

$^{209}\text{Bi}(\pi^-, 2n\gamma)$ [1978Be24](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev, S. Lalkovski		NDS 112, 707 (2011)	1-Aug-2010

[1978Be24](#): Facility: CERN; Beam $E(\pi^-) = 125$ MeV; Target: 1.22 g/cm²; Detectors: four scintillation detectors, Cerenkov counter, two Ge(Li), NaI(Tl) anti-Compton shields; Measured: E_γ , pionic X-rays.

 ^{207}Pb Levels

$E(\text{level})^\dagger$	$J^\pi^\ddagger$	Comments
0.0	$1/2^-$	
569.7 5	$5/2^-$	
897.3 5	$3/2^-$	
1633.3 7	$13/2^+$	
2339.4 7	$7/2^-$	E(level): 1978Be24 suggests that additional 1434 keV transition deexcites this level. However, E_γ is inconsistent with such a placement.

[†] From a least-squares fit to E_γ .

[‡] From the Adopted Levels.

 $\gamma(^{207}\text{Pb})$

$E_\gamma^\dagger$	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Comments
569.7 5	0.030 5	569.7	$5/2^-$	0.0	$1/2^-$	
897.3 5	0.009 1	897.3	$3/2^-$	0.0	$1/2^-$	I_γ : interference from ^{203}Pb .
1063.6 5	0.036 5	1633.3	$13/2^+$	569.7	$5/2^-$	I_γ : interference from ^{198}Pb .
1769.7 5	0.004 1	2339.4	$7/2^-$	569.7	$5/2^-$	

[†] From [1978Be24](#), but ΔE_γ were estimated by the evaluators.

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Level Scheme

Intensities: Type not specified

Legend

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

