(HI,xnγ) 2001Go06,1998Kr20,1997Cl03

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong and Kang Mengxiao	NDS 133, 221 (2016)	1-Dec-2015

2001Go06: E=104 MeV. Measured Eγ, Iγ, γγ, and γγ(θ)(DCO) using GAMMASPHERE multidetector array comprised of 60 large Compton-suppressed Ge detectors.

2001Go06: E=110, 115 MeV. Measured Eγ, Iγ, γγ, and γγ(θ)(DCO) using EUROGAM-II spectrometer comprised of 30 large-volume Compton-suppressed Ge detectors and 24 clover detectors, each composed of four Ge crystals in a common cryostat and surrounded by a Compton-suppression detector.

1998Kr20: ^{154}Sm(^{48}Ca,4nγ) E=210 MeV. Measured lifetimes by RDM.

1997Cl03: ^{186}W(^{18}O,6nγ) E=99, 104 MeV. Measured lifetimes by DSAM using GAMMASPHERE array.

1997Di03: ^{186}W(^{18}O,6nγ) E=99, 104 MeV, measured Eγ, Iγ, $T_{1/2}$ by DSAM.

1997Hi07: ^{186}W(^{18}O,4nγ) E=110, 115 MeV. Deduced a dipole band.

1994Cl01: ^{176}Yb(^{26}Mg,4nγ) E=125 MeV. Measured lifetimes by RDM and DSAM.

1993Cl05: ^{186}W(^{17}O,5nγ) E=92, 98, 110 MeV, measured Eγ, Iγ, γγ-coin.

1992Wa20: ^{154}Sm(^{48}Ca,4nγ) E=205 MeV, measured Eγ, γγ-coin, DSA.

1992Cl01: ^{186}W(^{17}O,5nγ) E=92, 98 MeV, measured Eγ, Iγ, γγ(θ).

1989Su12: ^{184}W(^{18}O,4nγ) E=85 MeV, measured (ce), I(e), ce-ce coin, ce γ-coin, ce(t).

1989Ho06: ^{198}Hg(^{3}He,3nγ) E=27.5 MeV, measured Eγ, Iγ, γ(θ), γγ-coin, γ(t).

1986Ho03: ^{192}Os(^{12}C,6nγ) E=100-106 MeV, measured Iγ,γ(θ), γγ coin,γ(t),I(ce).

^{198}Pb Levels

E(level)†	Jπ‡	$T_{1/2}$#	Comments
0.0@	0^+@		
1063.49@ *20*	2^+@		
1625.9@ *3*	4^+@		
1823.4@ *4*	$(5)^-$@		
1980.7@ *11*	(4^+)@		
1996.4@ *11*	(5)@		
2099.4@ *11*	(4,5,6)@		
2141.3@ *4*	$(7)^-$@	4.19 μs *10*	$T_{1/2}$: From γ(t) measurement (1987Ca23). Others: 3.7 μs *3* (1972Is01), 4 μs (1973Dj01), ≈5.3 μs (1992Wa20).
2190.7@ *11*	(6)@		
2231.3@ *5*	$(9)^-$@	137 ns *10*	$T_{1/2}$: From ce(t) measurement (1989Su12). Other: 240 ns *15* from γ(t) measurement (1989Ho06).
2257.7@ *11*	(6^-)@		
2568.7@ *15*	(6^+)@		
2602.7@ *15*			
2772.2 *5*	$(10)^+$		
2821.6 *6*	$(12)^+$		
3033.2 *6*			
3184.5 *6*			
3268.4 *5*			
3488.8 *5*	11^-		
3564.4 *6*			
3574.2 *6*	(12)		
3750.5 *6*	14^+		
3810.2 *5*	12^-		
3965.5 *6*			
4029.9 *8*			
4032.3 *6*	(14)		

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(HI,xnγ) 2001Go06,1998Kr20,1997Cl03 (continued)

^{198}Pb Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	Comments
4042.5 *6*	13^-		
4191.3 *6*	16^+		
4235.7 *6*			
4380.0 *6*	15^-		
4511.6 *6*	16^+		
4573.1 *6*	14^-	>2.8 ps	$T_{1/2}$: From 1994Cl01.
4700.9 *6*	(17)		
4702.3 *6*	(16^+)	>5.5 ps	$T_{1/2}$: From 1994Cl01.
4773.6 *7*	(17^-)		
4776.0[d] *7*	(14^+)		
4817.8 *8*			
4837.1 *6*	15^-	>2.8 ps	$T_{1/2}$: From 1994Cl01.
4843.3 *6*			
4878.6[d] *6*	(15^+)		
4883.0[&] *7*	(14^+)		
4895.4 *7*	(19^+)	6.4 ns	$T_{1/2}$: From 1994Cl01.
4976.3[&] *8*	(15^+)		
5003.5[d] *7*	(16^+)		
5015.4 *8*			
5018.8 *8*			
5065.8 *6*	17^-		
5071.9 *6*	18^+		
5093.0[&] *8*	(16^+)		
5202.9[d] *7*	(17^+)		
5209.3 *6*	18^+		
5249.7[&] *8*	(17^+)		
5304.1 *11*	(16)		
5379.0[b] *6*	16^-		
5451.7 *7*	19^-		
5467.4[d] *7*	(18^+)		
5477.3[&] *8*	(18^+)	3.2 ps *10*	$T_{1/2}$: From 1994Cl01.
5492.5[b] *10*	17^-		
5523.6 *10*	(17)		
5544.1 *7*	19^-		
5648.2[b] *11*	18^-	0.44 ps *7*	$T_{1/2}$: From 1998Kr20. Other: 1.9 ps *6* (1994Cl01).
5778.8[d] *7*	(19^+)		
5813.4[&] *8*	(19^+)		
5821.5 *9*	(18)		
5842.9 *7*	(21)		
5863.2[b] *11*	19^-	0.49 ps *+7−14*	$T_{1/2}$: From 1998Kr20. Other: 1.25 ps *35* (1994Cl01).
5870.6 *6*	20^+		
6040.7 *7*			
6046.5 *7*	21^-		
6119.4 *9*	(19)		
6125.7 *7*	21^-		
6141.6[b] *11*	20^-	0.24 ps *+10−7*	$T_{1/2}$: From 1998Kr20. Other: 1.5 ps *4* (1994Cl01).
6151.6 *10*	(17^-)		
6166.7[d] *8*	(20^+)		
6242.0[&] *8*	(20^+)	2.4 ps *10*	$T_{1/2}$: From 1994Cl01.
6392.4[c] *13*	(18^-)		
6425.2 *9*	(20)		

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(HI,xnγ) 2001Go06,1998Kr20,1997Cl03 (continued)

^{198}Pb Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	Comments
6483.9[b] *11*	21⁻	0.14 ps *+14−7*	$T_{1/2}$: From 1998Kr20. Others: 0.11 ps *+6−4* (1997Cl03), 0.79 ps *16* (1994Cl01).
6501.0 *7*	22⁺		
6515.1[c] *15*	(19⁻)		
6519.3[a] *14*	(20⁻)		
6554.5[d] *8*	(21⁺)		
6660.0 *7*	23⁻		
6660.5[&] *8*	(21⁺)		
6674.1[c] *17*	(20⁻)		
6690.6 *8*	(21⁺)		
6719.1 *7*			
6730.0 *7*			
6734.6[a] *14*	(21⁻)		
6867.0[&] *9*	(22⁺)		
6872.7[b] *11*	22⁻	0.17 ps *3*	$T_{1/2}$: From 1997Cl03. Other: 0.50 ps *7* (1994Cl01).
6873.2 *7*	23⁻		
6878.1[c] *18*	(21⁻)		
6942.2[d] *8*	(22⁺)		
6996.5 *11*	(22⁺)		
7017.1[a] *13*	(22⁻)		
7073.5[&] *9*	(23⁺)	1.46 ps *28*	$T_{1/2}$: From 1994Cl01, for 206.5 doublet.
7078.8 *8*	(22⁺)		
7142.6[c] *18*	(22⁻)		
7295.1[b] *11*	23⁻	0.12 ps *+4−3*	$T_{1/2}$: From 1997Cl03. Other: 0.32 ps *7* (1994Cl01).
7311.2[&] *9*	(24⁺)	0.59 ps *21*	$T_{1/2}$: From 1994Cl01.
7333.5[d] *8*	(23⁺)		
7360.8[a] *13*	(23⁻)		
7455.6 *14*	(23⁺)		
7479.8[c] *18*	(23⁻)		
7554.5[d] *8*	(24⁺)		
7590.7[&] *9*	(25⁺)	0.80 ps *40*	$T_{1/2}$: From 1994Cl01.
7739.2[b] *12*	24⁻	0.14 ps *+6−4*	$T_{1/2}$: From 1997Cl03. Other: 0.17 ps *3* (1994Cl01).
7747.7 *7*	25⁻		
7757.9 *7*	25⁻		
7779.3[a] *12*	(24⁻)		
7794.9[d] *9*	(25⁺)		
7834.7[c] *18*	(24⁻)		
7916.3[&] *10*	(26⁺)	0.40 ps *10*	$T_{1/2}$: From 1994Cl01.
8076.2[d] *9*	(26⁺)		
8210.7[b] *12*	25⁻	0.14 ps *4*	$T_{1/2}$: From 1997Cl03. Other: 0.15 ps *4* (1994Cl01).
8243.2[c] *19*	(25⁻)		
8255.9[a] *13*	(25⁻)		
8268.1 *7*			
8290.8[&] *10*	(27⁺)	0.097 ps *+21−28*	$T_{1/2}$: From 1997Cl03. Other: 0.25 ps *7* (1994Cl01).
8408.3[d] *9*	(27⁺)		
8685.9[b] *12*	26⁻	0.19 ps *5*	$T_{1/2}$: From 1994Cl01.
8694.7[c] *19*	(26⁻)		
8712.5[&] *10*	(28⁺)	0.104 ps *+21−28*	$T_{1/2}$: From 1997Cl03. Other: 0.14 ps *3* (1994Cl01).
8739.8[a] *14*	(26⁻)		
8799.9[d] *10*	(28⁺)		

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(HI,xnγ) 2001Go06,1998Kr20,1997Cl03 (continued)

^{198}Pb Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	Comments
9112.2[b] *12*	27^-		
9146.2[c] *20*	(27^-)		
9154.8[a] *16*	(27^-)		
9176.1[&] *10*	(29^+)	0.097 ps *+21−28*	$T_{1/2}$: From 1997Cl03. Other: 0.069 ps *17* (1994Cl01).
9255.0[d] *11*	(29^+)		
9512.2[b] *13*	28^-		
9681.4[&] *11*	(30^+)	0.14 ps *4*	$T_{1/2}$: From 1997Cl03. Other: 0.036 ps *8* (1994Cl01).
9769.9[d] *12*	(30^+)		
9930.4[b] *13*	29^-		
10230.7[&] *11*	(31^+)		
10328.9[d] *14*	(31^+)		
10380.2[b] *14*	30^-		
10821.0[&] *12*	(32^+)		
10869.2[b] *15*	31^-		
10921.1[d] *16*	(32^+)		
11398.6[b] *17*	32^-		
11438.7[&] *13*	(33^+)		
11970.7[b] *19*	33^-		
12059.7[&] *13*	(34^+)		
12579.7[b] *21*	34^-		
12699.2[&] *16*	(35^+)		

[†] From least-squares fit to Eγ′s.
[‡] From γ-ray multipolarities and band structure.
[#] From 1998Kr20, 1997Cl03 and/or 1994Cl01, except as noted.
[@] From Adopted Levels.
[&] Band(A): Magnetic-rotational band #1, based on (14^+).
[a] Band(B): Magnetic-rotational band #2, based on (20^-).
[b] Band(C): Magnetic-rotational band #3, based on 16^-.
[c] Band(D): Magnetic-rotational band #4, based on (18^-).
[d] Band(E): Magnetic-rotational band #5, based on (14^+).

γ(^{198}Pb)

E_γ[†‡]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
49.2 *5*		2821.6	$(12)^+$	2772.2	$(10)^+$	E2	195	E_γ: From level-energy difference in 2001Go06, Δ(Eγ)=0.5 keV estimated by evaluator. Other: 48.2 *5* in 1989Su12. Mult.,α: From 1989Su12.
90.0[&] *2*		2231.3	$(9)^-$	2141.3	$(7)^-$	E2	9.98 *17*	Mult.: From conversion mainly In $L2^-$ and L3-subshell (1973Pa04). α(K)exp=1.8 *10* from I(K x ray)/Iγ (1978Al16), α(L)exp=6.73 *290* (1985Pa22), α(exp)=10.2 (1989Su12).
93.0 *5*	15 *3*	4976.3	(15^+)	4883.0	(14^+)	M1	11.47 *24*	DCO=0.75 *18*.

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(HI,xnγ) 2001Go06,1998Kr20,1997Cl03 (continued)

γ(^{198}Pb) (continued)

E_γ[†‡]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
102.0 *8*	4.0 *25*	4878.6	(15^+)	4776.0	(14^+)	M1	8.84 *24*	DCO=0.46 *11*.
113.6 *8*	7.8 *14*	5492.5	17^-	5379.0	16^-	M1	6.50 *16*	DCO=0.67 *9*.
116.5 *3*	36 *5*	5093.0	(16^+)	4976.3	(15^+)	M1	6.05 *10*	DCO=0.87 *17*.
116.9 *5*	12 *3*	4817.8		4700.9	(17)			DCO=0.87 *10*.
122.7 *8*	5 *2*	6515.1	(19^-)	6392.4	(18^-)	M1	5.21 *13*	DCO=0.60 *11*.
125.5 *5*	17 *3*	5003.5	(16^+)	4878.6	(15^+)	M1	4.89 *9*	DCO=0.82 *11*.
140.8 *3*	27 *5*	4843.3		4702.3	(16^+)			DCO=0.82 *11*.
155.7 *3*	26 *3*	5648.2	18^-	5492.5	17^-	M1	2.65	DCO=0.56 *7*.
156.7 *2*	51 *7*	5249.7	(17^+)	5093.0	(16^+)	M1	2.60	DCO=0.62 *11*.
159.1 *8*	8 *2*	6674.1	(20^-)	6515.1	(19^-)	M1	2.49 *5*	DCO=0.59 *11*.
176.7 *5*	14 *3*	6867.0	(22^+)	6690.6	(21^+)	M1	1.85	DCO=0.57 *12*.
197.6[&] *2*		1823.4	$(5)^-$	1625.9	4^+	E1	0.0809	γ(θ): A_2=+0.13 *4*, A_4=−0.03 *7* (1986Ho03). α(K)exp=0.063 *6* (1985Pa22), α(L)exp=0.011 *3* (1972Is01).
197.8 *3*	33 *4*	6040.7		5842.9	(21)			
199.6 *3*	21 *3*	5202.9	(17^+)	5003.5	(16^+)	M1	1.317	DCO=0.48 *9*.
203.9 *3*	22 *3*	6878.1	(21^-)	6674.1	(20^-)	M1	1.241	DCO=0.48 *12*.
206.5 *3*	42 *12*	6867.0	(22^+)	6660.5	(21^+)	M1	1.197	DCO=0.56 *10*.
206.5 *2*	60 *10*	7073.5	(23^+)	6867.0	(22^+)	M1	1.197	DCO=0.56 *10*.
215.0 *8*	2.0 *11*	3965.5		3750.5	14^+			
215.0 *2*	57 *7*	5863.2	19^-	5648.2	18^-	M1	1.07	DCO=0.59 *8*.
215.3 *5*	16 *3*	6734.6	(21^-)	6519.3	(20^-)	M1	1.066 *17*	DCO=0.66 *11*.
218.1 *2*	63 *9*	6719.1		6501.0	22^+			DCO=0.83 *9*.
219.5 *5*	14 *3*	5523.6	(17)	5304.1	(16)			DCO=0.71 *7*.
220.3 *5*	13 *3*	3488.8	11^-	3268.4				DCO=0.64 *13*.
221.0 *2*	63 *8*	7554.5	(24^+)	7333.5	(23^+)	M1	0.991	DCO=0.60 *11*.
227.6 *2*	79 *9*	5477.3	(18^+)	5249.7	(17^+)	M1	0.913	DCO=0.60 *11*.
229.0 *2*	59 *8*	6730.0		6501.0	22^+			DCO=0.87 *8*.
232.2 *3*	36 *5*	4042.5	13^-	3810.2	12^-	M1	0.864	DCO=0.62 *11*.
235.5 *3*	20 *3*	6660.5	(21^+)	6425.2	(20)			DCO=0.60 *10*.
237.7 *2*	71 *9*	7311.2	(24^+)	7073.5	(23^+)	M1	0.809	DCO=0.61 *11*.
240.4 *2*	65 *8*	7794.9	(25^+)	7554.5	(24^+)	M1	0.784	DCO=0.57 *12*.
240.9 *8*	2.8 *9*	6392.4	(18^-)	6151.6	(17^-)			
254.6 *3*	46 *6*	7333.5	(23^+)	7078.8	(22^+)	M1	0.669	DCO=0.56 *11*.
264.0 *3*	42 *5*	4837.1	15^-	4573.1	14^-	M1	0.606	DCO=0.62 *8*.
264.6[d] *3*	25[d] *3*	5467.4	(18^+)	5202.9	(17^+)	M1	0.602	DCO=0.59 *9*.
264.6[d] *3*	45[d] *6*	7142.6	(22^-)	6878.1	(21^-)	M1	0.602	DCO=0.59 *9*.
264.8 *5*	15 *3*	6690.6	(21^+)	6425.2	(20)	(M1)	0.601	DCO=0.60 *13*.
278.4 *2*	96 *9*	6141.6	20^-	5863.2	19^-	M1	0.523	DCO=0.59 *8*.
279.5 *2*	107 *13*	7590.7	(25^+)	7311.2	(24^+)	M1	0.518	DCO=0.62 *11*.
281.3 *2*	67 *8*	8076.2	(26^+)	7794.9	(25^+)	M1	0.509	DCO=0.57 *12*.
282.0 *2*	55 *7*	4032.3	(14)	3750.5	14^+			DCO=0.92 *11*.
282.5 *3*	25 *4*	7017.1	(22^-)	6734.6	(21^-)	M1	0.503	DCO=0.59 *7*.
297.9[c] *3*	56[c] *8*	5821.5	(18)	5523.6	(17)			DCO=0.60 *11* for doublet.
297.9[c] *3*	56[c] *8*	6119.4	(19)	5821.5	(18)			DCO=0.60 *11* for doublet.
304.2 *5*	14 *4*	3488.8	11^-	3184.5				DCO=0.55 *11*.
305.8 *2*	63 *8*	6425.2	(20)	6119.4	(19)			DCO=0.56 *12*.
311.5 *3*	21 *3*	5778.8	(19^+)	5467.4	(18^+)	M1	0.385	DCO=0.61 *8*.
317.9[&] *2*		2141.3	$(7)^-$	1823.4	$(5)^-$	E2	0.099	γ(θ): A_2=+0.02 *5*, A_4=−0.09 *7* (1986Ho03). α(L)exp=2.8 *4* (1972Is01); α(K)exp=0.059 *5*, α(L3)exp=0.012 *4* (1985Pa22).
321.4 *2*	105 *9*	3810.2	12^-	3488.8	11^-	M1	0.353	DCO=0.54 *7*.
322.3 *2*	84 *9*	4702.3	(16^+)	4380.0	15^-	(E1)	0.0250	DCO=0.78 *8*.
325.6 *2*	65 *7*	7916.3	(26^+)	7590.7	(25^+)	M1	0.341	DCO=0.63 *11*.
332.1 *3*	29 *4*	8408.3	(27^+)	8076.2	(26^+)	M1	0.323	DCO=0.56 *11*.

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(HI,xnγ) 2001Go06,1998Kr20,1997Cl03 (continued)

γ(^{198}Pb) (continued)

E_γ[†][‡]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	δ	α[b]	Comments
336.0 *2*	110 *13*	5813.4	(19^+)	5477.3	(18^+)	M1		0.313	DCO=0.56 *10*.
337.2 *2*	54 *7*	7479.8	(23^-)	7142.6	(22^-)	M1		0.310	DCO=0.49 *9*.
342.2 *2*	84 *8*	6483.9	21^-	6141.6	20^-	M1		0.298	DCO=0.59 *8*.
343.7 *3*	30 *5*	7360.8	(23^-)	7017.1	(22^-)	M1		0.295	DCO=0.55 *9*.
354.9 *3*	20 *3*	7834.7	(24^-)	7479.8	(23^-)	M1		0.270	DCO=0.62 *8*.
360.4 *8*	9 *2*	5379.0	16^-	5018.8					DCO=0.55 *15*.
363.2 *8*	6 *2*	5065.8	17^-	4702.3	(16^+)	(E1)		0.0191	
363.7 *8*	7 *2*	5379.0	16^-	5015.4					
367.2[a] *2*		2190.7	(6)	1823.4	$(5)^-$				I_γ: I(367.2γ)/I(1063.5γ)=3.9 *5*/100 (1989Ho06). γ(θ): A_2=−0.04 *5*, A_4=−0.03 *8* (1989Ho06). note incorrect placement In Fig. 5 (1989Ho06).
370.5[a] *2*		1996.4	(5)	1625.9	4^+				I_γ: I(370.5γ)/I(1063.5γ)=2.9 *5*/100 (1989Ho06). γ(θ): A_2=−0.18 *5* , A_4=−0.04 *20* (1989Ho06).
374.4 *2*	58 *7*	8290.8	(27^+)	7916.3	(26^+)	M1		0.234	DCO=0.65 *12*.
385.9 *2*	55 *9*	5451.7	19^-	5065.8	17^-	E2		0.0567	DCO=1.00 *6*.
387.8[c] *3*	51[c] *7*	6166.7	(20^+)	5778.8	(19^+)	M1		0.213	DCO=0.66 *8* for triplet.
387.8[c] *3*	51[c] *7*	6554.5	(21^+)	6166.7	(20^+)	M1		0.213	DCO=0.66 *8* for triplet.
387.8[c] *3*	51[c] *7*	6942.2	(22^+)	6554.5	(21^+)	M1		0.213	DCO=0.66 *8* for triplet.
388.1 *3*	21 *3*	7078.8	(22^+)	6690.6	(21^+)	M1		0.212	
388.8 *2*	78 *8*	6872.7	22^-	6483.9	21^-	M1		0.211	DCO=0.59 *8*.
391.5[c] *3*	38[c] *4*	7333.5	(23^+)	6942.2	(22^+)	M1		0.207	DCO=0.58 *12* for doublet.
391.5[c] *3*	38[c] *4*	8799.9	(28^+)	8408.3	(27^+)	M1		0.207	DCO=0.58 *12* for doublet.
393.6 *2*	162 *18*	4773.6	(17^-)	4380.0	15^-	(E2)		0.0538	DCO=0.80 *8*.
400.0 *5*	18 *3*	9512.2	28^-	9112.2	27^-	M1		0.196	DCO=0.61 *9*.
408.5 *5*	18 *3*	8243.2	(25^-)	7834.7	(24^-)	M1		0.185	DCO=0.57 *8*.
412[a]		2602.7		2190.7	(6)				I_γ: I(412γ)/I(1063.5γ)=≈3/100 (1989Ho06).
415.0 *8*	9 *3*	9154.8	(27^-)	8739.8	(26^-)	M1		0.177	DCO=0.48 *13*.
418.2 *5*	17 *3*	9930.4	29^-	9512.2	28^-	M1		0.1737	DCO=0.61 *9*.
418.4 *2*	62 *7*	6660.5	(21^+)	6242.0	(20^+)	M1		0.1735	DCO=0.59 *12*.
418.4 *3*	24 *4*	7078.8	(22^+)	6660.5	(21^+)	M1		0.1735	DCO=0.59 *12*.
418.5 *3*	25 *3*	7779.3	(24^-)	7360.8	(23^-)	M1		0.1734	DCO=0.61 *7*.
421.7 *3*	46 *6*	8712.5	(28^+)	8290.8	(27^+)	M1		0.1699	DCO=0.63 *11*.
422.4 *2*	67 *7*	7295.1	23^-	6872.7	22^-	M1		0.1691	DCO=0.58 *7*.
426.3 *3*	26 *4*	9112.2	27^-	8685.9	26^-	M1		0.165	DCO=0.57 *8*.
428.5 *2*	105 *12*	6242.0	(20^+)	5813.4	(19^+)	M1		0.1628	DCO=0.59 *11*.
434.2[a] *2*		2257.7	(6^-)	1823.4	$(5)^-$	M1+E2	0.10 *7*	0.156 *3*	Mult.: D+Q from γ(θ). Authors rule out E1+M2 on the basis of δ≥0.15 and nonobservation of any delayed component. γ(θ): A_2=+0.3 *3*, A_4=+0.5 *4* (1989Ho06).
441.0 *2*	419 *50*	4191.3	16^+	3750.5	14^+	E2		0.040	
442.0 *8*	5 *2*	6996.5	(22^+)	6554.5	(21^+)	M1		0.1498	DCO=0.48 *11*.
444.1 *3*	45 *5*	7739.2	24^-	7295.1	23^-	M1		0.1479	DCO=0.59 *8*.
448.7 *2*	61 *7*	6690.6	(21^+)	6242.0	(20^+)	M1		0.1439	DCO=0.59 *12*.
449.8 *5*	16 *3*	10380.2	30^-	9930.4	29^-	M1		0.143	DCO=0.67 *12*.
451.5[c] *5*	11[c] *3*	8694.7	(26^-)	8243.2	(25^-)	M1		0.1416	DCO=0.51 *11* for doublet.
451.5[c] *5*	11[c] *3*	9146.2	(27^-)	8694.7	(26^-)	M1		0.1416	DCO=0.51 *11* for doublet.
455.2 *5*	18 *3*	9255.0	(29^+)	8799.9	(28^+)	M1		0.1385	DCO=0.62 *12*.

Continued on next page (footnotes at end of table)

(HI,xnγ) 2001Go06,1998Kr20,1997Cl03 (continued)

γ(^{198}Pb) (continued)

E_γ[†‡]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
455.3 *5*	12 *4*	3488.8	11^-	3033.2				
455.4 *8*	<2	4029.9		3574.2	(12)			
458.1 *2*	75 *9*	4032.3	(14)	3574.2	(12)			DCO=0.47 *14*.
459.1 *8*	3 *1*	7455.6	(23^+)	6996.5	(22^+)	M1	0.1354	DCO=0.47 *14*.
463.4 *2*	75 *9*	4843.3		4380.0	15^-			DCO=0.57 *9*.
463.6 *3*	31 *4*	9176.1	(29^+)	8712.5	(28^+)	M1	0.1319	DCO=0.62 *11*.
471.5 *3*	39 *5*	8210.7	25^-	7739.2	24^-	M1	0.1261	DCO=0.58 *9*.
473.5[a] *2*		2099.4	(4,5,6)	1625.9	4^+			I_γ: I(473.5γ)/I(1063.5γ)=2.2 *2*/100 (1989Ho06). γ(θ): A_2=+0.20 *3*, A_4=0 (1989Ho06). May Be wrong placement In Fig. 5 (1989Ho06).
475.2 *3*	32 *4*	8685.9	26^-	8210.7	25^-	M1	0.1236	DCO=0.61 *9*.
476.6 *5*	17 *3*	8255.9	(25^-)	7779.3	(24^-)	M1	0.1226	DCO=0.63 *9*.
478.1 *2*	61 *7*	4042.5	13^-	3564.4				DCO=0.58 *14*.
478.3 *2*	66 *7*	5544.1	19^-	5065.8	17^-	E2	0.0327	E(level)=4544 in Table 2 of 2001Go06 is a misprint.
479.4 *3*	50 *6*	4511.6	16^+	4032.3	(14)			DCO=0.77 *9*.
483.9 *5*	14 *3*	8739.8	(26^-)	8255.9	(25^-)	M1	0.1177	DCO=0.78 *14*.
484.2 *5*	10 *4*	7779.3	(24^-)	7295.1	23^-			DCO=0.78 *14*.
489.0 *5*	10 *2*	10869.2	31^-	10380.2	30^-	M1	0.1145	DCO=0.69 *14*.
491.5 *8*	3 *2*	5003.5	(16^+)	4511.6	16^+	(M1)	0.113	
505.3 *3*	25 *4*	9681.4	(30^+)	9176.1	(29^+)	M1	0.105	DCO=0.72 *14*.
509.6 *2*	154 *16*	4700.9	(17)	4191.3	16^+			DCO=0.68 *8*.
510.4 *5*	12 *2*	8268.1		7757.9	25^-			DCO=0.62 *12*.
515.2 *8*	8 *2*	9769.9	(30^+)	9255.0	(29^+)	M1	0.0997	DCO=0.73 *13*.
520.3 *3*	25 *3*	8268.1		7747.7	25^-			DCO=0.81 *11*.
529.4 *8*	8 *3*	11398.6	32^-	10869.2	31^-	M1	0.0928	
530.5 *2*	87 *9*	4573.1	14^-	4042.5	13^-	M1	0.0923	DCO=0.58 *7*.
540.9[@] *2*	55	2772.2	$(10)^+$	2231.3	$(9)^-$	E1		γ(θ): A_2=−0.08 *3*, A_4=−0.07 *5* (1986Ho03). α(K)exp: 0.0080 *14* (1986Ho03), 0.0081 *12* (1985Pa22).
541.9 *2*	115 *11*	5379.0	16^-	4837.1	15^-	M1	0.0873	DCO=0.58 *7*.
549.4 *5*	11 *3*	10230.7	(31^+)	9681.4	(30^+)	M1	0.0842	DCO=0.63 *11*.
553.7 *5*	10 *3*	4042.5	13^-	3488.8	11^-	E2	0.0231	
556.3 *3*	40 *6*	5451.7	19^-	4895.4	(19^+)	(E1)	0.0076 *8*	DCO=0.63 *8*.
559.0 *8*	5 *2*	10328.9	(31^+)	9769.9	(30^+)	M1	0.0804	DCO=0.50 *14*.
560.3 *5*	10 *3*	5071.9	18^+	4511.6	16^+	E2	0.0225	
562.4[@] *2*	83	1625.9	4^+	1063.49	2^+	E2	0.0225	γ(θ): A_2=+0.04 *4*, A_4=−0.04 *6* (1986Ho03). α(K)exp: 0.0165 *13* (1986Ho03), 0.017 *3* (1985Pa22).
569.6 *8*	9 *3*	5778.8	(19^+)	5209.3	18^+	(M1)	0.0766	
572.1 *8*	4.8 *16*	11970.7	33^-	11398.6	32^-	M1	0.0757	
581.7 *3*	34 *4*	6125.7	21^-	5544.1	19^-	E2	0.0206	DCO=1.00 *8*.
588.0[a] *2*		2568.7	(6^+)	1980.7	(4^+)			I_γ: I(588.0γ)/I(1063.5γ)=4.2 *5*/100 (1989Ho06). γ(θ): A_2=0.10 *5* (1989Ho06).
590.3 *8*	8 *3*	10821.0	(32^+)	10230.7	(31^+)	M1	0.0697	DCO=0.83 *15*.
592.2 *8*	2.2 *12*	10921.1	(32^+)	10328.9	(31^+)	M1	0.0691	
595.0 *3*	20 *4*	6046.5	21^-	5451.7	19^-	E2	0.0196	
609.0 *8*	2.6 *14*	12579.7	34^-	11970.7	33^-	M1	0.0642	
617.7 *8*	4.2 *16*	11438.7	(33^+)	10821.0	(32^+)	M1	0.0619	DCO=0.52 *14*.
621.0[d] *8*	3.4[d] *14*	6483.9	21^-	5863.2	19^-	E2	0.0178	

Continued on next page (footnotes at end of table)

(HI,xnγ) 2001Go06,1998Kr20,1997Cl03 (continued)

γ(^{198}Pb) (continued)

E_γ[†‡]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
621.0[d] 8	2.4[d] 13	12059.7	(34$^+$)	11438.7	(33$^+$)	M1	0.0610	DCO=0.71 15.
629.5 2	454 41	4380.0	15$^-$	3750.5	14$^+$	E1	0.00599	DCO=0.64 6.
630.4 2	205 21	6501.0	22$^+$	5870.6	20$^+$	E2	0.0172 4	DCO=0.99 5.
639.5 8	1.7 8	12699.2	(35$^+$)	12059.7	(34$^+$)	M1	0.0565	DCO=0.80 20.
661.4 2	262 27	5870.6	20$^+$	5209.3	18$^+$	E2	0.0155 2	DCO=0.96 6.
673.9 2	55 7	6125.7	21$^-$	5451.7	19$^-$	E2	0.0149	DCO=0.88 9.
685.8 2	91 11	5065.8	17$^-$	4380.0	15$^-$	E2	0.0143 5	DCO=0.99 7.
691.2 8	6 2	5202.9	(17$^+$)	4511.6	16$^+$	(M1)	0.0462	
697.6 2	305 36	5209.3	18$^+$	4511.6	16$^+$	E2	0.0138 4	DCO=0.97 8.
700.0 8	1.0 6	6166.7	(20$^+$)	5467.4	(18$^+$)	E2	0.0137 4	
700.2 8	1.7 9	8290.8	(27$^+$)	7590.7	(25$^+$)	E2	0.0137 3	
731.2 8	4.9 21	6872.7	22$^-$	6141.6	20$^-$	E2	0.0125 3	
743.6 3	28 4	4776.0	(14$^+$)	4032.3	(14)			DCO=0.49 11.
747.4 2	62 8	6873.2	23$^-$	6125.7	21$^-$	E2	0.0119 7	DCO=0.95 8.
752.6 2	100 12	3574.2	(12)	2821.6	(12)$^+$			DCO=0.82 14.
760.9 2	298 31	4511.6	16$^+$	3750.5	14$^+$	E2	0.0115 3	DCO=1.04 6.
762.9 2	147 12	4573.1	14$^-$	3810.2	12$^-$	E2	0.0114 7	
772.6 8	5.5 14	6151.6	(17$^-$)	5379.0	16$^-$			
776.6 8	2.5 14	6554.5	(21$^+$)	5778.8	(19$^+$)	E2	0.0110 5	
776.6[e]		6942.2	(22$^+$)	6166.7	(20$^+$)			
779.8 8	4 2	5015.4		4235.7				
783.3 8	9 3	5018.8		4235.7				
794.5 3	39 6	4837.1	15$^-$	4042.5	13$^-$	E2	0.0105 4	DCO=0.95 11.
796.1 8	<1.5	8712.5	(28$^+$)	7916.3	(26$^+$)	E2	0.0105	
798.7 2	60 7	5870.6	20$^+$	5071.9	18$^+$	E2	0.0104 3	DCO=0.93 8.
801.6 5	10 3	3033.2		2231.3	(9)$^-$			
802.1 2	81 9	3574.2	(12)	2772.2	(10)$^+$			DCO=0.67 15.
805.9 2	146 13	5379.0	16$^-$	4573.1	14$^-$	E2	0.0102 4	
811.2 8	5.8 25	7295.1	23$^-$	6483.9	21$^-$	E2	0.0101 1	
817.1 3	33 5	6660.0	23$^-$	5842.9	(21)			
818.2 8	<1.5	9930.4	29$^-$	9112.2	27$^-$	E2	0.0099 3	
826.3 8	1.5 4	9512.2	28$^-$	8685.9	26$^-$	E2	0.0097 3	
827.4 5	11 3	6873.2	23$^-$	6046.5	21$^-$	E2	0.0097 1	
836.5 8	6.4 17	7078.8	(22$^+$)	6242.0	(20$^+$)	E2	0.0094 9	
846.6 3	30 4	4878.6	(15$^+$)	4032.3	(14)			E(level)=4478 in Table 2 of 2001Go06 is a misprint. DCO=0.81 22.
852.9 8	<2	4883.0	(14$^+$)	4029.9				
866.5 8	7.3 21	7739.2	24$^-$	6872.7	22$^-$	E2	0.0088 4	DCO=1.3 4.
874.4 2	53 6	7747.7	25$^-$	6873.2	23$^-$	E2	0.0086 8	DCO=0.83 9.
880.5 2	85 10	5071.9	18$^+$	4191.3	16$^+$	E2	0.0085 6	DCO=1.03 7.
884.8 3	30 5	7757.9	25$^-$	6873.2	23$^-$	E2	0.0084 8	DCO=0.83 9.
885.3 8	<1.5	9176.1	(29$^+$)	8290.8	(27$^+$)	E2	0.0084 7	
891.7 8	2.0 11	3033.2		2141.3	(7)$^-$			
901.5 8	4.1 15	9112.2	27$^-$	8210.7	25$^-$	E2	0.0081 7	
903.0 8	<1.5	9146.2	(27$^-$)	8243.2	(25$^-$)	E2	0.0081 4	
915.6 8	8.0 22	8210.7	25$^-$	7295.1	23$^-$	E2	0.0079 2	DCO=0.91 29.
917.2[a] 2		1980.7	(4$^+$)	1063.49	2$^+$			I_γ: I(917.2γ)/I(1063.5γ)=7.2 4/100 (1989Ho06). γ(θ): A_2=+0.20 3, A_4=0 (1989Ho06).
917.5 2	76 9	4883.0	(14$^+$)	3965.5				DCO=0.70 12.
928.9 2	1000	3750.5	14$^+$	2821.6	(12)$^+$	E2	0.0077	
946.7 8	6.1 21	8685.9	26$^-$	7739.2	24$^-$	E2	0.0074 1	DCO=0.98 28.
947.5 2	71 9	5842.9	(21)	4895.4	(19$^+$)	(E2)	0.0074	DCO=1.00 6.
953.1 5	17 4	3184.5		2231.3	(9)$^-$			DCO=0.63 12.

Continued on next page (footnotes at end of table)

(HI,xnγ) 2001Go06,1998Kr20,1997Cl03 (continued)

γ(^{198}Pb) (continued)

E_γ[†][‡]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
967.3 *3*	21 *4*	4235.7		3268.4				DCO=0.62 *15*.
968.9 *8*	1.7 *8*	9681.4	(30^+)	8712.5	(28^+)	E2	0.0070 *8*	DCO=1.1 *3*.
969.8 *8*	1.9 *11*	9769.9	(30^+)	8799.9	(28^+)	E2	0.0070 *7*	
975.1 *3*	24 *4*	5870.6	20^+	4895.4	(19^+)	(M1)	0.019	
1018.3 *3*	30 *7*	5209.3	18^+	4191.3	16^+	E2	0.0064 *3*	
1030.2 *5*	17 *4*	6873.2	23^-	5842.9	(21)			
1037.1 *2*	57 *6*	3268.4		2231.3	$(9)^-$			DCO=0.83 *9*.
1054.6 *8*	1.5 *8*	10230.7	(31^+)	9176.1	(29^+)	E2	0.0060 *1*	DCO=1.9 *7*.
1063.5[@] *2*	100	1063.49	2^+	0.0	0^+	E2		γ(θ): A_2=−0.03 *3*, A_4=−0.02 *5* (1986Ho03). α(K)exp: 0.0055 *10* (1972Is01), 0.0048 *4* (1986Ho03), 0.0045 *3* (1985Pa22).
1087.7 *8*	7 *3*	7747.7	25^-	6660.0	23^-			
1139.7 *8*	<1.5	10821.0	(32^+)	9681.4	(30^+)	E2	0.0051 *8*	
1143.8 *3*	26 *4*	3965.5		2821.6	$(12)^+$			DCO=0.9 *4*.
1208.0 *8*	3.6 *17*	11438.7	(33^+)	10230.7	(31^+)	E2	0.0046 *4*	
1238.7 *8*	<1.5	12059.7	(34^+)	10821.0	(32^+)	E2	0.0044 *3*	
1257.6 *2*	181 *16*	3488.8	11^-	2231.3	$(9)^-$	E2	0.0043	

[†] Δ(Eγ)=0.2 keV for Iγ>50, 0.3 keV for Iγ=20-50, 0.5 keV for Iγ=10-20, and 0.8 keV for Iγ<10, based on a general statement by 2001Go06.

[‡] From 2001Go06, except as noted.

[#] From DCO ratios with known stretched E2 or M1 transitions, and band structure (2001Go06), except as noted.

[@] From adopted gammas.

[&] From ^{192}Os(^{12}C,6nγ) (1986Ho03) and ^{154}Sm(^{48}Ca,4nγ) (1992Wa20).

[a] From 1989Ho06. Uncertainties of 0.2 keV In Eγ have been assigned by the evaluator on the basis of the authors′ earlier work (1986Ho03).

[b] 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.

[c] Multiply placed with undivided intensity.

[d] Multiply placed with intensity suitably divided.

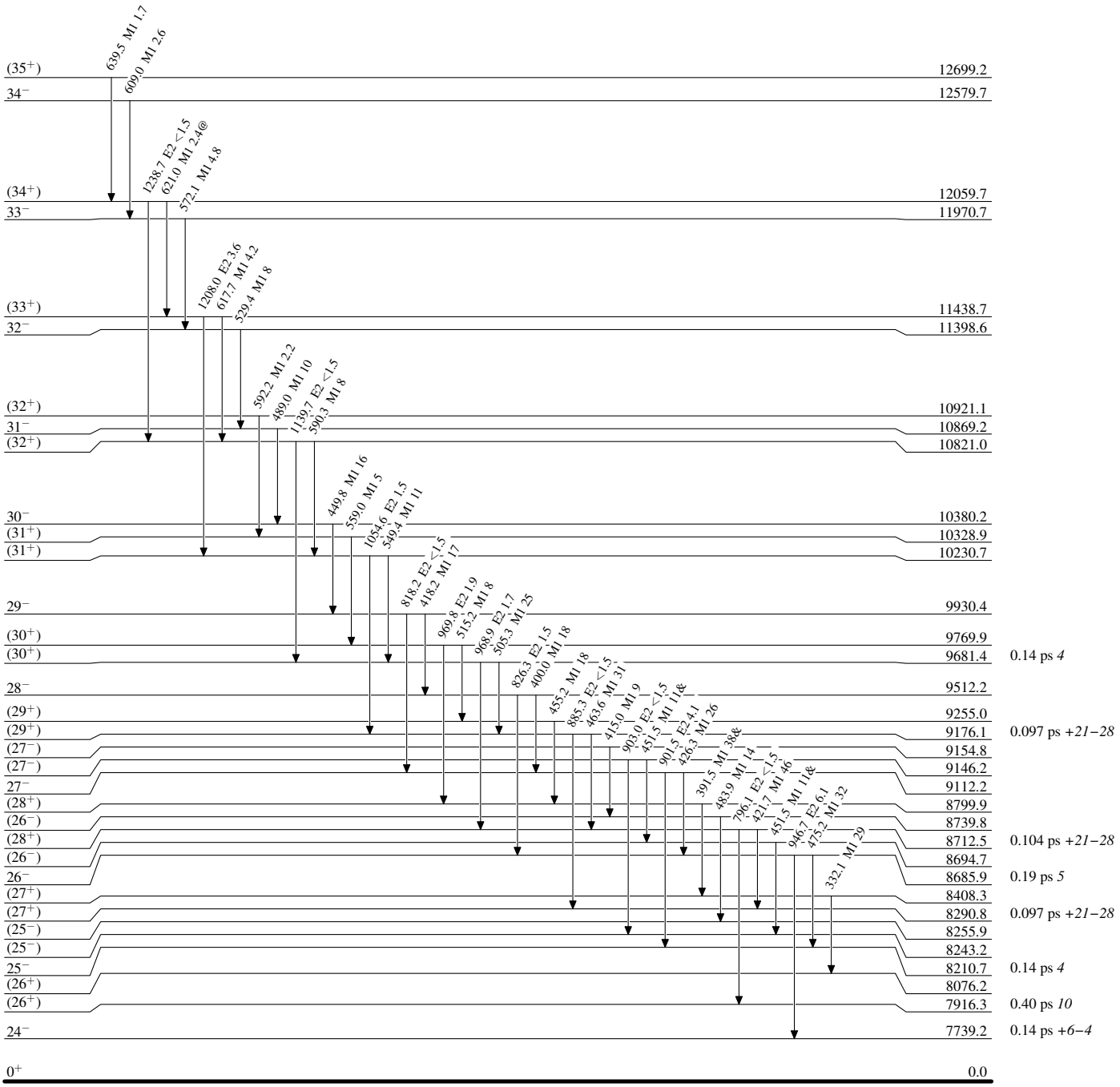
[e] Placement of transition in the level scheme is uncertain.

(HI,xnγ) 2001Go06,1998Kr20,1997Cl03

Level Scheme

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

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



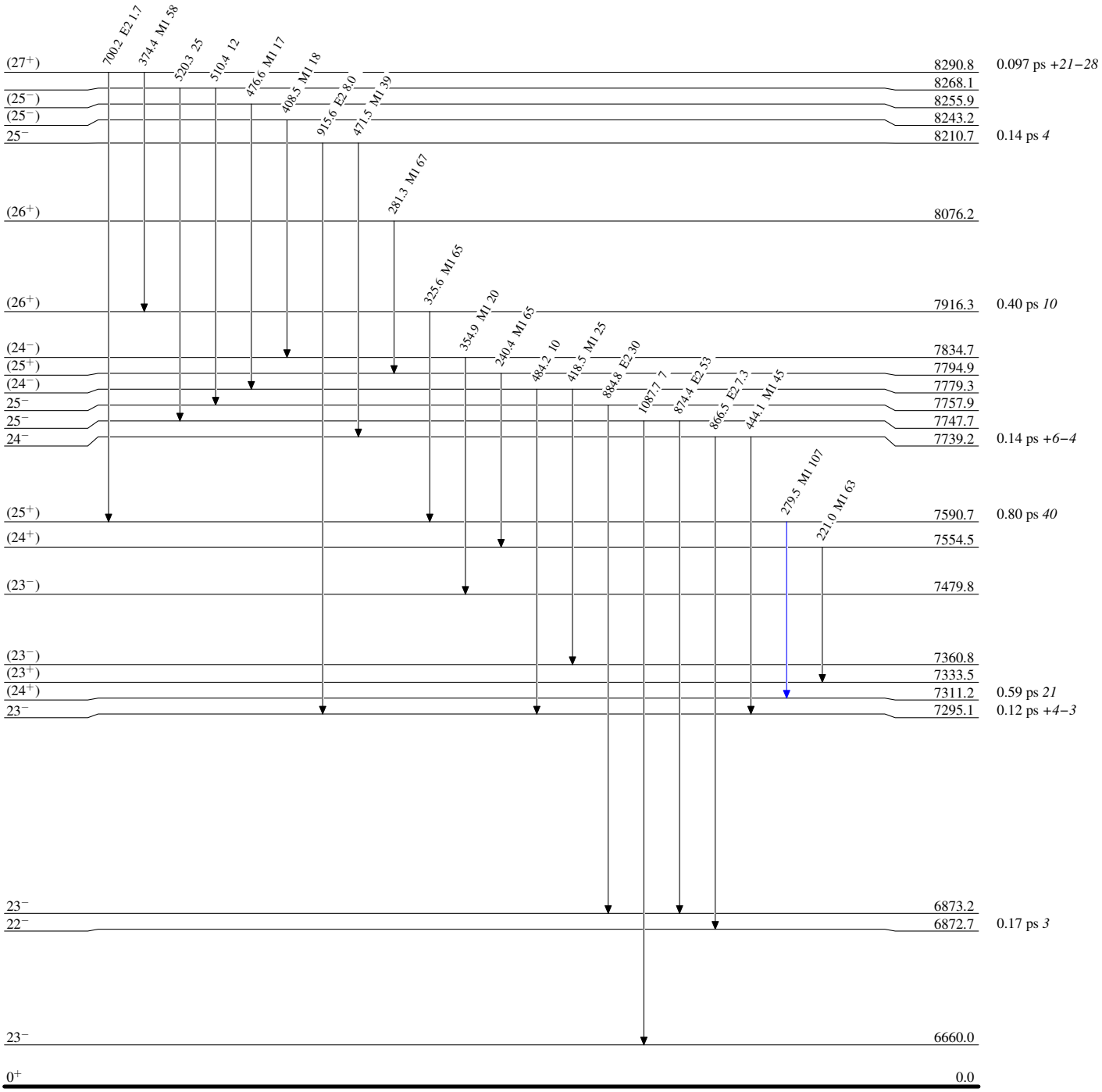
$^{198}_{82}Pb_{116}$

(HI,xnγ) 2001Go06,1998Kr20,1997Cl03

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

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



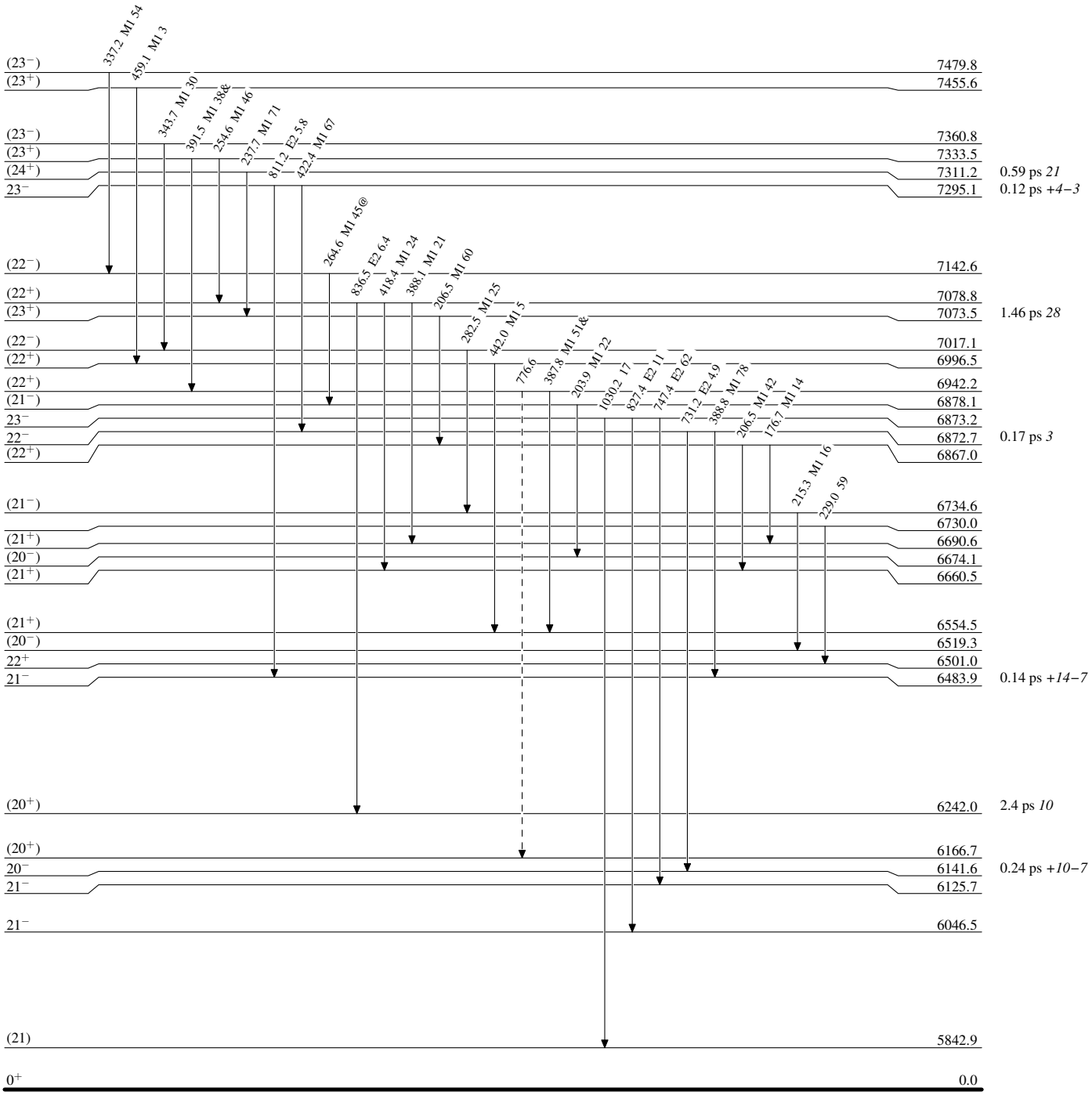
$^{198}_{82}Pb_{116}$

(HI,xnγ) 2001Go06,1998Kr20,1997Cl03

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)



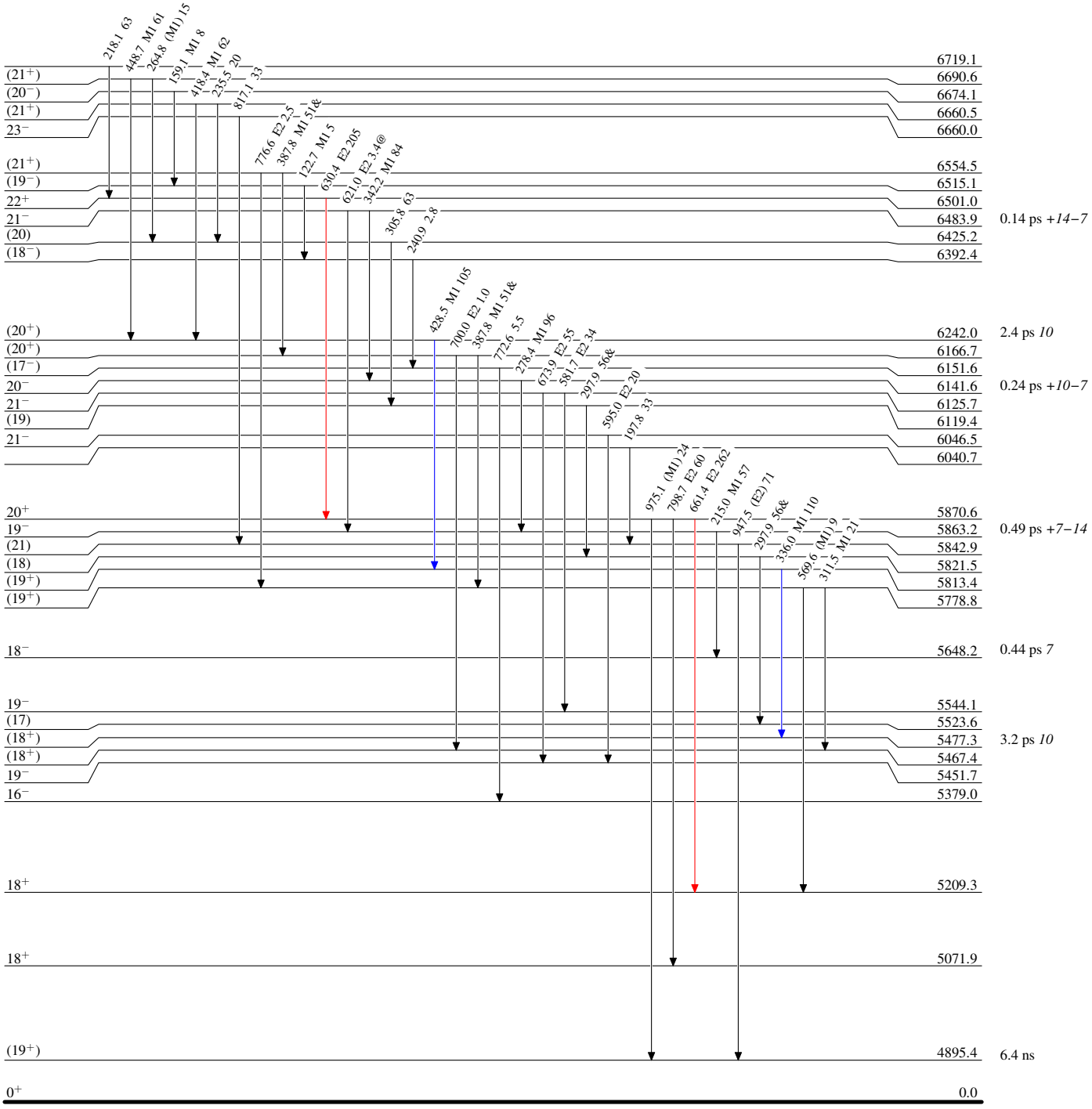
$^{198}_{82}Pb_{116}$

(HI,xnγ) 2001Go06,1998Kr20,1997Cl03

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

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



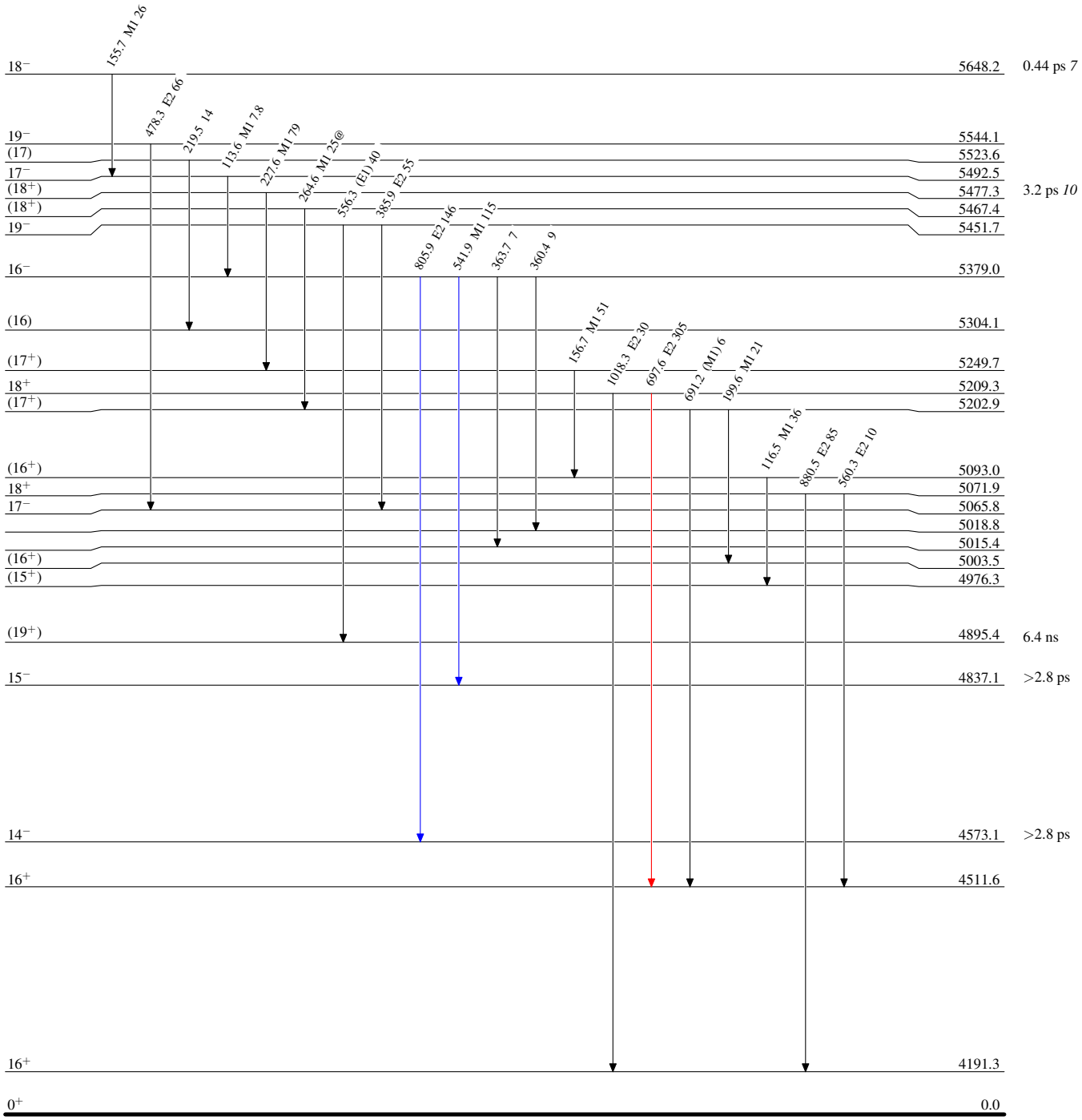
$^{198}_{82}Pb_{116}$

(HI,xnγ) 2001Go06,1998Kr20,1997Cl03

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

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



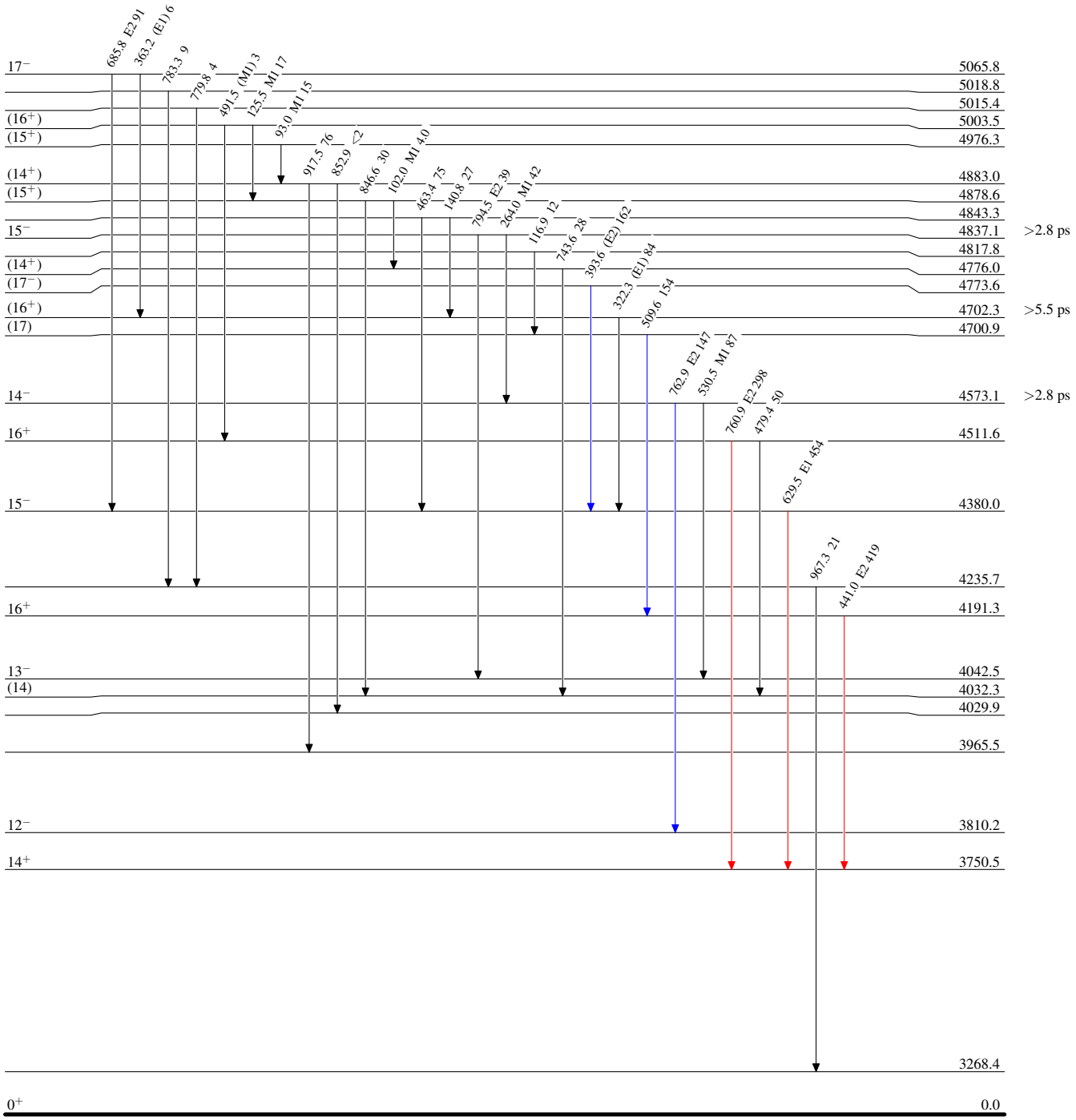
$^{198}_{82}Pb_{116}$

(HI,xnγ) 2001Go06,1998Kr20,1997Cl03

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

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



$^{198}_{82}Pb_{116}$

(HI,xnγ) 2001Go06,1998Kr20,1997Cl03

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
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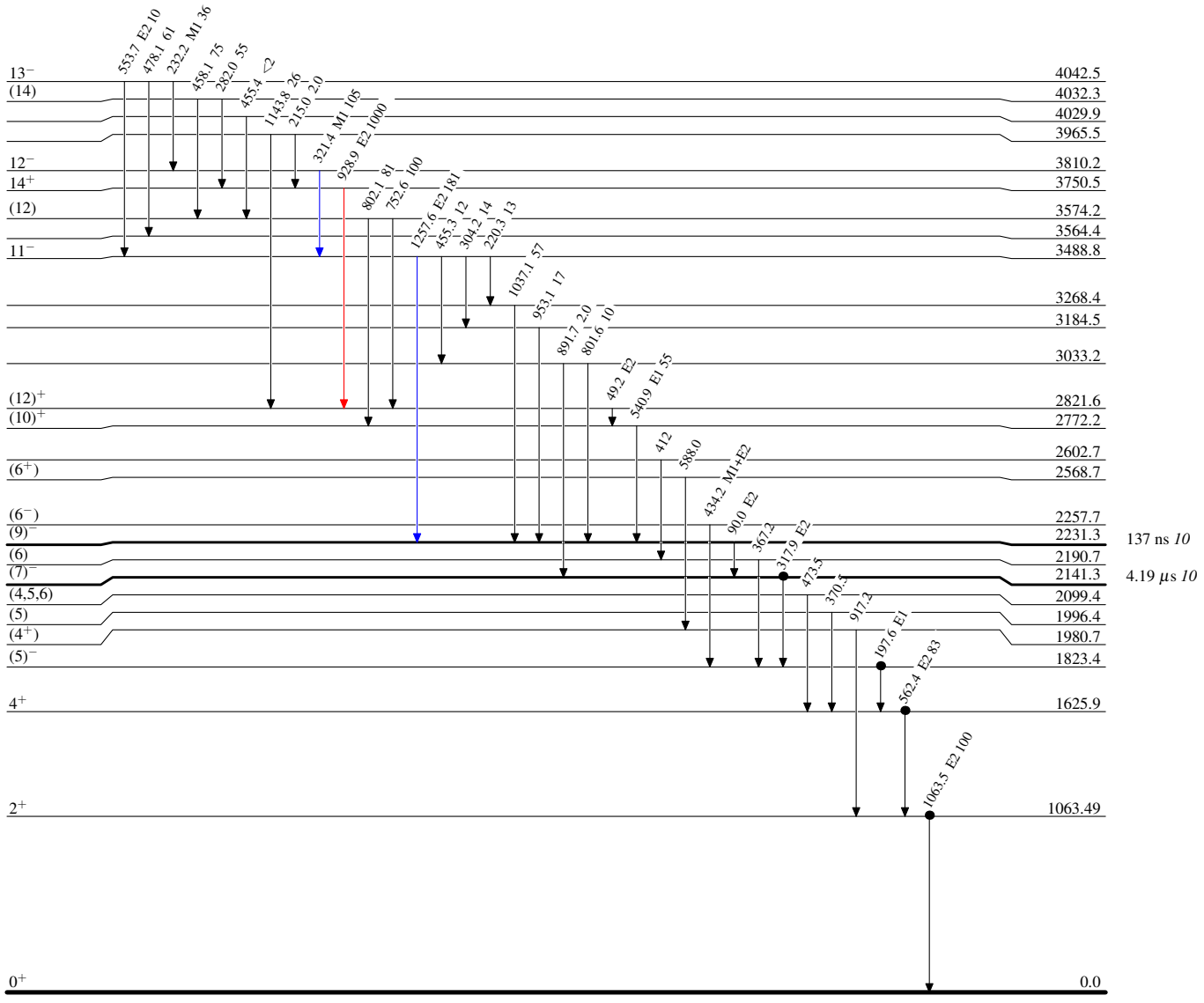
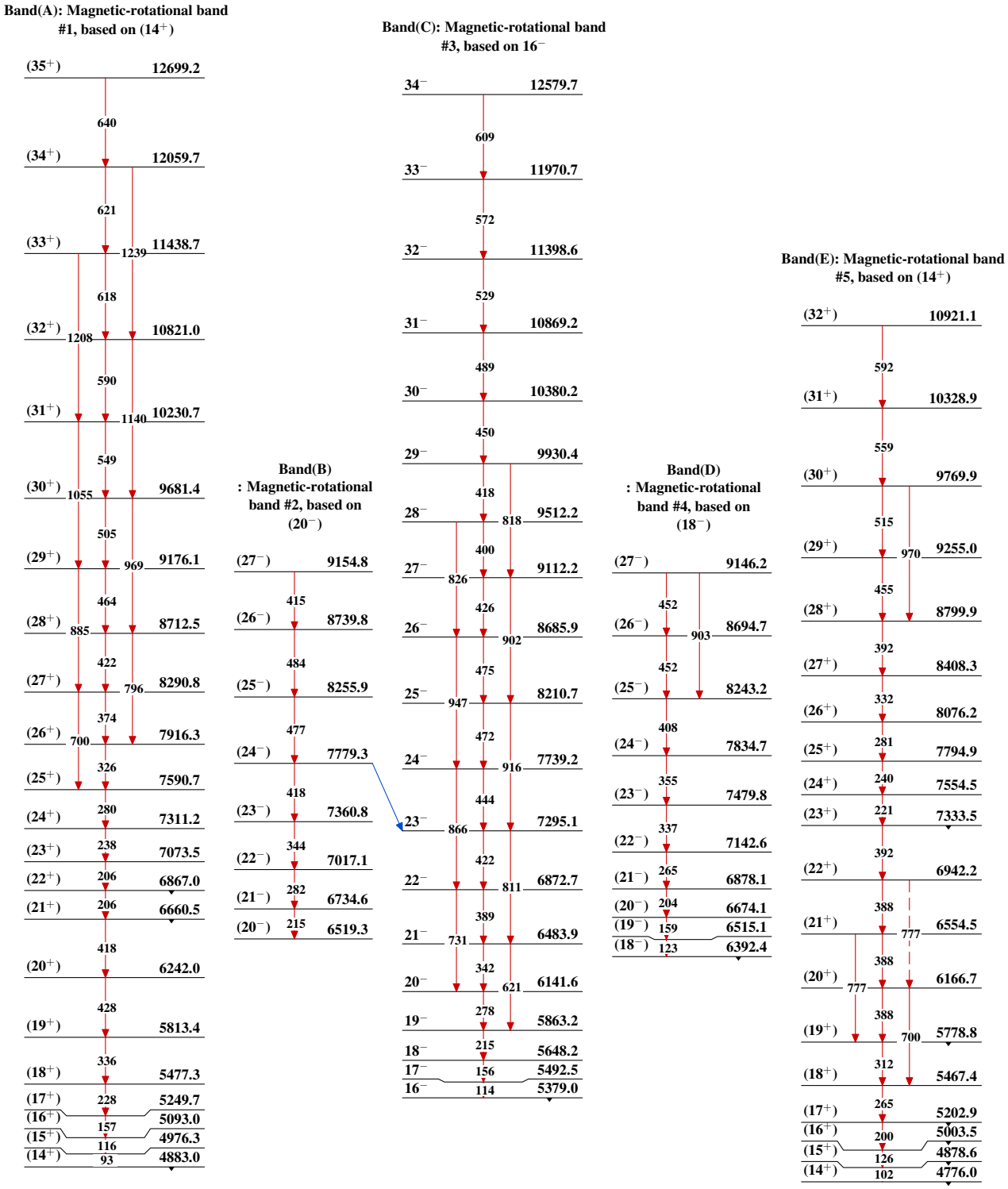
Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
Coincidence



$^{198}_{82}Pb_{116}$

(HI,xnγ) 2001Go06,1998Kr20,1997Cl03



$^{198}_{82}Pb_{116}$