

(HI,xnγ) 2000Pa04,1996St01,1993WaZP

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	A. Hashizume	NDS 112, 1647 (2011)	1-Oct-2009

- 2000Pa04:** ¹⁰⁰Mo(³²S,p4nγ) E=155 MeV; 27 HPGE, 25 clovers, 13 cluster detectors (Euroball 3).
1997St12: ¹¹²Cd(¹⁹F,4nγ) E=84.5 MeV; 5 BGO Compton-suppressed Ge, 14-elements. BGO Multiplicity filter; measured E_γ, T_{1/2} using recoil distance method; Deduced B(M1)/B(E2).
1996St01: ¹¹²Cd(¹⁹F,4nγ) E=85 MeV; 16 Compton-suppressed Ge, 50 BGO multiplicity filters (tessa-3 array); measured E_γ, I_γ, γγ, γγ(θ)(DCO) γ(lin pol).
1985Sm07: ¹¹⁵In(¹⁶O,4n) E=85 MeV; escape suppressed Ge, BGO multiplicity filter; γγ, γ(θ), γ(lin polarization), using Doppler shift attenuation method and recoil distance method: yrast band from 11/2⁻ to 47/2⁻, positive parity band from 21/2⁺ to 69/2⁺ were reported.
1982No02: ¹¹⁵In(Y,Xnγ), ^{116,117,118}Sn(Y,Xnγ) Y=^{16,18}O, E=75-85 MeV; γ, γγ; yrast band from 11/2⁻ state to 47/2⁻ state and another band consisting of 8 states were reported.
1975Wa07: ¹¹⁷Sn(¹⁴N,4nγ) E=75 MeV; semi γ, γγ coin, γ(θ).
1973Le09: ¹¹⁶Sn(¹⁴N,3nγ) E=52.5, 58 MeV; γ, γγ, γ(θ); yrast band from 11/2⁻ state to 27/2⁻ state was observed.

¹²⁷La Levels

The level scheme is that proposed by [1996St01](#) and [2000Pa04](#).

To make clear what groups have proposed what level, the following symbols were added as the comments for each level. P from [2000Pa04](#): Q from [1997St12](#): R from [1996St01](#): S from [1985Sm07](#). t from [1982No02](#): U from [1973Na08](#): W from [1993WaZP](#). If only the level energy is shown, symbol is given in parentheses.

E(level) [†]	J ^{π‡}	T _{1/2} [#]	Comments
0.0 [@]	(11/2 ⁻)		P, R, S, t, U, W.
13.6 ^{& 4}	(3/2 ⁺)		P, R, W.
72.8 ^{a 4}	(5/2 ⁺)		P, R, (S), (t), W.
249.5 ^{& 4}	(7/2 ⁺)	97 ps 28	P, R.
252.40 ^{@ 20}	(15/2 ⁻)	97 ps 10	T _{1/2} : T _{1/2} =59 ps 6(1985Sm07 , by RDM). P, R, S, t, U, W.
425.3 ^{a 4}	(9/2 ⁺)		P, R, W.
609.5 ^{h 4}	(9/2 ⁺)		R, W.
652.9 ^{& 4}	(11/2 ⁺)	<15 ps	P, R, W.
710.85 ^{@ 23}	(19/2 ⁻)	5.5 ps +11-21	P, R, S, t, U, W. T _{1/2} : T _{1/2} =9.4 ps 9(1985Sm07 , by RDM).
861.1 ^{i 5}	(11/2 ⁺)		R, W.
965.7 ^{a 4}	(13/2 ⁺)		P, R, W.
1138.8 ^{h 5}	(13/2 ⁺)		R, W.
1143.57 25	(17/2 ⁻)		P, R, W.
1201.6 ^{& 3}	(15/2 ⁺)		R, W.
1203.1 ^{d 3}	(13/2 ⁻)		R, W.
1341.5 ^{@ 3}	(23/2 ⁻)	<2.8 ps	P, R, S, t, U, W. T _{1/2} : 1.4 ps<T _{1/2} <4.2 ps(1985Sm07 , by RDM and DSAM).
1450.9 ^{i 5}	(15/2 ⁺)		R, W.
1628.6 ^{a 5}	(17/2 ⁺)		R, (W).
1629.72 ^{d 24}	(17/2 ⁻)		R, W.
1701.9 ^{b 3}	(19/2 ⁺)	<6.6 ps	P, R, (S), (t), W.
1754.52 ^{e 25}	(15/2,17/2) ⁻		R.
1772.3 3	(21/2 ⁻)		P, R, W.

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(HI,xn γ) **2000Pa04,1996St01,1993WaZP (continued)**

^{127}La Levels (continued)

E(level) [†]	J π [‡]	T _{1/2} [#]	Comments
1783.5 ^h 5	(17/2 ⁺)		R, W.
1882.2 ^{&} 3	(19/2 ⁺)		R, W.
2062.4 ^k 8	(17/2 ⁺)		W.
2104.9 ^f 3	(21/2 ⁺)		R, W.
2121.2 [@] 3	(27/2 ⁻)	1.01 ps 12	P, R, S, t, U, W. T _{1/2} : From 1985Sm07 by DSAM.
2145.1 ^b 3	(23/2 ⁺)		P, R, (S), (t), W.
2160.3 ⁱ 5	(19/2 ⁺)		R, W.
2191.0 ^d 3	(21/2 ⁻)		R, (W).
2250.8 ^g 3	(21/2 ⁺)		R, W.
2288.7 ^e 3	(21/2 ⁻)		(R), W.
2290.0 3	(21/2 ⁺)		(R), W.
2312.7 ^k 3	(21/2 ⁺)		R, W.
2445.1 ^f 3	(23/2 ⁺)		R, W.
2465.2 4			R.
2494.4 ^j 3	(23/2 ⁺)		(R), W.
2531.9 ^{&} 4	(23/2 ⁺)		R.
2565.0 ^c 3	(25/2 ⁺)		P, R, W.
2706.7 ^g 3	(25/2 ⁺)		R, W.
2721.8 ^b 3	(27/2 ⁺)		R, (S), (t), W.
2724.1 ^k 3	(25/2 ⁺)		R, W.
2807.7 ^e 3	(25/2 ⁻)		R, W. J π : From (1993WaZP). (1996St06) propose (19/2, 21/2, 23/2 ⁻).
2917.3 ^d 3	(25/2 ⁻)		R, (W).
2970.5 ^f 3	(27/2 ⁺)		R, W.
3019.6 ^j 3	(27/2 ⁺)		(P), (R), W. J π : From 1993WaZP.
3029.1 [@] 4	(31/2 ⁻)	0.78 ps 11	P, R, S, t, W. T _{1/2} : (1985Sm07), by DSAM.
3121.1 ^{&} 5	(27/2 ⁺)		R.
3155.4 ^c 3	(29/2 ⁺)		P, R, W.
3291.8 ^g 3	(29/2 ⁺)		R, W.
3329.0 4	(29/2 ⁺)		R.
3423.6 ^b 4	(31/2 ⁺)		P, R, (S), (t), W.
3460.4 4			(P), (R).
3460.9 ^e 4	(29/2 ⁻)		R, W. J π : From 1993WaZP.
3638.2 ^f 3	(31/2 ⁺)		R, W.
3707.9 ^d 4	(29/2 ⁻)		R, (W).
3892.8 ^c 4	(33/2 ⁺)		P, W.
4025.1 ^g 4	(33/2 ⁺)		R, W.
4031.6 [@] 4	(35/2 ⁻)		P, R, S, t, W. T _{1/2} : The average T _{1/2} of 4031.6 and 5030.0 levels is 0.62 ps 10, as the 1002.5 γ from this level and the 998.4 γ from 5030.4 level are not resolved (1985Sm07).
4236.8 ^b 4	(35/2 ⁺)		P, R, (S), (t), W.
4241.9 ^e 4	(33/2 ⁻)		(P), (R), W.
4242.5 4			(R).
4449.2 ^f 7	(35/2 ⁺)		W.
4587.2 ^d 4	(32/2 ⁻)		R, (W).

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(HI,xn γ) 2000Pa04,1996St01,1993WaZP (continued) ^{127}La Levels (continued)

E(level) [†]	J π [‡]	Comments
4778.1 ^c 4	(37/2 ⁺)	P, R, W.
4899.2 ^g 8	(37/2 ⁺)	W.
5030.0 [@] 5	(39/2 ⁻)	P, R, S, t, (W). T _{1/2} : The average T _{1/2} of 4031.6 and 5030.0 levels is 0.62 ps 10, as the 1002.5 γ from 4031.6 level and the 998.4 γ from this level are not resolved (1985Sm07).
5152.6 ^b 5	(39/2 ⁺)	P, R, (S), (t), W.
5390.2 ^f 10	(39/2 ⁺)	W.
5531.2 ^d 11	(37/2 ⁻)	W.
5786.1 ^c 11	(41/2 ⁺)	P, W.
5895.2 ^g 11	(41/2 ⁺)	W.
6044.4 [@] 5	(43/2 ⁻)	P, R, S, t, W.
6149.0 ^b 5	(43/2 ⁺)	P, R, (S), (t), W.
6443.2 ^f 12	(43/2 ⁺)	W.
6511.2 ^d 15	(41/2 ⁻)	W.
6846.1 ^c 15	(45/2 ⁺)	P, W.
7145.4 [@] 12	(47/2 ⁻)	P, S, t, W.
7168.0 ^b 12	(47/2 ⁺)	P, (S), (t), W.
7864.1 ^c 18	(49/2 ⁺)	P.
8187.0 ^b 15	(51/2 ⁺)	P, W.
8335.4 [@] 15	(51/2 ⁻)	P, W.
8976.1 ^c 21	(53/2 ⁺)	P.
9273.0 ^b 18	(55/2 ⁺)	P, W.
9606.4 [@] 18	(55/2 ⁻)	P.
10179.1 ^c 23	(57/2 ⁺)	P.
10446.0 ^b 21	(59/2 ⁺)	P, W.
10949.4 [@] 21	(59/2 ⁻)	P.
11462.1 ^c 25	(61/2 ⁺)	P.
11708.0 ^b 23	(63/2 ⁺)	P, W.
12349.5 [@] 23	(63/2 ⁻)	P.
12816 ^c 3	(65/2 ⁺)	P.
13057.0 ^b 25	(67/2 ⁺)	P, W.
14489 ^b 3	(71/2 ⁺)	P, W.
16004 ^b 3	(75/2 ⁺)	P.
17618 ^b 3	(79/2 ⁺)	P.
19357 ^b 4	(83/2 ⁺)	P.
21268 ^b 4	(87/2 ⁺)	P.

[†] From a least-squares fit to E γ 's by evaluator.

[‡] From $\gamma(\theta)$ and/or $\gamma\gamma(\theta)$ (DCO) in (HI,xn γ) and band assignments by 1993WaZP, 1996St01 and 2000Pa04. The obtained band structures were analyzed by a cranking model (1993WaZP), a pairing-deformation self-consistent total Routhian surface model (1996St01) and a cranked Nilsson-Strutinsky model (2000Pa04).

From 1997St12 by RDM, unless otherwise noted. The results do not agree with those from 1985Sm07. The values obtained by 1985Sm07 are included as comments.

@ Band(A): band 1: $\pi=-$ yrast band built on the (11/2⁻) state.

& Band(B): band 2: $\pi=+$ band built on the (3/2⁺) state.

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(HI,xn γ) 2000Pa04,1996St01,1993WaZP (continued) ^{127}La Levels (continued)

- ^a Band(C): band 3: $\pi=+$ band built on the (5/2⁺) state.
^b Band(D): band 4: $\pi=+$ band built on the (19/2⁺) state.
^c Band(E): band 5: $\pi=+$ band built on the (25/2⁺) state.
^d Band(F): band 6: $\pi=-$ band built on the (13/2⁻) state.
^e Band(G): band 7: $\pi=-$ band built on the (15/2⁻) or (17/2⁻) state.
^f Band(H): band 8: $\pi=+$ band built on the (21/2⁺) state.
^g Band(I): band 9: $\pi=+$ band built on the (25/2⁺) state.
^h Band(J): band 10: $\pi=+$ band built on the (9/2⁺) state.
ⁱ Band(K): band 11: $\pi=+$ band built on the (11/2⁺) state.
^j Band(L): band 12: $\pi=+$ band built on the (23/2⁺) state.
^k Band(M): band 13: $\pi=+$ band built on the (17/2⁺) state.

							$\gamma(^{127}\text{La})$			
E_{γ}^{\dagger}	I_{γ}^{\dagger}	$E_i(\text{level})$	J_i^{π}	E_f	J_f^{π}	Mult. [‡]	α^c	Comments		
58.4 ^b 5		72.8	(5/2 ⁺)	13.6	(3/2 ⁺)					
99 ^a 1		2160.3	(19/2 ⁺)	2062.4	(17/2 ⁺)					
131 ^a 1		2290.0	(21/2 ⁺)	2160.3	(19/2 ⁺)					
152 ^a 1		2312.7	(21/2 ⁺)	2160.3	(19/2 ⁺)					
155 ^a 1		2445.1	(23/2 ⁺)	2290.0	(21/2 ⁺)					
175.9& 2		425.3	(9/2 ⁺)	249.5	(7/2 ⁺)	M1, E2	0.25 3	$\alpha(\text{K})=0.198$ 9; $\alpha(\text{L})=0.040$ 15; $\alpha(\text{M})=0.009$ 4; $\alpha(\text{N}+..)=0.0021$ 8 $\alpha(\text{N})=0.0018$ 7; $\alpha(\text{O})=0.00028$ 10; $\alpha(\text{P})=1.36\times 10^{-5}$ 12 R(DCO)= 0.7 3.		
176.6& 2	100	249.5	(7/2 ⁺)	72.8	(5/2 ⁺)	M1, E2	0.25 3	$\alpha(\text{K})=0.196$ 9; $\alpha(\text{L})=0.039$ 15; $\alpha(\text{M})=0.008$ 4; $\alpha(\text{N}+..)=0.0021$ 8 $\alpha(\text{N})=0.0018$ 7; $\alpha(\text{O})=0.00028$ 9; $\alpha(\text{P})=1.35\times 10^{-5}$ 12 R(DCO)= 0.86 6.		
182 ^a 1		2494.4	(23/2 ⁺)	2312.7	(21/2 ⁺)					
194.2& 2	100	2445.1	(23/2 ⁺)	2250.8	(21/2 ⁺)	M1,E2	0.183 14	$\alpha(\text{K})=0.147$ 4; $\alpha(\text{L})=0.028$ 9; $\alpha(\text{M})=0.0060$ 20; $\alpha(\text{N}+..)=0.0015$ 5 $\alpha(\text{N})=0.0013$ 4; $\alpha(\text{O})=0.00020$ 6; $\alpha(\text{P})=1.03\times 10^{-5}$ 10 R(DCO)= 0.36 6.		
204.0& 2		2494.4	(23/2 ⁺)	2290.0	(21/2 ⁺)	M1,E2	0.157 10	$\alpha(\text{K})=0.1274$ 20; $\alpha(\text{L})=0.024$ 7; $\alpha(\text{M})=0.0050$ 15; $\alpha(\text{N}+..)=0.0013$ 4 $\alpha(\text{N})=0.0011$ 4; $\alpha(\text{O})=0.00017$ 5; $\alpha(\text{P})=8.9\times 10^{-6}$ 10 R(DCO)= 0.7 1.		
212.0& 2	79 6	2706.7	(25/2 ⁺)	2494.4	(23/2 ⁺)					
227.6& 2	17 1	652.9	(11/2 ⁺)	425.3	(9/2 ⁺)	M1,E2	0.113 3	$\alpha(\text{K})=0.0923$ 24; $\alpha(\text{L})=0.016$ 4; $\alpha(\text{M})=0.0034$ 9; $\alpha(\text{N}+..)=0.00086$ 20 $\alpha(\text{N})=0.00074$ 17; $\alpha(\text{O})=0.000115$ 22; $\alpha(\text{P})=6.5\times 10^{-6}$ 8		
230.0& 2		2724.1	(25/2 ⁺)	2494.4	(23/2 ⁺)			1996St01 do not assign this γ . This γ is assigned here by (1993WaZP).		
236.0& 2	15.9 15	249.5	(7/2 ⁺)	13.6	(3/2 ⁺)	E2	0.1022	$\alpha(\text{K})=0.0804$ 12; $\alpha(\text{L})=0.01719$ 25; $\alpha(\text{M})=0.00369$ 6; $\alpha(\text{N}+..)=0.000919$ 14 $\alpha(\text{N})=0.000794$ 12; $\alpha(\text{O})=0.0001197$ 18;		

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(HI,xn γ) 2000Pa04,1996St01,1993WaZP (continued) $\gamma(^{127}\text{La})$ (continued)

E_γ^\dagger	I_γ^\dagger	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ‡	α^c	Comments
								$\alpha(\text{P})=5.16\times 10^{-6}$ 8 R(DCO)= 0.9 2.
246 ^a 1		2970.5	(27/2 ⁺)	2724.1	(25/2 ⁺)			
251.7 ^{&} 2		861.1	(11/2 ⁺)	609.5	(9/2 ⁺)	M1,E2	0.0834 14	$\alpha(\text{K})=0.069$ 4; $\alpha(\text{L})=0.0115$ 20; $\alpha(\text{M})=0.0024$ 5; $\alpha(\text{N}+..)=0.00062$ 11 $\alpha(\text{N})=0.00053$ 10; $\alpha(\text{O})=8.3\times 10^{-5}$ 12; $\alpha(\text{P})=4.9\times 10^{-6}$ 7
252.4 ^{&} 2		252.40	(15/2 ⁻)	0.0	(11/2 ⁻)	E2	0.0819	$\alpha(\text{K})=0.0650$ 10; $\alpha(\text{L})=0.01335$ 20; $\alpha(\text{M})=0.00286$ 4; $\alpha(\text{N}+..)=0.000713$ 11 $\alpha(\text{N})=0.000616$ 9; $\alpha(\text{O})=9.33\times 10^{-5}$ 14; $\alpha(\text{P})=4.22\times 10^{-6}$ 6 R(DCO)= 1.01 2.
261.7 ^{&} 2	100	2706.7	(25/2 ⁺)	2445.1	(23/2 ⁺)	M1,E2	0.0743 19	$\alpha(\text{K})=0.061$ 4; $\alpha(\text{L})=0.0101$ 16; $\alpha(\text{M})=0.0021$ 4; $\alpha(\text{N}+..)=0.00054$ 9 $\alpha(\text{N})=0.00047$ 8; $\alpha(\text{O})=7.3\times 10^{-5}$ 9; $\alpha(\text{P})=4.4\times 10^{-6}$ 7 R(DCO)= 0.52 5.
263.7 ^{&} 2	100	2970.5	(27/2 ⁺)	2706.7	(25/2 ⁺)	M1,E2	0.0727 20	$\alpha(\text{K})=0.060$ 4; $\alpha(\text{L})=0.0099$ 15; $\alpha(\text{M})=0.0021$ 4; $\alpha(\text{N}+..)=0.00053$ 8 $\alpha(\text{N})=0.00045$ 7; $\alpha(\text{O})=7.1\times 10^{-5}$ 9; $\alpha(\text{P})=4.3\times 10^{-6}$ 7 R(DCO)= 0.45 3.
272.0 ^{&} 2	21 5	3291.8	(29/2 ⁺)	3019.6	(27/2 ⁺)			
277.8 ^{&} 2	100	1138.8	(13/2 ⁺)	861.1	(11/2 ⁺)	M1,E2	0.062 3	$\alpha(\text{K})=0.052$ 4; $\alpha(\text{L})=0.0084$ 11; $\alpha(\text{M})=0.00176$ 24; $\alpha(\text{N}+..)=0.00045$ 6 $\alpha(\text{N})=0.00038$ 5; $\alpha(\text{O})=6.0\times 10^{-5}$ 6; $\alpha(\text{P})=3.7\times 10^{-6}$ 6
295.6 ^{&} 2		3019.6	(27/2 ⁺)	2724.1	(25/2 ⁺)			1993WaZP assign 296 γ deexciting this level.
312.2 ^{&} 2	100	1450.9	(15/2 ⁺)	1138.8	(13/2 ⁺)	M1, E2	0.045 4	$\alpha(\text{K})=0.037$ 4; $\alpha(\text{L})=0.0058$ 4; $\alpha(\text{M})=0.00121$ 10; $\alpha(\text{N}+..)=0.000309$ 21 $\alpha(\text{N})=0.000265$ 20; $\alpha(\text{O})=4.18\times 10^{-5}$ 19; $\alpha(\text{P})=2.7\times 10^{-6}$ 5
312.8 ^{&} 2	12 3	965.7	(13/2 ⁺)	652.9	(11/2 ⁺)	M1,E2	0.044 4	$\alpha(\text{K})=0.037$ 4; $\alpha(\text{L})=0.0057$ 4; $\alpha(\text{M})=0.00121$ 10; $\alpha(\text{N}+..)=0.000307$ 21 $\alpha(\text{N})=0.000263$ 19; $\alpha(\text{O})=4.16\times 10^{-5}$ 19; $\alpha(\text{P})=2.7\times 10^{-6}$ 5
314 ^a 1		3019.6	(27/2 ⁺)	2706.7	(25/2 ⁺)			
321.3 ^{&} 2	100	3291.8	(29/2 ⁺)	2970.5	(27/2 ⁺)	M1, E2	0.041 4	$\alpha(\text{K})=0.034$ 4; $\alpha(\text{L})=0.0053$ 3; $\alpha(\text{M})=0.00111$ 8; $\alpha(\text{N}+..)=0.000283$ 16 $\alpha(\text{N})=0.000242$ 15; $\alpha(\text{O})=3.83\times 10^{-5}$ 13; $\alpha(\text{P})=2.5\times 10^{-6}$ 5 R(DCO)= 0.35 3.
332.7 ^{&} 2	100	1783.5	(17/2 ⁺)	1450.9	(15/2 ⁺)	M1, E2	0.037 4	$\alpha(\text{K})=0.031$ 4; $\alpha(\text{L})=0.00475$ 21; $\alpha(\text{M})=0.00100$ 6; $\alpha(\text{N}+..)=0.000254$ 11 $\alpha(\text{N})=0.000217$ 11; $\alpha(\text{O})=3.44\times 10^{-5}$ 8; $\alpha(\text{P})=2.3\times 10^{-6}$ 4
340.3 ^{&} 2	67 9	2445.1	(23/2 ⁺)	2104.9	(21/2 ⁺)	M1, E2	0.035 4	$\alpha(\text{K})=0.029$ 4; $\alpha(\text{L})=0.00443$ 16; $\alpha(\text{M})=0.00093$ 5; $\alpha(\text{N}+..)=0.000237$ 8 $\alpha(\text{N})=0.000203$ 8; $\alpha(\text{O})=3.22\times 10^{-5}$ 6; $\alpha(\text{P})=2.1\times 10^{-6}$ 4
346.4 ^{&} 2	100	3638.2	(31/2 ⁺)	3291.8	(29/2 ⁺)	M1, E2	0.033 4	$\alpha(\text{K})=0.028$ 4; $\alpha(\text{L})=0.00420$ 12;

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(HI,xn γ) 2000Pa04,1996St01,1993WaZP (continued) $\gamma(^{127}\text{La})$ (continued)

E_γ^\dagger	I_γ^\dagger	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ‡	α^c	Comments
								$\alpha(\text{M})=0.00088$ 4; $\alpha(\text{N}+..)=0.000225$ 6 $\alpha(\text{N})=0.000192$ 6; $\alpha(\text{O})=3.05\times 10^{-5}$ 5; $\alpha(\text{P})=2.0\times 10^{-6}$ 4 R(DCO)= 0.33 3.
352.4& 2		425.3	(9/2 ⁺)	72.8	(5/2 ⁺)	E2	0.0284	$\alpha(\text{K})=0.0233$ 4; $\alpha(\text{L})=0.00406$ 6; $\alpha(\text{M})=0.000860$ 13; $\alpha(\text{N}+..)=0.000217$ 3 $\alpha(\text{N})=0.000186$ 3; $\alpha(\text{O})=2.88\times 10^{-5}$ 4; $\alpha(\text{P})=1.593\times 10^{-6}$ 23 R(DCO)= 1.0 3, Pol=+ 0.2 2.
360.0& 2		609.5	(9/2 ⁺)	249.5	(7/2 ⁺)	M1, E2	0.030 4	$\alpha(\text{K})=0.025$ 4; $\alpha(\text{L})=0.00374$ 7; $\alpha(\text{M})=0.000784$ 20; $\alpha(\text{N}+..)=0.000200$ 4 $\alpha(\text{N})=0.000171$ 4; $\alpha(\text{O})=2.72\times 10^{-5}$ 6; $\alpha(\text{P})=1.8\times 10^{-6}$ 4 R(DCO)= 3.0 15.
372.9& 2	10 1	2145.1	(23/2 ⁺)	1772.3	(21/2 ⁻)	E1	0.00689 10	$\alpha=0.00689$ 10; $\alpha(\text{K})=0.00593$ 9; $\alpha(\text{L})=0.000760$ 11; $\alpha(\text{M})=0.0001568$ 22; $\alpha(\text{N}+..)=4.03\times 10^{-5}$ 6 $\alpha(\text{N})=3.43\times 10^{-5}$ 5; $\alpha(\text{O})=5.53\times 10^{-6}$ 8; $\alpha(\text{P})=4.12\times 10^{-7}$ 6 R(DCO)= 0.50 14.
376.8& 2		2160.3	(19/2 ⁺)	1783.5	(17/2 ⁺)	M1,E2	0.026 3	$\alpha(\text{K})=0.022$ 3; $\alpha(\text{L})=0.00327$ 6; $\alpha(\text{M})=0.000684$ 10; $\alpha(\text{N}+..)=0.000175$ 3 $\alpha(\text{N})=0.0001493$ 22; $\alpha(\text{O})=2.38\times 10^{-5}$ 8; $\alpha(\text{P})=1.6\times 10^{-6}$ 3
386.8& 2		4025.1	(33/2 ⁺)	3638.2	(31/2 ⁺)	M1,E2	0.024 3	$\alpha(\text{K})=0.021$ 3; $\alpha(\text{L})=0.00302$ 7; $\alpha(\text{M})=0.000633$ 10; $\alpha(\text{N}+..)=0.000162$ 4 $\alpha(\text{N})=0.000138$ 3; $\alpha(\text{O})=2.20\times 10^{-5}$ 9; $\alpha(\text{P})=1.5\times 10^{-6}$ 3 R(DCO)= 0.33 5.
403.4& 2	100	652.9	(11/2 ⁺)	249.5	(7/2 ⁺)	E2	0.0190	$\alpha(\text{K})=0.01570$ 22; $\alpha(\text{L})=0.00259$ 4; $\alpha(\text{M})=0.000547$ 8; $\alpha(\text{N}+..)=0.0001384$ 20 $\alpha(\text{N})=0.0001188$ 17; $\alpha(\text{O})=1.85\times 10^{-5}$ 3; $\alpha(\text{P})=1.090\times 10^{-6}$ 16 R(DCO)= 1.0 1, Pol=+ 0.31 4.
405.7@ 2	16 2	2970.5	(27/2 ⁺)	2565.0	(25/2 ⁺)	M1,E2	0.021 3	$\alpha(\text{K})=0.018$ 3; $\alpha(\text{L})=0.00263$ 10; $\alpha(\text{M})=0.000550$ 16; $\alpha(\text{N}+..)=0.000141$ 6 $\alpha(\text{N})=0.000120$ 4; $\alpha(\text{O})=1.92\times 10^{-5}$ 11; $\alpha(\text{P})=1.3\times 10^{-6}$ 3
420.0& 2	21 3	2565.0	(25/2 ⁺)	2145.1	(23/2 ⁺)	M1, E2	0.020 3	$\alpha(\text{K})=0.017$ 3; $\alpha(\text{L})=0.00238$ 11; $\alpha(\text{M})=0.000498$ 19; $\alpha(\text{N}+..)=0.000127$ 7 $\alpha(\text{N})=0.000109$ 5; $\alpha(\text{O})=1.74\times 10^{-5}$ 12; $\alpha(\text{P})=1.22\times 10^{-6}$ 25 R(DCO)= 0.37 16.
424 ^a 1		4449.2	(35/2 ⁺)	4025.1	(33/2 ⁺)			
426.7& 2	84.7 10	1629.72	(17/2 ⁻)	1203.1	(13/2 ⁻)	E2	0.01611	$\alpha(\text{K})=0.01338$ 19; $\alpha(\text{L})=0.00216$ 3;

Continued on next page (footnotes at end of table)

(HI,xn γ) 2000Pa04,1996St01,1993WaZP (continued) $\gamma(^{127}\text{La})$ (continued)

E_γ^\dagger	I_γ^\dagger	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ‡	α^c	Comments
								$\alpha(\text{M})=0.000456$ 7; $\alpha(\text{N}+..)=0.0001155$ 17 $\alpha(\text{N})=9.91\times 10^{-5}$ 14; $\alpha(\text{O})=1.551\times 10^{-5}$ 22; $\alpha(\text{P})=9.35\times 10^{-7}$ 14 R(DCO)= 0.9 2.
431 ^a 1		1772.3	(21/2 ⁻)	1341.5	(23/2 ⁻)			
432.6 ^{&} 2	54 7	1143.57	(17/2 ⁻)	710.85	(19/2 ⁻)	D		R(DCO)= 0.55 9.
434.1 ^{&} 2	22 3	3155.4	(29/2 ⁺)	2721.8	(27/2 ⁺)	M1, E2	0.018 3	$\alpha(\text{K})=0.0151$ 24; $\alpha(\text{L})=0.00217$ 13; $\alpha(\text{M})=0.000453$ 22; $\alpha(\text{N}+..)=0.000116$ 7 $\alpha(\text{N})=9.9\times 10^{-5}$ 6; $\alpha(\text{O})=1.58\times 10^{-5}$ 12; $\alpha(\text{P})=1.12\times 10^{-6}$ 23 R(DCO)= 0.25 9.
443 ^a 1		2565.0	(25/2 ⁺)	2121.2	(27/2 ⁻)			
443.3 ^{&} 2	100	2145.1	(23/2 ⁺)	1701.9	(19/2 ⁺)	E2	0.01444	$\alpha(\text{K})=0.01202$ 17; $\alpha(\text{L})=0.00192$ 3; $\alpha(\text{M})=0.000404$ 6; $\alpha(\text{N}+..)=0.0001024$ 15 $\alpha(\text{N})=8.78\times 10^{-5}$ 13; $\alpha(\text{O})=1.377\times 10^{-5}$ 20; $\alpha(\text{P})=8.43\times 10^{-7}$ 12 R(DCO)= 1.01 9, Pol>0.2.
450 ^a 1		4899.2	(37/2 ⁺)	4449.2	(35/2 ⁺)			
456 ^a 1		2706.7	(25/2 ⁺)	2250.8	(21/2 ⁺)			
458.4 ^{&} 2		710.85	(19/2 ⁻)	252.40	(15/2 ⁻)	E2	0.01313	$\alpha(\text{K})=0.01095$ 16; $\alpha(\text{L})=0.001728$ 25; $\alpha(\text{M})=0.000364$ 6; $\alpha(\text{N}+..)=9.23\times 10^{-5}$ 13 $\alpha(\text{N})=7.91\times 10^{-5}$ 12; $\alpha(\text{O})=1.242\times 10^{-5}$ 18; $\alpha(\text{P})=7.70\times 10^{-7}$ 11 R(DCO)= 1.01 2.
491 ^a 1		5390.2	(39/2 ⁺)	4899.2	(37/2 ⁺)			
500.1 ^{&} 2	50.3 15	1701.9	(19/2 ⁺)	1201.6	(15/2 ⁺)	E2	0.01031	$\alpha(\text{K})=0.00863$ 13; $\alpha(\text{L})=0.001326$ 19; $\alpha(\text{M})=0.000278$ 4; $\alpha(\text{N}+..)=7.08\times 10^{-5}$ 10 $\alpha(\text{N})=6.06\times 10^{-5}$ 9; $\alpha(\text{O})=9.56\times 10^{-6}$ 14; $\alpha(\text{P})=6.12\times 10^{-7}$ 9 R(DCO)= 1.02 9, Pol=+ 0.4 1.
505 ^a 1		5895.2	(41/2 ⁺)	5390.2	(39/2 ⁺)			
519.0 ^{&} 2	41 4	2807.7	(25/2 ⁻)	2288.7	(21/2 ⁻)			
525.0 ^{&} 2		3019.6	(27/2 ⁺)	2494.4	(23/2 ⁺)			
525.2 ^{&} 2	25 3	2970.5	(27/2 ⁺)	2445.1	(23/2 ⁺)	E2	0.00902 13	$\alpha=0.00902$ 13; $\alpha(\text{K})=0.00757$ 11; $\alpha(\text{L})=0.001147$ 17; $\alpha(\text{M})=0.000241$ 4; $\alpha(\text{N}+..)=6.12\times 10^{-5}$ 9 $\alpha(\text{N})=5.24\times 10^{-5}$ 8; $\alpha(\text{O})=8.29\times 10^{-6}$ 12; $\alpha(\text{P})=5.39\times 10^{-7}$ 8
529.1 ^{&} 2	56 6	1138.8	(13/2 ⁺)	609.5	(9/2 ⁺)	E2	0.00884 13	$\alpha=0.00884$ 13; $\alpha(\text{K})=0.00743$ 11; $\alpha(\text{L})=0.001122$ 16; $\alpha(\text{M})=0.000235$ 4; $\alpha(\text{N}+..)=5.99\times 10^{-5}$ 9 $\alpha(\text{N})=5.13\times 10^{-5}$ 8; $\alpha(\text{O})=8.11\times 10^{-6}$ 12; $\alpha(\text{P})=5.29\times 10^{-7}$ 8

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(HI,xn γ) **2000Pa04,1996St01,1993WaZP (continued)**

$\gamma(^{127}\text{La})$ (continued)

E_γ^\dagger	I_γ^\dagger	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ‡	α^c	Comments
534.5@ 2	59 14	2288.7	(21/2 ⁻)	1754.52	(15/2,17/2) ⁻			
540.3& 2	100	965.7	(13/2 ⁺)	425.3	(9/2 ⁺)	E2	0.00836 12	$\alpha=0.00836$ 12; $\alpha(\text{K})=0.00703$ 10; $\alpha(\text{L})=0.001056$ 15; $\alpha(\text{M})=0.000221$ 4; $\alpha(\text{N+..})=5.64\times 10^{-5}$ 8 $\alpha(\text{N})=4.82\times 10^{-5}$ 7; $\alpha(\text{O})=7.64\times 10^{-6}$ 11; $\alpha(\text{P})=5.02\times 10^{-7}$ 7 R(DCO)= 1.1 2, Pol>0.
548 ^a 1		6443.2	(43/2 ⁺)	5895.2	(41/2 ⁺)			
548.7& 2		1201.6	(15/2 ⁺)	652.9	(11/2 ⁺)	E2	0.00803 12	$\alpha=0.00803$ 12; $\alpha(\text{K})=0.00675$ 10; $\alpha(\text{L})=0.001010$ 15; $\alpha(\text{M})=0.000212$ 3; $\alpha(\text{N+..})=5.39\times 10^{-5}$ 8 $\alpha(\text{N})=4.61\times 10^{-5}$ 7; $\alpha(\text{O})=7.31\times 10^{-6}$ 11; $\alpha(\text{P})=4.82\times 10^{-7}$ 7 R(DCO)= 1.10 7, Pol=+ 0.4 2.
558.2& 2	25 1	1701.9	(19/2 ⁺)	1143.57	(17/2 ⁻)			
561.5& 2	100	2191.0	(21/2 ⁻)	1629.72	(17/2 ⁻)	E2	0.00755 11	$\alpha=0.00755$ 11; $\alpha(\text{K})=0.00636$ 9; $\alpha(\text{L})=0.000945$ 14; $\alpha(\text{M})=0.000198$ 3; $\alpha(\text{N+..})=5.05\times 10^{-5}$ 7 $\alpha(\text{N})=4.32\times 10^{-5}$ 6; $\alpha(\text{O})=6.85\times 10^{-6}$ 10; $\alpha(\text{P})=4.55\times 10^{-7}$ 7 R(DCO)= 1.1 2.
563.1& 2	74 13	2445.1	(23/2 ⁺)	1882.2	(19/2 ⁺)	E2	0.00749 11	$\alpha=0.00749$ 11; $\alpha(\text{K})=0.00631$ 9; $\alpha(\text{L})=0.000937$ 14; $\alpha(\text{M})=0.000196$ 3; $\alpha(\text{N+..})=5.01\times 10^{-5}$ 7 $\alpha(\text{N})=4.28\times 10^{-5}$ 6; $\alpha(\text{O})=6.79\times 10^{-6}$ 10; $\alpha(\text{P})=4.52\times 10^{-7}$ 7 R(DCO)= 1.0 2.
568.0& 2	23 5	3291.8	(29/2 ⁺)	2724.1	(25/2 ⁺)	E2	0.00733 11	$\alpha=0.00733$ 11; $\alpha(\text{K})=0.00617$ 9; $\alpha(\text{L})=0.000915$ 13; $\alpha(\text{M})=0.000192$ 3; $\alpha(\text{N+..})=4.88\times 10^{-5}$ 7 $\alpha(\text{N})=4.18\times 10^{-5}$ 6; $\alpha(\text{O})=6.63\times 10^{-6}$ 10; $\alpha(\text{P})=4.42\times 10^{-7}$ 7 R(DCO)= 1.0 1, Pol>0.3.
576.7& 2	100	2721.8	(27/2 ⁺)	2145.1	(23/2 ⁺)			
583.0@ 2		2465.2		1882.2	(19/2 ⁺)			
585.0& 2	26 3	3291.8	(29/2 ⁺)	2706.7	(25/2 ⁺)	E2	0.00678 10	$\alpha=0.00678$ 10; $\alpha(\text{K})=0.00572$ 8; $\alpha(\text{L})=0.000841$ 12; $\alpha(\text{M})=0.0001761$ 25; $\alpha(\text{N+..})=4.49\times 10^{-5}$ 7 $\alpha(\text{N})=3.84\times 10^{-5}$ 6; $\alpha(\text{O})=6.10\times 10^{-6}$ 9; $\alpha(\text{P})=4.10\times 10^{-7}$ 6
589.2& 2		3121.1	(27/2 ⁺)	2531.9	(23/2 ⁺)	E2	0.00666 10	$\alpha=0.00666$ 10; $\alpha(\text{K})=0.00562$ 8; $\alpha(\text{L})=0.000825$ 12; $\alpha(\text{M})=0.0001726$ 25; $\alpha(\text{N+..})=4.40\times 10^{-5}$ 7 $\alpha(\text{N})=3.76\times 10^{-5}$ 6; $\alpha(\text{O})=5.98\times 10^{-6}$ 9; $\alpha(\text{P})=4.03\times 10^{-7}$ 6 R(DCO)= 1.0 3.
589.9& 2	63 12	1450.9	(15/2 ⁺)	861.1	(11/2 ⁺)	E2	0.00664 10	$\alpha=0.00664$ 10; $\alpha(\text{K})=0.00560$ 8; $\alpha(\text{L})=0.000822$ 12; $\alpha(\text{M})=0.0001720$ 25; $\alpha(\text{N+..})=4.39\times 10^{-5}$ 7 $\alpha(\text{N})=3.75\times 10^{-5}$ 6; $\alpha(\text{O})=5.96\times 10^{-6}$ 9; $\alpha(\text{P})=4.02\times 10^{-7}$ 6
590.1& 2	100	3155.4	(29/2 ⁺)	2565.0	(25/2 ⁺)	E2	0.00663 10	$\alpha=0.00663$ 10; $\alpha(\text{K})=0.00560$ 8;

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(HI,xn γ) 2000Pa04,1996St01,1993WaZP (continued) $\gamma(^{127}\text{La})$ (continued)

E_γ [†]	I_γ [†]	E_i (level)	J_i^π	E_f	J_f^π	Mult. [‡]	α^c	Comments
								$\alpha(\text{L})=0.000821$ 12; $\alpha(\text{M})=0.0001718$ 25; $\alpha(\text{N}+..)=4.38\times 10^{-5}$ 7 $\alpha(\text{N})=3.75\times 10^{-5}$ 6; $\alpha(\text{O})=5.96\times 10^{-6}$ 9; $\alpha(\text{P})=4.02\times 10^{-7}$ 6 R(DCO)= 0.92 7.
601.0 [@] 2	10 1	2721.8	(27/2 ⁺)	2121.2	(27/2 ⁻)	E1	0.00226 4	$\alpha=0.00226$ 4; $\alpha(\text{K})=0.00195$ 3; $\alpha(\text{L})=0.000246$ 4; $\alpha(\text{M})=5.06\times 10^{-5}$ 8; $\alpha(\text{N}+..)=1.304\times 10^{-5}$ 19 $\alpha(\text{N})=1.110\times 10^{-5}$ 16; $\alpha(\text{O})=1.80\times 10^{-6}$ 3; $\alpha(\text{P})=1.387\times 10^{-7}$ 20
616.7 ^{&} 2	100	2807.7	(25/2 ⁻)	2191.0	(21/2 ⁻)	(E2)	0.00592 9	$\alpha=0.00592$ 9; $\alpha(\text{K})=0.00501$ 7; $\alpha(\text{L})=0.000727$ 11; $\alpha(\text{M})=0.0001519$ 22; $\alpha(\text{N}+..)=3.88\times 10^{-5}$ 6 $\alpha(\text{N})=3.32\times 10^{-5}$ 5; $\alpha(\text{O})=5.28\times 10^{-6}$ 8; $\alpha(\text{P})=3.60\times 10^{-7}$ 5 R(DCO)= 0.76 6. Mult.: Multipolarity of E2 is tentatively adopted (evaluator).
630.9 ^{&} 2		1341.5	(23/2 ⁻)	710.85	(19/2 ⁻)	E2	0.00559 8	$\alpha=0.00559$ 8; $\alpha(\text{K})=0.00473$ 7; $\alpha(\text{L})=0.000683$ 10; $\alpha(\text{M})=0.0001427$ 20; $\alpha(\text{N}+..)=3.65\times 10^{-5}$ 6 $\alpha(\text{N})=3.11\times 10^{-5}$ 5; $\alpha(\text{O})=4.96\times 10^{-6}$ 7; $\alpha(\text{P})=3.41\times 10^{-7}$ 5 R(DCO)= 0.96 2.
644.7 ^{&} 2	50 20	1783.5	(17/2 ⁺)	1138.8	(13/2 ⁺)	E2	0.00530 8	$\alpha=0.00530$ 8; $\alpha(\text{K})=0.00448$ 7; $\alpha(\text{L})=0.000644$ 9; $\alpha(\text{M})=0.0001345$ 19; $\alpha(\text{N}+..)=3.44\times 10^{-5}$ 5 $\alpha(\text{N})=2.94\times 10^{-5}$ 5; $\alpha(\text{O})=4.68\times 10^{-6}$ 7; $\alpha(\text{P})=3.23\times 10^{-7}$ 5
649.7 [@] 2		2531.9	(23/2 ⁺)	1882.2	(19/2 ⁺)	E2	0.00519 8	$\alpha=0.00519$ 8; $\alpha(\text{K})=0.00440$ 7; $\alpha(\text{L})=0.000631$ 9; $\alpha(\text{M})=0.0001317$ 19; $\alpha(\text{N}+..)=3.37\times 10^{-5}$ 5 $\alpha(\text{N})=2.88\times 10^{-5}$ 4; $\alpha(\text{O})=4.59\times 10^{-6}$ 7; $\alpha(\text{P})=3.17\times 10^{-7}$ 5 R(DCO)= 0.9 3.
653.2 ^{&} 2		3460.9	(29/2 ⁻)	2807.7	(25/2 ⁻)	E2	0.00512 8	$\alpha=0.00512$ 8; $\alpha(\text{K})=0.00434$ 6; $\alpha(\text{L})=0.000622$ 9; $\alpha(\text{M})=0.0001298$ 19; $\alpha(\text{N}+..)=3.32\times 10^{-5}$ 5 $\alpha(\text{N})=2.83\times 10^{-5}$ 4; $\alpha(\text{O})=4.52\times 10^{-6}$ 7; $\alpha(\text{P})=3.13\times 10^{-7}$ 5 R(DCO)= 0.9 2.
661 ^a 1		2290.0	(21/2 ⁺)	1629.72	(17/2 ⁻)			
662.9 ^{&} 2		1628.6	(17/2 ⁺)	965.7	(13/2 ⁺)	E2	0.00494 7	$\alpha=0.00494$ 7; $\alpha(\text{K})=0.00419$ 6; $\alpha(\text{L})=0.000597$ 9; $\alpha(\text{M})=0.0001247$ 18; $\alpha(\text{N}+..)=3.19\times 10^{-5}$ 5 $\alpha(\text{N})=2.72\times 10^{-5}$ 4; $\alpha(\text{O})=4.35\times 10^{-6}$ 7; $\alpha(\text{P})=3.02\times 10^{-7}$ 5 R(DCO)= 1.2 3.
667.7 ^{&} 2	48 7	3638.2	(31/2 ⁺)	2970.5	(27/2 ⁺)	E2	0.00485 7	$\alpha=0.00485$ 7; $\alpha(\text{K})=0.00411$ 6; $\alpha(\text{L})=0.000586$ 9; $\alpha(\text{M})=0.0001223$ 18; $\alpha(\text{N}+..)=3.13\times 10^{-5}$ 5

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(HI,xn γ) 2000Pa04,1996St01,1993WaZP (continued) $\gamma(^{127}\text{La})$ (continued)

E_γ [†]	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [‡]	α^c	Comments
680.8& 2		1882.2	(19/2 ⁺)	1201.6	(15/2 ⁺)	E2	0.00463 7	$\alpha(\text{N})=2.67\times 10^{-5}$ 4; $\alpha(\text{O})=4.27\times 10^{-6}$ 6; $\alpha(\text{P})=2.97\times 10^{-7}$ 5 $\alpha=0.00463$ 7; $\alpha(\text{K})=0.00392$ 6; $\alpha(\text{L})=0.000557$ 8; $\alpha(\text{M})=0.0001161$ 17; $\alpha(\text{N+..})=2.97\times 10^{-5}$ 5 $\alpha(\text{N})=2.54\times 10^{-5}$ 4; $\alpha(\text{O})=4.06\times 10^{-6}$ 6; $\alpha(\text{P})=2.84\times 10^{-7}$ 4 R(DCO)= 1.1 1, Pol>0.
683.0& 2		2312.7	(21/2 ⁺)	1629.72	(17/2 ⁻)			
701.8& 2		3423.6	(31/2 ⁺)	2721.8	(27/2 ⁺)	E2	0.00429 6	$\alpha=0.00429$ 6; $\alpha(\text{K})=0.00365$ 6; $\alpha(\text{L})=0.000514$ 8; $\alpha(\text{M})=0.0001072$ 15; $\alpha(\text{N+..})=2.74\times 10^{-5}$ 4 $\alpha(\text{N})=2.34\times 10^{-5}$ 4; $\alpha(\text{O})=3.75\times 10^{-6}$ 6; $\alpha(\text{P})=2.64\times 10^{-7}$ 4 R(DCO)= 0.95 5, Pol=+ 0.3 3.
709 ^a 1		2160.3	(19/2 ⁺)	1450.9	(15/2 ⁺)			
726.2& 2	100	2917.3	(25/2 ⁻)	2191.0	(21/2 ⁻)	E2	0.00395 6	$\alpha=0.00395$ 6; $\alpha(\text{K})=0.00336$ 5; $\alpha(\text{L})=0.000471$ 7; $\alpha(\text{M})=9.80\times 10^{-5}$ 14; $\alpha(\text{N+..})=2.51\times 10^{-5}$ 4 $\alpha(\text{N})=2.14\times 10^{-5}$ 3; $\alpha(\text{O})=3.43\times 10^{-6}$ 5; $\alpha(\text{P})=2.44\times 10^{-7}$ 4 R(DCO)= 0.8 2.
733.4& 2		4025.1	(33/2 ⁺)	3291.8	(29/2 ⁺)	E2	0.00386 6	$\alpha=0.00386$ 6; $\alpha(\text{K})=0.00328$ 5; $\alpha(\text{L})=0.000459$ 7; $\alpha(\text{M})=9.56\times 10^{-5}$ 14; $\alpha(\text{N+..})=2.45\times 10^{-5}$ 4 $\alpha(\text{N})=2.09\times 10^{-5}$ 3; $\alpha(\text{O})=3.35\times 10^{-6}$ 5; $\alpha(\text{P})=2.38\times 10^{-7}$ 4
737.4& 2		3892.8	(33/2 ⁺)	3155.4	(29/2 ⁺)	E2	0.00381 6	$\alpha=0.00381$ 6; $\alpha(\text{K})=0.00324$ 5; $\alpha(\text{L})=0.000452$ 7; $\alpha(\text{M})=9.42\times 10^{-5}$ 14; $\alpha(\text{N+..})=2.41\times 10^{-5}$ 4 $\alpha(\text{N})=2.06\times 10^{-5}$ 3; $\alpha(\text{O})=3.30\times 10^{-6}$ 5; $\alpha(\text{P})=2.35\times 10^{-7}$ 4 R(DCO)= 0.93 7.
779.9& 2		2121.2	(27/2 ⁻)	1341.5	(23/2 ⁻)	E2	0.00334 5	$\alpha=0.00334$ 5; $\alpha(\text{K})=0.00284$ 4; $\alpha(\text{L})=0.000393$ 6; $\alpha(\text{M})=8.17\times 10^{-5}$ 12; $\alpha(\text{N+..})=2.10\times 10^{-5}$ 3 $\alpha(\text{N})=1.79\times 10^{-5}$ 3; $\alpha(\text{O})=2.87\times 10^{-6}$ 4; $\alpha(\text{P})=2.07\times 10^{-7}$ 3 R(DCO)= 0.95 3.
781.0& 2		4241.9	(33/2 ⁻)	3460.9	(29/2 ⁻)			
790.6& 2		3707.9	(29/2 ⁻)	2917.3	(25/2 ⁻)	E2	0.00324 5	$\alpha=0.00324$ 5; $\alpha(\text{K})=0.00276$ 4; $\alpha(\text{L})=0.000380$ 6; $\alpha(\text{M})=7.90\times 10^{-5}$ 11; $\alpha(\text{N+..})=2.03\times 10^{-5}$ 3 $\alpha(\text{N})=1.728\times 10^{-5}$ 25; $\alpha(\text{O})=2.78\times 10^{-6}$ 4; $\alpha(\text{P})=2.01\times 10^{-7}$ 3
803.7& 2	41 2	2145.1	(23/2 ⁺)	1341.5	(23/2 ⁻)	E1	0.001229 18	$\alpha=0.001229$ 18; $\alpha(\text{K})=0.001062$ 15; $\alpha(\text{L})=0.0001323$ 19; $\alpha(\text{M})=2.72\times 10^{-5}$ 4; $\alpha(\text{N+..})=7.02\times 10^{-6}$ $\alpha(\text{N})=5.98\times 10^{-6}$ 9; $\alpha(\text{O})=9.72\times 10^{-7}$ 14; $\alpha(\text{P})=7.60\times 10^{-8}$ 11 R(DCO)= 1.11 14, Pol<0.

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(HI,xnγ) **2000Pa04,1996St01,1993WaZP (continued)**

γ(¹²⁷La) (continued)

<u>E_γ[†]</u>	<u>I_γ[†]</u>	<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.[‡]</u>	<u>α^c</u>	<u>Comments</u>
811 ^a 1		4449.2	(35/2 ⁺)	3638.2	(31/2 ⁺)			
813.2 ^{&} 2		4236.8	(35/2 ⁺)	3423.6	(31/2 ⁺)	E2	0.00303 5	α=0.00303 5; α(K)=0.00258 4; α(L)=0.000354 5; α(M)=7.36×10 ⁻⁵ 11; α(N+..)=1.89×10 ⁻⁵ 3 α(N)=1.611×10 ⁻⁵ 23; α(O)=2.59×10 ⁻⁶ 4; α(P)=1.88×10 ⁻⁷ 3 R(DCO)= 1.0 1, Pol=+ 1.0 2.
850 ^{&} 2	20 6	2191.0	(21/2 ⁻)	1341.5	(23/2 ⁻)	M1,E2	0.0033 6	α=0.0033 6; α(K)=0.0029 6; α(L)=0.00038 6; α(M)=7.8×10 ⁻⁵ 12; α(N+..)=2.0×10 ⁻⁵ 4 α(N)=1.7×10 ⁻⁵ 3; α(O)=2.8×10 ⁻⁶ 5; α(P)=2.1×10 ⁻⁷ 5
863 [#] 1		3892.8	(33/2 ⁺)	3029.1	(31/2 ⁻)			
874 ^a 1		4899.2	(37/2 ⁺)	4025.1	(33/2 ⁺)			
879.3 ^{&} 2		4587.2	(32/2 ⁻)	3707.9	(29/2 ⁻)	E2	0.00254 4	α=0.00254 4; α(K)=0.00217 3; α(L)=0.000293 5; α(M)=6.09×10 ⁻⁵ 9; α(N+..)=1.563×10 ⁻⁵ 22 α(N)=1.333×10 ⁻⁵ 19; α(O)=2.15×10 ⁻⁶ 3; α(P)=1.582×10 ⁻⁷ 23
885.3 ^{&} 2		4778.1	(37/2 ⁺)	3892.8	(33/2 ⁺)	E2	0.00250 4	α=0.00250 4; α(K)=0.00213 3; α(L)=0.000288 4; α(M)=5.99×10 ⁻⁵ 9; α(N+..)=1.538×10 ⁻⁵ 22 α(N)=1.311×10 ⁻⁵ 19; α(O)=2.11×10 ⁻⁶ 3; α(P)=1.559×10 ⁻⁷ 22
891.2 ^{&} 2	100	1143.57	(17/2 ⁻)	252.40	(15/2 ⁻)	D		R(DCO)= 0.38 8.
907.9 ^{&} 2		3029.1	(31/2 ⁻)	2121.2	(27/2 ⁻)	E2	0.00236 4	α=0.00236 4; α(K)=0.00202 3; α(L)=0.000272 4; α(M)=5.64×10 ⁻⁵ 8; α(N+..)=1.449×10 ⁻⁵ 21 α(N)=1.235×10 ⁻⁵ 18; α(O)=1.99×10 ⁻⁶ 3; α(P)=1.475×10 ⁻⁷ 21 R(DCO)= 1.01 4.
915.8 ^{&} 2		5152.6	(39/2 ⁺)	4236.8	(35/2 ⁺)	E2	0.00232 4	α=0.00232 4; α(K)=0.00198 3; α(L)=0.000266 4; α(M)=5.52×10 ⁻⁵ 8; α(N+..)=1.420×10 ⁻⁵ 20 α(N)=1.210×10 ⁻⁵ 17; α(O)=1.95×10 ⁻⁶ 3; α(P)=1.447×10 ⁻⁷ 21
919.1 ^{&} 2	82 11	1629.72	(17/2 ⁻)	710.85	(19/2 ⁻)	M1,E2	0.0028 5	α=0.0028 5; α(K)=0.0024 5; α(L)=0.00031 5; α(M)=6.5×10 ⁻⁵ 10; α(N+..)=1.7×10 ⁻⁵ 3 α(N)=1.42×10 ⁻⁵ 22; α(O)=2.3×10 ⁻⁶ 4; α(P)=1.8×10 ⁻⁷ 4 R(DCO)= 0.18 9, Pol=- 0.4 3.
941 ^a 1		5390.2	(39/2 ⁺)	4449.2	(35/2 ⁺)			
944 ^a 1		5531.2	(37/2 ⁻)	4587.2	(32/2 ⁻)			
950.8 ^{&} 2		1203.1	(13/2 ⁻)	252.40	(15/2 ⁻)	M1,E2	0.0026 5	α=0.0026 5; α(K)=0.0022 4; α(L)=0.00029 5; α(M)=6.0×10 ⁻⁵ 9; α(N+..)=1.54×10 ⁻⁵ 24 α(N)=1.31×10 ⁻⁵ 21; α(O)=2.1×10 ⁻⁶ 4; α(P)=1.7×10 ⁻⁷ 4 R(DCO)= 0.64 18. Pol=- 0.2 2.
980 ^a 1		6511.2	(41/2 ⁻)	5531.2	(37/2 ⁻)			

Continued on next page (footnotes at end of table)

(HI,xn γ) **2000Pa04,1996St01,1993WaZP (continued)**

$\gamma(^{127}\text{La})$ (continued)

E_γ †	I_γ †	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ‡	α^c	Comments
991.3 & 2	100	1701.9	(19/2 ⁺)	710.85	(19/2 ⁻)	E1	0.000816 12	$\alpha=0.000816$ 12; $\alpha(\text{K})=0.000706$ 10; $\alpha(\text{L})=8.73 \times 10^{-5}$ 13; $\alpha(\text{M})=1.80 \times 10^{-5}$ 3; $\alpha(\text{N}+..)=4.64 \times 10^{-6}$ 7 $\alpha(\text{N})=3.94 \times 10^{-6}$ 6; $\alpha(\text{O})=6.42 \times 10^{-7}$ 9; $\alpha(\text{P})=5.07 \times 10^{-8}$ 7 R(DCO)= 1.13 15, Pol=- 0.80 13.
996 ^a 1		5895.2	(41/2 ⁺)	4899.2	(37/2 ⁺)			
996.4 & 2		6149.0	(43/2 ⁺)	5152.6	(39/2 ⁺)	E2	0.00193 3	$\alpha=0.00193$ 3; $\alpha(\text{K})=0.001650$ 24; $\alpha(\text{L})=0.000219$ 3; $\alpha(\text{M})=4.54 \times 10^{-5}$ 7; $\alpha(\text{N}+..)=1.168 \times 10^{-5}$ 17 $\alpha(\text{N})=9.95 \times 10^{-6}$ 14; $\alpha(\text{O})=1.608 \times 10^{-6}$ 23; $\alpha(\text{P})=1.208 \times 10^{-7}$ 17
998.4 & 2		5030.0	(39/2 ⁻)	4031.6	(35/2 ⁻)	E2	0.00192 3	$\alpha=0.00192$ 3; $\alpha(\text{K})=0.001643$ 23; $\alpha(\text{L})=0.000218$ 3; $\alpha(\text{M})=4.52 \times 10^{-5}$ 7; $\alpha(\text{N}+..)=1.163 \times 10^{-5}$ 17 $\alpha(\text{N})=9.91 \times 10^{-6}$ 14; $\alpha(\text{O})=1.601 \times 10^{-6}$ 23; $\alpha(\text{P})=1.203 \times 10^{-7}$ 17 R(DCO)= 1.0 1, Pol=+ 0.4 3.
1002.5 & 2		4031.6	(35/2 ⁻)	3029.1	(31/2 ⁻)	E2	0.00190 3	$\alpha=0.00190$ 3; $\alpha(\text{K})=0.001629$ 23; $\alpha(\text{L})=0.000216$ 3; $\alpha(\text{M})=4.48 \times 10^{-5}$ 7; $\alpha(\text{N}+..)=1.152 \times 10^{-5}$ 17 $\alpha(\text{N})=9.81 \times 10^{-6}$ 14; $\alpha(\text{O})=1.586 \times 10^{-6}$ 23; $\alpha(\text{P})=1.192 \times 10^{-7}$ 17 R(DCO)= 1.0 1, Pol=+ 0.2 2.
1008 [#] 1		5786.1	(41/2 ⁺)	4778.1	(37/2 ⁺)			
1014.4 & 2		6044.4	(43/2 ⁻)	5030.0	(39/2 ⁻)	E2	0.00185 3	$\alpha=0.00185$ 3; $\alpha(\text{K})=0.001589$ 23; $\alpha(\text{L})=0.000210$ 3; $\alpha(\text{M})=4.36 \times 10^{-5}$ 7; $\alpha(\text{N}+..)=1.121 \times 10^{-5}$ 16 $\alpha(\text{N})=9.55 \times 10^{-6}$ 14; $\alpha(\text{O})=1.545 \times 10^{-6}$ 22; $\alpha(\text{P})=1.163 \times 10^{-7}$ 17 R(DCO)= 0.96 7.
1018 [#] 1		7864.1	(49/2 ⁺)	6846.1	(45/2 ⁺)			
1019 [#] 1		7168.0	(47/2 ⁺)	6149.0	(43/2 ⁺)			
1019 [#] 1		8187.0	(51/2 ⁺)	7168.0	(47/2 ⁺)			
1034.1 & 2	61 7	3155.4	(29/2 ⁺)	2121.2	(27/2 ⁻)	E1	0.000754 11	$\alpha=0.000754$ 11; $\alpha(\text{K})=0.000652$ 10; $\alpha(\text{L})=8.05 \times 10^{-5}$ 12; $\alpha(\text{M})=1.656 \times 10^{-5}$ 24; $\alpha(\text{N}+..)=4.28 \times 10^{-6}$ $\alpha(\text{N})=3.64 \times 10^{-6}$ 5; $\alpha(\text{O})=5.93 \times 10^{-7}$ 9; $\alpha(\text{P})=4.68 \times 10^{-8}$ 7 R(DCO)= 0.49 12, Pol>0.
1044.0 & 2		1754.52	(15/2,17/2) ⁻	710.85	(19/2 ⁻)	M1,E2	0.0021 4	$\alpha=0.0021$ 4; $\alpha(\text{K})=0.0018$ 3; $\alpha(\text{L})=0.00023$ 4; $\alpha(\text{M})=4.8 \times 10^{-5}$ 8; $\alpha(\text{N}+..)=1.24 \times 10^{-5}$ 19 $\alpha(\text{N})=1.05 \times 10^{-5}$ 16; $\alpha(\text{O})=1.7 \times 10^{-6}$

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(HI,xn γ) **2000Pa04,1996St01,1993WaZP (continued)**

$\gamma(^{127}\text{La})$ (continued)

E_γ [†]	I_γ [†]	E_i (level)	J_i^π	E_f	J_f^π	Mult. [‡]	α^c	Comments
								3; $\alpha(\text{P})=1.34\times 10^{-7}$ 25 R(DCO)= 0.63 15.
1053 ^a 1		6443.2	(43/2 ⁺)	5390.2	(39/2 ⁺)			
1060 [#] 1		6846.1	(45/2 ⁺)	5786.1	(41/2 ⁺)			
1061.5 ^{&} 2		1772.3	(21/2 ⁻)	710.85	(19/2 ⁻)	M1,E2	0.0020 4	$\alpha=0.0020$ 4; $\alpha(\text{K})=0.0017$ 3; $\alpha(\text{L})=0.00022$ 4; $\alpha(\text{M})=4.6\times 10^{-5}$ 7; $\alpha(\text{N+..})=1.19\times 10^{-5}$ 18 $\alpha(\text{N})=1.01\times 10^{-5}$ 16; $\alpha(\text{O})=1.7\times 10^{-6}$ 3; $\alpha(\text{P})=1.29\times 10^{-7}$ 24 R(DCO)= 0.28 6.
1086 [#] 1		9273.0	(55/2 ⁺)	8187.0	(51/2 ⁺)			
1101 [#] 1		7145.4	(47/2 ⁻)	6044.4	(43/2 ⁻)			
1112 [#] 1		8976.1	(53/2 ⁺)	7864.1	(49/2 ⁺)			
1173 [#] 1		10446.0	(59/2 ⁺)	9273.0	(55/2 ⁺)			
1190 [#] 1		8335.4	(51/2 ⁻)	7145.4	(47/2 ⁻)			
1203 [#] 1		10179.1	(57/2 ⁺)	8976.1	(53/2 ⁺)			
1207.8 [@] 2		3329.0	(29/2 ⁺)	2121.2	(27/2 ⁻)	E1	0.000600 9	$\alpha=0.000600$ 9; $\alpha(\text{K})=0.000491$ 7; $\alpha(\text{L})=6.04\times 10^{-5}$ 9; $\alpha(\text{M})=1.241\times 10^{-5}$ 18; $\alpha(\text{N+..})=3.61\times 10^{-5}$ 6 $\alpha(\text{N})=2.73\times 10^{-6}$ 4; $\alpha(\text{O})=4.45\times 10^{-7}$ 7; $\alpha(\text{P})=3.53\times 10^{-8}$ 5; $\alpha(\text{IPF})=3.29\times 10^{-5}$ 5 R(DCO)= 0.4 2, Pol=+ 0.3 1. R(DCO)= 0.5 2, Pol=+ 0.0 2.
1213.4 [@] 2		4242.5		3029.1	(31/2 ⁻)	D		
1223.4 ^{&} 2	100	2565.0	(25/2 ⁺)	1341.5	(23/2 ⁻)	E1	0.000595 9	$\alpha=0.000595$ 9; $\alpha(\text{K})=0.000480$ 7; $\alpha(\text{L})=5.90\times 10^{-5}$ 9; $\alpha(\text{M})=1.212\times 10^{-5}$ 17; $\alpha(\text{N+..})=4.35\times 10^{-5}$ 7 $\alpha(\text{N})=2.66\times 10^{-6}$ 4; $\alpha(\text{O})=4.34\times 10^{-7}$ 6; $\alpha(\text{P})=3.45\times 10^{-8}$ 5; $\alpha(\text{IPF})=4.04\times 10^{-5}$ 6 R(DCO)= 0.59 5, Pol=+ 0.3 1.
1262 [#] 1		11708.0	(63/2 ⁺)	10446.0	(59/2 ⁺)			
1271 [#] 1		9606.4	(55/2 ⁻)	8335.4	(51/2 ⁻)			
1283 [#] 1		11462.1	(61/2 ⁺)	10179.1	(57/2 ⁺)			
1339.2 [@] 2		3460.4		2121.2	(27/2 ⁻)	D		R(DCO)= 0.7 2, Pol=+ 0.6 3.
1343 [#] 1		10949.4	(59/2 ⁻)	9606.4	(55/2 ⁻)			
1349 [#] 1		13057.0	(67/2 ⁺)	11708.0	(63/2 ⁺)			
1354 [#] 1		12816	(65/2 ⁺)	11462.1	(61/2 ⁺)			
1365.1 ^{&} 2	71 8	2706.7	(25/2 ⁺)	1341.5	(23/2 ⁻)	E1	0.000578 8	$\alpha=0.000578$ 8; $\alpha(\text{K})=0.000396$ 6; $\alpha(\text{L})=4.85\times 10^{-5}$ 7; $\alpha(\text{M})=9.97\times 10^{-6}$ 14; $\alpha(\text{N+..})=0.0001229$ 18 $\alpha(\text{N})=2.19\times 10^{-6}$ 3; $\alpha(\text{O})=3.58\times 10^{-7}$ 5; $\alpha(\text{P})=2.85\times 10^{-8}$ 4; $\alpha(\text{IPF})=0.0001203$ 17 R(DCO)= 0.54 11, Pol=+ 0.6 2.
1377.2 ^{&} 2	100	1629.72	(17/2 ⁻)	252.40	(15/2 ⁻)	M1,E2	0.00118 16	$\alpha=0.00118$ 16; $\alpha(\text{K})=0.00099$ 14; $\alpha(\text{L})=0.000125$ 17; $\alpha(\text{M})=2.6\times 10^{-5}$ 4; $\alpha(\text{N+..})=4.61\times 10^{-5}$ 10 $\alpha(\text{N})=5.7\times 10^{-6}$ 8; $\alpha(\text{O})=9.3\times 10^{-7}$ 13;

Continued on next page (footnotes at end of table)

(HI,xn γ) 2000Pa04,1996St01,1993WaZP (continued) $\gamma(^{127}\text{La})$ (continued)

E_γ †	I_γ †	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ‡	α^c	Comments
1382.8 & 2		2724.1	(25/2 ⁺)	1341.5	(23/2 ⁻)	E1	0.000580 9	$\alpha(\text{P})=7.3\times 10^{-8}$ 11; $\alpha(\text{IPF})=3.94\times 10^{-5}$ 6 R(DCO)= 1.8 5. $\alpha=0.000580$ 9; $\alpha(\text{K})=0.000387$ 6; $\alpha(\text{L})=4.74\times 10^{-5}$ 7; $\alpha(\text{M})=9.74\times 10^{-6}$ 14; $\alpha(\text{N+..})=0.0001351$ 19 $\alpha(\text{N})=2.14\times 10^{-6}$ 3; $\alpha(\text{O})=3.50\times 10^{-7}$ 5; $\alpha(\text{P})=2.79\times 10^{-8}$ 4; $\alpha(\text{IPF})=0.0001326$ 19 R(DCO)= 0.49 7, Pol=+ 0.4 3.
1394.1 & 2		2104.9	(21/2 ⁺)	710.85	(19/2 ⁻)	E1	0.000581 9	$\alpha=0.000581$ 9; $\alpha(\text{K})=0.000382$ 6; $\alpha(\text{L})=4.67\times 10^{-5}$ 7; $\alpha(\text{M})=9.61\times 10^{-6}$ 14; $\alpha(\text{N+..})=0.0001430$ 20 $\alpha(\text{N})=2.11\times 10^{-6}$ 3; $\alpha(\text{O})=3.45\times 10^{-7}$ 5; $\alpha(\text{P})=2.75\times 10^{-8}$ 4; $\alpha(\text{IPF})=0.0001405$ 20 R(DCO)= 0.50 8, Pol=+ 0.3 3.
1400 [#] 1		12349.5	(63/2 ⁻)	10949.4	(59/2 ⁻)			
1432 [#] 1		14489	(71/2 ⁺)	13057.0	(67/2 ⁺)			
1479.9 & 2	55 12	2191.0	(21/2 ⁻)	710.85	(19/2 ⁻)	M1,E2	0.00105 13	$\alpha=0.00105$ 13; $\alpha(\text{K})=0.00085$ 11; $\alpha(\text{L})=0.000107$ 13; $\alpha(\text{M})=2.2\times 10^{-5}$ 3; $\alpha(\text{N+..})=7.69\times 10^{-5}$ 14 $\alpha(\text{N})=4.9\times 10^{-6}$ 6; $\alpha(\text{O})=7.9\times 10^{-7}$ 10; $\alpha(\text{P})=6.3\times 10^{-8}$ 9; $\alpha(\text{IPF})=7.12\times 10^{-5}$ 11 R(DCO)= 1.0 2. R(DCO)= 0.4 2.
1502.1 & 2		1754.52	(15/2,17/2) ⁻	252.40	(15/2 ⁻)	D		
1515 [#] 1		16004	(75/2 ⁺)	14489	(71/2 ⁺)			
1539.7 2		2250.8	(21/2 ⁺)	710.85	(19/2 ⁻)	E1	0.000620 9	$\alpha=0.000620$ 9; $\alpha(\text{K})=0.000323$ 5; $\alpha(\text{L})=3.94\times 10^{-5}$ 6; $\alpha(\text{M})=8.10\times 10^{-6}$ 12; $\alpha(\text{N+..})=0.000250$ 4 $\alpha(\text{N})=1.779\times 10^{-6}$ 25; $\alpha(\text{O})=2.91\times 10^{-7}$ 4; $\alpha(\text{P})=2.33\times 10^{-8}$ 4; $\alpha(\text{IPF})=0.000247$ 4 R(DCO)= 0.51 8, Pol=+ 0.5 2.
1575.8 & 2	100 2	2917.3	(25/2 ⁻)	1341.5	(23/2 ⁻)	M1,E2	0.00097 11	$\alpha=0.00097$ 11; $\alpha(\text{K})=0.00074$ 9; $\alpha(\text{L})=9.4\times 10^{-5}$ 11; $\alpha(\text{M})=1.93\times 10^{-5}$ 22; $\alpha(\text{N+..})=0.0001113$ 21 $\alpha(\text{N})=4.2\times 10^{-6}$ 5; $\alpha(\text{O})=6.9\times 10^{-7}$ 9; $\alpha(\text{P})=5.5\times 10^{-8}$ 8; $\alpha(\text{IPF})=0.0001063$ 17 R(DCO)= 0.8 3.
1577.5 & 2	100	2288.7	(21/2 ⁻)	710.85	(19/2 ⁻)			
1578.7 & 2		2290.0	(21/2 ⁺)	710.85	(19/2 ⁻)			E_γ : 1581(1993WaZP).

Continued on next page (footnotes at end of table)

(HI,xn γ) 2000Pa04,1996St01,1993WaZP (continued) $\gamma(^{127}\text{La})$ (continued)

E_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π
1603 ^a I	2312.7	(21/2 ⁺)	710.85	(19/2 ⁻)
1614 [#] I	17618	(79/2 ⁺)	16004	(75/2 ⁺)
1739 [#] I	19357	(83/2 ⁺)	17618	(79/2 ⁺)
1811 ^a I	2062.4	(17/2 ⁺)	252.40	(15/2 ⁻)
1911 [#] I	21268	(87/2 ⁺)	19357	(83/2 ⁺)

[†] From 1996St01, unless otherwise noted. Uncertainty of 0.2 keV is given by authors.

[‡] From DCO ratio and linear polarization (1996St01). In combining the DCO ratio and the linear polarization measurement, the γ -ray multipolarity can be unambiguously determined. The definition of linear polarization is given in 1996St01. For the relations on DCO values and γ -ray multipolarities, see for example Nucl.Instr.Meth. A275, 333 (1989) reported by A. Kramer-Flecken et al.

[#] From level scheme of 2000Pa04. Uncertainty of 1 keV as assumed by evaluator.

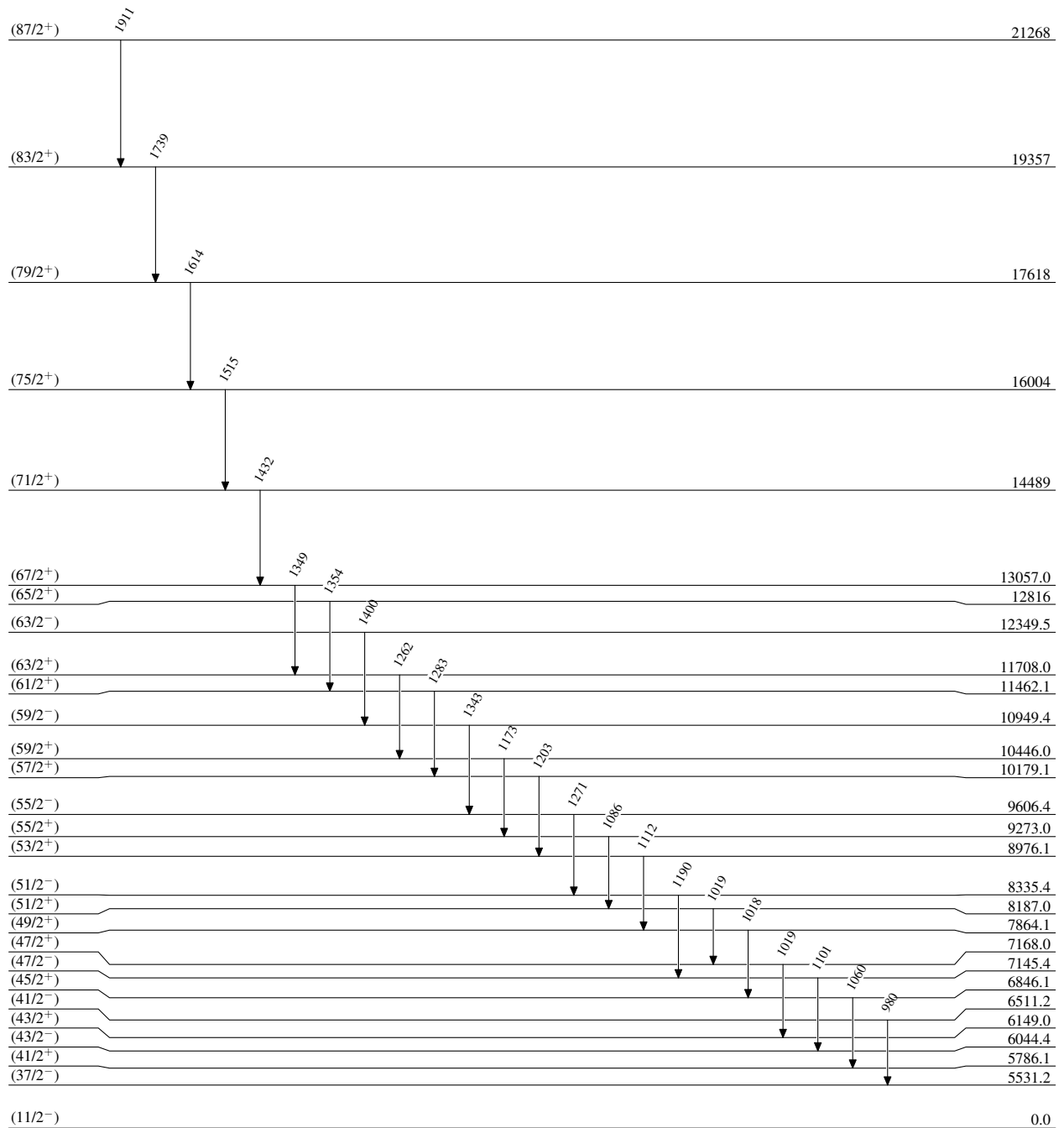
[@] From 1996St01.

[&] From 1996St01. Reported also by 2000Pa04, by 1996St01, and/or by 1993WaZP.

^a From 1993WaZP. Reported only by 1993WaZP. The uncertainties were not given by authors, 1 keV were assumed by evaluator.

^b From ^{127}Ce β^+ decay.

^c Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ -ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

(HI,xn γ) 2000Pa04,1996St01,1993WaZPLevel SchemeIntensities: Relative I_{γ}  $^{127}_{57}\text{La}_{70}$

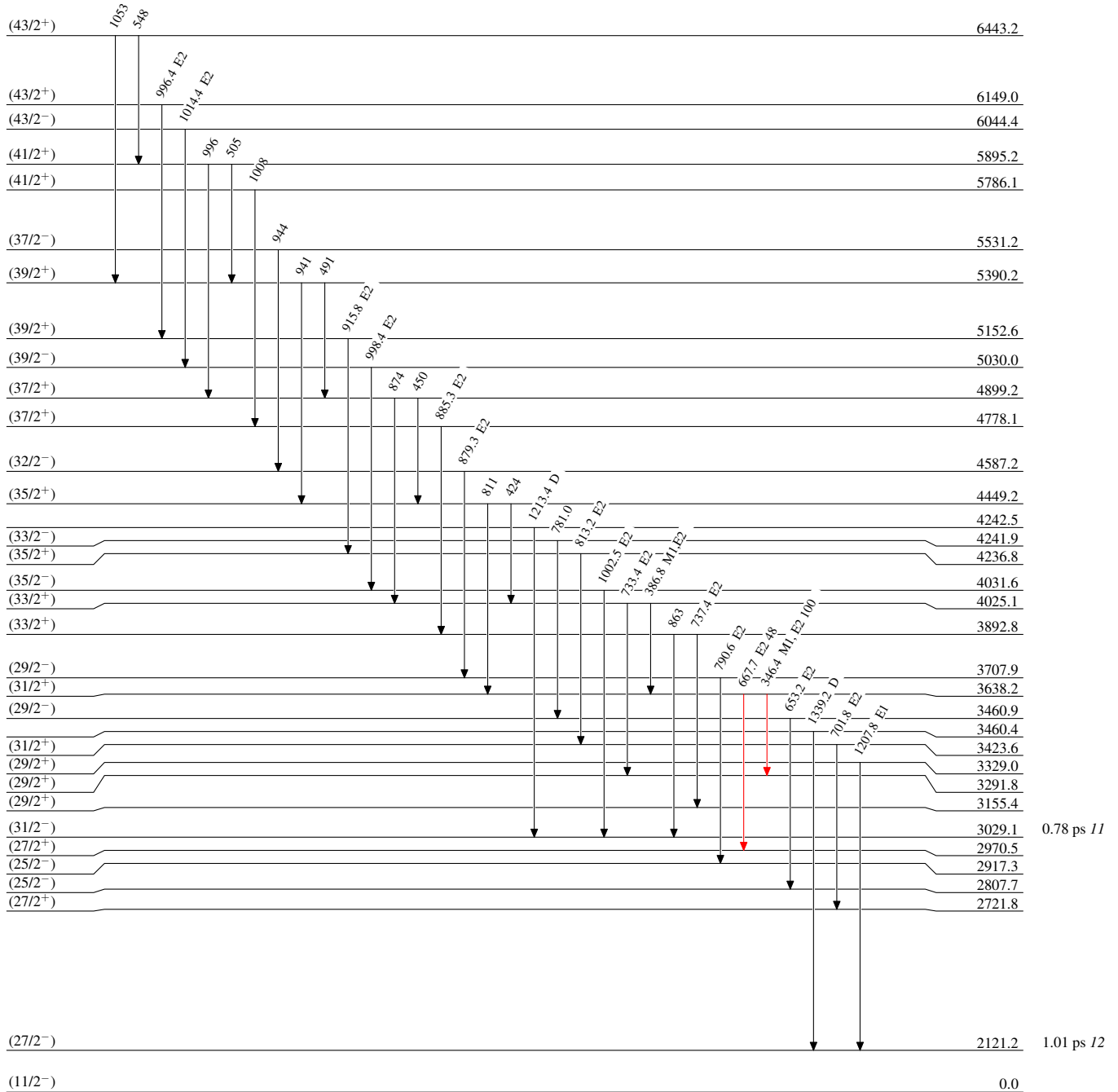
(HL,xn γ) 2000Pa04,1996St01,1993WaZP

Level Scheme (continued)

Intensities: Relative I γ

Legend

- I γ < 2% × I γ ^{max}
- I γ < 10% × I γ ^{max}
- I γ > 10% × I γ ^{max}



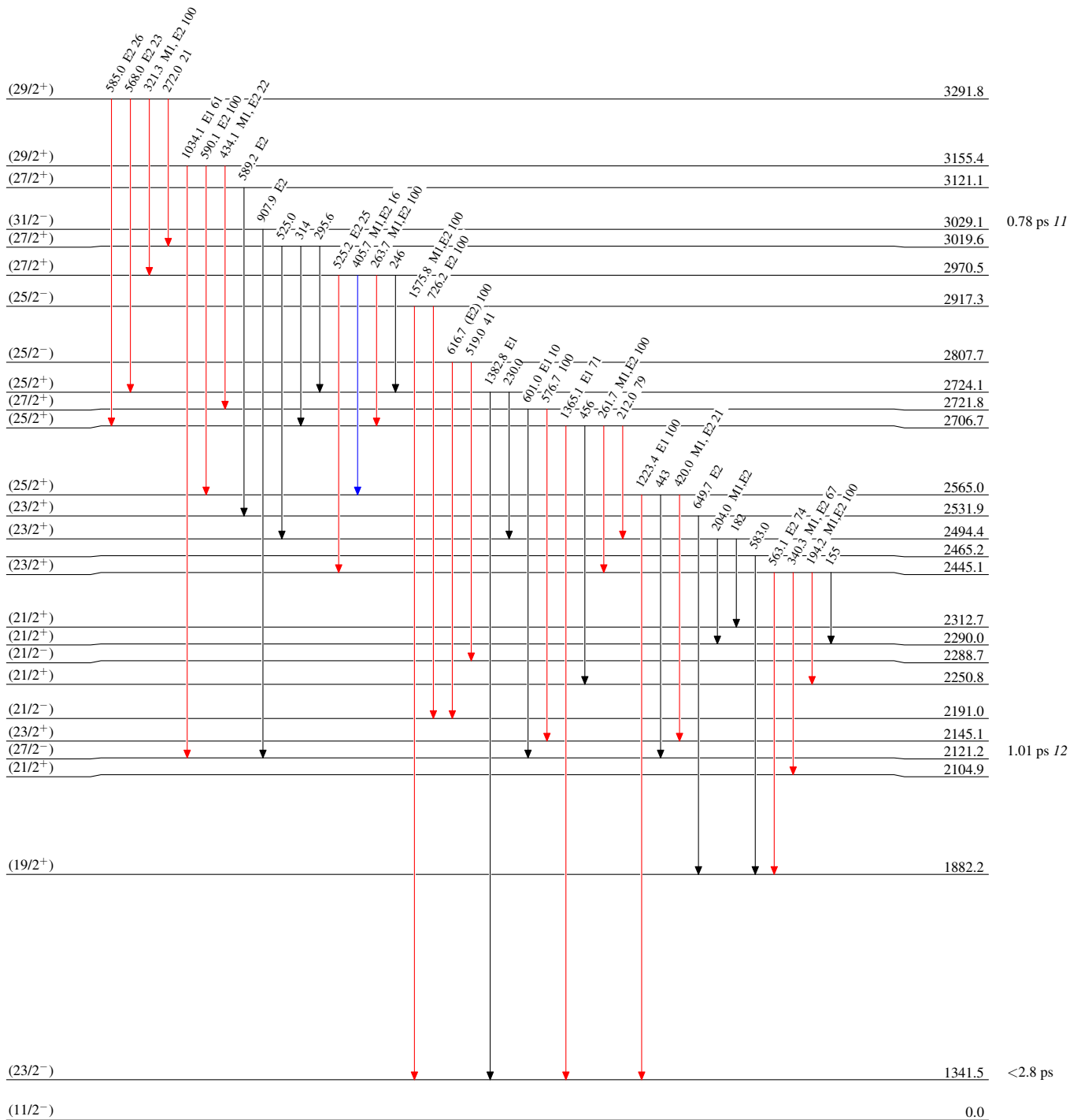
(HL,xn γ) 2000Pa04,1996St01,1993WaZP

Level Scheme (continued)

Intensities: Relative I_γ

Legend

- $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- $I_\gamma > 10\% \times I_\gamma^{\text{max}}$



$^{127}_{57}\text{La}_{70}$

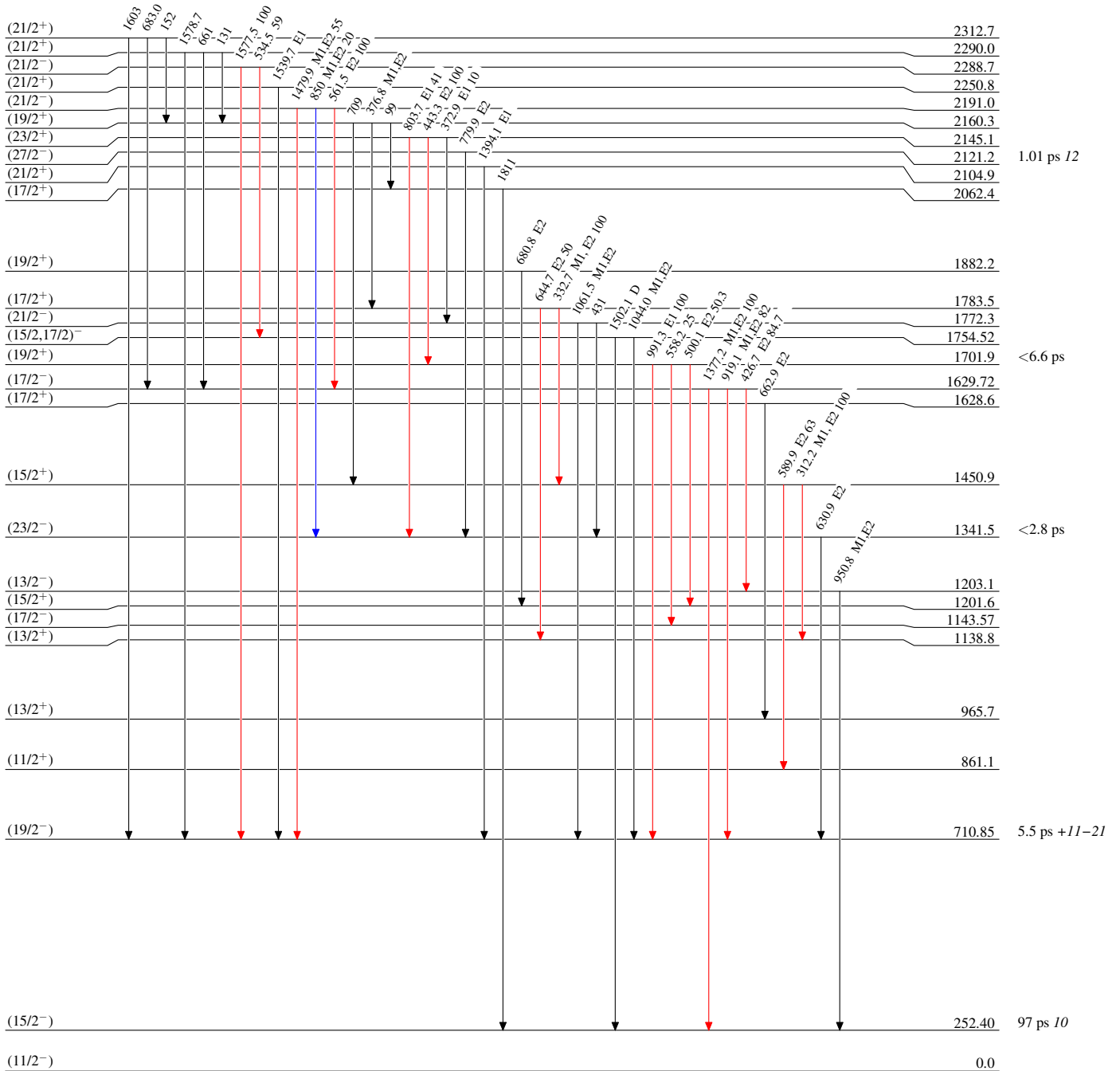
(HI,xn γ) 2000Pa04,1996St01,1993WaZP

Level Scheme (continued)

Intensities: Relative I γ

Legend

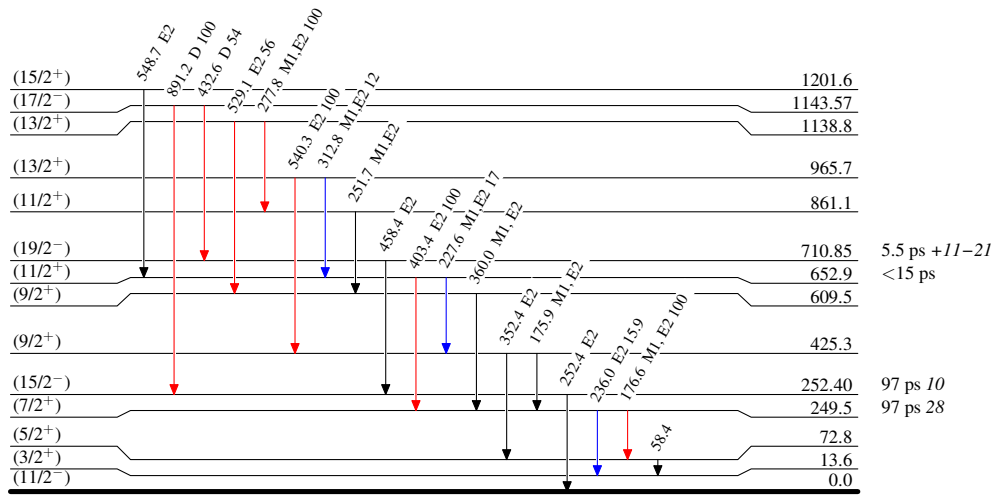
- I γ < 2% × I γ ^{max}
- I γ < 10% × I γ ^{max}
- I γ > 10% × I γ ^{max}

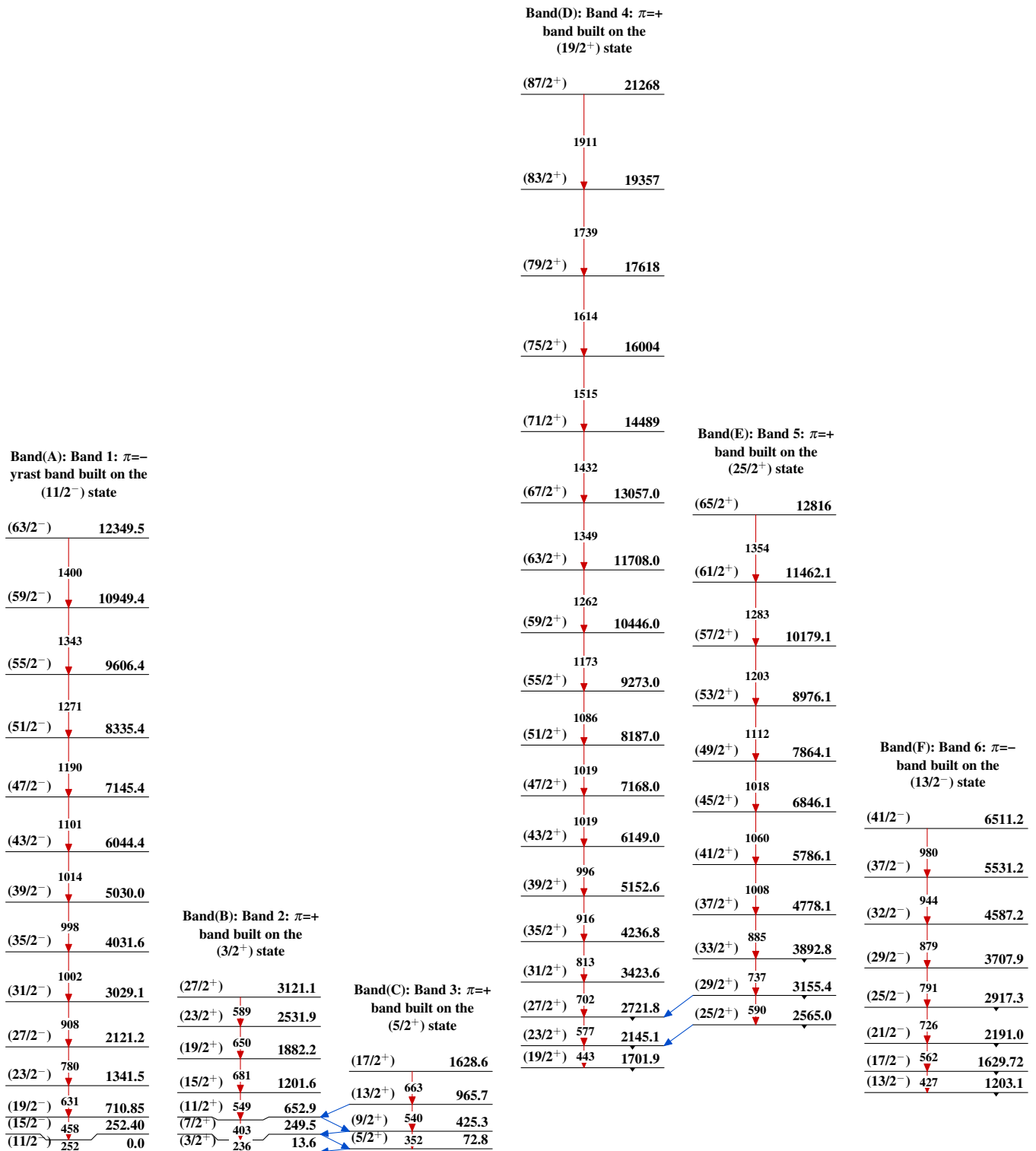


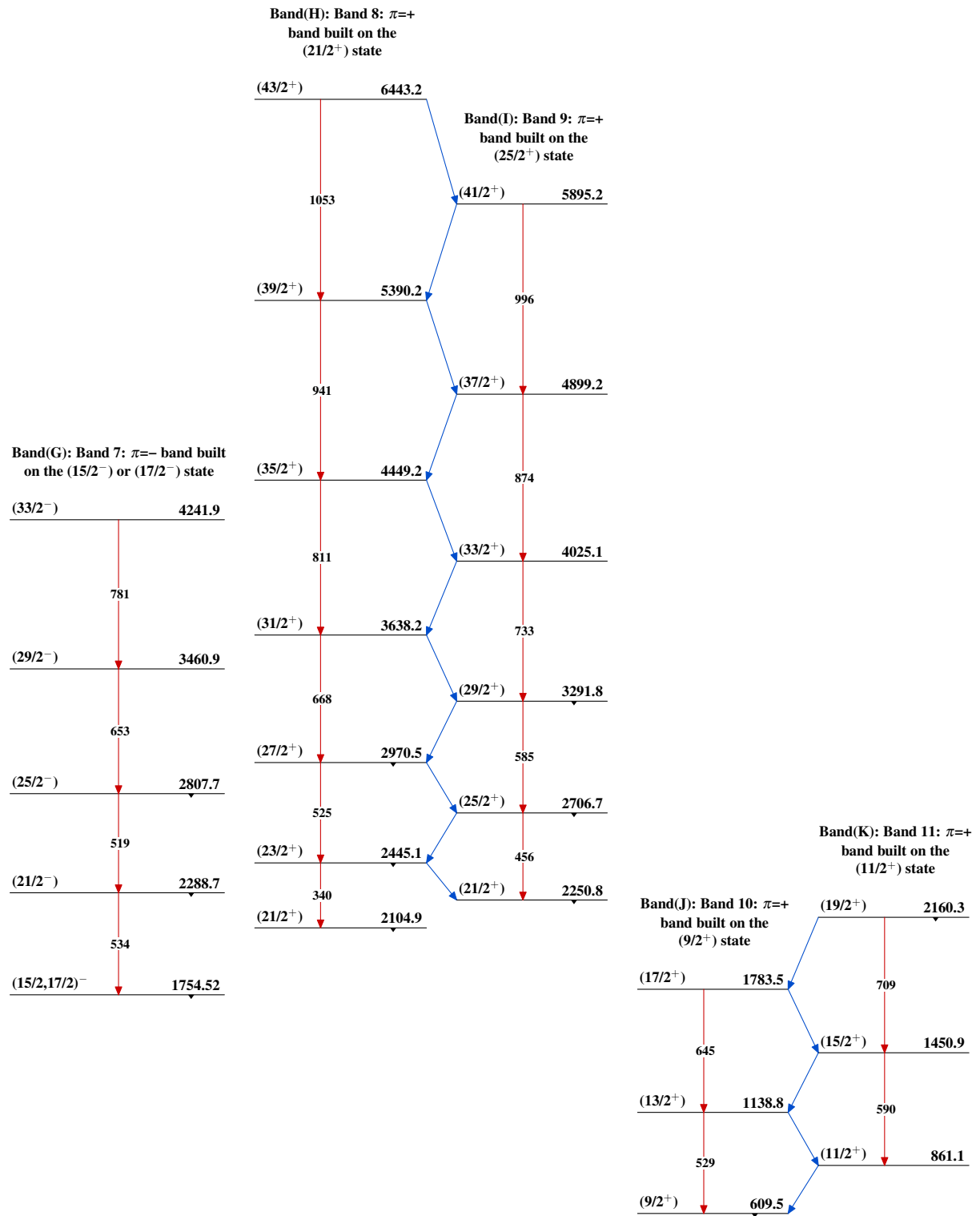
(HI,xn γ) 2000Pa04,1996St01,1993WaZP**Level Scheme (continued)**Intensities: Relative I_γ

Legend

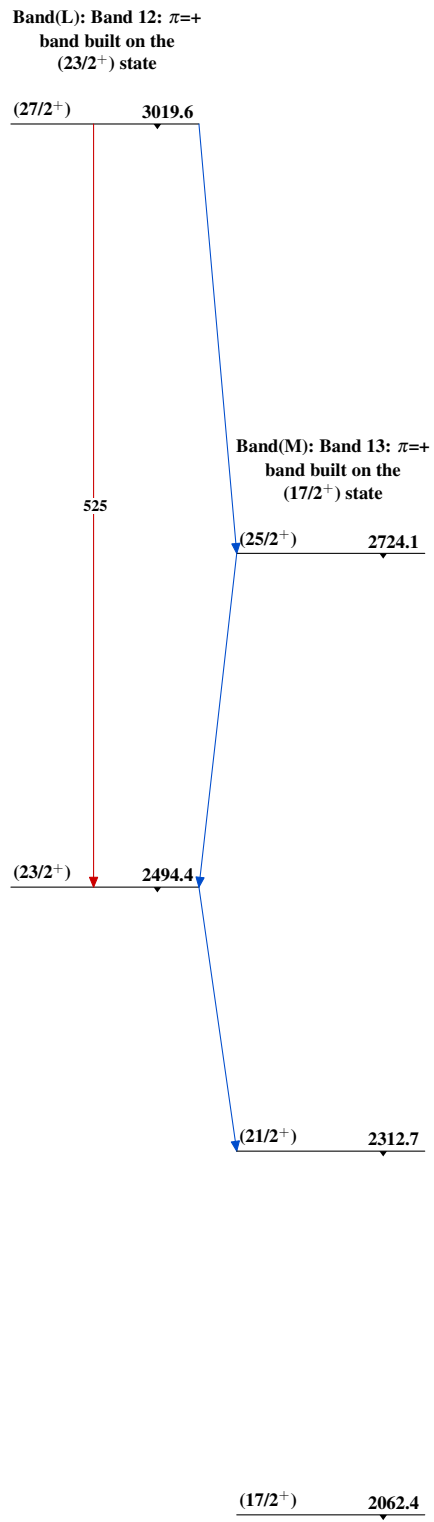
- $I_\gamma < 2\% \times I_\gamma^{\max}$
- $I_\gamma < 10\% \times I_\gamma^{\max}$
- $I_\gamma > 10\% \times I_\gamma^{\max}$

 $^{127}_{57}\text{La}_{70}$

(HI,xn γ) 2000Pa04,1996St01,1993WaZP

(HI,xn γ) 2000Pa04,1996St01,1993WaZP (continued) $^{127}_{57}\text{La}_{70}$

(HI,xn γ) 2000Pa04,1996St01,1993WaZP (continued)

 $^{127}_{57}\text{La}_{70}$