^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen, John Cameron and Balraj Singh	NDS 112,2715 (2011)	20-Oct-2011

1972Hu10: E=0.7-2.1 MeV protons produced from the 4-MV Van de Graaff at the Centre d'Etudes Nucleaires de Bordeaux-Gradignan. Target of Ag_2S (90% ^{34}S), 100 μg/cm^2. A 12.7-cm by 12.7-cm NaI(Tl) and a 60-cm^3 Ge(Li) for detecting γ-rays. Measured σ(E$_p$), Eγ, Iγ. Deduced resonances, levels, branchings.

1976Me12: E=0.7-2.1 MeV protons produced from the 1.1 MV Cockroft-Walton and a 3 MV Van de Graaff accelerator. Targets of ZnS (46% ^{34}S) and CdS (37% ^{34}S) onto tantalum backings. A 10-cm by 10-cm NaI detector for detecting γ-rays. Measured σ(E$_p$), Eγ, $\gamma(\theta)$. Deduced levels, J^π, resonance strengths, branchings, mixing ratios.

1976Sp08: E=1.21,1.95-2.91 MeV protons produced from the Utrecht University 3-MV Van de Graaff accelerator. Target of Ag^2S (95% ^{34}) evaporated onto a tantalum backing. Ge(Li) detectors of 120, 80 and 60 cm^3, FWHM=3.3, 2.8 and 2.5 keV at 1.33 MeV. Measured σ(E$_p$), Eγ. Deduced resonance levels, resonance strengths, branchings.

1972Hu11: E=0.7-2.1 MeV protons. Targets of Ag_2S (90% ^{34}S) and CdS (46% ^{34}S). A Ge(Li) detector. Measured Eγ. Deduced life-times using Doppler Shift Attenuation Method (DSAM).

1973Fa07: ^{34}S(p,γ) E=1-2 MeV protons produced from the Helsinki 2-MV van de Graaff accelerator. Targets made by injecting ^{34}S ions onto tantalum backings. A 55-cm^3 Ge(Li) detector. Measured Eγ, Iγ. Deduced resonances, levels, resonance strengths, branchings, life-times using Doppler Shift Attenuation Method (DSAM).

1976Sp09: E=2.33-2.79 MeV protons produced from from the Utrecht University 3-MV Van de Graaff accelerator. Target of Ag^2S (95% ^{34}) evaporated onto a tantalum backing. NaI and Ge(Li) detectors. Measured σ(E$_p$), Eγ, $\gamma(\theta)$. Deduced levels, J^π, branchings, mixing ratios.

1963Ha32: E=0.7-1.2 MeV proton produced at the Laboratorium Technische Fysika. Target of ^{34}S. Scintillation spectrometer for detecting γ-rays. Measured σ(E$_p$), Eγ, Iγ. Deduced levels, branchings.

1967Da12: E=0.8-2.5 MeV proton produced from the 2.5 MeV Van de Graaff generator of the U.A.R. Atomic Energy Establishment. Target made by injecting ^{34}S ions onto tantalum backings. Two 15.2-cm-diam by 12.7-cm-thick NaI(Tl) crystals. Measured σ(E$_p$), Eγ, Iγ. Deduced resonances, levels, branchings.

1981Bi05: E=1.4-2.8 MeV produced from the Groningen 5-MV Van de Graaff accelerator. Targets of 1 or 4 μg/cm^2 Sb_2S_3 (90% ^{34}S) on a 10 μg/cm^2 carbon foil. A 10-cm by 10-cm NaI(Tl) detector. Measured σ(E$_p$), Eγ, $\gamma(\theta)$. Deduced levels, J^π, level widths, resonance strengths.

1960An06: E=0.7-1.9 MeV proton produced from the electrostatic generator of the Physical-Technical Institute of the Ukrainian SSR Academy of Sciences. Targets of isotopic ^{34}S (4.2%). A 2-cm-thick by 3-cm-diam CsI(Tl) crystal for detecting γ-rays. Measured σ(E$_p$), Eγ, $\gamma(\theta)$. Deduced levels, J, branchings.

1966Wa09: E=1.214 MeV proton beam. Measured Eγ, γ-polarization. Deduced level energy and J^π for the level of 3163 and 7540 level.

1966En04: E=0.3-2.1 MeV proton produced from the Utrecht 850 keV Cockcroft-Walton generator and the 3 MeV Van de Graaff generator. Targets of natural sulphur compound on tantalum backings. A cylindrical 10-cm-by-10-cm NaI crystal. Measured σ(E$_p$),Eγ. Deduced resonance strength.

1966Az01: E=1.214 MeV proton produced from the Ontario Cancer Institute 3-MeV Van de Graaff accelerator. Targets of CdS with enriched ^{34}S (46%). Compton polarimeter for detecting γ-rays. Measured Eγ, Iγ, $\gamma(\theta)$. Deduced levels, J^π, branchings.

1967Wa22: E=1.214 and 1.512 MeV protons produced at the Aerospace Research Laboratories. Enriched Targets of CdS (40% ^{34}S) and Ag_2S (86% ^{34}S). Two large volume NaI(Tl) detectors. Measured σ(E$_p$), Eγ, Iγ, $\gamma(\theta)$, γ-polarization. Deduced levels, J^π, branchings.

1967Ta08: E=1.020, 1.213 and 1.513 MeV protons produced from the 3-MeV Van de Graaff accelerator of the Ontario Cancer Institute. Targets of CdS (46% ^{34}S) on thick metal foils. A 7.6-cm-long by 7.6-cm-diam NaI(Tl) detector. Measured σ(E$_p$), Eγ, Iγ, $\gamma(\theta)$, γ-polarization. Deduced levels, J^π, branchings, mixing ratios.

1967Ko20,1967Ko23: E=2.079 MeV protons produced from the 4 MV electrostatic accelerator of the Physical-Technical Institute of the Ukrainian SSR Academy of Sciences. Targets made by implanting ^{34}S ions in a tantalum substrate. A 70-mm by 50-mm and a 70-mm by 60-mm NaI(Tl) detectors. Measured Eγ, Iγ, p$\gamma\gamma(\theta)$. Deduced levels, J^π, branchings, mixing ratios.

1968Az02: E=1.214 and 1.513 MeV protons produced from the Ontario Cancer Institute 3-MeV Van de Graaff accelerator. Target of CdS (37% ^{34}S) evaporated onto gold backings. A 5-cm-diam by 5-cm-long NaI(Tl) crystal. Measured Eγ, $\gamma\gamma$-delay. Deduced life-times of the level of 3163 keV using delayed coincidence method and Doppler Shift Attenuation Method (DSAM).

1969Mi23: E=2.079 MeV. ^{34}S target. Ge(Li) detector. Measured Eγ, Iγ. Deduced levels, branchings.

1970Ko33: E=2.317, 2.223 and 2.336 MeV protons produced from the 4 MV electrostatic accelerator of the Physical-Technical

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

Institute of the Ukrainian SSR Academy of Sciences. Target made by implanting ^{34}S onto a tantalum backing. A 12 cm^3 coaxial Ge(LI) detector. Measured Eγ, Iγ, $\gamma(\theta)$. Deduced levels, J, branchings.

1971Wi13: E=1.020, 1.214, 1.267 and 1.510 protons produced at the Ontario Cancer Institute. Targets of CdS. NaI(Tl) and Ge(Li) detectors for detecting γ-rays. Measured σ(E$_p$),Eγ, Iγ, $\gamma(\theta)$, γ-linear polarization. Deduced resonances, levels, J^π, branchings, mixing ratios and half-lives using Doppler Shift Attenuation Method (DSAM).

1971Pr11: E=1.211 MeV proton produced from the 2-MeV ARL Van de Graaff at the Aerospace Research Laboratories (ARL). Targets of Ag_2S (85.6% ^{34}S). An 80-cm^3 Ge(Li) detector. Measured σ(E$_p$),Eγ, Iγ, $\gamma(\theta)$, pγ-delay. Deduced resonances, levels, J^π, branchings.

1971Ko32,1971Ko46: 0.8-2.6 MeV protons. Targets made by evaporated ^{34}S ions onto tantalum backings. Ge(Li) and NaI(Tl) detectors. Measured σ(E$_p$), Eγ, Iγ, p$\gamma\gamma(\theta)$. Deduced levels, J^π, level widths, branchings.

1971Ba23: E=1.214 MeV proton produced from the 3 MeV Dynamitron of Carleton and Ottawa Universities. Target of CdS (93% ^{34}S) on a gold backing. A 28 cm^3 Ge(Li) detector. Measured Eγ, Iγ. Deduced life-time of the 3163 keV level using the delayed coincidence method.

1974Al04: E=1.214 MeV proton. Targets of Ag_2S, CdS and ZnS, 300μg/cm^2. Ge(Li) detector. Measured σ(Eγ). Deduced resonance strength.

1975Ke11: E=1.214 MeV proton produced from the Helsinki University 2.5-MV van de Graaff. Targets of CdS and ZnS on tantalum backings. A 120 cm^3 Ge(Li) detector, FWHM=2.9 keV at 2.6 MeV. Measured σ(Eγ). Deduced resonance strength.

1977Ko35: E=1.055, 1.183, 1.214 and 1.416 MeV protons produced the 4 MV electrostatic accelerator of the Physical-Technical Institute of the Ukrainian SSR Academy of Sciences. Target of ^{34}S. A 40 cm^3 coaxial Ge(Li) detector. Measured σ(E$_p$), Eγ, $\gamma(\theta)$. Deduced levels, branchings, mixing ratios.

1977Ko34: E=1.0-1.4 MeV protons. Measured Eγ, Iγ, $\gamma(\theta)$. Deduced levels, J^π, branchings, mixing ratios.

1979Pa16: E=1.211 MeV proton from the University of Melbourne 5U Pelletron accelerator. Natural sulphur target. NaI(Tl) and Ge(Li) detector. Measured σ(E$_p$). Deduced resonance strength.

1988Va06: E=0.4-0.7 and 1.47 MeV protons produced from the Utrecht 3 MV Van de Graaff accelerator. Targets of Ag_2S (90% ^{34}S) of 10 and 34 μg/cm^2 on Ta backings. A 80-cm^3 coaxial Philips Ge(Li) or an γ-X intrinsic Ge detector, FWHM=1.85 and 1.75 keV at 1.33 MeV. Measured σ(E$_p$), Eγ, Iγ, $\gamma(\theta)$. Deduced levels, J^π, branchings, mixing ratios.

1988Co03: E=1.211 MeV proton produced from the Geel 7-MV CN-type Van de Graaff. Targets of ^{34}S. Ge(Li) detector. Measured $\gamma\gamma$-coin. Deduced weighting function.

1996Vo20: E=1.891, 1.900 and 2.070 MeV protons produced an electrostatic accelerator ESU-4 at the Physical and Technical Institute. Target made by implanting ^{34}S ions in a tantalum backing. A 63 cm^3 Ge(Li) detector. Measured Eγ, Iγ. Deduced levels, gamma widths.

1996Ka21: E=1-3 MeV protons produced from the electrostatic accelerator of the Institute of Physica and Technology (Kharkov). Targets of a 20 μg/cm^2 Ag_2S. A 60 cm^3 Ge(Li) detector for detecting γ-rays and a 150x100 mm^2 NaI(Tl) as a monitor. Measured Eγ, Iγ, $\gamma(\theta)$. Deduced levels, resonance strengths.

2000Vo21: 1.794 and 2.275 MeV protons. Measured Eγ, Iγ. Deduced gamma widths, transition strengths.

2001Ka69: E=0.8-3 MeV protons produced from the ESU-4 accelerator (NSC KhPEI). Target of ^{34}S. A 15-cm-diam by 19-cm-long NaI(Tl) detector. Measured Eγ, Iγ. Deduced levels, transition strengths.

2001Vo24: E=1.183-2.820 MeV protons produced from the 4-MeV electrostatic Van de Graaff accelerator (NSC KhPEI). Enriched ^{34}S target (100%). A 63 cm^3 Ge(LI) detector and a 15-cm-diam by 10-cm-long NaI(Tl) detector. Measured σ(E$_p$), Eγ, Iγ. Deduced levels, resonance strengths.

2002Vo17: E=2.187 MeV proton produced from the the ESU-4 accelerator (NSC KhPEI). Enriched ^{34}S target. A 63 cm^3 Ge(Li) detector. Measured Eγ, Iγ. Deduced levels, resonance strengths, widths.

Others: 1962Du05, 1963Du08, 1964Hy01, 1966Ko22, 1966Ko15, 1967Ma48, 1969Ko26, 1969Ah02, 1969KrZW, 1972LeYW, 1974Il01, 1974Bi16, 1981Va02.

^{35}Cl Levels

Resonance strength $\omega\gamma=(2J+1)\Gamma_\gamma\Gamma_p/\Gamma$.

All $\omega\gamma$ from 1976Me12 normalized to the value 21 eV *3* at E$_p$= 1212 keV from 1966En04.

All $\omega\gamma$ from 1976Sp08 normalized to the value 9.7 eV *7* at E$_p$= 1211 keV.

All $\omega\gamma$ from 1996Ka21 normalized to the value 9.7 eV *7* at E$_p$= 1212 keV from 1976Sp08.

All $\omega\gamma$ from 2001Vo24 normalized to the value 9.7 eV *7* at E$_p$= 1212 keV from 1976Sp08.

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^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

^{35}Cl Levels (continued)

E(level)[†]	J$^\pi$[‡]	T$_{1/2}$[@&]	Comments
0	3/2$^+$		
1219.40 *15*	1/2$^+$	106 fs *14*	T$_{1/2}$: weighted average of 55 fs *28* (1971Wi13), 121 fs *14* (1972Hu11), 104 fs *29* (1973Fa07), 100 fs *21* (1976Me12).
1763.14 *14*	5/2$^+$	0.35 ps *6*	T$_{1/2}$: weighted average of 0.35 ps *7* (1972Hu11), 0.28 ps *12* (1973Fa07), 0.37 ps *6* (1976Me12).
2645.66 *15*	7/2$^+$[#]	146 fs *21*	J$^\pi$: 3/2$^+$,from 1967Ko20 and 1967Ko23, (5/2,7/2) from 1971Wi13. T$_{1/2}$: weighted average of 177 fs *45* (D), 139 fs *21* (O).
2693.90 *15*	3/2$^+$[#]	14 fs *2*	J$^\pi$: (3/2,5/2) from 1971Wi13. T$_{1/2}$: weighted average of 15 fs *2* (1972Hu11), 13 fs *4* (1973Fa07), 14 fs *3* (1976Me12).
3002.76 *15*	5/2$^+$	13 fs *2*	T$_{1/2}$: weighted average of 55 fs *28* (1971Wi13), 15 fs *2* (1972Hu11), 10 fs *3* (1973Fa07), 11 fs *3* (1976Me12).
3163.03 *16*	7/2$^-$	25.6 ps *28*	T=1/2 T$_{1/2}$: from 1971Ba23 (delayed coincidence), 97 ps *28* from 1968Az02 (DSAM).
3918.50 *19*	3/2$^+$	4.9 fs *14*	T$_{1/2}$: from 1976Me12.
3942.90 *25*	9/2$^+$[#]	173 fs *41*	T$_{1/2}$: weighted average of 270 fs *76* (1972Hu11), 100 fs *43* (1973Fa07), 201 fs *35* (1976Me12).
3967.31 *25*		10 fs *3*	T$_{1/2}$: weighted average of 9 fs *3* (1972Hu11), 14 fs *5* (1973Fa07).
3979.0 *3*		14 fs *3*	
4059.20 *17*	3/2$^-$	14 fs *2*	T$_{1/2}$: weighted average of 15 fs *2* (1972Hu11), 14 fs *4* (1973Fa07), 12 fs *2* (1976Me12).
4113.70 *24*	7/2$^+$		
4173.45 *19*	5/2$^-$	34 fs *6*	T=1/2 J$^\pi$: from γ-feeding. T$_{1/2}$: weighted average of 73 fs *23* (1971Wi13), 38 fs *4* (1972Hu11), 24 fs *6* (1976Me12). Γ=6.5 keV *22* (1971Wi13).
4177.90 *16*	3/2$^-$	24 fs *3*	T$_{1/2}$: weighted average of 22 fs *3* (1972Hu11), 29 fs *8* (1973Fa07), 33 fs *7* (1976Me12).
4347.8 *3*	9/2$^-$	229 fs *42*	J$^\pi$: from Adopted Levels. T$_{1/2}$: from 1976Me12.
4382.0? *8*			E(level): from 1971Pr11.
4624.40 *25*			
4768.81 *20*	(7/2,9/2$^+$)	77 fs *20*	T$_{1/2}$: weighted average of 187 fs *66* (1972Hu11), 73 fs *12* (1976Me12).
4839.10 *21*	(1/2$^+$,3/2)	10 fs *3*	T$_{1/2}$: from 1976Me12.
4854.4 *4*	(1/2,3/2,5/2,5/2$^+$)	4.9 fs *14*	T$_{1/2}$: from 1976Me12.
4881.19 *22*		5.4 fs *14*	T$_{1/2}$: weighted average of 4.9 fs *14* (1972Hu11), 4.9 fs *24* (1973Fa07), 6.9 fs *21* (1976Me12).
5010.11 *21*	(1/2,3/2)	7.6 fs *21*	T$_{1/2}$: from 1976Me12.
5163.34 *25*	7/2$^-$		
5215.80 *20*		<5 fs	T$_{1/2}$: from 1976Me12.
5403.5 *3*	(1/2$^-$,3/2$^-$)	12 fs *3*	T$_{1/2}$: from 1976Me12.
5520.0 *11*			E(level): from 1976Sp08.
5586.0 *3*			
5599.70 *24*	(1/2$^+$,3/2,5/2)	2.1 fs *7*	T$_{1/2}$: from 1976Me12.
5645.0 *3*	(5/2,7/2,9/2)	2.8 fs *7*	T$_{1/2}$: from 1976Me12.
5654.50 *23*	3/2$^+$	14 fs *3*	J$^\pi$: from 2001Vo24. T$_{1/2}$: from 1976Me12. Γ_γ=0.033 eV *10* (2001Vo24).
5683.0 *6*			
5723.6 *4*			
5758.0 *4*	(1/2,3/2)		
5805.5 *4*		3.5 fs *7*	T$_{1/2}$: from 1976Me12.
6106.2 *4*	(1/2$^+$,3/2,5/2$^+$)	8.3 fs *21*	E(level): weighted average from E,O. T$_{1/2}$: from 1976Me12.
6181.0 *6*			

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^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

^{35}Cl Levels (continued)

E(level)†	Jπ‡	$T_{1/2}$@&	E_p	Comments
6492.0 *6*				
6866.7 *6*			510.6 *6*	E(level): from 1988Va06.
7066.2 *4*	5/2+		716.0 *7*	$\omega\gamma$=0.2 eV *1* (1972Hu10). $\omega\gamma$=0.30 eV *9* (1976Me12).
7103.3 *4*	3/2		754.3 *7*	E(level): weighted average from E,O. Jπ: from 1976Me12. $\omega\gamma$=0.04 eV (1963Ha32). $\omega\gamma$=0.5 eV *3* (1972Hu10). $\omega\gamma$=0.50 eV *15* (1976Me12).
7178.6 *3*	1/2+		831.8 *8*	$\omega\gamma$=0.4 eV *2* (1972Hu10). $\omega\gamma$=0.30 eV *9* (1976Me12). $\omega\gamma$=0.14 eV *2* (2001Vo24). $\Gamma_\gamma \geq$ 0.07 eV (2001Vo24).
7185.0 *4*			838	$\omega\gamma$=0.056 eV (1963Ha32).
7194.5 *3*	(1/2,3/2)+		848.2 *7*	Jπ: from 1960An06. $\omega\gamma$=0.17 eV (1963Ha32). $\omega\gamma$=1.1 eV *3* (1972Hu10). $\omega\gamma$=1.2 eV *4* (1976Me12).
7225.5 *3*	5/2		880.1 *8*	$\omega\gamma$=0.073 eV (1963Ha32). $\omega\gamma$=0.4 eV *2* (1972Hu10). $\omega\gamma$=0.30 eV *9* (1976Me12).
7234.0 *3*	5/2+		888.8 *8*	$\omega\gamma$=0.23 eV (1963Ha32). $\omega\gamma$=1.3 eV *4* (1972Hu10). $\omega\gamma$=1.9 eV *6* (1976Me12).
7269.2 *1*			925.1 *1*	E(level): from 1976Sp08.
7272.6 *3*	(1/2,3/2)		928.6 *9*	Jπ: from 1960An06. $\omega\gamma$=0.31 eV (1963Ha32). $\omega\gamma$=1.4 eV *4* (1972Hu10). $\omega\gamma$=2.2 eV *7* (1976Me12).
7362.0 *3*	3/2		1020.6 *8*	$\omega\gamma$=0.48 eV (1963Ha32). $\omega\gamma$=3.2 eV *10* (1972Hu10). $\omega\gamma$=2.5 eV (1973Fa07). $\omega\gamma$=3.1 eV *9* (1976Me12).
7396.0 *3*	7/2(−)		1055.6 *10*	$\omega\gamma$=0.67 eV (1963Ha32). $\omega\gamma$=0.4 eV *2* (1972Hu10). $\omega\gamma$=0.4 eV (1973Fa07). $\omega\gamma$=0.50 eV *15* (1976Me12).
7451.0 *5*	3/2		1112.3 *6*	Jπ: from 1972LeYW. $\omega\gamma$=0.3 eV *2* (1972Hu10). $\omega\gamma$=0.3 eV (1973Fa07). $\omega\gamma$=0.40 eV *12* (1976Me12).
7495			1158	E(level): from 1960An06.
7501.1 *8*			1163.8 *8*	$\omega\gamma$=(0.6) eV (1972Hu10). $\omega\gamma$=0.1 eV (1973Fa07).
7502.9 *7*			1165.7 *7*	$\omega\gamma$=0.5 eV (1973Fa07). $\omega\gamma$=0.8 eV *3* (1976Me12).
7518.7 *4*	7/2(−)		1182.0 *7*	Jπ: from 1977Ko35. $\omega\gamma$=0.2 eV *1* (1972Hu10). $\omega\gamma$=0.3 eV (1973Fa07). $\omega\gamma$=0.40 eV *12* (1976Me12).
7548.2 *3*	7/2−	<0.7 fs	1212.5 *4*	T=3/2 Jπ: 3/2 from 1976Me12. $\omega\gamma$=2 eV (1963Ha32). $\omega\gamma$=21 eV *3* (1966En04). $\omega\gamma$=2.6 eV *4* (1967Wa22).

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^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

^{35}Cl Levels (continued)

E(level)†	Jπ‡	$T_{1/2}$@&	E_p	Comments
				$\omega\gamma$=9.7 eV *9* (1974Al04). $\omega\gamma$=9.8 eV *10* (1975Ke11). $\omega\gamma$=21 eV *3* (1976Me12). $\omega\gamma$=9 eV *1* (1979Pa16). $\omega\gamma$=9.7 eV *7* (1976Sp08). $\omega\gamma$=9.7 eV *7* (1996Ka21). $\omega\gamma$=9.9 eV *7* (2001Vo24). $\omega\gamma$=9.5 eV *12* deduced from $\omega\gamma$ for E_p=1891 in 1981Bi05 and relative strength in 1976Sp08 (1981Bi05). Γ=5.8 eV *13*, Γ_p=3.8 eV *13*, Γ_γ=2.0 eV *13* (1975Ke11). Γ_γ=1.8 eV *7* (2001Vo24).
7561.1 *4*	(1/2,3/2)		1225.7 *6*	$\omega\gamma$=1.5 eV *5* (1972Hu10). $\omega\gamma$=1.1 eV (1973Fa07). $\omega\gamma$=1.5 eV *5* (1976Me12). $\omega\gamma$=0.7 eV *2* (2001Vo24). A_2=2 (2001Vo24).
7600.8 *3*	5/2+	<14 fs	1266.5 *8*	Jπ: 3/2 from 1977Ko34. $\omega\gamma$=3.4 eV, $\Gamma_\gamma\approx$0.57 eV (1971Wi13). $\omega\gamma$=3.2 eV *10* (1972Hu10). $\omega\gamma$=2.9 eV (1973Fa07). $\omega\gamma$=2.8 eV *9* (1976Me12).
7618.7 *4*	5/2		1284.9	$\omega\gamma$=1.2 eV *4* (1972Hu10). $\omega\gamma$=1.1 eV (1973Fa07). $\omega\gamma$=1.7 eV *5* (1976Me12).
7656.5 *4*			1323.9 *8*	$\omega\gamma$=0.5 eV *3* (1972Hu10). $\omega\gamma$=0.5 eV (1973Fa07). $\omega\gamma$=0.8 eV *3* (1976Me12).
7671.9 *4*	(5/2−,7/2)		1339.7 *8*	$\omega\gamma$=1.5 eV *5* (1972Hu10). $\omega\gamma$=1.4 eV (1973Fa07). $\omega\gamma$=1.3 eV *4* (1976Me12).
7684.7 *3*	3/2−		1353.7 *6*	$\omega\gamma$=2.5 eV *8* (1972Hu10). $\omega\gamma$=2.4 eV (1973Fa07). $\omega\gamma$=2.8 eV *9* (1976Me12). Γ_p=445 eV *11* (1981Bi05).
7693.8 *5*			1362.3 *8*	$\omega\gamma$=0.4 eV *2* (1972Hu10). $\omega\gamma$=0.6 eV *2* (1976Me12).
7706.4 *3*	5/2+		1375.2 *8*	$\omega\gamma$=3.7 eV *11* (1972Hu10). $\omega\gamma$=3.1 eV (1973Fa07). $\omega\gamma$=4.4 eV *13* (1976Me12). Γ_p=4 eV *1* (1981Bi05).
7744.8 *4*	7/2−		1414.8 *9*	$\omega\gamma$=1.3 eV *4* (1972Hu10). $\omega\gamma$=1.2 eV (1973Fa07). $\omega\gamma$=1.7 eV *5* (1976Me12).
7748			1418	E(level): form 1960An06.
7777.0 *3*	5/2+		1448.0 *9*	$\omega\gamma$=1.5 eV *5* (1972Hu10). $\omega\gamma$(1.4) eV (1973Fa07). $\omega\gamma$=1.5 eV *5* (1976Me12).
7781.6 *3*	5/2−		1452.7 *12*	$\omega\gamma$=0.8 eV *4* (1972Hu10). $\omega\gamma$(0.9) eV (1973Fa07). $\omega\gamma$=0.9 eV *3* (1976Me12).
7797.0 *4*	1/2−		1468.6 *9*	Jπ: from 1988Va06, 3/2 from 1976Me12. $\omega\gamma$=1.5 eV *5* (1972Hu10). $\omega\gamma$=1.6 eV (1973Fa07). $\omega\gamma$=1.4 eV *4* (1976Me12). The J^π=1/2− invalidates the two large mixing ratios for the transitions of 7.80 to 0 and 7.80 to 1.22 in 1976Me12 (1988Va06).
7837.0 *3*	3/2−	<3.5 fs	1510 *1*	T=3/2 $T_{1/2}$: from 1971Wi13.

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^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

^{35}Cl Levels (continued)

E(level)†	Jπ‡	E_p	Comments
			$\omega\gamma$=3.4 eV *6* (1967Wa22). $\omega\gamma$ AP 7.5 eV, Γ_γ=1.9 eV (1971Wi13). $\omega\gamma$=11 eV (1972Hu10). $\omega\gamma$=1.3 eV (1973Fa07). $\omega\gamma$=(4.8) eV (1976Me12). $\omega\gamma$=2.2 eV *3* (2001Vo24). Γ_γ=0.55 eV *6* (2001Vo24).
7839.7 *5*		1511.8 *9*	$\omega\gamma$=8.7 eV (1973Fa07). $\omega\gamma$=(6.1) eV (1976Me12).
7868.6 *5*	(1/2$^+$,3/2,5/2$^+$)	1542.3 *10*	$\omega\gamma$=0.5 eV *3* (1972Hu10). $\omega\gamma$=(0.5) eV (1973Fa07). $\omega\gamma$=1.0 eV *3* (1976Me12).
7873		1547	E(level): from 1960An06.
7880.8 *3*	(3/2,5/2)	1554.8 *9*	$\omega\gamma$=1.6 eV *5* (1972Hu10). $\omega\gamma$=1.3 eV (1973Fa07). $\omega\gamma$=2.2 eV *7* (1976Me12).
7885		1559	E(level): from 1960An06.
7889.0 *15*		1563.3 *15*	E(level): from 1973Fa07. $\omega\gamma$=(0.1) eV (1973Fa07).
7899.1 *4*	(3/2$^-$,5/2)	1573.7 *7*	$\omega\gamma$=1.4 eV *4* (1972Hu10). $\omega\gamma$=1.0 eV (1973Fa07). $\omega\gamma$=2.2 eV *7* (1976Me12).
7903		1578	E(level): from 1960An06.
7923.3 *3*	(3/2$^+$,5/2$^+$)	1598.6 *9*	$\omega\gamma$=0.8 eV *4* (1972Hu10). $\omega\gamma$=(0.7) eV (1973Fa07). $\omega\gamma$=1.0 eV *3* (1976Me12).
7930		1605	E(level): from 1960An06.
7949		1625	E(level): from 1960An06.
7970.2 *3*	(5/2$^-$,7/2$^-$)	1646.9 *10*	$\omega\gamma$=1.2 eV *4* (1972Hu10). $\omega\gamma$=(1.0) eV (1973Fa07). $\omega\gamma$=1.9 eV *6* (1976Me12).
7987.8 *4*	3/2	1665 *1*	$\omega\gamma$=1.5 eV *5* (1972Hu10). $\omega\gamma$=(1.3) eV (1973Fa07). $\omega\gamma$=1.2 eV *4* (1976Me12).
7995.6 *3*	5/2	1673 *1*	$\omega\gamma$=2.7 eV *8* (1972Hu10). $\omega\gamma$=(2.3) eV (1973Fa07). $\omega\gamma$=2.1 eV *6* (1976Me12).
8000.4 *2*	(7/2,9/2$^+$)	1678.1 *9*	$\omega\gamma$=(2.6) eV (1973Fa07). $\omega\gamma$=2.9 eV *9* (1976Me12).
8004.5 *2*	5/2$^+$	1682.1 *2*	Jπ: from 1981Bi05. $\omega\gamma$=4.1 eV *12* (1972Hu10). $\omega\gamma$=(3.4) eV (1973Fa07). $\omega\gamma$=4.8 eV *15* (1976Me12). $\omega\gamma$=4.5 eV *14* (1972Hu10). Γ_p=21 eV *3* (1981Bi05).
8035.5 *4*		1714.1 *10*	$\omega\gamma$=0.9 eV *5* (1972Hu10). $\omega\gamma$(0.9) eV (1973Fa07). $\omega\gamma$=0.8 eV *3* (1976Me12).
8038.5 *3*	3/2	1717.2 *11*	$\omega\gamma$=3.5 eV *11* (1972Hu10). $\omega\gamma$=3.0 eV (1973Fa07). $\omega\gamma$=2.9 eV *9* (1976Me12).
8075.9 *3*	(3/2,5/2,7/2$^-$)	1755.7 *11*	$\omega\gamma$=1.6 eV *5* (1972Hu10). $\omega\gamma$(1.3) eV (1973Fa07). $\omega\gamma$=1.6 eV *5* (1976Me12).
8080		1760	E(level): from 1960An06.
8096.5 *3*	(5/2,7/2$^+$)	1776.9 *11*	$\omega\gamma$=2.5 eV *8* (1972Hu10). $\omega\gamma$=2.5 eV (1973Fa07).

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^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

^{35}Cl Levels (continued)

E(level)†	Jπ‡	E_p	Comments
			$\omega\gamma$=2.4 eV *7* (1976Me12).
8106.4 *3*	3/2	1787.1 *11*	$\omega\gamma$=4.2 eV *13* (1972Hu10). $\omega\gamma$=3.6 eV (1973Fa07). $\omega\gamma$=3.7 eV *11* (1976Me12).
8113.3 *3*	(1/2$^+$,3/2,5/2$^+$)	1794.2 *11*	$\omega\gamma$=1.2 eV *4* (1972Hu10). $\omega\gamma$(1.1) eV (1973Fa07). $\omega\gamma$=1.6 eV *5* (1976Me12).
8147.2 *4*	3/2$^-$	1829.1 *11*	$\omega\gamma$=2.4 eV *7* (1972Hu10). $\omega\gamma$=1.5 eV (1973Fa07). $\omega\gamma$=1.7 eV *5* (1976Me12).
8156.8 *3*	(5/2$^+$,7/2$^-$)	1839.0 *11*	$\omega\gamma$=2.1 eV *6* (1972Hu10). $\omega\gamma$=2.1 eV (1973Fa07). $\omega\gamma$=1.9 eV *6* (1976Me12).
8179.4 *5*		1862.3 *12*	$\omega\gamma$=0.8 eV *4* (1972Hu10). $\omega\gamma$(0.7) eV (1973Fa07). $\omega\gamma$=0.9 eV *3* (1976Me12).
8208 *1*	5/2$^+$	1891.7 *10*	E(level): weighted average from 1976Me12 and 2001Vo24. Jπ: from 1981Bi05, 1996Ka21 and 2001Vo24. $\omega\gamma$=8.0 eV *24* (1972Hu10). $\omega\gamma$=6.0 eV (1973Fa07). $\omega\gamma$=9.0 eV *27* (1976Me12). $\omega\gamma$=4.1 eV *5*, Γ_p=39 eV *5* (1981Bi05). $\omega\gamma$=2.6 eV *7* (1996Ka21). $\omega\gamma$=4.2 eV *8* (2001Vo24), sum of $\omega\gamma$ for the resonances at E_p=1891 and 1893, Γ_γ=0.70 eV *14* (2001Vo24).
8209	1/2$^+$	1893	Γ_p=120 eV *11* (1981Bi05).
8216.3 *4*	5/2$^+$	1900.3 *10*	$\omega\gamma$=4.7 eV (1973Fa07). $\omega\gamma$=6.2 eV *19* (1972Hu10). $\omega\gamma$=7.1 eV *21* (1976Me12). $\omega\gamma$=1.7 eV *5* (1996Ka21). $\omega\gamma$=3.3 eV *5* (2001Vo24). Γ_γ=0.55 eV *8* (2001Vo24).
8242.1 *6*	3/2$^-$	1926.8 *10*	$\omega\gamma$=1.9 eV *6* (1972Hu10). $\omega\gamma$=1.9 eV (1973Fa07). $\omega\gamma$=2.2 eV *7* (1976Me12). $\omega\gamma$=1.0 eV *3* (2001Vo24). Γ_γ=0.25 eV *8* (2001Vo24).
8251 *5*		1936 *5*	E(level): from 1967Da12.
8269.0 *4*	5/2	1954.5 *5*	$\omega\gamma$=1.8 eV *5* (1972Hu10). $\omega\gamma$=(1.9) eV (1973Fa07). $\omega\gamma$=2.0 eV *6* (1976Me12). $\omega\gamma$=0.6 eV *3* (1976Sp08).
8277.2 *3*	5/2$^+$	1963.0 *5*	$\omega\gamma$=1.6 eV *5* (1972Hu10). $\omega\gamma$=(1.7) eV (1973Fa07). $\omega\gamma$=1.5 eV *5* (1976Me12). $\omega\gamma$=0.7 eV *4* (1976Sp08).
8282.0 *3*	(3/2$^-$,5/2)	1967.9 *5*	$\omega\gamma$=1.3 eV *4* (1976Me12). $\omega\gamma$=0.4 eV *2* (1976Sp08).
8284.3 *13*		1970.3 *13*	$\omega\gamma$=2.4 eV *7* (1972Hu10). $\omega\gamma$=(2.4) eV (1973Fa07).
8287.5 *4*	1/2$^-$	1973.5 *3*	Jπ: from 1981Bi05, 3/2 from 1976Me12. $\omega\gamma$=2.9 eV *9* (1972Hu10). $\omega\gamma$=1.6 eV *5* (1976Me12). $\omega\gamma$=0.9 eV *5* (1976Sp08). Γ_p=48 eV *6* (1981Bi05).
8294 *2*		1980 *2*	E(level): from 1973Fa07. $\omega\gamma$=(3.0) eV (1973Fa07).

Continued on next page (footnotes at end of table)

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

^{35}Cl Levels (continued)

E(level)†	Jπ‡	E_p	Comments
8297.3 *5*		1983.7 *5*	$\omega\gamma$=(1.7) eV (1973Fa07). $\omega\gamma$=0.6 eV *3* (1976Sp08).
8298.3 *3*	3/2	1984.7 *5*	$\omega\gamma$=4.0 eV *12* (1972Hu10). $\omega\gamma$=3.5 eV *11* (1976Me12). $\omega\gamma$=0.9 eV *5* (1976Sp08).
8318.1 *3*		2005.1 *3*	$\omega\gamma$=4.2 eV *13* (1972Hu10). $\omega\gamma$=4.6 eV (1973Fa07). $\omega\gamma$=4.2 eV *13* (1976Me12). $\omega\gamma$=2.7 eV *5* (1976Sp08).
8323.2 *5*		2010.3 *13*	$\omega\gamma$=1.0 eV *3* (1972Hu10). $\omega\gamma$=1.6 eV *5* (1976Me12).
8346 *5*		2034 *5*	
8381.8 *6*	5/2$^+$	2070.7 *6*	Jπ: from 2001Vo24. $\omega\gamma$=6.1 eV *12* (1976Sp08). $\omega\gamma$=6.1 eV *6* (2001Vo24). Γ_γ=1.02eV *10* (2001Vo24).
8387.8 *5*		2076.9 *5*	$\omega\gamma$=0.4 eV *2* (1976Sp08).
8390.8 *5*		2080.0 *14*	$\omega\gamma$=0.6 eV *3* (1972Hu10).
8402.9 *4*		2092.4 *5*	$\omega\gamma$=0.7 eV *4* (1976Sp08).
8404.3 *5*		2093.9 *5*	$\omega\gamma$=2.3 eV *5* (1976Sp08).
8407.7 *5*		2097.4 *5*	$\omega\gamma$=6.4 eV *19* (1972Hu10). $\omega\gamma$=1.4 eV *3* (1976Sp08).
8411.2 *14*		2101.0 *14*	$\omega\gamma$=3.6 eV *11* (1972Hu10).
8416.7 *4*		2106.6 *5*	$\omega\gamma$=0.5 eV *3* (1976Sp08).
8430.3 *5*		2120.6 *5*	$\omega\gamma$=1.0 eV *2* (1976Sp08).
8434.7 *5*		2125.2 *5*	$\omega\gamma$=0.5 eV *3* (1976Sp08).
8464.3 *3*		2155.6 *5*	$\omega\gamma$=0.9 eV *5* (1976Sp08).
8484.4 *4*	3/2$^+$	2176.3 *5*	Jπ: from 2001Vo24. $\omega\gamma$=2.1 eV *4* (1976Sp08). $\omega\gamma$=2.1 eV *4* (2001Vo24). Γ_γ=0.36 eV *6* (2001Vo24).
8486.0 *4*		2178.0 *5*	$\omega\gamma$=1.9 eV *4* (1976Sp08).
8506.5 *5*		2199.1 *5*	$\omega\gamma$=0.3 eV *2* (1976Sp08).
8514.3 *4*		2207.1 *5*	$\omega\gamma$=0.5 eV *3* (1976Sp08).
8533.9 *5*		2227.3 *5*	$\omega\gamma$=0.10 eV *5* (1976Sp08).
8571.9 *3*		2266.4 *5*	$\omega\gamma$=2.9 eV *6* (1976Sp08).
8580.5 *4*		2275.3 *5*	$\omega\gamma$=1.0 eV *2* (1976Sp08).
8585.8 *5*		2280.7 *5*	$\omega\gamma$=0.10 eV *5* (1976Sp08).
8589.9 *4*		2285.0 *5*	$\omega\gamma$=0.7 eV *4* (1976Sp08).
8598 *5*		2293 *5*	E(level): from 1967Da12.
8612.0 *6*		2307.7 *5*	$\omega\gamma$=1.0 eV *2* (1976Sp08).
8613.6 *4*		2309.4 *5*	$\omega\gamma$=2.4 eV *5* (1976Sp08).
8618.1 *4*	(3/2$^+$,5/2$^+$)	2314.0 *5*	Jπ: from 1970Ko33. $\omega\gamma$=3.8 eV *8* (1976Sp08).
8630.1 *3*	7/2$^-$	2326.3 *3*	Jπ: from 1976Sp09, 3/2 from 1970Ko33. $\omega\gamma$=2.7 eV *5* (1976Sp08).
8639	5/2		E(level): from 1970Ko33.
8641.4 *3*	(3/2,5/2)	2338.0 *5*	$\omega\gamma$=0.9 eV *5* (1976Sp08).
8686.2 *4*	5/2	2384.1 *5*	$\omega\gamma$=2.2 eV *4* (1976Sp08).
8688.3 *5*		2386.3 *5*	$\omega\gamma$=0.7 eV *4* (1976Sp08).
8696.9 *6*		2395.1 *5*	$\omega\gamma$=0.6 eV *3* (1976Sp08).
8706.3 *5*		2404.8 *5*	$\omega\gamma$=0.2 eV *1* (1976Sp08).
8717.7 *5*		2416.5 *5*	$\omega\gamma$=0.5 eV *3* (1976Sp08).
8750.9 *4*		2450.7 *5*	$\omega\gamma$=1.7 eV *3* (1976Sp08).
8767.0 *5*		2467.3 *5*	$\omega\gamma$=0.3 eV *2* (1976Sp08).
8772.9 *5*		2473.4 *5*	$\omega\gamma$=0.6 eV *3* (1976Sp08).
8779.8 *4*		2480.5 *5*	$\omega\gamma$=1.7 eV *3* (1976Sp08).

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^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

^{35}Cl Levels (continued)

E(level)†	J$^\pi$‡	E$_p$	Comments
8787.2 *4*	(3/2$^-$,5/2,7/2$^-$)	2488.1 *5*	$\omega\gamma$=1.2 eV *2* (1976Sp08).
8798.4 *5*	(1/2$^+$,3/2,5/2$^+$)	2499.6 *5*	$\omega\gamma$=1.7 eV *3* (1976Sp08).
8820.9 *5*		2522.8 *5*	$\omega\gamma$=0.7 eV *4* (1976Sp08).
8824.2 *5*		2526.2 *5*	$\omega\gamma$=3.7 eV *7* (1976Sp08).
8829.2 *4*		2531.4 *5*	$\omega\gamma$=2.1 eV *4* (1976Sp08).
8833.0 *3*	5/2	2535.3 *5*	$\omega\gamma$=0.7 eV *4* (1976Sp08).
8837.3 *4*	7/2$^-$	2540.5 *5*	J$^\pi$: from 1981Bi05. $\omega\gamma$=1.5 eV *3* (1976Sp08). Γ_p=4 eV *1* (1981Bi05).
8856.0 *4*		2559.0 *5*	$\omega\gamma$=4.6 eV *9* (1976Sp08).
8868.6 *5*		2571.9 *5*	$\omega\gamma$=1.0 eV *2* (1976Sp08).
8884.1 *5*		2587.9 *5*	$\omega\gamma$=0.4 eV *2* (1976Sp08).
8886.1 *4*	5/2	2589.9 *5*	$\omega\gamma$=1.4 eV *3* (1976Sp08).
8893.2 *4*	(5/2,7/2)$^+$	2597.3 *5*	J$^\pi$: from 2001Vo24. $\omega\gamma$=1.2 eV *2* (1976Sp08). $\omega\gamma$=1.2 eV *4* (2001Vo24). Γ_γ=0.20 eV *6* (2001Vo24).
8904.8 *4*		2609.2 *5*	$\omega\gamma$=1.0 eV *2* (1976Sp08).
8906.8 *4*	5/2$^+$	2611.3 *5*	J$^\pi$: from 2001Vo24. $\omega\gamma$=1.5 eV *3* (1976Sp08). $\omega\gamma$=1.5 eV *3* (2001Vo24). Γ_γ=0.25 eV *5* (2001Vo24).
8919.8 *5*		2624.6 *5*	$\omega\gamma$=1.1 eV *2* (1976Sp08).
8933.3 *5*		2638.5 *5*	$\omega\gamma$=1.0 eV *2* (1976Sp08).
8953.0 *8*	3/2$^+$	2658.8 *5*	$\omega\gamma$=2.4 eV *5* (1976Sp08).
8957.8 *5*		2663.8 *5*	$\omega\gamma$=1.2 eV *2* (1976Sp08).
8981.9 *5*		2688.6 *5*	$\omega\gamma$=2.2 eV *4* (1976Sp08).
8984.1 *3*		2690.9 *5*	$\omega\gamma$=0.6 eV *3* (1976Sp08).
8988.4 *5*		2695.3 *5*	$\omega\gamma$=0.7 eV *4* (1976Sp08).
8992.4 *5*		2699.4 *5*	$\omega\gamma$=2.3 eV *5* (1976Sp08).
8996.7 *5*		2703.8 *5*	$\omega\gamma$=1.7 eV *3* (1976Sp08).
9001.0 *5*		2708.3 *5*	$\omega\gamma$=0.6 eV *3* (1976Sp08).
9019.3 *5*		2727.1 *5*	$\omega\gamma$=0.8 eV *4* (1976Sp08).
9024.4 *5*		2732.4 *5*	$\omega\gamma$=1.1 eV *2* (1976Sp08).
9029.9 *5*		2738.0 *5*	$\omega\gamma$=2.6 eV *5* (1976Sp08).
9033.1 *5*		2741.3 *5*	$\omega\gamma$=0.4 eV *2* (1976Sp08).
9038.2 *5*		2746.6 *5*	$\omega\gamma$=0.8 eV *4* (1976Sp08).
9048.3 *5*		2757.0 *5*	$\omega\gamma$=3.2 eV *6* (1976Sp08).
9081.1 *3*	5/2$^+$	2791.0 *4*	$\omega\gamma$=16.0 eV *32* (1976Sp08). $\omega\gamma$=16.3 eV *4* (1996Ka21). $\omega\gamma$=16.0 eV *3* (2001Vo24). Γ=65 eV *20*, Γ_p=62 eV *20*, Γ_γ=2.3 eV *4*, $\omega\gamma$=13.4 eV *22* (1976Sp09). Γ_p=59 eV *7* (1981Bi05). Γ_γ=2.7 eV *5* (2001Vo24).
9088.4 *5*		2798.3 *5*	$\omega\gamma$=0.7 eV *4* (1976Sp08).
9099.2 *5*		2809.4 *5*	$\omega\gamma$=1.2 eV *2* (1976Sp08).
9100.4 *5*		2810.6 *5*	$\omega\gamma$=2.1 eV *4* (1976Sp08).
9107.4 *5*		2817.8 *5*	$\omega\gamma$=0.5 eV *3* (1976Sp08).
9110.0 *5*		2820.5 *5*	$\omega\gamma$=0.5 eV *3* (1976Sp08).
9124.0 *5*		2834.9 *5*	$\omega\gamma$=1.2 eV *2* (1976Sp08).
9135.1 *5*		2846.3 *5*	$\omega\gamma$=0.2 eV *1* (1976Sp08).
9138.3 *5*		2849.6 *5*	$\omega\gamma$=1.9 eV *4* (1976Sp08).
9155.7 *5*		2867.5 *5*	$\omega\gamma$=2.0 eV *4* (1976Sp08).
9157.1 *4*	5/2$^+$	2869.0 *5*	J$^\pi$: from 1996Ka21. $\omega\gamma$=6.7 eV *13* (1976Sp08). $\omega\gamma$=6.4 eV *1* (1996Ka21).
9163.2 *5*		2875.3 *5*	$\omega\gamma$=0.4 eV *2* (1976Sp08).

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^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

^{35}Cl Levels (continued)

E(level)[†]	E_p	Comments
9184.2 *5*	2896.9 *5*	$\omega\gamma$=0.9 eV *5* (1976Sp08).
9188.8 *5*	2901.6 *5*	$\omega\gamma$=0.9 eV *5* (1976Sp08).
9194.1 *5*	2907.1 *5*	$\omega\gamma$=4.0 eV *8*.

[†] From $E_x=E_{cm}+Sp$, where E_{cm} is deduced from E_p and Sp=6370.82 *5* for ^{35}Cl (2011AuZZ). Weighted average are taken when values with uncertainties are available from different papers. Levels before E≈8.2 MeV (E_p≈1.9 MeV) mainly from 1972Hu10 and 1976Me12 and levels after that mainly from 1976Sp08. All level energies with uncertainties in 1981Bi05 from a least-square fit to Eγ's by author.

[‡] From the comparison of experimental angular distributions of γ-rays with theoretical predictions or deduced from γ-feedings, unless otherwise noted.

[#] From Adopted Levels.

[@] From measurements using Doppler Shift Attenuation Method (DSAM) or delayed coincidence method.

[&] Uncertainties in 1973Fa07 include 25% uncertainty from slowing-down theory.

$\gamma(^{35}Cl)$

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult.[e]	δ[e]	Comments
1219.40	1/2$^+$	1219.4	100	0	3/2$^+$			B(M1)(W.u.)=0.12 *2*, B(E2)(W.u.)=295 *40* (1973Fa07). B(M1)(W.u.)=0.101 *11*, B(E2)(W.u.)=2.3 *3* (1972Hu11). A_2=−0.03 *3*, A_4=−0.002 *50* (1971Wi13). A_2=−0.01 *2*, A_4=+0.005 *24* (1967Ta08).
1763.14	5/2$^+$	543.7	<0.2	1219.40	1/2$^+$			B(E2)(W.u.) ≤10 (1972Hu11).
		1763.1	100	0	3/2$^+$	M1+E2	0.42 *17*	Mult.,δ: from 1967Ko20 and 1967Ko23. +2.8<δ<+4.0 (1971Wi13). Γ_γ(M1)=0.0012 eV, Γ_g(E2)=0.00013 eV (1967Ko23). B(M1)(W.u.)=1.5×10^{-3} *5*, B(E2)(W.u.)=16 *6* (1973Fa07). B(M1)(W.u.)=0.0012 *3*, B(E2)(W.u.)=13 *2* (1972Hu11). B(M1)(W.u.)=0.0105, B(E2)(W.u.)=1.5 (1967Ko20,1967Ko23). A_2=−0.24 *6*, A_4=−0.08 *7* (1971Wi13). A_2=+0.25 *3*, A_4=−0.49 *8* (1970Ko33). A_2=+0.25 *3*, A_4=−0.49 *8* (1967Ko20,1967Ko23).
2645.66	7/2$^+$	882.5	9 *1*	1763.14	5/2$^+$			B(M1)(W.u.)=0.014 *4*, B(E2)(W.u.)=2.9 *15* (1972Hu11).
		1426.2	<2	1219.40	1/2$^+$			
		2645.6	91 *1*	0	3/2$^+$			Γ_γ(M1)=0.012 eV, Γ_g(E2)=0.0044 eV (1967Ko20). B(E2)(W.u.)=3.4 *7* (1972Hu11). B(M1)(W.u.)=0.031, B(E2)(W.u.)=6.2 (1967Ko20,1967Ko23). A_2=+0.124 *17*, A_4=−0.230 *24* (1967Ko20,1967Ko23).
2693.90	3/2$^+$	933‡ *7*	12.9 *10*	1763.14	5/2$^+$			B(M1)(W.u.)=0.23 *9*, B(E2)(W.u.)=8 *6* (1973Fa07). B(M1)(W.u.)=0.24 *4*, B(E2)(W.u.)=9 *6* (1972Hu11). A_2=−0.05 *38* (1971Wi13).
		1475‡ *7*	7.6 *10*	1219.40	1/2$^+$			I_γ: 66 *14* from 1963Ha32. B(M1)(W.u.)=0.020 *8*, B(E2)(W.u.)=14 *7* (1972Hu11). B(M1)(W.u.)=0.018 *9*, B(E2)(W.u.)=13 *9* (1973Fa07).
		2693.8	79.8 *20*	0	3/2$^+$			I_γ: 34 *9* from 1963Ha32. +0.1<δ<+0.26 or −35<δ<−7 for J=3/2, δ<−5 for J=5/2 (1971Wi13). B(M1)(W.u.)=0.070 *15*, B(E2)(W.u.)=1.1 *8* (1973Fa07). B(M1)(W.u.)=0.061 *6*, B(E2)(W.u.)=2.1 *5* (1972Hu11). A_2=+0.20 *10*, A_4=−0.16 *11* (1971Wi13).
3002.76	5/2$^+$	1239.6	≤1	1763.14	5/2$^+$			B(M1)(W.u.) ≤0.008, B(E2)(W.u.) ≤19 (1972Hu11).
		1783.3	<3	1219.40	1/2$^+$			B(E2)(W.u.) ≤15 (1972Hu11).
		3006‡ *7*	100	0	3/2$^+$	M1+E2	0.22 *1*	Mult.,δ: from 1967Ko20 and 1967Ko23. Γ_γ(M1)=0.0138 eV, Γ_g(E2)=0.0007 eV (1967Ko20). B(M1)(W.u.)=0.083 *11*, B(E2)(W.u.)=0.3 *2* (1973Fa07). B(M1)(W.u.)=0.054 *8*, B(E2)(W.u.)=0.11 *6* (1972Hu11). B(M1)(W.u.)=0.024, B(E2)(W.u.)=0.036 (1967Ko20,1967Ko23). A_2=+0.45 *18*, A_4=+0.05 *19* (1971Wi13). A_2=−0.025 *11*, A_4=−0.084 *16* (1970Ko33). A_2=−0.025 *11*, A_4=−0.084 *16* (1967Ko20,1967Ko23).
3163.03	7/2$^-$	160.3	1.7 *2*	3002.76	5/2$^+$			I_γ: from 1971Pr11.

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult.[e]	δ[e]	Comments
								B(E1)(W.u.)=1.5×10^{-4} *3* (1971Pr11).
								B(E1)(W.u.) ≤6.3×10^{-5}, B(M2)(W.u.) ≤1.1×10^{4} (1972Hu11).
3163.03	7/2$^-$	469.1	<2	2693.90	3/2$^+$			I_γ: from 1963Ha32.
		517.6 *3*	9 *1*	2645.66	7/2$^+$			E_γ: from 1971Wi13.
								B(E1)(W.u.)=9×10^{-6} *2* (1971Pr11).
								B(E1)(W.u.)=1.2×10^{-5} *3*, B(M2)(W.u.) ≤6.2 (1972Hu11).
								A_2=+0.31 *8*, A_4=−0.06 *8* (1971Wi13).
		1399.9	0.30 *4*	1763.14	5/2$^+$	E1+M2	+0.44 *12*	Mult.,δ: from 1971Pr11.
								B(E1)(W.u.) ≤1.1×10^{-8}, B(M2)(W.u.) ≤0.026 (1972Hu11).
								B(E1)(W.u.)=1.4×10^{-3} *3*, B(M2)(W.u.)=6.3×10^{-3} *37* (1971Pr11).
		1943.6	<0.2	1219.40	1/2$^+$			
		3163‡ *7*	89 *1*	0	3/2$^+$	M2+E3	+0.26 *4*	δ: weighted average from 1971Pr11,1967Ta08 and 1966Az01, +0.16 *1* from 1967Wa22 and 1966Wa09.
								asymmetry ratio R=1.426 *7*, N_{90}/N_0=1.25 *11* (1971Wi13).
								pol=−0.75 *20* (1967Wa22).
								pol=1.27 *10* (1966Wa09).
								0.00<pol<0.384 (1966Az01).
								B(M2)(W.u.)=0.19 *2*, B(E3)(W.u.)=2.4 *5* (1972Hu11).
								B(E1)(W.u.)<2×10^{-8} (1971Wi13).
								B(M2)(W.u.)=0.16, B(E3)(W.u.)=2.3 (1971Wi13).
								B(M2)(W.u.)=0.19 *3*, B(E3)(W.u.)=2.9 *5* (1971Pr11).
								B(M2)(W.u.)=0.085 *30*, B(E3)(W.u.)=1.3 *6* (1968Az02).
								B(M2)(W.u.)=0.075, B(E3)(W.u.)=2.7 (1967Ta08).
								B(E2)(W.u.)=0.076, B(M3)(W.u.)=2.8 (1966Az01).
								A_2=+0.40 *8*, A_4=−0.23 *8* (1971Wi13).
								A_2=+0.25 *3*, A_4=+0.02 *5* (1967Ta08).
								A_2=+0.55 *3*, A_4=−0.008 *38* (1966Az01).
3918.50	3/2$^+$	1272.8	<3	2645.66	7/2$^+$			
		2155.3	18 *1*	1763.14	5/2$^+$			B(M1)(W.u.)<0.003, B(E2)(W.u.)<550 (1976Sp09).
								B(M1)(W.u.) ≤0.08, B(E2)(W.u.) ≤63 (1972Hu11).
		2699.0	<0.5	1219.40	1/2$^+$			B(M1)(W.u.)<1.5×10^{-3}, B(E2)(W.u.)<0.8 (1976Sp09).
		3918.3	82 *1*	0	3/2$^+$	M1+E2	−0.21 *2*	Mult.,δ: from 1976Sp09.
								δ: or +20 *8* (1976Sp09).
								B(M1)(W.u.)=0.06 *2*, B(E2)(W.u.)=0.66 *22* (1976Sp09).
								B(M1)(W.u.) ≤0.06, B(E2)(W.u.) ≤15 (1972Hu11).
								A_2=+0.07 *2*, A_4=−0.01 *3* (1976Sp09).
3942.90	9/2$^+$	1297.2	8 *2*	2645.66	7/2$^+$			B(M1)(W.u.)=3.3×10^{-3} *30*, B(E2)(W.u.)=6 *4* (1973Fa07).
								B(M1)(W.u.)=0.0014 *10*, B(E2)(W.u.)=2.6 *19* (1972Hu11).
		2179.7	92 *2*	1763.14	5/2$^+$			B(E2)(W.u.)=16 *5* (1973Fa07).
								B(E2)(W.u.)=5.7 *18* (1972Hu11).
		2723.4	<6	1219.40	1/2$^+$			
		3942.7	<10	0	3/2$^+$			
3967.31		1273.4	5 *3*	2693.90	3/2$^+$			

$^{35}_{17}Cl_{18}$-12

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[e]	δ[e]	Comments
3967.31		2204.1	≤1	1763.14	5/2$^+$			B(E2)(W.u.) ≤1.8 (1972Hu11).
		2747.8	74 *5*	1219.40	1/2$^+$			B(M1)(W.u.)=0.084 *28* (1972Hu11). B(M1)(W.u.)=0.06 *2* (1973Fa07).
		3967.1	21 *3*	0	3/2$^+$			B(M1)(W.u.) ≤0.0078, B(E2)(W.u.) ≤1.9 (1972Hu11).
3979.0		1285.1	2.0 *5*	2693.90	3/2$^+$			
		1333.3	<2	2645.66	7/2$^+$			
		2215.8	<2	1763.14	5/2$^+$			
		2759.5	83 *5*	1219.40	1/2$^+$			
		3978.8	15 *5*	0	3/2$^+$			
4059.20	3/2$^-$	896.2	<6[&]	3163.03	7/2$^-$			
		1056.4	<3[&]	3002.76	5/2$^+$			
		1365.3	1.2 *4*	2693.90	3/2$^+$			
		1413.5	<1	2645.66	7/2$^+$			
		2296[‡] *7*	3.8 *15*	1763.14	5/2$^+$			B(E1)(W.u.) ≤1×10^{-4}, B(M2)(W.u.) ≤90 (1972Hu11).
		2838[‡] *7*	96 *2*	1219.40	1/2$^+$			I_γ: 45 *5* from 1971Wi13. B(E1)(W.u.) ≤1.8×10^{-3}, B(M2)(W.u.) ≤1000 (1972Hu11).
		4058[‡] *7*	<2	0	3/2$^+$			I_γ: 20 *2* from 1971Wi13.
4113.70	7/2$^+$	2350.5	47 *3*	1763.14	5/2$^+$	M1+E2	−0.16 *2*	Mult.,δ: from 1976Sp09. B(M1)(W.u.)=0.016 *4*, B(E2)(W.u.)=0.28 *10* (1976Sp09). A_2=+0.56 *3*, A_4=+0.05 *4* (1976Sp09).
		2894.2	<10	1219.40	1/2$^+$			
		4113.4	52 *3*	0	3/2$^+$	E2(+M3)	0.0 *1*	Mult.,δ: from 1976Sp09. B(E2)(W.u.)=0.8 *2* (1976Sp09). A_2=+0.46 *25*, A_4=−0.23 *25* (1976Sp09).
4173.45	5/2$^-$	1479.5	26 *8*	2693.90	3/2$^+$			
		1527.8	<10	2645.66	7/2$^+$			
		2410.2	16 *5*	1763.14	5/2$^+$			
		2953.9	≤3	1219.40	1/2$^+$			I_γ: 32 *3* from 1971Wi13. B(E2)(W.u.) ≤0.3 (1972Hu11).
		4173.2	58 *10*	0	3/2$^+$			B(M1)(W.u.) ≤0.0045, B(E2)(W.u.) ≤1 (1972Hu11). A_2=−0.01 *3*, A_4=−0.006 *40* (1967Ta08).
4177.90	3/2$^-$	1175.1	<0.5	3002.76	5/2$^+$			
		1484.0	8 *2*	2693.90	3/2$^+$			B(E1)(W.u.) ≤6.1×10^{-4}, B(M2)(W.u.) ≤1300 (1972Hu11).
		1532.2	<0.5	2645.66	7/2$^+$			
		2414.7	<1	1763.14	5/2$^+$			B(E1)(W.u.) ≤2×10^{-5}, B(M2)(W.u.) ≤15 (1972Hu11).
		2958.4	31 *5*	1219.40	1/2$^+$	E1+M2	+0.11 *4*	δ: *4* from 1967Wa22. B(E1)(W.u.)=3.4×10^{-4} *8*, B(M2)(W.u.)=2.1 *16* (1972Hu11).
		4177.6	61 *5*	0	3/2$^+$	E1+M2	+0.06 *3*	Mult.,δ: from 1967Wa22. pol=+0.12 *31* (1967Wa22). B(E1)(W.u.)=2.4×10^{-4} *5*, B(M2)(W.u.) ≤0.5 (1972Hu11).
4347.8	9/2$^-$	1184.7	69 *2*	3163.03	7/2$^-$			B(M1)(W.u.) ≤0.02, B(E2)(W.u.) ≤51 (1972Hu11).
		1345.0	<4	3002.76	5/2$^+$			

$^{35}_{17}Cl_{18}$-13

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[e]	δ[e]	Comments
4347.8	9/2$^-$	1653.9	<4	2693.90	3/2$^+$			
		1702.1	31 *2*	2645.66	7/2$^+$	E1+M2	−0.018 *12*	Mult.,δ: from 1976Sp09. A_2=−0.34 *3*, A_4=−0.00 *4* (1976Sp09). B(E1)(W.u.)=2.0×10^{-5} *8*, B(M2)(W.u.)<0.02 (1976Sp09). B(E1)(W.u.) ≤1×10^{-4}, B(M2)(W.u.) ≤150 (1972Hu11).
		2584.6	<3	1763.14	5/2$^+$			B(M2)(W.u.) ≤1.8, B(E3)(W.u.) ≤1500 (1972Hu11).
		3128.2	<5	1219.40	1/2$^+$			
		4347.5	≤5	0	3/2$^+$			B(E3)(W.u.) ≤70 (1972Hu11).
4382.0?		1218.9[f]	100	3163.03	7/2$^-$			E_γ,I_γ: from 1971Pr11.
4624.40		4624.1	100	0	3/2$^+$			
4768.81	(7/2,9/2$^+$)	1605.7	65 *8*	3163.03	7/2$^-$			
		1766.0	35 *10*	3002.76	5/2$^+$			
		2074.8	<10	2693.90	3/2$^+$			
		3005.5		1763.14	5/2$^+$			
		3549.2	<10	1219.40	1/2$^+$			
		4768.5	<10	0	3/2$^+$			
4839.10	(1/2$^+$,3/2)	1836.3	<7	3002.76	5/2$^+$			
		2145.1	<4	2693.90	3/2$^+$			
		2193.4	<3	2645.66	7/2$^+$			
		3075.8	59 *5*	1763.14	5/2$^+$			I_γ: 48 *4* from 1976Sp09.
		3619.5	<7	1219.40	1/2$^+$			
		4838.7	41 *5*	0	3/2$^+$			I_γ: 18 *3* from 1976Sp09, 34% for decay to other levels (1976Sp09).
4854.4	(1/2,3/2,5/2$^+$)	3634.8	75 *5*	1219.40	1/2$^+$			
		4854.0	25 *5*	0	3/2$^+$			
4881.19		1878.4	9 *3*	3002.76	5/2$^+$			
		2187.2	<10	2693.90	3/2$^+$			
		2235.5	29 *5*	2645.66	7/2$^+$			
		3117.9	62 *5*	1763.14	5/2$^+$			
		3661.6	<4	1219.40	1/2$^+$			
		4880.8	<4	0	3/2$^+$			
5010.11	(1/2,3/2)	836.6	<25[&]	4173.45	5/2$^-$			
		950.9	<10[&]	4059.20	3/2$^-$			
		1847.0	<50[&]	3163.03	7/2$^-$			
		2007.3	<20[&]	3002.76	5/2$^+$			
		2316.1	<25[&]	2693.90	3/2$^+$			
		2364.4	<5	2645.66	7/2$^+$			
		3246.8	<10	1763.14	5/2$^+$			
		3790.5	<7	1219.40	1/2$^+$			
		5009.7	100	0	3/2$^+$			
5163.34	7/2$^-$	2000.2	40 *20*	3163.03	7/2$^-$	M1+E2	+0.44 *20*	δ: from 1976Sp09. I_γ: 10% for decay to unknown levels (1976Me12). A_2=+0.52 *5*, A_4=−0.02 *6* (1976Sp09).

$^{35}_{17}Cl_{18}$-14

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[e]	δ[e]	Comments
5163.34	7/2$^-$	2160.5	10 *4*	3002.76	5/2$^+$			
		3400.0	43 *5*	1763.14	5/2$^+$	E1(+M2)	0.00 *3*	δ: from 1976Sp09. A_2=−0.23 *6*, A_4=−0.08 *7* (1976Sp09).
		3943.7	<10	1219.40	1/2$^+$			
		5162.9	<10	0	3/2$^+$			
5215.80		205.7	<23[&]	5010.11	(1/2,3/2)			
		1042.3	<60[&]	4173.45	5/2$^-$			
		1156.6	<10[&]	4059.20	3/2$^-$			
		2052.7	<15[&]	3163.03	7/2$^-$			
		2213.0	<25[&]	3002.76	5/2$^+$			
		2521.8	<15[&]	2693.90	3/2$^+$			
		2570.0	<15[&]	2645.66	7/2$^+$			
		3452.5	<6	1763.14	5/2$^+$			
		3996.2	<4	1219.40	1/2$^+$			
		5215.4	100	0	3/2$^+$			
5403.5	(1/2$^-$,3/2$^-$)	2709.5	25 *5*	2693.90	3/2$^+$			I_γ: 20% for decay to unknown levels (1976Me12).
		3640.2	<10	1763.14	5/2$^+$			I_γ: 25 *10* from 1972Hu10.
		4183.8	55 *10*	1219.40	1/2$^+$			
		5403.1	<7	0	3/2$^+$			
5586.0		2940.2	40 *20*	2645.66	7/2$^+$			
		3822.6	60 *10*	1763.14	5/2$^+$			
		4366.3	<10	1219.40	1/2$^+$			
		5585.5	<10	0	3/2$^+$			
5599.70	(1/2$^+$,3/2,5/2)	3836.3	27 *10*	1763.14	5/2$^+$			
		5599.2	73 *10*	0	3/2$^+$			
5645.0	(5/2,7/2,9/2)	1263.0[f]		4382.0?				E_γ,I_γ: from 1971Pr11.
		2481.9	100	3163.03	7/2$^-$			I_γ: from 1971Pr11.
		2642.1	*b*	3002.76	5/2$^+$			
		3881.6	*b*	1763.14	5/2$^+$			
		5644.5	<8	0	3/2$^+$			
5654.50	3/2$^+$	2651.6	80 *5*	3002.76	5/2$^+$			I_γ: 14% for decay to unknown levels (1976Me12).
		3891.1	6 *2*	1763.14	5/2$^+$			
		4434.8	<6	1219.40	1/2$^+$			
5683.0		1505.1	60 *10*	4177.90	3/2$^-$			I_γ: from 1976Me12, 40% for decay to unknown levels (1976Me12).
5723.6		3029.6	24 *3*	2693.90	3/2$^+$			
		3960.2	38 *4*	1763.14	5/2$^+$			I_γ: 38% for decay to others levels (1976Sp08).
5758.0	(1/2,3/2)	1580.1	30 *10*	4177.90	3/2$^-$			
		4538.3	<6	1219.40	1/2$^+$			
		5757.5	45 *10*	0	3/2$^+$			I_γ: 25% for decay to unknown levels (1976Me12).
5805.5		5805.0	100	0	3/2$^+$			
6106.2	(1/2$^+$,3/2,5/2$^+$)	4342.8	6 *2*	1763.14	5/2$^+$			

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult.[e]	δ[e]	Comments
6106.2	(1/2$^+$,3/2,5/2$^+$)	4886.4	36 *10*	1219.40	1/2$^+$			
		6105.6	58 *10*	0	3/2$^+$			
6181.0		6180.4	45 *10*	0	3/2$^+$			I_γ: 55% for decay to unknown levels (1976Me12).
6492.0		6491.4	100	0	3/2$^+$			
7066.2	5/2$^+$	1902.8	0.9	5163.34	7/2$^-$			
		2888.2	0.5	4177.90	3/2$^-$			
		2952.4	0.6	4113.70	7/2$^+$			
		3006.9	1.0 *5*	4059.20	3/2$^-$			
		3902.9	6.0 *6*	3163.03	7/2$^-$			
		4063.2	2 *1*	3002.76	5/2$^+$			
		4372.0	6.0 *6*	2693.90	3/2$^+$			
		4420.2	3.0 *15*	2645.66	7/2$^+$			
		5302.6	16 *2*	1763.14	5/2$^+$			
		5846.3	18 *2*	1219.40	1/2$^+$			
		7065.4	48 *5*	0	3/2$^+$			
7103.3	3/2	1887.4	<1[&]	5215.80				
		2093.1	<1[&]	5010.11	(1/2,3/2)			
		2925.3	1.5	4177.90	3/2$^-$			
		3184.6	2 *1*	3918.50	3/2$^+$			
		3940.0	<0.2[&]	3163.03	7/2$^-$			
		4100.3	3.0 *15*	3002.76	5/2$^+$			
		4409.1	13 *1*	2693.90	3/2$^+$	D(+Q)	0.00 *3*	δ: from 1976Me12. A_2=+0.34 *7*, A_4=+0.03 *11* (1976Me12).
		4457.3	<5[&]	2645.66	7/2$^+$			
		5339.7	4 *2*	1763.14	5/2$^+$			
		5883.4	67 *7*	1219.40	1/2$^+$	D(+Q)	0.00 *3*	δ: from 1976Me12. A_2=−0.53 *8*, A_4=+0.01 *11* (1976Me12).
		7102.5	11 *1*	0	3/2$^+$			A_2=+0.54 *5*, A_4=−0.01 *8* (1976Me12).
7178.6	1/2$^+$	1072.4	4 *2*	6106.2	(1/2$^+$,3/2,5/2$^+$)			
		1775.1	1.7	5403.5	(1/2$^-$,3/2$^-$)			
		2339.4	1.5	4839.10	(1/2$^+$,3/2)			
		3005.0	1[b]	4173.45	5/2$^-$			
		3119.3	24 *3*	4059.20	3/2$^-$			A_2=−0.02 *4*, A_4=+0.10 *66* (1976Me12). A_2=−0.01 *4*, A_4=+0.09 *24* (2001Vo24).
		3199.4	9	3979.0				
		3211.1	10 *1*	3967.31				
		3259.9	2 *1*	3918.50	3/2$^+$			
		4484.4	4 *2*	2693.90	3/2$^+$			
		5415.0		1763.14	5/2$^+$			
		5958.7	16 *2*	1219.40	1/2$^+$			A_2=−0.01 *3*, A_4=+0.06 *7* (2001Vo24). A_2=−0.01 *5*, A_4=+0.07 *8* (1976Me12).
		7177.8	40 *4*	0	3/2$^+$			A_2=−0.01 *6*, A_4=−0.02 *7* (1976Me12). A_2=−0.02 *4*, A_4=−0.01 *5* (2001Vo24).

$^{35}_{17}Cl_{18}$-16

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π
7185.0		1969.1	<0.5&	5215.80	
		2174.8	<0.5&	5010.11	(1/2,3/2)
		3011.4	<5&	4173.45	$5/2^-$
		3127 *50*	26& *6*	4059.20	$3/2^-$
		4021.7	<3&	3163.03	$7/2^-$
		4182.0	<3&	3002.76	$5/2^+$
		4490.8	2& *1*	2693.90	$3/2^+$
		4539.0	6& *2*	2645.66	$7/2^+$
		5421.4	4& *3*	1763.14	$5/2^+$
		5965.1	16& *7*	1219.40	$1/2^+$
		7184.2	46& *10*	0	$3/2^+$
7194.5	$(1/2,3/2)^+$	1978.6	<5&	5215.80	
		2184.3	1.0 *5*	5010.11	(1/2,3/2)
		2340.0	2 *1*	4854.4	$(1/2,3/2,5/2^+)$
		2355.3	<1.8	4839.10	$(1/2^+,3/2)$
		3020.9	15 *2*	4173.45	$5/2^-$
		3135.1	3.0 *15*	4059.20	$3/2^-$
		3215.3	<1.8&	3979.0	
		3227.0	2& *1*	3967.31	
		3275.8	5 *3*	3918.50	$3/2^+$
		4031.2	<0.6&	3163.03	$7/2^-$
		4500.3	<4&	2693.90	$3/2^+$
		4548.5	<6&	2645.66	$7/2^+$
		5430.9	<5&	1763.14	$5/2^+$
		5974.6	72 *7*	1219.40	$1/2^+$
		7193.7	<5	0	$3/2^+$
7225.5	5/2	1119.3	3.0 *15*	6106.2	$(1/2^+,3/2,5/2^+)$
		1420.0	1.0 *5*	5805.5	
		1542.5	2.0 *1*	5683.0	
		1625.8	<0.8	5599.70	$(1/2^+,3/2,5/2)$
		1821.9	1.0 *5*	5403.5	$(1/2^-,3/2^-)$
		2009.6	6.0 *6*	5215.80	
		2215.3	<1.5&	5010.11	(1/2,3/2)
		3047.5	<2&	4177.90	$3/2^-$
		3051.9	7.0 *7*	4173.45	$5/2^-$
		3166.1	<2.0	4059.20	$3/2^-$
		3306.8	1.0 *5*	3918.50	$3/2^+$
		4062.2	<2&	3163.03	$7/2^-$

$^{35}_{17}Cl_{18}$-17

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult. e	δ e	Comments
7225.5	5/2	4222.5	3.0 *15*	3002.76	$5/2^+$			
		4531.3	10& *1*	2693.90	$3/2^+$	D+Q	+0.36 *4*	δ: from 1976Me12. A_2=+0.43 *8*, A_4=−0.21 *9* (1976Me12).
		5461.9	8.0 *8*	1763.14	$5/2^+$	D+Q	−0.36 *7*	δ: from 1976Me12. A_2=+0.02 *10*, A_4=−0.09 *17* (1976Me12).
		6005.5	<2	1219.40	$1/2^+$			
		7224.7	58 *6*	0	$3/2^+$	D+Q	+0.36 *4*	δ: from 1976Me12. A_2=+0.40 *7*, A_4=+0.04 *12* (1976Me12).
7234.0	$5/2^+$	1634.3	<0.2	5599.70	$(1/2^+,3/2,5/2)$			
		2018.1	<1.5&	5215.80				
		2223.8	<1.5&	5010.11	(1/2,3/2)			
		3056.0	1.0 *5*	4177.90	$3/2^-$			
		3174.6	<0.5&	4059.20	$3/2^-$			
		4070.7	<0.5&	3163.03	$7/2^-$			
		4231.0	<0.5&	3002.76	$5/2^+$			
		4539.8	2 *1*	2693.90	$3/2^+$			
		4588.0	2 *1*	2645.66	$7/2^+$			
		5470.4	1.0& *5*	1763.14	$5/2^+$			
		6014.0	2& *1*	1219.40	$1/2^+$			
		7233.2	93 *9*	0	$3/2^+$	D+Q	−0.1	δ: from 1960An06.
7272.6	(1/2,3/2)	1514.6	1.5 *8*	5758.0	(1/2,3/2)			
		1869.0	0.5 *3*	5403.5	$(1/2^-,3/2^-)$			
		2056.7	<0.5&	5215.80				
		2262.4	1.5 *8*	5010.11	(1/2,3/2)			
		2433.4	1.0 *5*	4839.10	$(1/2^+,3/2)$			
		3094.6	0.5 *3*	4177.90	$3/2^-$			
		3213.2	1.0 *5*	4059.20	$3/2^-$			
		3305.1	1.0 *5*	3967.31				
		4109.3	<0.2&	3163.03	$7/2^-$			
		4269.6	<1&	3002.76	$5/2^+$			
		4578.4	1.0 *5*	2693.90	$3/2^+$			
		5509.0	<1.0&	1763.14	$5/2^+$			
		6052.6	23 *2*	1219.40	$1/2^+$			
		7271.8	69 *7*	0	$3/2^+$			
7362.0	3/2	1707.5	0.5 *3*	5654.50	$3/2^+$			
		1762.3	<0.3	5599.70	$(1/2^+,3/2,5/2)$			
		2146.1	<2&	5215.80				
		2351.8	0.5 *3*	5010.11	(1/2,3/2)			
		2522.8	1.0 *5*	4839.10	$(1/2^+,3/2)$			
		3183.9	1.0 *5*	4177.90	$3/2^-$			

$^{35}_{17}Cl_{18}$-18

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[e]	δ[e]	Comments
7362.0	3/2	3302.6	3.0 *15*	4059.20	$3/2^-$			
		3394.5	3.0 *15*	3967.31				
		3443.3	0.5 *3*	3918.50	$3/2^+$			
		4198.7	<1[&]	3163.03	$7/2^-$			
		4358.9	0.5 *3*	3002.76	$5/2^+$			
		4667.8	<2[&]	2693.90	$3/2^+$			
		4716.0	<2[&]	2645.66	$7/2^+$			
		5598.4	10 *1*	1763.14	$5/2^+$	D(+Q)	−0.01 *10*	A_2=−0.20 *24*, A_4=+0.92 *25* (1977Ko34). δ: or δ>+2.5 (1977Ko34).
		6142.0	70 *7*	1219.40	$1/2^+$	(D+Q)	−0.05 *3*	δ: or +2.5 *3* (1977Ko34); −20 or +0.22<δ<+0.26 (1971Wi13). A_2=−0.05 *3*, A_4=−0.04 *5* (1971Wi13). A_2=−0.25 *11*, A_4=+0.31 *11* (1977Ko34).
		7361.2	10 *1*	0	$3/2^+$			A_2=+0.19 *3*, A_4=−0.08 *5* (1971Wi13). −0.16<δ(Q/D)<−0.12 or +7.5<δ(Q/D)<+10 (1971Wi13).
7396.0	$7/2^{(-)}$	2180.1	<12[&]	5215.80				
		2385.8	<8[&]	5010.11	(1/2,3/2)			
		3048.1	10 *1*	4347.8	$9/2^-$			
		3217.9	<15[&]	4177.90	$3/2^-$			
		3282.1	9 *1*	4113.70	$7/2^+$			
		3336.6	<6[&]	4059.20	$3/2^-$			
		3452.9	8.0 *8*	3942.90	$9/2^+$			
		4232.7	49 *5*	3163.03	$7/2^-$	M1+E2	+0.28 *25*	δ: from 1977Ko35. B(M1)(W.u.)=0.014, B(E2)(W.u.)=0.23 (1977Ko35).
		4392.9	14 *2*	3002.76	$5/2^+$	E1(+M2)	+0.011 *18*	Mult.,δ: from 1977Ko35. B(E1)(W.u.)=9×10^{-5} (1977Ko35).
		4701.8	<5[&]	2693.90	$3/2^+$			
		4750.0	10 *1*	2645.66	$7/2^+$			
		5632.4	<7[&]	1763.14	$5/2^+$			
		6176.0	<15[&]	1219.40	$1/2^+$			
		7395.2	<10[&]	0	$3/2^+$			
7451.0	3/2	3532.3	5 *3*	3918.50	$3/2^+$			
		4447.9	10 *1*	3002.76	$5/2^+$			
		4756.8	8 *8*	2693.90	$3/2^+$			
		5687.4	4 *2*	1763.14	$5/2^+$			
		6231.0	73 *7*	1219.40	$1/2^+$			
7501.1		3558.0	25 *3*	3942.90	$9/2^+$			
		4498.0	13.0 *13*	3002.76	$5/2^+$			
		4855.1	55 *6*	2645.66	$7/2^+$			
		5737.5	7.0 *7*	1763.14	$5/2^+$			
7502.9		1396.7	10 *1*	6106.2	$(1/2^+,3/2,5/2^+)$			
		1903.1	<2	5599.70	$(1/2^+,3/2,5/2)$			

$^{35}_{17}Cl_{18}$-19

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[e]	δ[e]	Comments
7502.9		2492.7	<2	5010.11	(1/2,3/2)			
		3324.8	<3	4177.90	$3/2^-$			
		3443.5	70 *7*	4059.20	$3/2^-$			
		3559.8	<2	3942.90	$9/2^+$			
		4339.6	<4	3163.03	$7/2^-$			
		4499.8	<4	3002.76	$5/2^+$			
		4856.9	<7	2645.66	$7/2^+$			
		5739.3	<0.7	1763.14	$5/2^+$			
		6282.9	20 *2*	1219.40	$1/2^+$			
		7502.0	<0.3	0	$3/2^+$			
7518.7	$7/2^{(-)}$	1918.9	2 *1*	5599.70	$(1/2^+,3/2,5/2)$			
		1932.6	3.0 *15*	5586.0				
		3170.7	2 *1*	4347.8	$9/2^-$			
		3575.6	2 *1*	3942.90	$9/2^+$			
		4355.4	68 *7*	3163.03	$7/2^-$	D(+Q)	+0.1 *2*	δ: from 1977Ko35. B(M1)(W.u.)=0.01 (1977Ko35).
		4872.7	3.0 *15*	2645.66	$7/2^+$			
		5755.1	20 *2*	1763.14	$5/2^+$	E1+M2	+0.098 *22*	Mult.,δ: from 1977Ko35. B(E1)(W.u.)=3.14×10^{-5}, B(M2)(W.u.)=0.05 (1977Ko35).
7548.2	$7/2^-$	1893.6	<1	5654.50	$3/2^+$			E_γ,I_γ: from 2002Vo17.
		1903.1	0.55[c] *6*	5645.0	(5/2,7/2,9/2)			B(M1)(W.u.)=0.15 *4* (1971Pr11).
		1962.1	<0.2	5586.0				
		2332.3	<2.0[&]	5215.80				
		2538.0	<3[&]	5010.11	(1/2,3/2)			
		2779.3	1.4[c] *1*	4768.81	$(7/2,9/2^+)$			B(M1)(W.u.)=0.12 *3* (1971Pr11).
		3166.0	0.37[c] *13*	4382.0?				B(M1)(W.u.)=0.021 *9* (1971Pr11).
		3370.1	<1[&]	4177.90	$3/2^-$			
		3488.8	<5[&]	4059.20	$3/2^-$			
		4384.9	94[c] *1*	3163.03	$7/2^-$	M1+E2	−0.07 *2*	Mult.: from 1967Wa22 and 1966Wa09. δ: weighted average from 1977Ko35,1967Wa22 and 1966Wa09, −0.03 *3* from 2001Vo24 and 2002Vo17. N_{90}/N_0=0.72 *6* (1971Wi13). pol=0.76 *6* (1966Wa09). pol=+0.93 *10* (1967Wa22). 0.021<pol<0.813 (1966Az01). B(M1)(W.u.)=1.6, B(E2)(W.u.)=1.4 *5* (1967Wa22). B(M1)(W.u.)=2.2 *6*, B(E2)(W.u.)=2.0 *12* (1971Pr11). B(M1)(W.u.)=0.88 *11* (1974Al04). B(M1)(W.u.)=1.1 *7* (1975Ke11). B(M1)(W.u.)=1.4 (1977Ko35). A_2=+0.42 *3*, A_4=0.00 *3* (2001Vo24). A_2=+0.42 *3*, A_4=0.00 *3* (2002Vo17).

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

γ(^{35}Cl) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[e]	δ[e]	Comments
								A_2=+0.42 *3*, A_4=−0.001 *27* (1966Az01).
								A_2=+0.42 *3*, A_4=+0.00 *3* (1967Ta08).
7548.2	7/2$^-$	4545.1	2.0[c] *1*	3002.76	5/2$^+$	E1(+M2)	+0.6 *4*	Mult.,δ: from 1977Ko35.
								B(E1)(W.u.)=1.2×10^{-3} *3* (1971Pr11).
								B(E1)(W.u.)=7×10^{-4} (1977Ko35).
		4853.9	<1[&]	2693.90	3/2$^+$			
		4902.2	0.68[c] *7*	2645.66	7/2$^+$			B(E1)(W.u.)=3.2×10^{-4} *8* (1971Pr11).
		5784.5	0.33[c] *4*	1763.14	5/2$^+$			B(E1)(W.u.)=0.9×10^{-4} *2* (1971Pr11).
		6328.2	<0.5[&]	1219.40	1/2$^+$			
		7547.3	0.27[c] *3*	0	3/2$^+$	M2(+E3)	+0.1 *2*	Mult.,δ: from 1977Ko35.
								B(M2)(W.u.)=1.4 (1977Ko35).
								B(M2)(W.u.)=3.0 *8* (1971Pr11).
7561.1	(1/2,3/2)	3383.0	1.0 *5*	4177.90	3/2$^-$			
		3501.7	5 *3*	4059.20	3/2$^-$			
		3581.9	0.5	3979.0				
		3642.4	1.0 *5*	3918.50	3/2$^+$			
		4866.8	21 *2*	2693.90	3/2$^+$			A_2=+0.04 *3*, A_4=−0.05 *3* (1976Me12).
		6341.1	36 *4*	1219.40	1/2$^+$			A_2=−0.02 *2*, A_4=−0.05 *3* (1976Me12).
		7560.2	36 *4*	0	3/2$^+$			A_2=+0.01 *2*, A_4=−0.03 *3* (1976Me12).
7600.8	5/2$^+$	2437.4	2 *1*	5163.34	7/2$^-$			
		2719.5	2 *1*	4881.19				
		2761.6	2 *1*	4839.10	(1/2$^+$,3/2)			
		2831.9	1.0 *5*	4768.81	(7/2,9/2$^+$)			
		2976.3	2 *1*	4624.40				
		3422.7	2 *1*	4177.90	3/2$^-$			
		3427.2	2 *1*	4173.45	5/2$^-$			
		3541.4	1.5 *8*	4059.20	3/2$^-$			
		3682.1	4 *2*	3918.50	3/2$^+$			
		4437.5	<8	3163.03	7/2$^-$	(D+Q)	−0.25 *15*	I_γ: from 1971Wi13.
								δ: from 1977Ko34.
								A_2=+0.19 *2*, A_4=+0.08 *2* (1977Ko34).
								A_2=+0.35 *32*, A_4=−0.44 *32* (1971Wi13).
		4597.7	9 *1*	3002.76	5/2$^+$	D+Q	+0.58 *22*	δ: weighted average of 0.50 *22* from 1971Wi13 and +0.85 *42* from 1977Ko34.
								B(M1)(W.u.)=2.8 *5*, B(E1)(W.u.)=7.8 *14*, B(M2)(W.u.)=44 *30*, B(E2)(W.u.)=1.2 *8* (1971Wi13).
								A_2=+0.75 *7*, A_4=−0.06 *7* (1971Wi13).
								A_2=+0.53 *21*, A_4=−0.04 *25* (1976Me12).
								A_2=+0.42 *3*, A_4=−0.10 *3* (1977Ko34).
		4906.5	19 *2*	2693.90	3/2$^+$	(D+Q)	−5.3 *9*	δ: or +0.01 *5* (1977Ko34).
								+0.25<δ<+0.38 for J(2695)=3/2, −0.25<δ<−0.08 for J(2695)=5/2, −0.42<δ<−0.23 for J(2695)=7/2 (1971Wi13).

$^{35}_{17}Cl_{18}$-21

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[e]	δ[e]	Comments
								A_2=+0.33 *1*, A_4=−0.05 *1* (1977Ko34).
								A_2=+0.18 *4*, A_4=−0.02 *5* (1976Me12).
								A_2=+0.26 *10*, A_4=−0.05 *10* (1971Wi13).
7600.8	5/2$^+$	4954.8	1.5 *8*	2645.66	7/2$^+$			
		5837.1	20 *2*	1763.14	5/2$^+$	D+Q	0.31 *7*	I_γ: from 1971Wi13, 2 *1* from 1972Hu10.
								Mult.,δ: from 1971Wi13.
								A_2=+0.10 *7*, A_4=−0.10 *8* (1971Wi13).
								B(M1)(W.u.)=3.0×10^{-2} *1*, B(E1)(W.u.)=8.9 *4*, B(M2)(W.u.)=14 *6*, B(E2)(W.u.)=0.38 *15* (1971Wi13).
								δ: +0.2 *22* (1977Ko34).
								−0.42<δ<−0.23 (1971Wi13).
								A_2=+0.12 *2*, A_4=−0.10 *3* (1976Me12).
								A_2=+0.30 *9*, A_4=−0.17 *9* (1977Ko34).
		6380.8	1.0 *5*	1219.40	1/2$^+$			
		7599.9	31 *3*	0	3/2$^+$	D+Q	+0.18 *3*	Mult.: from 1971Wi13.
								δ: weighted average from 1971Wi13 and 1976Me12. Others: +1.8 *5* (1977Ko34); −0.20<δ<−0.14 (1971Wi13).
								A_2=−0.73 *7*, A_4=+0.04 *6* (1971Wi13).
								B(M1)(W.u.)=1.85×10^{-2} *3*, B(E1)(W.u.)=5.5×10^{-4} *1*, B(M2)(W.u.)=1.3 *4*, B(E2)(W.u.)=4×10^{-2} *1* (1971Wi13).
								A_2=−0.62 *5*, A_4=−0.06 *5* (1976Me12).
								A_2=−0.56 *3*, A_4=−0.05 *2* (1977Ko34).
7618.7	5/2	1437.7	<0.6	6181.0				
		2402.8	3.0 *15*	5215.80				
		2455.3	<0.7	5163.34	7/2$^-$			
		2779.5	<0.7	4839.10	(1/2$^+$,3/2)			
		3440.6	3.0 *15*	4177.90	3/2$^-$			
		3559.3	1.0 *5*	4059.20	3/2$^-$			
		4455.4	3.0 *15*	3163.03	7/2$^-$			
		5855.0	10 *1*	1763.14	5/2$^+$	(D+Q)	+0.48 *11*	δ: from 1977Ko34.
								A_2=+0.38 *5*, A_4=−0.01 *6* (1976Me12).
								A_2=−0.11 *3*, A_4=−0.06 *3* (1977Ko34).
		7617.8	80 *8*	0	3/2$^+$	(D+Q)	+2.2 *3*	δ: from 1977Ko34.
								A_2=−0.46 *4*, A_4=+0.03 *4* (1976Me12).
								A_2=−0.57 *3*, A_4=+0.27 *3* (1977Ko34).
7656.5		1550.3	3.0 *15*	6106.2	(1/2$^+$,3/2,5/2$^+$)			
		1973.4	1.0 *5*	5683.0				
		2001.9	1.0 *5*	5654.50	3/2$^+$			
		2817.3	3.0 *15*	4839.10	(1/2$^+$,3/2)			
		3478.4	1.0 *5*	4177.90	3/2$^-$			
		3597.1	32 *3*	4059.20	3/2$^-$			
		3689.0	2 *1*	3967.31				
		7655.6	57 *6*	0	3/2$^+$			
7671.9	(5/2$^-$,7/2)	2072.1	<1.2	5599.70	(1/2$^+$,3/2,5/2)			

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[e]	δ[e]	Comments
7671.9	(5/2$^-$,7/2)	2508.5	4 *2*	5163.34	7/2$^-$			
		2790.6	1.0 *5*	4881.19				
		2903.0	<1	4768.81	(7/2,9/2$^+$)			
		3323.9	6.0 *6*	4347.8	9/2$^-$			
		3498.3	4 *2*	4173.45	5/2$^-$			
		4508.6	4 *2*	3163.03	7/2$^-$			
		4668.8	8.0 *8*	3002.76	5/2$^+$	(D+Q)	−1.4 *5*	δ: from 1977Ko34. A_2=−0.35 *4*, A_4=+0.01 *5* (1976Me12). A_2=+0.52 *1*, A_4=−0.18 *1* (1977Ko34).
		5025.9	14.0 *14*	2645.66	7/2$^+$	D(+Q)	+0.3 *22*	δ: from 1977Ko34. A_2=+0.41 *3*, A_4=−0.03 *4* (1976Me12). A_2=+0.33 *8*, A_4=−0.12 *8* (1977Ko34).
		5908.2	57 *6*	1763.14	5/2$^+$	(D+Q)	+0.86 *14*	δ: from 1977Ko34. A_2=−0.38 *4*, A_4=−0.06 *5* (1976Me12). A_2=−0.40 *9*, A_4=+0.07 *8* (1977Ko34).
		7671.0	2 *1*	0	3/2$^+$			
7684.7	3/2$^-$	1926.6	0.5 *3*	5758.0	(1/2,3/2)			
		2084.9	2 *1*	5599.70	(1/2$^+$,3/2,5/2)			
		2281.1	2 *1*	5403.5	(1/2$^-$,3/2$^-$)			
		2468.8	0.5 *3*	5215.80				
		2674.5	<0.6	5010.11	(1/2,3/2)			
		3506.6	2 *1*	4177.90	3/2$^-$			
		3511.1	5 *3*	4173.45	5/2$^-$			A_2=+0.01 *14*, A_4=+0.23 *16* (1977Ko34).
		3625.3	6.0 *6*	4059.20	3/2$^-$			
		4681.6	9 *1*	3002.76	5/2$^+$	(D+Q)	−2.4 *12*	δ: or −0.01 *5* (1976Me12); +0.01 *7* for J=3/2, +0.48 *32* for J=5/2 (1977Ko34). A_2=−0.04 *6*, A_4=−0.09 *7* (1976Me12). A_2=−0.06 *12*, A_4=+0.08 *13* (1977Ko34).
		5921.0	<0.7	1763.14	5/2$^+$			
		6464.7	1.0 *5*	1219.40	1/2$^+$			
		7683.8	72 *7*	0	3/2$^+$	(D+Q)	+6.0 *7*	δ: from 1976Me12; <−3.5 for J=3/2, −0.26 *11* for J=5/2 (1977Ko34). A_2=+0.25 *1*, A_4=−0.03 *1* (1976Me12). A_2=+0.18 *11*, A_4=−0.04 *11* (1977Ko34).
7693.8		2094.0	1.0 *5*	5599.70	(1/2$^+$,3/2,5/2)			
		3634.4	1.0 *5*	4059.20	3/2$^-$			
		4690.7	2 *1*	3002.76	5/2$^+$			
		7692.9	96 *10*	0	3/2$^+$			
7706.4	5/2$^+$	2051.8	4 *2*	5654.50	3/2$^+$			δ: δ(Q/D)≤−2 or ≥13 (1977Ko34). A_2=+0.14 *15*, A_4=−0.39 *17* (1977Ko34).
		2825.1	<0.4	4881.19				
		2867.2	1.0 *5*	4839.10	(1/2$^+$,3/2)			
		3081.9	<0.8	4624.40				
		3528.3	<2	4177.90	3/2$^-$			
		3592.5	1.0 *5*	4113.70	7/2$^+$			

$^{35}_{17}Cl_{18}$-23

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[e]	δ[e]	Comments
7706.4	5/2$^+$	3787.7	<0.6	3918.50	3/2$^+$			
		4703.3	1.0 *5*	3002.76	5/2$^+$			
		5060.3	4 *2*	2645.66	7/2$^+$	(D+Q)	−1.01 *10*	δ: or ≥13 (1977Ko34). A_2=−0.03 *6*, A_4=+0.08 *8* (1976Me12). A_2=−0.18 *17*, A_4=+0.41 *18* (1977Ko34).
		5942.7	<0.4	1763.14	5/2$^+$			
		6486.4	1.0 *5*	1219.40	1/2$^+$			
		7705.5	88 *9*	0	3/2$^+$	D(+Q)	+0.1 *1*	δ: from 1977Ko34. A_2=−0.54 *3*, A_4=−0.07 *3* (1976Me12). A_2=−0.63 *4*, A_4=+0.15 *3* (1977Ko34).
7744.8	7/2$^-$	2863.5	19 *2*	4881.19				
		2975.9	1.0 *5*	4768.81	(7/2,9/2$^+$)			
		3630.9	5 *3*	4113.70	7/2$^+$			
		3801.7	12.0 *12*	3942.90	9/2$^+$	E1(+M2)	−0.16 *17*	B(E1)(W.u.)=5×10^{-4} (1977Ko35).
		4581.4	18 *2*	3163.03	7/2$^-$	M1+E2	+0.18 *8*	Mult.,δ: from 1977Ko35. B(M1)(W.u.)=0.014, B(M2)(W.u.)=0.081 (1977Ko35).
		5098.7	43 *4*	2645.66	7/2$^+$	E1(+M2)	+0.1 *30*	Mult.,δ: from 1977Ko35. B(E1)(W.u.)=7×10^{-4} (1977Ko35).
		5981.1	2 *1*	1763.14	5/2$^+$			
		6524.7	<0.6	1219.40	1/2$^+$			
7777.0	5/2$^+$	2190.9	<0.5	5586.0				
		2613.6	<1.1	5163.34	7/2$^-$			
		2937.8	2 *1*	4839.10	(1/2$^+$,3/2)			
		3008.1	2 *1*	4768.81	(7/2,9/2$^+$)			
		3598.9	7.0 *7*	4177.90	3/2$^-$			
		3717.6	1.0 *5*	4059.20	3/2$^-$			
		4613.6	<2	3163.03	7/2$^-$			
		4773.9	4 *2*	3002.76	5/2$^+$			
		5082.7	7.0 *7*	2693.90	3/2$^+$			
		5130.9	2 *1*	2645.66	7/2$^+$			
		6013.3	46 *5*	1763.14	5/2$^+$			
		6556.9	13.0 *12*	1219.40	1/2$^+$			
		7776.1	16 *2*	0	3/2$^+$			
7781.6	5/2$^-$	1675.4	<1.4	6106.2	(1/2$^+$,3/2,5/2$^+$)			
		2195.5	1.0 *5*	5586.0				
		2378.0	1.0 *5*	5403.5	(1/2$^-$,3/2$^-$)			
		2565.7	1.0 *5*	5215.80				
		3012.7	7.0 *7*	4768.81	(7/2,9/2$^+$)			
		3433.6	2 *1*	4347.8	9/2$^-$			
		3607.9	40 *4*	4173.45	5/2$^-$			
		3667.7	3.0 *15*	4113.70	7/2$^+$			
		3722.2	1.0 *5*	4059.20	3/2$^-$			
		3862.9	10 *1*	3918.50	3/2$^+$			

$^{35}_{17}Cl_{18}$-24

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult. e	δ e	Comments
7781.6	5/2$^-$	4618.2	5 *3*	3163.03	7/2$^-$			
		5135.5	9 *1*	2645.66	7/2$^+$			
		6017.9	20 *2*	1763.14	5/2$^+$			
		6561.5	<1.2	1219.40	1/2$^+$			
		7780.7	<1.7	0	3/2$^+$			
7797.0	1/2$^-$	2038.9	0.5 *3*	5758.0	(1/2,3/2)			
		2142.4	1.0 *5*	5654.50	3/2$^+$			A_2=+0.03 *8* (1988Va06).
		2393.4	2 *1*	5403.5	(1/2$^-$,3/2$^-$)			A_2=+0.04 *5* (1988Va06).
		2786.8	2 *1*	5010.11	(1/2,3/2)			A_2=−0.07 *5* (1988Va06).
		2942.5	0.5 *3*	4854.4	(1/2,3/2,5/2$^+$)			
		2957.8	<1.1	4839.10	(1/2$^+$,3/2)			
		3737.6	<0.3	4059.20	3/2$^-$			
		6576.9	9 *1*	1219.40	1/2$^+$			δ: δ(Q/D)=+0.21 *4* or −1.9 *2* for J=3/2 (1976Me12). A_2=−0.02 *6*, A_4=−0.14 *7* (1976Me12). A_2=−0.03 *3* (1988Va06).
		7796.1	85 *9*	0	3/2$^+$			δ: δ(Q/D)=−0.33 *2* or −19 *8* for J=3/2 (1976Me12). A_2=−0.06 *2*, A_4=−0.03 *2* (1976Me12). A_2=+0.006 *14* (1988Va06).
7837.0	3/2$^-$	1656.0	<0.5	6181.0				
		1730.8	1.0 *5*	6106.2	(1/2$^+$,3/2,5/2$^+$)			
		2237.2	<0.5	5599.70	(1/2$^+$,3/2,5/2)			
		2621.1	1.0 *5*	5215.80				
		2955.7	<4	4881.19				
		3658.9	35 *4*	4177.90	3/2$^-$	M1+E2	−0.05 *3*	δ: −0.04 *3* or +0.27 *5* from 2001Vo24. A_2=+0.17 *1*, A_4=−0.01 *2* (2001Vo24). pol=+0.66 *18* (1967Wa22). B(M1)(W.u.)=1.0, B(E2)(W.u.)=0.7 *6* (1967Wa22).
		3663.3	3.0 *15*	4173.45	5/2$^-$			A_2=+0.17 *1*, A_4=−0.005 *13* (1967Ta08).
		3777.6	2 *1*	4059.20	3/2$^-$			
		3893.9	<0.5	3942.90	9/2$^+$			
		3918.3	<0.2	3918.50	3/2$^+$			
		4833.9	4 *2*	3002.76	5/2$^+$			
		5190.9	<2	2645.66	7/2$^+$			I_γ: from 1967Ta08.
		6073.3	<1.9	1763.14	5/2$^+$			
		6616.9	27 *3*	1219.40	1/2$^+$	E1+M2	+0.06 *3*	Mult.,δ: from 1967Wa22. pol=+0.17 *45* (1967Wa22). B(E1)(W.u.)=5.5×10^{-3}, B(M2)(W.u.)=1.0 *5* (1967Wa22). A_2=−0.46 *4*, A_4=+0.04 *6* (1967Ta08).
		7836.1	27 *3*	0	3/2$^+$	E1+M2	+0.02 *3*	Mult.: from 1967Wa22. δ: from 1967Wa22. Other: 0.00 *3* from 2001Vo24. pol=−1.1 *8* (1967Wa22). B(E1)(W.u.)=2.1×10^{-3}, B(M2)(W.u.)=0.1 *1* (1967Wa22). A_2=+0.41 *3*, A_4=+0.012 *40* (1967Ta08). A_2=+0.40 *2*, A_4=+0.01 *4* (2001Vo24).

$^{35}_{17}Cl_{18}$-25

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Comments
7839.7		3661.6	33	4177.90	$3/2^-$	
		3666.0	3	4173.45	$5/2^-$	
		3780.3	3	4059.20	$3/2^-$	
		4836.6	2	3002.76	$5/2^+$	
		6619.6	34	1219.40	$1/2^+$	
		7838.8	25	0	$3/2^+$	
7868.6	$(1/2^+,3/2,5/2^+)$	2652.7	<1	5215.80		
		2858.4	4 *2*	5010.11	(1/2,3/2)	
		3694.9	4 *2*	4173.45	$5/2^-$	
		6104.9	18 *2*	1763.14	$5/2^+$	
		6648.5	12.0 *12*	1219.40	$1/2^+$	
		7867.6	62 *6*	0	$3/2^+$	
7880.8	(3/2,5/2)	2226.2	9 *1*	5654.50	$3/2^+$	
		3041.6	3.0 *15*	4839.10	$(1/2^+,3/2)$	
		3256.2	1.0 *5*	4624.40		
		3702.7	<5	4177.90	$3/2^-$	
		3707.1	<3	4173.45	$5/2^-$	
		3766.9	4 *2*	4113.70	$7/2^+$	
		3821.4	1.0 *5*	4059.20	$3/2^-$	
		3962.1	2 *1*	3918.50	$3/2^+$	
		4877.7	10 *1*	3002.76	$5/2^+$	
		5186.5	30 *3*	2693.90	$3/2^+$	A_2=+0.50 *3*, A_4=+0.09 *4* (1976Me12).
		6117.1	31 *3*	1763.14	$5/2^+$	A_2=+0.08 *3*, A_4=−0.03 *4* (1976Me12).
		7879.8	9 *1*	0	$3/2^+$	A_2=−0.06 *4*, A_4=+0.04 *5* (1976Me12).
7899.1	$(3/2^-,5/2)$	2254.0	<1.5	5645.0	(5/2,7/2,9/2)	
		2735.6	<0.9	5163.34	$7/2^-$	
		3017.8	<0.8	4881.19		
		3274.5	<0.5	4624.40		
		3721.0	8.0 *8*	4177.90	$3/2^-$	
		3725.4	6.0 *6*	4173.45	$5/2^-$	
		3839.7	2 *1*	4059.20	$3/2^-$	
		4735.7	4 *2*	3163.03	$7/2^-$	
		5204.8	<1.3	2693.90	$3/2^+$	
		6135.4	77 *8*	1763.14	$5/2^+$	
		7898.1	3.0 *15*	0	$3/2^+$	
7923.3	$(3/2^+,5/2^+)$	3084.1	<1.4	4839.10	$(1/2^+,3/2)$	
		3154.3	<2	4768.81	$(7/2,9/2^+)$	
		3298.7	<1.9	4624.40		
		3745.2	2 *1*	4177.90	$3/2^-$	
		3749.6	6.0 *6*	4173.45	$5/2^-$	
		3863.9	1.0 *5*	4059.20	$3/2^-$	
		3944.1	<1.5	3979.0		
		3955.7	1.0 *5*	3967.31		

$^{35}_{17}Cl_{18}$-26

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult. e	δ e	Comments
7923.3	(3/2$^+$,5/2$^+$)	4004.6	1.0 *5*	3918.50	3/2$^+$			
		4920.2	<0.9	3002.76	5/2$^+$			
		5229.0	12.0 *12*	2693.90	3/2$^+$			
		5277.2	<0.9	2645.66	7/2$^+$			
		6159.6	1.0 *5*	1763.14	5/2$^+$			
		6703.2	28 *3*	1219.40	1/2$^+$			
		7922.3	48 *5*	0	3/2$^+$			
7970.2	(5/2$^-$,7/2$^-$)	2325.1	3.0 *15*	5645.0	(5/2,7/2,9/2)			
		2384.1	2 *1*	5586.0				
		2754.3	3.0 *15*	5215.80				
		3088.9	9 *1*	4881.19				
		3201.2	6.0 *6*	4768.81	(7/2,9/2$^+$)			
		3622.2	8.0 *8*	4347.8	9/2$^-$			
		3792.1	<6	4177.90	3/2$^-$			
		3796.5	6.0 *6*	4173.45	5/2$^-$			
		3856.3	2 *1*	4113.70	7/2$^+$			
		4806.8	13.0 *13*	3163.03	7/2$^-$			
		4967.1	5 *3*	3002.76	5/2$^+$			
		5324.1	22 *2*	2645.66	7/2$^+$			
		6206.5	21 *2*	1763.14	5/2$^+$			
		6750.1	<1	1219.40	1/2$^+$			
7987.8	3/2	1881.5	1.0 *5*	6106.2	(1/2$^+$,3/2,5/2$^+$)			
		2333.2	<1.7	5654.50	3/2$^+$			
		2342.7	1.0 *5*	5645.0	(5/2,7/2,9/2)			
		3809.7	<0.8	4177.90	3/2$^-$			
		3928.4	<1	4059.20	3/2$^-$			
		6767.7	62 *6*	1219.40	1/2$^+$	(D+Q)	+0.21 *4*	δ: or −3.1 *4* (1976Me12). A_2=−0.07 *2*, A_4=−0.05 *3* (1976Me12).
		7986.8	36 *4*	0	3/2$^+$	(D+Q)	−0.36 *2*	δ: −11 *3* (1976Me12). A_2=−0.10 *2*, A_4=−0.06 *2* (1976Me12).
7995.6	5/2	2190.0	<0.6	5805.5				
		2395.8	<1.1	5599.70	(1/2$^+$,3/2,5/2)			
		2592.0	3.0 *15*	5403.5	(1/2$^-$,3/2$^-$)			
		2832.1	<1.5	5163.34	7/2$^-$			
		3817.5	3.0 *15*	4177.90	3/2$^-$			
		3936.2	<1.1	4059.20	3/2$^-$			
		4832.2	6.0 *6*	3163.03	7/2$^-$			
		4992.5	<2	3002.76	5/2$^+$			
		5301.3	<0.2	2693.90	3/2$^+$			
		5349.5	<0.6	2645.66	7/2$^+$			
		6231.9	1.0 *5*	1763.14	5/2$^+$			
		7994.6	87 *9*	0	3/2$^+$			
8000.4	(7/2,9/2$^+$)	2355.3	3.0 *15*	5645.0	(5/2,7/2,9/2)			

$^{35}_{17}Cl_{18}$-27

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult. e	δ e	Comments
8000.4	(7/2,9/2$^+$)	2784.5	<0.8	5215.80				
		3119.1	<0.7	4881.19				
		3231.4	8.0 *8*	4768.81	(7/2,9/2$^+$)			
		3652.4	<1.9	4347.8	9/2$^-$			
		3826.7	8.0 *8*	4173.45	5/2$^-$			
		4057.2	2 *1*	3942.90	9/2$^+$			
		4837.0	<0.8	3163.03	7/2$^-$			
		5354.3	2 *1*	2645.66	7/2$^+$			
		6236.7	76 *8*	1763.14	5/2$^+$			
		7999.4	1.0 *5*	0	3/2$^+$			
8004.5	5/2$^+$	2349.9	<1.8	5654.50	3/2$^+$			
		3123.2	<0.6	4881.19				
		3165.2	<3	4839.10	(1/2$^+$,3/2)			
		3830.8	<1.3	4173.45	5/2$^-$			I_γ: for decays to 4173 and 4178 levels.
		4841.1	17 *2*	3163.03	7/2$^-$			
		5001.4	3.0 *15*	3002.76	5/2$^+$			
		5310.2	<1.7	2693.90	3/2$^+$			
		5358.4	<4	2645.66	7/2$^+$			
		6240.8	20 *2*	1763.14	5/2$^+$			A_2=−0.11 *2*, A_4=−0.09 *3* (1976Me12).
		6784.4	<0.6	1219.40	1/2$^+$			
		8003.5	60 *6*	0	3/2$^+$			A_2=−0.03 *1*, A_4=−0.02 *2* (1976Me12).
8035.5		2229.9	6.0 *6*	5805.5				
		3857.4	15.0 *15*	4177.90	3/2$^-$			
		3976.1	11 *1*	4059.20	3/2$^-$			
		5341.2	5 *3*	2693.90	3/2$^+$			
		6271.8	5 *3*	1763.14	5/2$^+$			
		6815.4	56 *6*	1219.40	1/2$^+$			
		8034.5	2 *1*	0	3/2$^+$			
8038.5	3/2	3183.9	<0.6	4854.4	(1/2,3/2,5/2$^+$)			
		3199.2	<1.6	4839.10	(1/2$^+$,3/2)			
		3413.9	<3	4624.40				
		3860.4	<1.6	4177.90	3/2$^-$			
		3979.1	4 *2*	4059.20	3/2$^-$			
		4059.2	<0.8	3979.0				
		4119.7	<1.4	3918.50	3/2$^+$			
		5035.4	3.0 *15*	3002.76	5/2$^+$			
		5344.2	61 *6*	2693.90	3/2$^+$	(D+Q)	−0.20 *2*	δ: or +19 *8* (1976Me12).
								A_2=+0.08 *2*, A_4=−0.03 *2* (1976Me12).
		6274.8	17 *2*	1763.14	5/2$^+$			A_2=+0.24 *2*, A_4=+0.01 *3* (1976Me12).
		6818.4	6.0 *6*	1219.40	1/2$^+$			
		8037.5	9 *1*	0	3/2$^+$	(D+Q)	−0.13 *4*	δ: or +8.1 *26* (1976Me12).
								A_2=+0.20 *3*, A_4=−0.08 *3* (1976Me12).
8075.9	(3/2,5/2,7/2$^-$)	2430.8	10 *1*	5645.0	(5/2,7/2,9/2)			

$^{35}_{17}Cl_{18}$-28

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult. [e]	δ [e]	Comments
8075.9	(3/2,5/2,7/2$^-$)	2489.8	11 *1*	5586.0				
		2860.0	7.0 *7*	5215.80				
		2912.4	1.0 *5*	5163.34	7/2$^-$			
		3194.6	2 *1*	4881.19				
		3306.9	4 *2*	4768.81	(7/2,9/2$^+$)			
		3897.8	<8	4177.90	3/2$^-$			
		3902.2	7.0 *7*	4173.45	5/2$^-$			
		3962.0	2 *1*	4113.70	7/2$^+$			
		5072.7	2 *1*	3002.76	5/2$^+$			
		6312.1	53 *5*	1763.14	5/2$^+$			
		8074.9	1.0 *5*	0	3/2$^+$			
8096.5	(5/2,7/2$^+$)	2290.9	1.0 *5*	5805.5				
		2451.4	5 *3*	5645.0	(5/2,7/2,9/2)			
		2496.7	6.0 *6*	5599.70	(1/2$^+$,3/2,5/2)			
		2880.6	1.0 *5*	5215.80				
		2933.0	2 *1*	5163.34	7/2$^-$			
		3257.2	3.0 *15*	4839.10	(1/2$^+$,3/2)			
		3327.5	1.0 *5*	4768.81	(7/2,9/2$^+$)			
		3918.4	<1.9	4177.90	3/2$^-$			
		4037.0	2 *1*	4059.20	3/2$^-$			
		4177.7	3.0 *15*	3918.50	3/2$^+$			
		4933.1	5 *3*	3163.03	7/2$^-$			
		5402.2	5 *3*	2693.90	3/2$^+$			
		5450.4	17 *2*	2645.66	7/2$^+$			
		6332.7	9 *1*	1763.14	5/2$^+$			
		8095.5	40 *4*	0	3/2$^+$			
8106.4	3/2	2506.6	0.5 *3*	5599.70	(1/2$^+$,3/2,5/2)			
		3251.8	0.5 *3*	4854.4	(1/2,3/2,5/2$^+$)			
		3267.1	0.5 *3*	4839.10	(1/2$^+$,3/2)			
		3928.3	1.0 *5*	4177.90	3/2$^-$			
		4046.9	0.5 *3*	4059.20	3/2$^-$			
		4127.1	<3	3979.0				
		4138.8	3.0 *15*	3967.31				
		5103.2	8.0 *8*	3002.76	5/2$^+$			
		5412.1	8.0 *8*	2693.90	3/2$^+$	(D+Q)	+4.9 *10*	δ: −0.05 *4* (1976Me12). A_2=+0.32 *4*, A_4=−0.08 *5* (1976Me12).
		6342.6	3.0 *15*	1763.14	5/2$^+$			
		6886.3	35 *4*	1219.40	1/2$^+$			A_2=−0.46 *2*, A_4=−0.05 *3* (1976Me12).
		8105.4	40 *4*	0	3/2$^+$	(D+Q)	+1.2 *1*	δ: or −0.46 *4* (1976Me12). A_2=+0.83 *3*, A_4=+0.01 *2* (1976Me12).
8113.3	(1/2$^+$,3/2,5/2$^+$)	1621.3	6.0 *6*	6492.0				
		2007.0	<6	6106.2	(1/2$^+$,3/2,5/2$^+$)			
		2307.7	<1.1	5805.5				

$^{35}_{17}Cl_{18}$-29

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π
8113.3	$(1/2^+,3/2,5/2^+)$	2458.7	<0.9	5654.50	$3/2^+$
		2513.5	3.0 *15*	5599.70	$(1/2^+,3/2,5/2)$
		2897.4	<1.8	5215.80	
		3939.6	5 *3*	4173.45	$5/2^-$
		4053.8	<1.3	4059.20	$3/2^-$
		4134.0	<5	3979.0	
		4145.7	5 *3*	3967.31	
		5110.1	<1.9	3002.76	$5/2^+$
		5418.9	17 *2*	2693.90	$3/2^+$
		6349.5	6.0 *6*	1763.14	$5/2^+$
		6893.2	32 *3*	1219.40	$1/2^+$
		8112.3	26 *3*	0	$3/2^+$
8147.2	$3/2^-$	2464.1	1.0 *5*	5683.0	
		3136.9	2 *1*	5010.11	(1/2,3/2)
		3969.1	9 *1*	4177.90	$3/2^-$
		4087.7	3.0 *15*	4059.20	$3/2^-$
		4167.9	<2	3979.0	
		4179.6	1.0 *5*	3967.31	
		4228.4	3.0 *15*	3918.50	$3/2^+$
		5452.8	3.0 *15*	2693.90	$3/2^+$
		6927.1	15.0 *15*	1219.40	$1/2^+$
		8146.2	63 *6*	0	$3/2^+$
8156.8	$(5/2^+,7/2^-)$	2511.7	3.0 *15*	5645.0	(5/2,7/2,9/2)
		2570.7	7.0 *7*	5586.0	
		2940.9	8.0 *8*	5215.80	
		3387.8	<1	4768.81	$(7/2,9/2^+)$
		3978.7	<5	4177.90	$3/2^-$
		3983.1	8.0 *8*	4173.45	$5/2^-$
		4042.8	7.0 *7*	4113.70	$7/2^+$
		4097.3	<1	4059.20	$3/2^-$
		4213.6	<2	3942.90	$9/2^+$
		4993.4	9 *1*	3163.03	$7/2^-$
		5153.6	4 *2*	3002.76	$5/2^+$
		5510.7	50 *5*	2645.66	$7/2^+$
		6393.0	<1	1763.14	$5/2^+$
		8155.8	4 *2*	0	$3/2^+$
8179.4		3554.8	9 *1*	4624.40	
		5016.0	8.0 *8*	3163.03	$7/2^-$
		5176.2	4 *2*	3002.76	$5/2^+$
		5485.0	3.0 *15*	2693.90	$3/2^+$
		6415.6	68 *7*	1763.14	$5/2^+$
		8178.4	8.0 *8*	0	$3/2^+$
8208	$5/2^+$	2553.4	<0.7	5654.50	$3/2^+$

$^{35}_{17}Cl_{18}$-30

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[e]	δ[e]	Comments
8208	5/2$^+$	3326.6	<0.8	4881.19				
		3368.7	<0.4	4839.10	(1/2$^+$,3/2)			
		4148.5	2 *1*	4059.20	3/2$^-$			
		4289.2	1.0 *5*	3918.50	3/2$^+$			
		5204.8	1.0 *5*	3002.76	5/2$^+$			
		5513.6	1.0 *5*	2693.90	3/2$^+$			
		6444.2	16 *2*	1763.14	5/2$^+$	D+Q	+0.33 *4*	δ: from 2001Vo24. A_2=+0.51 *13*, A_4=−0.21 *11*, A_6=+0.0004 (1996Ka21). A_2=+0.51 *13*, A_4=−0.21 *11* (2001Vo24).
		6987.9	3.0 *15*	1219.40	1/2$^+$			
		8207.0	76 *8*	0	3/2$^+$	M1+E2	−0.36 *4*	Mult.: from 1996Ka21. δ: from 2001Vo24. Other: 0.52 *42* from 1996Ka21. A_2=−0.55 *8*, A_4=+0.004 *78*, A_6=+0.006 *72* (1996Ka21). A_2=−0.55 *8*, A_4=0.00 *8* (2001Vo24).
8216.3	5/2$^+$	2561.7	<0.8	5654.50	3/2$^+$			
		3447.3	<0.8	4768.81	(7/2,9/2$^+$)			
		4038.1	<3	4177.90	3/2$^-$			
		5052.9	44 *5*	3163.03	7/2$^-$	D+Q	+0.11 *2*	δ: from 2001Vo24. A_2=−0.32 *7*, A_4=−0.11 *7*, A_6=+0.05 *6* (1996Ka21). A_2=−0.32 *7*, A_4=−0.11 *7* (2001Vo24).
		5213.1	5 *3*	3002.76	5/2$^+$			
		5521.9	4 *2*	2693.90	3/2$^+$			
		6452.5	<1.4	1763.14	5/2$^+$			
		8215.3	47 *5*	0	3/2$^+$	M1+E2	+0.06 *3*	Mult.: from 1996Ka21. δ: from 2001Vo24. Other: 0.59 *56* from 1996Ka21. A_2=−0.560 *8*, A_4=+0.017 *71*, A_6=+0.066 *75* (1996Ka21). A_2=−0.56 *1*, A_4=+0.02 *7* (2001Vo24).
8242.1	3/2$^-$	4068.4	7	4173.45	5/2$^-$			
		5238.9	2	3002.76	5/2$^+$			
		7021.9	91	1219.40	1/2$^+$			I_γ: 20 for unplaced γ-rays (1973Fa07).
8251		4137.0	4[a]	4113.70	7/2$^+$			
		5247.8	6[a]	3002.76	5/2$^+$			
		7030.8	82[a]	1219.40	1/2$^+$			
		8250.0	8[a]	0	3/2$^+$			
8269.0	5/2	3500.0	2 *1*	4768.81	(7/2,9/2$^+$)			I_γ: from 1976Sp08.
		3644.4	1.8 *9*	4624.40				
		4090.8	16 *4*	4177.90	3/2$^-$			
		4350.2	3.0 *15*	3918.50	3/2$^+$			
		5105.6	5.3 *27*	3163.03	7/2$^-$			
		5265.8	14.0 *35*	3002.76	5/2$^+$			
		5574.6	5.9 *30*	2693.90	3/2$^+$			
		5622.9	3.3 *17*	2645.66	7/2$^+$			
		6505.2	7.8 *39*	1763.14	5/2$^+$			

$^{35}_{17}Cl_{18}$-31

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[e]	δ[e]	Comments
8269.0	5/2	8268.0	41 *10*	0	$3/2^+$			
8277.2	$5/2^+$	2622.6	2.1 *11*	5654.50	$3/2^+$			
		2691.1	1.8 *9*	5586.0				
		3113.7	2.9 *15*	5163.34	$7/2^-$			
		3395.8	4 *2*	4881.19				
		3437.9	8.3 *40*	4839.10	$(1/2^+,3/2)$			
		3508.2	1.0 *5*	4768.81	$(7/2,9/2^+)$			
		3652.6	2.9 *15*	4624.40				
		3929.2	<2	4347.8	$9/2^-$			
		4099.0	1.0 *5*	4177.90	$3/2^-$			
		4103.5	1.5 *8*	4173.45	$5/2^-$			
		4217.7	1.4 *7*	4059.20	$3/2^-$			
		4358.4	3.7 *19*	3918.50	$3/2^+$			
		5274.0	9.4 *47*	3002.76	$5/2^+$			
		5582.8	2.8 *14*	2693.90	$3/2^+$			
		5631.1	4.5 *23*	2645.66	$7/2^+$			
		6513.4	23 *6*	1763.14	$5/2^+$			
		8276.1	30 *8*	0	$3/2^+$			
8282.0	$(3/2^-,5/2)$	2523.9	0.6 *3*	5758.0	(1/2,3/2)			
		2695.9	6.9 *35*	5586.0				
		3066.1	2.7 *14*	5215.80				
		3118.5	<3.0	5163.34	$7/2^-$			
		3400.6	20 *5*	4881.19				
		4103.8	1.7 *9*	4177.90	$3/2^-$			
		4108.3	2.5 *13*	4173.45	$5/2^-$			
		4222.5	2.5 *13*	4059.20	$3/2^-$			
		5118.6	11 *3*	3163.03	$7/2^-$			
		5587.6	0.6 *3*	2693.90	$3/2^+$			
		5635.9	0.5 *3*	2645.66	$7/2^+$			
		6518.2	35 *9*	1763.14	$5/2^+$			
		8280.9	16 *4*	0	$3/2^+$			
8287.5	$1/2^-$	2632.9	2.1 *11*	5654.50	$3/2^+$			
		3277.2	2.5 *13*	5010.11	(1/2,3/2)			
		4109.3	7.7 *39*	4177.90	$3/2^-$			
		4228.0	2.8 *14*	4059.20	$3/2^-$			
		4308.2	<3.0	3979.0				
		4319.9	2.9 *15*	3967.31				
		4368.7	1.0 *5*	3918.50	$3/2^+$			
		5593.1	20 *5*	2693.90	$3/2^+$			A_2=−0.01 *4*, A_4=−0.02 *4* (1976Me12).
		7067.3	48 *12*	1219.40	$1/2^+$	(D)		δ: δ(Q/D)=+0.21 *2* or −3.2 *2* (1976Me12). A_2=−0.08 *2*, A_4=−0.01 *3* (1976Me12).
		8286.4	13 *3*	0	$3/2^+$	(D+Q)	−0.35 *4*	δ: or −11 *3* (1976Me12). A_2=−0.11 *3*, A_4=−0.01 *4* (1976Me12).

$^{35}_{17}Cl_{18}$-32

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult. e	δ e	Comments
8298.3	3/2	3288.0	3	5010.11	(1/2,3/2)			
		3416.9	4	4881.19				
		3443.7	5	4854.4	(1/2,3/2,5/2$^+$)			
		4124.6	6	4173.45	5/2$^-$			
		4238.8	10	4059.20	3/2$^-$			
		5134.9	1	3163.03	7/2$^-$			
		5295.1	10	3002.76	5/2$^+$			
		5603.9	10	2693.90	3/2$^+$			A_2=+0.09 *6*, A_4=−0.07 *7* (1976Me12).
		5652.1	6	2645.66	7/2$^+$			
		6534.5	8	1763.14	5/2$^+$			A_2=+0.43 *11*, A_4=−0.51 *12* (1976Me12).
		7078.1	24	1219.40	1/2$^+$	(D+Q)	−1.7 *1*	δ: or −0.02 *2* (1976Me12).
								A_2=−0.53 *3*, A_4=+0.11 *3* (1976Me12).
		8297.2	13	0	3/2$^+$	(D+Q)	−0.15 *4*	δ: or +9.5 *36* (1976Me12).
								A_2=+0.18 *3*, A_4=−0.10 *4* (1976Me12).
8318.1		2512.5	0.7	5805.5				
		2673.0	0.7	5645.0	(5/2,7/2,9/2)			
		2718.3	1.5	5599.70	(1/2$^+$,3/2,5/2)			
		3549.1	0.3	4768.81	(7/2,9/2$^+$)			
		3693.5	1.8	4624.40				
		4139.9	3.0	4177.90	3/2$^-$			
		4144.4	2	4173.45	5/2$^-$			
		4258.6	1.2	4059.20	3/2$^-$			
		4338.8	3.0	3979.0				
		4350.5	4	3967.31				
		5154.7	0.5	3163.03	7/2$^-$			
		5314.9	3.0	3002.76	5/2$^+$			
		5623.7	1.6	2693.90	3/2$^+$			
		5671.9	0.9	2645.66	7/2$^+$			
		6554.3	1.8	1763.14	5/2$^+$			
		7097.9	2.0	1219.40	1/2$^+$			
		8317.0	78.0	0	3/2$^+$			
8323.2		4209.2	1 a	4113.70	7/2$^+$			
		5320.0	3 a	3002.76	5/2$^+$			
		5677.0	4 a	2645.66	7/2$^+$			
		6559.4	<2 a	1763.14	5/2$^+$			
		7103.0	8 a	1219.40	1/2$^+$			
		8322.1	82 a	0	3/2$^+$			
8381.8	5/2$^+$	3612.8	<1 b	4768.81	(7/2,9/2$^+$)			
		3757.2	<1 b	4624.40				
		4267.8	8.0 b *8*	4113.70	7/2$^+$			
		4438.6	8.0 b *8*	3942.90	9/2$^+$			

$^{35}_{17}Cl_{18}$-33

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[e]	δ[e]	Comments
8381.8	5/2$^+$	4463.0	24 *3*	3918.50	3/2$^+$	D+Q	+0.15 *3*	δ: from 2001Vo24. A_2=+0.25 *3*, A_4=−0.04 *2* (2001Vo24).
		5378.6	25 *3*	3002.76	5/2$^+$	M1+E2	+0.02 *3*	δ: from 2001Vo24. 0.11 *1* from 1967Ko20,1967Ko23. $\omega\gamma$=4 eV, Γ_γ(M1)=0.0459 eV, Γ_g(E2)=0.0009 eV (1967Ko20). B(M1)(W.u.)=0.014, B(E2)(W.u.)=0.036 (1967Ko20,1967Ko23). A_2=+0.60 *7*, A_4=−0.02 *7* (1967Ko20,1967Ko23). A_2=+0.51 *23*, A_4=−0.05 *24* (2001Vo24).
		5687.4	1.0 *5*	2693.90	3/2$^+$	M1+E2	−0.72 *31*	δ: from 1967Ko20,1967Ko23. $\omega\gamma$=4 eV, Γ_γ(M1)=0.039 eV, Γ_g(E2)=0.0211 eV (1967Ko20). B(M1)(W.u.)=0.011, B(E2)(W.u.)=0.93 (1967Ko20,1967Ko23). A_2=+0.22 *9*, A_4=−0.02 *11* (1967Ko20,1967Ko23).
		5735.6	5 *3*	2645.66	7/2$^+$			
		6618.0	34 *4*	1763.14	5/2$^+$	M1+E2	+0.06 *3*	δ: from 2001Vo24. 0.12 *10* from 1967Ko20,1967Ko23. $\omega\gamma$=4 eV, Γ_γ(M1)=0.216 eV, Γ_g(E2)=0.0044 eV (1967Ko23). B(M1)(W.u.)=0.034, B(E2)(W.u.)=0.013 (1967Ko20,1967Ko23). A_2=+0.79 *15*, A_4=−0.08 *15* (1967Ko20,1967Ko23). A_2=+0.02 *13*, A_4=−0.08 *13* (2001Vo24).
		8380.7	3.0 *15*	0	3/2$^+$	M1+E2	1.65	δ: from 1967Ko20,1967Ko23. $\omega\gamma$=4 eV, Γ_γ(M1)=0.0146 eV, Γ_g(E2)=0.054 eV (1967Ko23). B(M1)(W.u.)=0.0012, B(E2)(W.u.)=0.044 (1967Ko20,1967Ko23). A_2=−0.83 *22*, A_4=+0.72 *33* (1967Ko20,1967Ko23).
8402.9		3633.9	4.8 *24*	4768.81	(7/2,9/2$^+$)			
		4224.7	9 *5*	4177.90	3/2$^-$			
		4343.4	23 *6*	4059.20	3/2$^-$			
		5708.5	10 *5*	2693.90	3/2$^+$			
		5756.7	7.4 *37*	2645.66	7/2$^+$			
		6639.1	15 *4*	1763.14	5/2$^+$			
		8401.8	31 *8*	0	3/2$^+$			
8404.3		3522.9	15 *4*	4881.19				
		4230.6	1.6 *8*	4173.45	5/2$^-$			
		4290.3	1.4 *7*	4113.70	7/2$^+$			
		5401.1	15 *4*	3002.76	5/2$^+$			
		6640.5	43 *11*	1763.14	5/2$^+$			
		8403.2	24 *6*	0	3/2$^+$			
8416.7		3406.4	5[a]	5010.11	(1/2,3/2)			
		4243.0	11[a]	4173.45	5/2$^-$			
		4473.5	3[a]	3942.90	9/2$^+$			
		5413.5	7[a]	3002.76	5/2$^+$			
		5722.3	[a]	2693.90	3/2$^+$			
		5770.5	8[a]	2645.66	7/2$^+$			
		6652.9	22[a]	1763.14	5/2$^+$			
		7196.5	9[a]	1219.40	1/2$^+$			
		8415.6	35[a]	0	3/2$^+$			

$^{35}_{17}Cl_{18}$-34

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π
8464.3		2809.7	8.2 *41*	5654.50	$3/2^+$
		3248.3	5.8 *29*	5215.80	
		3454.0	8 *4*	5010.11	(1/2,3/2)
		3609.7	3.3 *17*	4854.4	$(1/2,3/2,5/2^+)$
		3839.7	4.3 *22*	4624.40	
		4286.1	5.2 *26*	4177.90	$3/2^-$
		4290.6	5.5 *28*	4173.45	$5/2^-$
		4496.7	5.2 *26*	3967.31	
		4545.5	2.6 *13*	3918.50	$3/2^+$
		5461.1	17 *4*	3002.76	$5/2^+$
		5769.9	16 *4*	2693.90	$3/2^+$
		7244.1	8.5 *43*	1219.40	$1/2^+$
		8463.2	10 *3*	0	$3/2^+$
8484.4	$3/2^+$	2829.8	5.6 *28*	5654.50	$3/2^+$
		3603.0	7.0 *35*	4881.19	
		3859.8	1.0 *5*	4624.40	
		4516.8	1.2 *6*	3967.31	
		4565.6	5.2 *26*	3918.50	$3/2^+$
		5481.2	7.3 *37*	3002.76	$5/2^+$
		5790.0	20 *5*	2693.90	$3/2^+$
		5838.2	2.8 *14*	2645.66	$7/2^+$
		6720.6	46 *12*	1763.14	$5/2^+$
		8483.3	4 *2*	0	$3/2^+$
8486.0		2727.9	1.1 *6*	5758.0	(1/2,3/2)
		3861.4	1.8 *9*	4624.40	
		4307.8	4.8[d] *24*	4177.90	$3/2^-$
		4426.5	1.9 *10*	4059.20	$3/2^-$
		4518.4	7.1 *36*	3967.31	
		5482.8	8.3 *42*	3002.76	$5/2^+$
		5791.6	19 *5*	2693.90	$3/2^+$
		6722.2	3.6 *18*	1763.14	$5/2^+$
		7265.8	6.6 *33*	1219.40	$1/2^+$
		8484.9	46 *12*	0	$3/2^+$
8514.3		3659.7	4.4 *22*	4854.4	$(1/2,3/2,5/2^+)$
		4336.1	2 *1*	4177.90	$3/2^-$
		4454.8	27 *7*	4059.20	$3/2^-$
		4546.7	23 *6*	3967.31	
		4595.5	6.6 *33*	3918.50	$3/2^+$
		7294.1	10 *3*	1219.40	$1/2^+$
		8513.2	27 *7*	0	$3/2^+$
8571.9		2848.2	2.2 *11*	5723.6	
		2917.3	1.3 *7*	5654.50	$3/2^+$
		2972.1	0.7 *4*	5599.70	$(1/2^+,3/2,5/2)$
8571.9		3408.4	1.8 *9*	5163.34	$7/2^-$
		3690.5	0.9 *5*	4881.19	
		4398.2	0.7 *4*	4173.45	$5/2^-$
		4457.9	1.1 *6*	4113.70	$7/2^+$
		4653.1	1.1 *6*	3918.50	$3/2^+$
		5408.4	1.6 *8*	3163.03	$7/2^-$
		5568.7	4.5 *23*	3002.76	$5/2^+$
		5877.5	0.6 *3*	2693.90	$3/2^+$
		5925.7	8 *4*	2645.66	$7/2^+$
		7351.7	5.4 *27*	1219.40	$1/2^+$
		8570.8	70 *7*	0	$3/2^+$
8580.5		2088.4	4.4 *22*	6492.0	
		3741.2	1.3 *7*	4839.10	$(1/2^+,3/2)$
		4402.3	4.4 *22*	4177.90	$3/2^-$
		4521.0	2 *1*	4059.20	$3/2^-$
		4661.7	2.3 *12*	3918.50	$3/2^+$
		5886.1	5.6 *28*	2693.90	$3/2^+$
		7360.3	54 *6*	1219.40	$1/2^+$
		8579.4	26 *7*	0	$3/2^+$
8589.9		2831.8	4.8 *24*	5758.0	(1/2,3/2)
		2935.3	3.7 *19*	5654.50	$3/2^+$
		3820.9	16 *4*	4768.81	$(7/2,9/2^+)$
		4416.2	13 *3*	4173.45	$5/2^-$
		4475.9	3.6 *18*	4113.70	$7/2^+$
		5426.4	7.7 *39*	3163.03	$7/2^-$
		5586.7	22 *6*	3002.76	$5/2^+$
		5943.7	5.5 *28*	2645.66	$7/2^+$
		6826.0	14 *4*	1763.14	$5/2^+$
		8588.8	10 *3*	0	$3/2^+$
8612.0		6848.1	50 *5*	1763.14	$5/2^+$
		7391.8	17 *4*	1219.40	$1/2^+$
		8610.9	33 *8*	0	$3/2^+$
8613.6		3732.2	1.6 *8*	4881.19	
		4554.1	5.4 *27*	4059.20	$3/2^-$
		4670.4	<4[a]	3942.90	$9/2^+$
		4694.8	7.2 *36*	3918.50	$3/2^+$
		5610.4	2.5 *13*	3002.76	$5/2^+$
		5919.2	4.3 *22*	2693.90	$3/2^+$
		5967.4	23 *6*	2645.66	$7/2^+$
		6849.7	<9[a]	1763.14	$5/2^+$
		7393.4	<2[a]	1219.40	$1/2^+$
		8612.5	56 *6*	0	$3/2^+$
8618.1	$(3/2^+,5/2^+)$	2894.4	2.1 *11*	5723.6	

$^{35}_{17}Cl_{18}$-35

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Comments
8618.1	(3/2$^+$,5/2$^+$)	2963.5	1.7 *9*	5654.50	3/2$^+$	
		3763.5	1.4 *7*	4854.4	(1/2,3/2,5/2$^+$)	
		3993.5	1.5 *8*	4624.40		
		4650.5	3.0 *15*	3967.31		
		4699.3	2.3 *12*	3918.50	3/2$^+$	
		5614.9	16 *4*	3002.76	5/2$^+$	
		5923.7	14 *4*	2693.90	3/2$^+$	A_2=+0.147 *33*, A_4=+0.114 *52* (1970Ko33).
		5971.9	1.7 *9*	2645.66	7/2$^+$	
		6854.2	23 *6*	1763.14	5/2$^+$	A_2=+0.662 *23*, A_4=+0.319 *39* (1970Ko33).
		8617.0	33 *8*	0	3/2$^+$	A_2=−0.293 *29*, A_4=−0.028 *47* (1970Ko33).
8630.1	7/2$^-$	2906.4	0.3 *2*	5723.6		
		3466.6	8.4 *42*	5163.34	7/2$^-$	δ: +0.6 *1* from 1976Sp09. A_2=+0.60 *3*, A_4=−0.08 *4* (1976Sp09).
		3861.1	1.4 *7*	4768.81	(7/2,9/2$^+$)	
		4282.0	12 *3*	4347.8	9/2$^-$	δ: −0.184 *14* from 1976Sp09. A_2=+0.11 *2*, A_4=+0.02 *2* (1976Sp09).
		4456.3	3.6 *18*	4173.45	5/2$^-$	
		4516.1	9.7 *49*	4113.70	7/2$^+$	δ: −0.06 *2* from 1976Sp09. A_2=+0.43 *2*, A_4=−0.01 *2* (1976Sp09).
		4686.9	9.6 *48*	3942.90	9/2$^+$	
		5466.6	3.5 *18*	3163.03	7/2$^-$	
		5626.9	1.4 *7*	3002.76	5/2$^+$	
		5935.7[‡]	<15	2693.90	3/2$^+$	
		5983.9	2.6 *13*	2645.66	7/2$^+$	
		6866.2	47 *12*	1763.14	5/2$^+$	δ: −0.011 *3* from 1976Sp09. A_2=+0.10 *33*, A_4=−0.65 *46* (1970Ko33). A_2=−0.387 *7*, A_4=+0.012 *8* (1976Sp09).
		7409.9[‡]	<5	1219.40	1/2$^+$	
		8629.0	0.5 *3*	0	3/2$^+$	A_2=+0.398 *46*, A_4=+0.019 *78* (1970Ko33).
8639	5/2	4689[‡] *7*	23	3942.90	9/2$^+$	
		5473[‡] *8*	20	3163.03	7/2$^-$	
		5630[‡] *9*	6	3002.76	5/2$^+$	
		5941[‡] *10*	13	2693.90	3/2$^+$	
		6874[‡] *11*	38	1763.14	5/2$^+$	A_2=−0.52 *12*, A_4=−0.29 *19* (1970Ko33).
8641.4	(3/2,5/2)	2986.8	2.9 *15*	5654.50	3/2$^+$	
		3055.3	2.5 *13*	5586.0		
		3237.7	4.7 *24*	5403.5	(1/2$^-$,3/2$^-$)	
		3802.1	2.6 *13*	4839.10	(1/2$^+$,3/2)	
		3872.4	24 *6*	4768.81	(7/2,9/2$^+$)	
		4016.8	1.9 *10*	4624.40		
		4463.2	14[d] *4*	4177.90	3/2$^-$	

$^{35}_{17}Cl_{18}$-36

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Comments
8641.4	(3/2,5/2)	4581.9	8.7 *44*	4059.20	$3/2^-$	
		4722.6	5.9 *30*	3918.50	$3/2^+$	
		5947.0	5.2 *26*	2693.90	$3/2^+$	
		8640.3	28 *7*	0	$3/2^+$	A_2=−0.12 *2*, A_4=−0.01 *2* (1976Sp09).
8686.2	5/2	3100.1	2.1 *11*	5586.0		
		3282.5	3.1 *16*	5403.5	$(1/2^-,3/2^-)$	
		4508.0	2 *1*	4177.90	$3/2^-$	
		4626.7	3.5 *18*	4059.20	$3/2^-$	
		5522.7	3.7 *19*	3163.03	$7/2^-$	
		5991.7	2.8 *14*	2693.90	$3/2^+$	
		6922.3	4.8 *24*	1763.14	$5/2^+$	
		7465.9	1.9 *10*	1219.40	$1/2^+$	
		8685.0	76 *8*	0	$3/2^+$	
8696.9		2891.3	2.9 *15*	5805.5		
		3097.1	4.8 *24*	5599.70	$(1/2^+,3/2,5/2)$	
		7476.6	12 *3*	1219.40	$1/2^+$	
		8695.7	80 *8*	0	$3/2^+$	
8750.9		2945.3	2.2 *11*	5805.5		
		3347.2	4.9 *25*	5403.5	$(1/2^-,3/2^-)$	
		3534.9	2.4 *12*	5215.80		
		4572.7	2.1 *11*	4177.90	$3/2^-$	
		4577.1	2.3 *12*	4173.45	$5/2^-$	
		6056.4	3.0 *15*	2693.90	$3/2^+$	
		6987.0	30 *8*	1763.14	$5/2^+$	
		7530.6	<2	1219.40	$1/2^+$	I_γ: from 1967Da12.
		8749.7	53 *5*	0	$3/2^+$	
8779.8		3179.9	4.3 *22*	5599.70	$(1/2^+,3/2,5/2)$	
		3563.8	6.6 *33*	5215.80		
		4601.6	15 [d] *4*	4177.90	$3/2^-$	
		4860.9	4.2 *21*	3918.50	$3/2^+$	
		5776.5	27 *7*	3002.76	$5/2^+$	
		6085.3	12 *3*	2693.90	$3/2^+$	
		6133.6	13 *3*	2645.66	$7/2^+$	
		7015.9	6.7 *34*	1763.14	$5/2^+$	
		8778.6	11 *3*	0	$3/2^+$	
8787.2	$(3/2^-,5/2,7/2^-)$	3063.5	6.8 *34*	5723.6		
		3623.7	19 *5*	5163.34	$7/2^-$	
		4018.1	6.7 *34*	4768.81	$(7/2,9/2^+)$	
		4609.0	9.1 *46*	4177.90	$3/2^-$	
		5623.7	5.8 *29*	3163.03	$7/2^-$	
		5783.9	20 *5*	3002.76	$5/2^+$	
		7023.3	25 *6*	1763.14	$5/2^+$	
		8786.0	7.5 *38*	0	$3/2^+$	

$^{35}_{17}Cl_{18}$-37

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π
8798.4	$(1/2^+,3/2,5/2^+)$	4738.9	7.9 *40*	4059.20	$3/2^-$
		5795.1	16 *4*	3002.76	$5/2^+$
		7034.5	7.0 *35*	1763.14	$5/2^+$
		7578.1	7.0 *35*	1219.40	$1/2^+$
		8797.2	62 *6*	0	$3/2^+$
8820.9		5817.6	9.0 *45*	3002.76	$5/2^+$
		6126.4	18 *5*	2693.90	$3/2^+$
		7057.0	21 *5*	1763.14	$5/2^+$
		8819.7	52 *5*	0	$3/2^+$
8824.2		5820.9	37 *9*	3002.76	$5/2^+$
		6129.7	6.0 *3*	2693.90	$3/2^+$
		7060.3	16 *4*	1763.14	$5/2^+$
		7603.9	22 *6*	1219.40	$1/2^+$
		8823.0	19 *5*	0	$3/2^+$
8829.2		3174.5	9.5 *48*	5654.50	$3/2^+$
		3989.9	1.3 *7*	4839.10	$(1/2^+,3/2)$
		4060.1	1.5 *8*	4768.81	$(7/2,9/2^+)$
		4910.3	4.5 *23*	3918.50	$3/2^+$
		5825.9	22 *6*	3002.76	$5/2^+$
		6134.7	13 *3*	2693.90	$3/2^+$
		6183.0	33 *8*	2645.66	$7/2^+$
		7065.3	9.1 *46*	1763.14	$5/2^+$
		7608.9	2.6 *13*	1219.40	$1/2^+$
		8828.0	3.8 *19*	0	$3/2^+$
8833.0	5/2	3617.0	6.9 *35*	5215.80	
		4063.9	2.6 *13*	4768.81	$(7/2,9/2^+)$
		4659.2	14 *4*	4173.45	$5/2^-$
		4719.0	4.7 *24*	4113.70	$7/2^+$
		4773.5	11 *3*	4059.20	$3/2^-$
		4914.1	11 *3*	3918.50	$3/2^+$
		5669.5	3.7 *19*	3163.03	$7/2^-$
		5829.7	6.7 *34*	3002.76	$5/2^+$
		6138.5	4.5 *23*	2693.90	$3/2^+$
		6186.8	23 *6*	2645.66	$7/2^+$
		7069.1	9.0 *45*	1763.14	$5/2^+$
		8831.8	2.9 *15*	0	$3/2^+$
8837.3	$7/2^-$	3673.8[#]		5163.34	$7/2^-$
		3955.9[#]		4881.19	
		4068.2	8 *4*	4768.81	$(7/2,9/2^+)$
		4489.2[#]		4347.8	$9/2^-$
		4777.7[#]		4059.20	$3/2^-$
		5673.8	29 *7*	3163.03	$7/2^-$
8837.3	$7/2^-$	7073.4	63 *6*	1763.14	$5/2^+$
8856.0		3974.6	3.4 *17*	4881.19	
		4231.3	5.1 *26*	4624.40	
		4677.8	3.5 *18*	4177.90	$3/2^-$
		4937.1	11 *3*	3918.50	$3/2^+$
		5692.5	51 *5*	3163.03	$7/2^-$
		6161.5	2.8 *14*	2693.90	$3/2^+$
		6209.7		2645.66	$7/2^+$
		7092.1	7.2 *36*	1763.14	$5/2^+$
		8854.8	16 *4*	0	$3/2^+$
8868.6		4690.4	2.6 *13*	4177.90	$3/2^-$
		5865.3	16 *4*	3002.76	$5/2^+$
		6174.1	12 *3*	2693.90	$3/2^+$
		7104.7	4.4 *22*	1763.14	$5/2^+$
		7648.3	16 *4*	1219.40	$1/2^+$
		8867.4	49 *12*	0	$3/2^+$
8886.1	5/2	3231.4	6 *3*	5654.50	$3/2^+$
		3286.2	6.6 *33*	5599.70	$(1/2^+,3/2,5/2)$
		3670.1	2.2 *11*	5215.80	
		3722.5	8.6 *43*	5163.34	$7/2^-$
		4117.0	4.5 *23*	4768.81	$(7/2,9/2^+)$
		4707.9	8 *4*	4177.90	$3/2^-$
		4967.2	4.1 *21*	3918.50	$3/2^+$
		5882.8	8 *4*	3002.76	$5/2^+$
		6239.8	26 *7*	2645.66	$7/2^+$
		7122.2	12 *3*	1763.14	$5/2^+$
		8884.9	14 *4*	0	$3/2^+$
8893.2	$(5/2,7/2)^+$	3293.3	<1[b]	5599.70	$(1/2^+,3/2,5/2)$
		3307.0	1.6 *8*	5586.0	
		4779.1	8.5 *43*	4113.70	$7/2^+$
		4949.9	3.9 *20*	3942.90	$9/2^+$
		5729.7	29 *7*	3163.03	$7/2^-$
		6198.7	37 *9*	2693.90	$3/2^+$
		7129.3	19 *5*	1763.14	$5/2^+$
		8892.0	1.0 *5*	0	$3/2^+$
8904.8		2723.7	4.3 *22*	6181.0	
		3250.1	3.4 *17*	5654.50	$3/2^+$
		3894.5	3.9 *20*	5010.11	(1/2,3/2)
		4050.1	6.2 *31*	4854.4	$(1/2,3/2,5/2^+)$
		4065.4	4.5 *23*	4839.10	$(1/2^+,3/2)$
		4726.6	18 *5*	4177.90	$3/2^-$
		4845.2	5.7 *29*	4059.20	$3/2^-$

$^{35}_{17}Cl_{18}$-38

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult.[e]	δ[e]	Comments
8904.8		6210.3	15 *4*	2693.90	$3/2^+$			
		7684.5	10 *3*	1219.40	$1/2^+$			
		8903.6	29 *7*	0	$3/2^+$			
8906.8	$5/2^+$	3252.1	<4[b]	5654.50	$3/2^+$			
		3261.6	3.7 *19*	5645.0	(5/2,7/2,9/2)			
		3306.9	2.2 *11*	5599.70	($1/2^+$,3/2,5/2)			
		3320.6	4	5586.0				
		3386.6	2.5 *13*	5520.0				
		3690.8	4.4 *22*	5215.80				
		4137.7	5.6 *28*	4768.81	(7/2,9/2^+)			
		4963.5	13 *3*	3942.90	$9/2^+$			
		7142.9	69 *7*	1763.14	$5/2^+$			
8919.8		3274.6	5.6 *28*	5645.0	(5/2,7/2,9/2)			
		4571.7	7.8 *39*	4347.8	$9/2^-$			
		5756.3	57 *6*	3163.03	$7/2^-$			
		6273.5	26 *7*	2645.66	$7/2^+$			
		7155.9	4 *2*	1763.14	$5/2^+$			
8953.0	$3/2^+$	7732.7		1219.40	$1/2^+$	(D+Q)	−0.34 *2*	δ: or +5.0 *4* (1976Sp09). A_2=+0.12 *3*, A_4=−0.02 *4* (1976Sp09).
		8951.8		0	$3/2^+$	(D+Q)	−0.39 *5*	δ: or +8.2 *7* (1976Sp09). A_2=−0.19 *2*, A_4=+0.02 *2* (1976Sp09).
8984.1		3260.3	0.8 *4*	5723.6				
		4144.7	1.2 *6*	4839.10	($1/2^+$,3/2)			
		4215.0	0.5 *3*	4768.81	(7/2,9/2^+)			
		4359.4	0.5 *3*	4624.40				
		4805.8	1.5 *8*	4177.90	$3/2^-$			
		4810.3	1.5 *8*	4173.45	$5/2^-$			
		5065.2	9 *5*	3918.50	$3/2^+$			
		5820.5	6 *3*	3163.03	$7/2^-$			
		6289.6	1.8 *9*	2693.90	$3/2^+$			
		6337.8	1.2 *6*	2645.66	$7/2^+$			
		7220.2	16 *4*	1763.14	$5/2^+$			
		8982.9	60 *6*	0	$3/2^+$			
9081.1	$5/2^+$	3357.3	1[b]	5723.6				
		4199.6	1[b]	4881.19				
		4241.7[#]		4839.10	($1/2^+$,3/2)			
		4312.0[#]		4768.81	(7/2,9/2^+)			
		4456.4[#]		4624.40				
		4902.8	2[b]	4177.90	$3/2^-$			
		4907.3	2[b]	4173.45	$5/2^-$			
		5162.2	9[b]	3918.50	$3/2^+$	D(+Q)	−0.002 *9*	δ: from 1976Sp09. A_2=−0.43 *3*, A_4=+0.05 *3* (1976Sp09).

$^{35}_{17}Cl_{18}$-39

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08 (continued)

$\gamma(^{35}Cl)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[e]	δ[e]	Comments
9081.1	5/2$^+$	5917.5	6[b]	3163.03	7/2$^-$			
		6386.6	2[b]	2693.90	3/2$^+$			
		6434.8	1[b]	2645.66	7/2$^+$			
		7317.1	16[b]	1763.14	5/2$^+$	(D+Q)	+0.11 *2*	δ: from 1976Sp09. A_2=+0.555 *14*, A_4=+0.03 *2* (1976Sp09).
		9079.8	60[b]	0	3/2$^+$	(D+Q)	+0.089 *9*	δ: from 1976Sp09. A_2=−0.243 *11*, A_4=+0.05 *2* (1976Sp09).
9157.1	5/2$^+$	3941.1	7.4	5215.80				
		4388.0	6.9	4768.81	(7/2,9/2$^+$)			
		4978.8	13[d]	4177.90	3/2$^-$			
		5993.5	9.6	3163.03	7/2$^-$			A_2=−0.15 *8*, A_4=−0.31 *9*, A_6=−0.05 *8* (1996Ka21).
		6153.8	8.4	3002.76	5/2$^+$			
		6462.6	1.3	2693.90	3/2$^+$			
		6510.8	2.9	2645.66	7/2$^+$			
		7393.1	7.5	1763.14	5/2$^+$			
		9155.8	43	0	3/2$^+$	M1+E2	0.47 *50*	Mult.,δ: from 1996Ka21. A_2=−0.29 *6*, A_4=−0.38 *8*, A_6=−0.10 *6* (1996Ka21).

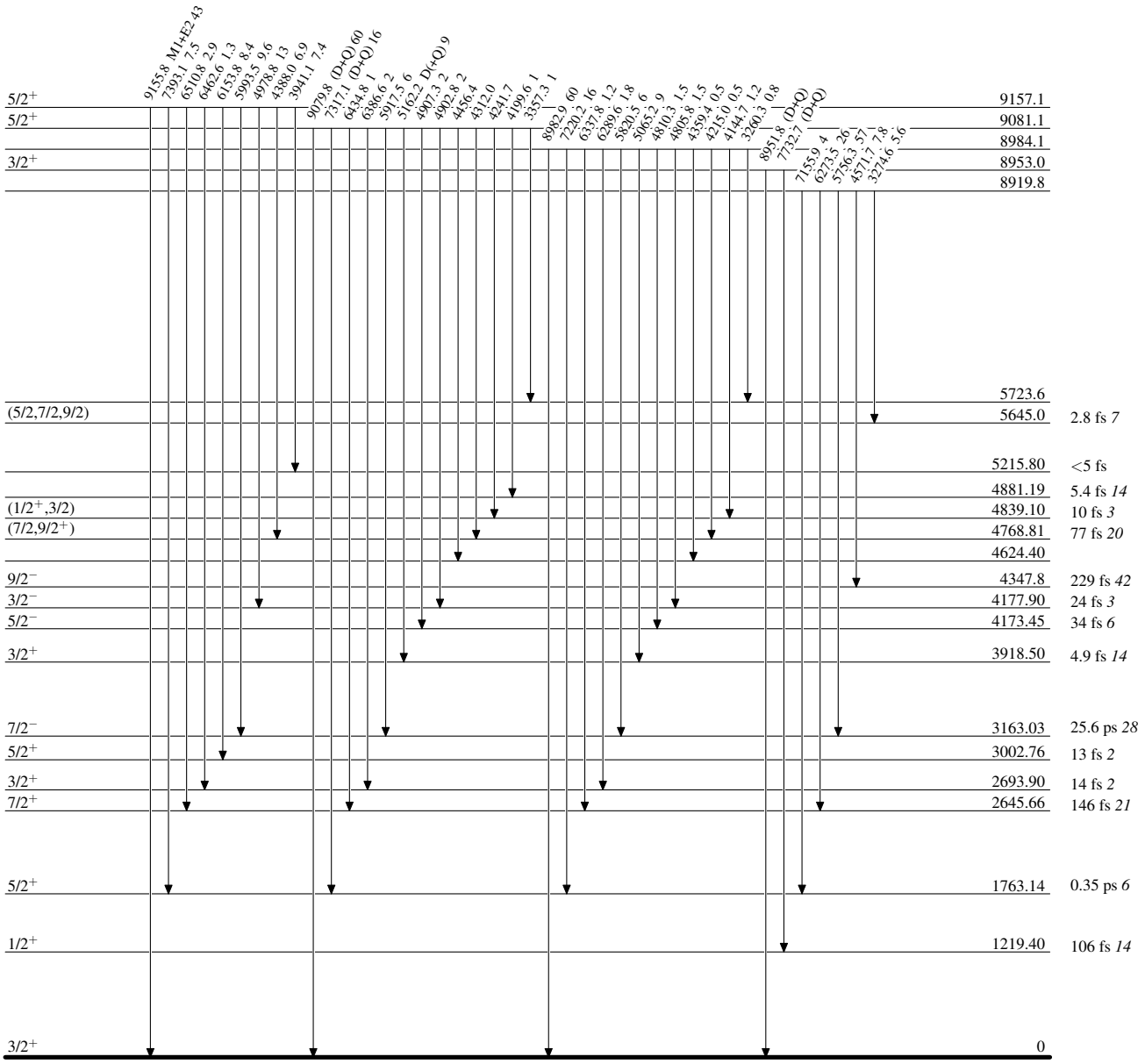
[†] From level-energy differences, unless otherwise noted.
[‡] From 1970Ko33.
[#] From 1981Bi05.
[@] Primarily from 1972Hu10, 1976Me12, 1976Sp08. Weighted average are taken when available.
[&] From 1963Ha32.
[a] From 1967Da12.
[b] From 2001Vo24.
[c] From 1971Pr11.
[d] Transitions to 4177 and 4173 not resolved (1976Sp08).
[e] From $\gamma(\theta)$ and/or $\gamma\gamma(\theta)$.
[f] Placement of transition in the level scheme is uncertain.

$^{35}_{17}Cl_{18}$-40

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme

Intensities: % photon branching from each level

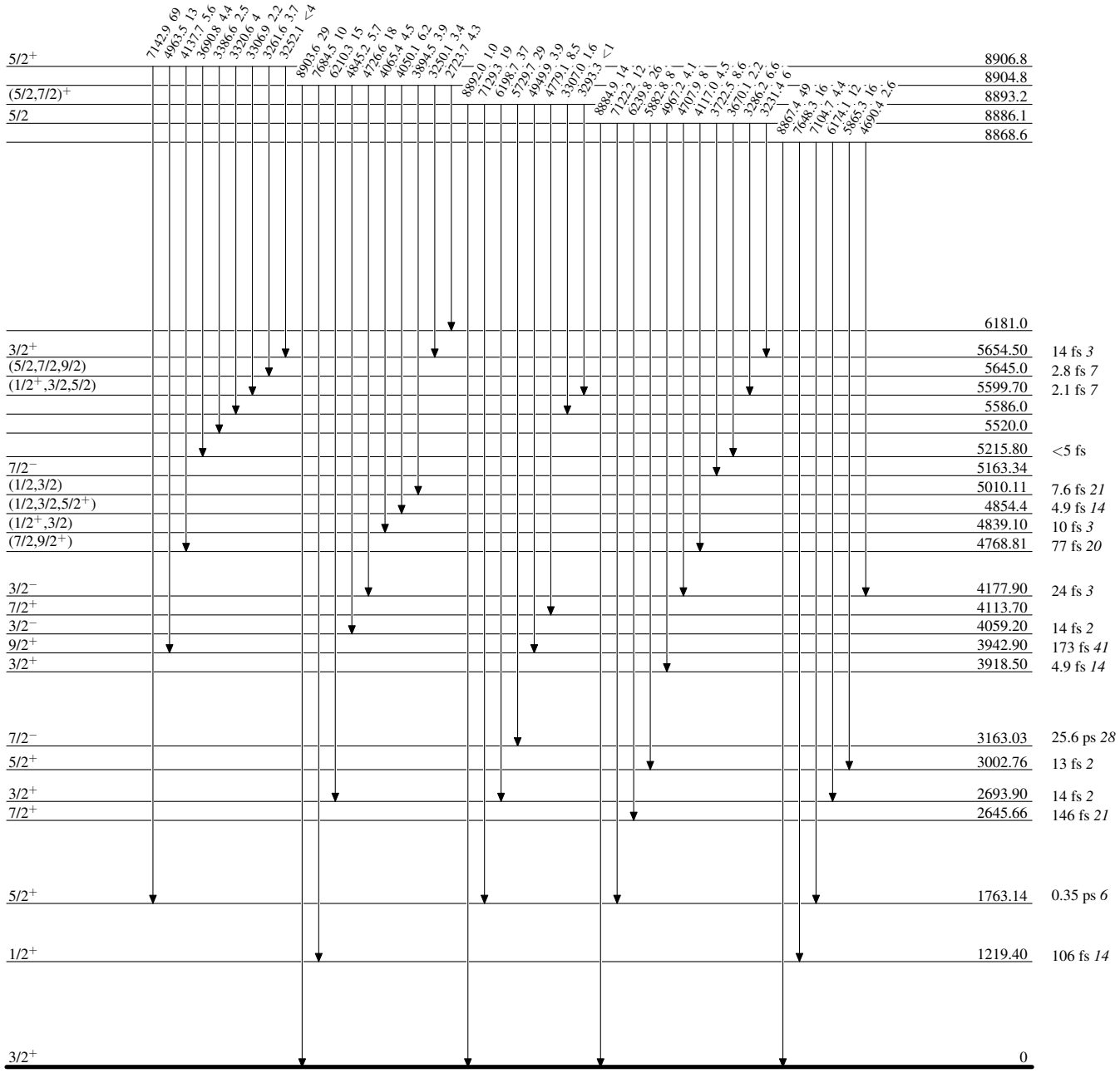


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

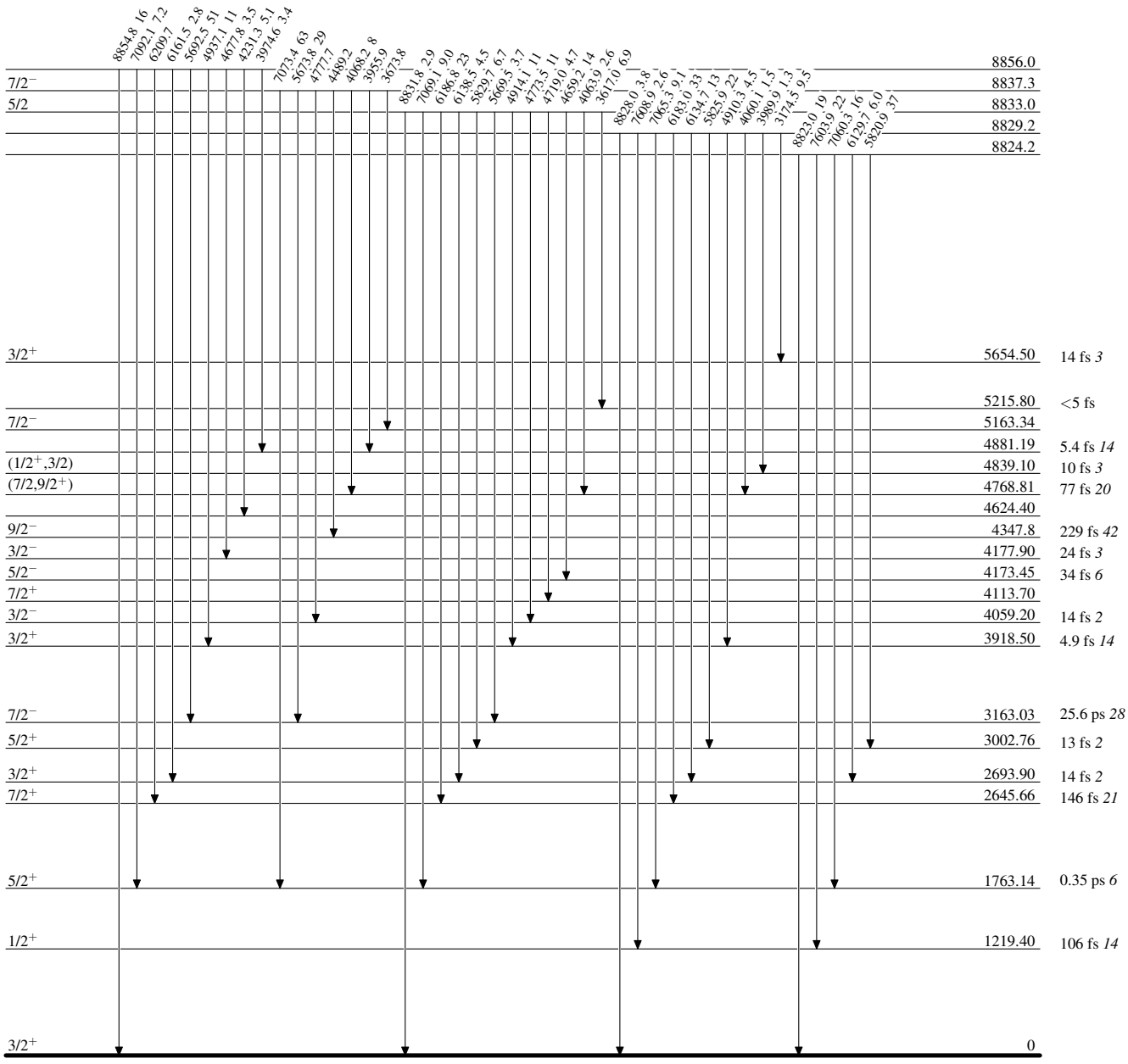
Intensities: % photon branching from each level



^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

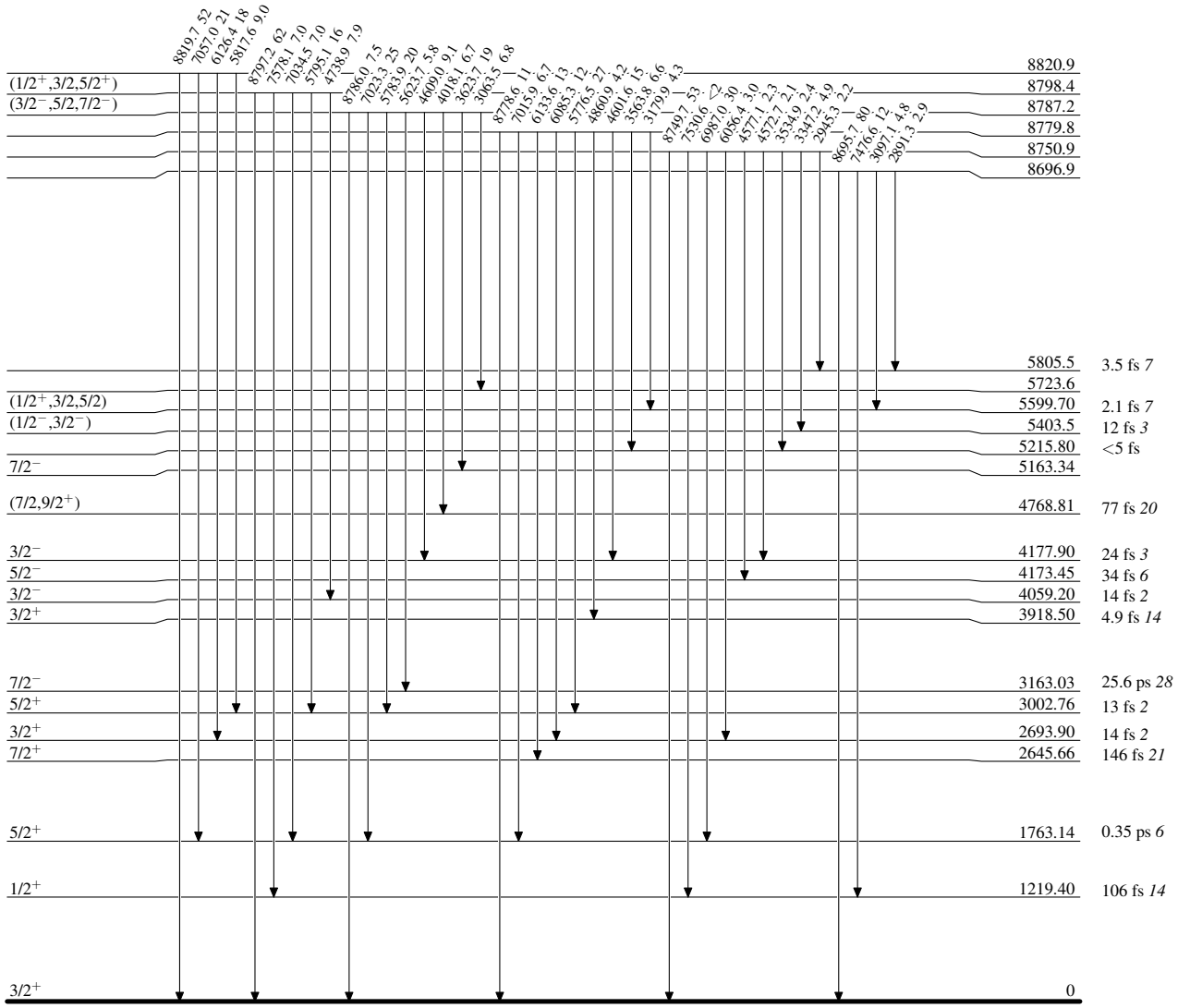


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

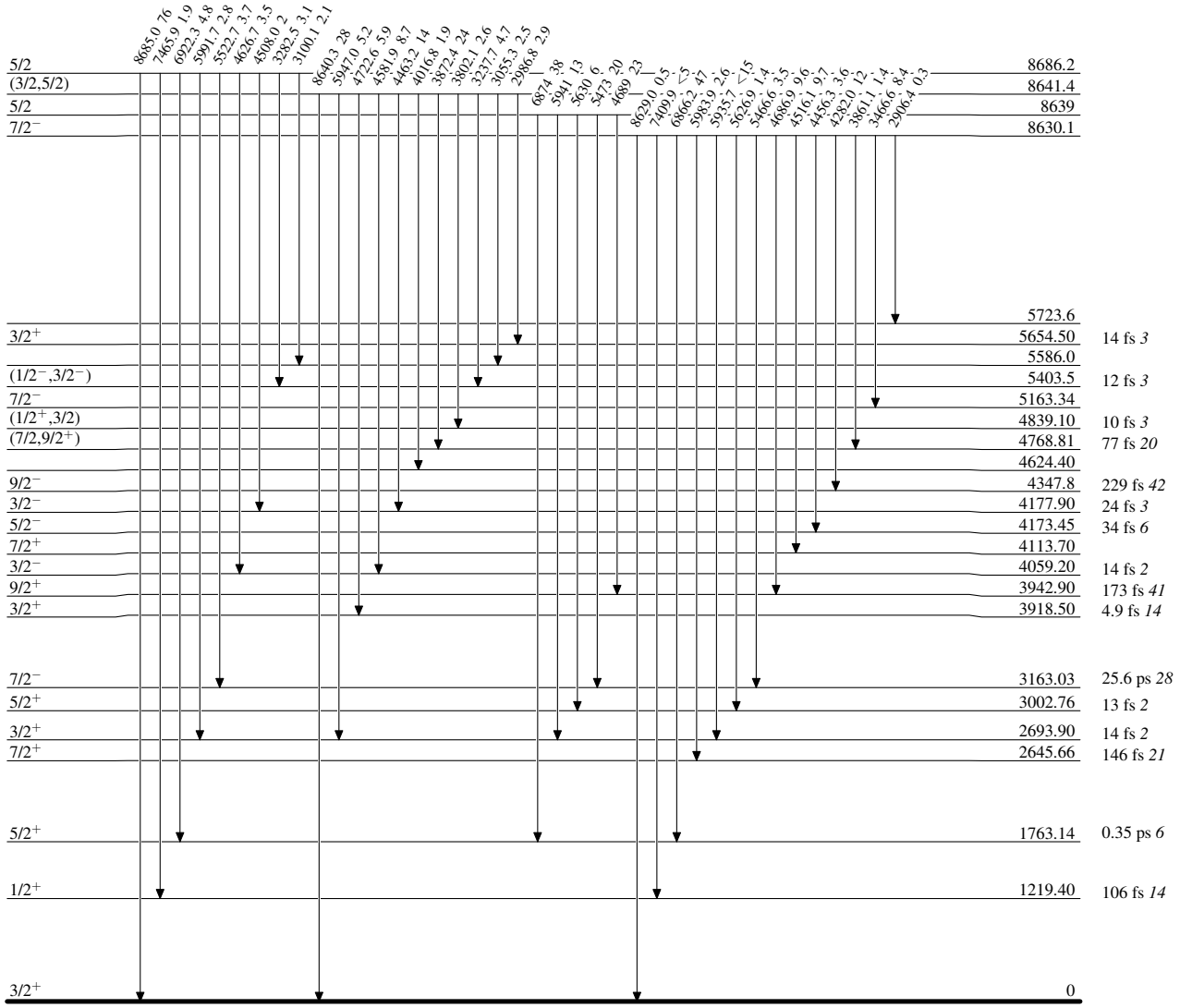


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

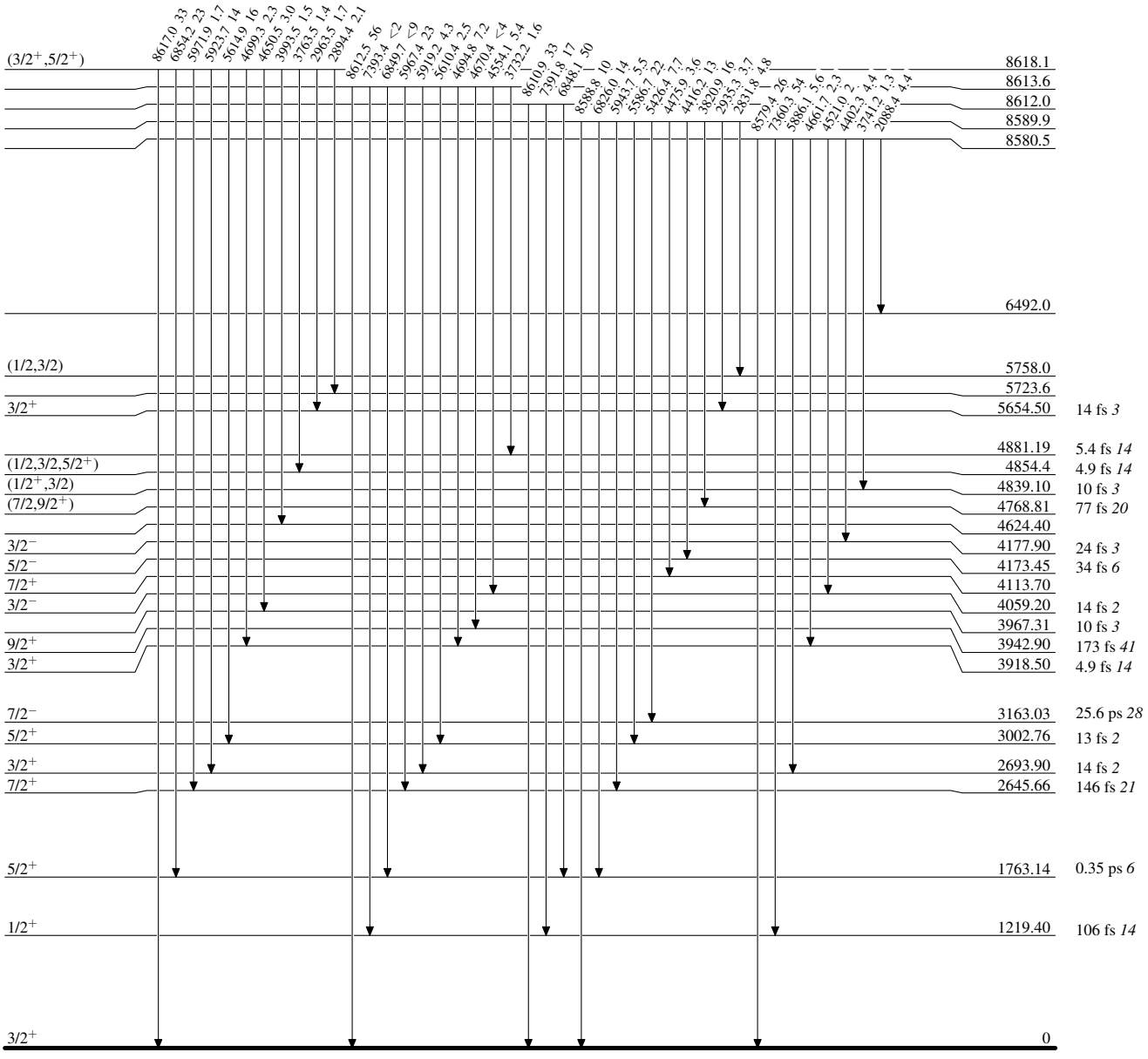


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

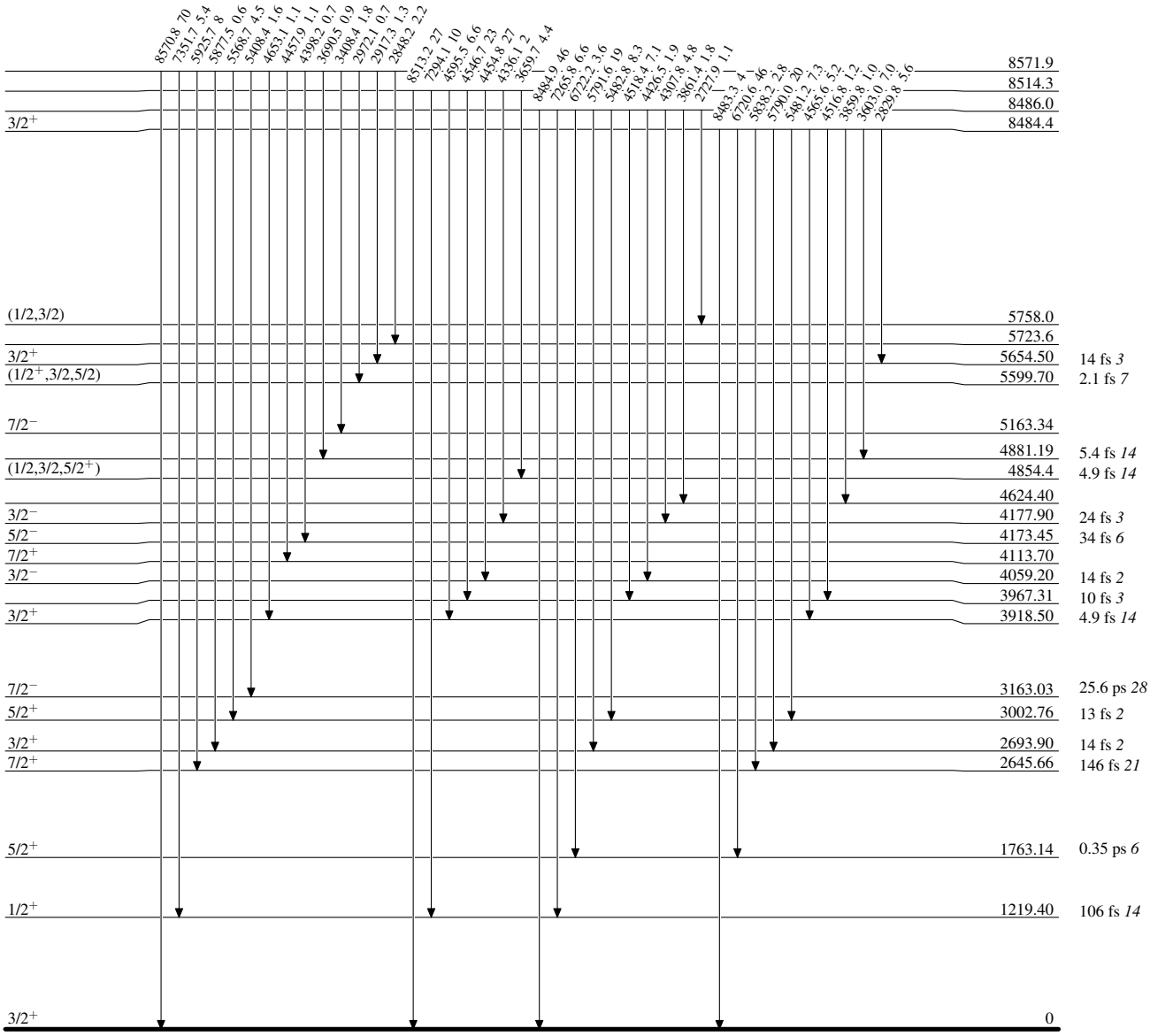
Intensities: % photon branching from each level



^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

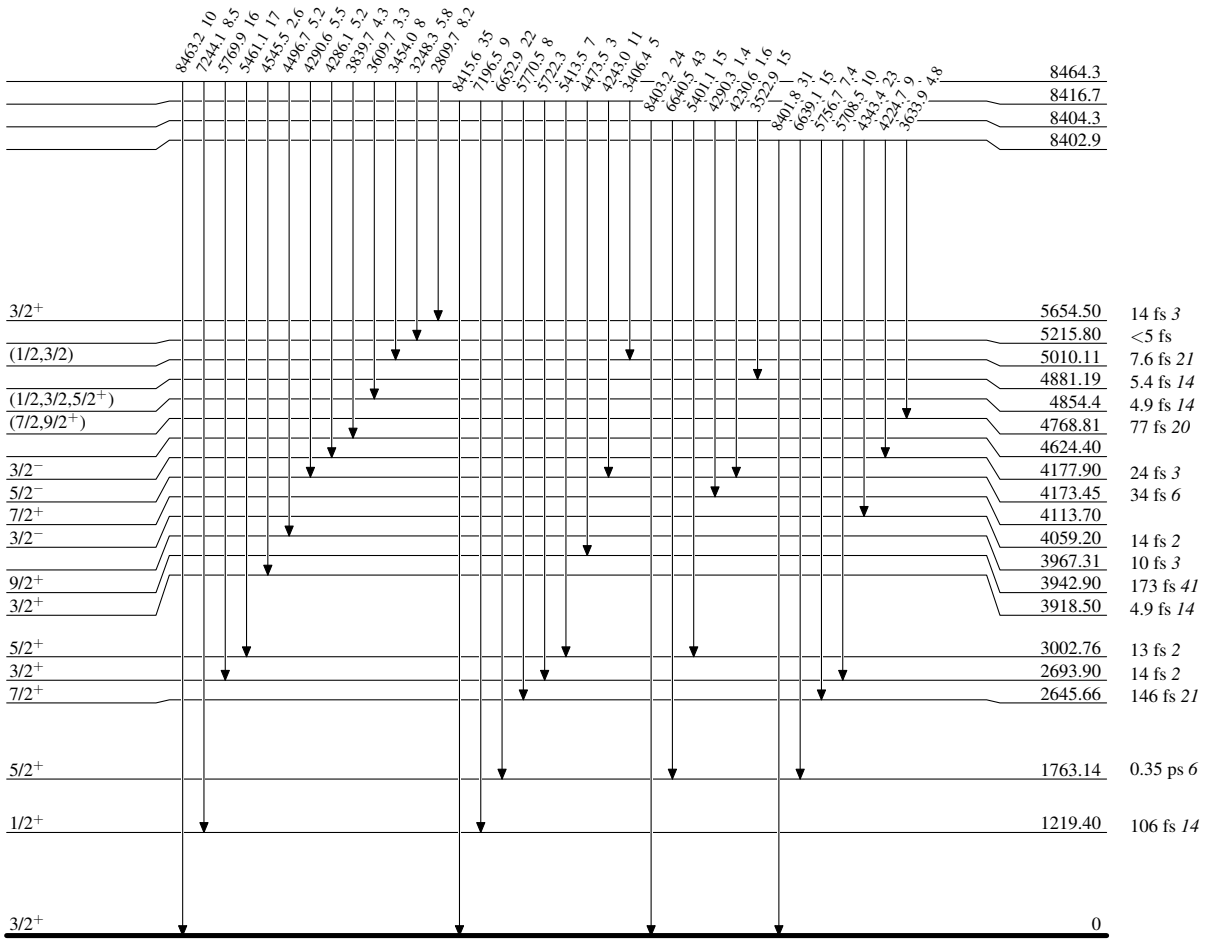


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

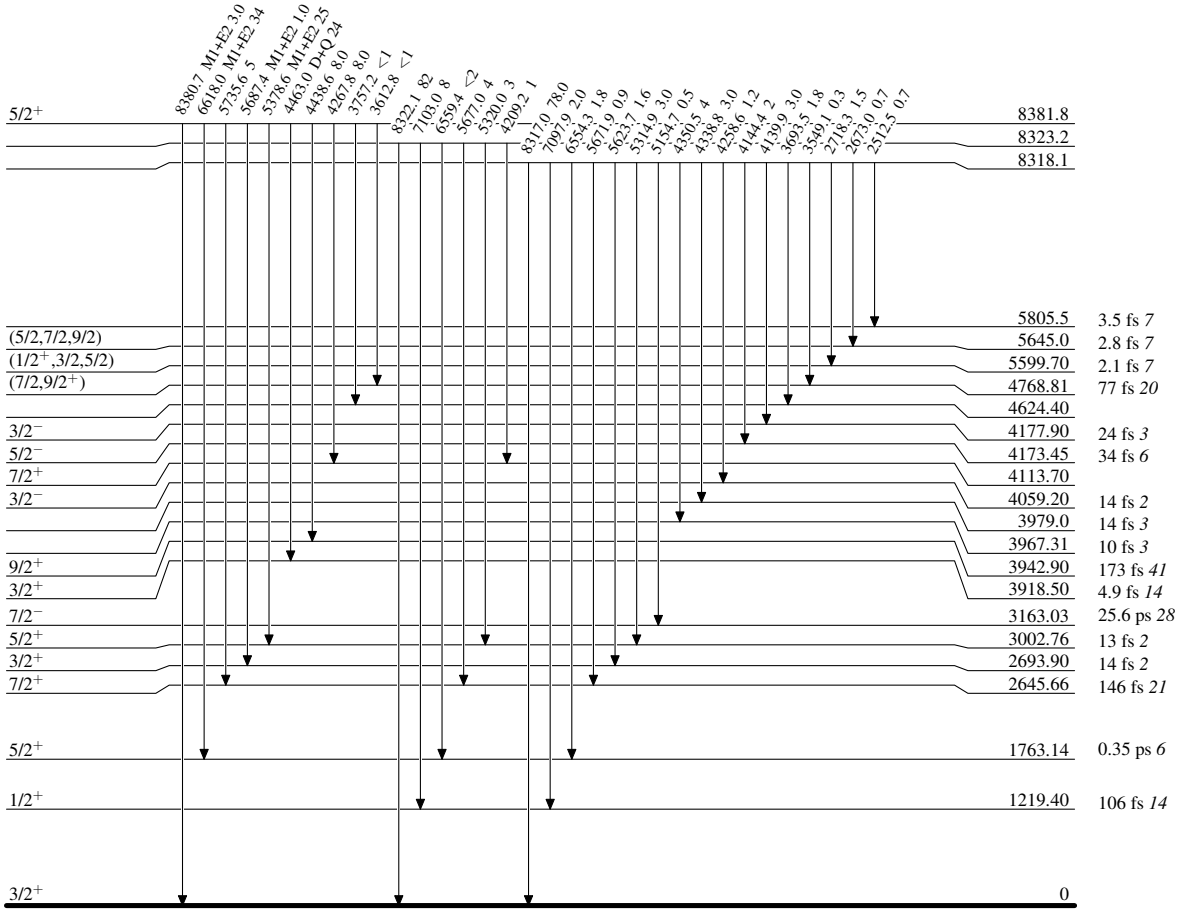


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

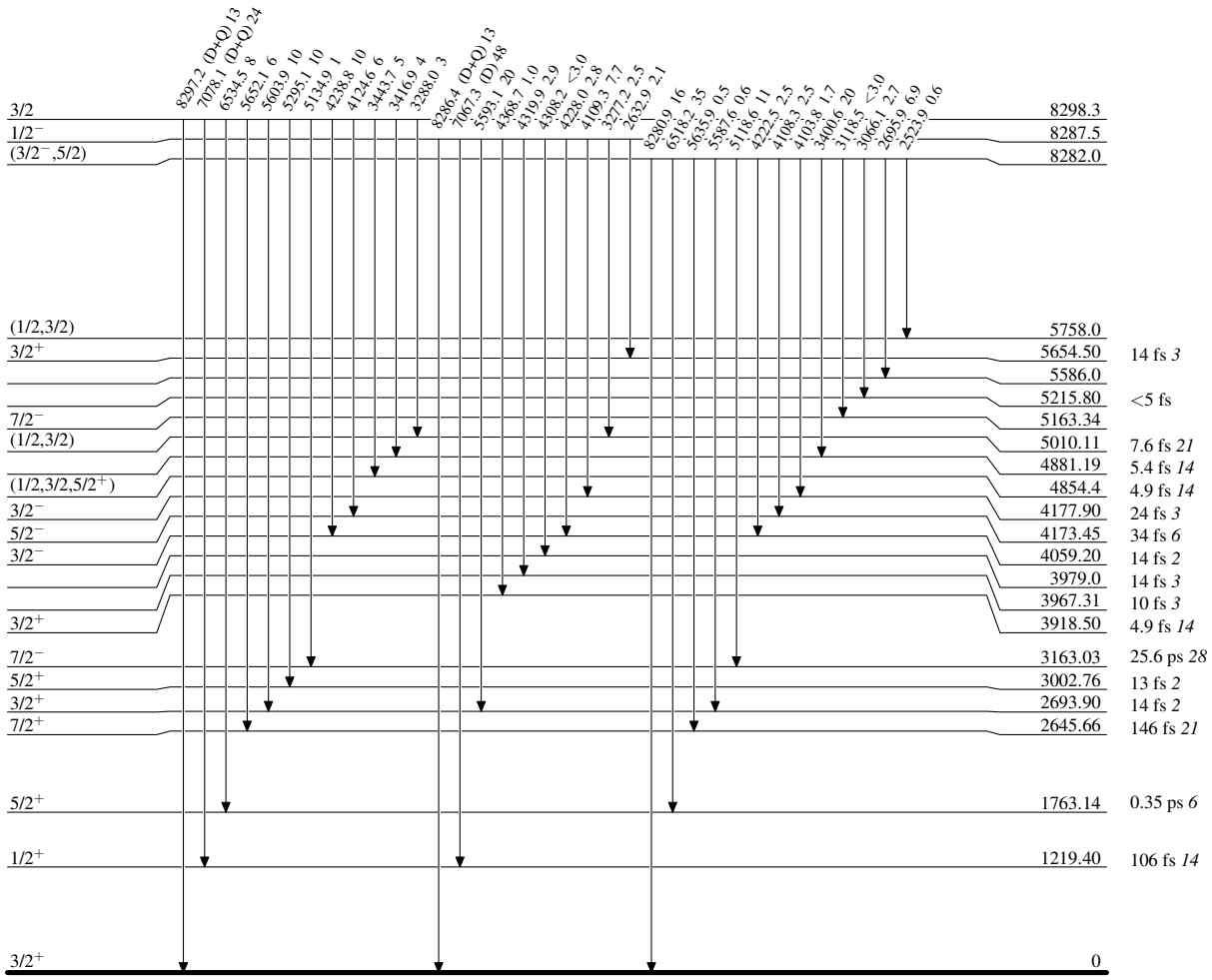


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

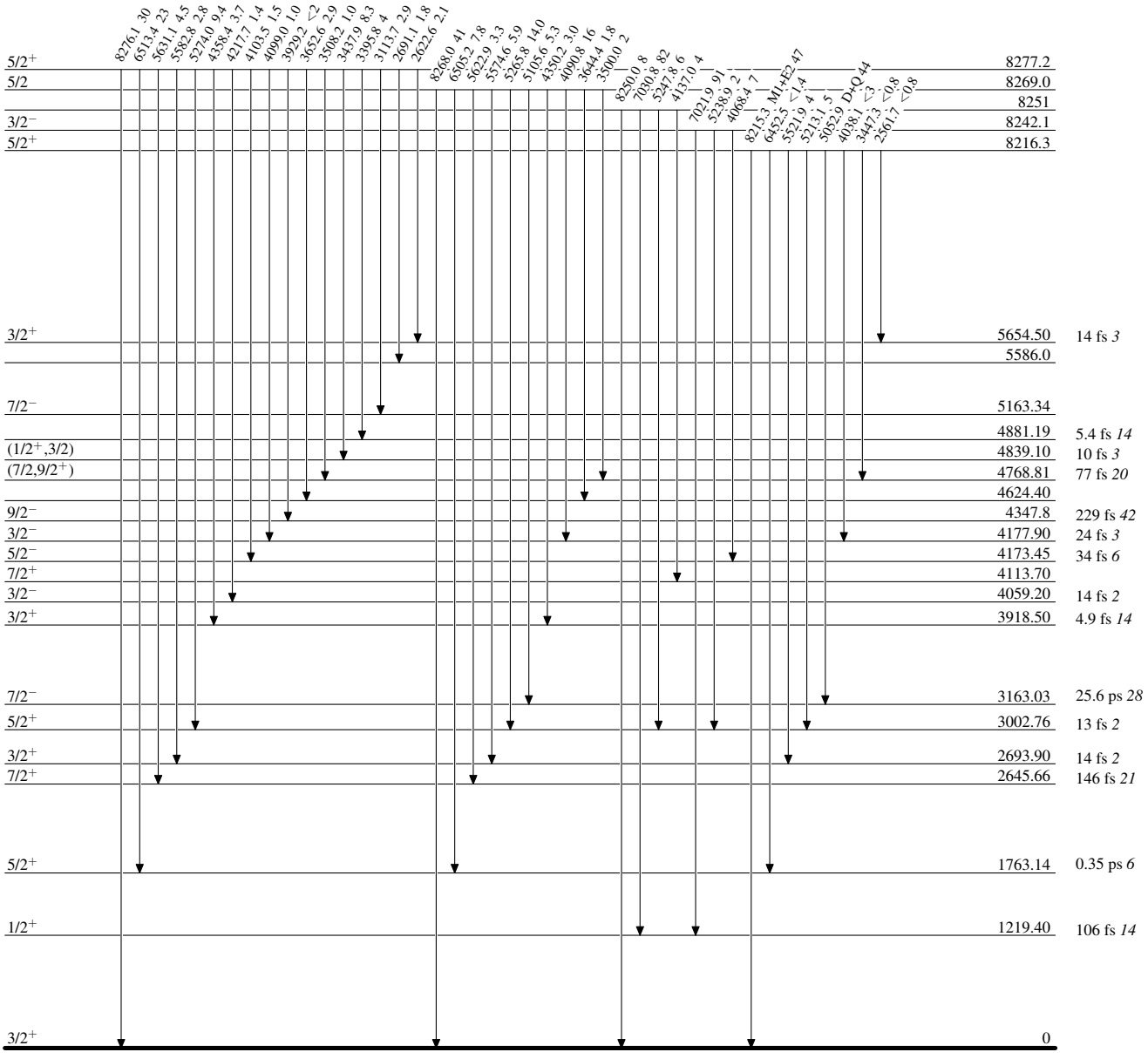


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

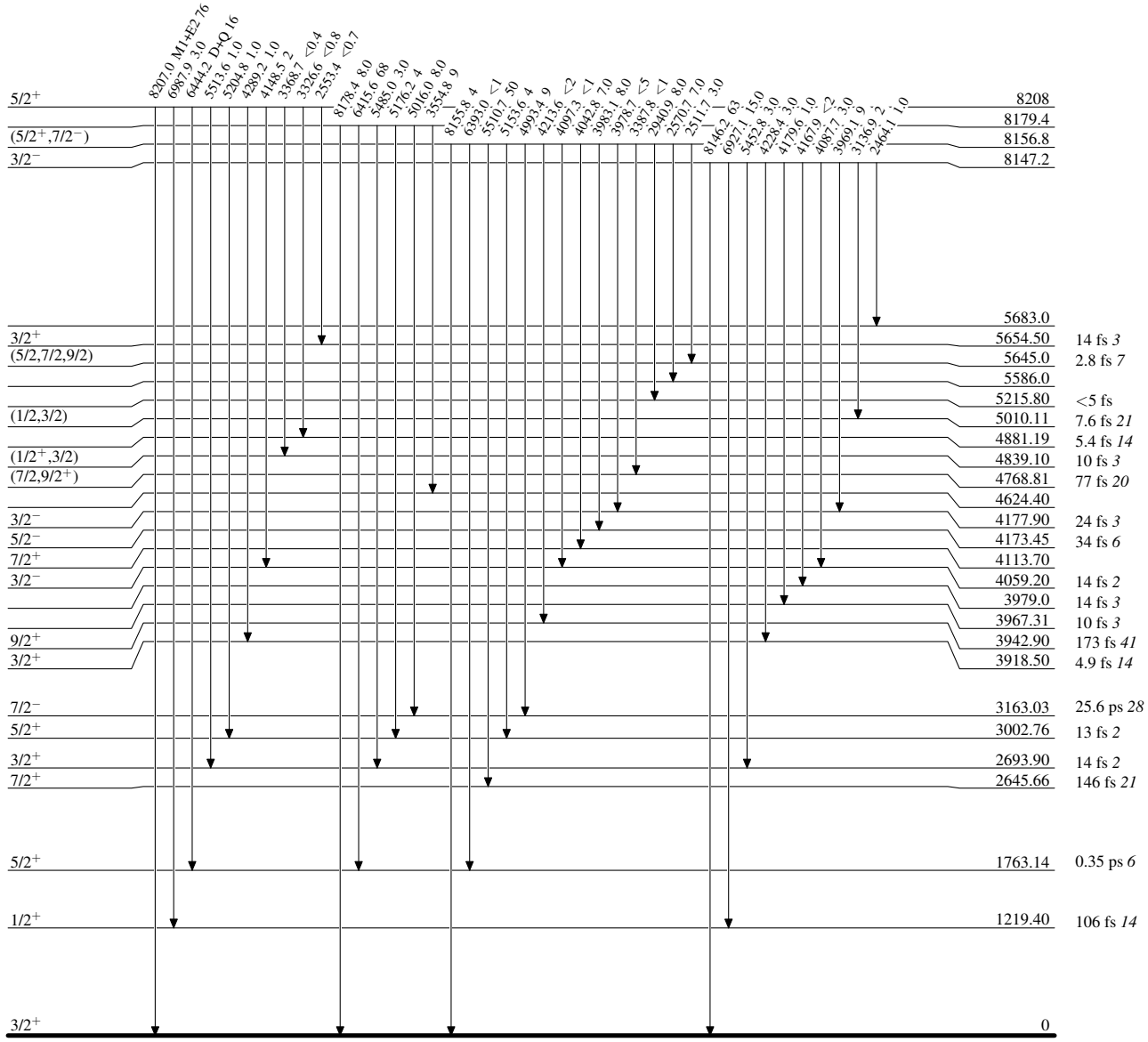


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

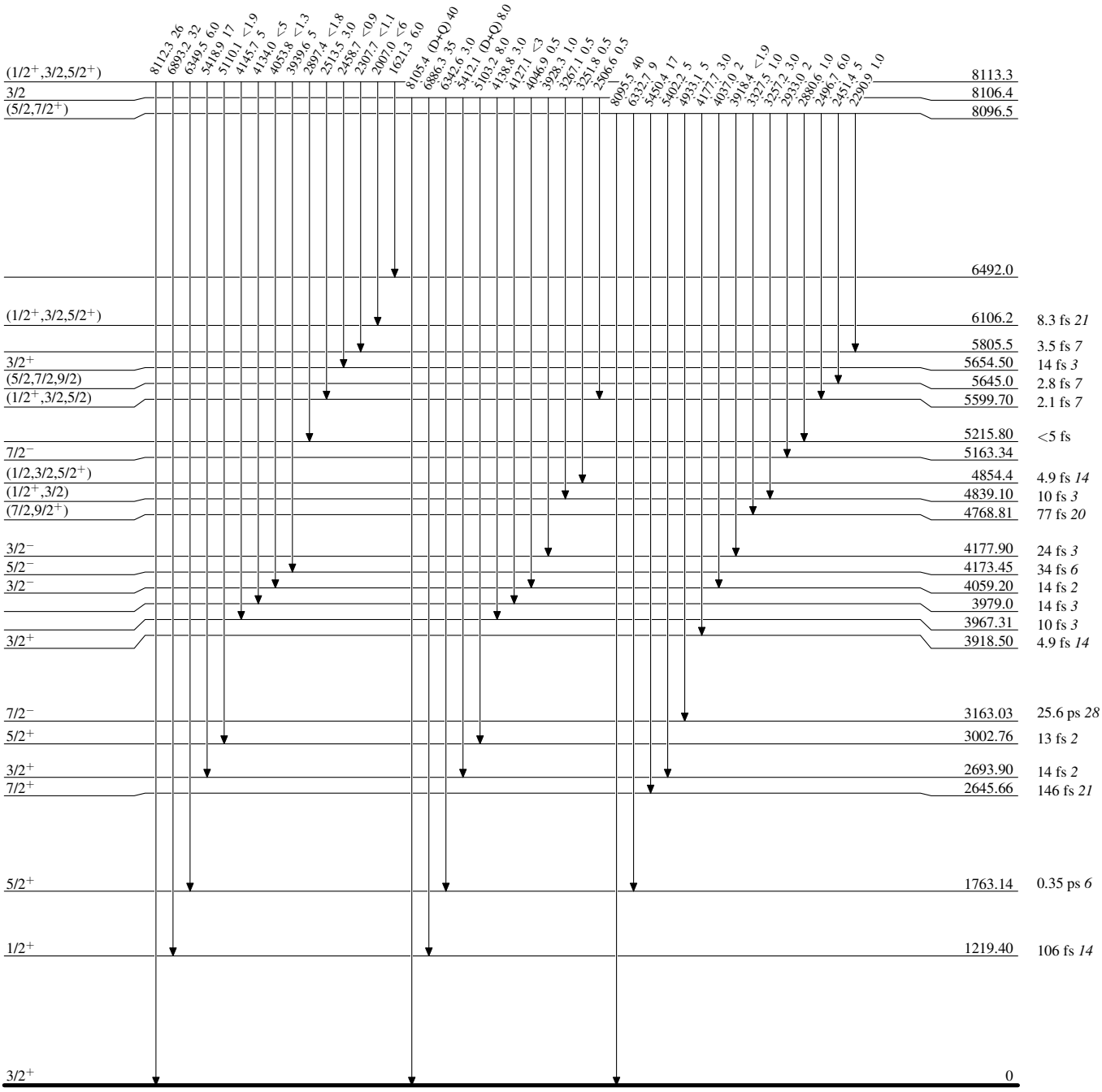


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

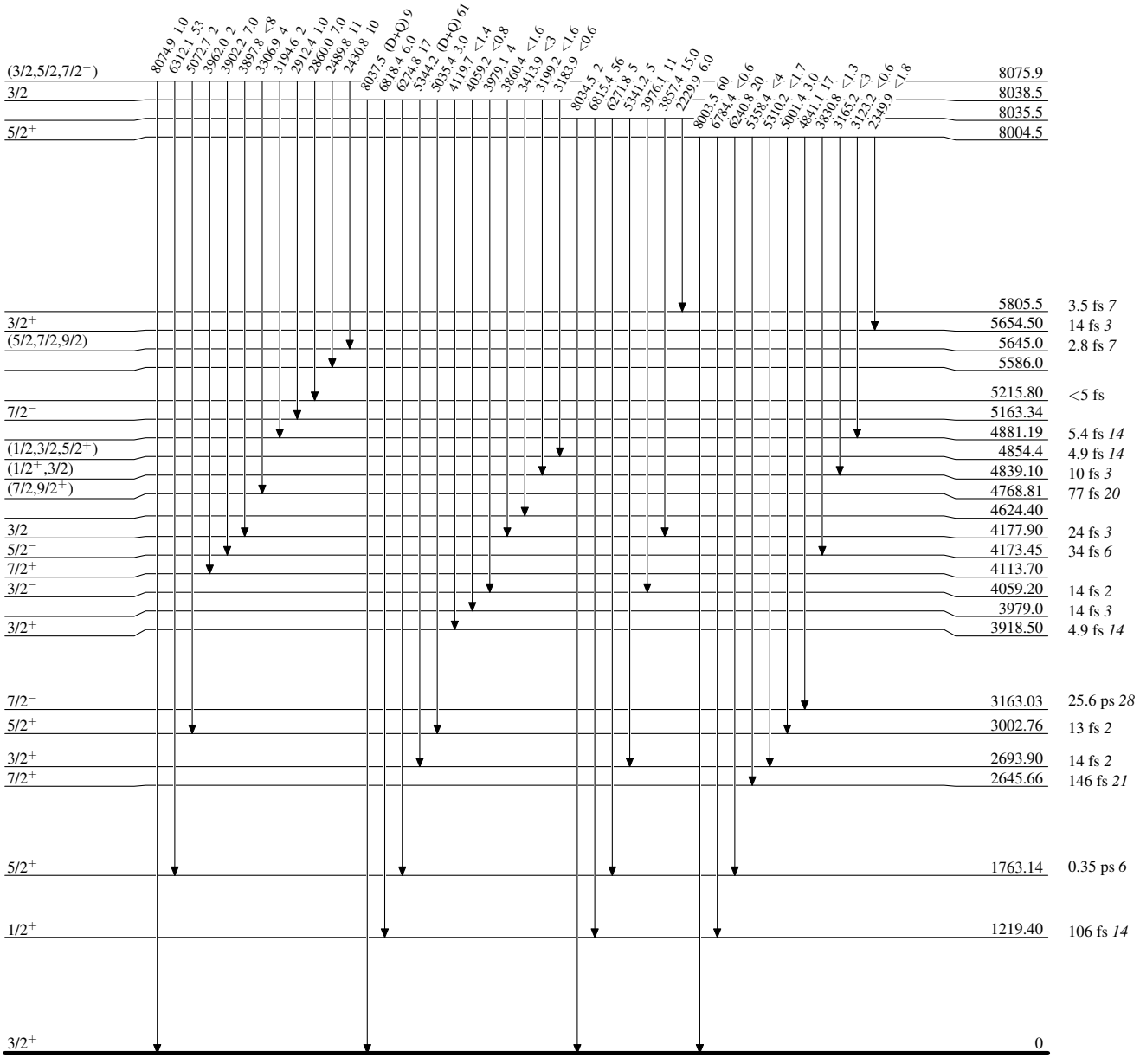


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

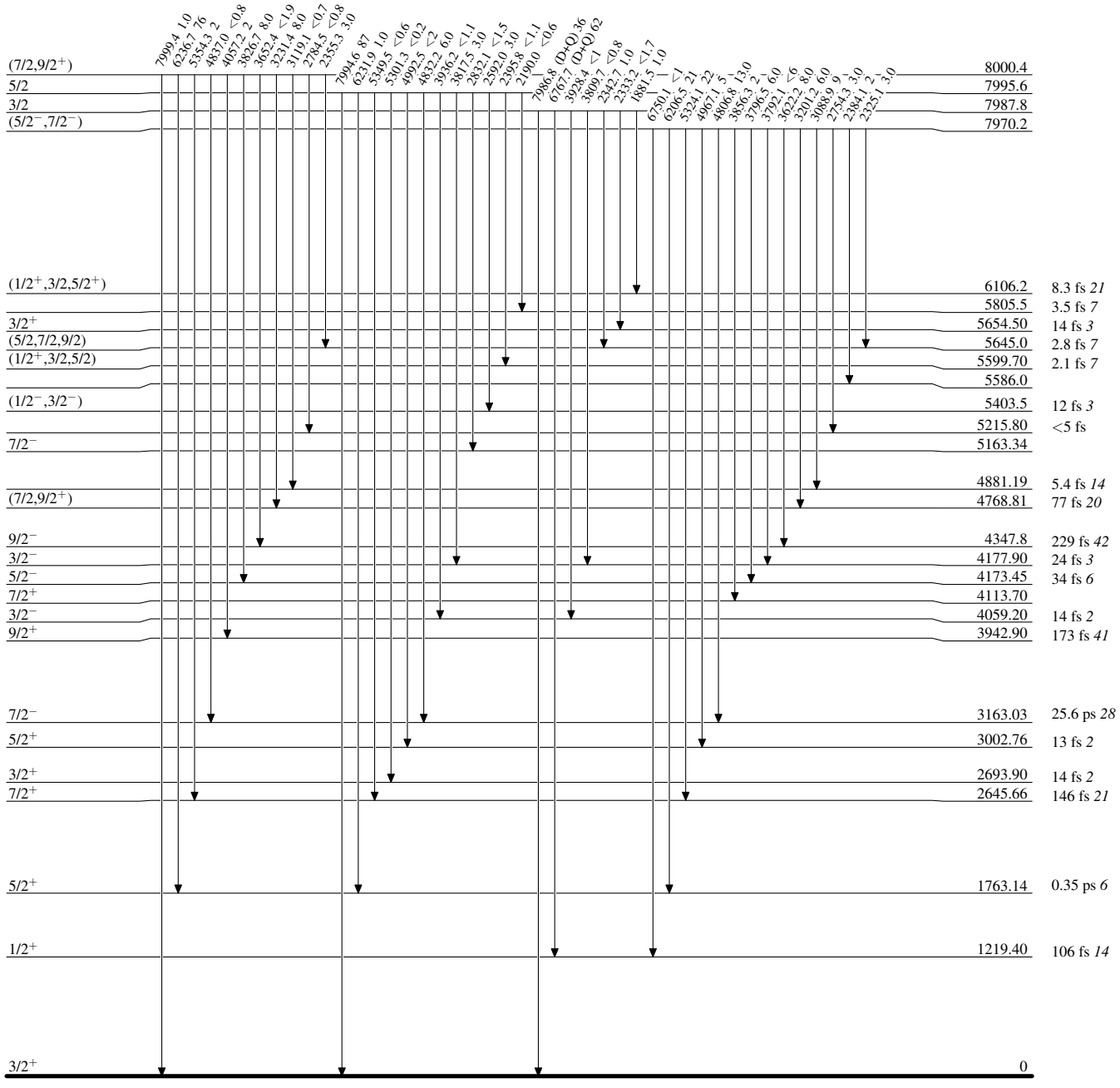


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

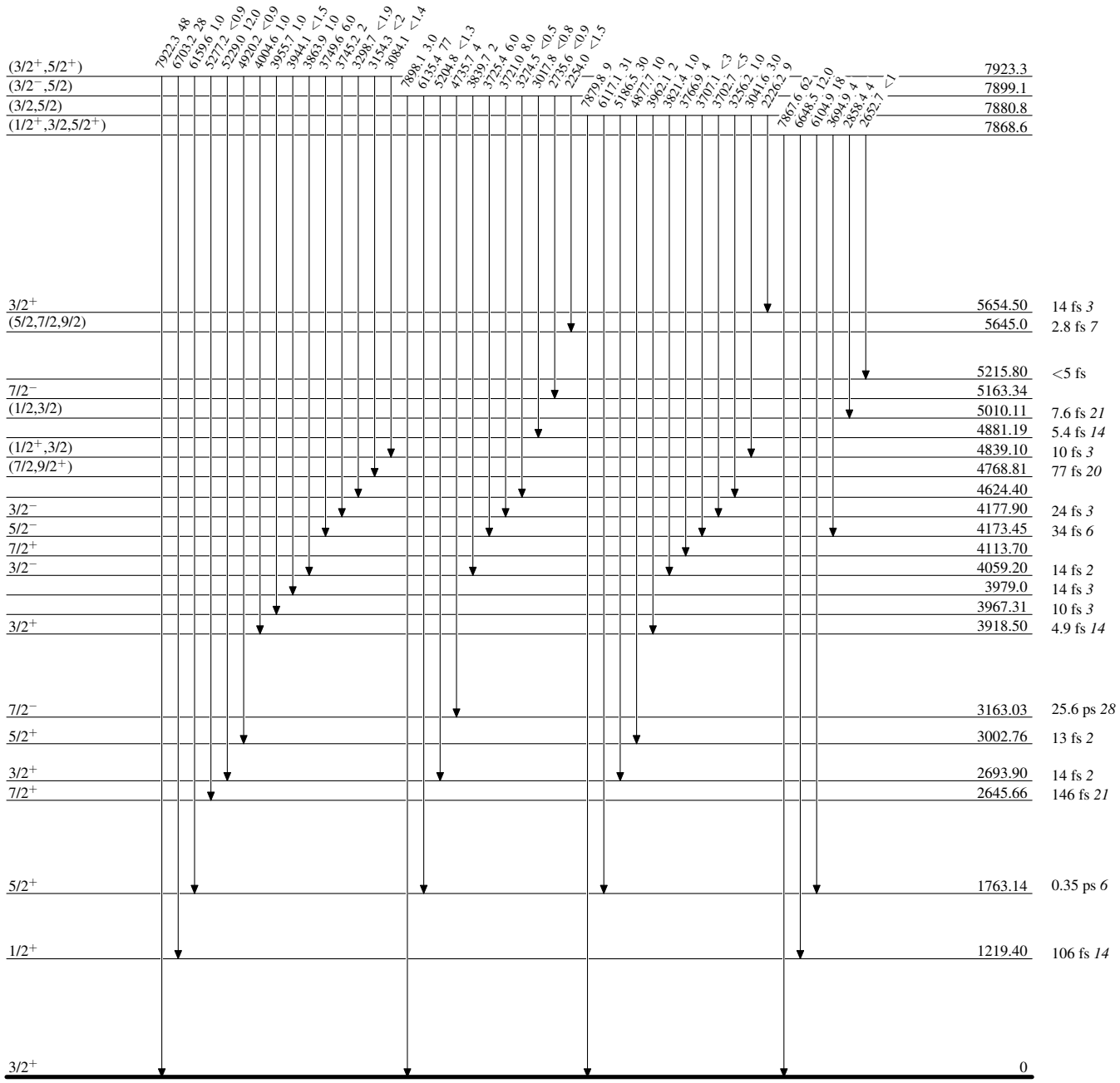


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

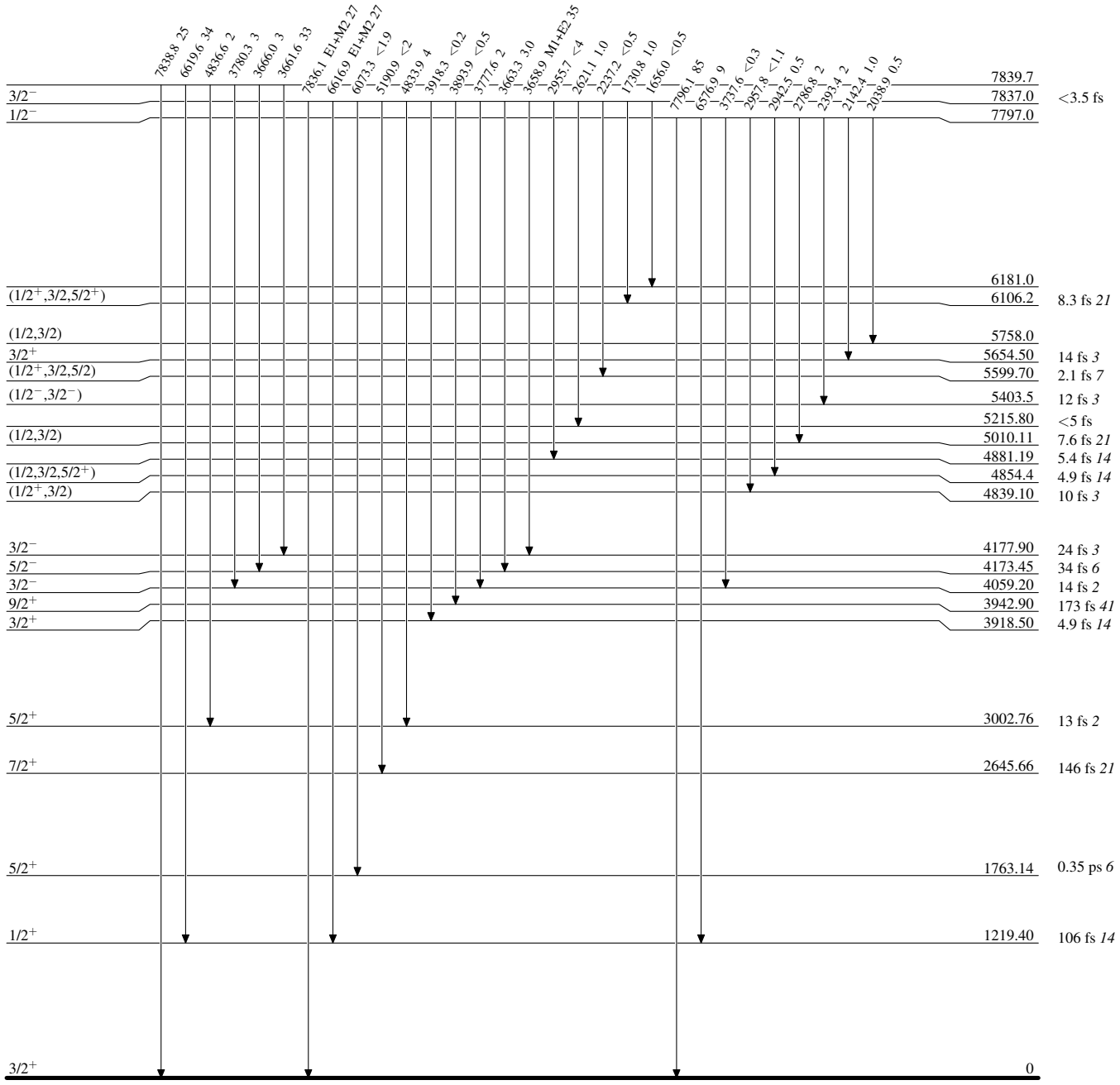


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

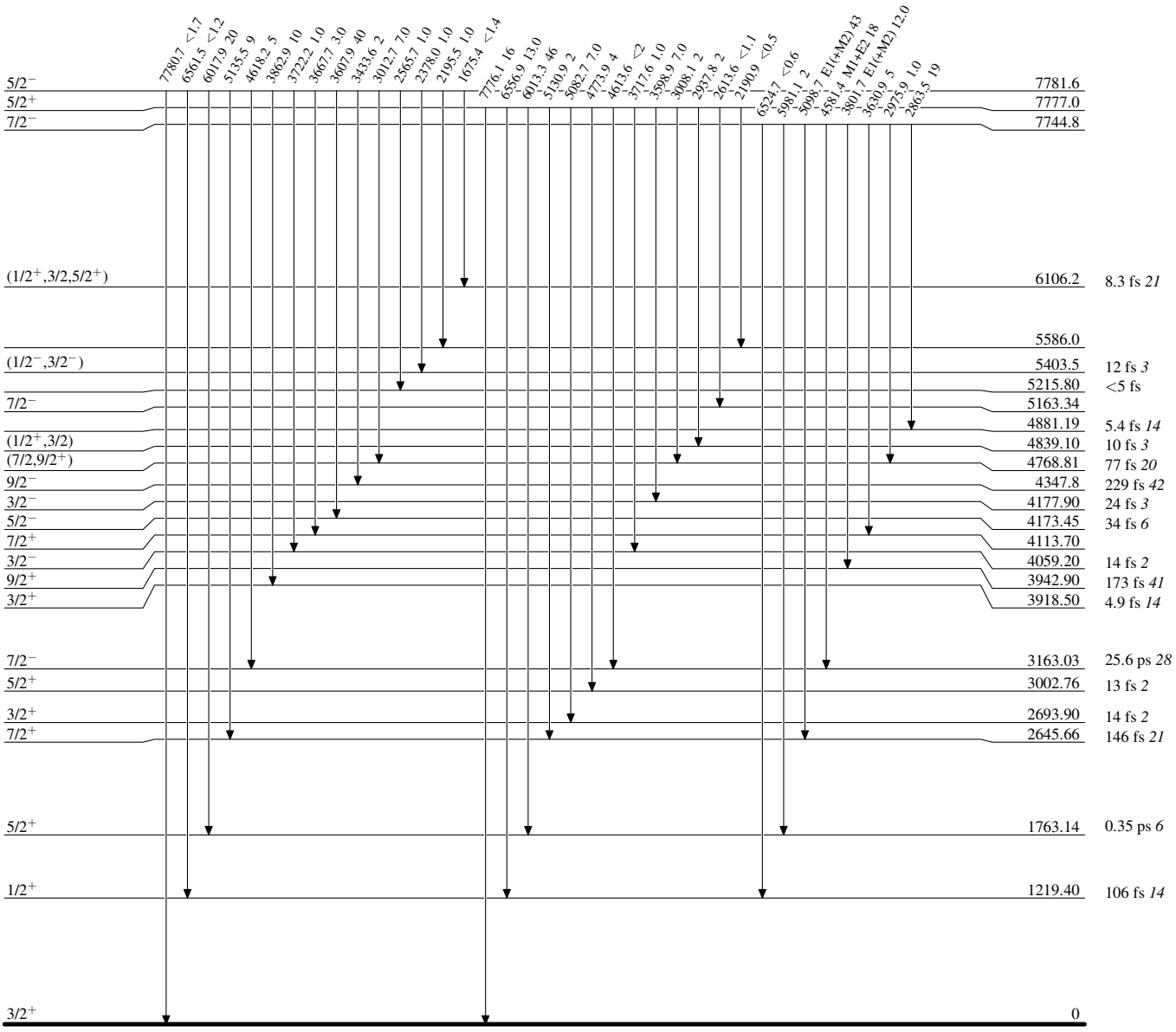


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

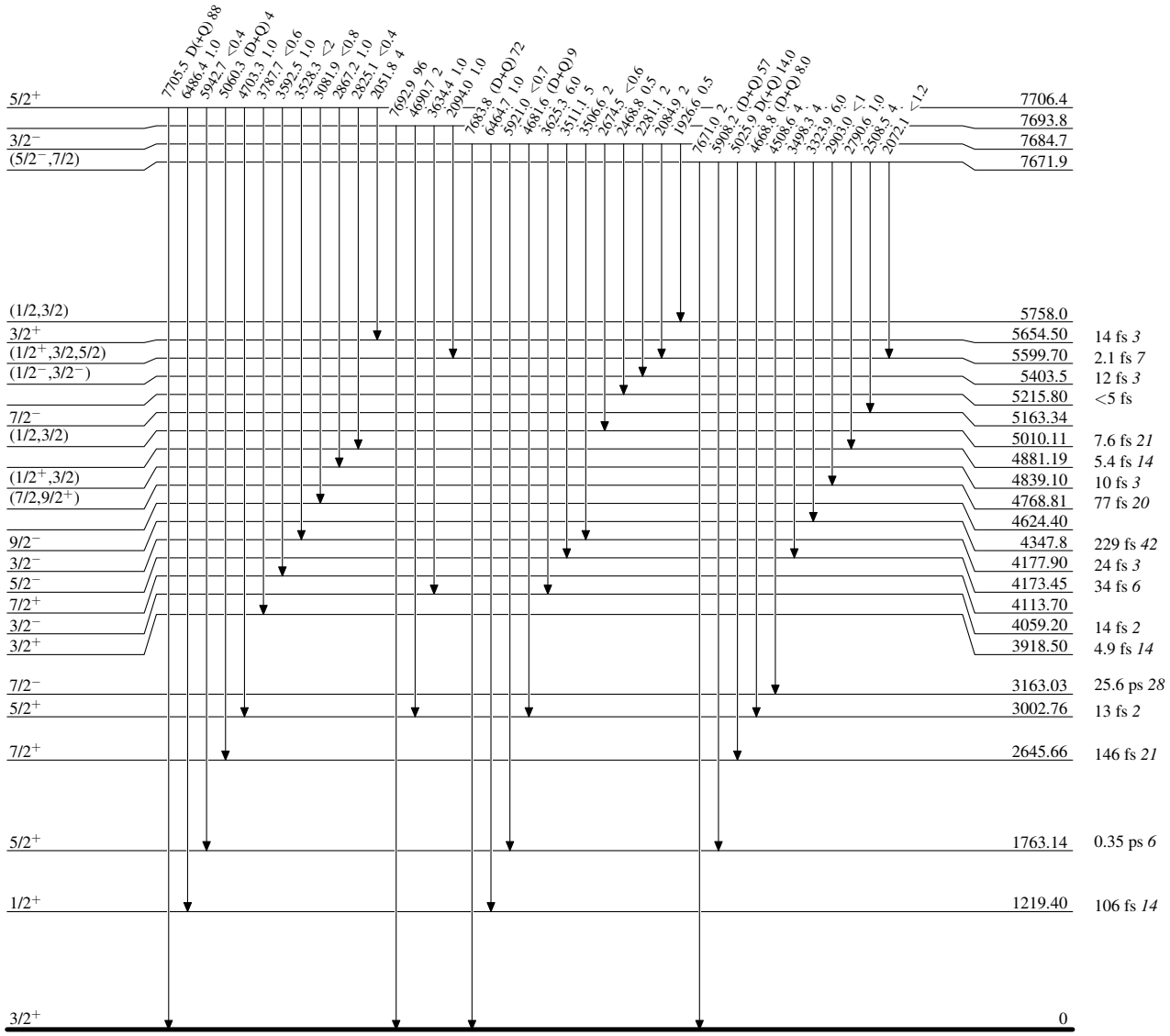
Intensities: % photon branching from each level



^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

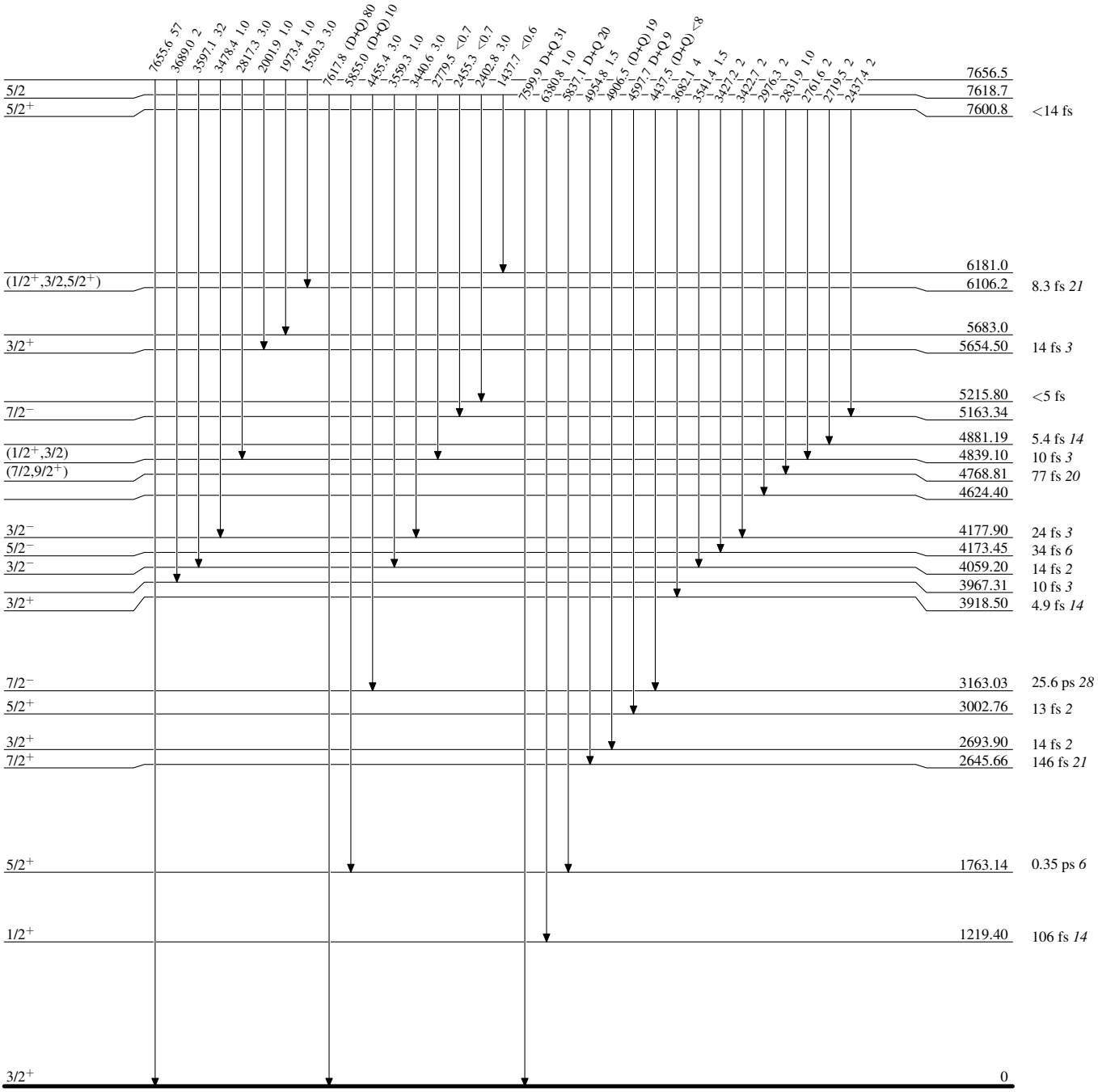


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

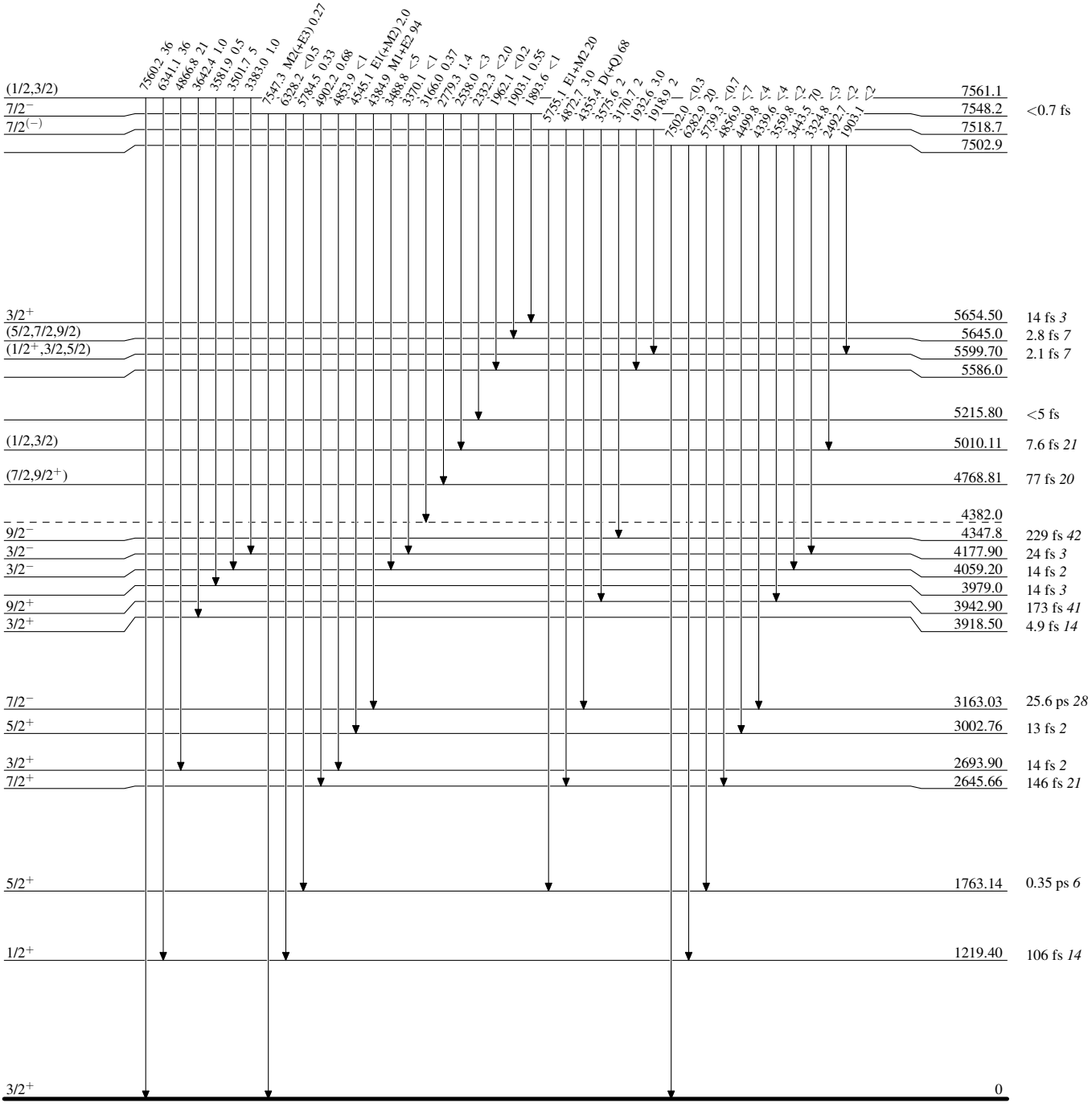


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

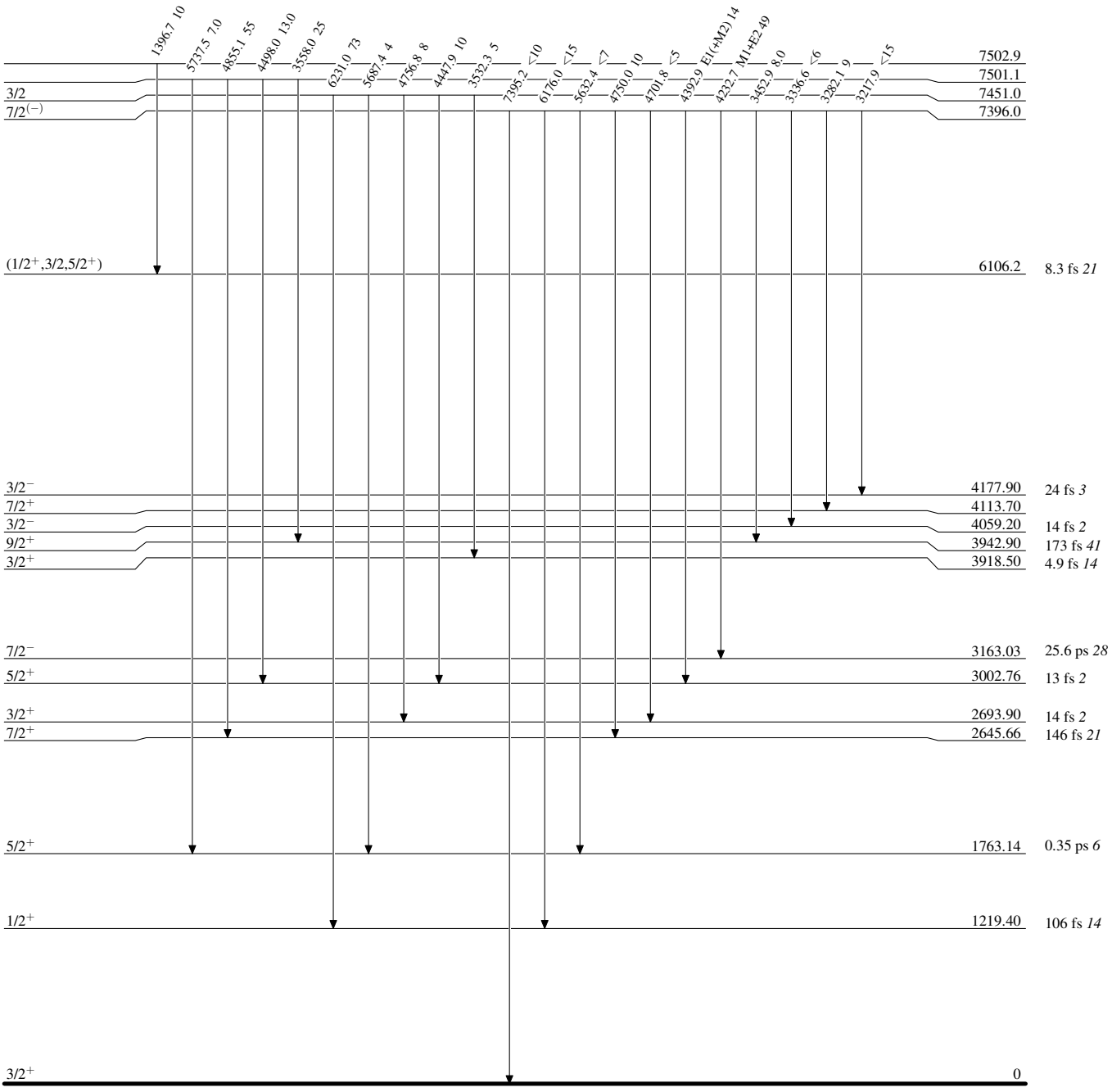


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

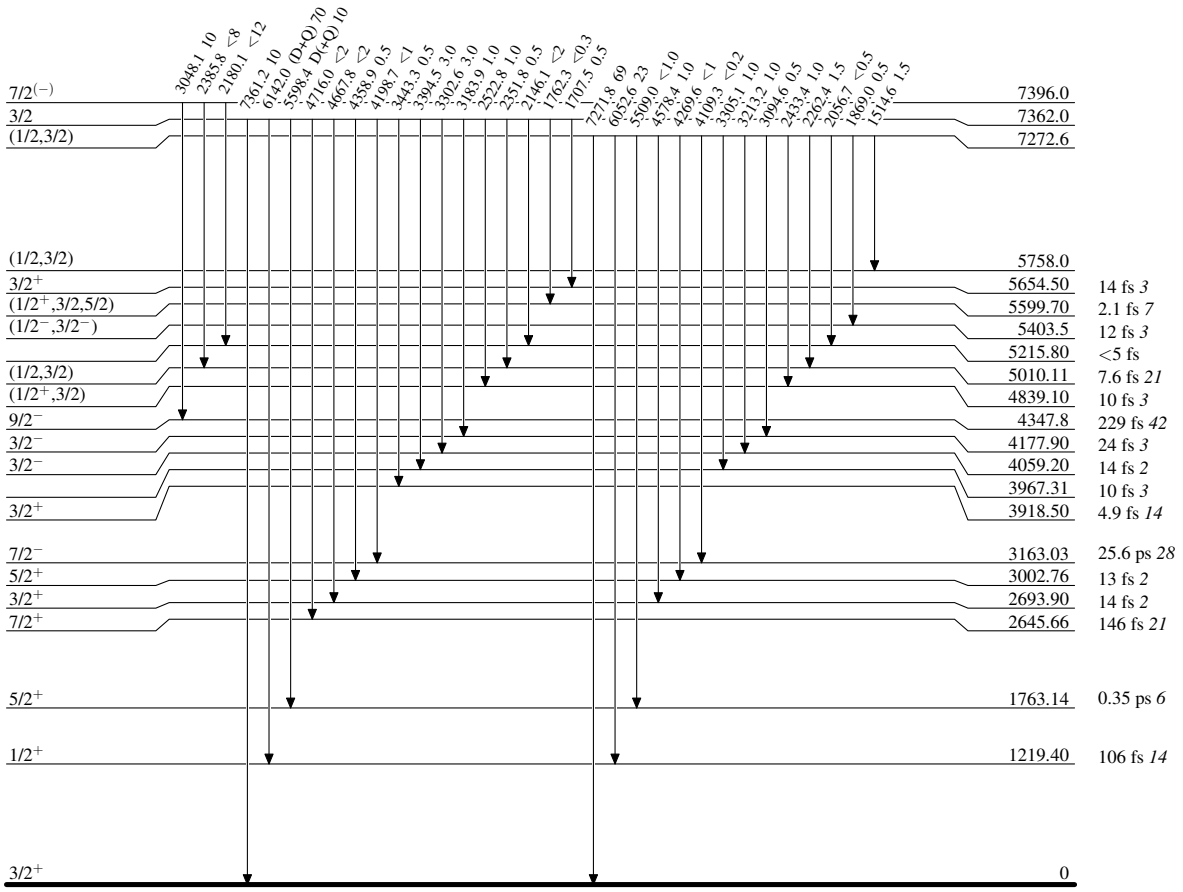
Intensities: % photon branching from each level



^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

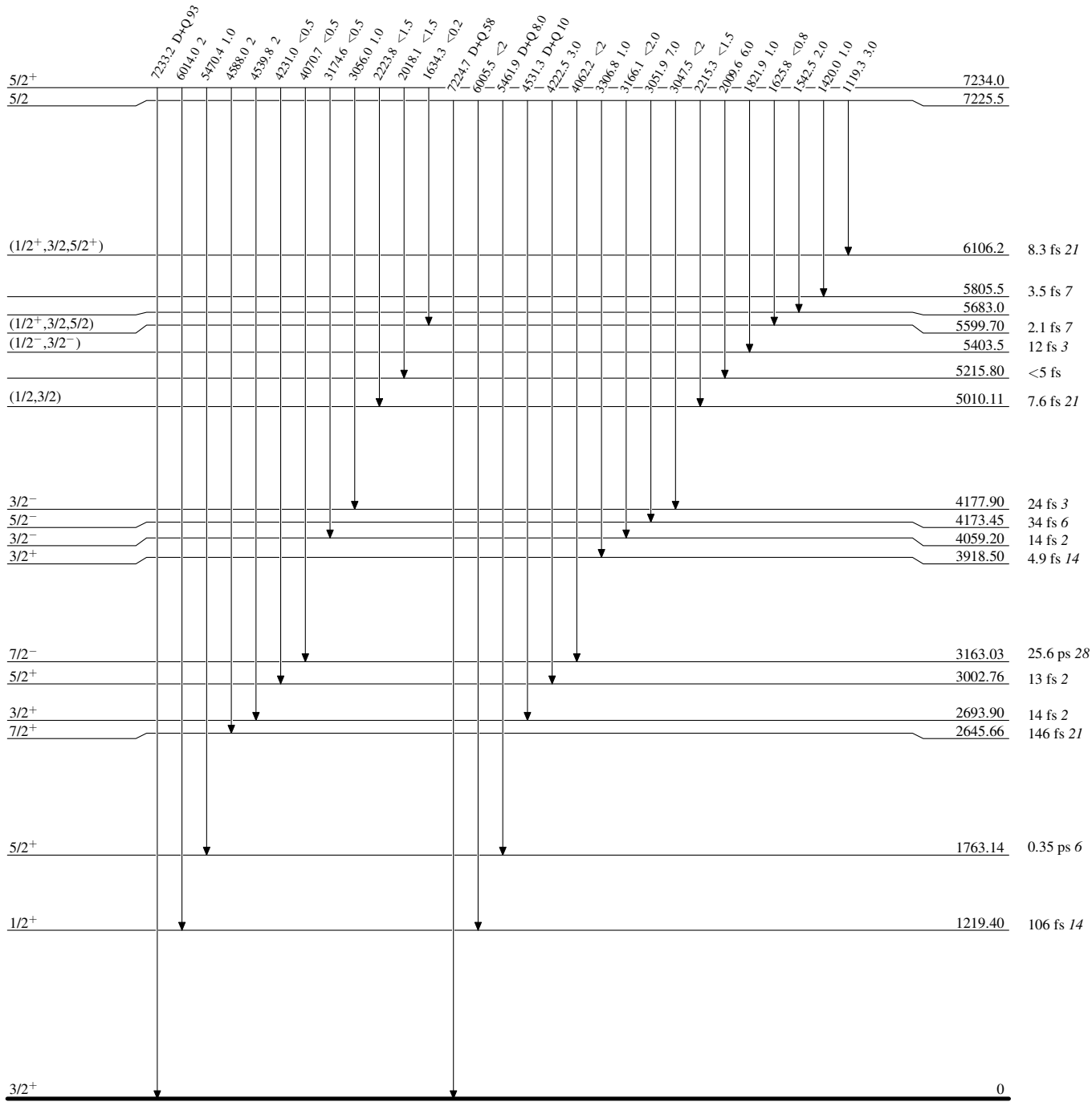


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

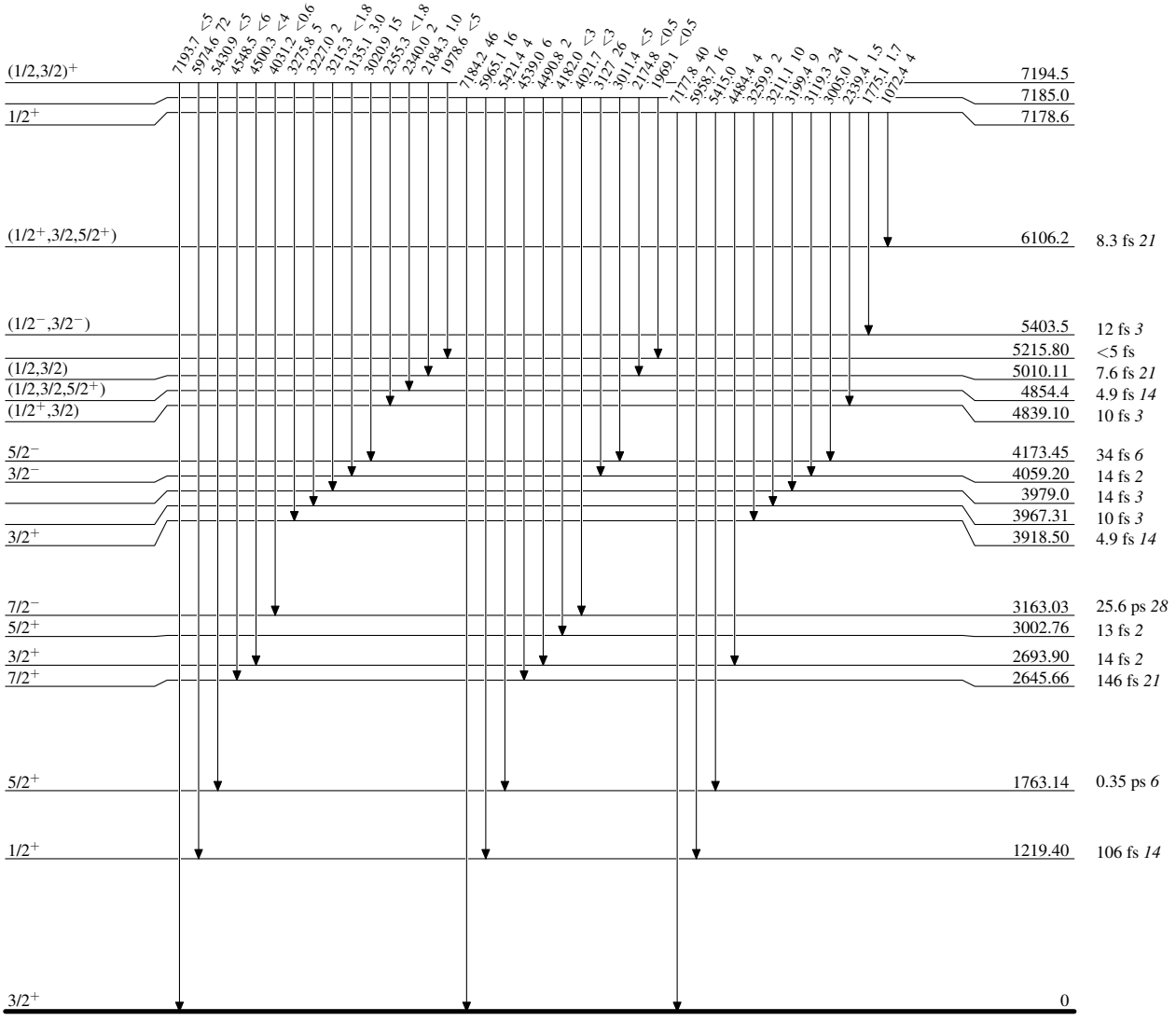


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level

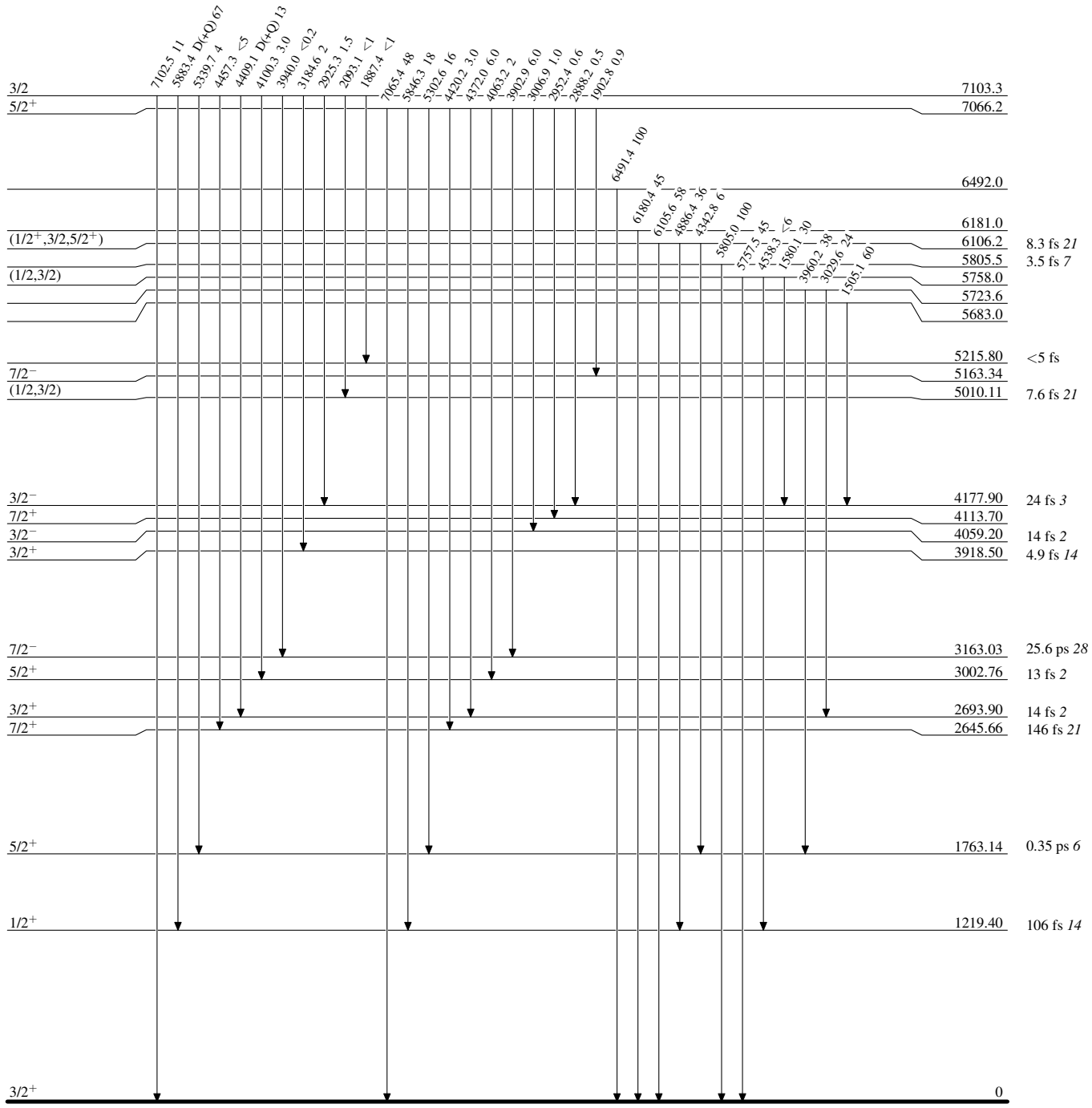


$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level



$^{35}_{17}Cl_{18}$

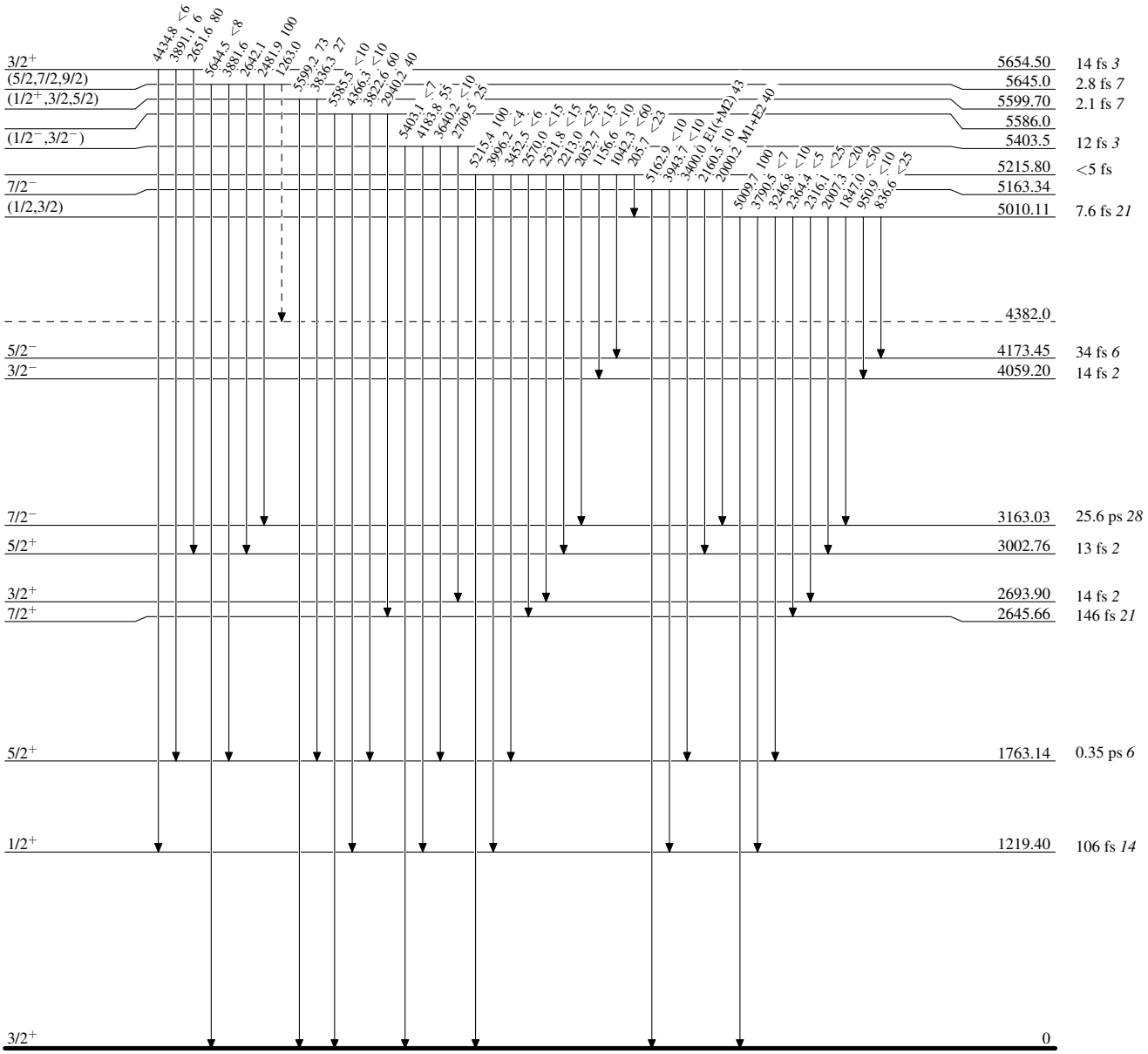
^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Legend

Level Scheme (continued)

Intensities: % photon branching from each level

γ Decay (Uncertain)



$^{35}_{17}Cl_{18}$

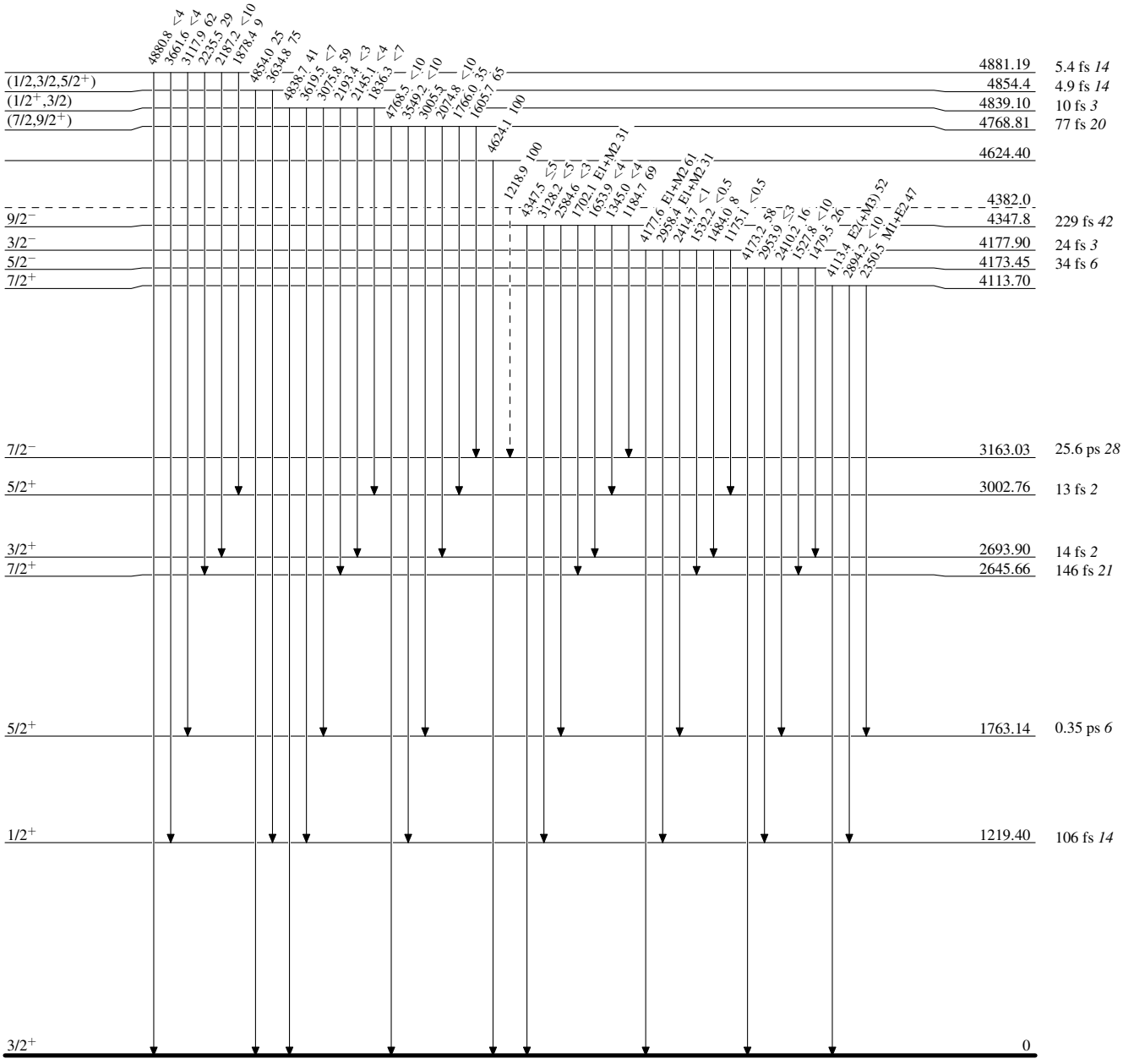
^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Legend

Level Scheme (continued)

Intensities: % photon branching from each level

γ Decay (Uncertain)



$^{35}_{17}Cl_{18}$

^{34}S(p,γ) 1972Hu10,1976Me12,1976Sp08

Level Scheme (continued)

Intensities: % photon branching from each level