

$^{235}\text{U}(\alpha,3n\gamma)$ 1983Ha31

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Shaofei Zhu	NDS 182, 2 (2022).	1-Apr-2022

1983Ha31: ^{236}Pu high-spin states populated by $^{235}\text{U}(\alpha,3n)$ reaction with $E(\alpha)=35$ MeV. In-beam ce measured by orange magnetic spectrometer; γ by Ge(Li), and measured ce- γ coin.

 ^{236}Pu Levels

E(level) [†]	J^π [‡]
0	0 ⁺
44.63 10	2 ⁺
147.45 10	4 ⁺
305.80 11	6 ⁺
515.70 23	8 ⁺
773.5 3	10 ⁺
1074.3 4	12 ⁺
1413.6 4	14 ⁺
1786.0 5	16 ⁺

[†] From $E\gamma$'s.

[‡] From g.s. band assignment.

 $\gamma(^{236}\text{Pu})$

E_γ [@]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult.	$I_{(\gamma+ce)}$ [#]	Comments
44.63 [‡] 10	44.63	2 ⁺	0	0 ⁺			
102.82 [‡] 2	147.45	4 ⁺	44.63	2 ⁺			
158.35 [‡] 2	305.80	6 ⁺	147.45	4 ⁺	E2 [†]		E_γ : other: 158.5 keV I (1983Ha31).
209.9 2	515.70	8 ⁺	305.80	6 ⁺	E2 [†]	64 6	
257.8 2	773.5	10 ⁺	515.70	8 ⁺	[E2]	40 5	
300.8 2	1074.3	12 ⁺	773.5	10 ⁺	[E2]	21 4	
339.3 2	1413.6	14 ⁺	1074.3	12 ⁺	[E2]	18 4	
372.4 3	1786.0	16 ⁺	1413.6	14 ⁺	[E2]	12 4	

[†] From L2/L3 ratios.

[‡] From Adopted Gammas.

[#] Relative to $I(\gamma+ce)=40$ for the 10⁺ to 8⁺ transition; deduced from theoretical ce α (1978Ro21) and measured I_γ by 1983Ha31.

[@] From 1983Ha31, unless otherwise noted.

$^{235}\text{U}(\alpha,3n\gamma)$ **1983Ha31**Level Scheme