

$^{204}\text{Pb}(\alpha, \text{d})$ 1977Da05

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 201,346 (2025)	21-Jan-2025

$E\alpha=48$ MeV; Target: ^{204}Pb , 100-300 $\mu\text{g}/\text{cm}^2$ thick and enriched $\geq 99\%$; Detectors: high-resolution spectrograph, position sensitive proportional counter; FWHM=25 keV; Measured: $d(\theta)$ in the $4^\circ-40^\circ$ range with a step of 5° .

 ^{206}Bi Levels

E(level) [‡]	J π [‡]	L [‡]	Comments
0.0			
83.0 2			
140.0 3			
164.0 3			
1067 2			
2542 5	9 ⁻	9	Configuration= $\pi(\text{h}_{9/2}^{+1})\otimes\nu(\text{g}_{9/2}^{+1})$.
2838 6			
2860 [†] 6	10 ⁻	11	Configuration= $\pi(\text{h}_{9/2}^{+1})\otimes\nu(\text{i}_{11/2}^{+1})$.
3170 6	8 ⁻	7	Configuration= $\pi(\text{f}_{7/2}^{+1})\otimes\nu(\text{g}_{9/2}^{+1})$.
3568 7	11 ⁺	10	Configuration= $\pi(\text{i}_{13/2}^{+1})\otimes\nu(\text{g}_{9/2}^{+1})$.
3632 7	(12 ⁺)	(12)	Configuration= $\pi(\text{h}_{9/2}^{+1})\otimes\nu(\text{j}_{15/2}^{+1})$.
4023 [†] 8			
4076 8			
4843 10	(14 ⁻)	(13)	Configuration= $\pi(\text{i}_{13/2}^{+1})\otimes\nu(\text{j}_{15/2}^{+1})$.
5110? 10			

[†] Unresolved doublet.

[‡] From 1977Da05.