

Adopted Levels, Gammas

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 122, 205 (2014)		1-Feb-2014

$Q(\beta^-) = -2442.56$; $S(n) = 6237.22$; $S(p) = 5062.22$; $Q(\alpha) = 5951.20$ [2012Wa38](#)

 ^{235}Pu LevelsCross Reference (XREF) Flags

A ^{235}Am ε decay

E(level)	J^π	$T_{1/2}$	XREF	Comments
$0^\dagger$	$(5/2^+)$	25.3 min 5	A	$\% \varepsilon + \% \beta^+ = 99.9972 \pm 7$; $\% \alpha = 0.0028 \pm 7$ $T_{1/2}$: weighted average of 25.6 min 1 (1973Ja03), 25.9 min 1 (1971Ke22), 24.3 min 1 (1971Go01). Other values: 26 min 2 (1957Th10), 25 min 4 (1996Gu11), 26 min 2 (1952Or03). Calculated $T_{1/2}(\text{SF})$: 1991Bh04 , 2013BeZU . J^π : $\log ft = 5.4$ to g.s. ($J^\pi = 5/2^+$) and $\log ft = 5.5$ to 34-keV level ($J^\pi = (7/2^+)$) in ^{235}Np from ^{235}Pu ε decay. Systematics of Nilsson configuration assignments in this region suggests $J^\pi = 5/2^+$. $\% \alpha$: from $T_{1/2}(\alpha) = 1.7 \text{ y}$ 4 (1957Th10) and adopted $T_{1/2} = 25.3 \text{ min}$ 5. J^π : Configuration = $\nu 5/2[633]$.
41.90 [†] 19	$(7/2^+)$		A	Configuration = $\nu 5/2[633]$.
183.70 17	$(3/2^+)$		A	Suggested configuration = $\nu 1/2[631]$.
265.37 16	$(5/2^+)$		A	Suggested configuration = $\nu 3/2[631]$.
290.53 16	$(5/2^-)$		A	Suggested Configuration = $\nu 5/2[752]$.
535.10 17	$(5/2^+)$		A	Suggested Configuration = $\nu 5/2[622]$.
639.1 3			A	
825.9 3			A	
1029.5 3			A	
1118.8 3			A	
3.0×10^3 2		25 ns 5		$\% \text{SF} \leq 100$ $E(\text{level}), T_{1/2}$: from 1969Me11 , 1970Bu02 , 1972Ga42 $T_{1/2} \approx 23 \text{ ns}$ in $^{233}\text{U}(\alpha, 2n)$ and $T_{1/2} = 18 \text{ ns}$ 9 in $^{234}\text{U}(\alpha, 2n)$ (1978SoZP).

[†] Band(A): $5/2(633)$.

 $\gamma(^{235}\text{Pu})$

$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.
41.90	$(7/2^+)$	(41.9)		0	$(5/2^+)$	
183.70	$(3/2^+)$	183.7 2	100	0	$(5/2^+)$	M1+E2
265.37	$(5/2^+)$	223.5 2	100 22	41.90	$(7/2^+)$	
		265.3 2	83 19	0	$(5/2^+)$	
290.53	$(5/2^-)$	248.6 2	19 8	41.90	$(7/2^+)$	
		290.6 2	100 14	0	$(5/2^+)$	
535.10	$(5/2^+)$	244.6 2	34 16	290.53	$(5/2^-)$	
		269.7 2	1.0×10^2 3	265.37	$(5/2^+)$	
		351.4 2	79 24	183.70	$(3/2^+)$	
639.1		373.7 2	100	265.37	$(5/2^+)$	

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Adopted Levels, Gammas (continued)

$\gamma(^{235}\text{Pu})$ (continued)

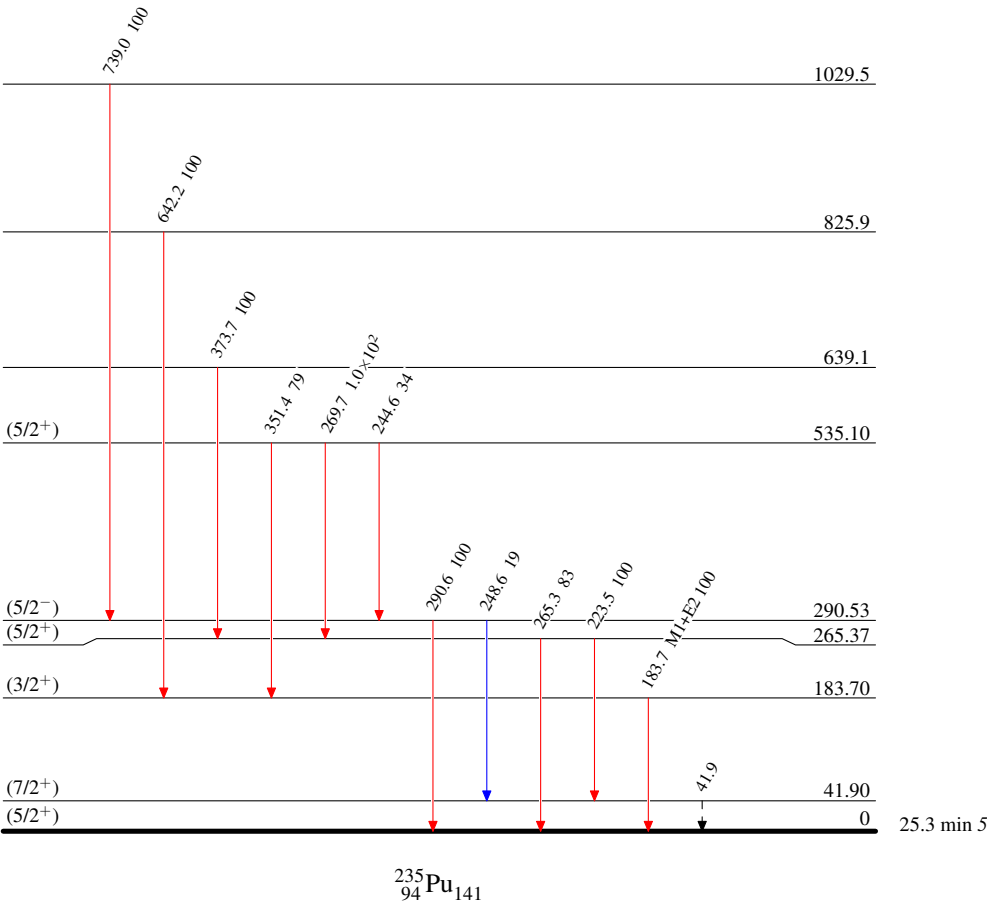
<u>E_i(level)</u>	<u>J^{π}_i</u>	<u>E_{γ}</u>	<u>I_{γ}</u>	<u>E_f</u>	<u>J^{π}_f</u>
825.9		642.2 2	100	183.70	(3/2 ⁺)
1029.5		739.0 2	100	290.53	(5/2 ⁻)

Adopted Levels, Gammas

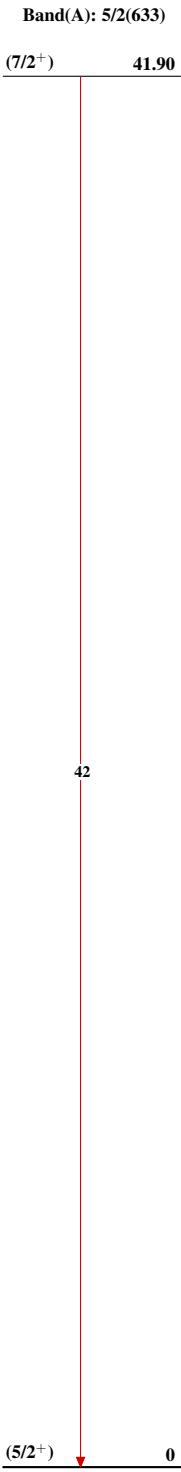
Legend

Level Scheme
Intensities: Type not specified

- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$
- γ Decay (Uncertain)



Adopted Levels, Gammas



$^{235}_{94}\text{Pu}_{141}$