

$^{210}\text{Pb}(\alpha, 2n\gamma)$ 1985Su09

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

$E(\alpha)=30$ MeV. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$, $\gamma(t)$, $\gamma(\theta)$ using Ge(Li) detectors.

 ^{212}Po Levels

<u>$E(\text{level})^\dagger$</u>	<u>J^π^\ddagger</u>	<u>$E(\text{level})^\dagger$</u>	<u>J^π^\ddagger</u>	<u>$E(\text{level})^\dagger$</u>	<u>J^π^\ddagger</u>	<u>$E(\text{level})^\dagger$</u>	<u>J^π^\ddagger</u>
0.0	0 ⁺	1354.7 9	6 ⁺	1832.9 11	10 ⁺	2769.7 13	(13 ⁻)
727.2 5	2 ⁺	1475.7 10	8 ⁺	2409.4 12	(11 ⁻)	2883.9 14	(14 ⁺)
1131.9 7	4 ⁺	1752.1 11	(8 ⁻)	2701.2 12	(12 ⁺)		

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

[‡] From the Adopted Levels.

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

<u>E_γ^\dagger</u>	<u>I_γ^\ddagger</u>	<u>$E_i(\text{level})$</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>	<u>E_γ^\dagger</u>	<u>I_γ^\ddagger</u>	<u>$E_i(\text{level})$</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>
114.2 5	4 [#] 2	2883.9	(14 ⁺)	2769.7	(13 ⁻)	404.7 5	60 4	1131.9	4 ⁺	727.2	2 ⁺
121.0 5	16 [#] 3	1475.7	8 ⁺	1354.7	6 ⁺	^x 432					
222.8 5	69 5	1354.7	6 ⁺	1131.9	4 ⁺	576.5 5	15 [#] 3	2409.4	(11 ⁻)	1832.9	10 ⁺
276.4 5	5 [#] 1	1752.1	(8 ⁻)	1475.7	8 ⁺	727.2 5	100 6	727.2	2 ⁺	0.0	0 ⁺
357.2 5	32 2	1832.9	10 ⁺	1475.7	8 ⁺	^x 846					
360.3 5	5 [#] 1	2769.7	(13 ⁻)	2409.4	(11 ⁻)	868.3 5	13 [#] 3	2701.2	(12 ⁺)	1832.9	10 ⁺

[†] Uncertainties are from a general statement by 1985Su09 that accuracies are within 0.5 keV.

[‡] Relative γ intensities, normalized to $I\gamma(727.2\gamma)=100$.

[#] Deduced from the coincidence spectra gated on the 223, 405, and 727 γ rays.

^x γ ray not placed in level scheme.

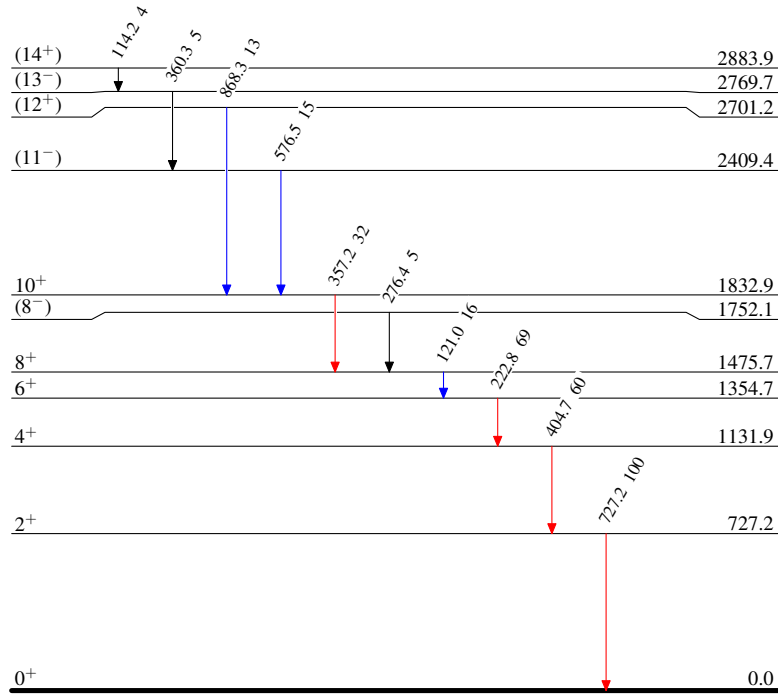
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Level Scheme

Intensities: Relative I_γ

Legend

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

 $^{212}_{84}\text{Po}_{128}$