^+$			
		7123.3	55	3103.52	7/2$^-$			
		7140.7	100	3086.12	5/2$^+$			
		8500.0	10	1726.58	1/2$^+$			
		10226.1	30	0	3/2$^+$			
10233.6	(1/2$^+$,3/2,5/2$^+$)	x						I_γ: absolute intensity=25. Additional information 324.
		5004.5	18	5228.7	(1/2 to 7/2$^+$)			
		6525.2	59	3707.79	3/2$^+$			
		7146.7	26	3086.12	5/2$^+$			
		8506.0	18	1726.58	1/2$^+$			
		10232.1	100	0	3/2$^+$			
10236.1	7/2	x						I_γ: absolute intensity= 30. Additional information 325.
		4509.5	1.8	5726.3	7/2$^-$	D(+Q)	−0.02 *5*	
		4707.4	5	5528.4	9/2	D(+Q)	−0.01 *1*	
		5424.8	11	4810.9	7/2	D+Q	−0.19 *1*	
		5839.3	3.5	4396.32	5/2	D+Q	−0.04 *1*	
		6494.4	1.8	3741.19	5/2$^-$	D+Q	+0.15 *2*	

$^{37}_{17}Cl_{20}$-37

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
10236.1	7/2	7131.8	100	3103.52	$7/2^-$	D+Q	−0.03 *1*	
10251.3		x						I_γ: absolute intensity=25. Additional information 326.
		4336.0	13	5915.0	($1/2^-$ to $7/2^-$)			
		4605.7	13	5645.3	$3/2^+$,$5/2^+$			
		5241.6	6	5009.3	(1/2 to $7/2^+$)			
		5396.9	23	4853.96	3/2			
		5440.0	3.2	4810.9	7/2			
		5981.9	16	4268.87	1/2			
		6542.9	32	3707.79	$3/2^+$			
		6623.8	13	3626.82	$3/2^+$			
		7164.4	19	3086.12	$5/2^+$			
		8523.7	3.2	1726.58	$1/2^+$			
		10249.8	100	0	$3/2^+$			
10255.3	(3/2,5/2)	x						I_γ: absolute intensity=18. Additional information 327.
		4340.0	7	5915.0	($1/2^-$ to $7/2^-$)			
		5417.3	10	4837.61	5/2			
		5444.0	13	4810.9	7/2			
		5982.3	17	4272.58	$7/2^-$			
		6238.5	20	4016.27	$3/2^+$			
		6546.9	17	3707.79	$3/2^+$			
		7151.0	20	3103.52	$7/2^-$			
		7168.4	100	3086.12	$5/2^+$			
		10253.8	70	0	$3/2^+$			δ: δ(Q/D)=+0.54 *1* or +3.85 *3* for J=3/2, −0.035 *6* for J=5/2.
10258.2	($3/2^-$,5/2,$7/2^+$)	x						I_γ: absolute intensity=12. Additional information 328.
		5446.9	1.7	4810.9	7/2			
		5797.7	1.7	4459.97	$7/2^-$			
		5985.2	3.4	4272.58	$7/2^-$			
		6241.4	17	4016.27	$3/2^+$			
		6630.7	1.7	3626.82	$3/2^+$			
		7153.9	7	3103.52	$7/2^-$			
		7171.3	19	3086.12	$5/2^+$			
		10256.7	100	0	$3/2^+$			
10262.7	($3/2^-$,5/2,$7/2^+$)	x						I_γ: absolute intensity=30. Additional information 329.
		4945.2	47	5317.1	(3/2 to $7/2^+$)			
		5461.1	16	4801.21	$5/2^+$			
		5802.2	16	4459.97	$7/2^-$			
		5989.7	100	4272.58	$7/2^-$			
		6085.5	95	4176.64	$3/2^-$			

$^{37}_{17}Cl_{20}$-38

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
10262.7	(3/2$^-$,5/2,7/2$^+$)	6521.0	16	3741.19	5/2$^-$			
		7158.4	37	3103.52	7/2$^-$			
		7175.8	26	3086.12	5/2$^+$			
		10261.2	16	0	3/2$^+$			
10268.5	1/2	x						I_γ: absolute intensity=10. Additional information 330.
		4622.9	1.2	5645.3	3/2$^+$,5/2$^+$			
		5258.8	2.4	5009.3	(1/2 to 7/2$^+$)			
		5307.3	5	4960.8	3/2			
		8540.9	100	1726.58	1/2$^+$			
10273.2	3/2	x						I_γ: absolute intensity=2. Additional information 331.
		5217.6	2.1	5055.2	(1/2 to 5/2$^+$)			
		5263.5	4	5009.3	(1/2 to 7/2$^+$)			
		5418.8	2.1	4853.96	3/2			
		5435.2	4	4837.61	5/2			
		5471.6	2.1	4801.21	5/2$^+$			
		5876.4	2.1	4396.32	5/2			
		6003.8	15	4268.87	1/2	D(+Q)	−0.01 *1*	δ: or −1.70 *4*.
		6096.0	2.1	4176.64	3/2$^-$			
		6256.4	2.1	4016.27	3/2$^+$			
		6531.5	4	3741.19	5/2$^-$			
		7186.3	100	3086.12	5/2$^+$	D+Q	−0.016 *7*	
		8545.6	21	1726.58	1/2$^+$			
		10271.7	47	0	3/2$^+$	D+Q	+0.081 *8*	δ: or +2.89 *7*.
10275.3	7/2$^-$	x						I_γ: absolute intensity=35. Additional information 332.
		4574.1	55	5700.9	9/2$^-$	D+Q	−0.22 *3*	
		4704.9	100	5570.1	(3/2$^-$ to 7/2)			
		5370.7	45	4903.91	7/2$^+$	D(+Q)	−0.05 *7*	
		5473.7	45	4801.21	5/2$^+$			
		5878.5	64	4396.32	5/2	D+Q	+0.05 *2*	
		6002.3	100	4272.58	7/2$^-$			
		6533.6	64	3741.19	5/2$^-$			
		7171.0	36	3103.52	7/2$^-$	D+Q	−0.96 *6*	δ: or +7 *3*.
		7188.4	82	3086.12	5/2$^+$			
10285.8	(1/2$^+$,3/2,5/2$^+$)	x						I_γ: absolute intensity=50. Additional information 333.
		4307.5	31	5978	5/2$^+$			
		5324.6	13	4960.8	3/2			
		5431.4	100	4853.96	3/2			
		5889.0	25	4396.32	5/2			

$^{37}_{17}Cl_{20}$-39

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
10285.8	(1/2$^+$,3/2,5/2$^+$)	6658.3	19	3626.82	3/2$^+$			
		7198.9	19	3086.12	5/2$^+$			
		8558.2	31	1726.58	1/2$^+$			
		10284.3	75	0	3/2$^+$			
10294.5	3/2	x						I_γ: absolute intensity=20. Additional information 334.
		5456.5	7	4837.61	5/2			
		5492.9	2.2	4801.21	5/2$^+$	D(+Q)	−0.11 *9*	δ: or −0.29 *9*.
		5897.7	4	4396.32	5/2			
		6025.1	7	4268.87	1/2	D(+Q)	+0.02 *3*	
		8566.9	54	1726.58	1/2$^+$	D+Q	+0.04 *2*	δ: or −1.9 *1*.
		10293.0	100	0	3/2$^+$	D+Q	−0.06 *1*	δ: or +5.2 *2*.
10296.9	(5/2$^-$,7/2$^+$)	x						I_γ: absolute intensity=20. Additional information 335.
		4318.6	20	5978	5/2$^+$			
		4726.5	45	5570.1	(3/2$^-$ to 7/2)			
		5237.4	30	5059.1	(3/2$^-$ to 7/2$^+$)			
		5485.6	35	4810.9	7/2			
		5836.4	80	4459.97	7/2$^-$			
		6023.9	100	4272.58	7/2$^-$			
		6285.0	40	4009.99	9/2$^-$			
		10295.4	50	0	3/2$^+$			
10305.2	(1/2,3/2,5/2$^+$)	x						I_γ: absolute intensity=40. Additional information 336.
		4687.0	16	5617.9	(1/2$^-$ to 9/2$^-$)			
		5249.6	42	5055.2	(1/2 to 5/2$^+$)			
		6288.4	58	4016.27	3/2$^+$			
		6677.7	100	3626.82	3/2$^+$			
		8577.6	53	1726.58	1/2$^+$			
		10303.7	47	0	3/2$^+$			
10308.1	19/2$^-$	2855.3 *14*	100	7452.97	15/2$^-$			Additional information 337.
10312.3	3/2$^+$,5/2$^+$	x						I_γ: absolute intensity=40. Additional information 338.
		4585.7	30	5726.3	7/2$^-$			
		4994.8	30	5317.1	(3/2 to 7/2$^+$)			
		5407.7	25	4903.91	7/2$^+$			
		6295.5	65	4016.27	3/2$^+$			
		6603.9	15	3707.79	3/2$^+$			
		7225.4	15	3086.12	5/2$^+$			
		8584.6	20	1726.58	1/2$^+$			
		10310.8	100	0	3/2$^+$			δ: δ(Q/D)=+0.12 *14* or −7 *3* for J=3/2, −0.27 *9* for J=5/2.

$^{37}_{17}Cl_{20}$-40

Adopted Levels, Gammas (continued)

γ(^{37}Cl) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Comments
10314.5	(1/2$^+$,3/2,5/2$^+$)	x				I_γ: absolute intensity=10. Additional information 339.
		5512.8	5	4801.21	5/2$^+$	
		5917.7	10	4396.32	5/2	
		6297.7	5	4016.27	3/2$^+$	
		7227.6	2.4	3086.12	5/2$^+$	
		8586.8	100	1726.58	1/2$^+$	
		10313.0	98	0	3/2$^+$	
10318.3		x				I_γ: absolute intensity=25. Additional information 340.
		8590.6	4	1726.58	1/2$^+$	
		10316.8	100	0	3/2$^+$	
10346	(3/2,5/2)	10346		0	3/2$^+$	δ: δ(Q/D)=0.00 *3* or −3.17 *13* for J=3/2, −0.23 *2* for J=5/2.
10369		x				I_γ: absolute intensity=30. δ: δ(Q/D)=0.0 *1*. Additional information 341.
		8641.3	100	1726.58	1/2$^+$	δ: δ(Q/D)=+0.26 *15*.
		10367.4	32	0	3/2$^+$	
10413	(3/2,5/2)	x				I_γ: absolute intensity=6. Additional information 342.
		8686 *3*		1726.58	1/2$^+$	
		10413 *93*		0	3/2$^+$	δ: δ(Q/D)=−0.035 *7* or −3.33 *4* for J=3/2, −0.45 *1* or −7.4 *5* for J=5/2 (1966Ko23), −0.17 *15* for J=3/2 (1998Ka52).
10454		x				I_γ: absolute intensity=11. Additional information 343.
		7367.1	11	3086.12	5/2$^+$	
		8726.3	34	1726.58	1/2$^+$	δ: δ(Q/D)=+0.3 *2*.
		10452.4	100	0	3/2$^+$	δ: δ(Q/D)=−0.7 *5*.
10494		x				I_γ: absolute intensity=35. Additional information 344.
		8767	91	1726.58	1/2$^+$	δ: δ(Q/D)=−0.28 *20*.
		10494	100	0	3/2$^+$	δ: δ(Q/D)=+0.26 *15*.
10556		x				I_γ: absolute intensity=35. Additional information 345.
		8829	53	1726.58	1/2$^+$	δ: δ(Q/D)=0.0 *1*.
		10556	100	0	3/2$^+$	δ: δ(Q/D)=0.0 *1*.
10571.3	19/2$^+$	776.1 *9*	25 *13*	9795.3	19/2$^+$	Additional information 346.
		2713.6 *9*	100 *44*	7857.88	15/2$^+$	Additional information 347.
		3551.5 *17*	63 *19*	7020.49	15/2$^+$	Additional information 348.
10713		x				I_γ: absolute intensity=63. Additional information 349.
		8986	100	1726.58	1/2$^+$	δ: δ(Q/D)=+0.27 *20*.

$^{37}_{17}Cl_{20}$-41

Adopted Levels, Gammas (continued)

$\gamma(^{37}Cl)$ (continued)

E_i(level)	J_i^π	E_γ [†]	I_γ [‡]	E_f	J_f^π	Comments
10713		10713	85	0	$3/2^+$	δ: δ(Q/D)=+0.46 *20*.
10748		x				I_γ: absolute intensity=10.
						Additional information 350.
		9021	29	1726.58	$1/2^+$	δ: δ(Q/D)=+0.57 *30*.
		10748	100	0	$3/2^+$	δ: δ(Q/D)=−0.21 *15*.
10778		x				I_γ: absolute intensity=10.
						Additional information 351.
		9051	100	1726.58	$1/2^+$	δ: δ(Q/D)=+0.52 *30*.
		10778	20	0	$3/2^+$	δ: δ(Q/D)=−0.07 *10*.
10962.81	$21/2^-$	1534.2 *3*	23 *9*	9428.71	$17/2^-$	Additional information 352.
		2051.6 *2*	100 *10*	8911.09	$19/2^-$	Additional information 353.
11398.9	$23/2^-$	2487.7 *3*	100	8911.09	$19/2^-$	Additional information 354.
11432.6	$21/2^+$	861.4 *4*	16 *7*	10571.3	$19/2^+$	Additional information 355.
		2619.3 *9*	100 *16*	8812.18	$17/2^+$	Additional information 356.
		2730.6 *7*	94 *26*	8702.18	$17/2^+$	Additional information 357.
11974.1	$(21/2^+)$	3271.8 *13*	100	8702.18	$17/2^+$	Additional information 358.
12476.2	$23/2^-$	1513.4 *7*	100 *13*	10962.81	$21/2^-$	Additional information 359.
		2168.4 *14*	92 *46*	10308.1	$19/2^-$	Additional information 360.
		3564.6 *14*	63 *21*	8911.09	$19/2^-$	Additional information 361.
13841.1	$25/2^-$	2441.6 *14*	100 *23*	11398.9	$23/2^-$	Additional information 362.
		2878.3 *8*	60 *13*	10962.81	$21/2^-$	Additional information 363.
13843.1	$(25/2^+)$	2410.4 *7*	100	11432.6	$21/2^+$	Additional information 364.
15448	$(27/2^-)$	4048.6 *25*	100	11398.9	$23/2^-$	Additional information 365.
17008.9	$(29/2^+)$	3165.6 *9*	100	13843.1	$(25/2^+)$	Additional information 366.

[†] Values with ΔE are primarily from β^- decay, (α,pγ) and (HI,xnγ). Weighted average taken when available. Others are deduced from level-energy differences. Symbol 'X' represents unidentified γ-transition.

[‡] Primarily from (p,γ). Weighted average taken when available, unless otherwise noted.

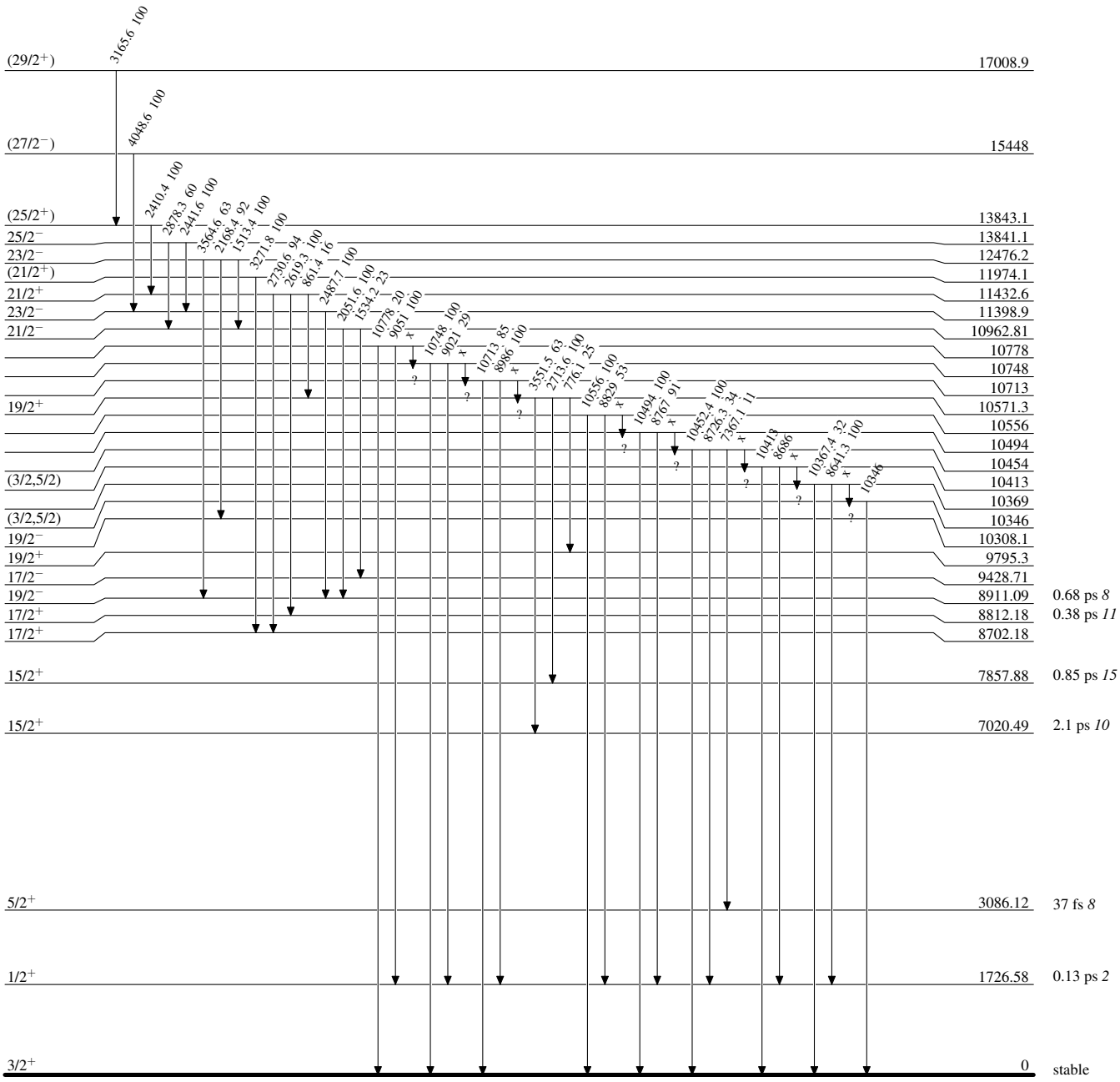
[#] From $\gamma(\theta)$ and/or $\gamma\gamma(\theta)$ and/or γ-polarization in (p,γ), (α,pγ), (p,p′γ), and (HI,xnγ). If $T_{1/2}$ is unknown and parity is determined not by polarization measurements, evaluators use D and Q, instead of M1 and E2, or, E1 and M2.

$^{37}_{17}Cl_{20}$-42

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

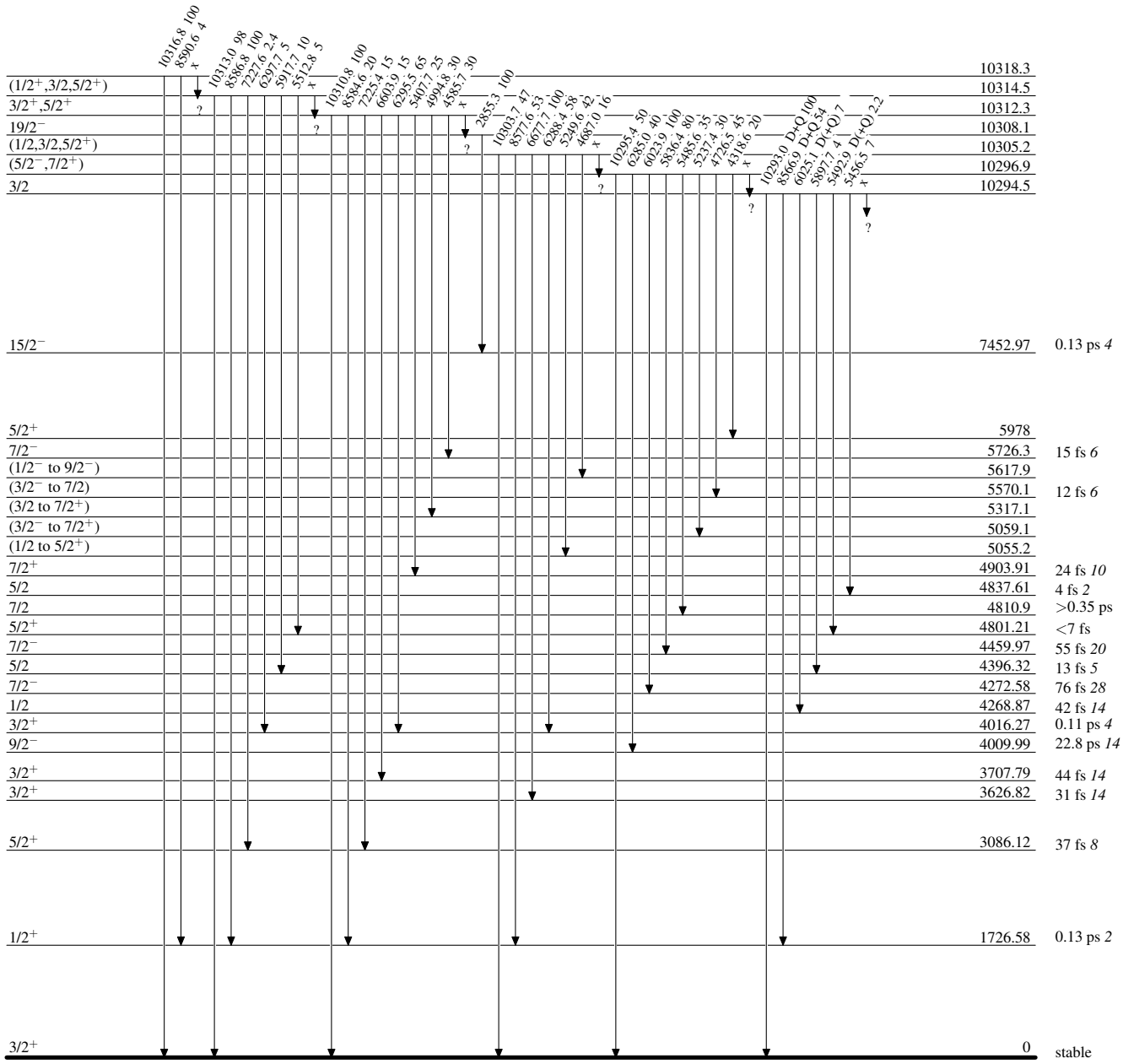


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

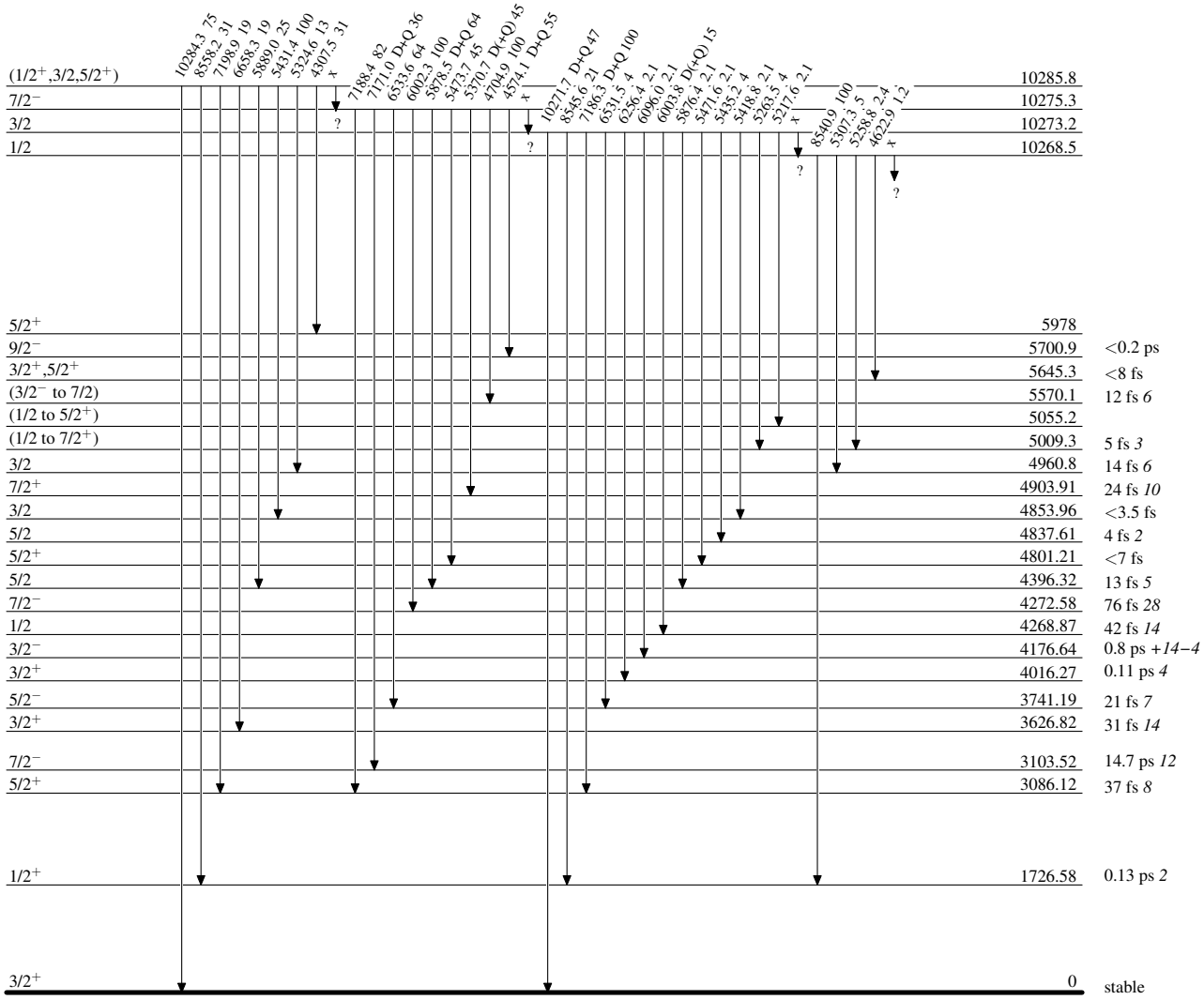


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

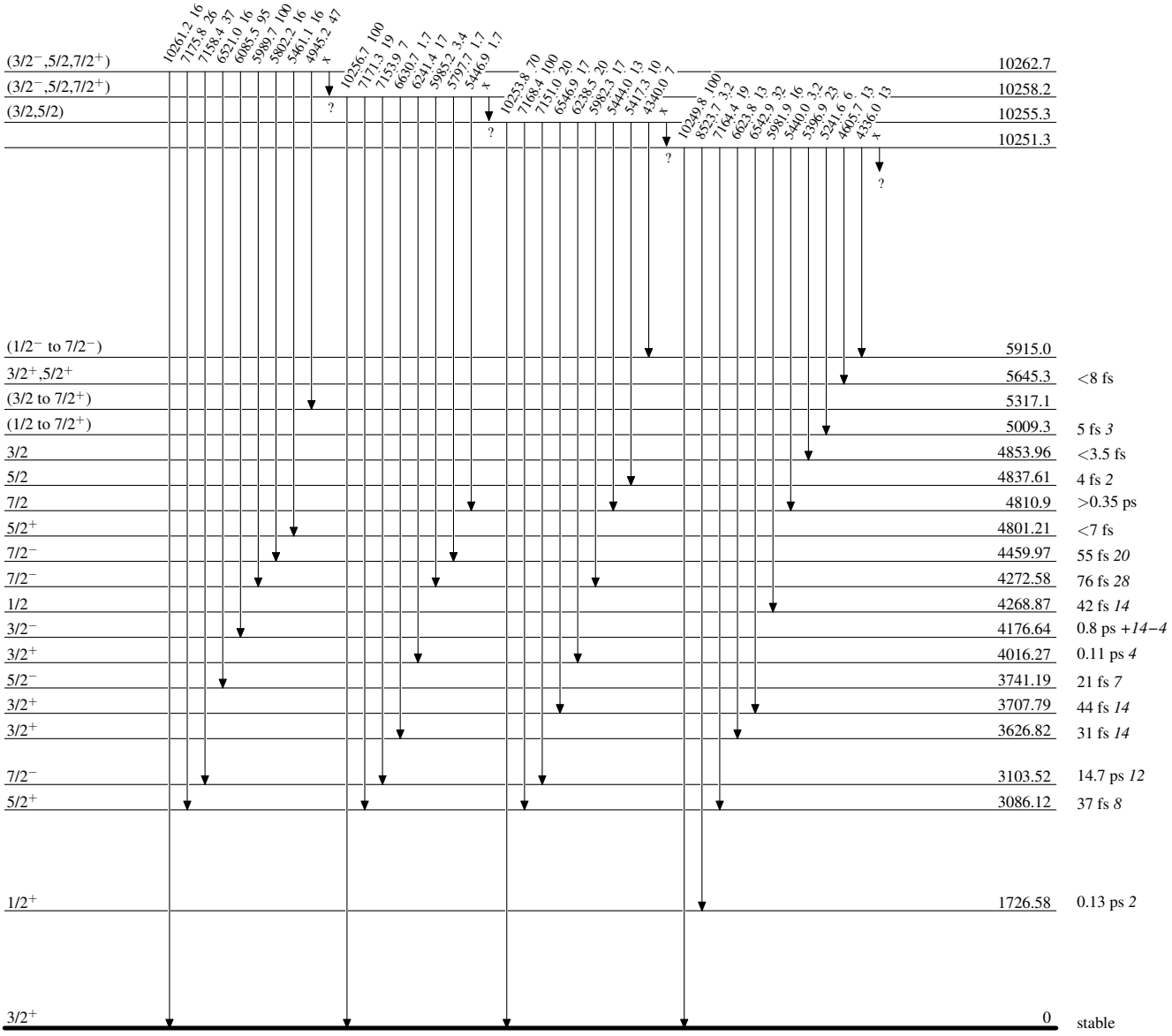
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

Level Scheme (continued)

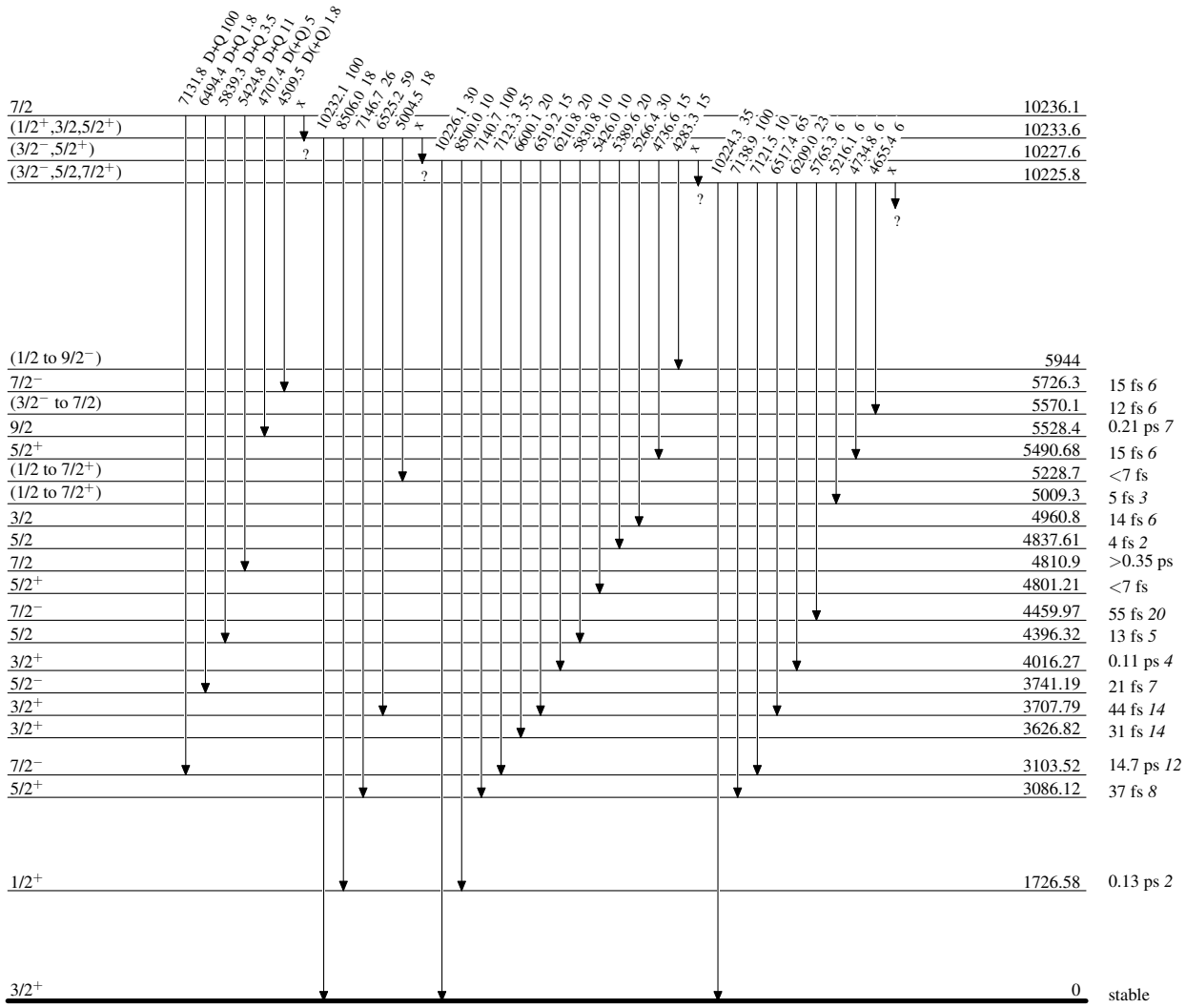
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

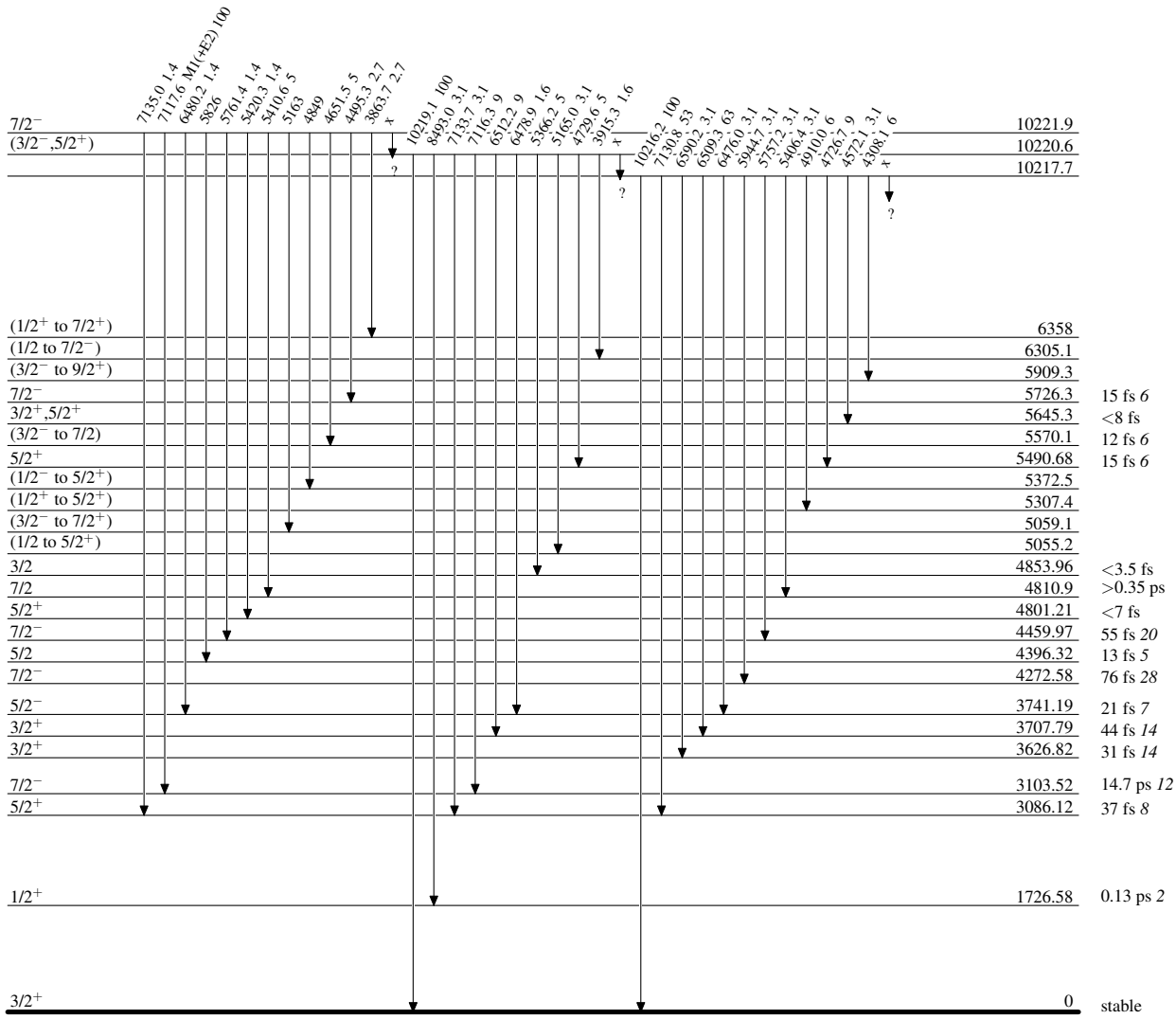


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

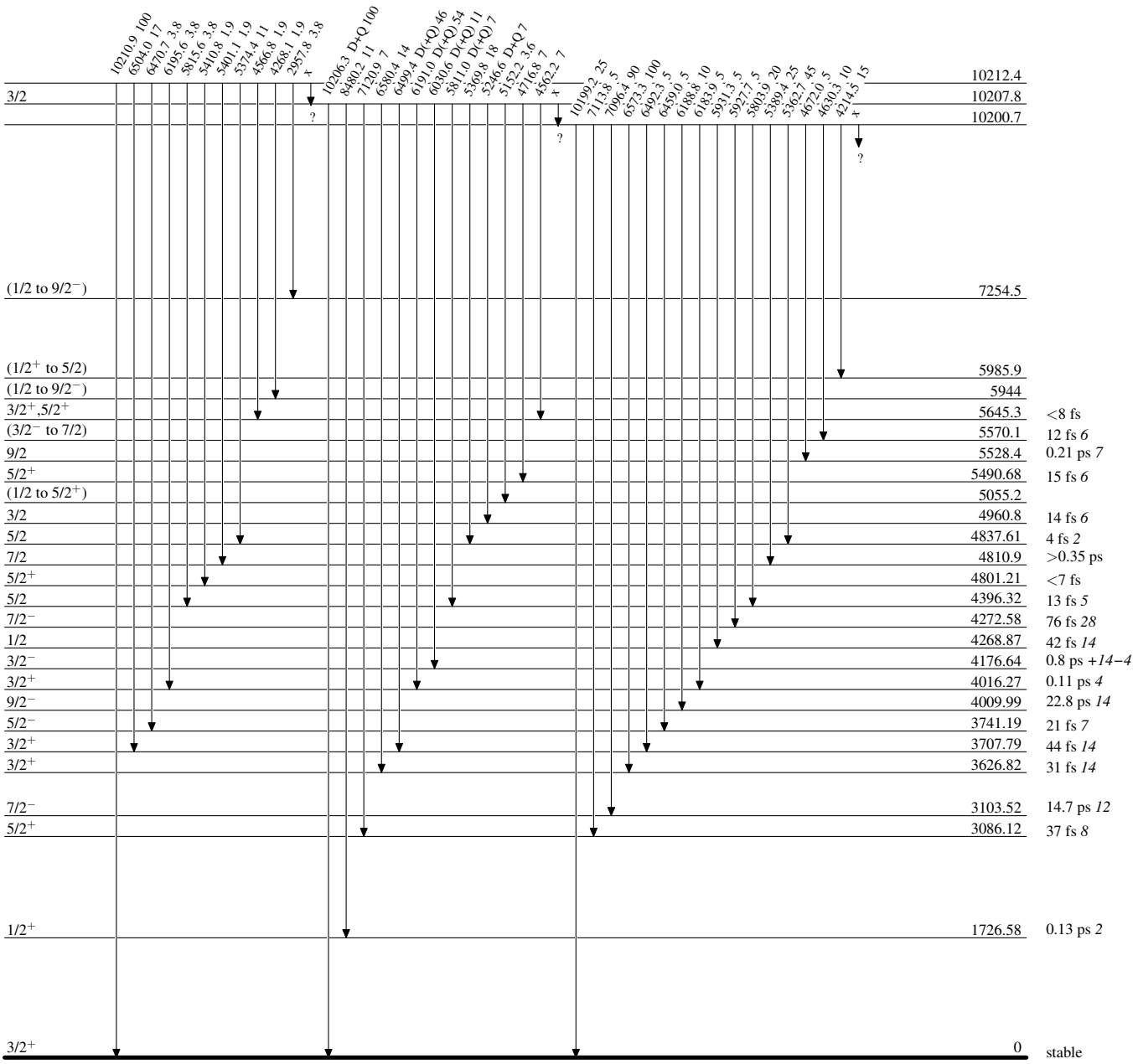


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

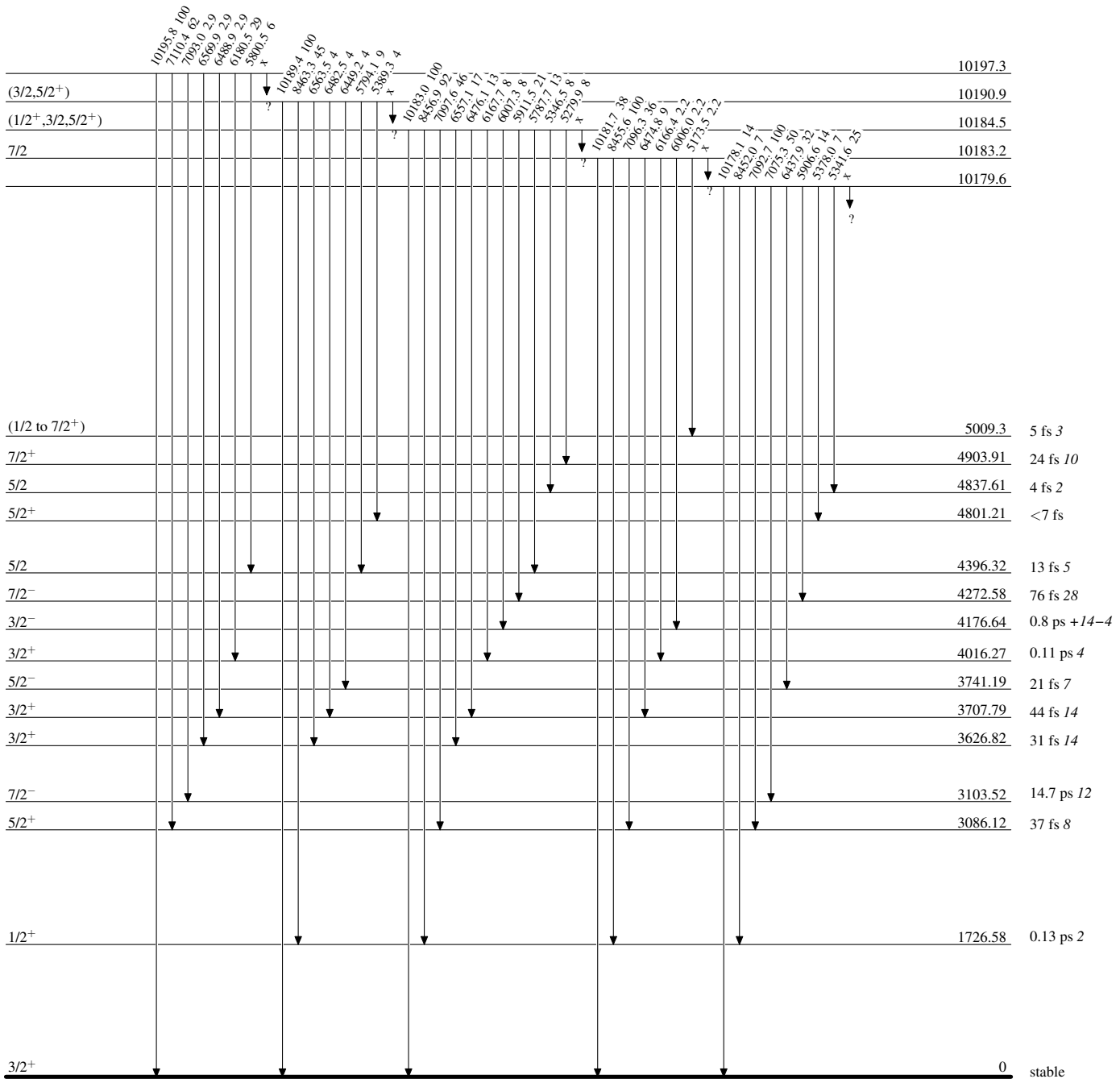


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

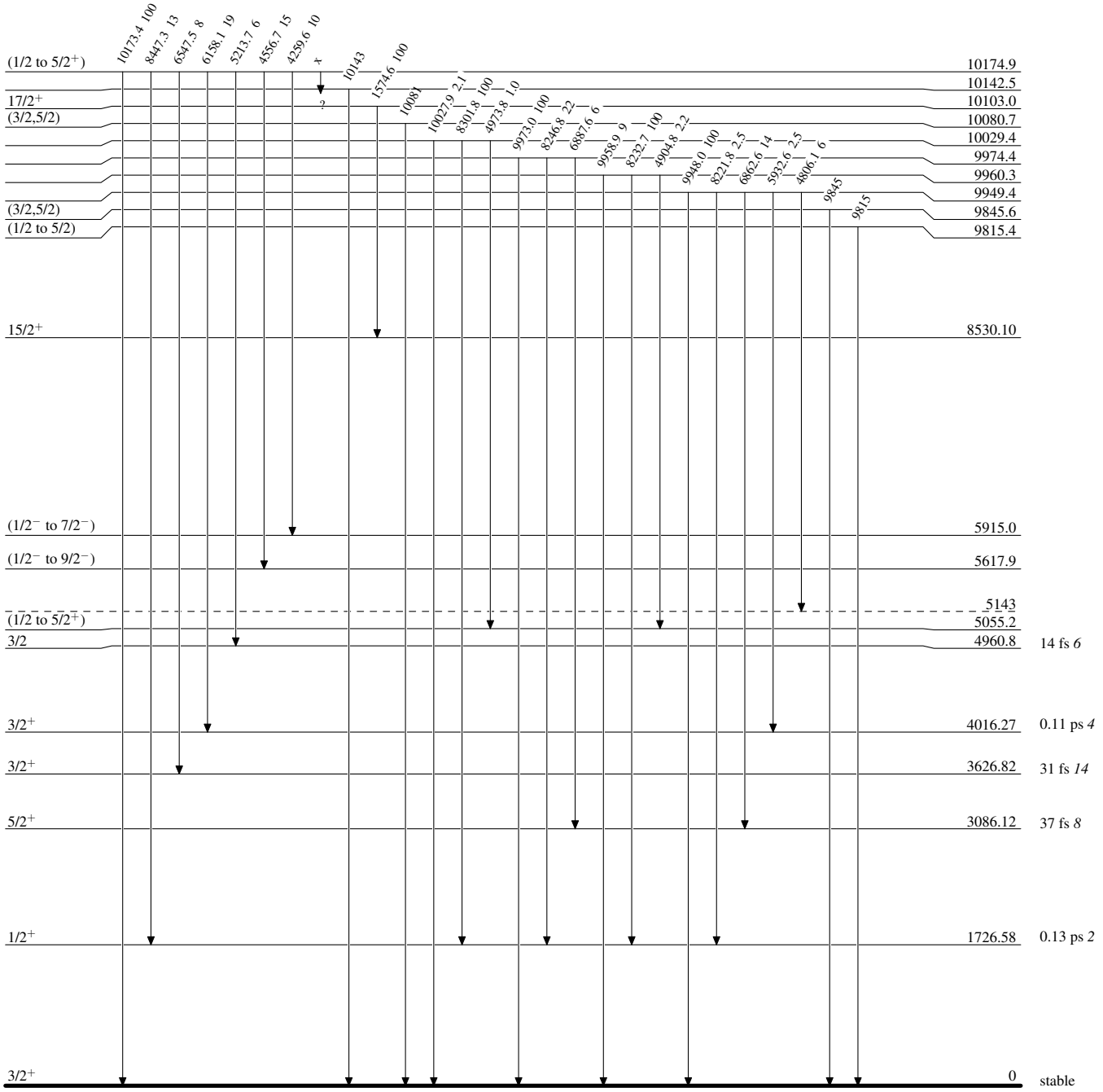


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

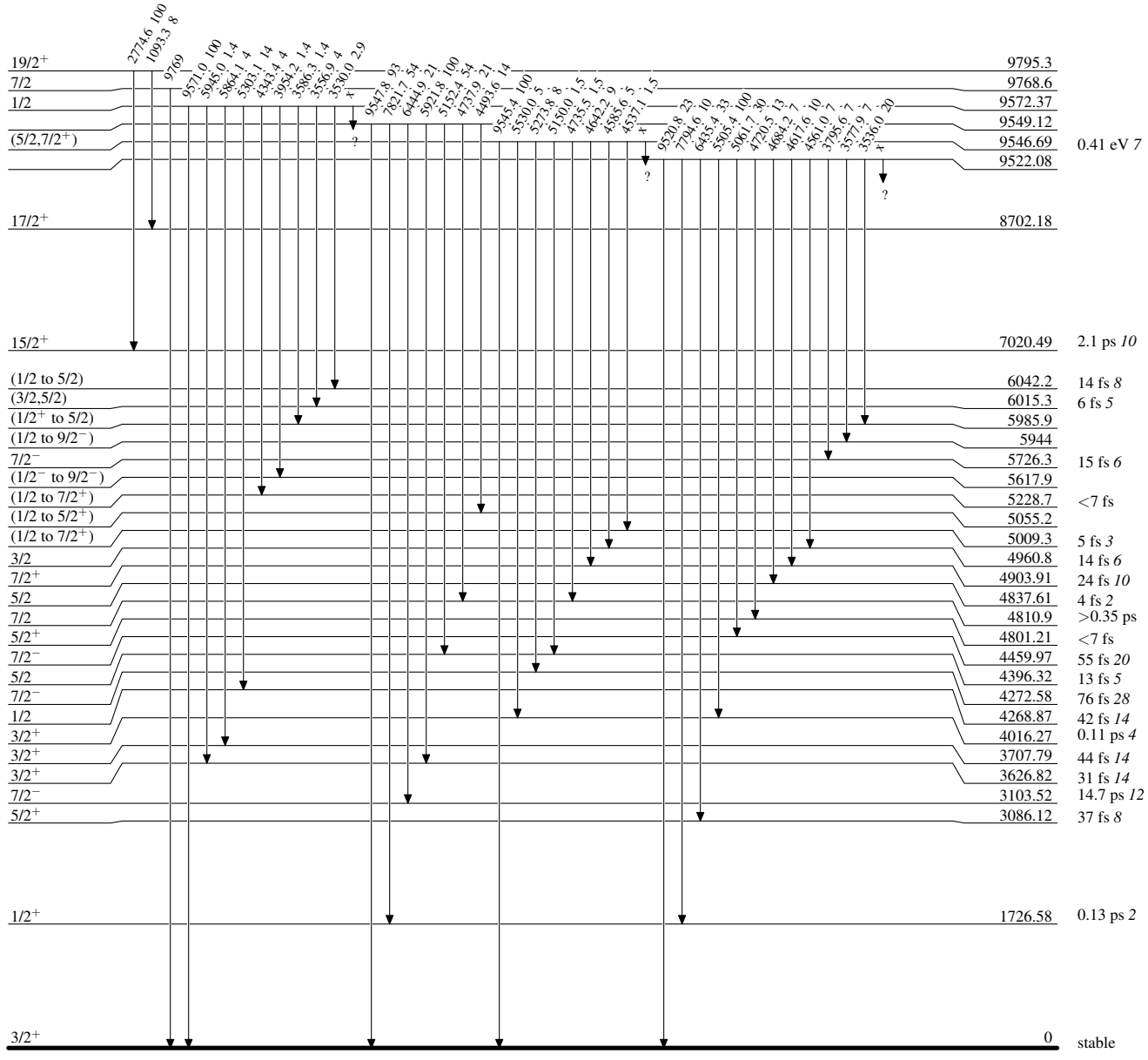


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

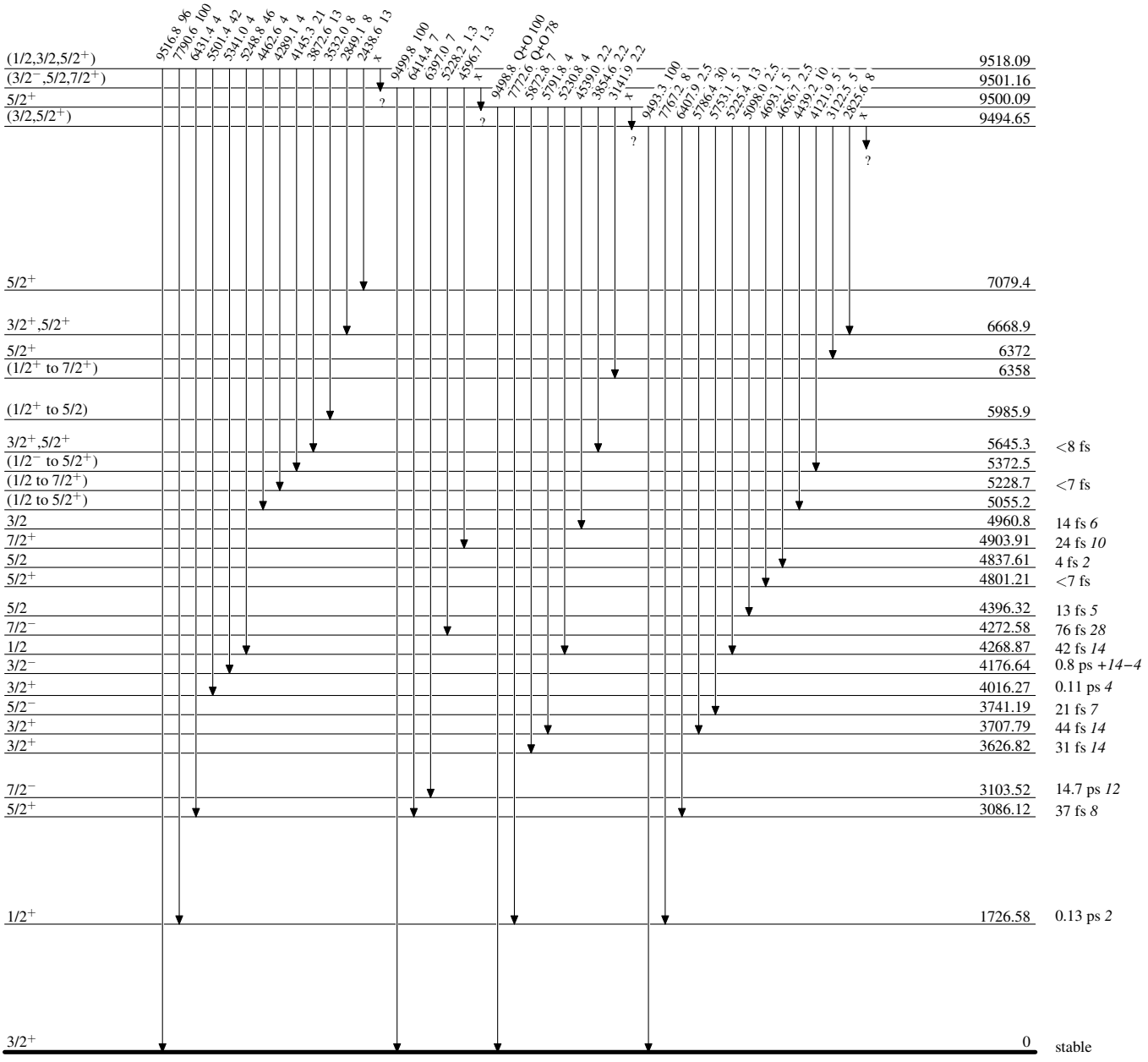


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

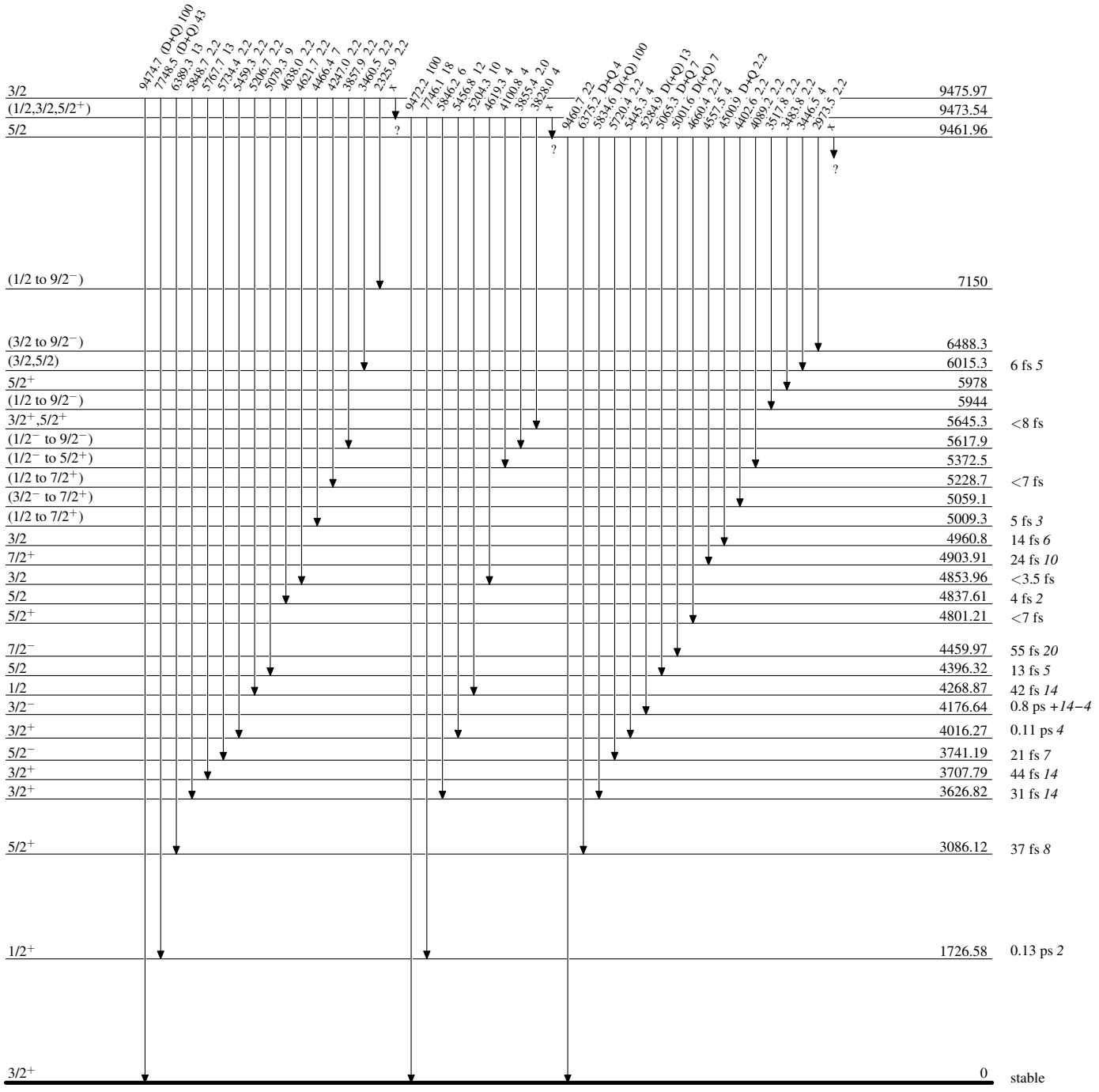


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

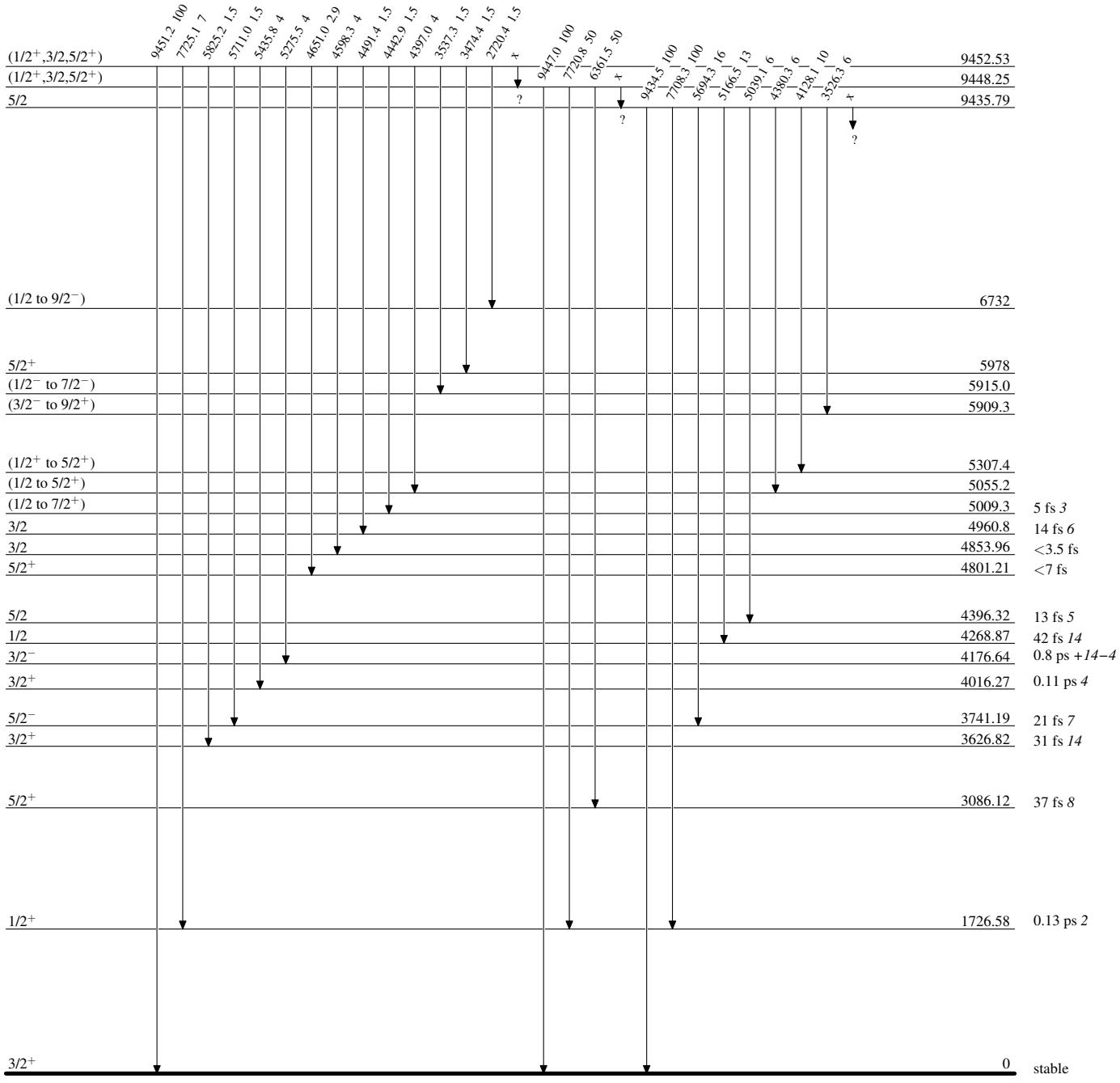


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

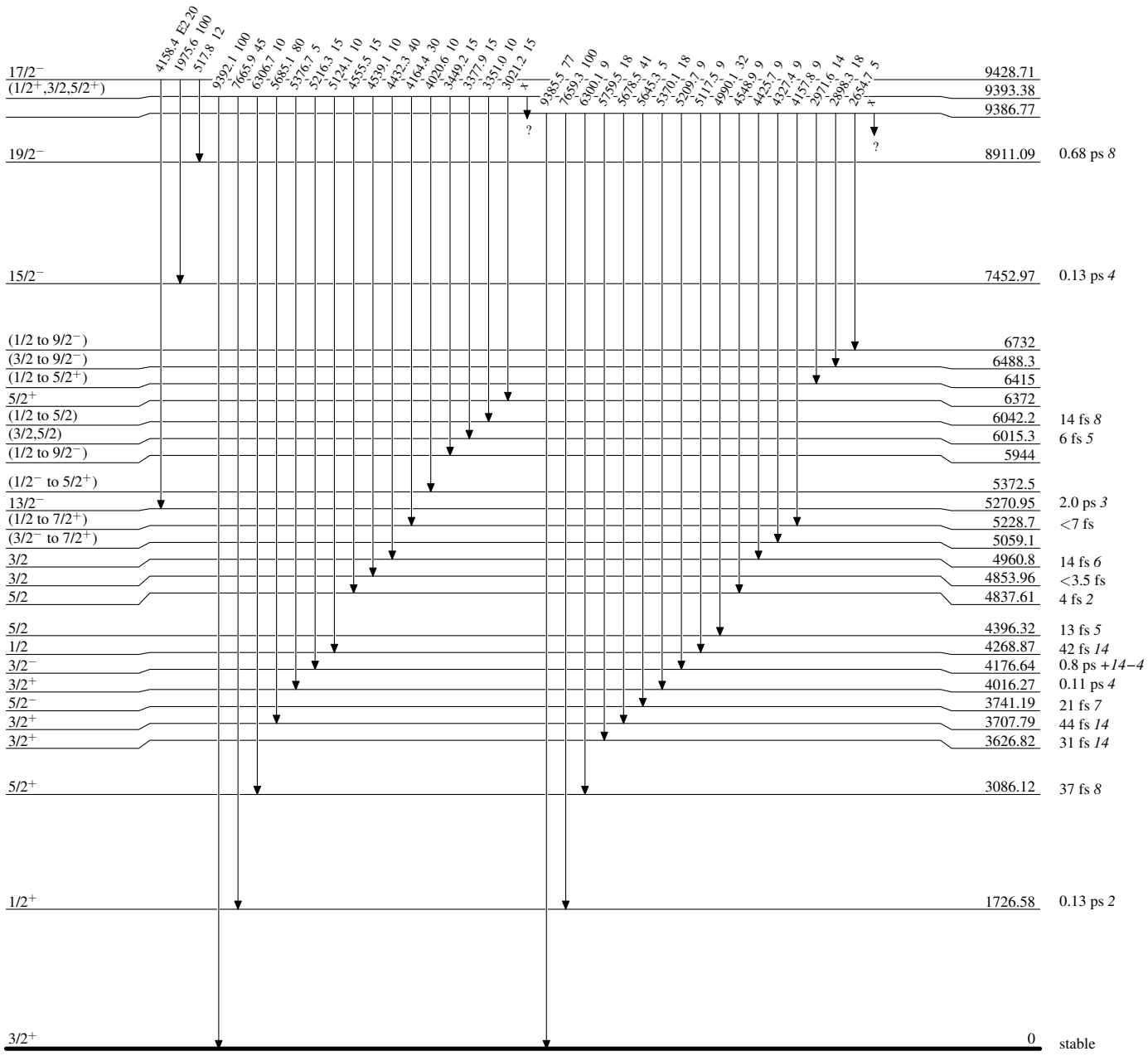


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

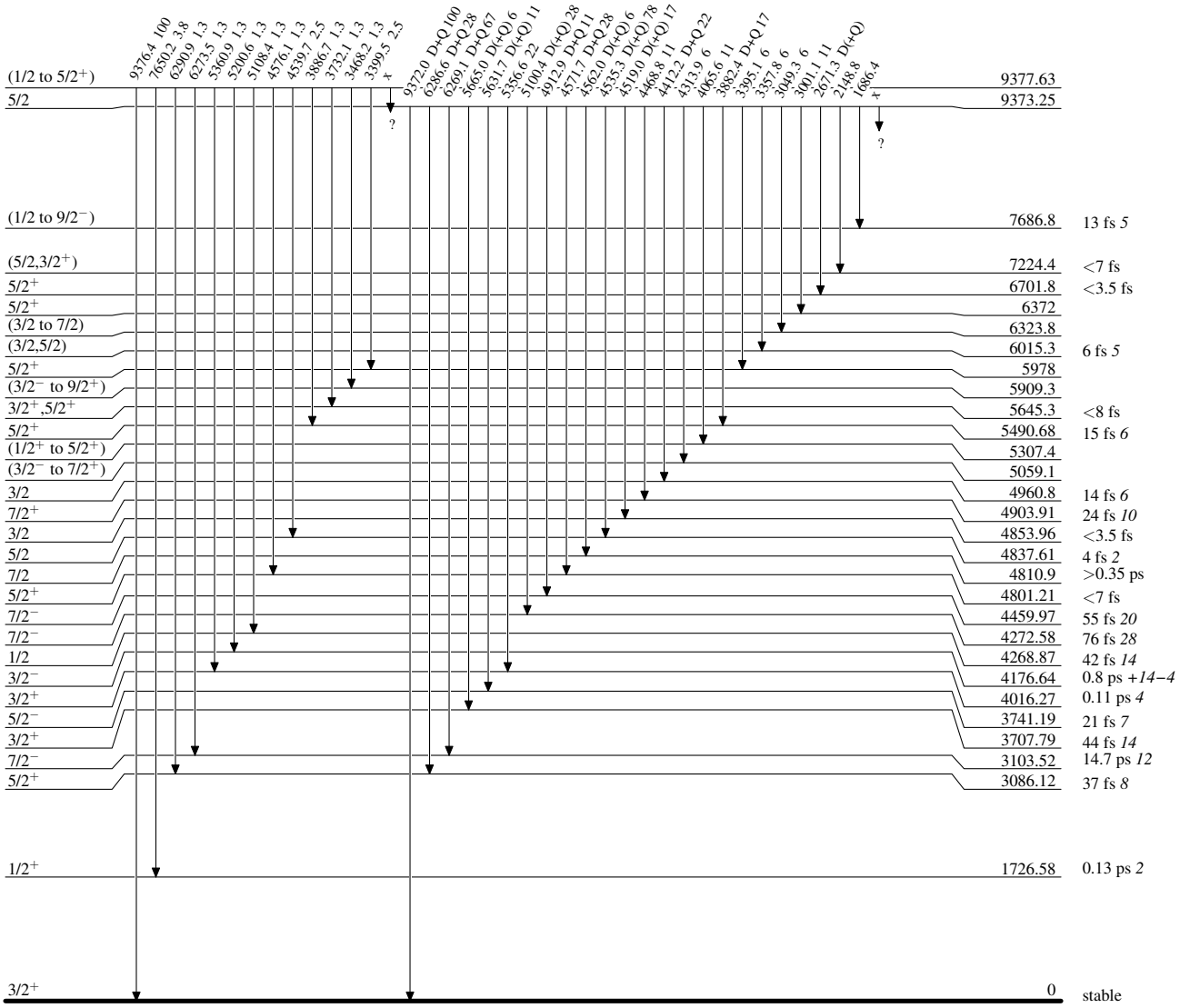


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

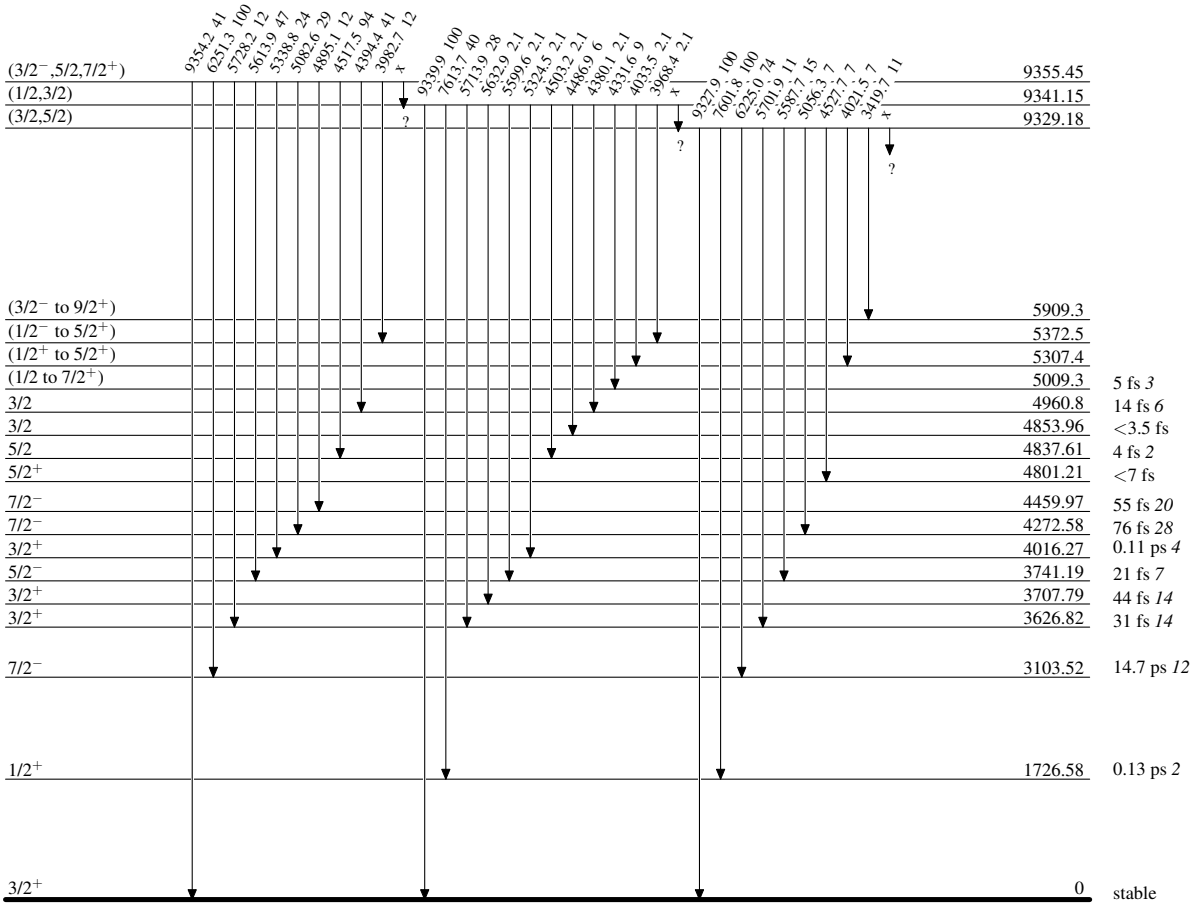


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

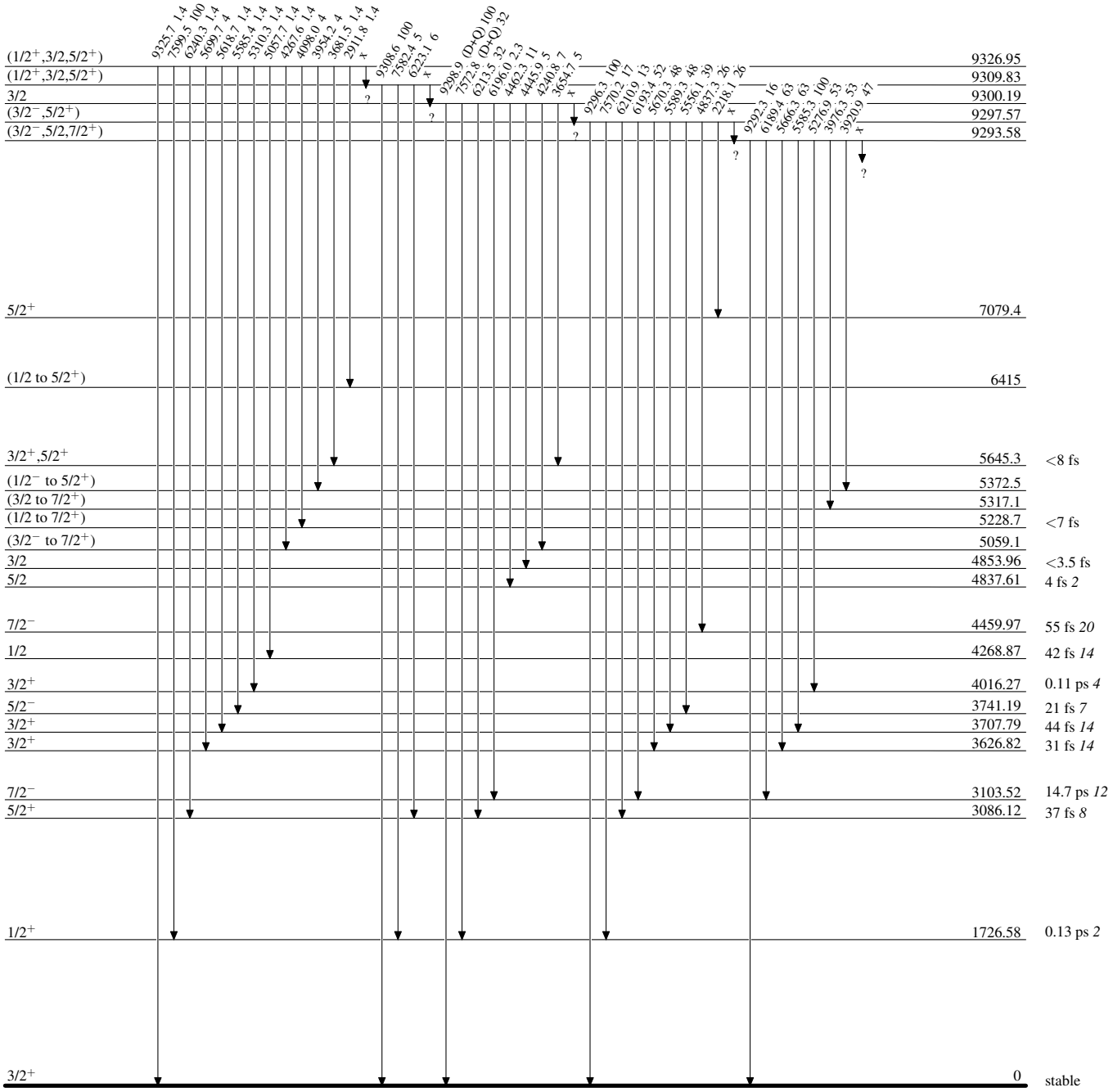


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

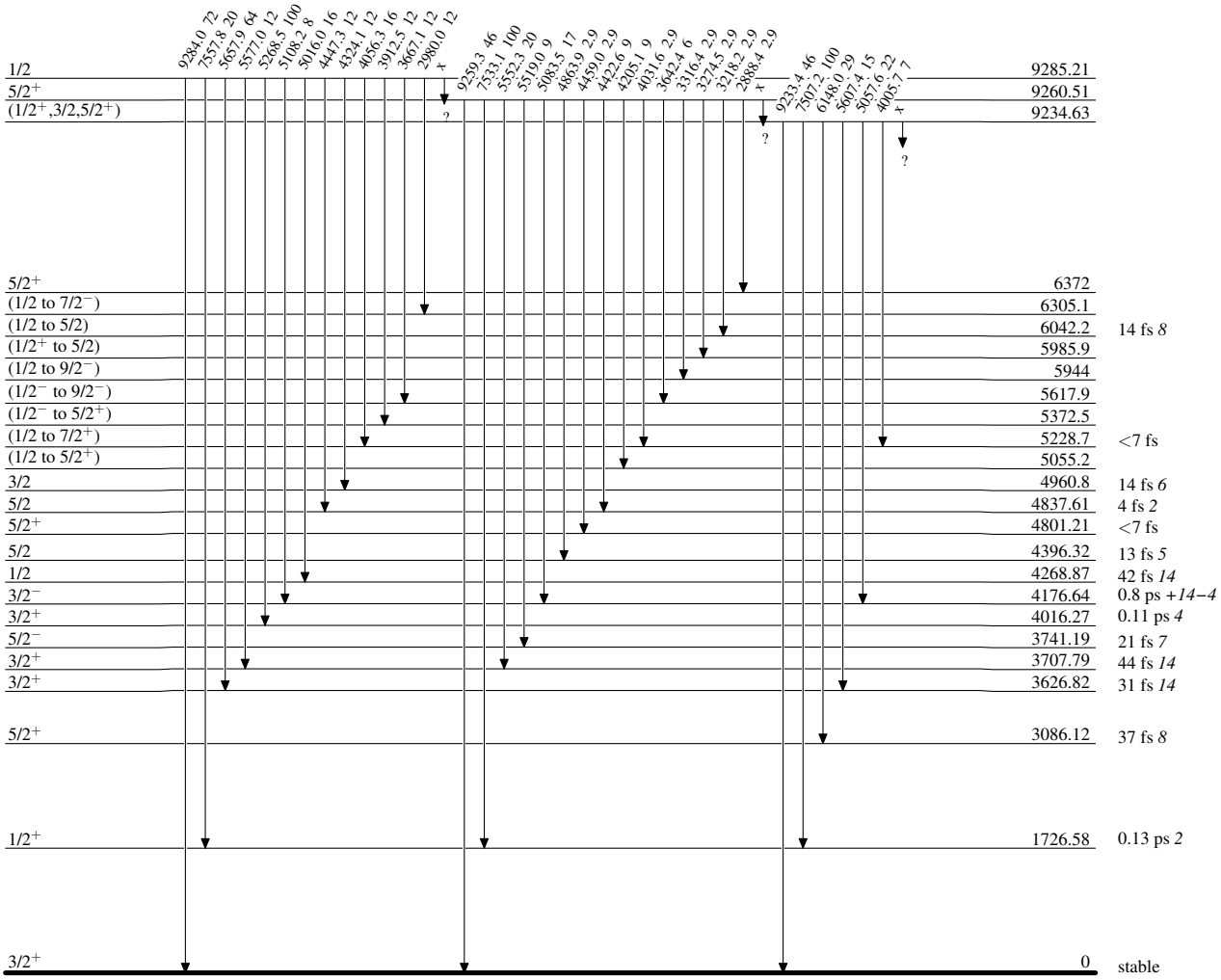
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

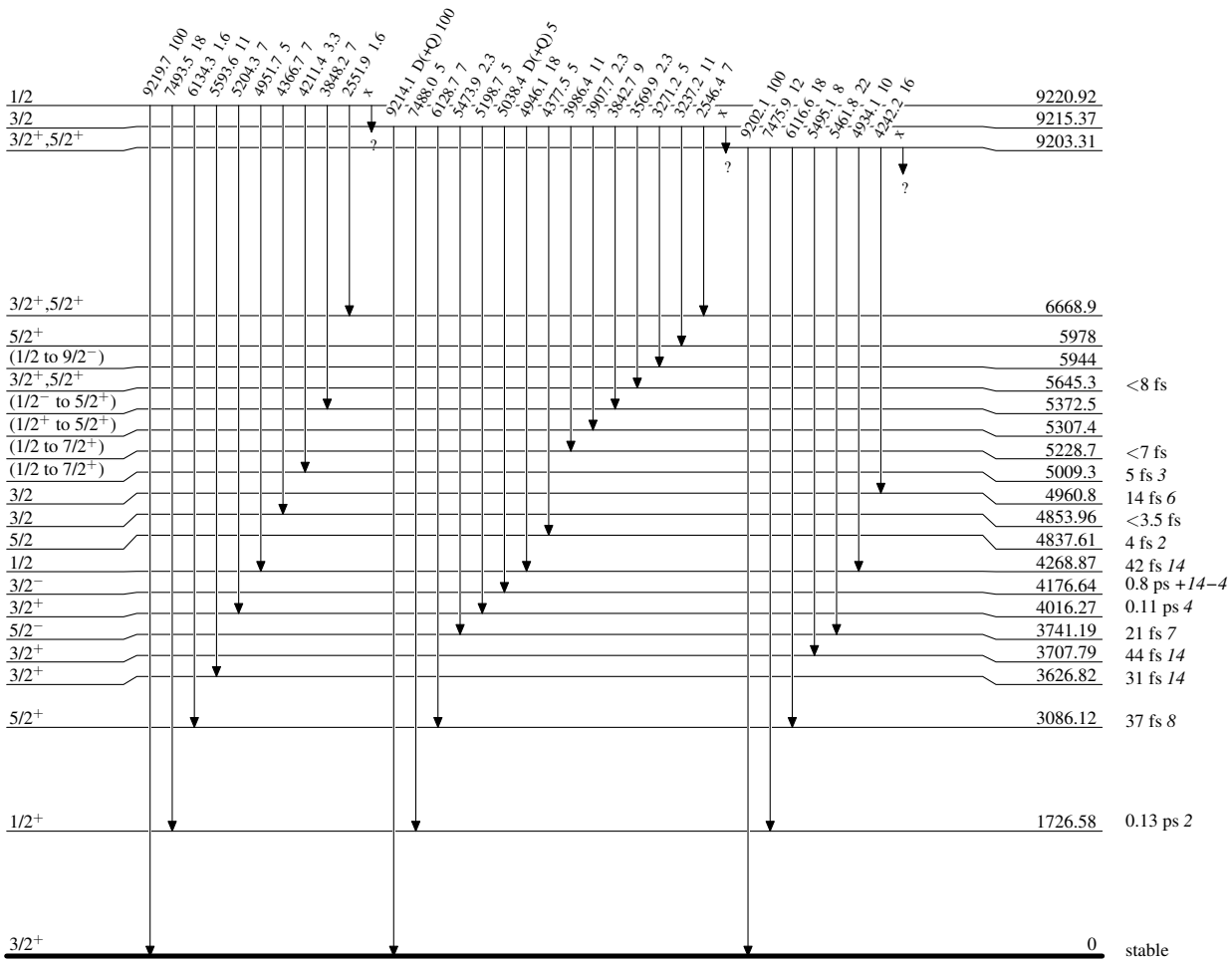


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

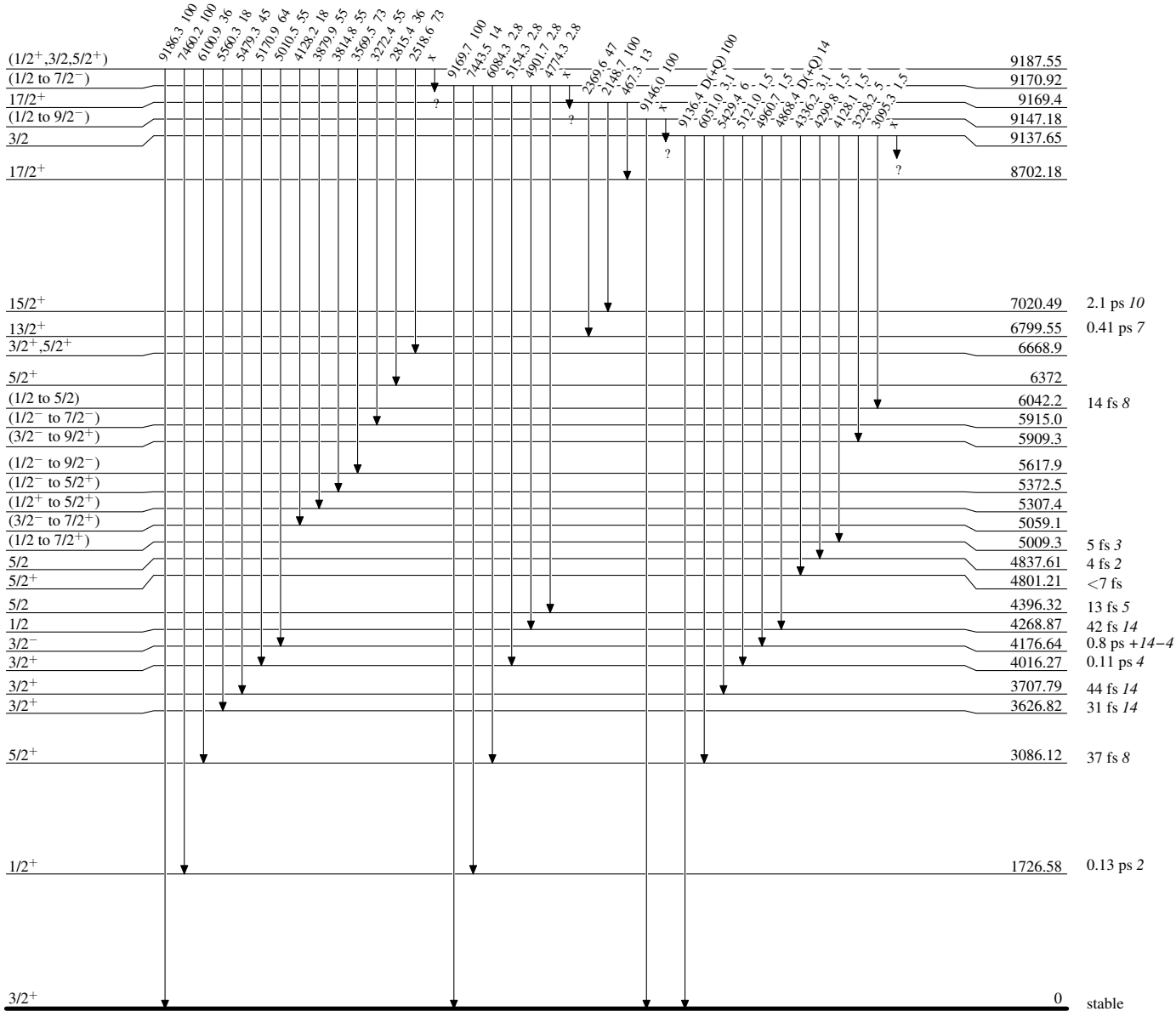


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

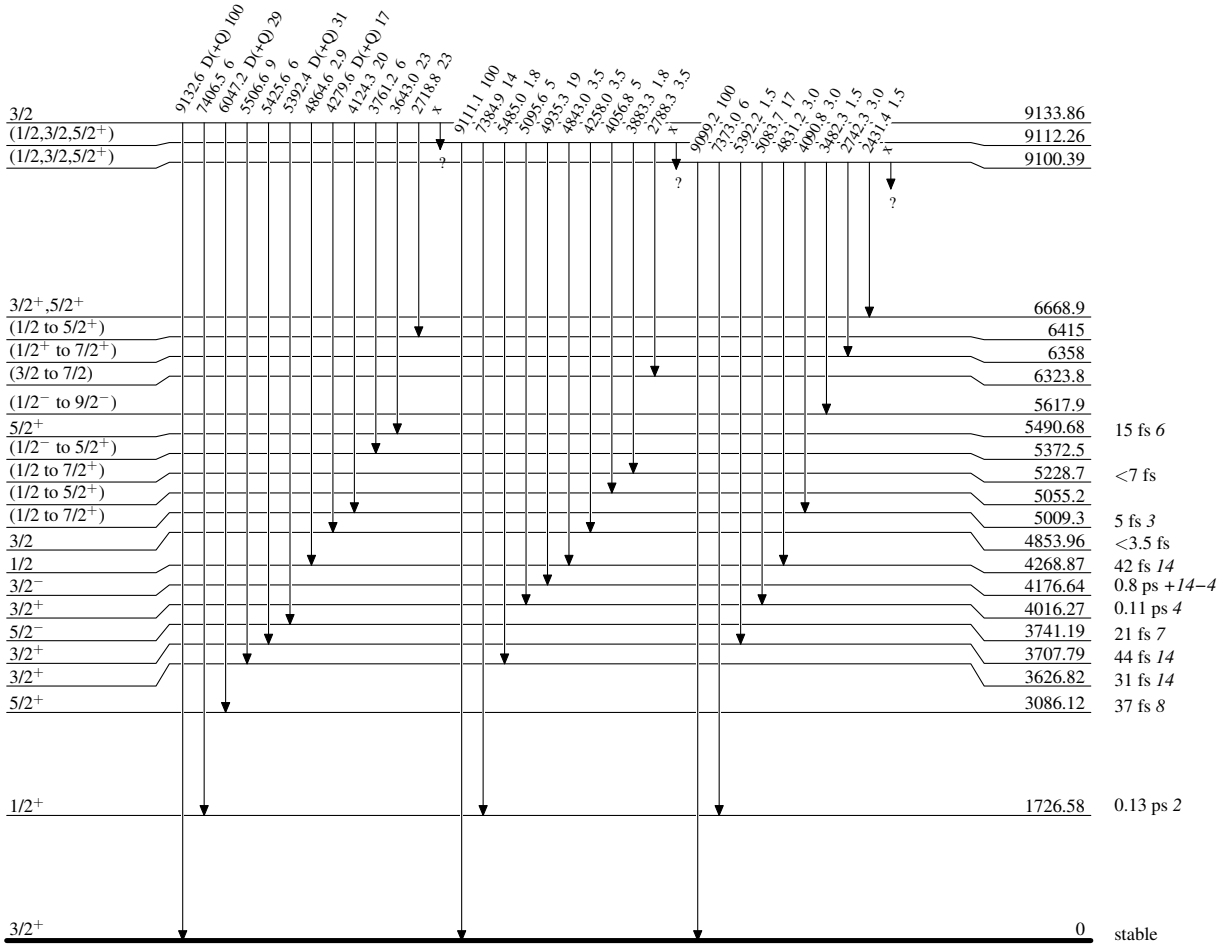


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

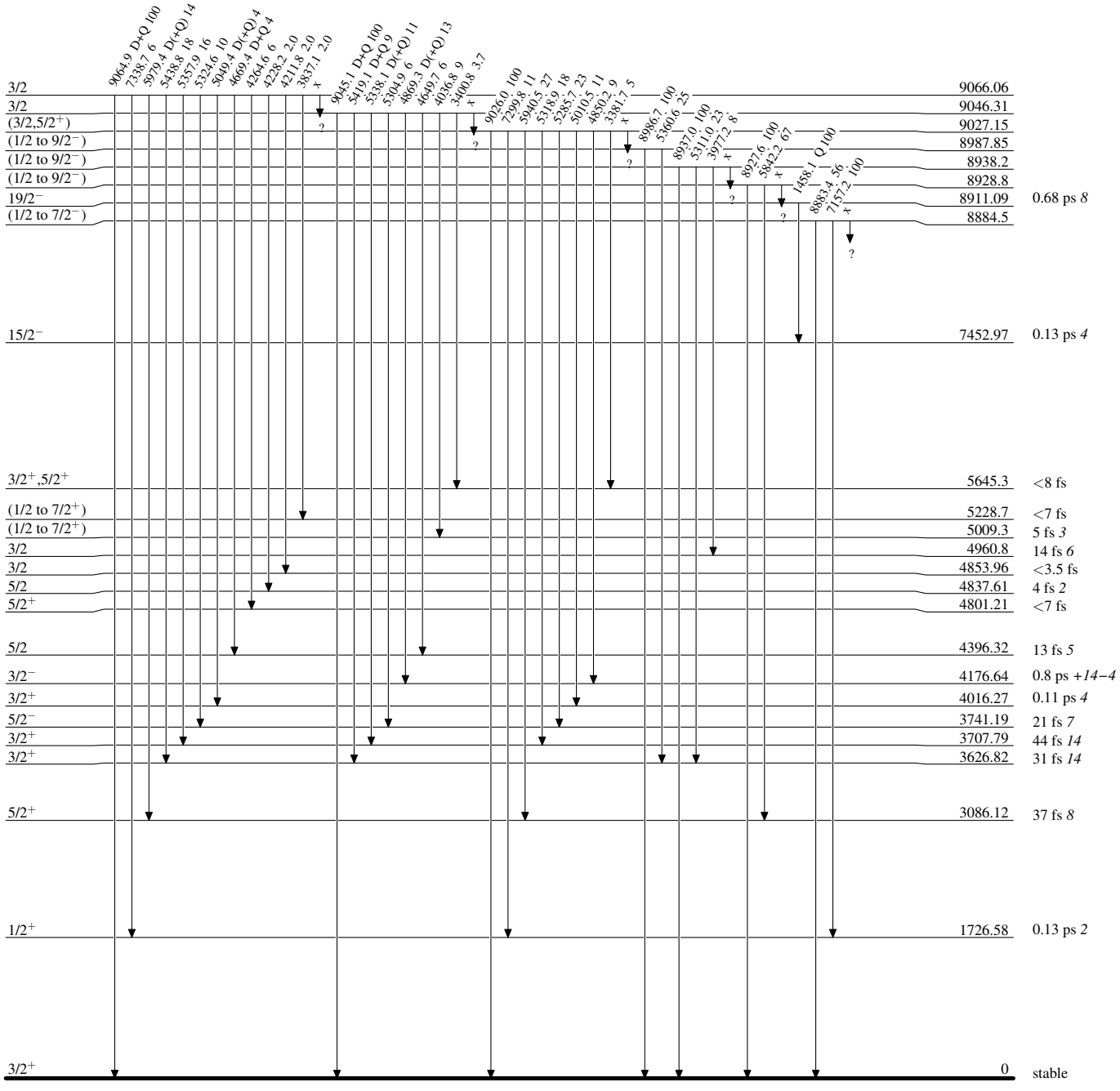


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

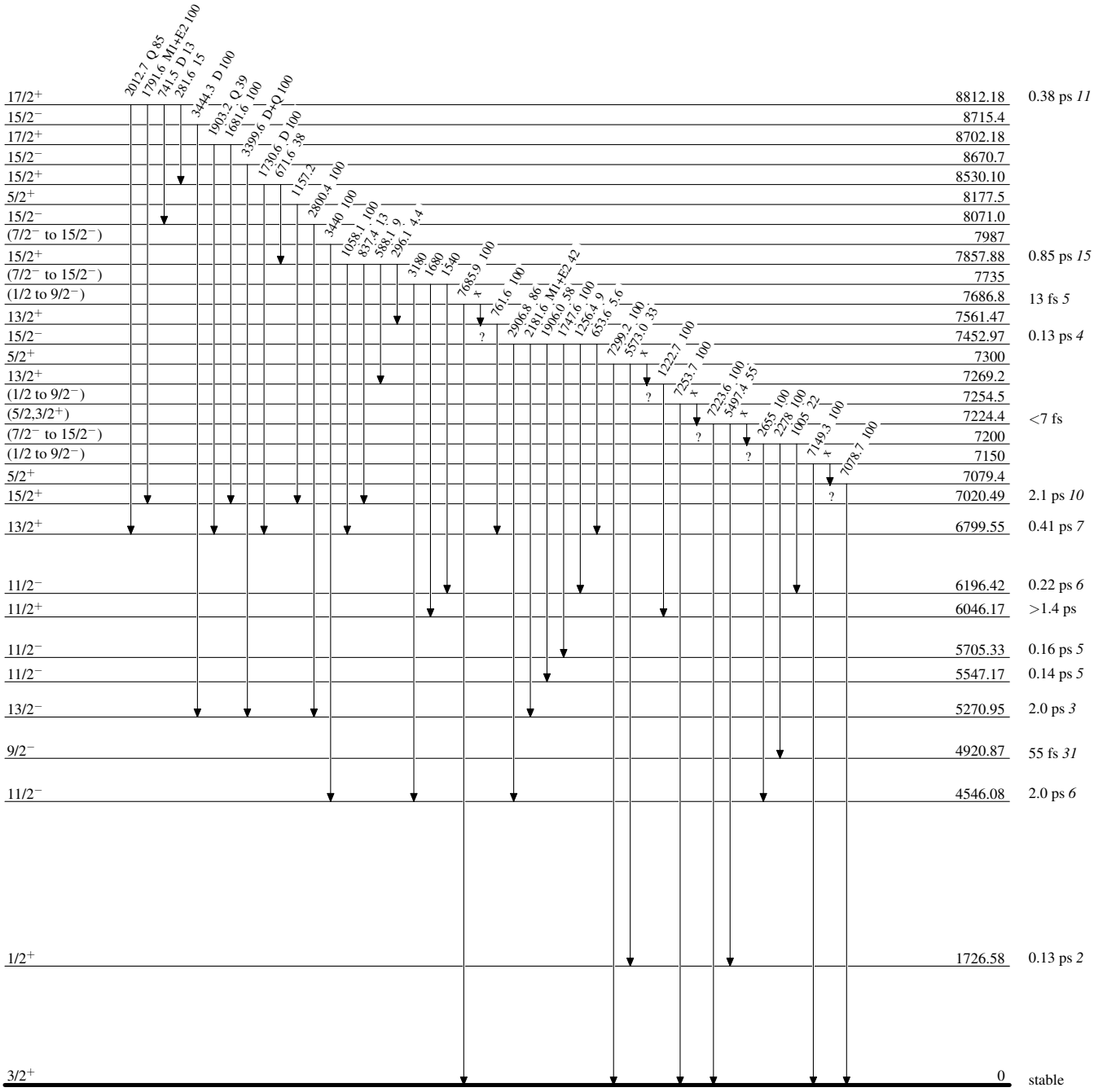


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

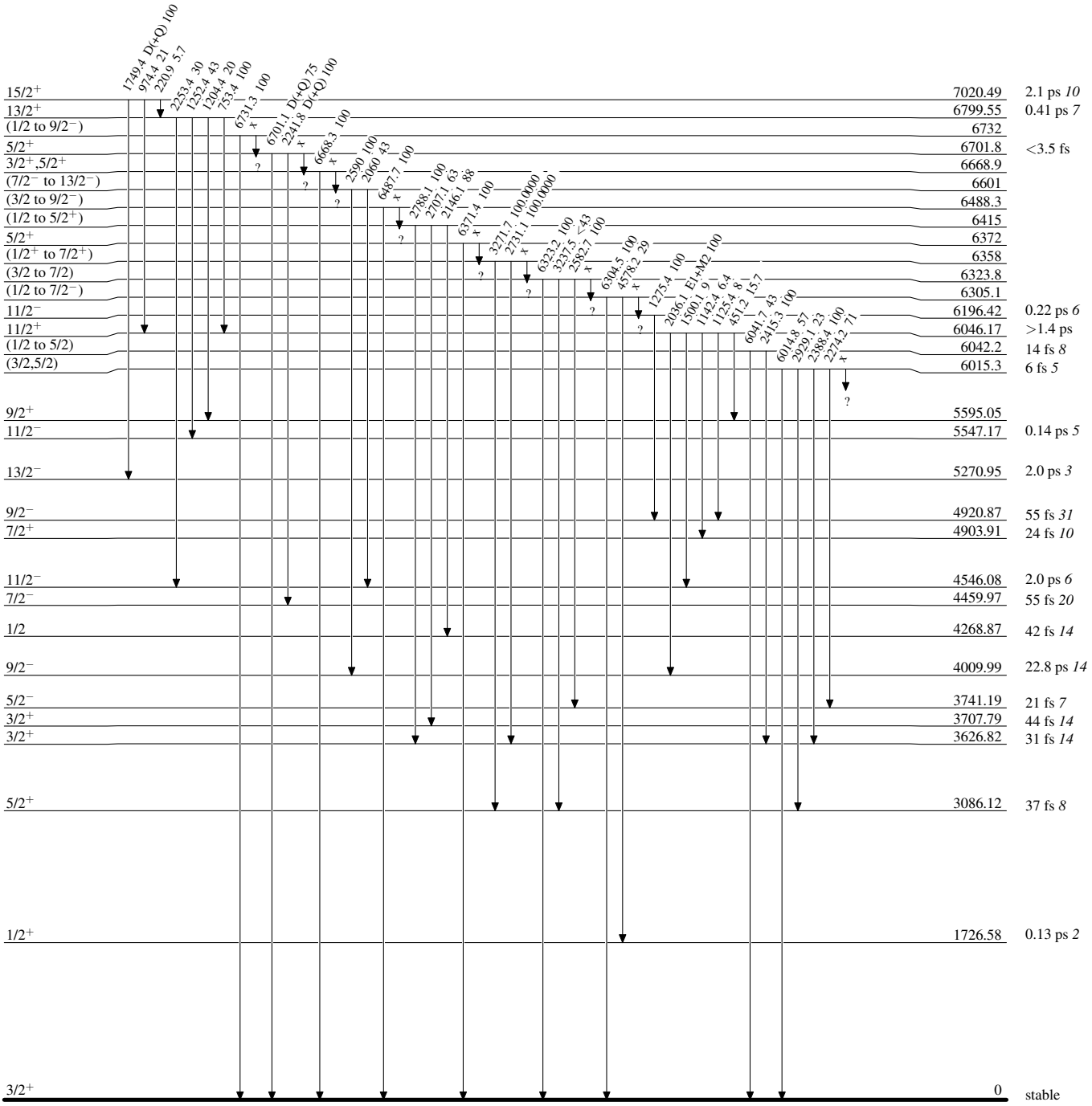


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

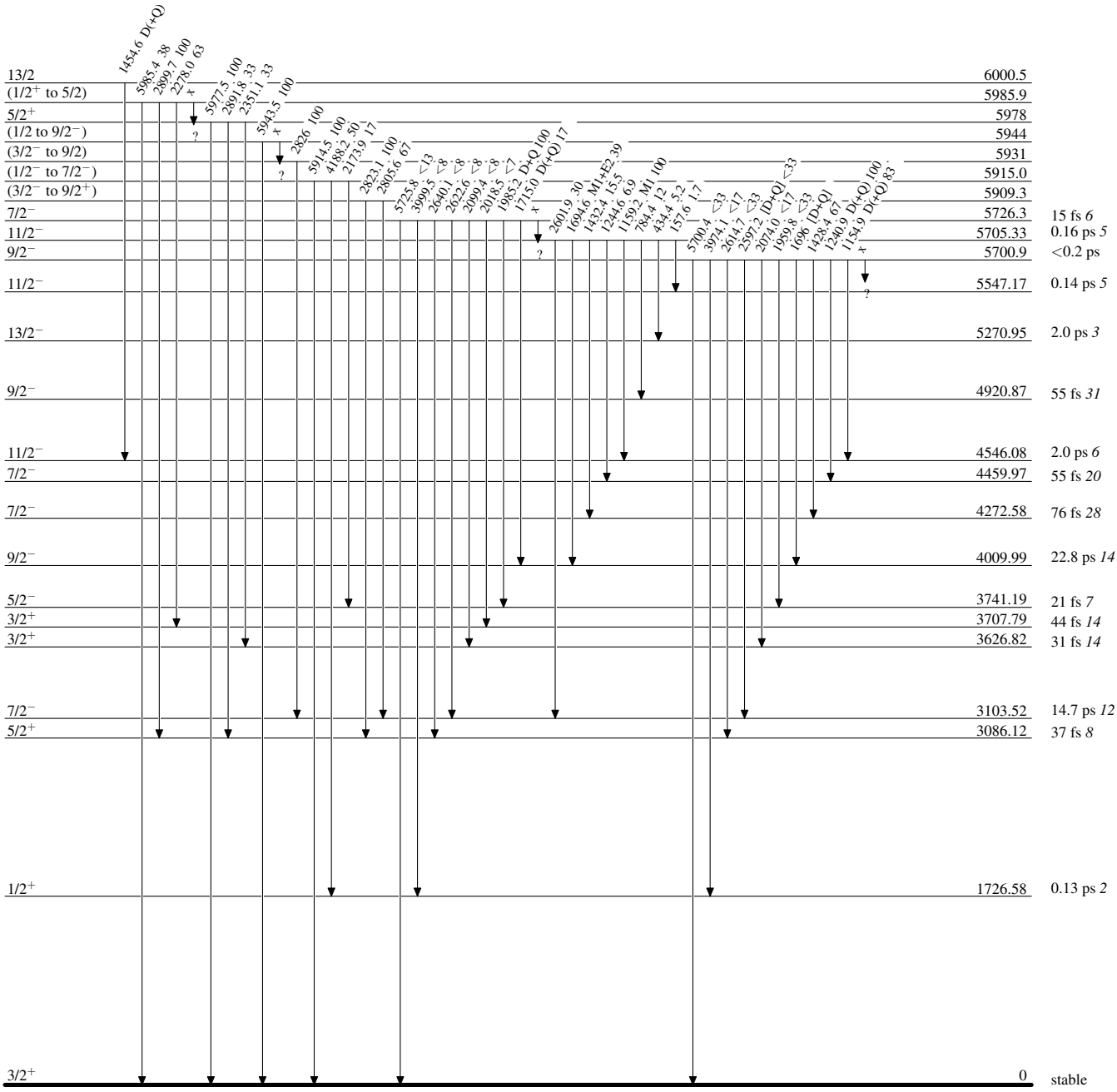


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

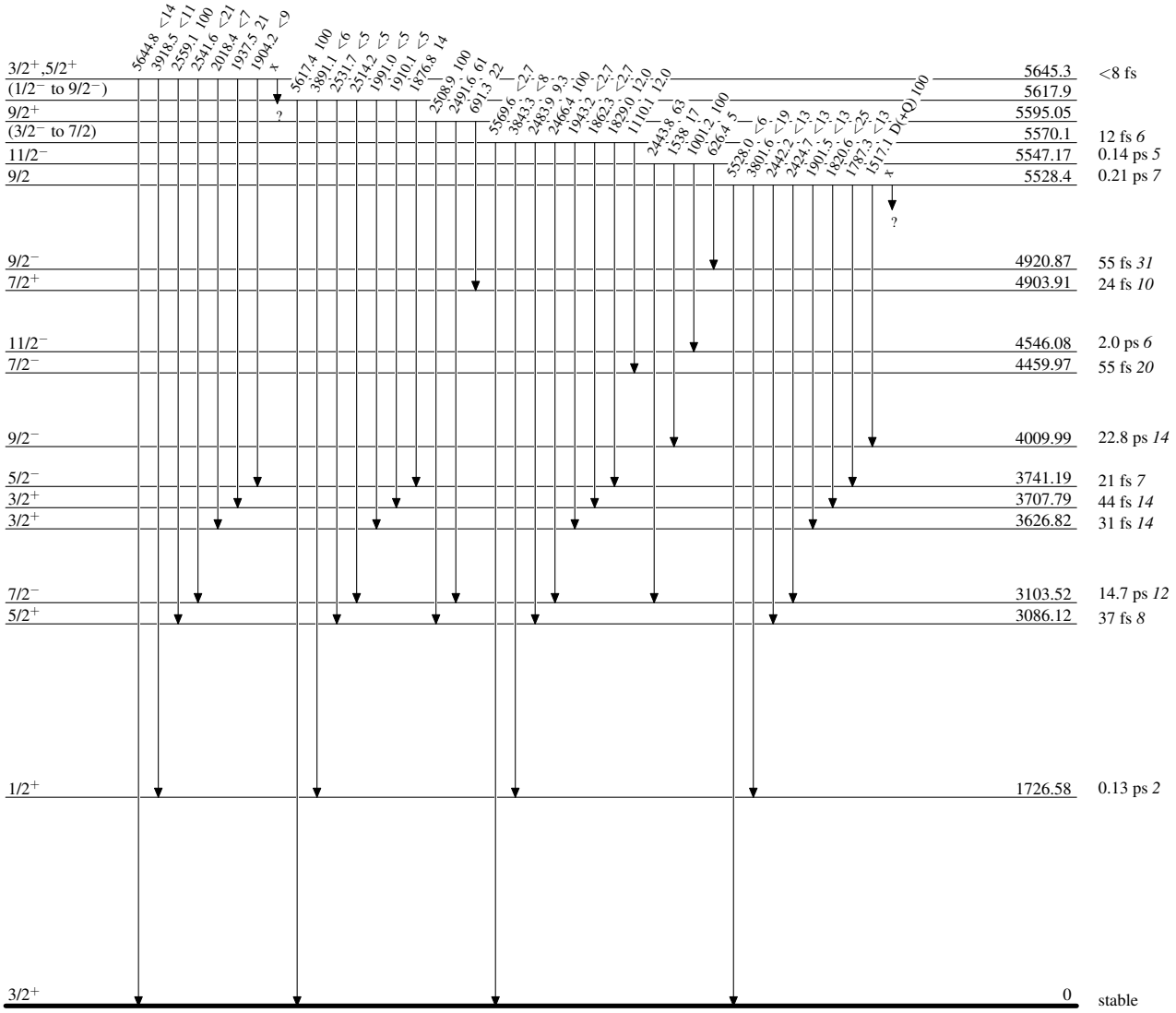


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

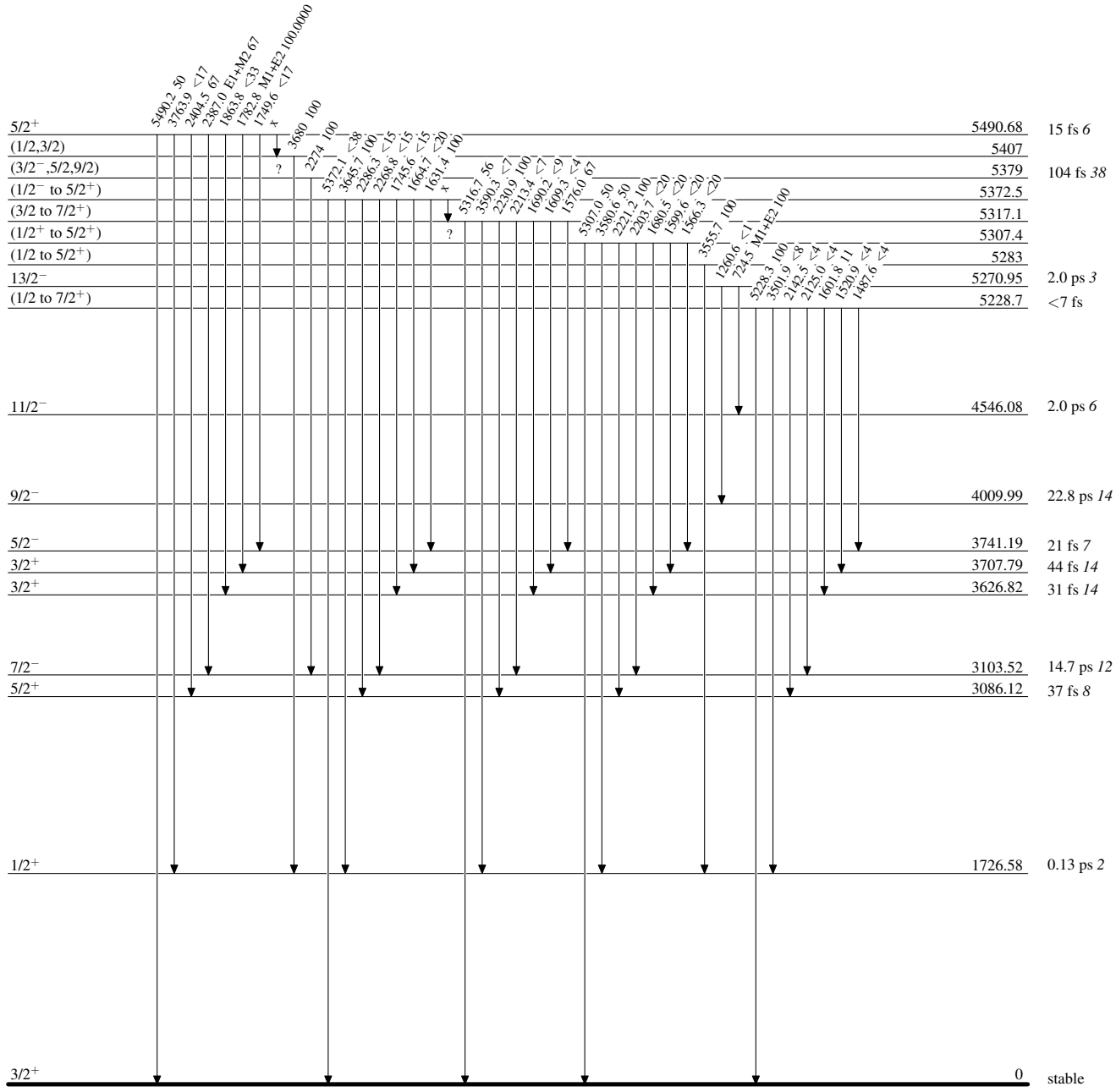
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

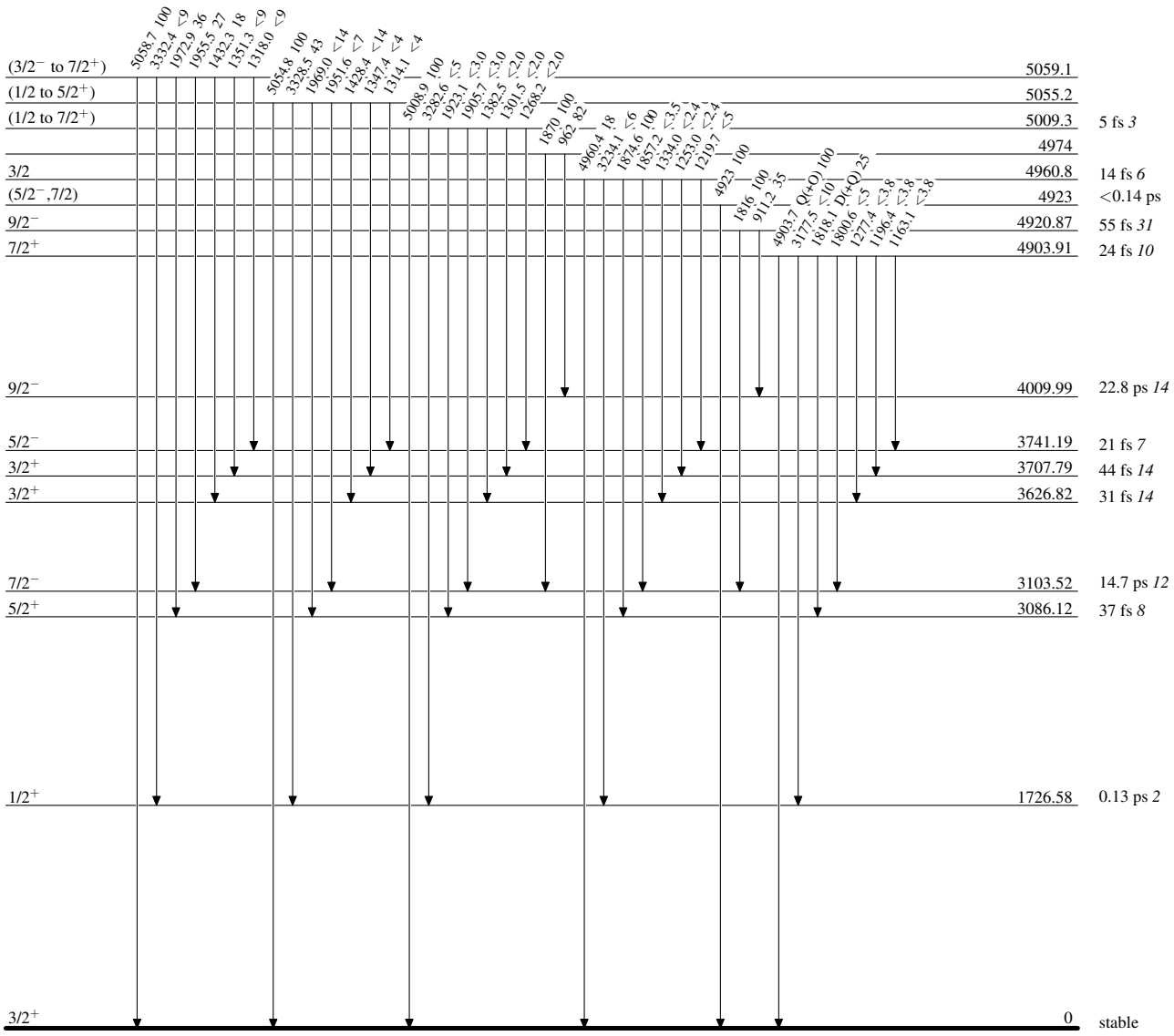


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

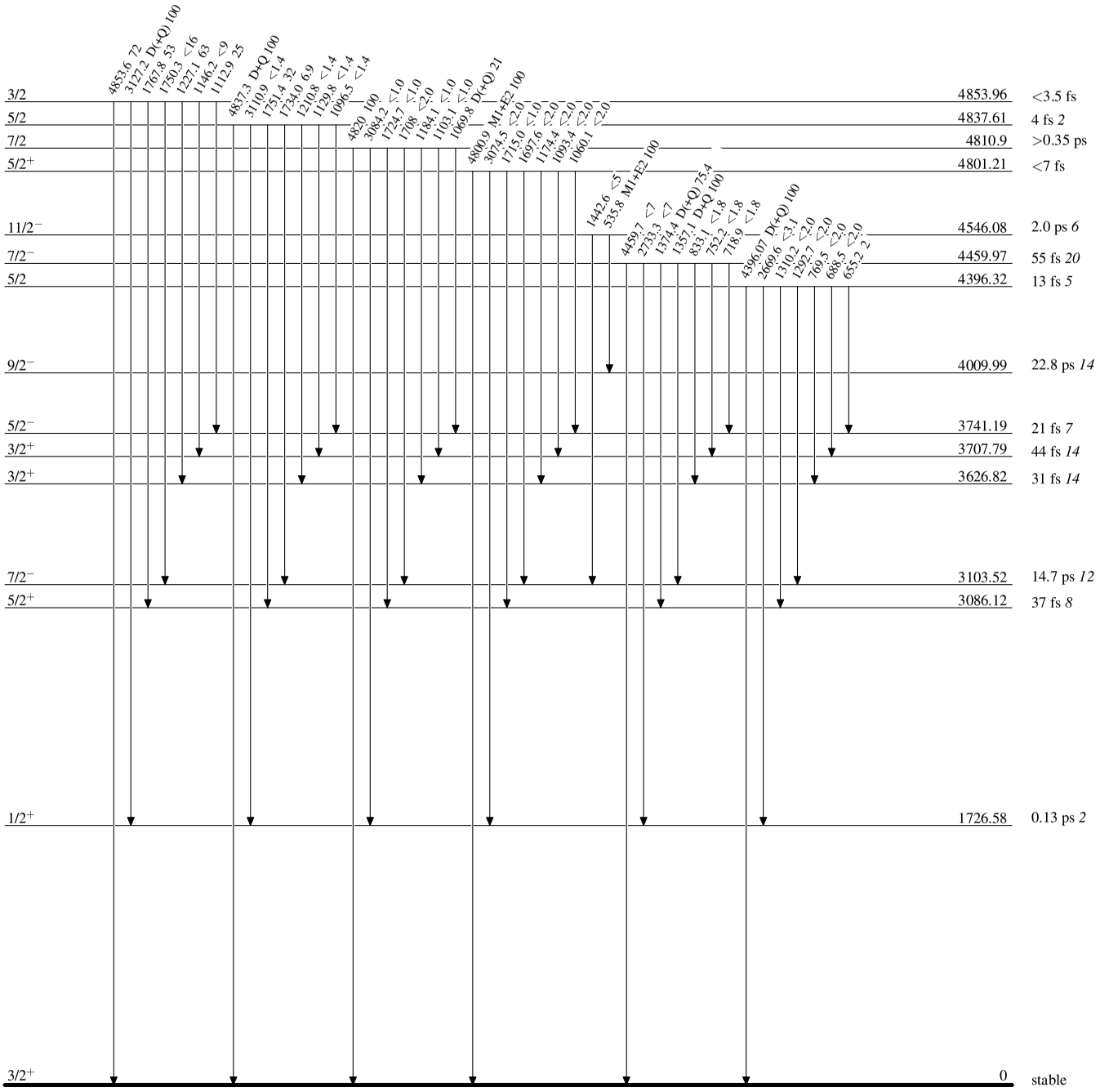


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

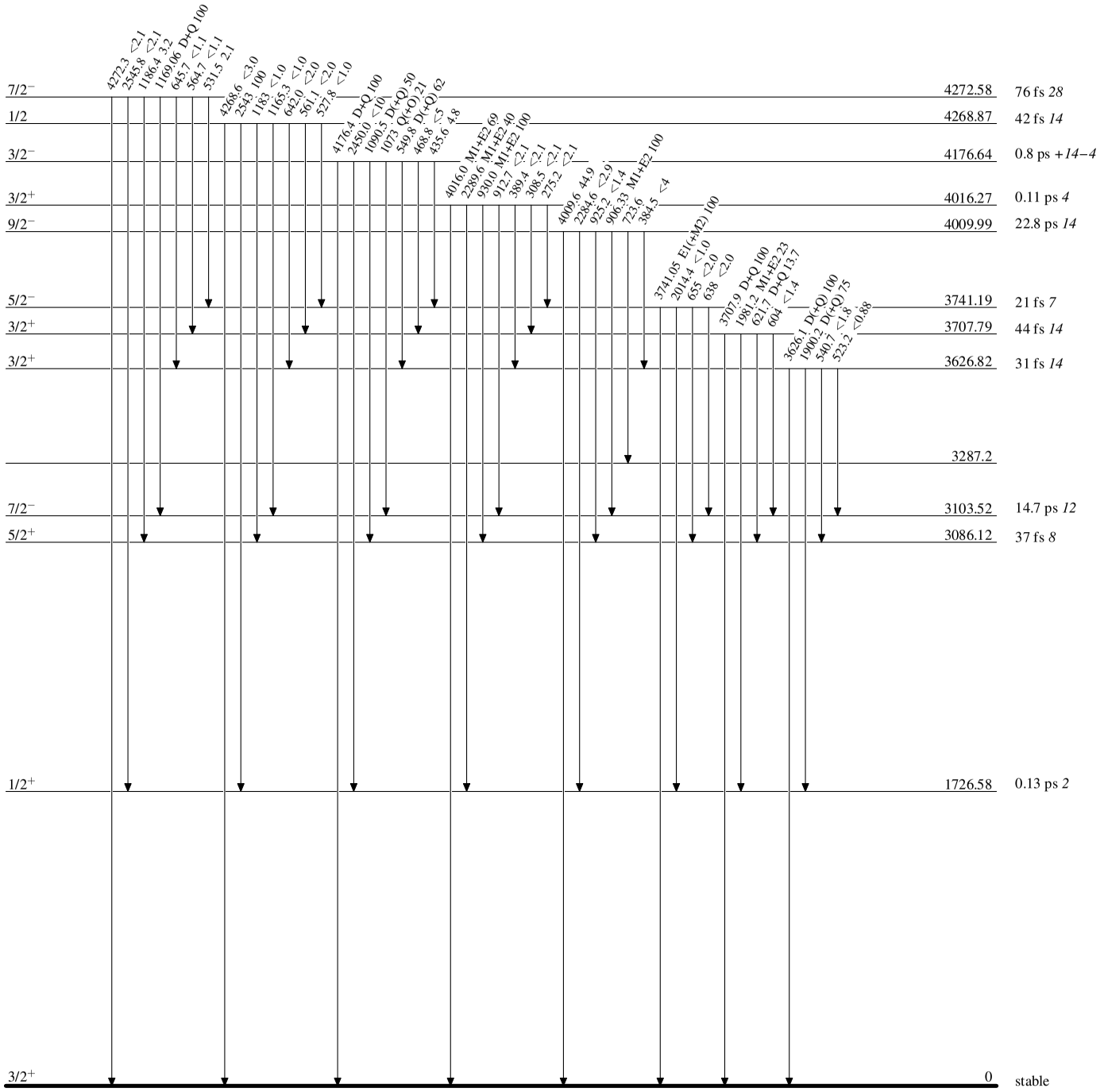


$^{37}_{17}Cl_{20}$

Adopted Levels, Gammas

Level Scheme (continued)

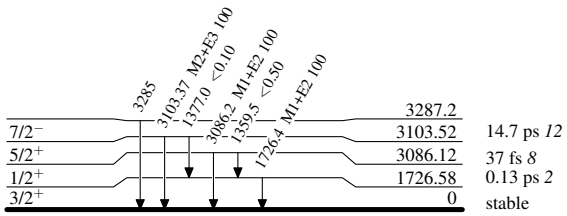
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{37}_{17}Cl_{20}$