

$^{209}\text{Bi}(\alpha, p\gamma)$ 1978Li14

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	K. Auranen and E. A. Mccutchan		NDS 168, 117 (2020)	1-Aug-2020

$E(\alpha)=45\text{-}90$ MeV. Measured $E\gamma$, $I\gamma$ using a Ge(Li) detector and $\alpha\text{-}\gamma$, $\alpha\gamma(t)$ using a Si-surface barrier detector.

 ^{212}Po Levels

<u>E(level)[†]</u>	<u>J^π[‡]</u>	<u>T_{1/2}</u>	<u>Comments</u>
0.0	0 ⁺		
727.7	2 ⁺		
1132.9	4 ⁺		
1355.8	6 ⁺		
1423 30	8 ⁺	14.2 ns 24	E(level): from $\Delta Q(\alpha)$ of 10.18-MeV α decaying with T _{1/2} =14.2 ns. Subsequent measurements show E(14.6 ns level)=1476.4 keV (see ^{212}Po Adopted Levels). T _{1/2} : from (10.18 MeV α)(t).

[†] From $E\gamma$, except where noted.

[‡] From the Adopted Levels.

 $\gamma(^{212}\text{Po})$

<u>E_γ</u>	<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>
^x 120.6 [†]				
222.9	1355.8	6 ⁺	1132.9	4 ⁺
^x 357.7 [†]				
405.2	1132.9	4 ⁺	727.7	2 ⁺
^x 578.0 [†]				
727.7	727.7	2 ⁺	0.0	0 ⁺

[†] Observed in delayed coincidence with the 10.18-MeV α from the 14.2-ns level.

^x γ ray not placed in level scheme.

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Level Scheme

