^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Ninel Nica, John Cameron and Balraj Singh	NDS 113,1 (2012)	31-Dec-2011

J^π(^{35}Cl g.s.)=3/2$^+$.

Includes ^{35}Cl(pol n,γ) reaction (1976Sp06,1969Ko05,1970Ei03).

Eγ,Iγ: 1982Kr12 (crystal and pairs spectrometers), 1981Ke02, 1976Sp06; also 1974Sp04, 1972Is14, 1971Fu06, 1970Hu03, 1969Al11, 1960Gr17.

$J^{\pi\prime}$s, γ-ray multipolarities: 1976Sp06, 1971Ho30, 1970Ei03, 1969Ko05, 1966Va05, 1962Lo07, 1956Br99.

Level lifetimes: 1992Ku17, 1991Ul02.

Thermal neutron capture cross section: 2008FiZZ, 2007ChZX, 2002Gu17, 2001Ac04, 1969Si19.

Precise E$\gamma^\prime$s, ^{36}Cl neutron separation energy: 2006De21, 2000De25, 1985Ke04 1980Is02; also 1968Al24, 1967Be36, 1966Hu08, 1965Ru06, 1961Dr01, 1952Ki32.

Accurate absolute γ-ray intensities: 2004Mo01, 2002MoZP, 2000Ra36, 1996Co16; also 1970Ho35, 1963Dr02.

2007ChZX: Database of Prompt Gamma Rays from Slow Neutron Capture for Elemental Analysis (PGAA) completed by Nuclear Data Services of IAEA Vienna (for complete data files see http://www-nds.iaea.org/pgaa). Include data measured by the Institute of Isotope and Surface Chemistry, Budapest.

Parity non-conservation, time-reversal invariance: 2004Mi14, 1985Av01, 1973Bu29, 1972Bu39, 1968Ei01.

^{36}Cl Levels

E(level)[†]	J$^\pi$	T$_{1/2}$	Comments
0.0	2$^+$	3.013 y *15*	J$^\pi$,T$_{1/2}$: from Adopted Levels.
788.4329 *4*	3$^+$		J$^\pi$: 2,3 from 7790γ-778γ angular correlation (1966Va05); 3$^+$ from 778γ linear polarization (1971Ho30).
1164.8802 *9*	1$^+$		J$^\pi$: 1,2 from 7414γ-1165γ angular correlation (1966Va05); 1$^+$ from 778γ linear polarization (1971Ho30).
1601.1039 *15*	1,2	762 fs *208*	J$^\pi$: 1,2 from 6978γ-1601γ angular correlation (1966Va05). T$_{1/2}$: mean lifetime τ in fs: 1100 *300* (1991Ul02).
1951.1857 *8*	2	1247 fs *347*	J$^\pi$: from 6111γ-517γ angular correlation (1966Va05). T$_{1/2}$: mean lifetime τ in fs: 1800 *500* (1991Ul02).
1959.3945 *13*	2	43.7 fs *14*	J$^\pi$: from 6620γ-1959γ angular correlation (1966Va05). T$_{1/2}$: mean lifetime τ in fs: 63 *2* (1992Ku17, 1991Ul02).
2468.2594 *8*	3$^-$	832 fs *173*	J$^\pi$: 3 from 6111γ-517γ angular correlation (1966Va05); π=− from 6111γ circular polarization (1969Ko05). T$_{1/2}$: mean lifetime τ in fs: 1200 *250* (1991Ul02).
2492.3041 *22*	2$^+$	33 fs *18*	J$^\pi$: ΔJ=0 M1+E2 γ from 2$^+$, 8580 (1976Sp06). T$_{1/2}$: mean lifetime τ in fs: 48 *26* (1992Ku17, 1991Ul02).
2518.396 *4*			
2676.441 *7*		21 fs *3*	T$_{1/2}$: mean lifetime τ in fs: 31 *5* (1992Ku17, 1991Ul02).
2810.5735 *22*			
2863.9311 *24*	(2,3)$^+$	14.6 fs *7*	J$^\pi$: ΔJ=(0,1), M1+E2 γ from 2$^+$, 8580 (1976Sp06). T$_{1/2}$: mean lifetime τ in fs: 21 *1* (1992Ku17, 1991Ul02).
2896.3217 *15*			
2994.674 *3*			
3100.7003 *18*			
3332.2907 *21*	(1,2)$^-$		J$^\pi$: ΔJ=(0,1), E1 γ from 2$^+$, 8580 (1976Sp06).
3470.017 *12*	1$^+$,(2)$^+$		
3599.5245 *19*	3$^-$	40.9 fs *21*	J$^\pi$: ΔJ=1, E1 γ from 2$^+$, 8580 (1976Sp06). T$_{1/2}$: mean lifetime τ in fs: 59 *3* (1992Ku17, 1991Ul02).
3634.993 *6*	1$^-$		J$^\pi$: ΔJ=1, E1 γ from 2$^+$, 8580 (1976Sp06).
3660.335 *14*			
3660.6? *15*			E(level): from PGAA-adopted file.
3941.326 *16*			
3962.901 *7*	(1,2)$^-$		J$^\pi$: ΔJ=(0,1), E1 γ from 2$^+$, 8580 (1976Sp06).
4031.902 *16*			

Continued on next page (footnotes at end of table)

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06 (continued)

^{36}Cl Levels (continued)

E(level)†	Jπ	Comments
4061.480 *8*		
4138.979 *7*		
4205.649 *24*		
4299.668 *19*		
4315.61 *4*		
4410.066 *12*		
4496.754 *17*	(1,2)$^-$	Jπ: ΔJ=(0,1), E1 γ from 2$^+$, 8580 (1976Sp06).
4525.180 *8*		
4551.43 *4*		
4598.427 *18*	3$^-$	Jπ: ΔJ=1, E1 γ from 2$^+$, 8580 (1976Sp06).
4754.35 *4*		E(level): from PGAA-adopted file.
4757.984 *7*	3$^-$	Jπ: ΔJ=1, E1 γ from 2$^+$, 8580 (1976Sp06).
4829.54 *3*		
4997.198 *21*		Additional information 1.
4997.6 *7*		Additional information 2.
5018.079 *12*		
5079.163 *24*		
5150.630 *10*		
5204.607 *20*		
5246.588 *16*		
5263.09 *5*		
5329.162 *21*		
5463.531 *9*		
5473.713 *18*		
5517.651 *6*		
5563.551 *8*		
5578.46 *4*		
5578.502 *17*		
5604.296 *12*		
5604.32 *7*		
5703.060 *13*		
5734.042 *6*		
5778.456 *18*		
5778.59 *9*		
5956.679 *11*		
5959.5 *25*		
6042.318 *11*		
6089.874 *16*		
6184.96 *4*		
6253.552 *18*		
6268.186 *9*		
6339.90 *3*		
6344.419 *25*		
6354.883 *19*		
6379.481 *10*		
6423.383 *9*		
6487.748 *24*		
6487.82 *15*		
6538.203 *14*		
6544.968 *8*		
6604.326 *16*		
6642.651 *12*		
6773.22 *4*		
6836.492 *17*		
6952.627 *22*		
7082.651 *20*		
7559.169 *24*		

Continued on next page (footnotes at end of table)

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06 (continued)

^{36}Cl Levels (continued)

E(level)[†]	J$^{\pi}$	Comments
(8579.7945 *48*)	2$^+$	Additional information 3. E(level): from 2006De21. Observed deexcitation intensity is 95.6% of g.s. feeding. J$^{\pi}$: 1$^+$,2$^+$ based on selection rules; 1$^+$ ruled out by positive A_4 angular correlation coefficients for all possible M1+E2 mixings for primary−secondary γ cascades (see A_4 values at 7790γ for 7790γ-778γ, and at 6111γ for 6111γ-517γ). 2$^+$ also sustained by 1966Va05 and 1956Br99 who show that the capture state is dominated by a single negative-energy resonance close to the n-capture state, which thus has a definite spin. 1976Sp06 argue that a small 0.6% admixture of 1$^+$ is possible.

[†] From least-squares fit to Eγ data.

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06 (continued)

$\gamma(^{36}Cl)$

Iγ normalization: 100/σ_γ^Z, with σ_γ^Z=33.22 b 13 ($\sigma_\gamma^Z=\theta P\sigma_0$ with θ=75.78% *4* the isotopic abundance, P=100% the absolute γ-emission probability, and σ_0=43.84 b 17 the n capture probability at 2200 meters/s, all from 2007ChZX).

E_γ†‡#	I_γ@[a]	E_i(level)	J_i^π	E_f	J_f^π	Comments
85.748 *4*	0.0023 *5*	2896.3217		2810.5735		
x89.837 *16*	0.0010 *3*					
x90.027 *19*	0.0007 *3*					
x108.739 *32*	0.0013 *4*					
x111.545 *17*	0.0017 *4*					
x115.423 *28*	0.0030 *4*					
x133.557 *7*	0.0023 *8*					
x137.194 *30*	0.0010 *7*					
x151.158 *28*	0.0010 *7*					
204.379 *4*	0.0037 *8*	3100.7003		2896.3217		
x212.724 *10*	0.0030 *8*					
225.51 *3*	0.00158 *6*	4525.180		4299.668		
225.87 *3*	0.0011 *5*	6268.186		6042.318		
236.772 *6*	0.0018 *6*	3100.7003		2863.9311	$(2,3)^+$	
x241.332 *76*	0.0013 *7*					
x272.757 *42*	0.0023 *11*					
x279.432 *42*	0.0030 *11*					
292.176 *4*	0.0983 *10*	2810.5735		2518.396		
302.694 *17*	0.0021 *11*	3634.993	1^-	3332.2907	$(1,2)^-$	
x308.719 *24*	0.0123 *27*					
337.615 *5*	0.018 *6*	3332.2907	$(1,2)^-$	2994.674		
x340.27 *15*	0.0017 *11*					
342.311 *4*	0.0054 *9*	2810.5735		2468.2594	3^-	
x343.036 *78*	0.0027 *14*					
358.2891 *24*	0.0736 *20*	1959.3945	2	1601.1039	1,2	
369.30[b] *3*	0.019 *5*	3470.017	$1^+,(2)^+$	3100.7003		E_γ: the placement in (n,γ) considered as erroneous (1990En08).
371.562 *20*	0.0014 *3*	4031.902		3660.335		
376.446 *5*	0.0013 *4*	1164.8802	1^+	788.4329	3^+	
x422.058 *30*	0.0013 *4*					
x427.532 *13*	0.0043 *9*					
427.89 *10*	0.0099 *16*	5578.502		5150.630		
428.058 *3*	0.0039 *7*	2896.3217		2468.2594	3^-	
435.964 *6*	0.051 *8*	3332.2907	$(1,2)^-$	2896.3217		
436.2200 *19*	0.309 *2*	1601.1039	1,2	1164.8802	1^+	
x441.00 *12*	0.0090 *43*					
x444.487 *13*	0.0110 *33*					

$^{36}_{17}Cl_{19}$-4

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06 (continued)

γ(^{36}Cl) (continued)

E_γ [†‡#]	I_γ [@a]	E_i(level)	J_i^π	E_f	J_f^π	Comments
[x]447.845 *12*	0.0023 *8*					
455.64 *5*	0.0043 *21*	5473.713		5018.079		
[x]455.965 *16*	0.0023 *8*					
459.45 *5*	0.009 *3*	4598.427	3^-	4138.979		
[x]462.250 *72*	0.0033 *7*					
463.699 *16*	0.0020 *16*	4525.180		4061.480		
464.84 *5*	0.004 *3*	4496.754	$(1,2)^-$	4031.902		
466.35 *4*	0.0050 *15*	5463.531		4997.198		
466.65 *7*	0.010 *5*	5018.079		4551.43		
468.356 *3*	0.0274 *20*	3332.2907	$(1,2)^-$	2863.9311	$(2,3)^+$	
468.75 *3*		4410.066		3941.326		
478.64 *4*	0.027 *15*	4138.979		3660.335		
[x]485.865 *35*	0.0033 *14*					
495.882 *20*	0.0029 *9*	6538.203		6042.318		
502.365 *8*	0.0055 *14*	2994.674		2492.3041	2^+	
503.983 *22*	0.0049 *10*	4138.979		3634.993	1^-	
508.8635 *18*	0.108 *17*	2468.2594	3^-	1959.3945	2	
517.06962 *22*	7.58 *5*	2468.2594	3^-	1951.1857	2	E_γ: from 2006De21.
532.904 *4*	0.041 *3*	2492.3041	2^+	1959.3945	2	
537.67 *4*	0.0027 *9*	7082.651		6544.968		
539.442 *17*	0.0114 *18*	4138.979		3599.5245	3^-	
576.42 *5*	0.0013 *3*	6354.883		5778.456		
582.300 *6*	0.0032 *10*	3100.7003		2518.396		
[x]590.492 *68*	0.0013 *4*					
[x]595.84 *15*	0.0013 *4*					
[x]602.336 *43*	0.0013 *4*					
616.16 *3*	0.027 *6*	6089.874		5473.713		
619.001 *24*	0.0018 *6*	4757.984	3^-	4138.979		
[x]622.936 *48*	0.0020 *4*					
[x]628.937 *31*	0.0030 *14*					
630.602 *19*	0.0033 *7*	3962.901	$(1,2)^-$	3332.2907	$(1,2)^-$	
632.4340 *19*	0.1113 *16*	3100.7003		2468.2594	3^-	
640.306 *17*	0.0048 *9*	3634.993	1^-	2994.674		
655.852 *17*	0.0025 *14*	3332.2907	$(1,2)^-$	2676.441		
[x]659.649 *15*	0.0043 *9*					
[x]661.703 *11*	0.0070 *17*					
[x]663.425 *77*	0.0017 *4*					
665.65 *4*	0.023 *5*	3660.335		2994.674		
665.9 *25*	0.0069 *16*	3660.6?		2994.674		E_γ,I_γ: from PGAA-adopted file.
696.501 *19*	0.0044 *10*	4757.984	3^-	4061.480		
703.195 *4*	0.0351 *20*	3599.5245	3^-	2896.3217		
[x]712.103 *94*	0.0017 *5*					

$^{36}_{17}Cl_{19}$-5

$\gamma(^{36}Cl)$ (continued)

E_γ †‡#	I_γ @a	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	Comments
717.028 *16*	0.053 *11*	2676.441		1959.3945	2			
x723.101 *33*	0.0053 *13*							
x727.995 *27*	0.0073 *17*							
729.173 *21*	0.0020 *5*	4061.480		3332.2907	$(1,2)^-$			
735.588 *7*	0.0142 *24*	3599.5245	3^-	2863.9311	$(2,3)^+$			
760.38 *4*	0.0074 *18*	5778.456		5018.079				
779.83 *6*	0.004 *5*	6253.552		5473.713				
786.29643 *53*	3.419 *3*	1951.1857	2	1164.8802	1^+			E_γ: from 2006De21.
788.4236 *4*	5.42 *5*	788.4329	3^+	0.0	2^+	M1+E2	+1.1 *4*	Mult.,δ: from 7790γ-778γ angular correlation (1966Va05) and 778γ linear polarization (1971Ho30). P=−0.07 *2* (1971Ho30).
812.660 *5*	0.022 *4*	1601.1039	1,2	788.4329	3^+			
x832.075 *22*	0.0332 *80*							
841.896 *22*	0.012 *3*	6544.968		5703.060				
x848.444 *55*	0.0100 *25*							
850.0 *25*	0.029 *7*	3660.6?		2810.5735				E_γ,I_γ,Mult.: from PGAA-adopted file.
859.376 *4*	0.033 *3*	2810.5735		1951.1857	2			
864.016 *5*	0.041 *3*	3332.2907	$(1,2)^-$	2468.2594	3^-			
x865.390 *73*	0.0066 *17*							
870.28 *4*	0.0048 *9*	6604.326		5734.042				
x884.36 *12*	0.0063 *25*							
x886.790 *60*	0.0056 *22*							
891.188 *4*	0.023 *7*	2492.3041	2^+	1601.1039	1,2			
x898.170 *63*	0.0063 *16*							
904.523 *6*	0.014 *4*	2863.9311	$(2,3)^+$	1959.3945	2			
x912.376 *16*	0.0319 *73*							
936.915 *3*	0.1723 *13*	2896.3217		1959.3945	2			
945.122 *3*	0.052 *7*	2896.3217		1951.1857	2			
x946.292 *85*	0.0080 *26*							
958.541 *19*	0.018 *3*	3634.993	1^-	2676.441				
968.211 *20*	0.0098 *21*	3962.901	$(1,2)^-$	2994.674				
976.037 *24*	0.0053 *12*	5734.042		4757.984	3^-			
979.68 *5*	0.010 *3*	5734.042		4754.35				
x989.634 *56*	0.0136 *43*							
998.88 *5*	0.011 *3*	4598.427	3^-	3599.5245	3^-			
1020.57& *4*	0.034 *3*	(8579.7945)	2^+	7559.169				
1034.27 *22*	0.100 *16*	4997.198		3962.901	$(1,2)^-$			
x1035.119 *25*	0.0409 *90*							
1035.261 *7*	0.029 *7*	2994.674		1959.3945	2			
x1035.886 *92*	0.0196 *47*							
1043.468 *7*	0.035 *15*	2994.674		1951.1857	2			

$^{36}_{17}Cl_{19}$-6

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06 (continued)

$\gamma(^{36}Cl)$ (continued)

E_γ †‡#	I_γ @a	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	Comments
1066.558 *19*	0.024 *8*	3962.901	$(1,2)^-$	2896.3217				
x1068.71 *13*	0.0130 *40*							
1076.75 *4*	0.0102 *25*	5018.079		3941.326				
1086.64 *3*	0.021 *4*	6604.326		5517.651				
1089.14 *3*	0.010 *3*	5150.630		4061.480				
x1095.71 *29*	0.0056 *22*							
x1127.80 *20*	0.0126 *37*							
1131.244 *4*	0.626 *3*	3599.5245	3^-	2468.2594	3^-			
1162.734 *5*	0.76 *3*	1951.1857	2	788.4329	3^+			
1164.860 *5*	8.91 *4*	1164.8802	1^+	0.0	2^+	M1+E2	−0.32 *6*	Mult.,δ: from 7414γ-1165γ angular correlation (1966Va05) and 1165γ linear polarization (1971Ho30). P=−0.11 *6* (1971Ho30).
1170.941 *5*	1.82 *11*	1959.3945	2	788.4329	3^+			
1202.02 *10*	0.0337 *22*	5517.651		4315.61				
1231.16 *10*	0.036 *3*	5263.09		4031.902				
1247.9 *5*	0.020 *7*	5563.551		4315.61				
1257.99 *4*	0.019 *4*	6836.492		5578.502				
1264.84 *4*	0.021 *5*	3941.326		2676.441				
1265.24 *6*	0.026 *5*	6344.419		5079.163				
1327.396 *4*	0.4019 *23*	2492.3041	2^+	1164.8802	1^+			
1357.71 *5*	0.020 *7*	5018.079		3660.335				
1372.866 *5*	0.105 *4*	3332.2907	$(1,2)^-$	1959.3945	2			
1382.26 *4*	0.013 *3*	6379.481		4997.198				
1425.658 *21*	0.022 *3*	4757.984	3^-	3332.2907	$(1,2)^-$			
1463 *6*	0.046 *20*	5959.5		4496.754	$(1,2)^-$			
1497.07& *4*	0.067 *5*	(8579.7945)	2^+	7082.651				
1510.57 *3*	0.048 *5*	3470.017	$1^+,(2)^+$	1959.3945	2			
1515.60 *3*	0.049 *5*	5150.630		3634.993	1^-			
1517.09 *3*	0.024 *5*	6042.318		4525.180				
1525.14 *5*	0.025 *5*	6604.326		5079.163				
1526.85 *4*	0.041 *8*	6544.968		5018.079				
1528.35 *5*	0.035 *13*	5734.042		4205.649				
1601.065 *5*	1.211 *7*	1601.1039	1,2	0.0	2^+			
x1605.91 *12*	0.0203 *40*							
1623.19 *4*	0.032 *4*	4299.668		2676.441				
1627.09& *4*	0.094 *5*	(8579.7945)	2^+	6952.627				
1640.090 *4*	0.158 *17*	3599.5245	3^-	1959.3945	2			
1648.297 *4*	0.174 *5*	3599.5245	3^-	1951.1857	2			
1657.235 *20*	0.074 *5*	4757.984	3^-	3100.7003				
1679.786 *5*	0.068 *4*	2468.2594	3^-	788.4329	3^+			
1683.754 *17*	0.085 *9*	3634.993	1^-	1951.1857	2			

$^{36}_{17}Cl_{19}$-7

γ(^{36}Cl) (continued)

E_γ †‡#	I_γ @a	E_i(level)	J_i^π	E_f	J_f^π	Comments
1709.10 *4*	0.074 *5*	3660.335		1951.1857	2	
1729.919 *7*	0.107 *12*	2518.396		788.4329	3^+	
1731.141 *6*	0.068 *9*	3332.2907	$(1,2)^-$	1601.1039	1,2	
1743.22& *3*	0.088 *4*	(8579.7945)	2^+	6836.492		
x1786.17 *10*	0.072 *12*					
1787.80 *5*	0.177 *6*	4598.427	3^-	2810.5735		
1806.48& *5*	0.056 *4*	(8579.7945)	2^+	6773.22		
1828.488 *17*	0.111 *5*	5463.531		3634.993	1^-	
1847.29 *10*	0.062 *10*	4315.61		2468.2594	3^-	
1858.07 *3*	0.088 *6*	6268.186		4410.066		
1937.049& *20*	0.153 *9*	(8579.7945)	2^+	6642.651		
1951.12647 *89*	6.33 *4*	1951.1857	2	0.0	2^+	E_γ: from 2006De21. Mult.,δ: if E1(+M2), δ=−0.10 *10* (1976Sp06).
1959.337 *5*	4.10 *3*	1959.3945	2	0.0	2^+	Mult.,δ: if M1+E2, δ=+0.20 *10* or +5 *3* (1976Sp06).
1975.37& *4*	0.214 *22*	(8579.7945)	2^+	6604.326		
x1996.319 *53*	0.080 *12*					
2003.443 *19*	0.066 *4*	3962.901	$(1,2)^-$	1959.3945	2	
2011.650 *19*	0.034 *4*	3962.901	$(1,2)^-$	1951.1857	2	
2022.081 *6*	0.161 *6*	2810.5735		788.4329	3^+	
2034.728& *16*	0.239 *5*	(8579.7945)	2^+	6544.968		
2041.49& *3*	0.121 *5*	(8579.7945)	2^+	6538.203		
2075.432 *7*	0.252 *7*	2863.9311	$(2,3)^+$	788.4329	3^+	
2091.95& *4*	0.072 *5*	(8579.7945)	2^+	6487.748		
2104 *5*	0.105 *7*	5204.607		3100.7003		
2110.215 *20*	0.057 *5*	4061.480		1951.1857	2	
2131.165 *23*	0.046 *7*	5463.531		3332.2907	$(1,2)^-$	
2133.18 *22*	0.027 *5*	4997.198		2863.9311	$(2,3)^+$	
2148.45 *12*	0.056 *16*	6089.874		3941.326		
2156.308& *17*	0.205 *7*	(8579.7945)	2^+	6423.383		
2179.506 *16*	0.12 *5*	4138.979		1959.3945	2	
2200.205& *18*	0.123 *5*	(8579.7945)	2^+	6379.481		
2224.80& *4*	0.050 *17*	(8579.7945)	2^+	6354.883		
2229.92 *4*	0.0190 *25*	7559.169		5329.162		
2231.180 *21*	0.088 *5*	5563.551		3332.2907	$(1,2)^-$	
2235.26& *5*	0.058 *4*	(8579.7945)	2^+	6344.419		
2239.78& *4*	0.065 *4*	(8579.7945)	2^+	6339.90		
2246.17 *5*		4205.649		1959.3945	2	
2246.18 *11*	0.056 *16*	5578.502		3332.2907	$(1,2)^-$	

$^{36}_{17}Cl_{19}$-8

γ(^{36}Cl) (continued)

E_γ †‡#	I_γ @a	E_i(level)	J_i^π	E_f	J_f^π
2254.220 *22*	0.076 *5*	5150.630		2896.3217	
2265.598 *20*	0.075 *10*	4757.984	3^-	2492.3041	2^+
2282.85 *4*	0.043 *5*	6344.419		4061.480	
2289.637 *20*	0.102 *14*	4757.984	3^-	2468.2594	3^-
2311.493& *17*	0.35 *10*	(8579.7945)	2^+	6268.186	
2326.13& *4*	0.069 *5*	(8579.7945)	2^+	6253.552	
2342.89 *4*	0.017 *3*	6642.651		4299.668	
2356.13 *10*	0.036 *23*	4315.61		1959.3945	2
2364.34 *10*	0.0181 *25*	4315.61		1951.1857	2
2382.57 *4*	0.047 *5*	5246.588		2863.9311	$(2,3)^+$
2394.70& *5*	0.052 *4*	(8579.7945)	2^+	6184.96	
2407.23 *3*	0.060 *6*	6042.318		3634.993	1^-
x2418.539 *30*	0.183 *26*				
2429.45 *5*	0.051 *4*	6089.874		3660.335	
2430.70 *4*	0.072 *10*	4031.902		1601.1039	1,2
2446.07 *5*	0.046 *7*	5778.456		3332.2907	$(1,2)^-$
2450.57 *3*	0.049 *10*	4410.066		1959.3945	2
2454.79 *5*	0.046 *10*	6089.874		3634.993	1^-
2468.171 *5*	0.097 *8*	2468.2594	3^-	0.0	2^+
2470.013 *17*	0.24 *3*	3634.993	1^-	1164.8802	1^+
2474.10 *3*	0.08 *3*	5150.630		2676.441	
2478 *5*	0.101 *20*	5578.502		3100.7003	
2479.1 *11*	0.049 *16*	4997.6		2518.396	
2489 *6*	0.039 *10*	5959.5		3470.017	$1^+,(2)^+$
2489.80& *4*	0.141 *6*	(8579.7945)	2^+	6089.874	
2492.210 *6*	0.11 *4*	2492.3041	2^+	0.0	2^+
x2494.817 *80*	0.069 *10*				
2495.36 *4*	0.07 *3*	3660.335		1164.8802	1^+
2512.97 *5*	0.065 *10*	6544.968		4031.902	
2518.48 *5*	0.062 *13*	5329.162		2810.5735	
2524.74 *4*	0.034 *4*	6487.748		3962.901	$(1,2)^-$
2525.67 *3*	0.062 *13*	5018.079		2492.3041	2^+
2528.07 *4*	0.075 *6*	5204.607		2676.441	
2529.2 *11*	0.121 *13*	4997.6		2468.2594	3^-
2537.25 *3*	0.135 *14*	4496.754	$(1,2)^-$	1959.3945	2
2537.341& *25*		(8579.7945)	2^+	6042.318	
2537.772 *16*		4138.979		1601.1039	1,2
2549.71 *3*	0.090 *15*	5018.079		2468.2594	3^-
2565.679 *20*	0.06 *3*	4525.180		1959.3945	2
2567.45 *6*		6773.22		4205.649	
2568.96 *17*	0.056 *13*	5563.551		2994.674	

$^{36}_{17}Cl_{19}$-9

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06 (continued)

γ(^{36}Cl) (continued)

E_γ †‡#	I_γ @ a	E_i(level)	J_i^π	E_f	J_f^π	Comments
2570.06 *5*	0.023 *9*	5246.588		2676.441		
2591.93 *7*	0.075 *20*	4551.43		1959.3945	2	
2622.991 & *23*	0.178 *6*	(8579.7945)	2^+	5956.679		
2627 *6*	0.059 *10*	5959.5		3332.2907	$(1,2)^-$	
2638.92 *5*	0.048 *6*	4598.427	3^-	1959.3945	2	
2647.13 *5*	0.089 *5*	4598.427	3^-	1951.1857	2	
2653.612 *18*	0.025 *3*	5517.651		2863.9311	$(2,3)^+$	
2662.90 *5*	0.034 *25*	6604.326		3941.326		
2676.323 *17*	0.533 *17*	2676.441		0.0	2^+	
2682.250 *22*	0.048 *5*	5150.630		2468.2594	3^-	
2698.44 *4*	0.0175 *23*	4299.668		1601.1039	1,2	
2711.60 *5*	0.027 *4*	6773.22		4061.480		
2714.39 *10*	0.039 *13*	4315.61		1601.1039	1,2	
x2727.871 *66*	0.0448 *50*					
2740.24 *3*	0.040 *4*	5604.296		2863.9311	$(2,3)^+$	
2752.855 *20*	0.075 *10*	5563.551		2810.5735		
2757.46 *4*	0.049 *10*	6089.874		3332.2907	$(1,2)^-$	
2794.71 *13*	0.036 *20*	4754.35		1959.3945	2	E_γ,I_γ: from PGAA-adopted file.
2797.900 *19*	0.095 *10*	3962.901	$(1,2)^-$	1164.8802	1^+	
2798.05 *3*	0.082 *6*	6268.186		3470.017	1^+,$(2)^+$	
2801.19 & *5*	0.183 *7*	(8579.7945)	2^+	5778.456		
2808.83 *3*	0.10 *5*	4410.066		1601.1039	1,2	
2810.974 *6*	0.144 *7*	3599.5245	3^-	788.4329	3^+	
2836.72 *5*	0.049 *10*	5329.162		2492.3041	2^+	
2845.594 & *12*	0.349 *3*	(8579.7945)	2^+	5734.042		
2863.807 *7*	1.818 *10*	2863.9311	$(2,3)^+$	0.0	2^+	
2866.88 *4*	0.192 *12*	4031.902		1164.8802	1^+	
x2871.391 *96*	0.103 *16*					
2876.57 & *3*	0.164 *7*	(8579.7945)	2^+	5703.060		
2896.197 *6*	0.146 *6*	2896.3217		0.0	2^+	
2914.53 *12*	0.033 *10*	5778.59		2863.9311	$(2,3)^+$	
2927.73 *3*	0.049 *10*	5604.296		2676.441		
2941.47 *3*	0.040 *4*	6042.318		3100.7003		
2953.23 *3*	0.022 *3*	6423.383		3470.017	1^+,$(2)^+$	
2955.17 *5*	0.022 *3*	5473.713		2518.396		
2967.74 *5*	0.046 *10*	5778.456		2810.5735		
2975.33 & *3*	0.377 *4*	(8579.7945)	2^+	5604.296		
2994.538 *8*	0.279 *8*	2994.674		0.0	2^+	
3001.161 & *19*	0.216 *7*	(8579.7945)	2^+	5578.502		
3016.075 & *18*	0.328 *3*	(8579.7945)	2^+	5563.551		

$^{36}_{17}Cl_{19}$-10

γ(^{36}Cl) (continued)

E_γ †‡#	I_γ @a	E_i(level)	J_i^π	E_f	J_f^π
3025.207 *18*	0.018 *4*	5517.651		2492.3041	2^+
3040.62 *5*	0.014 *3*	4205.649		1164.8802	1^+
3059.92 *5*	0.085 *13*	5578.46		2518.396	
3061.979& *17*	1.127 *7*	(8579.7945)	2^+	5517.651	
3068.04 *4*	0.05 *9*	6538.203		3470.017	1^+,$(2)^+$
3086.10 *11*	0.05 *3*	5578.502		2492.3041	2^+
3095.138 *20*	0.036 *10*	5563.551		2468.2594	3^-
3096 *6*	0.059 *20*	5959.5		2863.9311	$(2,3)^+$
3105.90& *5*	0.051 *4*	(8579.7945)	2^+	5473.713	
3116.087& *23*	0.297 *3*	(8579.7945)	2^+	5463.531	
3135.88 *3*	0.036 *4*	5604.296		2468.2594	3^-
3135.91 *7*	0.059 *10*	5604.32		2468.2594	3^-
3152.72 *4*	0.018 *3*	3941.326		788.4329	3^+
x3203.77 *27*	0.0249 *32*				
3210.59 *3*	0.045 *10*	5703.060		2492.3041	2^+
3245.02 *3*	0.031 *3*	4410.066		1164.8802	1^+
3250.44& *5*	0.078 *6*	(8579.7945)	2^+	5329.162	
x3255.68 *44*	0.0123 *24*				
3271.86 *4*	0.031 *17*	6604.326		3332.2907	$(1,2)^-$
3292.12 *6*	0.028 *6*	6952.627		3660.335	
3295.23 *4*	0.027 *6*	5246.588		1951.1857	2
3310.16 *12*	0.033 *10*	5778.59		2468.2594	3^-
3311.73 *9*	0.019 *4*	5263.09		1951.1857	2
3316.51& *9*	0.082 *5*	(8579.7945)	2^+	5263.09	
3333.01& *4*	0.241 *7*	(8579.7945)	2^+	5246.588	
3350.371 *17*	0.073 *24*	4138.979		788.4329	3^+
3360.123 *20*	0.033 *10*	4525.180		1164.8802	1^+
3371.680 *19*	0.033 *23*	6268.186		2896.3217	
3374.98& *4*	0.179 *7*	(8579.7945)	2^+	5204.607	
3386.37 *7*	0.0130 *25*	4551.43		1164.8802	1^+
3428.956& *21*	0.271 *3*	(8579.7945)	2^+	5150.630	
x3435.87 *12*	0.0445 *40*				
3457.418 *19*	0.016 *3*	6268.186		2810.5735	
3458.37 *4*	0.010 *3*	6354.883		2896.3217	
3469.82 *3*	0.033 *3*	3470.017	1^+,$(2)^+$	0.0	2^+
3490.76 *4*	0.0036 *18*	6354.883		2863.9311	$(2,3)^+$
3500.41& *4*	0.100 *6*	(8579.7945)	2^+	5079.163	
3503.944 *23*		5463.531		1959.3945	2
3504.00 *3*	0.062 *5*	6836.492		3332.2907	$(1,2)^-$

$^{36}_{17}Cl_{19}$-11

$\gamma(^{36}Cl)$ (continued)

E_γ †‡#	I_γ @ a	E_i(level)	J_i^π	E_f	J_f^π	Mult.	Comments
3512.150 *23*	0.024 *4*	5463.531		1951.1857	2		
3526.862 *19*	0.0231 *19*	6423.383		2896.3217			
3558.063 *17*	0.067 *8*	5517.651		1959.3945	2		
3561.49 & *3*	0.21 *4*	(8579.7945)	2^+	5018.079			
3566.269 *17*	0.093 *24*	5517.651		1951.1857	2		
3582.39 & *3*	0.044 *5*	(8579.7945)	2^+	4997.198			
3589.16 *13*	0.18 *5*	4754.35		1164.8802	1^+		
3599.332 *6*	0.164 *6*	3599.5245	3^-	0.0	2^+		
3603.955 *20*	0.119 *6*	5563.551		1959.3945	2		
3612.161 *20*	0.033 *5*	5563.551		1951.1857	2		
3621.43 *3*	0.035 *5*	4410.066		788.4329	3^+		
3623.69 *21*	0.039 *10*	6487.82		2863.9311	$(2,3)^+$		
3627.08 *5*	0.056 *7*	5578.46		1951.1857	2		
3627.17 *11*	0.039 *5*	5578.502		1951.1857	2		
3634.787 *17*	0.098 *6*	3634.993	1^-	0.0	2^+		
3645.28 *4*	0.0125 *21*	5246.588		1601.1039	1,2		
3660.13 *4*	0.071 *5*	3660.335		0.0	2^+		
3708.10 *3*	0.054 *7*	4496.754	$(1,2)^-$	788.4329	3^+		
3727.84 *5*		5329.162		1601.1039	1,2		Additional information 4.
3736.531 *20*	0.06 *3*	4525.180		788.4329	3^+		
3743.44 *3*	0.03 *3*	5703.060		1959.3945	2		
3750.01 & *5*	0.096 *5*	(8579.7945)	2^+	4829.54			
3774.422 *15*	0.075 *10*	5734.042		1959.3945	2		
3809.78 *5*	0.030 *11*	4598.427	3^-	788.4329	3^+		
3821.563 & *21*	0.320 *10*	(8579.7945)	2^+	4757.984	3^-	E1	Mult.: ΔJ=1, E1 γ from circular polarization (1976Sp06).
3825.17 & *5*	0.250 *9*	(8579.7945)	2^+	4754.35			
3827.04 *5*	0.238 *17*	5778.456		1951.1857	2		
3832.08 *22*	0.033 *7*	4997.198		1164.8802	1^+		
x3860.16 *11*	0.0355 *29*						
3860.846 *21*	0.033 *10*	6379.481		2518.396			
3916.314 *18*	0.022 *3*	5517.651		1601.1039	1,2		
3962.663 *19*	0.118 *8*	3962.901	$(1,2)^-$	0.0	2^+		
3977.21 *11*	0.040 *4*	5578.502		1601.1039	1,2		
3981.11 & *5*	0.331 *7*	(8579.7945)	2^+	4598.427	3^-	E1	Mult.: ΔJ=1, E1 γ from circular polarization (1976Sp06).
3997.039 *25*	0.022 *5*	5956.679		1959.3945	2		
4002.95 *3*	0.036 *10*	5604.296		1601.1039	1,2		
4028.09 & *7*	0.061 *6*	(8579.7945)	2^+	4551.43			
4040.85 *5*	0.027 *4*	4829.54		788.4329	3^+		
4054.339 & *21*	0.194 *8*	(8579.7945)	2^+	4525.180			
4061.223 *21*	0.07 *5*	4061.480		0.0	2^+		

$^{36}_{17}Cl_{19}$-12

$\gamma(^{36}Cl)$ (continued)

E_γ †‡#	I_γ @ a	E_i(level)	J_i^π	E_f	J_f^π	Mult.	Comments
4082.76& 3	0.263 5	(8579.7945)	2+	4496.754	(1,2)−	E1	Mult.: ΔJ=(0,1), E1 γ from circular polarization (1976Sp06).
4087.71 4	0.019 3	7082.651		2994.674			
4090.87 3	0.0093 19	6042.318		1951.1857	2		
4097.95 9	0.036 10	5263.09		1164.8802	1+		
4111.76 4	0.031 21	6604.326		2492.3041	2+		
4132.670 15	0.036 10	5734.042		1601.1039	1,2		
4138.42 4	0.113 17	6089.874		1951.1857	2		
4138.715 17	0.095 10	4138.979		0.0	2+		
x4148.6 11	0.0037 17						
4164.01 5	0.036 7	5329.162		1164.8802	1+		
4169.44& 3	0.0177 22	(8579.7945)	2+	4410.066			
4174.109 22	0.0063 20	6642.651		2468.2594	3−		
x4192.28 28	0.0090 14						
4205.38 5	0.038 4	4205.649		0.0	2+		
4263.88& 10	0.0095 14	(8579.7945)	2+	4315.61			
4293.88 4	0.013 3	6253.552		1959.3945	2		
4298.366 23	0.122 10	5463.531		1164.8802	1+		
4308.55 5	0.013 6	5473.713		1164.8802	1+		
4355.286 25	0.047 4	5956.679		1601.1039	1,2		
4358 6	0.052 10	5959.5		1601.1039	1,2		
4413.38 11	0.054 10	5578.502		1164.8802	1+		
4415.86 4	0.038 9	5204.607		788.4329	3+		
4419.780 20	0.0112 22	6379.481		1959.3945	2		
4440.487& 16	0.377 4	(8579.7945)	2+	4138.979			
4457.85 4	0.033 8	5246.588		788.4329	3+		
x4473.30 30	0.0090 14						
4517.976& 21	0.048 5	(8579.7945)	2+	4061.480			
4524.866 20	0.148 7	4525.180		0.0	2+		
4536.33 21	0.033 7	6487.82		1951.1857	2		
4547.55& 4	0.146 8	(8579.7945)	2+	4031.902			
4551.11 7	0.039 5	4551.43		0.0	2+		
x4558.05 88	0.0050 17						
4585.245 18	0.088 13	6544.968		1959.3945	2		
4586.68 3	0.087 9	6538.203		1951.1857	2		
x4591.82 35	0.0159 22						
4593.451 18	0.036 10	6544.968		1951.1857	2		
4598.11 5	0.0149 16	4598.427	3−	0.0	2+		
4616.549& 20	0.210 10	(8579.7945)	2+	3962.901	(1,2)−	E1	Mult.: ΔJ=(0,1), E1 γ from circular polarization (1976Sp06).
4638.10& 3	0.042 10	(8579.7945)	2+	3941.326			
4652.11 4	0.0092 12	6253.552		1601.1039	1,2		

$^{36}_{17}Cl_{19}$-13

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06 (continued)

$\gamma(^{36}Cl)$ (continued)

E_γ †‡#	I_γ @ *a*	E_i(level)	J_i^π	E_f	J_f^π	Mult.	Comments
[x]4683.48 *16*	0.0193 *19*						
4728.879 *17*	0.223 *9*	5517.651		788.4329	3^+		
[x]4747.11 *30*	0.0120 *15*						
4753.43 *4*	0.038 *11*	6354.883		1601.1039	1,2		
4753.90 *13*	0.039 *10*	4754.35		0.0	2^+		E_γ,I_γ: from PGAA-adopted file.
4757.640 *20*	0.043 *5*	4757.984	3^-	0.0	2^+		
4791.450 *25*	0.0087 *12*	5956.679		1164.8802	1^+		
4815.51 *3*	0.047 *6*	5604.296		788.4329	3^+		
4829.17 *5*	0.062 *5*	4829.54		0.0	2^+		
4884.92 *3*	0.030 *6*	6836.492		1951.1857	2		
4918.7 *25*	0.020 *7*	(8579.7945)	2^+	3660.6?			
4944.404& *17*	0.379 *8*	(8579.7945)	2^+	3634.993	1^-	E1	Mult.: ΔJ=1, E1 γ from circular polarization (1976Sp06).
4945.231 *15*	0.194 *18*	5734.042		788.4329	3^+		
[x]4950.82 *19*	0.0528 *53*						
4979.888& *10*	1.232 *10*	(8579.7945)	2^+	3599.5245	3^-	E1	Mult.: ΔJ=1, E1 γ from circular polarization (1976Sp06).
4989.64 *5*	0.10 *6*	5778.456		788.4329	3^+		
4996.81 *22*	0.042 *13*	4997.198		0.0	2^+		
4997.2 *11*	0.039 *10*	4997.6		0.0	2^+		
5001.05 *4*	0.0142 *23*	6952.627		1951.1857	2		
5017.69 *3*	0.161 *8*	5018.079		0.0	2^+		
5078.75 *4*	0.046 *6*	5079.163		0.0	2^+		
5088.28 *4*	0.047 *19*	6253.552		1164.8802	1^+		
5109.35& *3*	0.027 *5*	(8579.7945)	2^+	3470.017	1^+,$(2)^+$		
5122.84 *4*	0.0107 *14*	7082.651		1959.3945	2		
[x]5142.09 *16*	0.0239 *23*						
5150.223 *22*	0.075 *12*	5150.630		0.0	2^+		
5204.19 *4*	0.065 *4*	5204.607		0.0	2^+		
5246.17 *4*	0.08 *3*	5246.588		0.0	2^+		
5247.072& *10*	0.195 *10*	(8579.7945)	2^+	3332.2907	$(1,2)^-$	E1	Mult.: ΔJ=(0,1), E1 γ from circular polarization (1976Sp06).
5262.67 *9*	0.032 *6*	5263.09		0.0	2^+		
5301.01 *4*	0.033 *7*	6089.874		788.4329	3^+		
5372.88 *3*	0.0153 *16*	6538.203		1164.8802	1^+		
5473.26 *5*	0.027 *5*	5473.713		0.0	2^+		
5517.192 *17*	0.560 *5*	5517.651		0.0	2^+		
5584.633& *11*	0.158 *11*	(8579.7945)	2^+	2994.674			
5603.82 *3*	0.11 *3*	5604.296		0.0	2^+		
5634.464 *19*	0.018 *5*	6423.383		788.4329	3^+		
5702.56 *3*	0.127 *10*	5703.060		0.0	2^+		
5715.356& *10*	1.818 *16*	(8579.7945)	2^+	2863.9311	$(2,3)^+$	M1+E2	Mult.,δ: ΔJ=(0,1), M1+E2 γ from circular polarization (1976Sp06).
5733.538 *15*	0.161 *11*	5734.042		0.0	2^+		

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06 (continued)

$\gamma(^{36}Cl)$ (continued)

E_γ †‡#	I_γ @a	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	Comments
5777.95 *5*	0.059 *7*	5778.456		0.0	2^+			
5902.798& *17*	0.372 *4*	(8579.7945)	2^+	2676.441				
5956.143 *25*	0.060 *13*	5956.679		0.0	2^+			
5959 *6*	0.078 *13*	5959.5		0.0	2^+			
6041.77 *4*		6042.318		0.0	2^+			
x6051.13 *26*	0.0140 *15*							
6086.921& *10*	0.295 *15*	(8579.7945)	2^+	2492.3041	2^+	M1+E2	+0.43 *+16−26*	Mult.,δ: ΔJ=0, M1+E2 γ from circular polarization (1976Sp06, also δ=+2.3 *12*).
6110.9802 *40*	6.59 *6*	(8579.7945)	2^+	2468.2594	3^-	E1		E_γ: from 2006De21. Mult.,δ: ΔJ=1, E1 γ from circular polarization (1969Ko05); if E1(+M2), δ= +0.02 *2* (1976Sp06). A_2=+0.136 *11*, A_4=+0.016 *14* (1966Va05, 6111γ-517γ ang. correlation).
6184.35 *5*	0.026 *6*	6184.96		0.0	2^+			
6252.96 *4*	0.023 *9*	6253.552		0.0	2^+			
6267.585 *19*	0.13 *4*	6268.186		0.0	2^+			
6339.26 *4*	0.022 *3*	6339.90		0.0	2^+			
6343.79 *5*	0.047 *10*	6344.419		0.0	2^+			
6378.859 *20*	0.064 *7*	6379.481		0.0	2^+			
6422.754 *19*	0.086 *8*	6423.383		0.0	2^+			
6487.10 *4*	0.042 *9*	6487.748		0.0	2^+			
6544.314 *18*	0.049 *7*	6544.968		0.0	2^+			
6619.732& *9*	2.530 *23*	(8579.7945)	2^+	1959.3945	2			A_2=+0.158 *15*, A_4=+0.005 *17* (1966Va05, 6620γ-1959γ ang. correlation). Mult.,δ: if M1+E2, δ=+0.19 *6* or +5.2 *16* (1976Sp06).
6627.945& *9*	1.466 *16*	(8579.7945)	2^+	1951.1857	2			
6641.972 *22*	0.064 *11*	6642.651		0.0	2^+			
6951.89 *4*	0.057 *9*	6952.627		0.0	2^+			
6977.951& *10*	0.741 *10*	(8579.7945)	2^+	1601.1039	1,2			A_2=+0.099 *9*, A_4=−0.005 *12* (1966Va05, 6978γ-1601γ ang. correlation).
7081.94 *7*		7082.651		0.0	2^+			
x7377.34 *41*	0.0103 *14*							
7414.086& *9*	3.29 *5*	(8579.7945)	2^+	1164.8802	1^+	M1+E2	+0.47 *10*	Mult.,δ: from 7414γ-1165γ angular correlation (1966Va05) and 1165γ linear polarization (1971Ho30); also δ=+0.14 *3* (1976Sp06). A_2=+0.037 *2*, A_4=+0.001 *2* (1966Va05, 7414γ-1165γ ang. correlation).
7558.29 *4*	0.022 *6*	7559.169		0.0	2^+			
7790.454& *10*	2.66 *3*	(8579.7945)	2^+	788.4329	3^+	M1+E2	−0.210 *4*	Mult.,δ: from 7790γ-778γ angular correlation (1966Va05) and 778γ linear polarization (1971Ho30); also δ=−0.22 *2* (1976Sp06). A_2=+0.044 *4*, A_4=+0.016 *6* (1966Va05, 7790γ-778γ ang. correlation).
8578.696& *10*	0.883 *13*	(8579.7945)	2^+	0.0	2^+	M1+E2	+0.12 *4*	Mult.,δ: or +8 *+2−4*, from circular polarization measurement (1976Sp06); also δ=−0.05 *13* (1970Ei03, same technique).

$^{36}_{17}Cl_{19}$-15

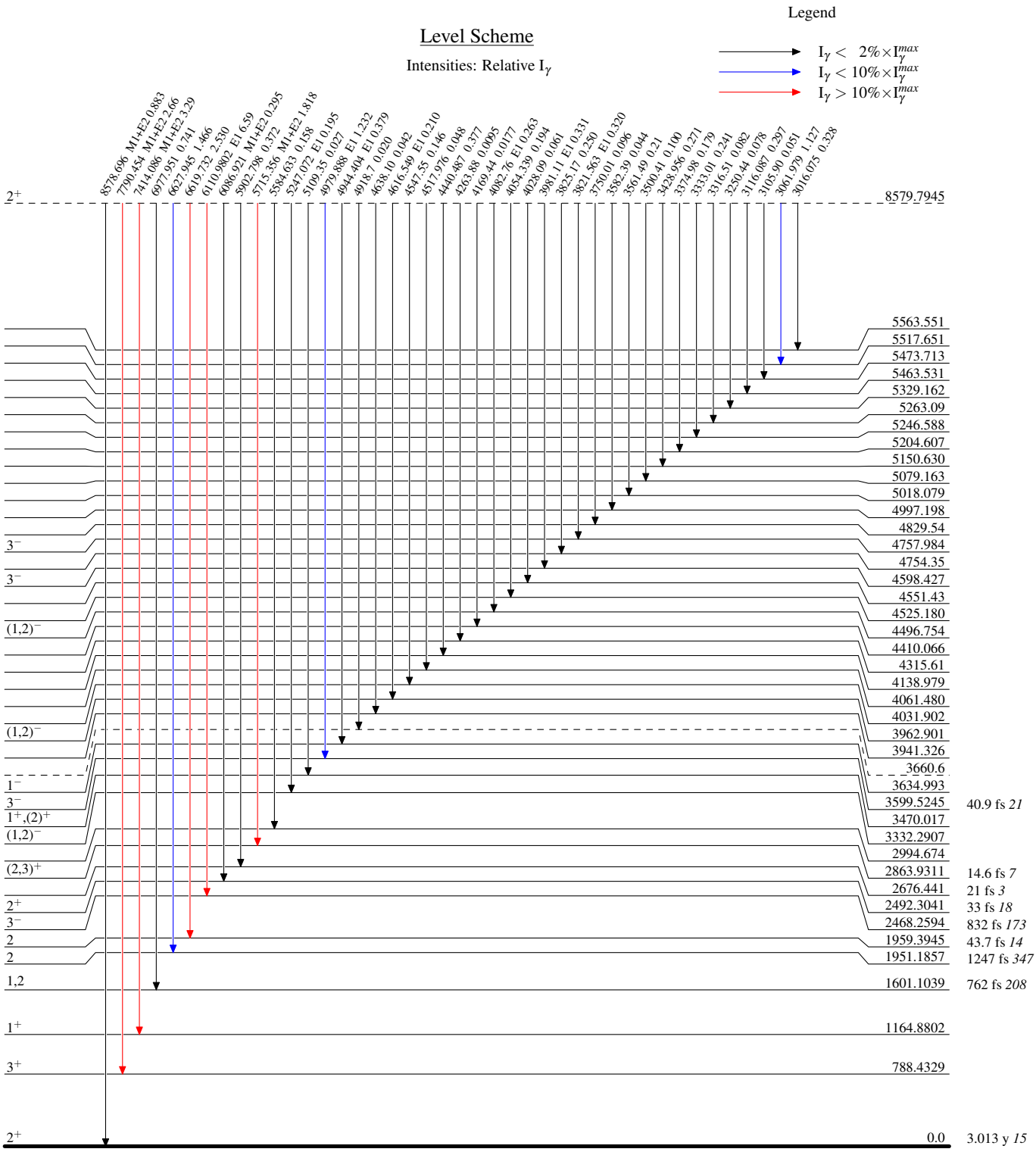
^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06 (continued)

$\gamma(^{36}Cl)$ (continued)

† Mostly from 1982Kr12, combined with 1981Ke02 and 1976Sp06 (and others, see general comment on Eγ measurement references). Gammas from levels not found by 1982Kr12 are not adopted here.
‡ Adjusted relative to the new 411.8 keV Au standard (2000He14, 411.80205 *17*; previously the data were calibrated relative to 411.8044 *8* from 1979He19).
# Unplaced γ's from 1982Kr12.
@ $\sigma_\gamma^Z(\hat{E}_\gamma)$, γ ray production cross section (in barn, as defined by 2007ChZX).
& Modified to account for four new very precisely-remeasured Eγ's (2006De21).
a For intensity per 100 neutron captures, multiply by 3.01.
b Placement of transition in the level scheme is uncertain.
x γ ray not placed in level scheme.

$^{36}_{17}Cl_{19}$-16

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06



$^{36}_{17}Cl_{19}$

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06

Level Scheme (continued)

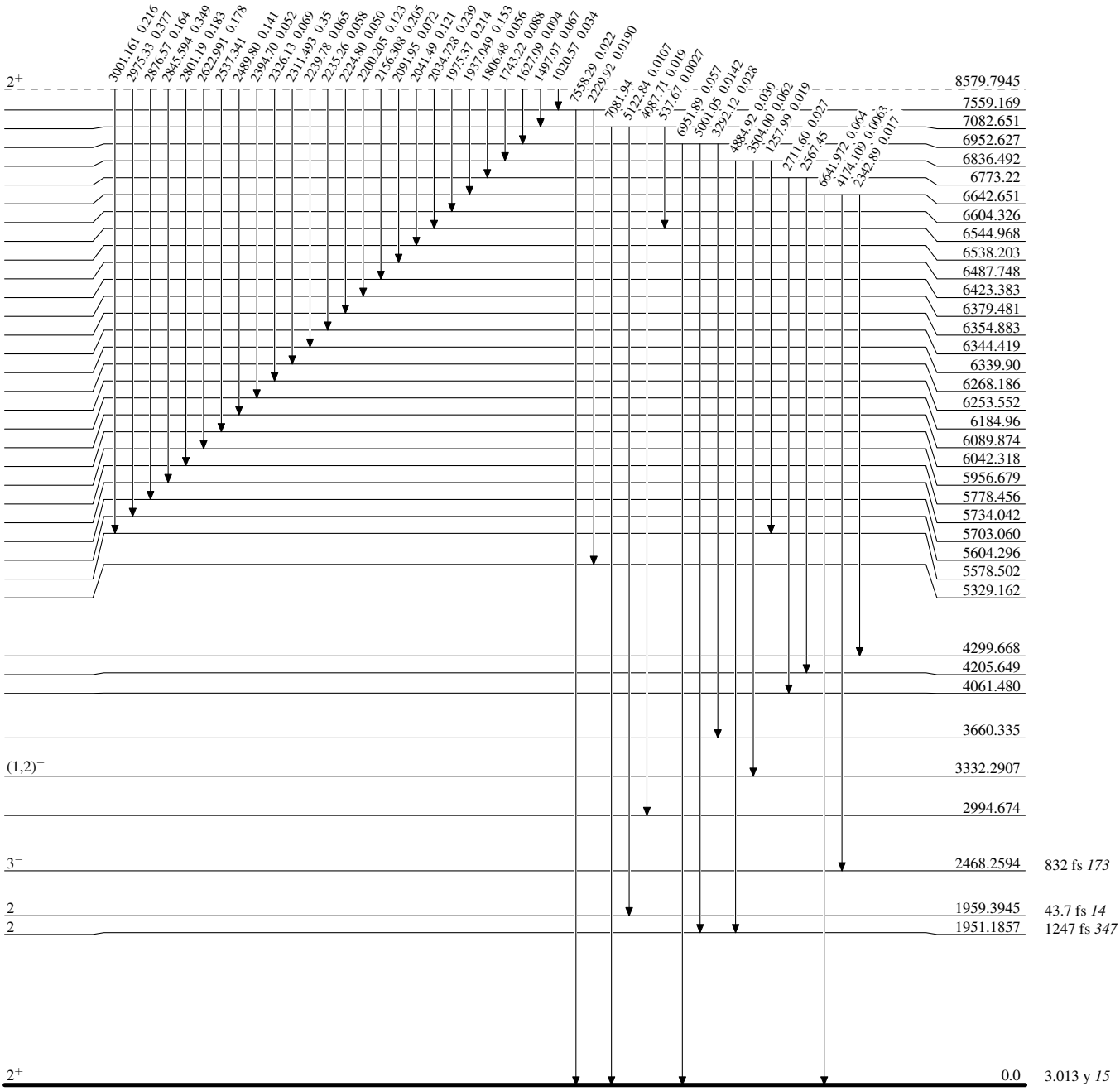
Intensities: Relative I_γ

Legend

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

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

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

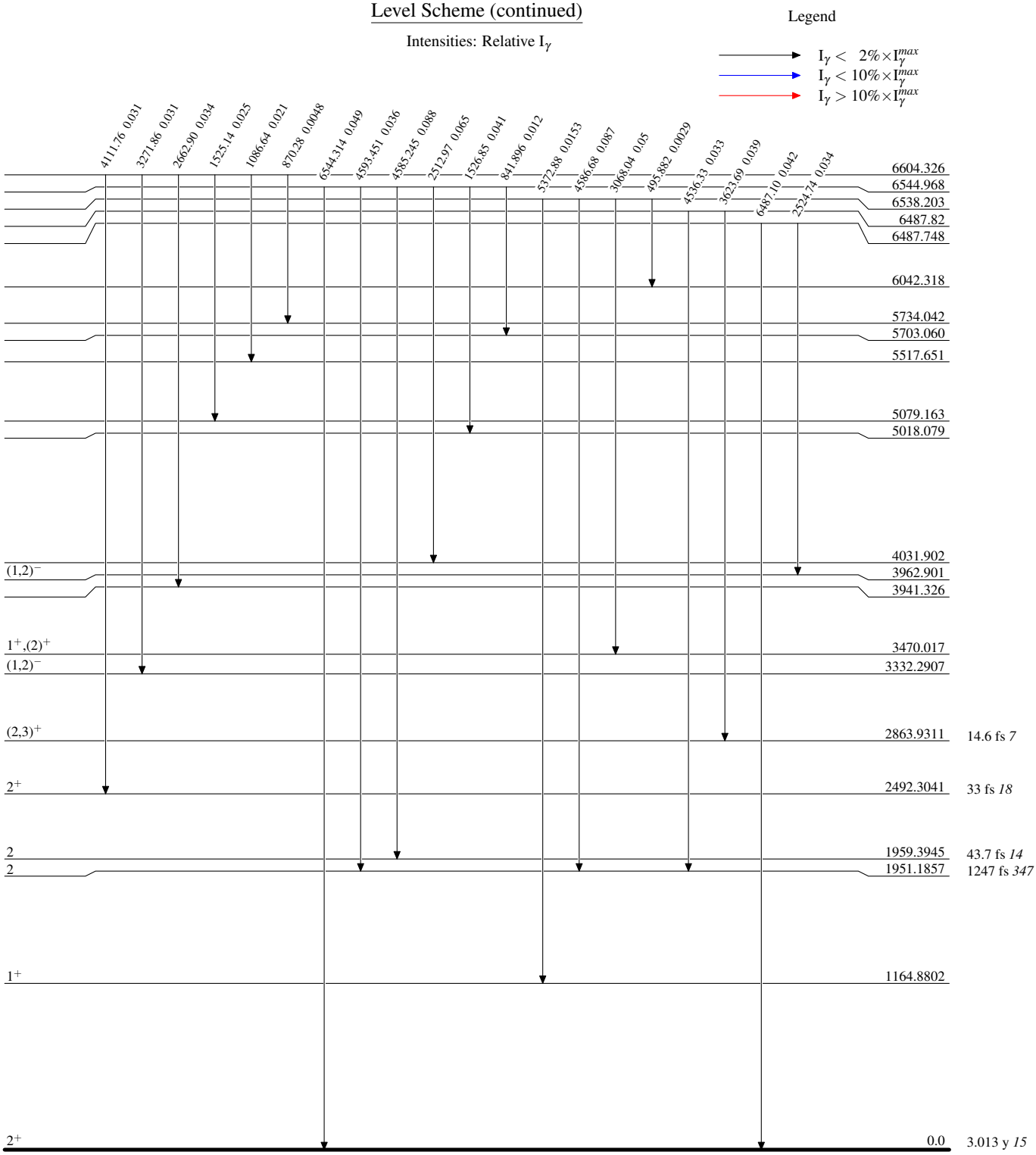


$^{36}_{17}Cl_{19}$

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06

Level Scheme (continued)

Intensities: Relative I_γ

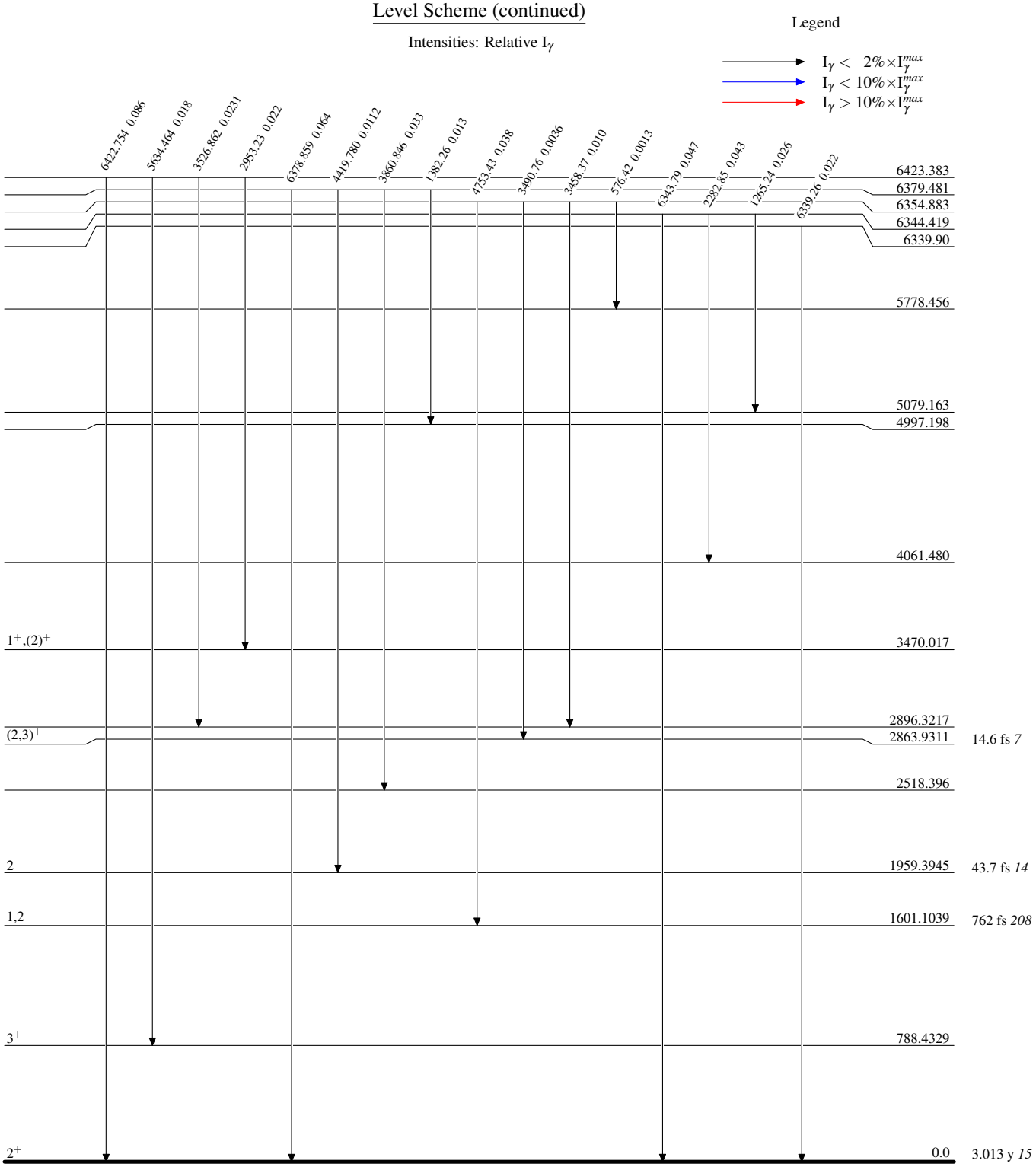


$^{36}_{17}Cl_{19}$

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06

Level Scheme (continued)

Intensities: Relative I_γ

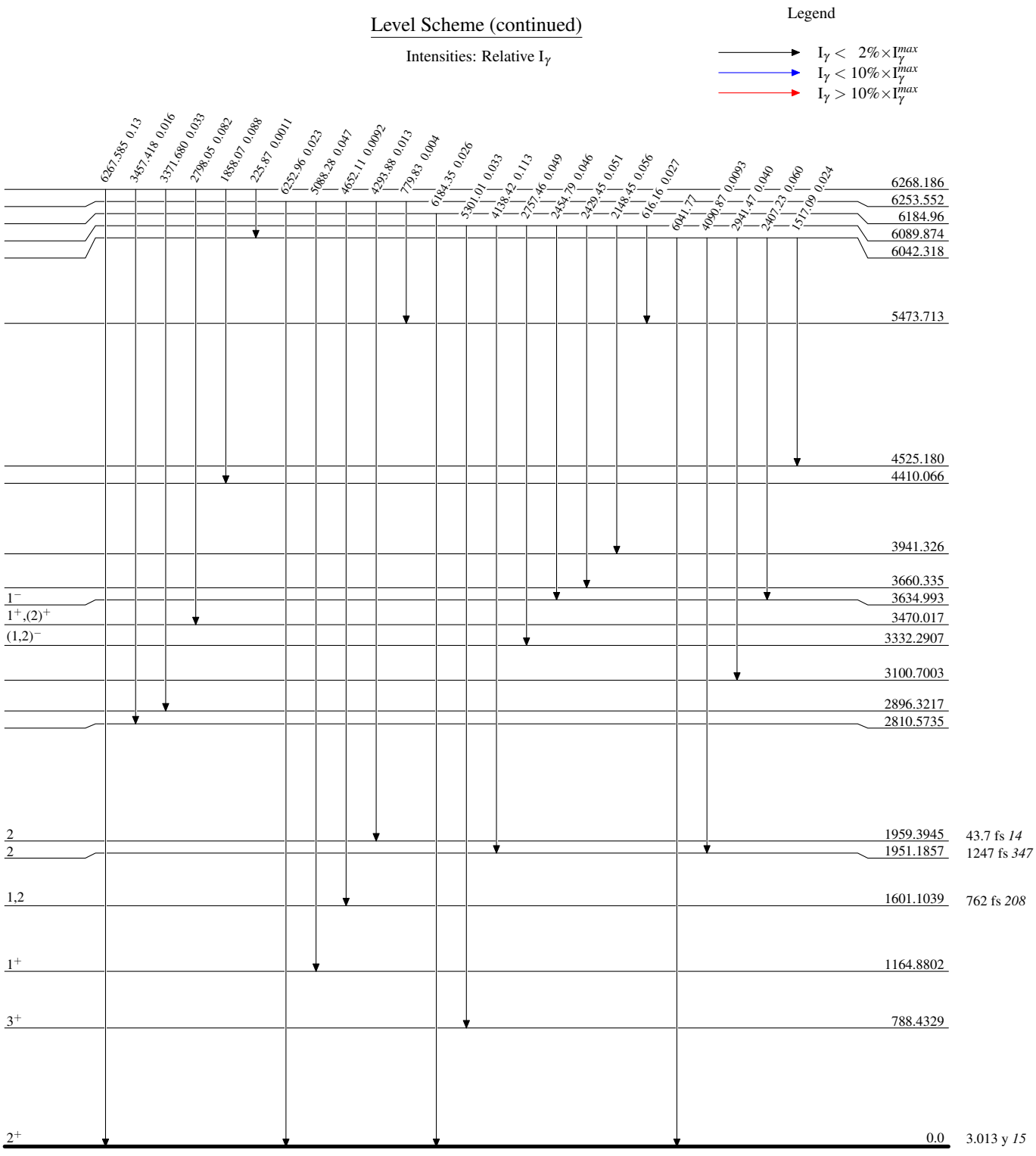


$^{36}_{17}Cl_{19}$

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06

Level Scheme (continued)

Intensities: Relative I_γ

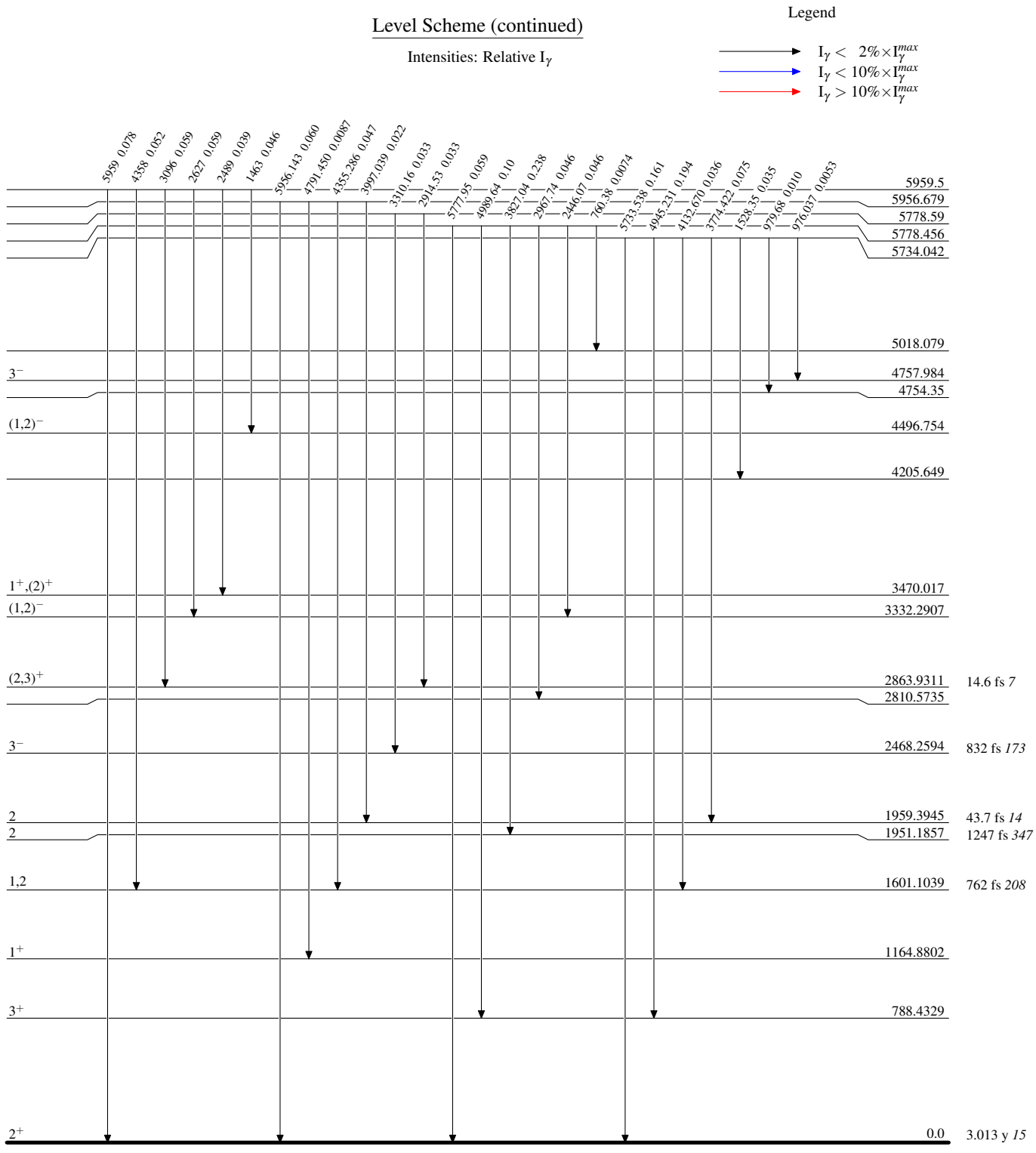


$^{36}_{17}Cl_{19}$

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06

Level Scheme (continued)

Intensities: Relative I_γ



$^{36}_{17}Cl_{19}$

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06

Level Scheme (continued)

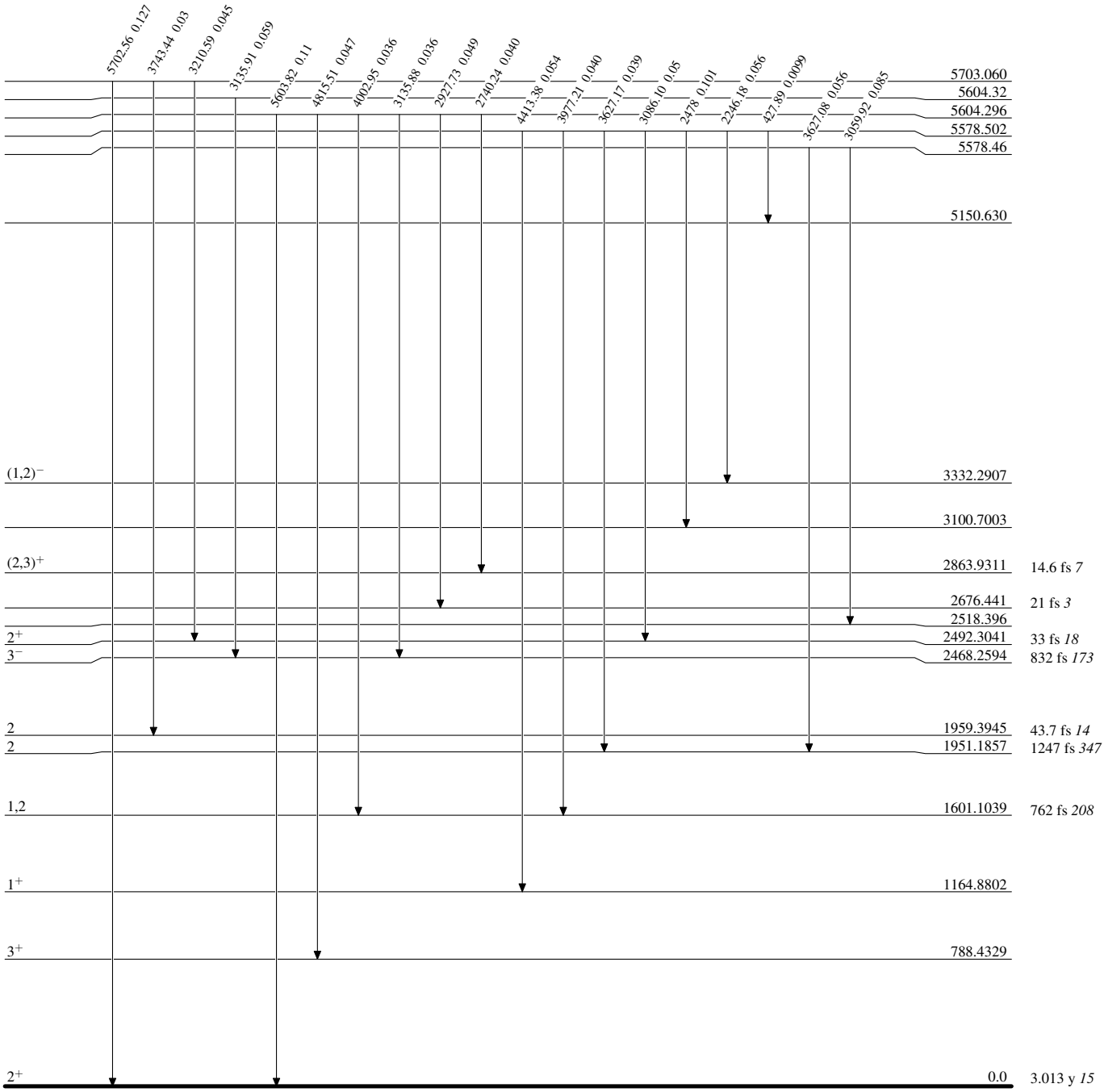
Intensities: Relative I_γ

Legend

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

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

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

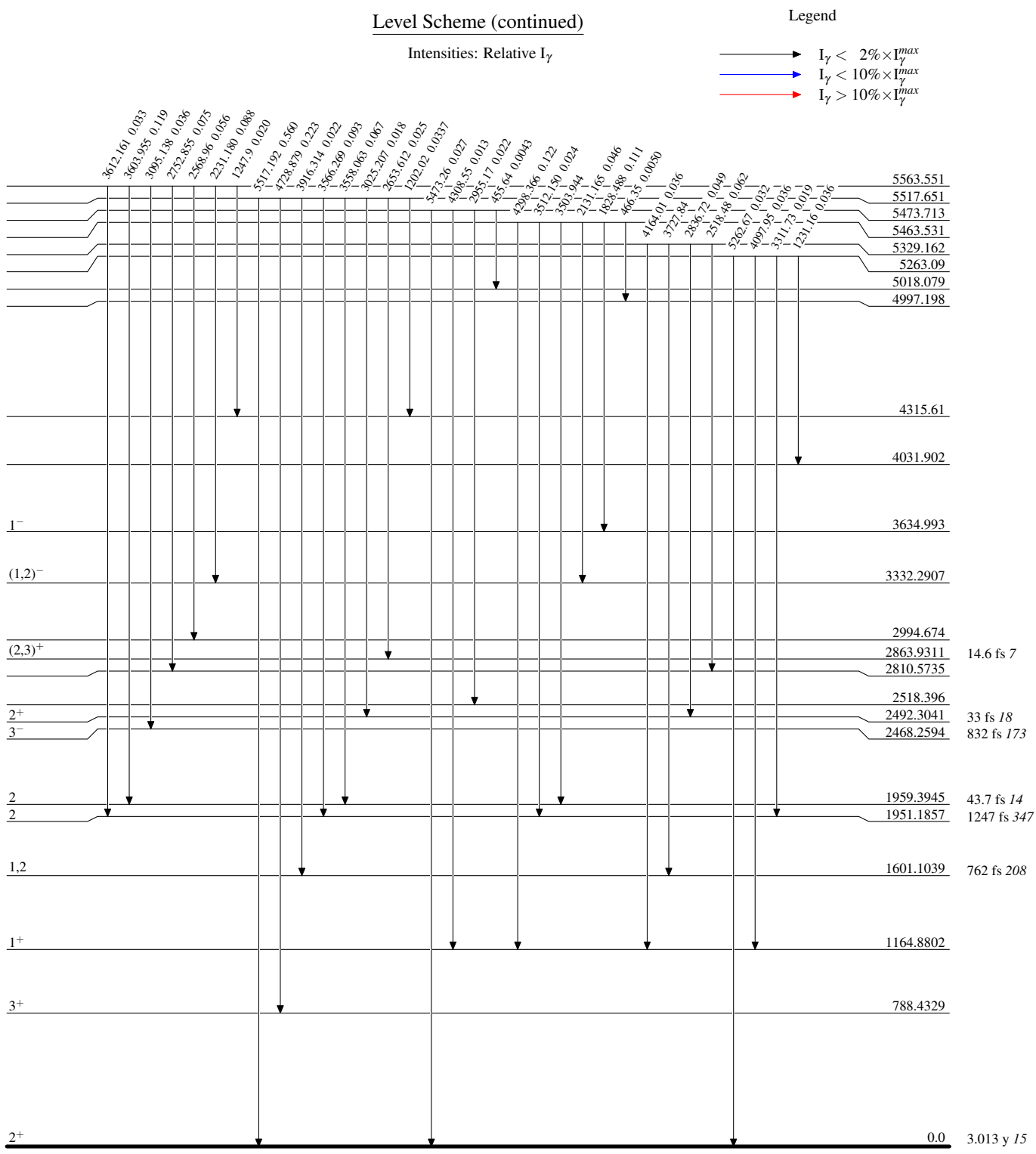


$^{36}_{17}Cl_{19}$

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06

Level Scheme (continued)

Intensities: Relative I_γ

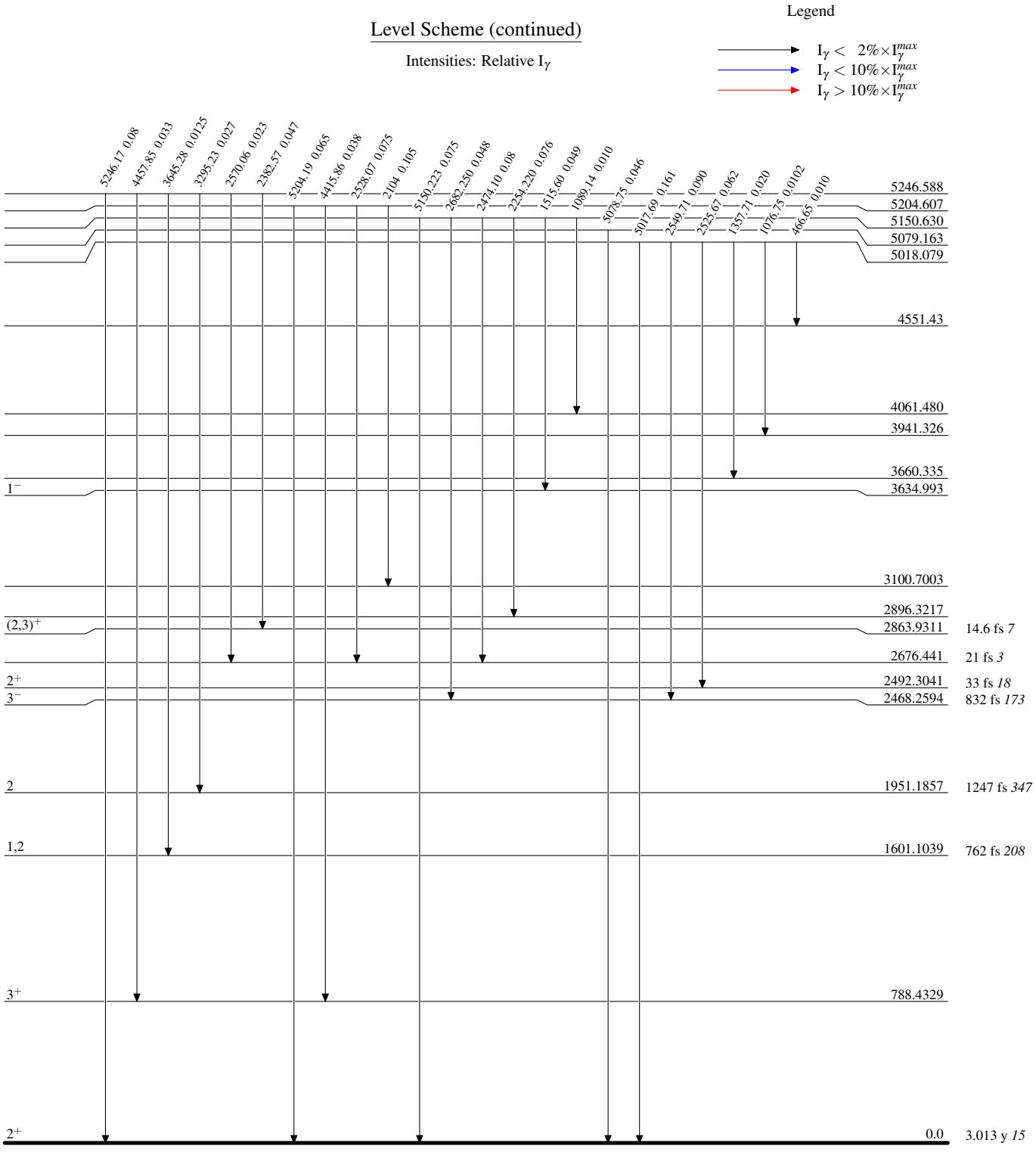


$^{36}_{17}Cl_{19}$

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06

Level Scheme (continued)

Intensities: Relative I_γ

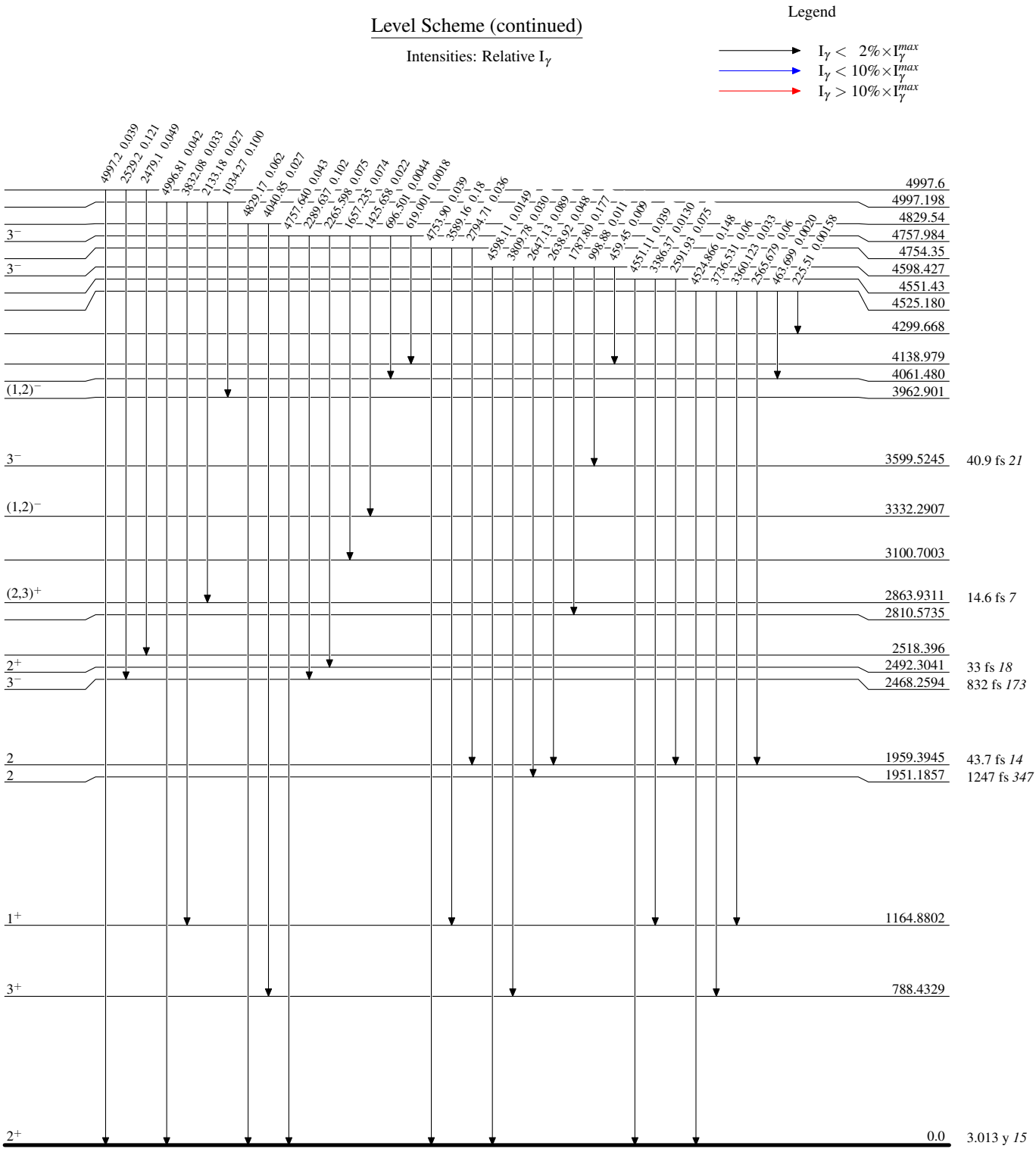


$^{36}_{17}Cl_{19}$

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06

Level Scheme (continued)

Intensities: Relative I_γ

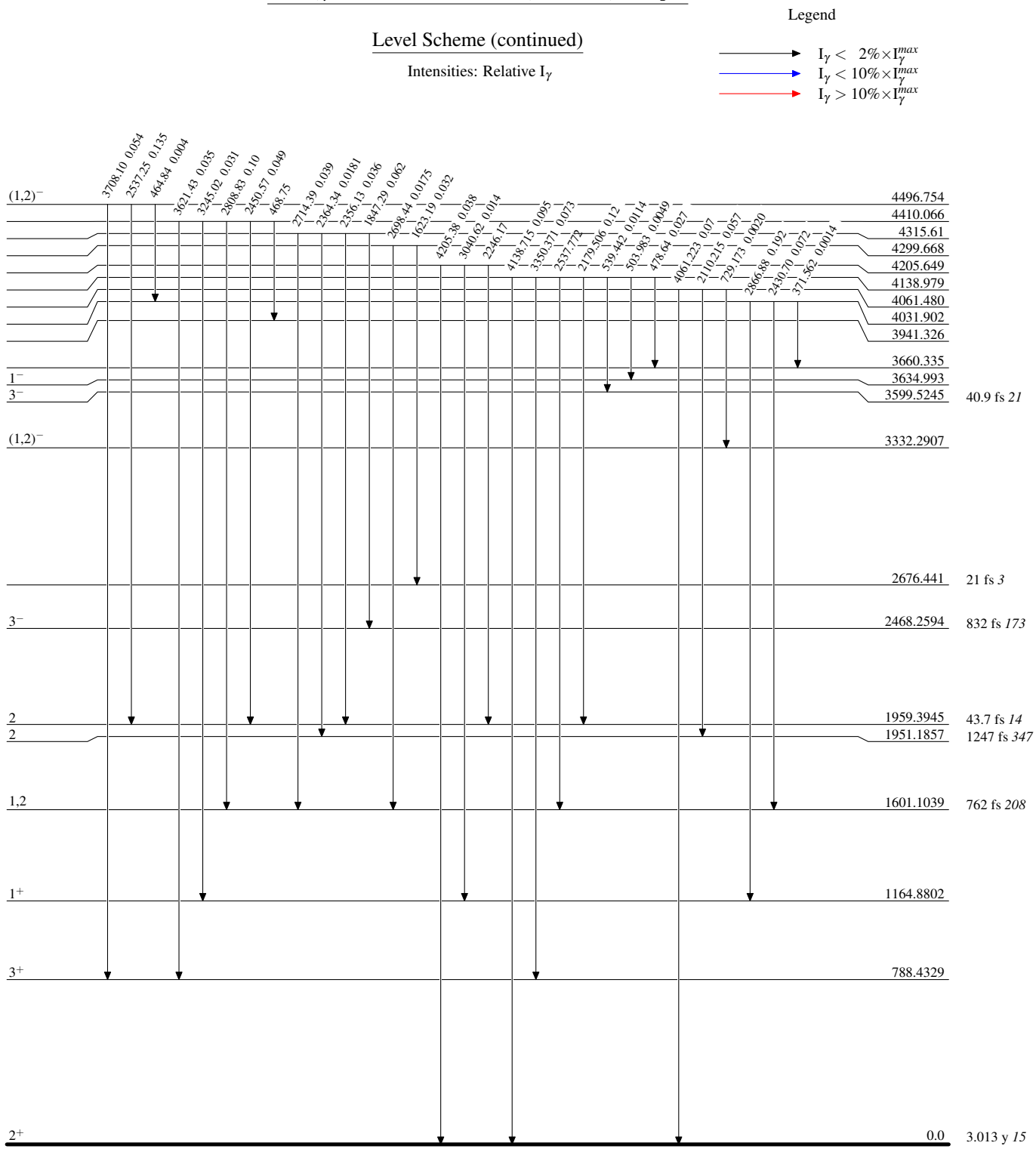


$^{36}_{17}Cl_{19}$

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06

Level Scheme (continued)

Intensities: Relative I_γ

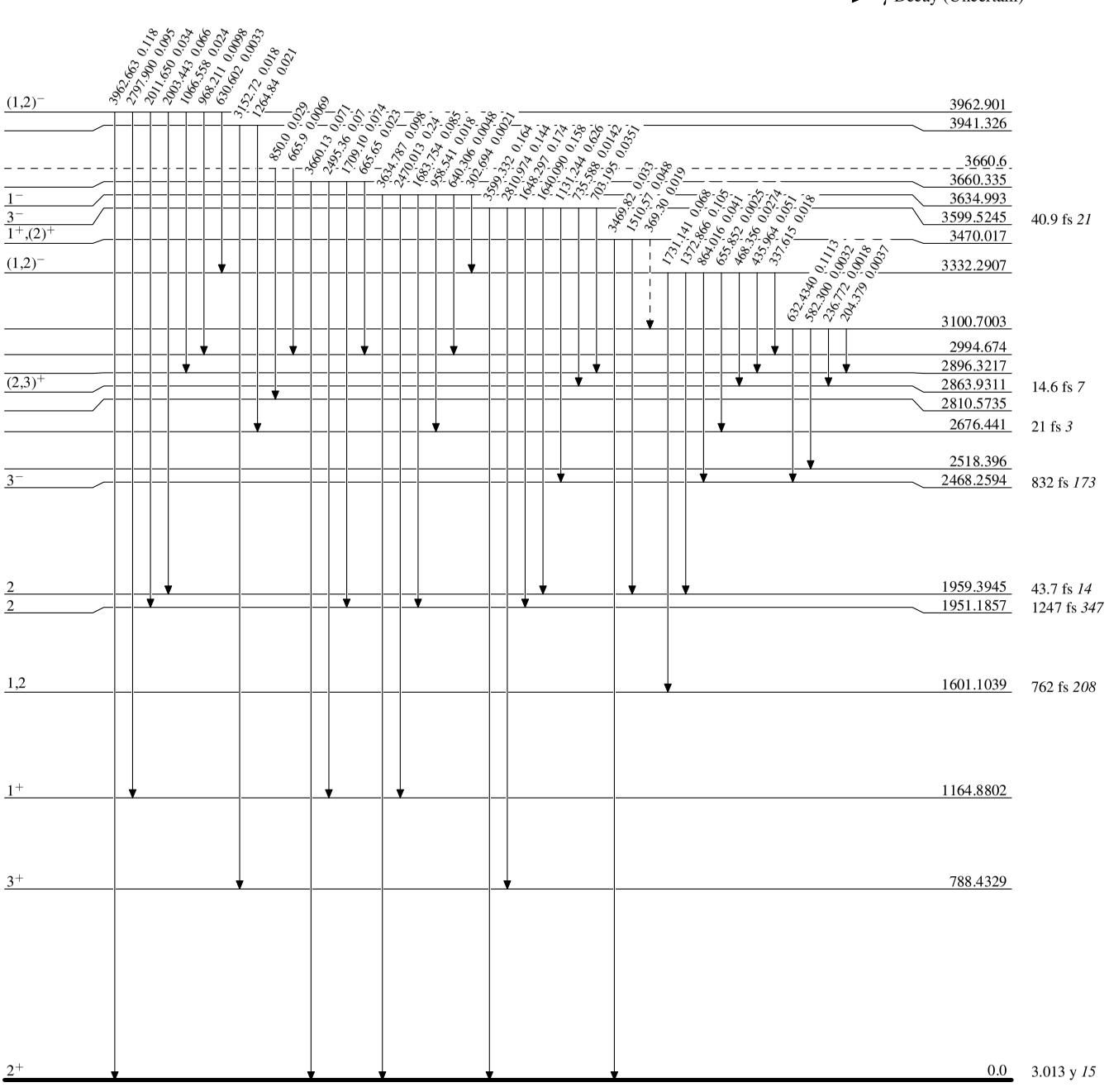


$^{36}_{17}Cl_{19}$

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06

Level Scheme (continued)

Intensities: Relative I_γ

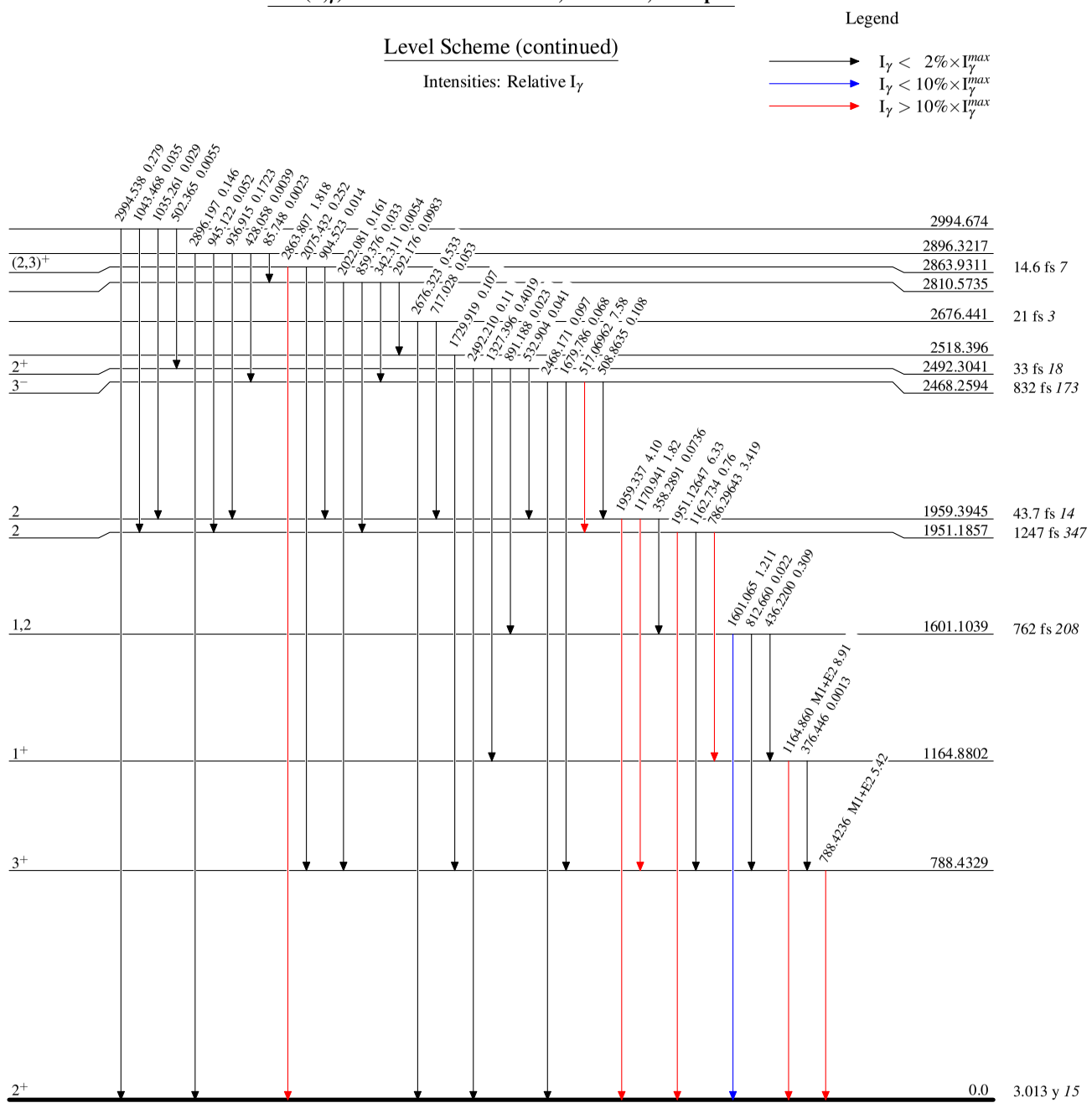


$^{36}_{17}Cl_{19}$

^{35}Cl(n,γ) E=thermal 1982Kr12,1981Ke02,1976Sp06

Level Scheme (continued)

Intensities: Relative I_γ



$^{36}_{17}Cl_{19}$