



1 Decay Scheme

Po-213 disintegrates 100% by alpha emissions to levels in Pb-209.
Le polonium 213 se désintègre principalement par émissions α vers le niveau fondamental du plomb 209.

2 Nuclear Data

$T_{1/2}({}^{213}\text{Po})$: 3,70 (5) 10^{-6} s
 $T_{1/2}({}^{209}\text{Pb})$: 3,277 (15) h
 $Q^\alpha({}^{213}\text{Po})$: 8536,1 (26) keV

2.1 α Transitions

| | Energy keV | Probability × 100 | F |
|----------------|---------------|----------------------|-------|
| $\alpha_{0,1}$ | 7760 (10) | 0,0050 (5) | 185 |
| $\alpha_{0,0}$ | 8536,2 (25) | 99,9950 (5) | 1,238 |

2.2 Gamma Transitions and Internal Conversion Coefficients

| | Energy keV | $P_{\gamma+ce}$ × 100 | Multipolarity | α_K | α_L | α_M | α_T |
|---------------------------|---------------|--------------------------|---------------|------------|-------------|---------------|------------|
| $\gamma_{1,0}(\text{Pb})$ | 778,8 (3) | 0,0050 (5) | M1 | 0,0278 (4) | 0,00462 (7) | 0,001079 (16) | 0,0339 (5) |

3 α Emissions

| | Energy keV | Probability $\times 100$ |
|----------------|---------------|-----------------------------|
| $\alpha_{0,1}$ | 7614 (10) | 0,0050 (5) |
| $\alpha_{0,0}$ | 8375,9 (25) | 99,9950 (5) |

4 Photon Emissions

4.1 Gamma Emissions

| | Energy keV | Photons per 100 disint. |
|---------------------------|---------------|----------------------------|
| $\gamma_{1,0}(\text{Pb})$ | 778,8 (3) | 0,0048 (5) |

5 Main Production Modes

Daughter of Bi – 213

Descendant of Ac – 225

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