

$^{241}\text{Pu}(n,\gamma)$ E=th:primary γ 's 1975WeZA

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. J. Martin, C. D. Nesaraja		NDS 186, 261 (2022)	31-Dec-2021

 ^{242}Pu Levels

E(level) [†]	J^{π} [‡]	Comments
0.0	0 ⁺	
45.1 37	2 ⁺	
147.5 20	4 ⁺	
832.6 13	3 ⁻	
1019.6 13	3 ⁻	
1039.9 14	(1,2 ⁺)	
1064.3 13	(4 ⁻)	
1152.5 13	(2 ⁻)	
1745.3 18		
1826.9 13	(4 ⁺)	
2092.6 24		
2437.9 24		
(6309.6 7)	2 ⁺ ,3 ⁺	$J^{\pi}: J^{\pi}(^{241}\text{Pu})=5/2^{+}$.

[†] From E_{γ} , corrected for recoil with $S(n)=6309.6$ 7. The calibration uncertainty of 1 keV in the E_{γ} values, not included in the E_{γ} listing, is included in the E(level) values.

[‡] From Adopted Levels.

 $\gamma(^{242}\text{Pu})$

E_{γ} [†]	I_{γ} ^{‡#}	$E_i(\text{level})$	J_i^{π}	E_f	J_f^{π}	E_{γ} [†]	I_{γ} ^{‡#}	$E_i(\text{level})$	J_i^{π}	E_f	J_f^{π}
3871.7 20	1.6 5	(6309.6)	2 ⁺ ,3 ⁺	2437.9		5269.6 7	1.7 5	(6309.6)	2 ⁺ ,3 ⁺	1039.9	(1,2 ⁺)
4217.0 20	2.1 8	(6309.6)	2 ⁺ ,3 ⁺	2092.6		5289.9 3	7.2 20	(6309.6)	2 ⁺ ,3 ⁺	1019.6	3 ⁻
4482.7 5	2.2 8	(6309.6)	2 ⁺ ,3 ⁺	1826.9 (4 ⁺)		5476.9 3	20 5	(6309.6)	2 ⁺ ,3 ⁺	832.6	3 ⁻
4564.3 13	1.1 5	(6309.6)	2 ⁺ ,3 ⁺	1745.3		6162.0 15	1.1 5	(6309.6)	2 ⁺ ,3 ⁺	147.5	4 ⁺
5157.0 3	4.7 10	(6309.6)	2 ⁺ ,3 ⁺	1152.5 (2 ⁻)		6264.4 35	1.2 5	(6309.6)	2 ⁺ ,3 ⁺	45.1	2 ⁺
5245.2 5	1.3 5	(6309.6)	2 ⁺ ,3 ⁺	1064.3 (4 ⁻)							

[†] From 1975WeZA. These data are also reported in 1972MaYS but without uncertainties. An empirical calibration uncertainty of about 1 keV is not included in the E_{γ} data given here (1975WeZA), but is included in the E(level) listing.

[‡] Photons per 1000 n captures.

For intensity per 100 neutron captures, multiply by 0.1.

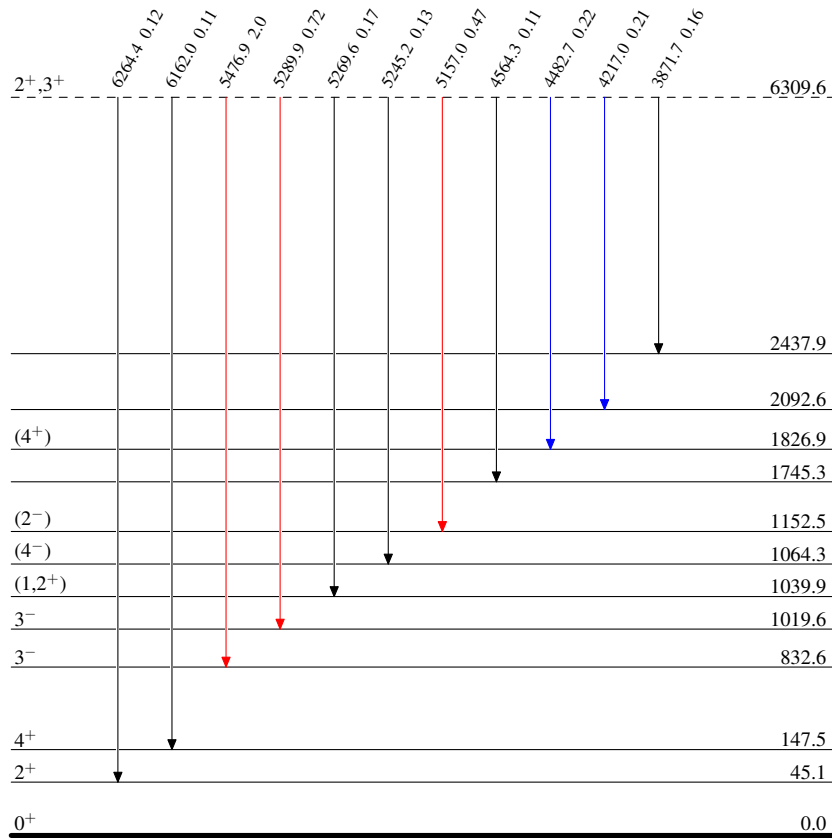
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Legend

Level Scheme

Intensities: Photon intensity per 100 n captures

- \longrightarrow $I_\gamma < 2\% \times I_\gamma^{\max}$
 \longrightarrow $I_\gamma < 10\% \times I_\gamma^{\max}$
 \longrightarrow $I_\gamma > 10\% \times I_\gamma^{\max}$

 $^{242}_{94}\text{Pu}_{148}$