Adopted Levels, Gammas

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	T. D. Johnson, Y. J. Chen, S. Enkhbold, G. Khalil, B. Yang	NDS 114, 661 (2013)	28-Feb-2013

Q(β^-)=−4615 *14*; S(n)=7222 *8*; S(p)=4072 *10*; Q(α)=5965.4 *14* 2012Wa38
S(2n)=15969 *22*, S(2p)=6967 *7* (2012Wa38).

^{211}Rn evaluated by T.D. Johnson, Y.J. Chen, S. Enkhbold, $\beta\gamma$. Khalil, B. Yang.

^{211}Rn Levels

Configuration assignments are from 1993Da10.

Cross Reference (XREF) Flags

A ^{211}Fr ε decay
B ^{215}Ra α decay
C ^{198}Pt(^{18}O,5nγ),^{205}Tl(^{11}B,5nγ)

Theory, calculations, systematics:
Levels, configurations: 1993Da10, 1986Po01, 1985Po06, 1982By02, 1981Po08
Yrast traps, high spin isomers: 1988Sa08, 1986Po01, 1985Po06, 1981Po08
α decay probabilities: 1983Va29, 1976Ra38
Nuclear moments: 1988Sa08, 1986Po01, 1986Be40, 1985Po06
B(E3) systematics: 1985Be05
Magicities: 1983Ze02

E(level)	J$^\pi$[†]	T$_{1/2}$[‡]	XREF	Comments
0.0	1/2$^-$	14.6 h *2*	ABC	%α=27.4 *17*; %ε=72.6 *17* μ=+0.601 *7* (1988Ki03,1989Ra17,2011StZZ) Evaluated nuclear rms charge radius <r^2>$^{1/2}$=5.585 fm *18* (2008 update of 2004An14 work available on http://cdfe.sinp.msu.ru). See also 2009An12 for trends of nuclear radii. Configuration=$((\pi\ h_{9/2})^{+4}_{0+}(\nu\ p_{1/2})^{-1})$. J$^\pi$: J=1/2 from hyperfine structure (1987Bo29); π=− from HF=1.8 *2* for α branch to 1/2$^-$ ^{207}Po 68.573 level. T$_{1/2}$: from 1972As11. Others: 15.0 h *5* (1971Go35), 14.6 h *6* (1968Cr02). %α,%ε: calculated by evaluator from Iγ in α and ε decays. Others: %α=26 *1* (1971Go35), 28 *3* (1955Mo68). μ: CFBLS method (1988Ki03,1987Bo29).
539.9 *2*	5/2$^-$	≤4 ns	ABC	Configuration=$((\pi\ h_{9/2})^{+4}_{0+}(\nu\ f_{5/2})^{-1})$. J$^\pi$: stretched E2 γ to 1/2$^-$ g.s.
833.5 *2*	(3/2$^-$)		B	Configuration=$((\pi\ h_{9/2})^{+4}_{0+}(\nu\ p_{3/2})^{-1})$. J$^\pi$: analogy with ^{209}At ε decay.
1458.2 *3*	9/2$^-$		A C	Configuration=$((\pi\ h_{9/2})^{+4}_{4+}(\nu\ p_{1/2})^{-1})$. J$^\pi$: stretched E2 γ to 5/2$^-$ level; no γ ray to g.s.
1577.8 *2*	13/2$^-$		C	Configuration=$((\pi\ h_{9/2})^{+4}_{6+}(\nu\ p_{1/2})^{-1})$. J$^\pi$: stretched E2 γ to 9/2$^-$ level. No γ to levels with J≤5/2.
1577.8+x	(17/2$^-$)	596 ns *28*	C	μ=+7.75 *8* (1985Po06,1989Ra17,2011StZZ) Q=0.18 *2* (1985Da14,1989Ra17,2011StZZ) Configuration=$((\pi\ h_{9/2})^{+4}_{8+}(\nu\ p_{1/2})^{-1})$. E(level): x <50; based on nonobservation of photons of an E2 transition to the

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Adopted Levels, Gammas (continued)

^{211}Rn Levels (continued)

E(level)	J^{π}[†]	$T_{1/2}$[‡]	XREF	Comments
				1577.8-keV level.
				J^{π}: $T_{1/2}$ and $\gamma\gamma$ coin experiments (1981Po08) indicate a level with J>15/2. A $17/2^-$ level is expected from shell-model calculation and analogy with ^{212}Rn (1993Da10).
				μ,Q: TDPAD method (1985Po06,1985Da14). Other: μ=+7.72 *4* (quoted by 1989Ra17 from thesis by A. Berger, HMI, Berlin (1987)).
1698.9+x? *3*	($15/2^-$)		C	E(level): or 1993.2+x, if 415.4-120.8 cascade is reversed (1993Da10).
				Configuration=$((\pi\ h_{9/2})^{+4}_{8+}(\nu\ p_{1/2})^{-1})$ (?).
1739	($11/2^-$)		A	J^{π}: analogy with ^{209}At ε decay.
1960?			A	
2114.33+x *16*	($19/2^-$)		C	Configuration=$((\pi\ h_{9/2})^{+4}_{8+}(\nu\ f_{5/2})^{-1})$.
				J^{π}: no decay to levels below $17/2^-$ level; shell-model calc. (1993Da10).
2147.56+x *14*	($21/2^-$)	≤3.5 ns	C	Configuration=$((\pi\ h_{9/2})^{+4}_{8+}(\nu\ f_{5/2})^{-1})$.
				J^{π}: stretched E2 γ to ($17/2^-$) level.
2179?	($9/2^+$)		A	J^{π}: analogy with ^{209}At ε decay.
2650.3+x *2*	($23/2^+$)	6.7 ns *3*	C	J^{π}: shell model.
				Configuration=$((\pi\ h_{9/2})^{+3}(\pi\ i_{13/2})^{+1}_{11-}(\nu\ p_{1/2})^{-1})$.
2722?	($11/2^+$)		A	J^{π}: analogy with ^{209}At ε decay.
2731.8+x *2*	($25/2^-$)	<3 ns	C	Configuration=$((\pi\ h_{9/2})^{+4}_{12+}(\nu\ p_{1/2})^{-1})$.
				J^{π}: stretched E2 γ to ($21/2^-$) level.
3117.4+x *2*	($25/2^+$)		C	J^{π}: M1+E2 γ to ($23/2^+$).
				Configuration=$((\pi\ h_{9/2})^{+3}(\pi\ i_{13/2})^{+1}_{11-}(\nu\ f_{5/2})^{-1})$.
3127.2+x *2*	($25/2^+$)		C	Configuration=$((\pi\ h_{9/2})^{+3}(\pi\ i_{13/2})^{+1}_{10-}(\nu\ f_{5/2})^{-1})$ (?).
3216.4+x *2*	($25/2^-$)		C	Configuration=$\pi(h^3_{9/2}f_{7/2})_{12+}\nu p^{-1}_{1/2}$ + $\pi(h^4_{9/2})_{12+}\nu p^{-1}_{1/2}$.
3243.3+x *2*	($29/2^-$)	2.7 ns *6*	C	J^{π}: stretched E2 γ to ($25/2^-$) level.
				Configuration=$((\pi\ h_{9/2})^{+3}(\pi\ f_{7/2})^{+1}_{14+}(\nu\ p_{1/2})^{-1})$.
3426.3+x *2*	($27/2^+$)		C	Configuration=$((\pi\ h_{9/2})^{+3}(\pi\ i_{13/2})^{+1}_{11-}(\nu\ f_{5/2})^{-1})$ (1993Da10).
3844.3+x *2*	($31/2^+$)	<2 ns	C	J^{π}: stretched E1 γ to ($29/2^-$) level.
3873.9+x *2*			C	
3926.0+x *3*	($35/2^+$)	40.2 ns *14*	C	μ=+17.80 *21* (1985Po06,1989Ra17,2011StZZ)
				J^{π}: α, $T_{1/2}$ indicate an E2 γ to ($31/2^+$) level; shell-model calculation.
				μ: TDPAD method (1985Po06). Other: +17.5 *7* (quoted by 1989Ra17 from thesis by A. Berger, HMI, Berlin (1987)).
				Configuration=$((\pi\ h_{9/2})^{+3}(\pi\ i_{13/2})^{+1}_{17-}(\nu\ p_{1/2})^{-1})$.
4341.1+x? *3*			C	E(level): or 4058.8+x, if 132.7-415.1 cascade is reversed.
4417.8+x *3*			C	
4473.9+x *3*	($37/2^+$)		C	Configuration=$((\pi\ h_{9/2})^{+3}(\pi\ i_{13/2})^{+1}_{17-}(\nu\ f_{5/2})^{-1})$.
4509.8+x *3*	($37/2^+$)		C	J^{π}: (M1) γ to ($35/2^+$) level.
				Configuration=$((\pi\ h_{9/2})^{+3}(\pi\ i_{13/2})^{+1}_{16-}(\nu\ f_{5/2})^{-1})$.
4550.5+x *3*			C	
4920.8+x *3*	($39/2^+$)		C	J^{π}: M1 γ ray to ($37/2^+$); crossover γ ray to ($35/2^+$) levels.
				Configuration=$((\pi\ h_{9/2})^{+3}(\pi\ i_{13/2})^{+1}_{17-}(\nu\ f_{5/2})^{-1})$.
4961.0+x *3*	(37/2)		C	Configuration=$((\pi\ h_{9/2})^{+2}(\pi\ i_{13/2})^{+1}(\pi\ f_{7/2})^{+1}_{17-}(\nu\ f_{5/2})^{-1})$ (?).
5160.2+x *4*	(41/2)		C	Configuration=$((\pi\ h_{9/2})^{+2}(\pi\ i_{13/2})^{+1}(\pi\ f_{7/2})^{+1}_{18-}(\nu\ f_{5/2})^{-1})$.
5239.9+x *3*	($39/2^-$)	≤7 ns	C	J^{π}: stretched E1 γ ray to ($37/2^+$) level; shell-model calculation.
				Configuration=$((\pi\ h_{9/2})^{+2}(\pi\ i_{13/2})^{+2}_{19+}(\nu\ p_{1/2})^{-1})$.
5245.9+x *3*	($41/2^-$)	3.5 ns *14*	C	J^{π}: stretched E1 and E3 γ rays to ($39/2^-$) and ($35/2^-$) levels, respectively.
				Configuration=$((\pi\ h_{9/2})^{+2}(\pi\ i_{13/2})^{+2}_{20+}(\nu\ p_{1/2})^{-1})$.
5245.9+y	($43/2^-$)	14 ns *2*	C	μ=+15.9 *4* (1985Po06,1989Ra17,2011StZZ)
				J^{π}: deduced from $T_{1/2}$ and g-factor.
				μ: TDPAD method (1985Po06).
				Configuration=$((\pi\ h_{9/2})^{+3}(\pi\ i_{13/2})^{+1}_{17-}(\nu\ g_{9/2})^{+1}(\nu\ p_{1/2})^{-2}_{0+})$. See also 1986Po01 for detailed wave function.
				E(level): g-factor and $T_{1/2}$ suggest a core-excited $43/2^-$ level which decays to the 5246+x, $41/2^-$ level by an unobserved low-energy hindered M1 transition (1985Po06).

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Adopted Levels, Gammas (continued)

^{211}Rn Levels (continued)

E(level)	J^{π}[†]	$T_{1/2}$[‡]	XREF	Comments
				Configuration=$((\pi\ h_{9/2})^{+3}(\pi\ i_{13/2})^{+1}_{17-}(\nu\ g_{9/2})^{+1}(\nu\ p_{1/2})^{-2}_{0+}$). See also 1986Po01 for detailed wave function.
				E(level): g-factor and $T_{1/2}$ suggest a core-excited $43/2^-$ level which decays to the 5246+x, $41/2^-$ level by an unobserved low-energy hindered M1 transition (1985Po06).
5733.8+y *2*	$(45/2^-)$		C	J^{π}: (M2) γ from $(49/2^+)$ level.
				Configuration=$((\pi\ h_{9/2})^{+3}(\pi\ i_{13/2})^{+1}_{17-}(\nu\ i_{11/2})^{+1}(\nu\ p_{1/2})^{-2}_{0+}$).
6100.1+y *2*	$(49/2^+)$	28.4 ns *14*	C	μ=+18.77 *20* (1985Po06,1989Ra17,2011StZZ)
				J^{π}: stretched E3 γ to $(43/2^-)$ level.
				μ: TDPAD method (1985Po06).
				Configuration=$\pi(h^3_{9/2}i_{13/2})_{17-}\nu(j_{15/2}\ (p^{-2}_{1/2})_{0+}) + \pi(h^2_{9/2}i^2_{13/2})_{20+}\nu(g_{9/2}\ (p^{-2}_{1/2})_{0+})$. See also 1986Po01 for detailed wave function.
6578.0+y *2*	$(49/2^-)$		C	
6713.9+y *2*	$(51/2^+)$		C	J^{π}: M2 γ ray from $(55/2^-)$ level.
				Configuration=$((\pi\ h_{9/2})^{+2}(\pi\ i_{13/2})^{+2}_{20+}(\nu\ i_{11/2})^{+1}(\nu\ p_{1/2})^{-2}_{0+}$).
7003.8+y *2*	$(51/2^+)$		C	Configuration=$\pi(h^2_{9/2}i_{13/2}f_{7/2})_{18-}\nu(j_{15/2}\ (p^{-2}_{1/2})_{0+})$ (?).
7398.9+y *2*	$(55/2^-)$	1.5 ns *4*	C	J^{π}: stretched E3 γ ray to $(49/2^+)$ level.
				Configuration=$((\pi\ h_{9/2})^{+2}(\pi\ i_{13/2})^{+2}_{20+}(\nu\ j_{15/2})^{+1}(\nu\ p_{1/2})^{-2}_{0+}$) See also 1986Po01 for detailed wave function.
7593.9+y *3*	$(53/2^+)$		C	Configuration=$\pi(h^2_{9/2}i^2_{13/2})_{20+}\nu(i_{11/2}\ f^{-1}_{5/2}\ p^{-1}_{1/2})$ or configuration=$\pi(h^2_{9/2}i_{13/2}\ ^2)_{20+}(\nu(g_{9/2}\ f^{-2}_{5/2})$ (?).
7630.3+y *3*			C	
8161.9+y *4*			C	
8167.5+y *3*	$(57/2^+)$	2.3 ns *2*	C	J^{π}: stretched E1 γ ray to $(55/2^-)$ level.
				Configuration=$\pi(h^3_{9/2}i_{13/2})_{17-}\nu(g_{9/2}i_{11/2}\ f^{-1}_{5/2}(p^{-2}_{1/2})_{0+})$. See also 1986Po01 for detailed wave function.
8304.3+y *3*	$(57/2^-)$		C	J^{π}: (M1) γ to $(55/2^-)$ level.
				Configuration=$\pi(h^2_{9/2}i^2_{13/2})_{20+}\nu(j_{15/2}\ f^{-1}_{5/2}\ p^{-1}_{1/2})$ or configuration=$\pi(h^2_{9/2}i_{13/2}\ ^2)_{20+}(\nu(j_{15/2}\ f^{-2}_{5/2})$ (?).
8328.4+y *2*	$(53/2^-)$		C	Configuration=$\pi(h^2_{9/2}i^2_{13/2})_{20+}\nu(j_{15/2}\ (p^{-2}_{1/2})_{0+})$ or configuration=$\pi(h^2_{9/2}i^2_{13/2})_{20+}\ )\ (\nu(j_{15/2}f^{-1}_{5/2}p^{-2}_{1/2})$ (?).
8611.2+y *4*			C	
8758.0+y *4*			C	
8854.5+y *4*	$(63/2^-)$	201 ns *4*	C	μ=+19.59 *22* (1985Po06,1989Ra17,2011StZZ)
				Q=1.54 *22* (1985Da14,1989Ra17,2011StZZ)
				J^{π}: stretched E3 γ ray to $(57/2^+)$ level.
				μ,Q: TDPAD method (1985Po06,1985Da14).
				Configuration=$\pi(h^3_{9/2}i_{13/2})_{17-}\nu(j_{15/2}\ i_{11/2}\ f^{-1}_{5/2}(p^{-2}_{1/2})_{0+}) + \pi(h^2_{9/2}i^2_{13/2})_{20+}\ \nu(g_{9/2}i_{11/2}f^{-1}_{5/2}(p^{-2}_{1/2})_{0+})$. See also 1986Po01 for detailed wave function.
8925.8+y *4*			C	
9147.1+y *4*	$(63/2^-)$		C	Configuration=$\pi(h^3_{9/2}i_{13/2})_{17-}\nu(j_{15/2}\ i_{11/2}\ f^{-1}_{5/2}(p^{-2}_{1/2})_{0+}) + \pi(h^2_{9/2}i^2_{13/2})_{20+}\ \nu(g_{9/2}i_{11/2}f^{-1}_{5/2}(p^{-2}_{1/2})_{0+})$. See also 1986Po01 for detailed wave function.
9627.6+y *4*			C	
9915.4+y *4*	$(69/2^+)$	9.0 ns *7*	C	Configuration=$\pi(h^2_{9/2}i^2_{13/2})_{20+}\nu(j_{15/2}\ i_{11/2}\ f^{-1}_{5/2}(p^{-2}_{1/2})_{0+})$.
9918.1+y *4*	$(65/2^+)$		C	Configuration=$\pi(h^2_{9/2}i^2_{13/2})_{20+}\nu(j_{15/2}\ i_{11/2}\ f^{-1}_{5/2}(p^{-2}_{1/2})_{0+})$.
10814.3+y *5*	$(69/2^+)$		C	Configuration=$\pi(h^2_{9/2}i^2_{13/2})_{20+}\nu(j_{15/2}\ i_{11/2}\ f^{-1}_{5/2}(p^{-2}_{1/2})_{0+})$.
11034.5+y *5*	(71/2)		C	Configuration=$\pi(h^2_{9/2}i^2_{13/2})_{20+}\ +\ \nu(j_{15/2}i_{11/2}\ f^{-1}_{5/2}p^{-2}_{1/2})$ or $\nu(j^2_{15/2}f^{-1}_{5/2}p^{-2}_{1/2})$ or $\nu(j_{15/2}i_{11/2}f^{-2}_{5/2}p^{-1}_{1/2})$.
11081.8+y *5*	(71/2)		C	Configuration=$\pi(h^2_{9/2}i^2_{13/2})_{20+}\ +\ \nu(j_{15/2}i_{11/2}\ f^{-1}_{5/2}p^{-2}_{1/2})$ or $\nu(j^2_{15/2}f^{-1}_{5/2}p^{-2}_{1/2})$ or $\nu(j_{15/2}i_{11/2}f^{-2}_{5/2}p^{-1}_{1/2})$.
11232.0+y *5*	(73/2)		C	Configuration=$\pi(h^2_{9/2}i^2_{13/2})_{20+}\nu(j_{15/2}\ i_{11/2}\ f^{-2})_{5/2}(p^{-1}_{1/2})$.

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Adopted Levels, Gammas (continued)

^{211}Rn Levels (continued)

† In addition to the specific arguments given for each assignment, the sequence of increasing spins has been established in ^{198}Pt(^{18}O,5nγ), ^{205}Tl(^{11}B,5nγ) experiments with excitation function measurements. Assignments for high-spin levels (J>21/2) are from 1993Da10, based on ce data, $\gamma(\theta)$ and the increasing spin sequence with excitation energy. Configurations given are from 1993Da10 and 1981Po08 in ^{198}Pt(^{18}O,5nγ) and ^{205}Tl(^{11}B,5nγ).

‡ From γ(t) data in ^{198}Pt(^{18}O,5nγ), ^{205}Tl(^{11}B,5nγ) for all excited states.

Adopted Levels, Gammas (continued)

$\gamma(^{211}Rn)$

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.‡	δ‡	α†	$I_{(\gamma+ce)}$	Comments
539.9	5/2⁻	539.9 *2*	100	0.0	1/2⁻	E2		0.0294		B(E2)(W.u.)>0.040
833.5	(3/2⁻)	833.5 *2*		0.0	1/2⁻					
1458.2	9/2⁻	918.3 *2*	100	539.9	5/2⁻	E2		0.00959		
1577.8	13/2⁻	119.6 *2*	100	1458.2	9/2⁻	E2		3.88		
1577.8+x	(17/2⁻)	(x)		1577.8	13/2⁻					E_γ: x <50 (1981Po08).
1698.9+x?	(15/2⁻)	120.8 *5*	100	1577.8+x	(17/2⁻)					
1739	(11/2⁻)	281	100	1458.2	9/2⁻					
1960?		221	100	1739	(11/2⁻)					
2114.33+x	(19/2⁻)	415.4 *5*	3.8 *19*	1698.9+x?	(15/2⁻)					
		536.3 *2*	100.0 *25*	1577.8+x	(17/2⁻)	(M1+E2)	2.46 *15*	0.0433 *17*		
2147.56+x	(21/2⁻)	(33.2)		2114.33+x	(19/2⁻)	[M1]		65 *2*	19 *4*	
		569.9 *2*	100.0 *13*	1577.8+x	(17/2⁻)	E2		0.0260		B(E2)(W.u.)>0.030
2179?	(9/2⁺)	440	100	1739	(11/2⁻)					
2650.3+x	(23/2⁺)	502.7 *2*	100 *6*	2147.56+x	(21/2⁻)	E1		0.01089		B(E1)(W.u.)=2.15×10^{-7} *21*
		1072.6 *5*	3.0 *11*	1577.8+x	(17/2⁻)	[E3]		0.01650		B(E3)(W.u.)=1.2 *5*
2722?	(11/2⁺)	763	25 *5*	1960?						
		983	100 *15*	1739	(11/2⁻)					
2731.8+x	(25/2⁻)	584.2 *2*	100	2147.56+x	(21/2⁻)	(E2)		0.0246		B(E2)(W.u.)>0.036
3117.4+x	(25/2⁺)	467.0 *2*	100	2650.3+x	(23/2⁺)	M1		0.180 *3*		
3127.2+x	(25/2⁺)	979.5 *2*	100	2147.56+x	(21/2⁻)					
3216.4+x	(25/2⁻)	1068.9 *2*	100	2147.56+x	(21/2⁻)	E2		0.00715		
3243.3+x	(29/2⁻)	(26.9)		3216.4+x	(25/2⁻)	[E2]		4.56×10^3	5.0 *3*	B(E2)(W.u.)=1.9 *6*
		(116.1)		3127.2+x	(25/2⁺)	(M2)		60.0	1.8 *3*	Mult.: the B(M2)(W.u.) of 4.1 *12* exceeds RUL value of 1.0 by 2 to 3 sigma.
		511.5 *2*	100.0 *14*	2731.8+x	(25/2⁻)	E2		0.0333		B(E2)(W.u.)=0.073 *17*
3426.3+x	(27/2⁺)	308.9 *5*	64 *18*	3117.4+x	(25/2⁺)	M1		0.551		
		776.1 *2*	100 *9*	2650.3+x	(23/2⁺)	(E2)		0.01342		
3844.3+x	(31/2⁺)	418.0 *2*	2.7 *5*	3426.3+x	(27/2⁺)	[E2]		0.0548		B(E2)(W.u.)>0.0077
		601.0 *1*	100.0 *13*	3243.3+x	(29/2⁻)	E1		0.00761		B(E1)(W.u.)>4.2×10^{-7}
3873.9+x		630.6 *2*	100	3243.3+x	(29/2⁻)					
3926.0+x	(35/2⁺)	(52.1)		3873.9+x					≤70	
		81.7 *2*	100 *15*	3844.3+x	(31/2⁺)	E2		20.9 *4*		B(E2)(W.u.)=2.3 *5*
4341.1+x?		415.1 *2*	100	3926.0+x	(35/2⁺)					
4417.8+x		492.0 *5*	100	3926.0+x	(35/2⁺)					
4473.9+x	(37/2⁺)	132.7 *5*	15 *4*	4341.1+x?						
		548.0 *2*	100 *21*	3926.0+x	(35/2⁺)	M1		0.1175		
4509.8+x	(37/2⁺)	(92.0)		4417.8+x					≤2.4	
		583.7 *2*	100	3926.0+x	(35/2⁺)	(M1)		0.0994		
4550.5+x		132.8 *5*	18 *8*	4417.8+x						
		624.7 *5*	100 *25*	3926.0+x	(35/2⁺)					
4920.8+x	(39/2⁺)	411.1 *2*	100 *29*	4509.8+x	(37/2⁺)	M1		0.254		
		994.7 *2*	23.6 *7*	3926.0+x	(35/2⁺)	(E2)		0.00821		

$^{211}_{86}Rn_{125}$-5

Adopted Levels, Gammas (continued)

$\gamma(^{211}Rn)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.‡	δ‡	α†	$I_{(\gamma+ce)}$	Comments
4961.0+x	(37/2)	410.7 *2*	100 *20*	4550.5+x						
		1034.9 *5*	50 *5*	3926.0+x	(35/2$^+$)	(D)				
5160.2+x	(41/2)	239.4 *2*	100	4920.8+x	(39/2$^+$)	D				
5239.9+x	(39/2$^-$)	278.9 *5*	8.3 *17*	4961.0+x	(37/2)	D				
		730.0 *2*	100.0 *17*	4509.8+x	(37/2$^+$)	E1		0.00524		B(E1)(W.u.)>6.5×10^{-8}
5245.9+x	(41/2$^-$)	(6.0 *4*)		5239.9+x	(39/2$^-$)	[M1]		2.5×10^3 *6*	55 *14*	
		325.2 *2*	86 *8*	4920.8+x	(39/2$^+$)	E1		0.0277		B(E1)(W.u.)=5.5×10^{-7} *23*
		772.1 *2*	4.3 *16*	4473.9+x	(37/2$^+$)	[M2]		0.1190		B(M2)(W.u.)=0.016 *9*
		1319.9 *2*	100.0 *8*	3926.0+x	(35/2$^+$)	E3		0.01049		B(E3)(W.u.)=8 *3*
5245.9+y	(43/2$^-$)	(y)		5245.9+x	(41/2$^-$)					
5733.8+y	(45/2$^-$)	487.8 *2*	100	5245.9+y	(43/2$^-$)	M1		0.1602		
6100.1+y	(49/2$^+$)	366.3 *2*	6.1 *7*	5733.8+y	(45/2$^-$)	M2		1.121		B(M2)(W.u.)=0.25 *4*
		854.3 *2*	100.0 *16*	5245.9+y	(43/2$^-$)	E3		0.0280		B(E3)(W.u.)=42.1 *24*
6578.0+y	(49/2$^-$)	478.0 *2*	100	6100.1+y	(49/2$^+$)	(D+Q)				
6713.9+y	(51/2$^+$)	136.1 *2*	21 *7*	6578.0+y	(49/2$^-$)	E1		0.220		
		613.7 *2*	100.0 *14*	6100.1+y	(49/2$^+$)	M1		0.0871		
7003.8+y	(51/2$^+$)	903.7 *2*	100	6100.1+y	(49/2$^+$)	M1		0.0316		
7398.9+y	(55/2$^-$)	685.2 *2*	18.6 *9*	6713.9+y	(51/2$^+$)	M2		0.1672		B(M2)(W.u.)=0.59 *16*
		1298.6 *2*	100.0 *9*	6100.1+y	(49/2$^+$)	E3		0.01086		B(E3)(W.u.)=40 *11*
7593.9+y	(53/2$^+$)	880.0 *2*	100	6713.9+y	(51/2$^+$)	M1		0.0338		
7630.3+y		916.3 *2*	100	6713.9+y	(51/2$^+$)					
8161.9+y		531.6 *5*	100	7630.3+y						
8167.5+y	(57/2$^+$)	537.1 *2*	6.9 *19*	7630.3+y						
		768.7 *2*	100.0 *19*	7398.9+y	(55/2$^-$)	E1		0.00476		B(E1)(W.u.)=1.70×10^{-7} *16*
8304.3+y	(57/2$^-$)	905.4 *2*	100	7398.9+y	(55/2$^-$)	M1		0.0314		
8328.4+y	(53/2$^-$)	929.4 *2*	100 *4*	7398.9+y	(55/2$^-$)	M1		0.0294		
		1324.6 *2*	52 *8*	7003.8+y	(51/2$^+$)	(D)				
8611.2+y		282.9 *5*	100	8328.4+y	(53/2$^-$)	D				
8758.0+y		146.8 *5*	100	8611.2+y		E1		0.183		
8854.5+y	(63/2$^-$)	687.0 *2*	100	8167.5+y	(57/2$^+$)	E3		0.0488		B(E3)(W.u.)=30.2 *6*
8925.8+y		758.3 *5*	100	8167.5+y	(57/2$^+$)					
9147.1+y	(63/2$^-$)	292.6 *5*	100	8854.5+y	(63/2$^-$)	(M1)		0.640		
9627.6+y		773.1 *7*	100	8854.5+y	(63/2$^-$)					
9915.4+y	(69/2$^+$)	1060.9 *2*	100	8854.5+y	(63/2$^-$)	E3		0.01691		B(E3)(W.u.)=33 *3*
9918.1+y	(65/2$^+$)	1063.6 *2*	100	8854.5+y	(63/2$^-$)	E1(+M2)	0.23 *1*			
10814.3+y	(69/2$^+$)	896.2 *5*	100	9918.1+y	(65/2$^+$)	(E2)		0.01006		
11034.5+y	(71/2)	220.2 *5*	100	10814.3+y	(69/2$^+$)					
11081.8+y	(71/2)	1166.4 *5*	100	9915.4+y	(69/2$^+$)					
11232.0+y	(73/2)	150.2 *5*	100	11081.8+y	(71/2)					

† Additional information 1.
‡ From angular distributions and ce data in ^{198}Pt(^{18}O,5nγ),^{205}Tl(^{11}B,5nγ).

$^{211}_{86}Rn_{125}$-6

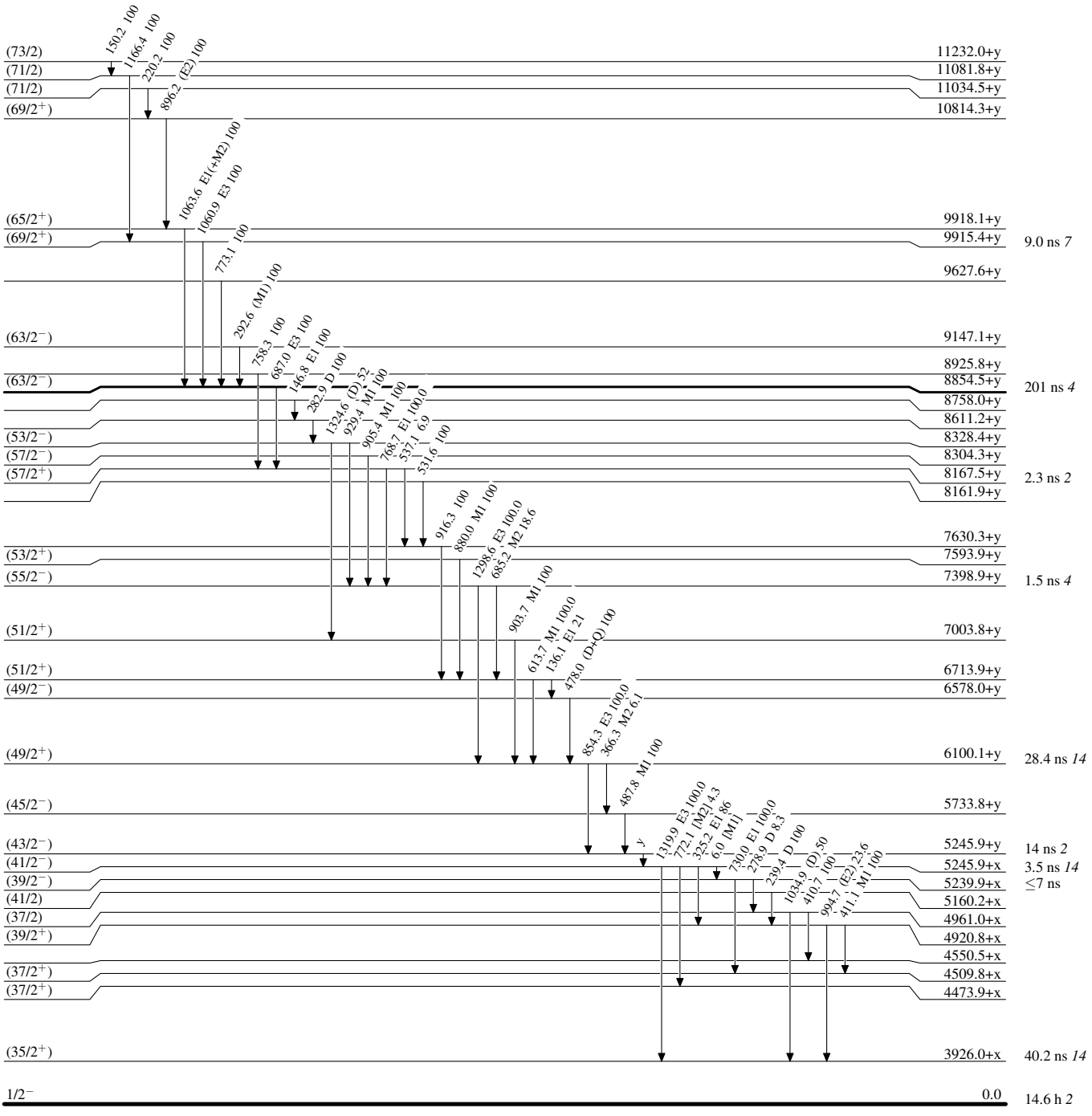
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{211}_{86}Rn_{125}$

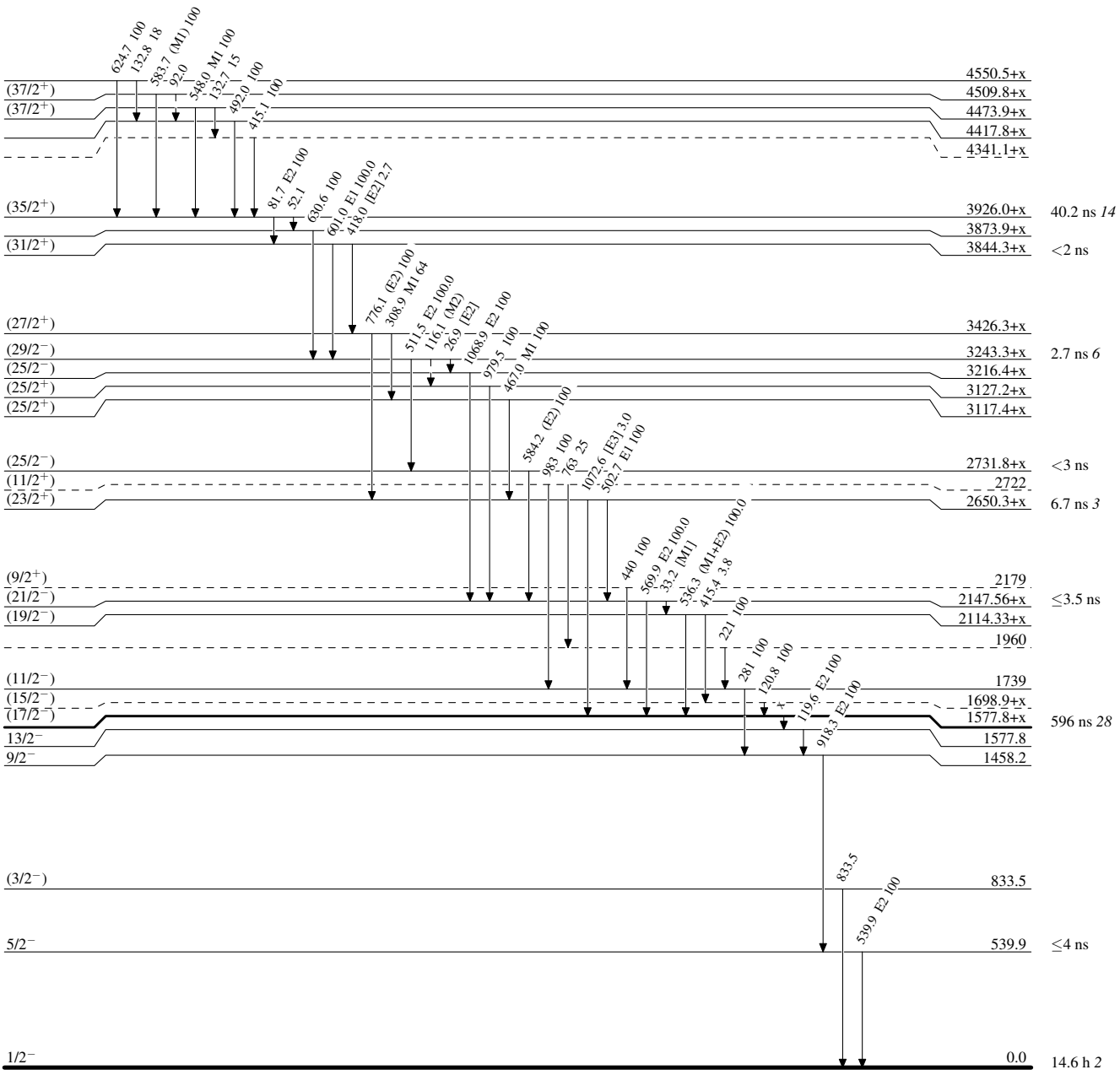
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{211}_{86}Rn_{125}$