

$^{206}\text{Pb}(n,2n\gamma)$ 1982Wu02,2000Zh02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 166, 1 (2020)	20-Apr-2020

1982Wu02: E=14.2 MeV; Natural target; Measured $E\gamma$, $I\gamma$, $\sigma(E\gamma,\theta)$.

2000Zh02: E=14.9 MeV; Natural target; Measured $E\gamma$, $I\gamma$, $\sigma(E\gamma,\theta)$. $\sigma(J^\pi=13/2^+,1014\text{ keV})=1076\text{ mb } 38$.

Others: 1973Sa22.

 ^{205}Pb Levels

E(level) [†]	J^π [‡]	$T_{1/2}$	Comments
0	5/2 ⁻		
576	3/2 ⁻		
704	7/2 ⁻		
987.5	9/2 ⁻		
1013.8	13/2 ⁺	5.54 ms 10	$T_{1/2}$: From 284.5 γ (t), 702.8 γ (t), 986.0 γ (t) and 1014.3 γ (t) in 1973Sa22.
1043.7	7/2 ⁻		
1264	5/2 ⁻		
1499.2	9/2 ⁻		
1697.2	17/2 ⁺		
1704.7	(7/2,9/2) ⁻		
1758.5	9/2 ⁺		
1965.9	(7/2,9/2) ⁻		
2203.9	11/2 ⁺		

[†] From 2000Zh02 and 1982Wu02.

[‡] From Adopted Levels.

 $\gamma(^{205}\text{Pb})$

E_γ [†]	I_γ [†]	E_i (level)	J_i^π	E_f	J_f^π	Comments
683.6	3.06 13	1697.2	17/2 ⁺	1013.8	13/2 ⁺	I_γ : Probably overlaps with E_γ depopulating the 1264.7 keV level.
685 [‡]	4.1 [‡] 10	1264	5/2 ⁻	576	3/2 ⁻	I_γ : Probably overlaps with E_γ depopulating the 1697.2 keV level.
703.4	6.07 [#] 25	704	7/2 ⁻	0	5/2 ⁻	I_γ : Probably overlaps with E_γ depopulating the 2203.9 keV level.
703.4	6.07 [#] 25	2203.9	11/2 ⁺	1499.2	9/2 ⁻	I_γ : Probably overlaps with E_γ depopulating the 703.4 keV level.
744.9	1.06 22	1758.5	9/2 ⁺	1013.8	13/2 ⁺	
921.9	0.77 22	1965.9	(7/2,9/2) ⁻	1043.7	7/2 ⁻	
987.3	5.37 19	987.5	9/2 ⁻	0	5/2 ⁻	
1044.0	3.06 13	1043.7	7/2 ⁻	0	5/2 ⁻	
1704.7	0.77 26	1704.7	(7/2,9/2) ⁻	0	5/2 ⁻	
^x 1751.3	1.16 24					E_γ : Assigned in 2000Zh02 to depopulate 2795-keV level to 1443.7-keV level. However, no such final level in the Adopted Levels.

[†] From 2000Zh02, unless otherwise stated. I_γ is the elemental σ in mb/sr at 55°.

[‡] From 1982Wu02.

[#] Doublet. Intensity not divided.

^x γ ray not placed in level scheme.

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Level Scheme

Intensities: Type not specified

Legend

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

