

$^{235}\text{U}(\text{n},\text{F}\gamma), ^{239}\text{Pu}(\text{n},\text{F}\gamma)$ 1974Su04

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	S. K. Basu, G. Mukherjee, A. A. Sonzogni		NDS 111, 2555 (2010)	30-Jun-2009

Thermal neutrons. Measured γ 's and fragment- $\gamma(t)$; Ge(Li). Compared with ^{252}Cf SF decay data of 1970Jo20. The 204 γ and 352 γ were found to have similar half-lives and intensities indicating a cascade decay from 556 keV state. See ^{252}Cf SF decay dataset for a far more comprehensive high-spin data.

 ^{95}Sr Levels

E(level)	J^π [†]	$T_{1/2}$
0.0	1/2 ⁺	23.90 [‡] s 14
352.1 4	(3/2 ⁺)	
556.3 6	(7/2 ⁺)	22.2 [#] ns 8

[†] From the Adopted Levels.

[‡] From Adopted Levels.

[#] Weighted average of $T_{1/2}(352\gamma)=21.8$ ns 11 and 22.6 ns 12, obtained from fragment- $\gamma(t)$, in $^{235}\text{U}(\text{n},\text{F}\gamma)$ and $^{239}\text{Pu}(\text{n},\text{F}\gamma)$, respectively; fragment- $\gamma(t)$.

 $\gamma(^{95}\text{Sr})$

E_γ [†]	I_γ [‡]	$E_i(\text{level})$	J_i^π	E_f	J_f^π
204.2 4	0.0408 21	556.3	(7/2 ⁺)	352.1	(3/2 ⁺)
352.1 4	0.0326 66	352.1	(3/2 ⁺)	0.0	1/2 ⁺

[†] From $^{235}\text{U}(\text{n},\text{F}\gamma)$. 204.2 4 and 352.1 4 from $^{239}\text{Pu}(\text{n},\text{F}\gamma)$.

[‡] Photons per fission of ^{235}U . 0.0238 15 and 0.0181 20, respectively, from $^{239}\text{Pu}(\text{n},\text{F}\gamma)$; $\approx 15\%$ systematic uncertainty.

$^{235}\text{U}(\text{n},\text{F}\gamma)$, $^{239}\text{Pu}(\text{n},\text{F}\gamma)$ **1974Su04**Level SchemeIntensities: Relative I_γ

Legend

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

