Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	D. De Frenne	NDS 110,1745 (2009)	31-Dec-2008

Q(β^-)=1151 *5*; S(n)=7441 *8*; S(p)=6115 *5*; Q(α)=−2774 *6* 2012Wa38
Note: Current evaluation has used the following Q record 1150 5 *7438* 186114 5 −2772 6 2003Au03.

^{102}Rh Levels

Cross Reference (XREF) Flags

A	^{102}Rh IT decay	D	^{98}Mo(^{7}Li,3nγ)
B	^{102}Ru(p,nγ)	E	^{70}Zn(^{36}S,p3nγ)
C	^{103}Rh(p,d)		

E(level)†	J$^\pi$‡	$T_{1/2}$#	XREF	Comments
0.0	(1$^-$,2$^-$)	207.3 d *17*	ABCDE	%β^-=22 *5*; %ε+%β^+=78 *5* μ=0.45 *35* μ: From nuclear orientation (1989Ra17). $T_{1/2}$: From γ decay following β decay (1998Sh21). Others: 210 d *6* (1941Mi02), 206 d *3* (1961Hi06), 205 d *10* (1961Mc10). J$^\pi$: $\gamma(\theta$,H,t) in ^{102}Rh ε decay (207 d) and shell model suggest J^π=2$^-$.
41.940 *15* 76 *9*	2$^{(-)}$	18.9 ns *4*	AB DE C	J$^\pi$: from M4 from 6$^{(+)}$.
105.216 *16*	(1$^+$,2$^+$,3$^+$)	1.0 ns *3*	B DE	J$^\pi$: Suggested from E1 to gs and γ to 2$^-$.
123.751 *18*	(1$^-$,2$^-$,3$^-$)	0.4 ns *2*	B	J$^\pi$: Suggested from M1 to g.s. in ^{102}Ru(p,nγ).
140.73 *9*	6$^{(+)}$	3.742 y *10*	A DE	%ε+%β^+=99.767 *24*; %IT=0.233 *24* μ=4.044 *12* μ: From 1989Ra17. %IT from 1991Bi01. $T_{1/2}$: from 1998Sh21. Others 2.9 y 1963Bo17,1965Hi07. J$^\pi$: J=6 from low-temperature nuclear orientation and NMR (1989Hi12). π=+ is expected from shell model and Rh systematics.
154.46 *12*	5$^{(+)}$		DE	J$^\pi$: suggested from γ to 6$^{(+)}$.
156.494 *23*		<0.3 ns	BCDE	
178.68 *4*	(3)$^+$	1.04 ns *21*	B DE	J$^\pi$: from E1 to 2$^-$ and γ to (1$^-$,2$^-$,3$^-$).
206.875 *25*		<0.3 ns	B	
208.74 *4*		0.34 ns *21*	B	
242.27 *11*	(7$^+$)		DE	J$^\pi$: Suggested from γ to 6$^{(+)}$.
259.57 *4*		<0.3 ns	B	
263.84 *6*	(5$^+$)	<0.4 ns	B DE	J$^\pi$: Suggested from γ to (3$^+$).
291.54 *4*		<0.3 ns	BCDE	
297.29 *10*	(7$^+$)		D	J$^\pi$: Suggested from (M1+E2) to 6$^{(+)}$.
302.22 *3*		<0.3 ns	B	
305.89 *4*		<0.3 ns	B	
345.77 *9*		<0.7 ns	B	
359.1			DE	
359.61 *6*		0.6 ns *3*	B	
364.80 *5*		<0.3 ns	B	
378.61 *12*	6$^{(+)}$		DE	
380 *7*	(1$^-$,2$^-$,3$^-$)		C	J$^\pi$: L(p,d)=(2).
399.39 *10*	(5,6,7)	<0.7 ns	B DE	
409.91 *5*		<0.3 ns	B	
427.52 *6*		<0.3 ns	B	
431.48 *6*		<0.3 ns	B	
449.36 *5*		<0.4 ns	B	

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Adopted Levels, Gammas (continued)

^{102}Rh Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	XREF	Comments
450.6 *15*			B	
474.34 *7*			B	
476.85 *10*	7^+		DE	
491 *9*	$(3^-,4^-,5^-)$		C	Jπ: L(p,d)=(4).
525.1 *3*			B	
542.14 *11*		<0.3 ns	B	
543.55 *20*		<0.7 ns	BC	
545.89 *8*		<0.3 ns	B	
569.65 *13*	7^+		E	
575.93 *8*		<0.3 ns	B	
598.94 *8*		<0.3 ns	B	
601.38 *21*			B	
615.7 *3*	(7,8,9)		E	
632.5 *10*			B	
645.82 *21*		<0.4 ns	B	
682.79[@] *10*	$6^{(-)}$		CDE	
708.25 *22*	8^+		E	
730.75[&] *11*	$7^{(-)}$		CDE	
760.80[@] *12*	$8^{(-)}$		DE	
845.87 *15*	8^+		C E	
907.14[&] *13*	$9^{(-)}$		DE	
1042.34 *19*	9^+		E	
1186.7 *3*	9^+		E	
1200 *30*			C	
1270.20[@] *14*	$10^{(-)}$		DE	
1576.35[&] *13*	$11^{(-)}$		DE	
1598.69[e] *19*	(10^+)		E	
1670 *40*			C	
1840 *40*			C	
2038.49[@] *16*	$12^{(-)}$		DE	
2165.9 *4*	(11^+)		E	
2357.57[e] *21*	(12^+)		E	
2476.65[&] *17*	$13^{(-)}$		DE	
2965.06[@] *18*	$14^{(-)}$		DE	
3266.28[e] *23*	(14^+)		E	
3494.02[&] *19*	$15^{(-)}$		E	
3505.1 *3*	(13^+)		E	
3538.8[a] *3*	(13^+)		E	
3831.72[b] *24*	(14^+)		E	
3917.8[c] *4*	(14^+)		E	
4022.42[@] *20*	$16^{(-)}$		E	
4157.7[a] *3*	(15^+)		E	
4198.2 *4*			E	
4264.1[d] *3*	(15^+)		E	
4312.59[e] *25*	(16^+)		E	
4589.0[b] *3*	(16^+)		E	
4625.93[&] *20*	$17^{(-)}$		E	
4637.1[c] *3*	(16^+)		E	
5002.0[a] *3*	(17^+)		E	
5063.7[d] *4*	(17^+)		E	

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Adopted Levels, Gammas (continued)

^{102}Rh Levels (continued)

E(level)†	Jπ‡	XREF	E(level)†	Jπ‡	XREF	E(level)†	Jπ‡	XREF
5232.63@ *22*	$18^{(-)}$	E	8694.1& *5*	$23^{(-)}$	E	14168.3d *9*	(31^+)	E
5460.9e *3*	(18^+)	E	8722.3 *7*		E	15978.3d *10*	(33^+)	E
5538.9c *4*	(18^+)	E	9109.8@ *5*	$24^{(-)}$	E	0+xf		E
5565.5b *4*	(18^+)	E	9249.1c *5*	(24^+)	E	1072.0+xf *10*		E
5926.75& *22*	$19^{(-)}$	E	9379.7e *7*	(24^+)	E	2272.0+xf *15*		E
6024.1d *4*	(19^+)	E	9816.2d *6*	(25^+)	E	3636.0+xf *18*		E
6088.9a *5*	(19^+)	E	10169.1& *11*	(25^-)	E	5110.0+xf *20*		E
6513.4@ *3*	$20^{(-)}$	E	10482.8@ *7*	$26^{(-)}$	E	6696.0+xf *23*		E
6615.4c *4*	(20^+)	E	10665.0c *7*	(26^+)	E	8378.1+xf *25*		E
6687.0e *4*	(20^+)	E	10831.7e *13*	(26^+)	E	0+yg		E
7175.7d *4*	(21^+)	E	11199.7d *7*	(27^+)	E	1502.0+yg *10*		E
7309.2& *4*	$21^{(-)}$	E	11694.1& *12*	$27^{(-)}$	E	3080.0+yg *15*		E
7797.8@ *4*	$22^{(-)}$	E	12126.8@ *9*	$28^{(-)}$	E	4763.0+yg *18*		E
7844.6c *4*	(22^+)	E	12160.2c *7*	(28^+)	E	6598.1+yg *20*		E
7991.3e *5*	(22^+)	E	12609.3d *7*	(29^+)	E			
8483.1d *5*	(23^+)	E	13289.1& *13*	$29^{(-)}$	E			

† Level energies have been calculated using a least-squares procedure based on adopted γ's.
‡ Unless noted otherwise, from γγ(θ)(DCO), γ(lin pol) and observed band structure in ^{70}Zn(^{36}s,p3nγ) (1999Gi14).
# Except for the long-lived isomers, from γ(t) in ^{102}Ru(p,nγ) (1984Bi04).
@ Band(A): Band 1. $\pi g_{9/2}\nu h_{11/2}$, α=0 (1999Gi14).
& Band(a): Band 2. $\pi g_{9/2}\nu h_{11/2}$, α=1 (1999Gi14).
a Band(B): Band 3. $\pi g_{9/2}\nu(d_{5/2}h^2_{11/2})$, α=1 (1999Gi14).
b Band(b): Band 4. $\pi g_{9/2}\nu(d_{5/2}h^2_{11/2})$, α=0 (1999Gi14).
c Band(C): Band 5. $\pi g_{9/2}\nu(g_{7/2}h^2_{11/2})$, α=0 (1999Gi14).
d Band(c): Band 6. $\pi g_{9/2}\nu(g_{7/2}h^2_{11/2})$, α=1 (1999Gi14).
e Band(D): Band 7. $\pi p_{1/2}\nu h_{11/2}$, α=0.
f Band(E): ΔJ=2 band a. (1999Gi02).
g Band(F): ΔJ=2 band b. (1999Gi02).

Adopted Levels, Gammas (continued)

γ(^{102}Rh)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡#]	δ	α[b]	Comments
41.940	2(−)	41.938 *20*	100	0.0	(1−,2−)	M1[a]		4.23	B(M1)(W.u.)=0.00302 *8*
105.216	(1+,2+,3+)	63.271 *20*	32.01 *20*	41.940	2(−)	[E1]		0.543	B(E1)(W.u.)=0.00024 *8*
		105.219 *20*	100.0 *6*	0.0	(1−,2−)	E1		0.1263	B(E1)(W.u.)=0.00016 *5*
123.751	(1−,2−,3−)	81.82 *4*	12.9 *3*	41.940	2(−)	[M1,E2]		1.7 *9*	B(M1)(W.u.)=0.004 *3*; B(E2)(W.u.)=6.E+2 *4*
		123.750 *20*	100.0 *10*	0.0	(1−,2−)	M1[a]		0.1907	B(M1)(W.u.)=0.019 *10*
140.73	6(+)	98.8 *1*	100	41.940	2(−)	M4		337	B(M4)(W.u.)=0.00132 *14* Mult.: from K/L=2.1 *2* (1990BiZY).
154.46	5(+)	13.7 *10*	100	140.73	6(+)				E_γ: only observed in coincidence data.
156.494		51.274 *19*	100.0 *6*	105.216	(1+,2+,3+)				
		156.50 *10*	31.3 *3*	0.0	(1−,2−)				
178.68	(3)+	22.0[c]		156.494					
		54.9	0.01	123.751	(1−,2−,3−)				
		136.71 *6*	100.0 *9*	41.940	2(−)	E1[a]		0.0595	B(E1)(W.u.)=0.000110 *23*
206.875		28.17 *4*	13.0 *6*	178.68	(3)+				
		50.4[c]		156.494					
		101.66 *3*	100.0 *18*	105.216	(1+,2+,3+)				
		164.90 *10*	16.0 *4*	41.940	2(−)				
		206.93 *7*	9.5 *12*	0.0	(1−,2−)				
208.74		166.800 *30*	100.0 *9*	41.940	2(−)				
		208.65 *10*	27.2 *30*	0.0	(1−,2−)				
242.27	(7+)	101.55 *7*	100	140.73	6(+)				
259.57		103.080 *30*	100	156.494					
263.84	(5+)	85.16 *5*	100	178.68	(3)+				
291.54		82.9 *10*	<1.8	208.74					
		167.80 *7*	46.6 *11*	123.751	(1−,2−,3−)				
		249.61 *5*	45.5 *23*	41.940	2(−)				
		291.53 *5*	100. *5*	0.0	(1−,2−)				
297.29	(7+)	156.57 *6*	100	140.73	6(+)	(M1+E2)[@]	0.085[&] *35*	0.1010 *13*	
302.22		95.340 *20*	100.0 *7*	206.875					
		145.70 *6*	9.3 *4*	156.494					
		260.28 *10*	30. *4*	41.940	2(−)				
		302.25 *15*	21. *5*	0.0	(1−,2−)				
305.89		182.14 *3*	100	123.751	(1−,2−,3−)	M1		0.0666	B(M1)(W.u.)>0.011
345.77		39.9		305.89					
		137.00 *10*	≤100.0	208.74					I_γ: maybe contaminated with γ of tantalum observed in ^{102}Ru(p,nγ).
		303.90 *15*	9.7 *18*	41.940	2(−)				
359.1		205.10 *24*		154.46	5(+)				
359.61		100.04 *4*	100	259.57					
364.80		186.10 *10*	15.4 *29*	178.68	(3)+				

$^{102}_{45}Rh_{57}$-4

Adopted Levels, Gammas (continued)

γ(^{102}Rh) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡#]	δ	α[b]	Comments
364.80		208.25 *10*	45. *7*	156.494					
		259.60 *5*	100. *11*	105.216	(1$^+$,2$^+$,3$^+$)				
378.61	6$^{(+)}$	81.29 *7*	92	297.29	(7$^+$)	D			
		136.4 *5*	58	242.27	(7$^+$)				
		223.6 *3*	83	154.46	5$^{(+)}$	M1+E2[@]	−0.35[&] *10*		
		237.9 *3*	100	140.73	6$^{(+)}$	M1+E2[@]	+0.35[&] *10*		
399.39	(5,6,7)	135.55 *10*	100	263.84	(5$^+$)	(E1)[a]		0.0610	B(E1)(W.u.)>0.00017 Mult.: E1 from α(K)exp for unresolved multiplet.
409.91		107.72 *5*	40.6 *16*	302.22					
		304.70 *10*	100 *19*	105.216	(1$^+$,2$^+$,3$^+$)				
427.52		218.78 *5*	100	208.74					
431.48		167.7[c]		263.84	(5$^+$)				
		224.60 *5*	100. *4*	206.875					
		275.1 *10*	2. *20*	156.494					
449.36		147.11 *5*	34.8 *22*	302.22					
		270.80 *10*	89. *7*	178.68	(3)$^+$				
		292.88 *10*	63. *7*	156.494					
		344.20 *20*	100. *20*	105.216	(1$^+$,2$^+$,3$^+$)				
450.6		191.0 *15*	100	259.57					
474.34		109.54 *5*	100 *5*	364.80					
		210.3[c]		263.84	(5$^+$)				
		214.6 *10*	≈2	259.57					
476.85	7$^+$	117.20 *10*	67	359.1					
		213.00 *10*	100	263.84	(5$^+$)				
		234.65 *19*	33	242.27	(7$^+$)				
525.1		318.2 *3*	100	206.875					
542.14		236.25 *10*	100	305.89					
543.55		419.80 *20*	100	123.751	(1$^-$,2$^-$,3$^-$)				
545.89		136.20 *15*		409.91					No reliable Iγ can be given as maybe contaminated with γ of tantalum observed in ^{102}Ru(p,nγ).
		243.61 *8*	44 *26*	302.22					
		255.4[c]		291.54					
		440.30[c] *10*	100 *17*	105.216	(1$^+$,2$^+$,3$^+$)				
569.65	7$^+$	272.4 *5*		297.29	(7$^+$)	D			
		428.9 *1*	100	140.73	6$^{(+)}$	D			
575.93		148.41 *5*	100	427.52					
598.94		234.15 *10*	100 *13*	364.80					
		239.33 *10*	100 *19*	359.61					
		335.2		263.84	(5$^+$)				
		339.1		259.57					
601.38		394.50 *20*	100	206.875					

$^{102}_{45}Rh_{57}$-5

Adopted Levels, Gammas (continued)

γ(^{102}Rh) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡#]	δ	α[b]
615.7	(7,8,9)	216.4 *5*	100	399.39	(5,6,7)			
		318.5 *5*	100	297.29	(7^+)			
632.5		368.7 *10*	100	263.84	(5^+)			
645.82		343.60 *20*	100	302.22				
682.79	$6^{(-)}$	206.00 *20*	22 *7*	476.85	7^+			
		283.40 *10*	8.9 *22*	399.39	(5,6,7)			
		304.10 *10*	100 *11*	378.61	$6^{(+)}$	E1(+M2)[@]	−0.15[&] *15*	
		385.50 *10*	15.6 *22*	297.29	(7^+)			
		440.2 *5*	19 *5*	242.27	(7^+)			
		528.36 *7*	71 *7*	154.46	$5^{(+)}$	E1		
708.25	8^+	138.6 *5*	14	569.65	7^+	D		
		231.5 *5*	57	476.85	7^+	D		
		411.4 *5*	43	297.29	(7^+)	D		
		567.7 *5*	100	140.73	$6^{(+)}$			
730.75	$7^{(-)}$	47.95 *7*	100 *15*	682.79	$6^{(-)}$			
		352.20 *20*	50 *15*	378.61	$6^{(+)}$			
		433.40 *10*	30 *5*	297.29	(7^+)			
		590.0 *3*	20 *10*	140.73	$6^{(+)}$			
760.80	$8^{(-)}$	30.00 *10*	25 *5*	730.75	$7^{(-)}$			
		463.55 *10*	100 *15*	297.29	(7^+)			
845.87	8^+	276.2 *1*	100	569.65	7^+	D		
		548.6 *5*	20	297.29	(7^+)			
907.14	$9^{(-)}$	146.34 *5*	100	760.80	$8^{(-)}$	(M1+E2)[@]	<0.08[&]	
1042.34	9^+	196.6 *5*	39	845.87	8^+	D		
		334.4 *3*	89	708.25	8^+	D		
		426.7 *5*	28	615.7	(7,8,9)			
		745.1 *3*	100	297.29	(7^+)	E2		
1186.7	9^+	889.3 *3*	100	297.29	(7^+)	E2		
1270.20	$10^{(-)}$	363.1 *4*	100	907.14	$9^{(-)}$	M1(+E2)[@]	<0.1[&]	
		509.7 *5*	4	760.80	$8^{(-)}$			
1576.35	$11^{(-)}$	306.15 *3*	100 *12*	1270.20	$10^{(-)}$	M1(+E2)[@]	<0.1[&]	
		669.20 *3*	20.9 *23*	907.14	$9^{(-)}$	(E2)[@]	[&]	0.00254
1598.69	(10^+)	556.4 *1*	100	1042.34	9^+	D		
		752.6 *3*	25	845.87	8^+	Q		
		890		708.25	8^+			
2038.49	$12^{(-)}$	462.13 *10*	100 *21*	1576.35	$11^{(-)}$	M1(+E2)[@]	0.08[&] *8*	
		768.3 *7*	21 *7*	1270.20	$10^{(-)}$			
2165.9	(11^+)	979.1 *3*	100	1186.7	9^+	Q		
2357.57	(12^+)	758.9 *1*	100	1598.69	(10^+)	E2		

$^{102}_{45}Rh_{57}$-6

Adopted Levels, Gammas (continued)

γ(^{102}Rh) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.‡#
2476.65	$13^{(-)}$	438.20 *10*	100 *17*	2038.49	$12^{(-)}$	M1+E2
		900.3 *2*	100 *17*	1576.35	$11^{(-)}$	E2
2965.06	$14^{(-)}$	488.4 *1*	100 *33*	2476.65	$13^{(-)}$	M1+E2
		926.1 *3*	33 *17*	2038.49	$12^{(-)}$	Q
3266.28	(14^+)	908.7 *1*	100	2357.57	(12^+)	E2
3494.02	$15^{(-)}$	528.9 *1*	100	2965.06	$14^{(-)}$	M1+E2
		1017.4 *1*	65	2476.65	$13^{(-)}$	Q
3505.1	(13^+)	1148.2 *5*	100	2357.57	(12^+)	
		1466.5 *5*	100	2038.49	$12^{(-)}$	
3538.8	(13^+)	1181.3 *5*	100	2357.57	(12^+)	
		1372.7 *5*	50	2165.9	(11^+)	
3831.72	(14^+)	292.9 *3*	100	3538.8	(13^+)	M1+E2
		326.8 *3*	6	3505.1	(13^+)	D
		1355.2 *3*	90	2476.65	$13^{(-)}$	
3917.8	(14^+)	412.6 *5*	67	3505.1	(13^+)	M1+E2
		1441.0 *5*	100	2476.65	$13^{(-)}$	
4022.42	$16^{(-)}$	528.5 *1*	158	3494.02	$15^{(-)}$	M1+E2
		1057.2 *1*	100	2965.06	$14^{(-)}$	Q
4157.7	(15^+)	325.9 *1*	100	3831.72	(14^+)	M1+E2
4198.2		931.8 *3*	100	3266.28	(14^+)	
4264.1	(15^+)	346.2 *5*	80	3917.8	(14^+)	
		433.1 *5*	20	3831.72	(14^+)	
		759.1 *5*	20	3505.1	(13^+)	
		1299.0 *5*	100	2965.06	$14^{(-)}$	
4312.59	(16^+)	1046.3 *1*	100	3266.28	(14^+)	E2
4589.0	(16^+)	431.3 *1*	100	4157.7	(15^+)	M1+E2
		758.3 *5*	9	3831.72	(14^+)	
4625.93	$17^{(-)}$	603.6 *1*	100	4022.42	$16^{(-)}$	M1+E2
		1131.8 *1*	76	3494.02	$15^{(-)}$	Q
4637.1	(16^+)	373.5 *5*	100	4264.1	(15^+)	M1+E2
		438.7 *5*	56	4198.2		
		479.6 *5*	33	4157.7	(15^+)	
		1142.6 *5*	22 *2*	3494.02	$15^{(-)}$	
5002.0	(17^+)	412.9 *1*	100	4589.0	(16^+)	M1+E2
		844.8 *5*	18	4157.7	(15^+)	
5063.7	(17^+)	426.6 *3*	100	4637.1	(16^+)	M1+E2
		474.8 *5*	14	4589.0	(16^+)	M1+E2
5232.63	$18^{(-)}$	606.7 *1*	100	4625.93	$17^{(-)}$	D
		1210.3 *3*	67	4022.42	$16^{(-)}$	
5460.9	(18^+)	1148.3 *1*	100	4312.59	(16^+)	E2
5538.9	(18^+)	475.4 *3*	100	5063.7	(17^+)	D
		537.2 *3*	100	5002.0	(17^+)	M1+E2
		902.0 *5*	40	4637.1	(16^+)	Q
5565.5	(18^+)	501.2 *5*	38	5063.7	(17^+)	
		562.8 *5*	100	5002.0	(17^+)	D
		976.7 *5*	13	4589.0	(16^+)	
5926.75	$19^{(-)}$	694.3 *3*	31	5232.63	$18^{(-)}$	
		1300.8 *1*	100	4625.93	$17^{(-)}$	E2
6024.1	(19^+)	485.2 *1*	100	5538.9	(18^+)	M1+E2
		1021.4 *5*	27	5002.0	(17^+)	
6088.9	(19^+)	522.8 *5*	100	5565.5	(18^+)	
		1087.1 *5*	67	5002.0	(17^+)	
6513.4	$20^{(-)}$	586.4 *3*	100	5926.75	$19^{(-)}$	
		1280.7 *3*	83	5232.63	$18^{(-)}$	
6615.4	(20^+)	526.1 *5*	44	6088.9	(19^+)	D
		591.4 *3*	100	6024.1	(19^+)	
		1049.6 *5*	19	5565.5	(18^+)	
		1076.6 *3*	63	5538.9	(18^+)	Q
6687.0	(20^+)	1226.1 *3*	100	5460.9	(18^+)	Q
7175.7	(21^+)	560.0 *3*	100	6615.4	(20^+)	M1+E2
		1151.8 *3*	56	6024.1	(19^+)	Q
7309.2	$21^{(-)}$	795.6 *5*	100	6513.4	$20^{(-)}$	
		1382.7 *3*	95	5926.75	$19^{(-)}$	E2
7797.8	$22^{(-)}$	489		7309.2	$21^{(-)}$	
		1284.2 *3*	100	6513.4	$20^{(-)}$	E2
7844.6	(22^+)	668.9 *3*	100	7175.7	(21^+)	
		1229.3 *3*	63	6615.4	(20^+)	
7991.3	(22^+)	1304.3 *3*	100	6687.0	(20^+)	Q
8483.1	(23^+)	638.5 *3*	67	7844.6	(22^+)	
		1307.3 *3*	100	7175.7	(21^+)	E2
8694.1	$23^{(-)}$	1385.1 *3*	100	7309.2	$21^{(-)}$	
8722.3		731.0 *5*	100	7991.3	(22^+)	
9109.8	$24^{(-)}$	416.2 *5*	40	8694.1	$23^{(-)}$	
		1311.8 *3*	100	7797.8	$22^{(-)}$	
9249.1	(24^+)	765.9 *3*	91	8483.1	(23^+)	
		1404.5 *3*	100	7844.6	(22^+)	
9379.7	(24^+)	1388.4 *5*	100	7991.3	(22^+)	
9816.2	(25^+)	1333.1 *5*	100	8483.1	(23^+)	
10169.1	(25^-)	1475	100	8694.1	$23^{(-)}$	
10482.8	$26^{(-)}$	1373.0 *5*	100	9109.8	$24^{(-)}$	

$^{102}_{45}Rh_{57}$-7

Adopted Levels, Gammas (continued)

γ(^{102}Rh) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	E_i(level)	E_γ †	I_γ †	E_f
10665.0	(26$^+$)	1416.0 *5*	100	9249.1	(24$^+$)	1072.0+x	1072	100	0+x
10831.7	(26$^+$)	1452	100	9379.7	(24$^+$)	2272.0+x	1200	100	1072.0+x
11199.7	(27$^+$)	1383.4 *3*	100	9816.2	(25$^+$)	3636.0+x	1364	100	2272.0+x
11694.1	27$^{(-)}$	1525.0 *5*	100	10169.1	(25$^-$)	5110.0+x	1474	100	3636.0+x
12126.8	28$^{(-)}$	1644.0 *5*	100	10482.8	26$^{(-)}$	6696.0+x	1586	100	5110.0+x
12160.2	(28$^+$)	1495.2 *5*	100	10665.0	(26$^+$)	8378.1+x	1682	100	6696.0+x
12609.3	(29$^+$)	449.1 *5*	40	12160.2	(28$^+$)	1502.0+y	1502		0+y
		1409.6 *3*	100	11199.7	(27$^+$)	3080.0+y	1578		1502.0+y
13289.1	29$^{(-)}$	1595.0 *5*	100	11694.1	27$^{(-)}$	4763.0+y	1683		3080.0+y
14168.3	(31$^+$)	1559.0 *5*	100	12609.3	(29$^+$)	6598.1+y	1835		4763.0+y
15978.3	(33$^+$)	1810.0 *5*	100	14168.3	(31$^+$)				

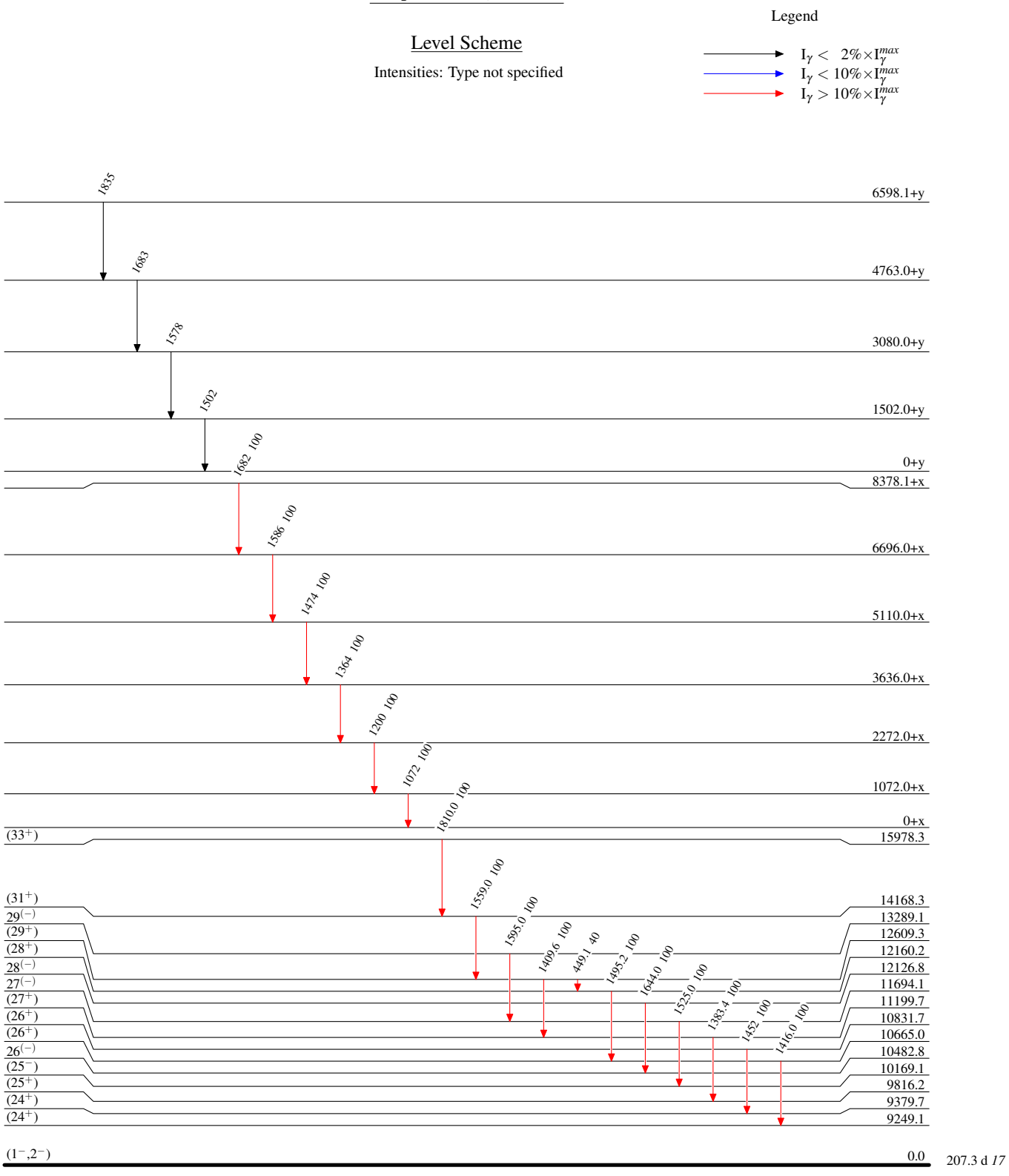
† Have been calculated as weighted averages from the different (HI,xnγ) data sets and ^{102}Ru(p,nγ) data.
‡ Unless noted otherwise, from γγ(θ)(DCO), γ(lin pol) in ^{70}Zn(^{36}s,p3nγ)(1999Gi14).
# No δ given by 1999Gi14 in ^{70}Zn(^{36}s,p3nγ).
@ From gγ(t),γ(t), Iγ(θ), γ pol in ^{98}Mo(^{7}Li,3nγ) (1986Du04).
& From gγ(t),γ(t), Iγ(θ), γ pol in ^{98}Mo(^{7}Li,3nγ) (1986Du04).
[a] From α(K)exp in ^{102}Ru(p,nγ).
[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] Placement of transition in the level scheme is uncertain.

$^{102}_{45}Rh_{57}$-8

Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified

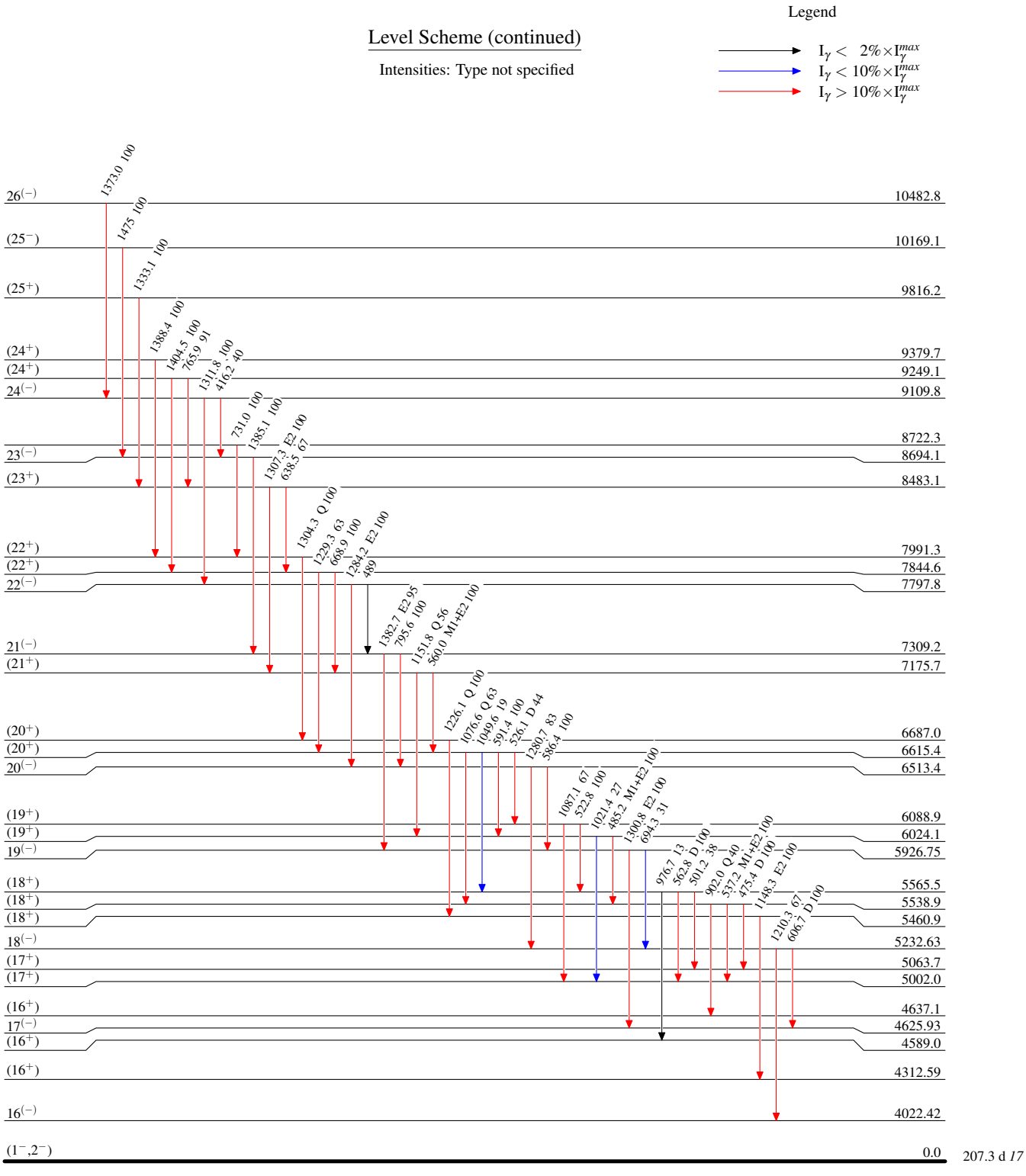


$^{102}_{45}Rh_{57}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

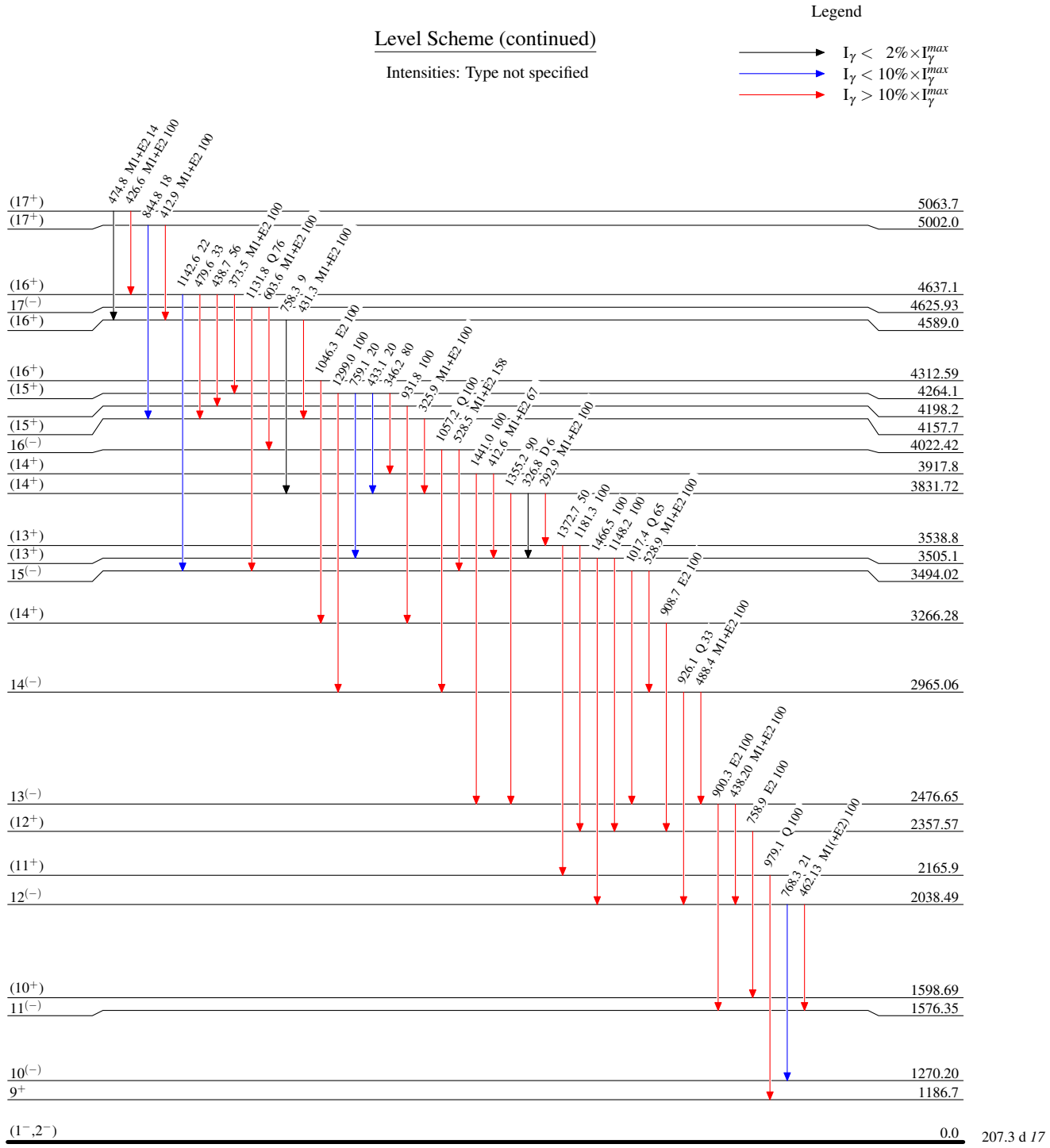


$^{102}_{45}Rh_{57}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

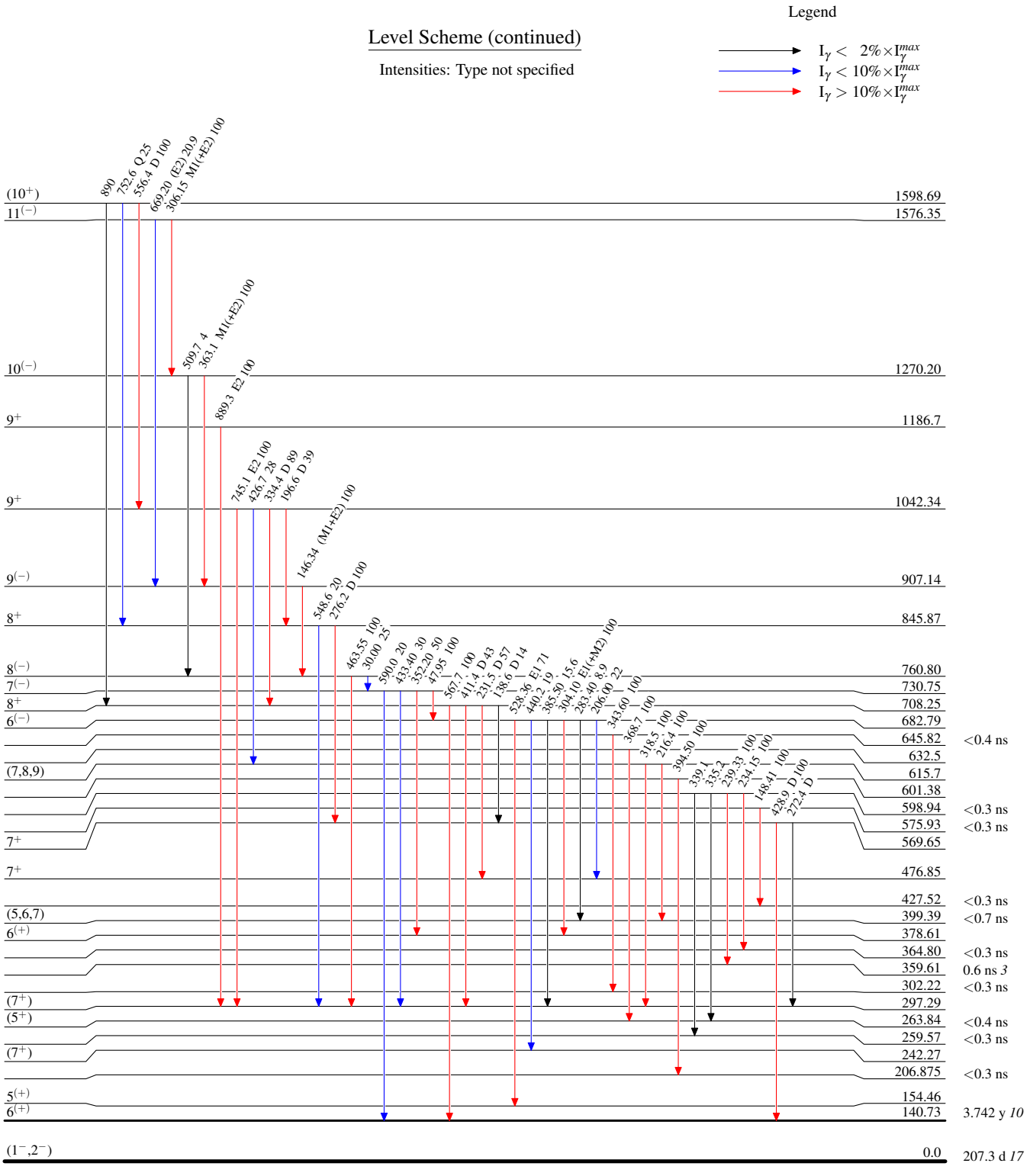


$^{102}_{45}Rh_{57}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

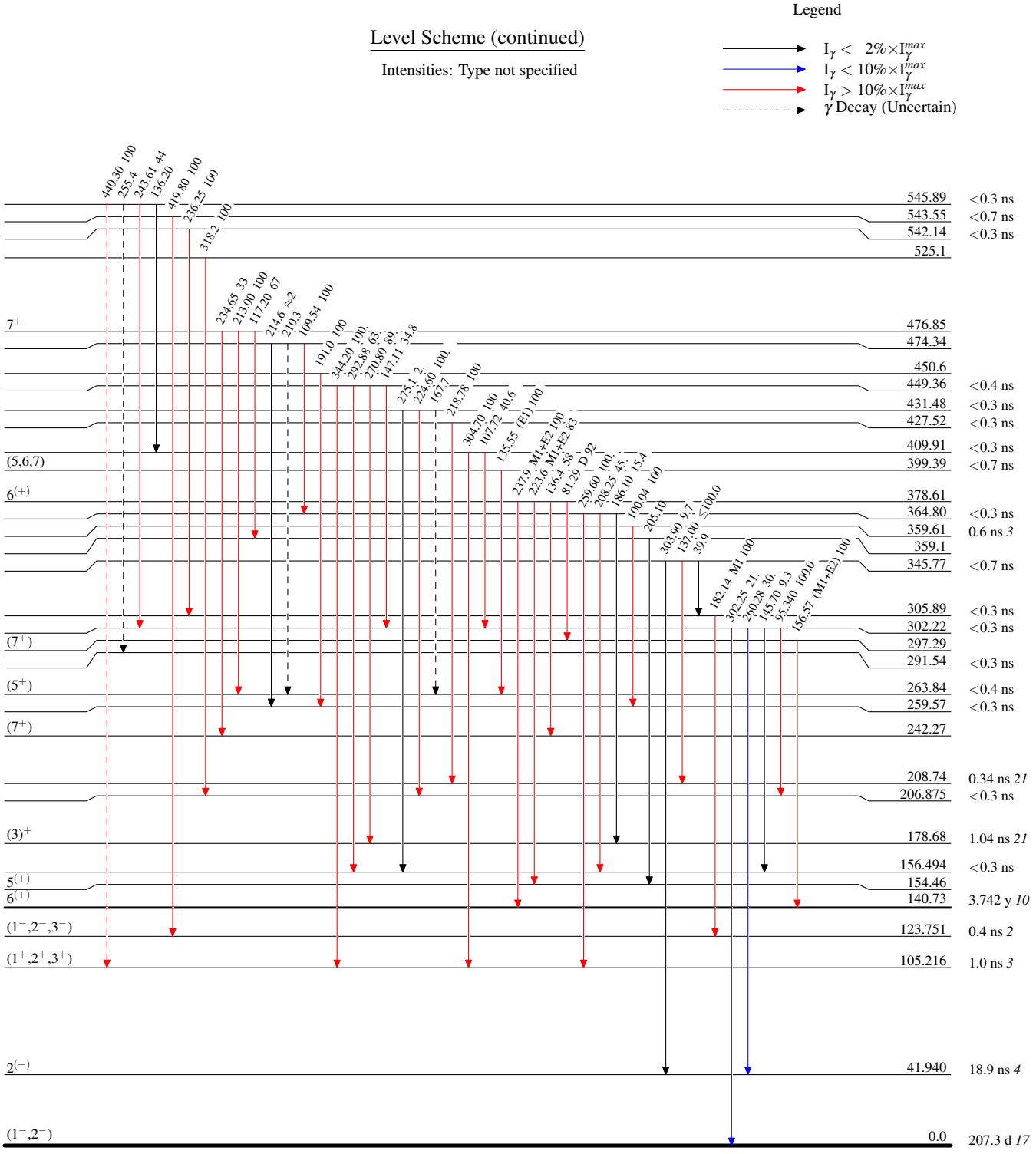


$^{102}_{45}Rh_{57}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

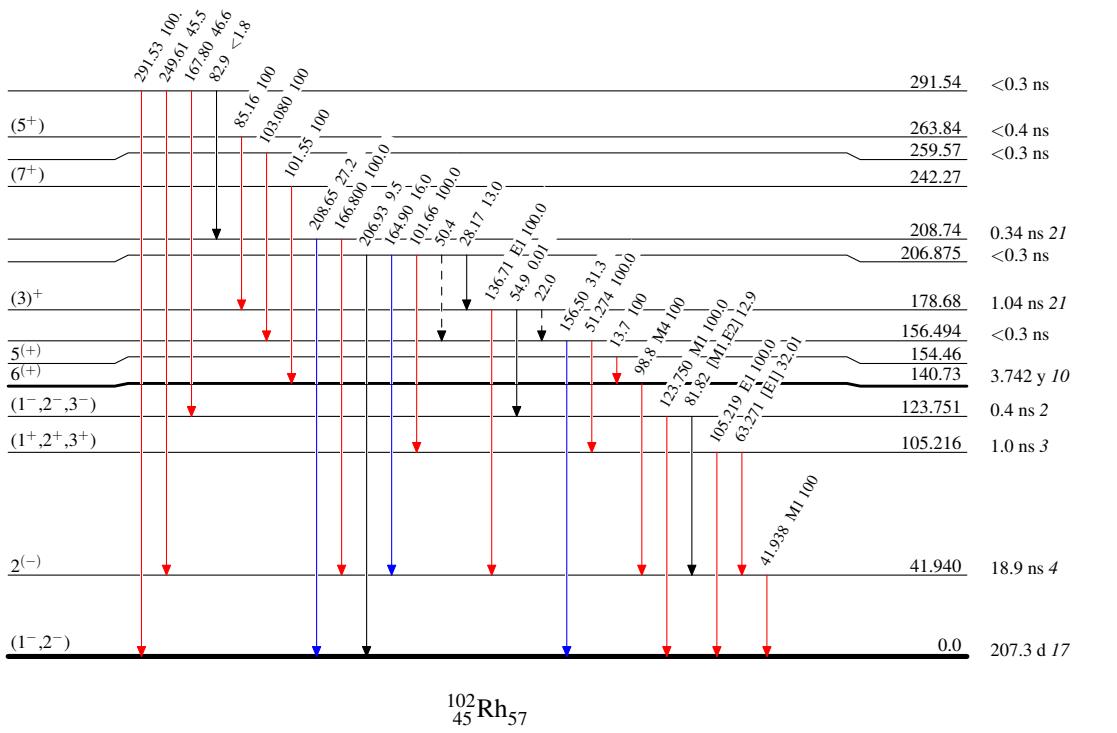


$^{102}_{45}Rh_{57}$

Adopted Levels, Gammas

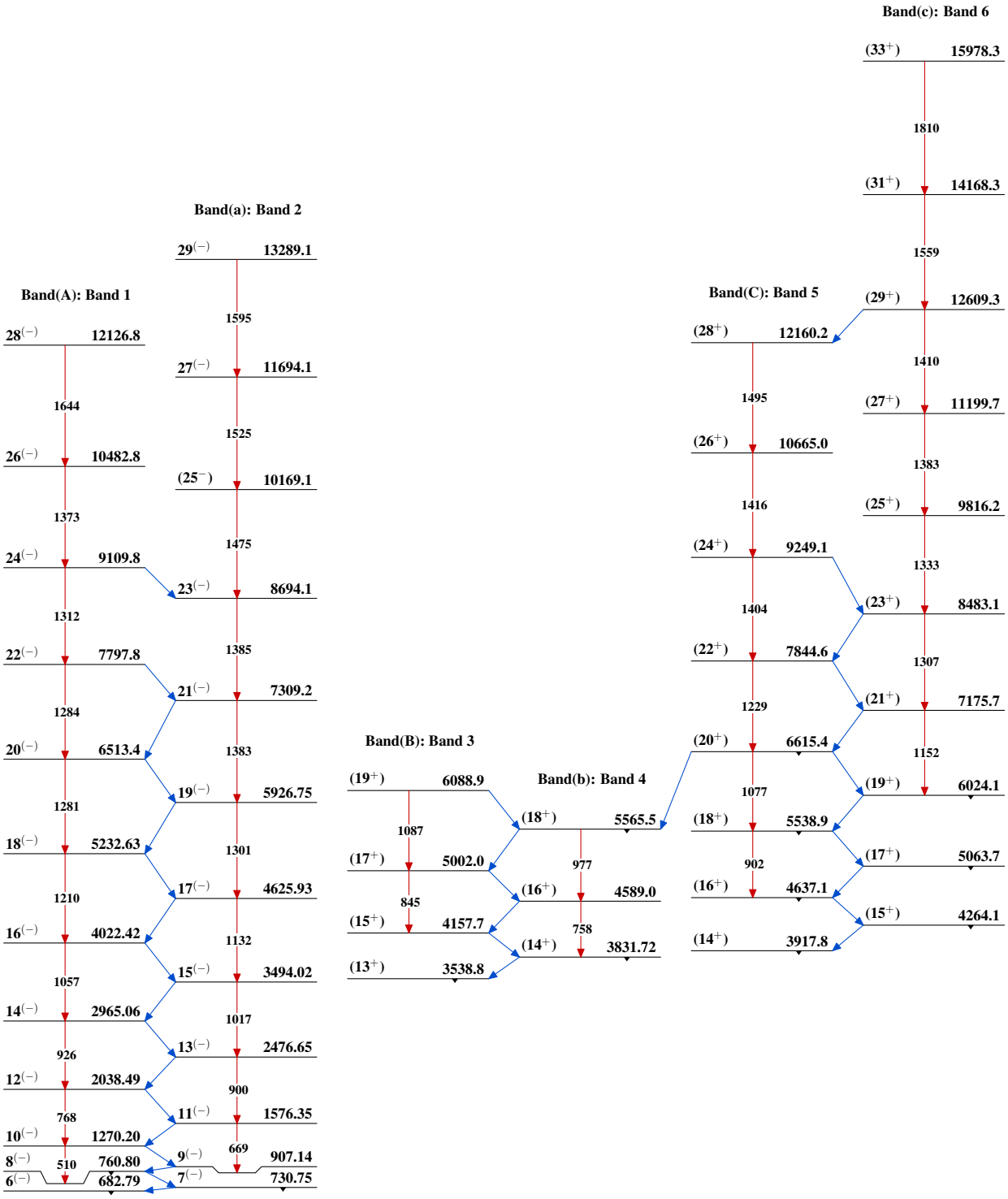
Level Scheme (continued)

Intensities: Type not specified



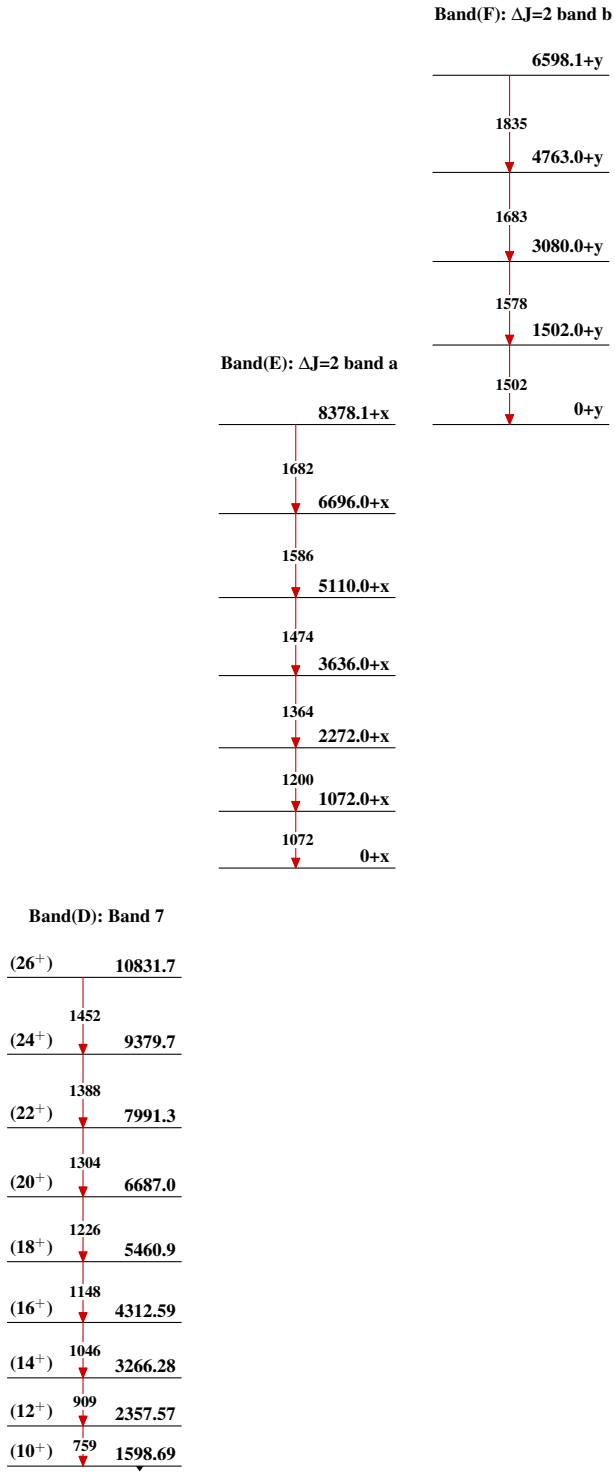
$^{102}_{45}Rh_{57}$

Adopted Levels, Gammas



$^{102}_{45}Rh_{57}$

Adopted Levels, Gammas (continued)



$^{102}_{45}Rh_{57}$