

$^{235}\text{U}(\text{n},\text{F}\gamma)$ **2016Ur04**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	A. Negret and B. Singh		NDS 203,283 (2025)	20-Jan-2025

2016Ur04: E(n)=cold neutron beam from PF1B-ILL-Grenoble facility. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, level half-life by $\gamma\gamma(t)$ using the EXILL Ge detector array. Comparison with shell-model calculations.

 ^{86}Br Levels

E(level) [†]	$J^{\pi\ddagger}$	$T_{1/2}$	Comments
0.0	1 ⁻		J^{π} : from Table I of 2016Ur04 in β^- decay study.
4.40 5	2 ⁻		E(level): from Table I of 2016Ur04 in β^- decay study.
53.12 5	3 ⁻		
130.96 15	4 ⁻		
244.08 9	4 ⁻		
575.69 13	5 ⁻		
1625.48 15	7 ⁺	9.8 ns 5	$T_{1/2}$: from 2016Ur04 using $\gamma\gamma(t)$ distribution method as described by 2015Cz01 .
2688.7 3			
3242.7 3			

[†] From least-squares fit to $E\gamma$ data.

[‡] From **2016Ur04**, based on their β^- decay work.

 $\gamma(^{86}\text{Br})$

E_{γ}	I_{γ}	$E_i(\text{level})$	J_i^{π}	E_f	J_f^{π}	Mult.	Comments
48.70 5	100 5	53.12	3 ⁻	4.40	2 ⁻		
77.84 14	75 5	130.96	4 ⁻	53.12	3 ⁻		
190.94 6	80 5	244.08	4 ⁻	53.12	3 ⁻		
331.61 9	45 5	575.69	5 ⁻	244.08	4 ⁻		
444.78 15	12 3	575.69	5 ⁻	130.96	4 ⁻		
1049.83 8	25 5	1625.48	7 ⁺	575.69	5 ⁻	(M2) [†]	B(M2)(W.u.)=0.10 2 (2016Ur04)
1063.2 2	5 2	2688.7		1625.48	7 ⁺		
1494.45 15	6 2	1625.48	7 ⁺	130.96	4 ⁻	(E3) [†]	B(E3)(W.u.)=3.4 11 (2016Ur04)
1617.2 2	7 3	3242.7		1625.48	7 ⁺		

[†] **2016Ur04** state that the assignments are consistent with the deduced transition rates.

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Level Scheme

Intensities: Relative I_γ

Legend

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

