Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	D. Abriola(a), A. A. Sonzogni	NDS 107, 2423 (2006)	1-Jan-2006

Q(β^-)=−6807 *6*; S(n)=11967 *5*; S(p)=2980 *4*; Q(α)=−4608 *4* 2012Wa38
Note: Current evaluation has used the following Q record.
ΔQ(β^-)=600, ΔS(n)=600, ΔS(p)=455, ΔQ(α)=509 (2003Au03).
Q(β^-)=−6588.0 *SY*; S(n)=11836.0 *SY*; S(p)=2961.0 *SY*; Q(α)=−4156.0 *SY* 2003Au03

^{94}Rh Levels

Cross Reference (XREF) Flags

- A ^{94}Pd ε decay
- B ^{95}Ag β^+p decay
- C ^{58}Ni(^{40}Ca,3pnγ)

E(level)	J$^\pi$[†]	T$_{1/2}$	XREF	Comments
0.0	(4$^+$)	70.6 s *6*	AB	%ε+%β^+=100; %εp=1.8 *5* (1982Ku15) T$_{1/2}$: from 1980Ox01. J$^\pi$: log *ft*=6.7 compared with calculated 6.39 from decay to (4$^+$) in ^{94}Ru (1996Jo06). However decay to (2$^+$) in ^{94}Ru log *ft*=6.7 is not predicted.
54.60 *20*	(2$^+$)	0.48 μs *4*	A	%IT=100 T$_{1/2}$: from 2004BaZY.
612.8 *3*	(1$^+$)		A	
1670?	(1$^+$)		A	
2626	(1$^+$)		A	
2910	(1$^+$)		A	
x+0.0[‡]	(8$^+$)	25.8 s *2*	C	%ε+%β^+=100 T$_{1/2}$: from 1980Ox01, other: 25 s *2* (1980No06). J$^\pi$: log *ft*=5.3 to (8$^+$); log *ft*=6.7 to (7$^-$). No feeding to (6$^+$).
x+576.47 *16*	(9$^+$)		C	
x+1279.74[‡] *16*	(10$^+$)		C	
x+1896.43[‡] *25*	(12$^+$)		C	
x+1975.86[#] *25*	(11$^-$)		C	
x+2538.6[#] *3*	(12$^-$)		C	
x+2546.6[‡] *3*	(13$^+$)		C	
x+2740.6[#] *3*	(13$^-$)		C	
x+3120.7[‡] *3*	(14$^+$)		C	
x+3164.9[‡] *3*	(15$^+$)		C	
x+3864.8[#] *3*	(15$^-$)		C	
x+4396.4[#] *3*	(17$^-$)		C	
x+4498.4[‡] *3*	(17$^+$)		C	
x+4642.7 *3*	(16$^-$)		C	
x+6447.0 *4*	(18$^-$)		C	
x+6566.4 *3*	(19$^-$)		C	
x+6699.7 *3*	(18$^-$)		C	
x+7221.8[‡] *3*	(18$^+$)		C	
x+7454.2[#] *4*	(19$^-$)		C	
x+7568.5 *4*	(19$^-$)		C	
x+7682.1 *3*	(19$^+$)		C	
x+7714.2[‡] *4*	(19$^+$)		C	

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Adopted Levels, Gammas (continued)

^{94}Rh Levels (continued)

E(level)	Jπ†	XREF	E(level)	Jπ†	XREF	E(level)	Jπ†	XREF
x+8132.8 *4*	(19$^+$)	C	x+8553.5‡ *4*	(20$^+$)	C	x+9096.7# *4*	(21$^-$)	C
x+8224.5 *4*	(20$^+$)	C	x+8724.9‡ *4*	(21$^+$)	C	x+9795.3# *4*	(22$^-$)	C
x+8372.9 *4*	(20$^-$)	C	x+8752.9 *4*	(20,21$^+$)	C	x+10104.6‡ *4*	(23$^+$)	C
x+8430.0 *4*	(20$^-$)	C	x+8789.7# *4*	(21$^-$)	C	x+10425.9# *4*	(23$^-$)	C

† From $\gamma\gamma(\theta)$ and band patterns, unless noted otherwise.
‡ Band(A): γ cascade based on (8$^+$).
# Band(B): γ cascade based on (11$^-$).

γ(^{94}Rh)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	α‡	Comments
54.60	(2$^+$)	54.6 *2*	100	0.0	(4$^+$)	E2	11.8	α(exp)=8.1 *9* α=11.8; α(K)=7.58 *23*; α(L)=3.48 *11*; α(M)=0.666 *20*; α(N+..)=0.112 *4* B(E2)(W.u.)=96 *9* Mult.: from α(exp), which is derived requiring Ti(54.6)=Ti(558.2).
612.8	(1$^+$)	558.2 *2*	100	54.60	(2$^+$)			
x+576.47	(9$^+$)	576.4 *2*	100	x+0.0	(8$^+$)			
x+1279.74	(10$^+$)	703.2 *2*	51.3 *23*	x+576.47	(9$^+$)			
		1279.8 *2*	100 *3*	x+0.0	(8$^+$)			
x+1896.43	(12$^+$)	616.7 *2*	100	x+1279.74	(10$^+$)			
x+1975.86	(11$^-$)	696.1 *2*	100	x+1279.74	(10$^+$)	E1†	0.00085	α=0.00085; α(K)=0.00074 *2*
x+2538.6	(12$^-$)	562.6 *2*	100	x+1975.86	(11$^-$)			
x+2546.6	(13$^+$)	650.2 *2*	100	x+1896.43	(12$^+$)			
x+2740.6	(13$^-$)	201.9 *2*	100 *4*	x+2538.6	(12$^-$)			
		764.9 *2*	4.2 *12*	x+1975.86	(11$^-$)			
x+3120.7	(14$^+$)	574.0 *2*	100	x+2546.6	(13$^+$)			
x+3164.9	(15$^+$)	44.2 *2*	5.5 *16*	x+3120.7	(14$^+$)			
		618.4 *2*	100 *4*	x+2546.6	(13$^+$)	E2†	0.00314	α=0.00314; α(K)=0.00271 *9*; α(L)=0.00033 *1*
x+3864.8	(15$^-$)	699.9 *2*	24.6 *25*	x+3164.9	(15$^+$)			
		1124.1 *2*	100 *4*	x+2740.6	(13$^-$)			
x+4396.4	(17$^-$)	531.7 *2*	100	x+3864.8	(15$^-$)			
x+4498.4	(17$^+$)	1333.4 *2*	100	x+3164.9	(15$^+$)			
x+4642.7	(16$^-$)	246.0 *2*	100 *17*	x+4396.4	(17$^-$)			
		777.9 *2*	60 *17*	x+3864.8	(15$^-$)			
x+6447.0	(18$^-$)	2050.6 *2*	100	x+4396.4	(17$^-$)			
x+6566.4	(19$^-$)	2170.2 *2*	100	x+4396.4	(17$^-$)			
x+6699.7	(18$^-$)	2056.5 *2*	23 *12*	x+4642.7	(16$^-$)			
		2303.6 *2*	100 *14*	x+4396.4	(17$^-$)			
x+7221.8	(18$^+$)	2723.4 *2*	100	x+4498.4	(17$^+$)			
x+7454.2	(19$^-$)	3057.7 *2*	100	x+4396.4	(17$^-$)			
x+7568.5	(19$^-$)	3172.1 *2*	100	x+4396.4	(17$^-$)			
x+7682.1	(19$^+$)	460.2 *2*	43 *12*	x+7221.8	(18$^+$)			
		982.3 *2*	1.0×10^2 *3*	x+6699.7	(18$^-$)			
		1115.9 *2*	91 *22*	x+6566.4	(19$^-$)			
		3183.6 *2*	77 *17*	x+4498.4	(17$^+$)			
x+7714.2	(19$^+$)	492.5 *2*	100	x+7221.8	(18$^+$)			
x+8132.8	(19$^+$)	910.9 *2*	100	x+7221.8	(18$^+$)			

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Adopted Levels, Gammas (continued)

$\gamma(^{94}Rh)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π
x+8224.5	(20^+)	510.1 *2*	19 *7*	x+7714.2	(19^+)
		542.3 *2*	100 *10*	x+7682.1	(19^+)
x+8372.9	(20^-)	1806.1 *2*	100	x+6566.4	(19^-)
x+8430.0	(20^-)	975.6 *2*	100	x+7454.2	(19^-)
x+8553.5	(20^+)	420.6 *2*	44 *12*	x+8132.8	(19^+)
		839.6 *2*	100 *21*	x+7714.2	(19^+)
x+8724.9	(21^+)	171.6 *2*	42 *6*	x+8553.5	(20^+)
		500.2 *2*	100 *11*	x+8224.5	(20^+)
x+8752.9	$(20,21^+)$	528.4 *2*	100	x+8224.5	(20^+)
x+8789.7	(21^-)	359.6 *2*	9 *3*	x+8430.0	(20^-)
		416.4 *2*	11 *3*	x+8372.9	(20^-)
		1335.6 *2*	100 *8*	x+7454.2	(19^-)
		2223.5 *2*	25 *10*	x+6566.4	(19^-)
x+9096.7	(21^-)	306.6 *2*	100 *5*	x+8789.7	(21^-)
		2530.6 *2*	6 *3*	x+6566.4	(19^-)
x+9795.3	(22^-)	698.3 *2*	100	x+9096.7	(21^-)
x+10104.6	(23^+)	1379.7 *2*	100	x+8724.9	(21^+)
x+10425.9	(23^-)	630.3 *2*	100 *10*	x+9795.3	(22^-)
		1329.5 *2*	17 *5*	x+9096.7	(21^-)

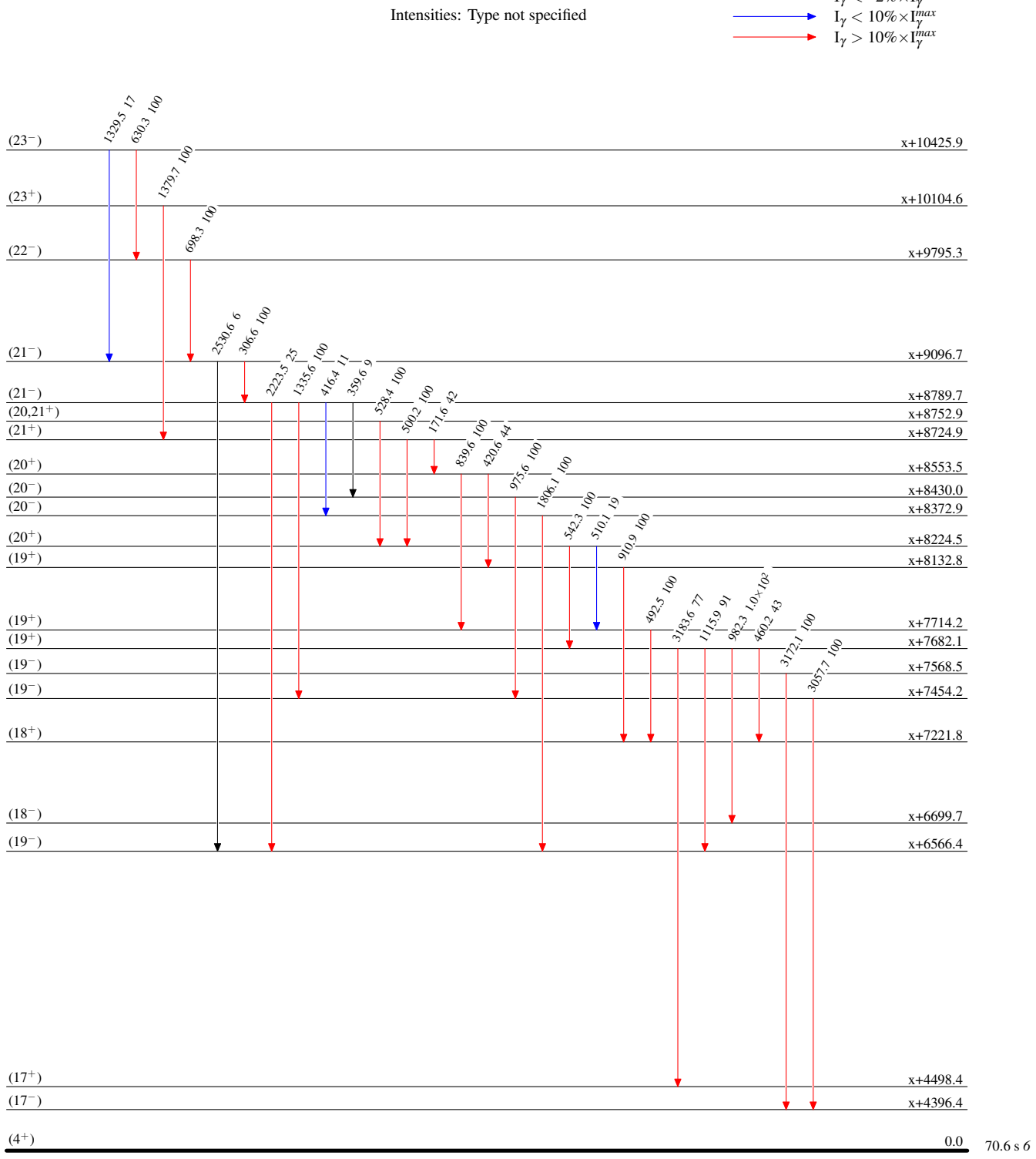
† From $^{58}Ni(^{40}Ca,3pn\gamma)$.

‡ 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.

Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified

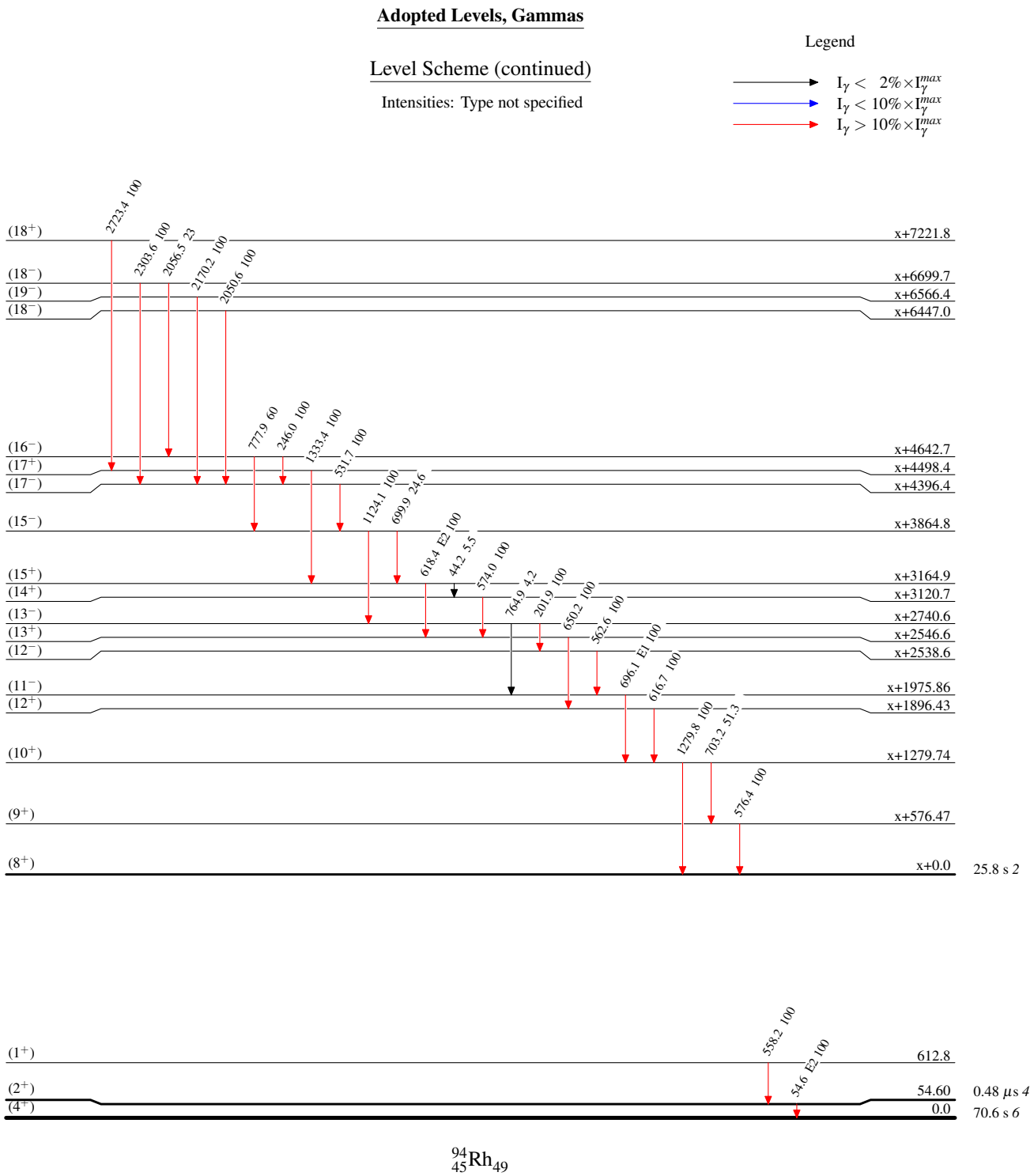


$^{94}_{45}Rh_{49}$

Adopted Levels, Gammas

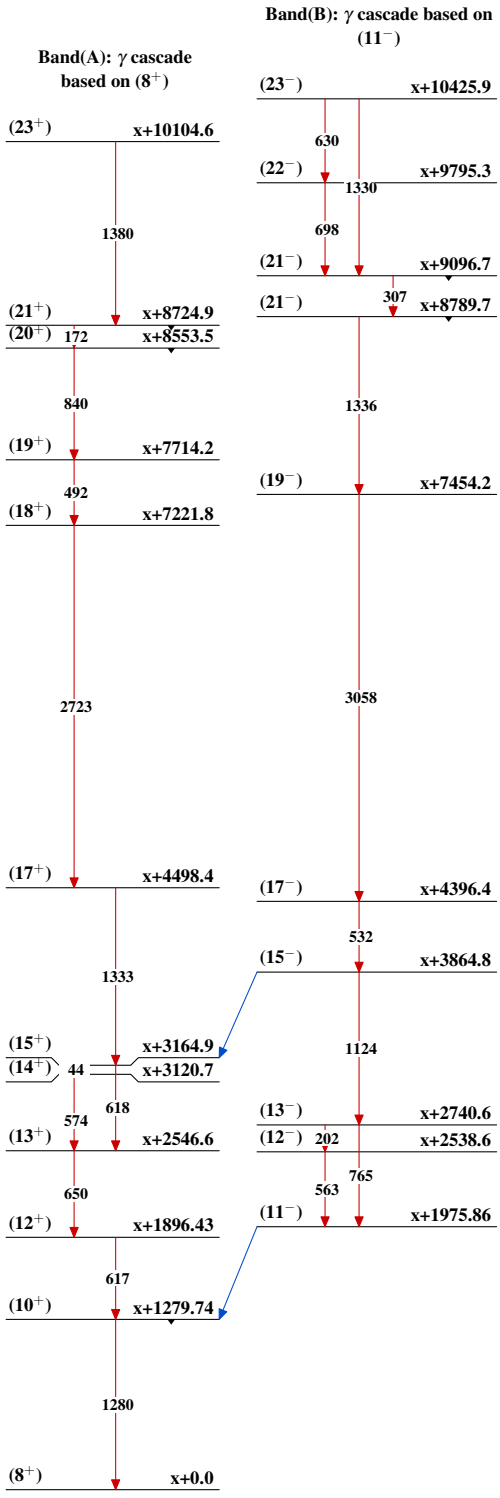
Level Scheme (continued)

Intensities: Type not specified



$^{94}_{45}Rh_{49}$

Adopted Levels, Gammas



$^{94}_{45}Rh_{49}$