Adopted Levels, Gammas

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	ENSDF	1-Jul-2006

Q(β^-)=−544 *6*; S(n)=6802.05 *24*; S(p)=9223.7 *16*; Q(α)=−2835.9 *12* 2012Wa38
Note: Current evaluation has used the following Q record −542 176802.05 *249222.5 18*−2834.2 *16* 2003Au03.

^{101}Ru Levels

Cross Reference (XREF) Flags

A	^{101}Tc β^- decay (14.2 min)	F	^{100}Mo(^{3}He,2nγ)	K	^{102}Ru(p,d)
B	^{101}Ru IT decay (17.5 μs)	G	^{100}Mo(α,3nγ)	L	^{100}Mo(^{7}Li,pxnγ)
C	^{101}Rh ε decay (3.3 y)	H	^{100}Ru(n,γ) E=thermal	M	^{102}Ru(d,t)
D	^{101}Rh ε decay (4.34 d)	I	^{100}Ru(d,p)	N	^{96}Zr(^{9}Be,4nγ)
E	^{98}Mo(α,nγ)	J	Coulomb excitation		

E(level)[†]	J$^\pi$	T$_{1/2}$[‡]	XREF	Comments
0.0[#]	5/2$^+$	stable	ABCDEFGHIJKLMN	Q=+0.44 *2* (1977Ba04,2005St24); μ=−0.719 *6* (1977Ba04,2005St24) J$^\pi$: from atomic beam, L(d,p)=2.
127.229 *8*	3/2$^+$	0.655 ns *4*	A CDEFGHIJK M	μ=−0.210 *5* (2005St24,1986Sc15) μ: other: −0.236 *12* (1984Al11). E(level): analogous 3/2$^+$ state in ^{99}Ru at 89 keV with μ=−0.284 *6*. J$^\pi$: M1 γ to 5/2$^+$, log $f^{1u}t$=8.2 from 1/2$^-$. T$_{1/2}$: from 1986Sc15. Others: 0.55 ns *3* (1966Ch13), 0.56 ns *3* (1973Be72), 0.58 ns *2* (1970La16) via $\gamma\gamma$(t).
306.858[@] *5*	7/2$^+$	0.053 ns *14*	ABCDEFG IJK N	T$_{1/2}$: from 1973Be72 (1300β)(307γ)(t). Other: 1970Va33. J$^\pi$: L(d,p)=4, E2 γ to 3/2$^+$.
311.368 *17*	5/2$^+$	≤0.15 ns	A CDEFG JK	J$^\pi$: M1 γ to 3/2$^+$, γ from 7/2$^+$, J=3/2 ruled out by excit in (α,nγ). T$_{1/2}$: from 1973Be72 $\gamma\gamma$(t).
325.23 *3*	1/2$^+$	0.20 ns *4*	C EFG IJK M	T$_{1/2}$: 0.20 ns *4* (K x ray)(198γ)(t) 1970La16; 0.14 ns *3* from B(E2)=0.006 *1*. J$^\pi$: based on L=0 (d,p).
422.22 *3*	3/2$^+$	≥1.4 ps	A C E IJK M	J$^\pi$: L=2 (d,p),(p,d), log $f^{1u}t$=6.8 from 1/2$^-$. T$_{1/2}$: from 1974Er04, DSA method.
527.56[&] *10*	11/2$^-$	17.5 μs *4*	B EFG I K MN	T$_{1/2}$: from 1978Ba18 (221γ,307γ)(t) pulsed beam. Others: 17.5 μs *15* (1961Kr01,1964Br27), 22.5 μs *4* (1970Uy01,1971Uy01). J$^\pi$: L=5 (p,d), M2 γ decay to 7/2$^+$ state; HF(M2) correspond with regional h11/2 to g7/2 transitions. %IT decay=100.
535.0 *12*	3/2$^+$		HI K M	J$^\pi$: L=2 (d,p), excit gives 3/2.
545.115 *7*	7/2$^+$	1.5 ps *3*	A DEFG J L N	T$_{1/2}$: from 1974Er04, DSA method. J$^\pi$: based on M1+E2 γ decay to 5/2$^+$ state and log *ft*=5.4 from 9/2$^+$.
598.34 *18*	(5/2$^-$)		E I M	J$^\pi$: L(d,p)=3, J=3/2 or 5/2 excit in (α,nγ). 7/2$^-$ in (d,p) is preferred on model arguments and J=3/2 in (α,nγ) is preferred from $\gamma(\tau)$.
616.30 *10*	3/2$^+$,5/2$^+$		A DE J M	J$^\pi$: from γ decay to 3/2$^+$ and 5/2$^+$ states. L(d,t)=2.
623 *5*	3/2$^+$,5/2$^+$		K	J$^\pi$: L=2 (p,d).
623.59 *19*	1/2$^+$	17 ps *+3−2*	IJK M	T$_{1/2}$: from Coul. Excit. J$^\pi$: L=0 (d,p) (p,d), correspond with Coul. ex.
684 *2*			I K M	J$^\pi$: L=2 (p,d), L=2 (d,p); however, L(d,t)=1.

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Adopted Levels, Gammas (continued)

^{101}Ru Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[‡]	XREF	Comments
720.0 *24*	1/2⁻,3/2⁻		HI	Jπ: L=1 (d,p).
720.02[#] *5*	9/2⁺	3.0 ps *8*	A EFG JKLMN	$T_{1/2}$: from Coul. Excit. Jπ: L=4 (p,d), E2 γ to 5/2⁺.
742 *7*			I	
824 *2*	3/2⁺,5/2⁺		I K M	XREF: K(822). Jπ: L=2 (d,p).
842.76 *4*	(7/2)⁺		A E	Jπ: γ decay to 3/2⁺ state and log *ft*=5.6 from 9/2⁺.
907 *2*	1/2⁻,3/2⁻		I M	Jπ: L=1 (d,p).
927 *5*	3/2⁺,5/2⁺		K	Jπ: L=2 (p,d).
928.77 *5*	9/2⁺		A E G J	Jπ: log *ft*=6.2 from 9/2⁺, E2 γ to 5/2⁺.
938.365 *12*	(7/2)⁺		A E	Jπ: γ decay to 3/2⁺ state and log *ft*=5.8 from 9/2⁺.
958.4[&] *4*	15/2⁻		EFG N	Jπ: E2 γ to 11/2⁻, 431γ(θ).
973.4 *12*	3/2⁺		HI K M	Jπ: L=2 (d,p), fed by primary γ in (n,γ) from 1/2⁺.
1001.15[@] *14*	11/2⁺		A EFG N	Jπ: from 693γ(θ) via (α,3nγ), E2 γ to 7/2⁺.
1038 *2*	3/2⁺,5/2⁺		K M	Jπ: L=2 (p,d).
1051 *7*	7/2⁺,9/2⁺		I	Jπ: L=4 (d,p).
1098 *7*	1/2⁺		I	Jπ: L=0 (d,p).
1111 *2*	1/2⁺		I K M	Jπ: L=0 (p,d) (d,p).
1164 *2*	3/2⁺,5/2⁺		K M	Jπ: L=2 (p,d).
1206.8 *4*			E	
1219.0 *3*			E	
1225 *5*	7/2⁺,9/2⁺		K	Jπ: L=4 (p,d).
1227 *7*	1/2⁺		I	Jπ: L=0 (d,p).
1266 *2*	3/2⁺,5/2⁺		I M	Jπ: L=2 (d,p).
1276 *5*	1/2⁺		K	Jπ: L=0 (p,d).
1321.57 *18*	(11/2⁺)		E L	XREF: L(1322). Jπ: E2 γ to 7/2⁺, γ to 9/2⁺.
1390.0 *3*			E	
1425 *2*			K M	
1477 *2*	3/2⁺,5/2⁺		K M	Jπ: L=2 (p,d).
1499.3 *11*	1/2,3/2		HI M	
1500.9[#] *3*	13/2⁺	0.59 ps *17*	EFG L N	Jπ: E2 γ to 9/2⁺, 780γ(θ).
1536.5 *3*			E	
1542 *2*	3/2⁺,5/2⁺		I K M	Jπ: L=2 (p,d).
1587.28 *18*	5/2⁺		E I M	Jπ: L=2 (d,p), γ to 9/2⁺.
1622.3[&] *5*	19/2⁻	>1.2 ps	EFG N	Jπ: E2 γ to 15/2⁻, 663γ(θ).
1659 *7*			I	
1688 *2*	11/2⁻,9/2⁻		I M	Jπ: L=5 (d,p).
1701 *5*	(3/2⁺,5/2⁺)		K	Jπ: L=(2) (p,d).
1714 *2*	1/2⁺		I M	Jπ: L=0 (d,p).
1758 *2*	1/2⁺		K M	Jπ: L=0 (p,d).
1761.87 *11*			E	
1774.1 *5*	11/2⁻	2.4 ps *+21−10*	E G	Jπ: E2 γ to 15/2⁻.
1779 *7*	3/2⁻,1/2⁻		I	Jπ: L=1 (d,p).
1812 *2*	5/2⁺,9/2⁺		I M	Jπ: L=2 (d,p).
1822 *2*	5/2⁺,3/2⁺		I K M	XREF: K(1833). Jπ: L=2 (d,p).
1843.4 *10*	3/2⁺		HI M	Jπ: L=2 (d,p), fed by primary γ in (n,γ) from 1/2⁺.
1858 *2*	1/2⁺		I M	Jπ: L=0 (d,p).
1862.4[@] *4*	15/2⁺	>1.7 ps	EFG N	Jπ: E2 γ to 11/2⁺, and 861γ(θ).
1880.1 *10*	3/2⁺		HI K	XREF: I(1878)K(1871). Jπ: L=2 (d,p), fed by primary γ in (n,γ) from 1/2⁺.
1893 *7*			I	
1936 *7*	1/2⁺		I	Jπ: L=0 (d,p).

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Adopted Levels, Gammas (continued)

^{101}Ru Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[‡]	XREF	Comments
1961.5 *11*	(1/2,3/2)		H	Jπ: From (n,γ).
1971.0 *12*	3/2+		HI K M	Jπ: L=2 (d,p), fed by primary γ in (n,γ) from 1/2+.
1997.0 *10*	3/2+,3/2−		HI M	Jπ: L=1 (d,t).
2017.0 *13*	(1/2,3/2)		H	
2017.5 *5*	(11/2 to 19/2)		E G	Jπ: from γ to 15/2−.
2057 *7*	1/2+		I	Jπ: L=0 (d,p).
2063.4 *5*			E K M	
2086.7 *10*	1/2,3/2		HI K M	
2100 *15*			K	
2131 *3*	1/2−,3/2−		I K M	Jπ: L=1 (d,p).
2147 *7*	(1/2−,3/2−)		I K	Jπ: L=(1)(d,p).
2173.9 *5*	17/2+	>1.4 ps	G L	Jπ: E2 γ to 13/2+, 673γ(θ).
2218 *4*			I	
2222.7 *5*	(11/2 to 19/2)		FG	Jπ: from γ to 15/2−.
2244 *3*			K	
2299 *7*	3/2+,5/2+		I	Jπ: L=2 (d,p).
2317.7 *10*	1/2,3/2		H	Jπ: fed by primary γ in (n,γ) from 1/2+.
2326.8 *9*			H	
2346.0 *6*	(1/2−,3/2−)		E I	Jπ: L=(1)(d,p).
2350 *15*	(3/2+,5/2+)		K	Jπ: L=(2) (p,d).
2377.2[#] *5*	17/2+		E N	
2404 *7*	3/2+,5/2+		I K	Jπ: L=2 (d,p).
2443 *7*	3/2+,5/2+		I	Jπ: L=2 (d,p).
2459 *7*	(5/2−,7/2−)		I	Jπ: L=(1)(d,p).
2473.2[&] *6*	23/2−		G N	Jπ: E2 γ to 19/2−, 850γ(θ).
2493 *7*	5/2+,3/2+		I	Jπ: L=(1)(d,p).
2544 *7*			I	
2560.9 *9*	(1/2,3/2)		H	Jπ: fed by primary γ in (n,γ) from 1/2+.
2601 *3*			I	
2601.3 *15*	5/2−,7/2−		H	Jπ: L=3 (d,p).
2625.5 *15*	1/2,3/2		HI	Jπ: fed by primary γ in (n,γ) from 1/2+.
2659.6 *9*	1/2,3/2		HI	Jπ: fed by primary γ in (n,γ) from 1/2+.
2694 *7*	5/2+,3/2+		I	Jπ: L=2 (d,p).
2718 *7*	1/2−,3/2−		I	Jπ: L=1 (d,p).
2752 *7*			I	
2768.5 *13*	1/2,3/2		H	
2784 *7*	5/2−,7/2−		I	Jπ: L=3 (d,p).
2797.5 *8*	(15/2 to 23/2)	0.55 ps *+14−7*	G	Jπ: from γ to 19/2−.
2801.8 *6*	(21/2+)		G L	Jπ: E2 γ to 17/2+, 628γ(θ).
2815 *7*			I	
2823.8[@] *5*	19/2+		G N	Jπ: from 961 γ(θ), E2 γ to 15/2+.
2844 *7*	(5/2−,7/2−)		I	Jπ: L=(3)(d,p).
2869 *7*			I	
2878.4 *11*	(1/2,3/2)		HI	Jπ: fed by primary γ in (n,γ) from 1/2+.
2885.5 *5*			FG	
2887.4 *5*	19/2+		N	
2901 *7*			I	
2918 *7*			I	
2931 *7*			I	
2977 *7*			I	
2984.2 *6*			G	
3019 *7*			I	
3052.6[#] *4*	21/2+	1.0 ps *4*	FG N	
3065 *7*			I	
3083 *7*			I	

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Adopted Levels, Gammas (continued)

^{101}Ru Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[‡]	XREF	Comments
3120 *7*			I	
3173 *7*			I	
3228 *7*	1/2+		I	Jπ: L=0 (d,p).
3236.6 *16*	(23/2,21/2)		N	
3285.9 *13*	1/2,3/2		H	
3290.8 *9*	(27/2+)		N	
3395.4 *11*	1/2,3/2		H	
3443.8[@] *5*	23/2+		G N	
3478.1[&] *5*	27/2−	1.0 ps *4*	G N	
3656.0 *11*			N	
3681.5[#] *5*	25/2+		N	
3714.0 *11*			N	
4044.0 *12*			I	
4140.9[@] *6*	(27/2+)		N	
4182.8[a] *5*	(27/2+)		N	
4451.2[#] *6*	29/2+		N	
4613.6[&] *7*	31/2−	0.42 ps *+21−11*	G	Jπ: E2 γ to 27/2−, 1138γ(θ).
4967.5[@] *7*	(31/2+)		N	
5233.2[a] *7*	(31/2+)		N	
5265.0 *16*	(29/2,27/2)		N	
5374.5 *15*	(29/2,31/2)		N	
5374.9[#] *7*	33/2+		N	
5831.0[&] *7*	35/2−		N	
5902.7 *14*	(35/2,33/2)		N	
5946.4[@] *7*	(35/2+)		N	
6469.1[#] *9*	(37/2+)		N	
7076.8[@] *11*	(39/2+)		N	
7095.5[&] *9*	(39/2−)		N	
7678.9[#] *11*	(41/2+)		N	
8318.2[@] *15*	(43/2+)		N	
8432.5[&] *11*	(43/2−)		N	
9002.5[#] *13*	(45/2+)		N	
9826.2[&] *14*	(47/2−)		N	

[†] From a least-squares fit to the adopted Eγ.
[‡] For levels above 1500 keV from 1993GoZT in (α,3nγ).
[#] Band(A): 5/2[413], α=+1/2.
[@] Band(a): 5/2[413], α=−1/2.
[&] Band(B): h11/2 (1/2[550]) intruder band.
[a] Band(C): Band based on (27/2+).

Adopted Levels, Gammas (continued)

$\gamma(^{101}Ru)$

E_i(level)	J_i^π	E_γ[†]	I_γ	E_f	J_f^π	Mult.[‡]	δ	α[#]	Comments
127.229	3/2$^+$	127.226 *9*	100	0.0	5/2$^+$	M1+E2	+0.148 *9*	0.170 *6*	B(M1)(W.u.)=0.01598 *11*; B(E2)(W.u.)=19.9 *24* δ: from $T_{1/2}$ and B(E2), sign from $\gamma\gamma(\theta)$.
306.858	7/2$^+$	179.636 *15*	0.660 *15*	127.229	3/2$^+$	E2		0.16	B(E2)(W.u.)=13 *4*
		306.857 *5*	100 *4*	0.0	5/2$^+$	M1+E2	−0.10 *5*	0.0156 *1*	B(M1)(W.u.)=0.014 *4*; B(E2)(W.u.)=1.4 *+15−4*
311.368	5/2$^+$	184.10 *3*	100 *4*	127.229	3/2$^+$	M1		0.06	B(M1)(W.u.)>0.021
		311.38 *3*	12.3 *17*	0.0	5/2$^+$	(M1)		0.015	B(M1)(W.u.)>0.00053
325.23	1/2$^+$	197.99 *6*	100 *2*	127.229	3/2$^+$	M1(+E2)	≈+0.05	0.048	B(M1)(W.u.)=(0.012 *2*); B(E2)(W.u.)=(0.E+2 *+5−0*)
		325.23 *3*	16.20 *15*	0.0	5/2$^+$	E2		0.02	B(E2)(W.u.)=3.9 *8*
422.22	3/2$^+$	97.5 *10*	10 *5*	325.23	1/2$^+$				
		110.94 *12*	5.8 *6*	311.368	5/2$^+$				
		114.6 *6*	3.1 *4*	306.858	7/2$^+$				
		295.01 *3*	100 *3*	127.229	3/2$^+$				
		422.10 *7*	33.4 *21*	0.0	5/2$^+$				
527.56	11/2$^-$	220.7 *1*	100	306.858	7/2$^+$	M2		0.20	B(M2)(W.u.)=0.156 *4*
545.115	7/2$^+$	233.72 *3*	4.15 *3*	311.368	5/2$^+$	M1(+E2)		0.03	B(M1)(W.u.)=0.043 *10*
		238.25 *3*	4.73 *3*	306.858	7/2$^+$	M1,(E2)		0.03	B(M1)(W.u.)=0.048 *11*
		417.86 *5*	≈0.09	127.229	3/2$^+$				B(E2)(W.u.)=4.4 *20*
		545.117 *7*	100 *6*	0.0	5/2$^+$	M1+E2	−0.98 *10*		B(M1)(W.u.)=0.042 *10*; B(E2)(W.u.)=1.3×10^2 *3*
598.34	(5/2$^-$)	287.0 *3*	22.9 *9*	311.368	5/2$^+$				
		291.5 *3*	10.9 *5*	306.858	7/2$^+$				
		598.3 *3*	100 *4*	0.0	5/2$^+$				
616.30	3/2$^+$,5/2$^+$	489.03 *13*	100 *14*	127.229	3/2$^+$	M1+E2	−1.6 *3*		
		616.3 *3*	46 *11*	0.0	5/2$^+$				
623.59	1/2$^+$	496.4 *2*	100 *18*	127.229	3/2$^+$				
		623.2 *6*	36 *5*	0.0	5/2$^+$				
720.02	9/2$^+$	174.8 *2*	13.2 *14*	545.115	7/2$^+$				
		408.4 *3*	3.3 *3*	311.368	5/2$^+$				
		413.1 *2*	8.4 *3*	306.858	7/2$^+$				
		720.02 *5*	100 *2*	0.0	5/2$^+$	(E2)			B(E2)(W.u.)=40 *10*
842.76	(7/2)$^+$	531.42 *8*	100 *2*	311.368	5/2$^+$	M1+E2	1.2 *2*		
		715.53 *4*	64.9 *15*	127.229	3/2$^+$	E2			
		842.73 *7*	22.4 *9*	0.0	5/2$^+$				
928.77	9/2$^+$	383.83 *10*	32.6 *7*	545.115	7/2$^+$	M1+E2	1.2 *4*		
		617.31 *9*	48 *3*	311.368	5/2$^+$				
		621.99 *12*	68.6 *21*	306.858	7/2$^+$	M1+E2	0.94 *3*		
		928.72 *6*	100 *2*	0.0	5/2$^+$	E2			
938.365	(7/2)$^+$	322.01 *14*	8.4 *10*	616.30	3/2$^+$,5/2$^+$				
		393.30[@] *8*	23.1[@] *18*	545.115	7/2$^+$				
		516.13 *8*	22.9 *16*	422.22	3/2$^+$				
		627.00 *6*	100 *4*	311.368	5/2$^+$				
		631.74 *12*	9.2 *6*	306.858	7/2$^+$				

$^{101}_{44}Ru_{57}$-5

Adopted Levels, Gammas (continued)

γ(^{101}Ru) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ	E_f	J_f^π	Mult.[‡]	δ	Comments
938.365	$(7/2)^+$	811.13 *1*	13.3 *12*	127.229	$3/2^+$			
		938.65 *20*	19.0 *12*	0.0	$5/2^+$			
958.4	$15/2^-$	430.8 *3*	100	527.56	$11/2^-$	(E2)		
1001.15	$11/2^+$	281.1 *3*	14.3 *3*	720.02	$9/2^+$	M1+E2	1.5 *3*	I_γ: From (α,nγ). Data from β^- decay are inconsistent.
		694.30 *15*	100 *3*	306.858	$7/2^+$	E2		
1206.8		608.5 *3*	100	598.34	$(5/2^-)$			
1219.0		673.9 *3*	100	545.115	$7/2^+$			
1321.57	$(11/2^+)$	393.0[@] *3*	19.1[@] *9*	928.77	$9/2^+$			
		601.2 *3*	≈84	720.02	$9/2^+$			
		776.6 *3*	100 *3*	545.115	$7/2^+$	(E2)		
1390.0		1083.1 *3*	100	306.858	$7/2^+$			
1500.9	$13/2^+$	780.9 *3*	100	720.02	$9/2^+$	E2		B(E2)(W.u.)=1.2×10^2 *4*
1587.28	$5/2^+$	658.3 *3*	87 *3*	928.77	$9/2^+$			
		744.8 *3*	100 *3*	842.76	$(7/2)^+$			
		867.2 *3*	<67	720.02	$9/2^+$			
1622.3	$19/2^-$	663.9 *3*	100	958.4	$15/2^-$	E2		B(E2)(W.u.)<1.3×10^2
1761.87		833.1 *1*	100	928.77	$9/2^+$			
1774.1	$11/2^-$	815.7 *3*	100	958.4	$15/2^-$	E2		B(E2)(W.u.)=23 *21*
1862.4	$15/2^+$	861.2 *3*	100	1001.15	$11/2^+$	E2		B(E2)(W.u.)<25
2017.5	(11/2 to 19/2)	1059.1 *3*	100	958.4	$15/2^-$			E_γ: av of (α,3nγ) and (α,nγ).
2063.4		1105.0 *3*	100	958.4	$15/2^-$			
2173.9	$17/2^+$	673.0 *3*	100	1500.9	$13/2^+$	E2		B(E2)(W.u.)<1.1×10^2
2222.7	(11/2 to 19/2)	1264.3 *3*	100	958.4	$15/2^-$			
2346.0	$(1/2^-,3/2^-)$	723.7 *3*	100	1622.3	$19/2^-$			
2377.2	$17/2^+$	876.3 *3*	100	1500.9	$13/2^+$			
2473.2	$23/2^-$	850.9 *3*	100	1622.3	$19/2^-$	E2		
2797.5	(15/2 to 23/2)	1175.2 *6*	100	1622.3	$19/2^-$			
2801.8	$(21/2^+)$	627.9 *3*	100	2173.9	$17/2^+$			
2823.8	$19/2^+$	961.4 *3*	100	1862.4	$15/2^+$	E2		
2885.5		1023.1 *3*	100	1862.4	$15/2^+$			
2887.4	$19/2^+$	1023.7 *4*	100	1862.4	$15/2^+$			
2984.2		511.0 *3*	100	2473.2	$23/2^-$			
3052.6	$21/2^+$	673.4 *3*	100 *6*	2377.2	$17/2^+$			
		1429.6 *6*	20 *2*	1622.3	$19/2^-$			
3236.6	(23/2,21/2)	1613.0 *15*	100	1622.3	$19/2^-$			
3290.8	$(27/2^+)$	815.8 *8*	100	2473.2	$23/2^-$			
3443.8	$23/2^+$	391.8 *5*	42 *5*	3052.6	$21/2^+$			
		556.3 *5*	32 *4*	2887.4	$19/2^+$			
		618.4 *4*	100 *10*	2823.8	$19/2^+$			
		968.6 *8*	26 *3*	2473.2	$23/2^-$			
3478.1	$27/2^-$	1003.1 *3*	100	2473.2	$23/2^-$			

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Adopted Levels, Gammas (continued)

$\gamma(^{101}Ru)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ	E_f	J_f^π
3656.0		1181.0 *10*	100	2473.2	$23/2^-$
3681.5	$25/2^+$	628.8 *3*	100 *7*	3052.6	$21/2^+$
		1206.2 *8*	18 *2*	2473.2	$23/2^-$
3714.0		1239.0 *10*	100	2473.2	$23/2^-$
4044.0		4043.9 *12*	100	0.0	$5/2^+$
4140.9	$(27/2^+)$	459.4 *5*	100 *10*	3681.5	$25/2^+$
		697.0 *7*	90 *9*	3443.8	$23/2^+$
4182.8	$(27/2^+)$	500.6 *6*	50 *6*	3681.5	$25/2^+$
		739.2 *3*	100 *12*	3443.8	$23/2^+$
4451.2	$29/2^+$	769.7 *3*	100	3681.5	$25/2^+$
4613.6	$31/2^-$	1135.2 *3*	100	3478.1	$27/2^-$
4967.5	$(31/2^+)$	516.4 *6*	54 *6*	4451.2	$29/2^+$
		826.6 *7*	100 *15*	4140.9	$(27/2^+)$
5233.2	$(31/2^+)$	1050.4 *5*	100	4182.8	$(27/2^+)$
5265.0	(29/2,27/2)	1786.9 *15*	100	3478.1	$27/2^-$
5374.5	(29/2,31/2)	1896.4 *15*	100	3478.1	$27/2^-$
5374.9	$33/2^+$	923.7 *5*	100	4451.2	$29/2^+$
5831.0	$35/2^-$	1214.7 *3*	100	4613.6	$31/2^-$
5902.7	(35/2,33/2)	1286.4 *12*	100	4613.6	$31/2^-$
5946.4	$(35/2^+)$	571.4 *4*	100	5374.9	$33/2^+$
		979.0 *8*	100	4967.5	$(31/2^+)$
6469.1	$(37/2^+)$	1094.2 *5*	100	5374.9	$33/2^+$
7076.8	$(39/2^+)$	1130.4 *8*	100	5946.4	$(35/2^+)$
7095.5	$(39/2^-)$	1264.5 *5*	100	5831.0	$35/2^-$
7678.9	$(41/2^+)$	1209.8 *6*	100	6469.1	$(37/2^+)$
8318.2	$(43/2^+)$	1241.4 *10*	100	7076.8	$(39/2^+)$
8432.5	$(43/2^-)$	1337.0 *7*	100	7095.5	$(39/2^-)$
9002.5	$(45/2^+)$	1323.5 *7*	100	7678.9	$(41/2^+)$
9826.2	$(47/2^-)$	1393.7 *8*	100	8432.5	$(43/2^-)$

† From average of β^- decay, ε decay and $(\alpha,3n\gamma)$.

‡ From ce measurements for the low energies, and $\gamma(\theta)$ and linear polarization for the others.

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.

@ Multiply placed with intensity suitably divided.

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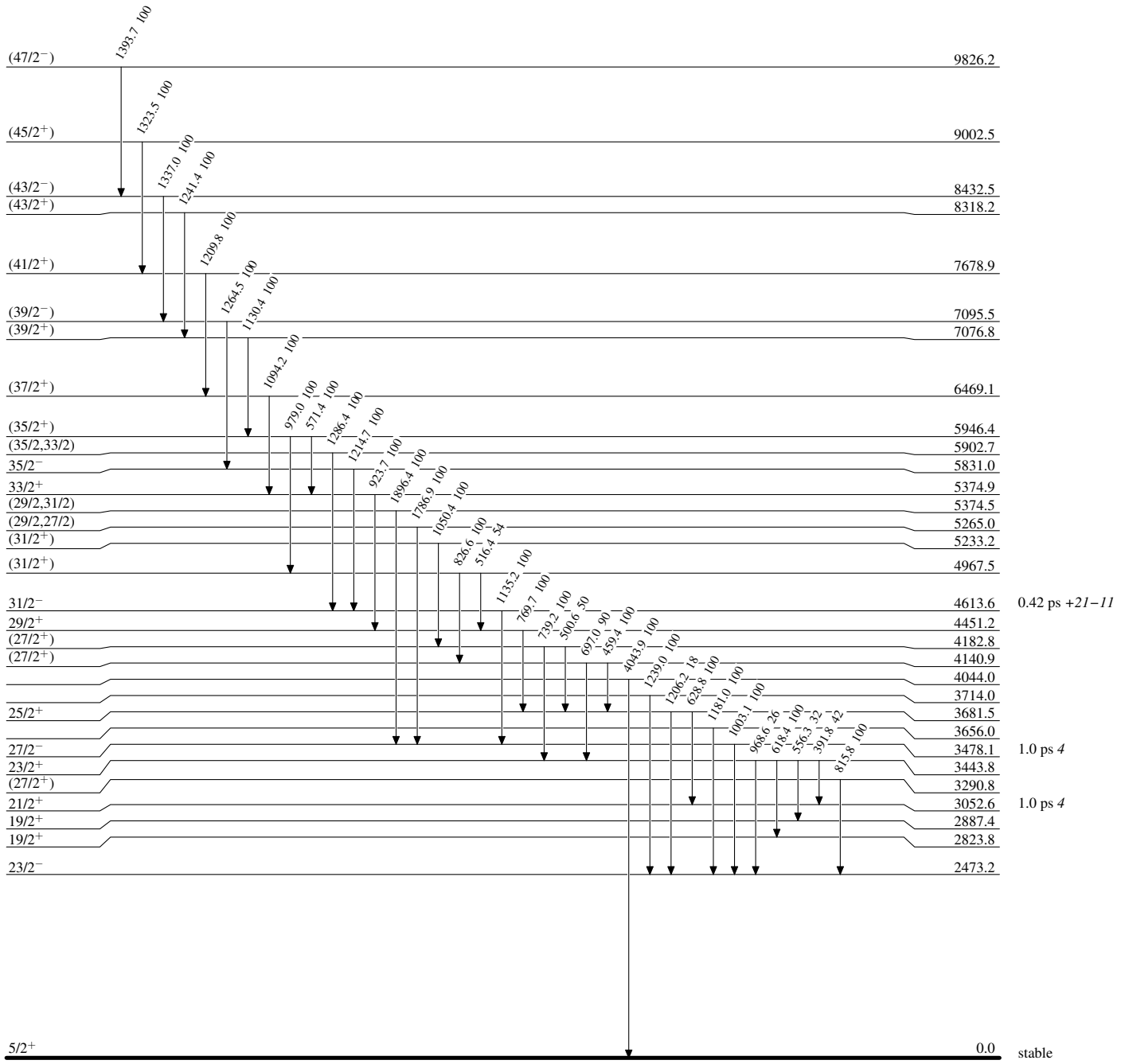
Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level



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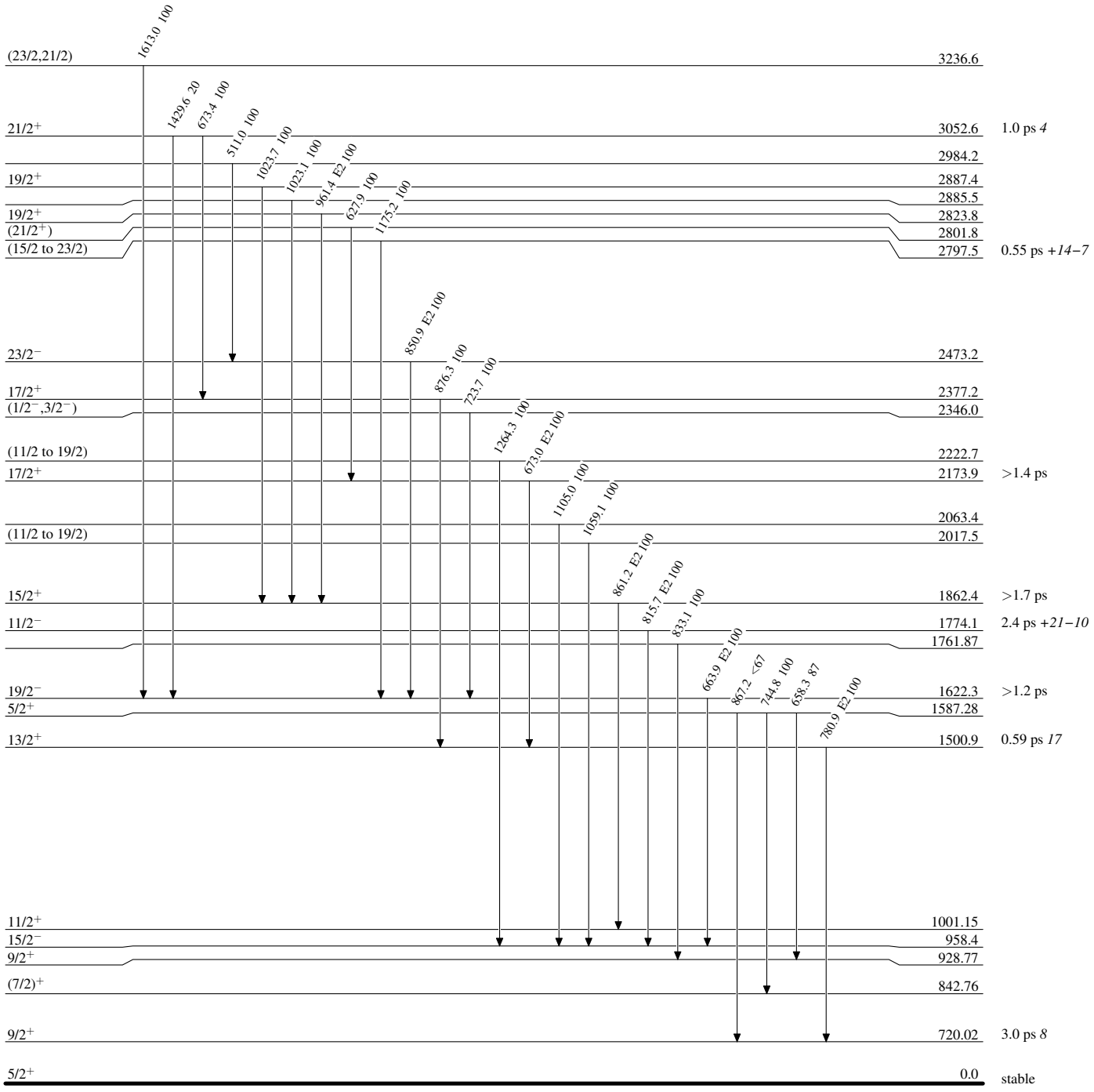
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

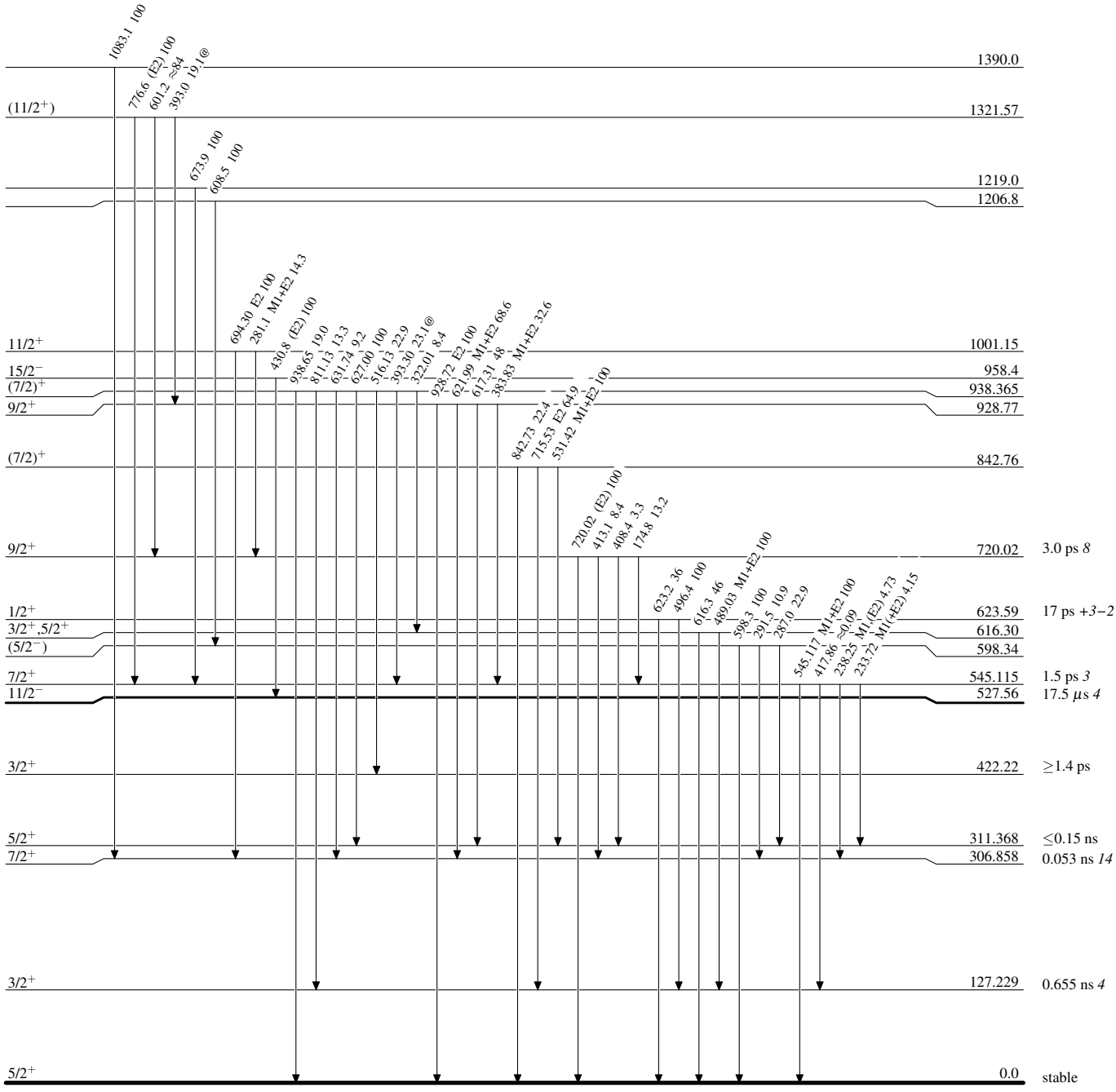


$^{101}_{44}Ru_{57}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
@ Multiply placed: intensity suitably divided

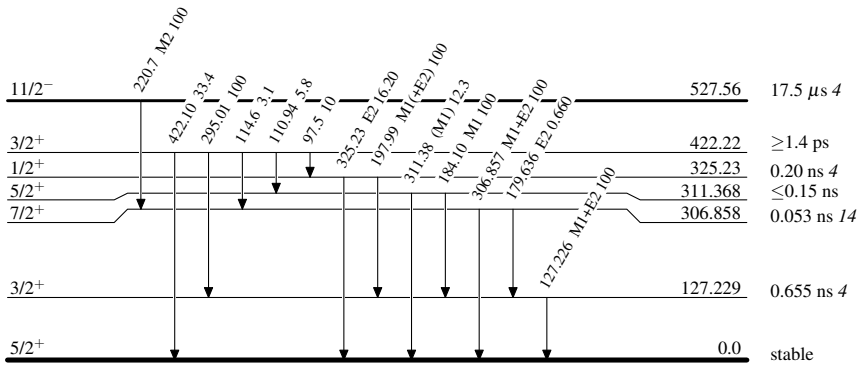


$^{101}_{44}Ru_{57}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
@ Multiply placed: intensity suitably divided



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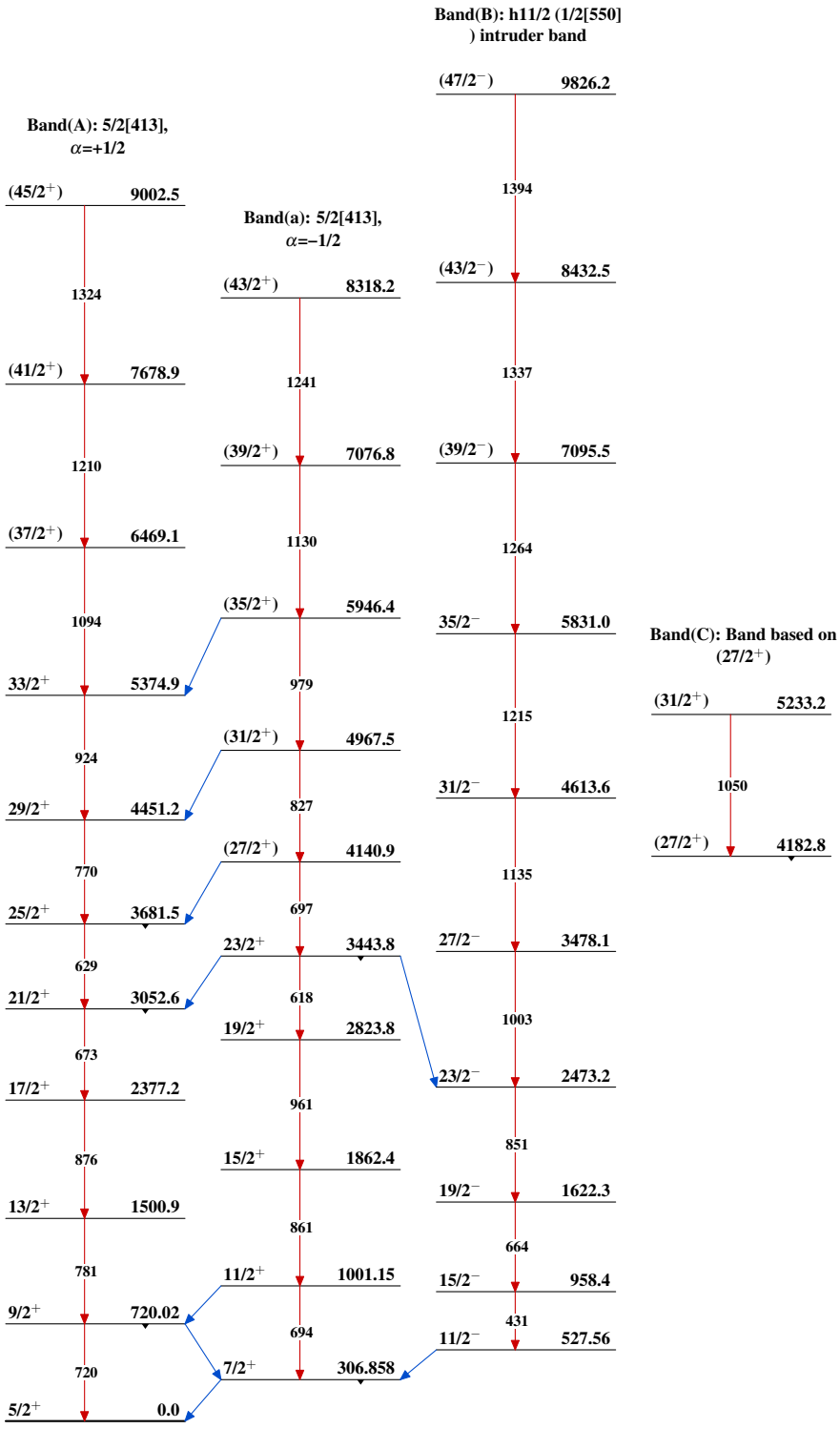
Adopted Levels, Gammas



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