$^{237}_{94}$Pu

Δ: 45087.8 *23* **S_n:** 5877.0 *23* **S_p:** 5570 *50*
Q_{EC}: 220.3 *13* **Q_α:** 5749.5 *23*
σ_f: 2455 *295* b

Nuclear Bands

- *A* 7/2[743]
- *B* 1/2[631]
- *C* 5/2[622]
- *D* 3/2[631]
- *E* 5/2[633]
- *F* 7/2[624]
- *G* 1/2[501]
- *H* Fission isomer
- *I* Band Structure
- *J* 1/2[631]+0^+

Levels and γ-ray branchings:

A **0**, 7/2$^-$, 45.2 *1* d, %α=0.0042 *4*, %EC=99.9958 *4*

A **47.71** *4*, 9/2$^-$ γ_0***47.71*** *4* M1+E2: δ=0.24 *8*

A **106** *5*, 11/2$^-$

B **145.544** *10*, 1/2$^+$, 0.18 *2* s γ_0***145.544*** *10* E3

B **155.45** *2*, 3/2$^+$ γ_{146}***9.903*** *16* M1+E2: δ=0.07 *2*

A **175** *7*, 13/2$^-$

B **201.18** *2*, 5/2$^+$ γ_{155}***45.724*** *8* (†$_\gamma$46 *12*) M1+E2: δ=0.47 *13* γ_{146}***55.638*** *11* (†$_\gamma$100 *16*) (E2)

B **224.25** *5*, 7/2$^+$ γ_{155}***68.8*** *1* (E2)

A **257**, 15/2$^-$

C **280.22** *2*, 5/2$^+$ γ_{201}***79.05*** *2* (†$_\gamma$0.42 *7*) (M1) γ_{155}***124.72*** *3* (†$_\gamma$0.59 *11*) (M1) γ_0***280.23*** *2* (†$_\gamma$100 *5*) E1

B **304** *4*, 9/2$^+$

C **320.97** *2*, 7/2$^+$ γ_{280}***40.748*** *6* (†$_\gamma$2.0 *4*) M1+E2: δ=0.19 *3* γ_{48}***273.3*** *1* (†$_\gamma$54 *4*) γ_0***321.0*** *1* (†$_\gamma$100 *8*) E1

D **370.40** *4*, 3/2$^+$ γ_{155}***214.9*** *2* (†$_\gamma$100 *21*) (M1) γ_{146}***224.86*** *4* (†$_\gamma$100 *21*) (M1)

C **371** *5*, 9/2$^+$

D **404.19** *5*, 5/2$^+$ γ_{280}***123.8*** *3* (†$_\gamma$≈7) γ_{224}***179.94*** *2* (†$_\gamma$41 *9*) (M1(+E2)): δ=0.7 *7* γ_{201}***203.03*** *5* (†$_\gamma$71 *9*) M1(+E2): δ=0.4 *4* γ_{155}***248.7*** *2* (†$_\gamma$100 *10*) (M1(+E2)): δ=0.6 *6*

E **407.83** *6*, 5/2$^+$ γ_{280}***127.5*** *2* (†$_\gamma$17 *4*) γ_{224}***183.7*** *2* (†$_\gamma$30 *8*) M1(+E2): δ=0.7 *7* γ_{201}***206.7*** *1* (†$_\gamma$52 *7*) M1(+E2): δ=0.3 *3* γ_{155}***252.2*** *2* (†$_\gamma$43 *12*) M1(+E2): δ=0.6 *6* γ_0***407.8*** *1* (†$_\gamma$100 *8*) (E1)

E **438.41** *10*, 7/2$^+$ γ_{280}***158.3*** *3* (†$_\gamma$0.8 *3*) γ_{48}***390.7*** *1* (†$_\gamma$6.6 *5*) E1 γ_0***438.4*** *1* (†$_\gamma$100 *5*) E1

D **453.2** *2*, 7/2$^+$ γ_{224}***229.1*** *3* (†$_\gamma$100 *34*) γ_{201}***252.2*** *2* (†$_\gamma$100 *34*) γ_0***453.2*** *3* (†$_\gamma$67 *14*)

F **473.50** *10*, 7/2$^+$ γ_{280}***193.4*** *3* (†$_\gamma$2.1 *7*) γ_{48}***425.8*** *1* (†$_\gamma$45 *3*) E1 γ_0***473.5*** *1* (†$_\gamma$100 *7*) E1

E **486**, (9/2$^+$)

D **513**, 9/2$^+$

G **545**, (1/2$^-$)

G **582**, (5/2$^-$)

G **591**, (3/2$^-$)

655

I **655.3** *2*, (5/2)$^-$ γ_0***655.3*** *2* M1

G **691**, (7/2$^-$)

I **696.2** *3*, 7/2$^-$ $\gamma_{655.3}$***40.748*** *6* γ_{48}***648.5*** *3* (†$_\gamma$100 *16*) M1 γ_0***696.2*** *3* (†$_\gamma$77 *16*) M1

716

741

757

775

J **800** *2*, 1/2$^+$

809

840

851 *5*, 3/2$^+$,5/2$^+$

852

884

908.9 *2*, 7/2$^+$ γ_{474}***435.2*** *3* (†$_\gamma$9.6 *16*) M1 γ_{453}***455.8*** *3* (†$_\gamma$3.5 *8*) M1 γ_{408}***501.2*** *3* (†$_\gamma$10.8 *16*) M1 γ_{404}***504.8*** *3* (†$_\gamma$7.3 *16*) M1 γ_{48}***861.2*** *3* (†$_\gamma$14.2 *16*) γ_0***908.8*** *2* (†$_\gamma$100 *6*)

933

964

998 *5*

1000.6 *3*, 3/2$^+$,5/2,7/2 γ_{280}***720.4*** *5* (†$_\gamma$100 *21*) γ_0***1000.6*** *3* (†$_\gamma$79 *21*)

1014

1025 *3*

1053

1104

1189

1216

1250

1264

1348

1383

1397

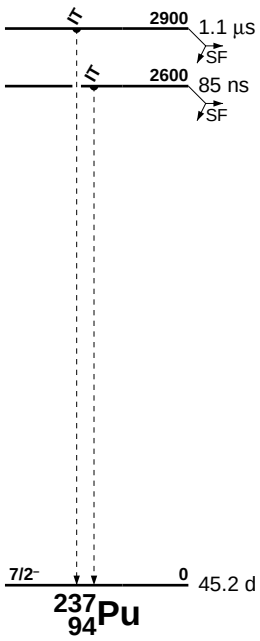
1463

1481

1534

H **2600** *200*, 85 *15* ns, %SF≤100

H **2900** *250*, 1.1 *1* μs, %SF≤100


γ
2900
1.1 μs
SF
γ
2600
85 ns
SF
7/2⁻
0
45.2 d
237
94
Pu