

Adopted Levels, Gammas

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong and Kang Mengxiao		NDS 121, 395 (2014)	1-Mar-2014

Q(β⁻)=-759×10¹ 4; S(n)=813×10¹ 4; S(p)=231×10¹ 6; Q(α)=6750 3 2012Wa38

¹⁹⁵Po Levels

Cross Reference (XREF) Flags

A	¹⁹⁹ Rn α decay (0.59 s)	D	²³⁸ U(p,X): Δ<r ² >
B	¹⁹⁹ Rn α decay (0.31 s)	E	¹¹³ Cd(⁸⁶ Kr,4nγ)
C	(HI,xnγ)		

E(level) [†]	J ^π [‡]	T _{1/2}	XREF	Comments
0.0	(3/2 ⁻)	4.64 s 9	ABCD	<p>%α=94 4 (2010Co13); %ε+%β⁺=6 4 μ=-0.601 42 (2014Se07) Q=-0.87 25 (2014Se07) E(level): g.s. assignment based on Eα systematics and 1997Fo06. J^π: from systematics (1980Sc26). Spin consistent with optical hyperfine spectrum shown in Fig. 5 of 2014Se07. T_{1/2}: from α(t) measurement (1993Wa04). Others: 4.5 s 5 (1967Si09), 3.9 s +32-12 (2005Uu02). For ¹⁹⁵Po α decay spectroscopy see 1997Fo06. Δ<r²>(¹⁹⁵Po,²¹⁰Po)=-0.604 fm² 13 (2013Se03). The uncertainties are statistical only. μ,Q: hyperfine structure studies using in-source resonance ionization spectroscopy at CERN-ISOLDE facility (2014Se07). Total (statistical uncertainties=0.013 for μ and 0.15 for Q, and systematic) uncertainties are given. <β₂²>^{1/2}=0.18 (2013Se03,2014Se07). E(level),J^π: from syst (1980Sc26).</p>
≈200? ≈230 [#]	(5/2 ⁻) (13/2 ⁺)	1.92 s 2	BCDE	<p>%α≈90; %ε+%β⁺≈10; %IT<0.01 μ=-0.932 65 (2014Se07) Q=+1.30 45 (2014Se07) μ,Q: hyperfine structure studies using in-source resonance ionization spectroscopy at CERN-ISOLDE facility (2014Se07). Total (statistical uncertainties=0.040 for μ and 0.30 for Q, and systematic) uncertainties are given. E(level): from syst (1980Sc26) and α decay. E=100 50 from 2012Au07. J^π: high-spin isomer based on Eα, Iα(2 s)/Iα(4.5 s)=4 (1967Si09); 13/2⁺ follows regional systematics (see 1976Ko13,1980Sc26). Spin consistent with optical hyperfine spectrum shown in Fig. 6 of 2014Se07. T_{1/2}: from α(t) measurements (1993Wa04). Others: 2.0 s 2 (1967Si09), 2.8 s +10-6 (2005Uu02). %α,%ε+%β⁺,%IT: from systematics (1980Sc26). Δ<r²>(¹⁹⁵Po,²¹⁰Po)=-0.575 fm² 13 (2013Se03). The uncertainties are statistical only. <β₂²>^{1/2}=0.18 (2013Se03,2014Se07).</p>
549.3 [#] 5	17/2 ⁺	30 ps 8	C E	<p>T_{1/2}: from 2009Gr05, recoil-distance Doppler-shift method. Analysis was that of recoil-decay tagged γ-ray spectra and differential decay curve method.</p>
656.4 5	(15/2 ⁺)		C	
937.4 [#] 7	21/2 ⁺		C	
1059.5 6	(19/2 ⁺)		C	
1431.7 [#] 9	25/2 ⁺		C	
2020.7 [#] 13	(29/2 ⁺)		C	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{195}Po Levels (continued)

- † From E_γ , except as noted.
‡ From syst of odd-mass Po.
Band(A): $13/2^+$ band.

$E_i(\text{level})$	J_i^π	E_γ †	I_γ †‡	E_f	J_f^π	$\gamma(^{195}\text{Po})$	Comments
549.3	$17/2^+$	319.1 5	100	≈ 230	$(13/2^+)$		B(E2)(W.u.)=80 20
656.4	$(15/2^+)$	426.6# 5	100	≈ 230	$(13/2^+)$		
937.4	$21/2^+$	388.1 5	100	549.3	$17/2^+$		
1059.5	$(19/2^+)$	404# 1	44 8	656.4	$(15/2^+)$		
		510.0# 5	100 23	549.3	$17/2^+$		
1431.7	$25/2^+$	494.3 5	100	937.4	$21/2^+$		
2020.7	$(29/2^+)$	589 1	100	1431.7	$25/2^+$		

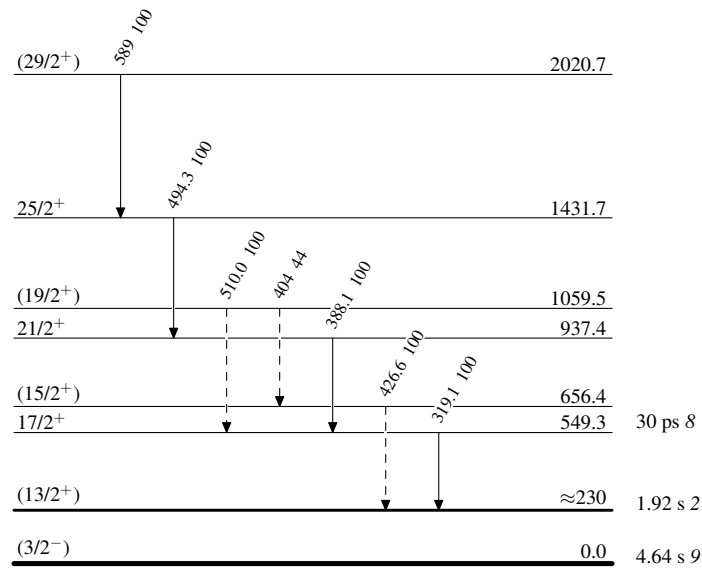
- † From (HL,xny).
‡ Relative intensity from each levels.
Placement of transition in the level scheme is uncertain.

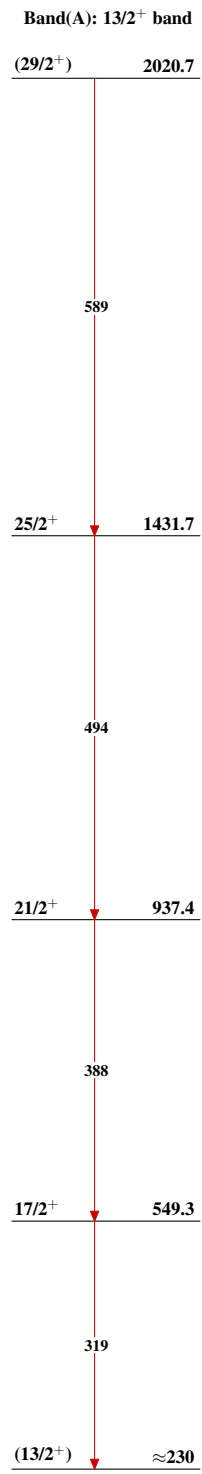
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

-----► γ Decay (Uncertain) $^{195}_{84}\text{Po}_{111}$

Adopted Levels, Gammas $^{195}_{84}\text{Po}_{111}$