



JYVÄSKYLÄN YLIOPISTO
UNIVERSITY OF JYVÄSKYLÄ

Mass 226

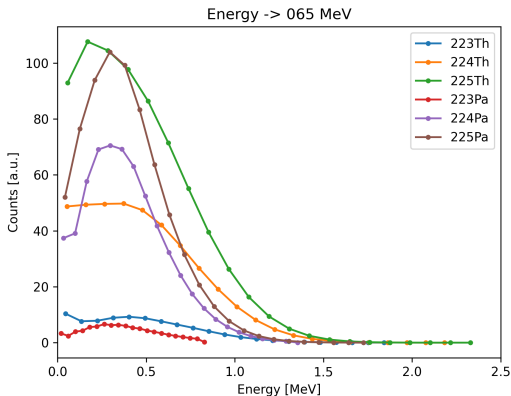


Production rates ^{224}Th and ^{224}Pa

$^{224}\text{Th} \rightarrow 42.4 \text{ mbar} \rightarrow (79\% \text{ main } \alpha \text{ branch}) 33.50 \text{ mbar}$

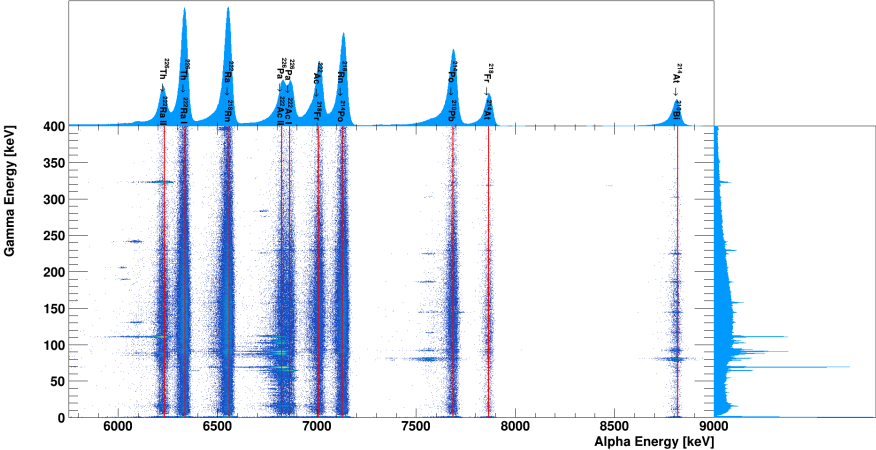
$^{224}\text{Pa} \rightarrow 40.5 \text{ mbar} \rightarrow (70\% \text{ main } \alpha \text{ branch}) 28.35 \text{ mbar}$

Expected Ratio $^{224}\text{Th}/^{224}\text{Pa} \rightarrow \sim 1.2$ Measured $\rightarrow \sim 3.7$





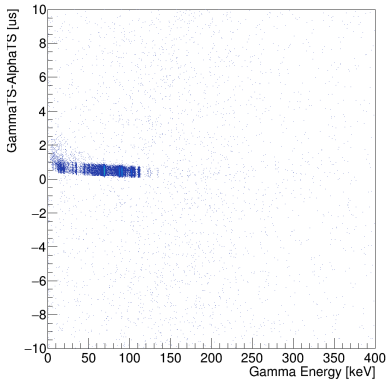
Mass 226



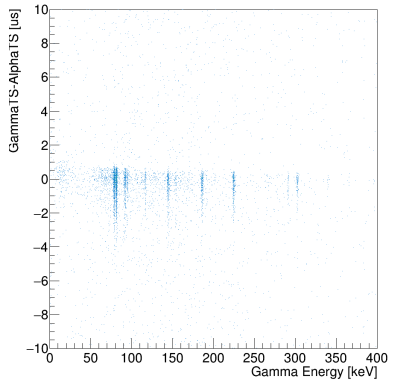


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$^{226}\text{Pa} \rightarrow ^{222}\text{Ac II}$

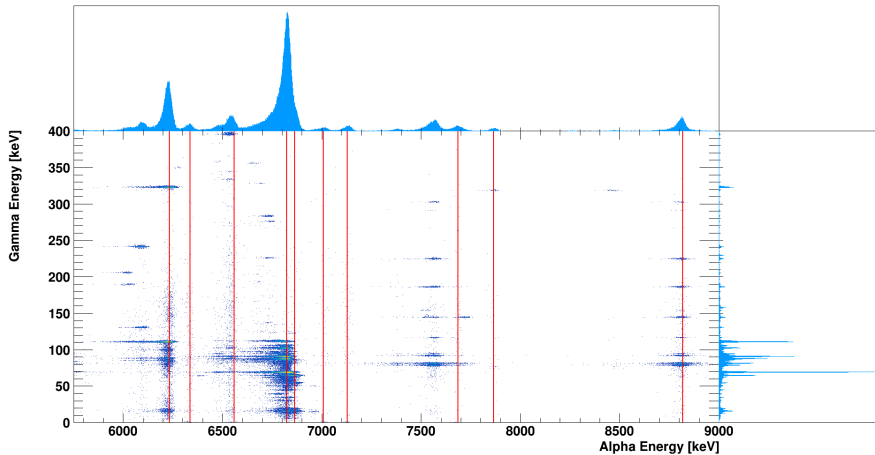


$^{214}\text{At} \rightarrow ^{210}\text{Bi}$



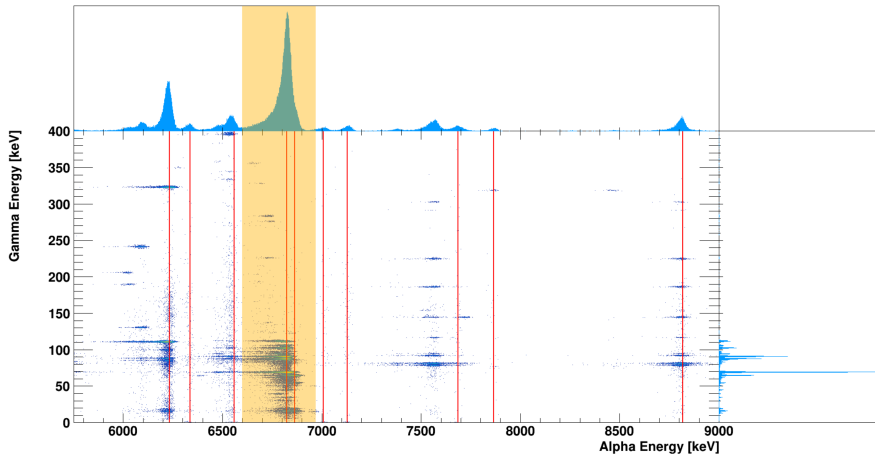


Mass 226



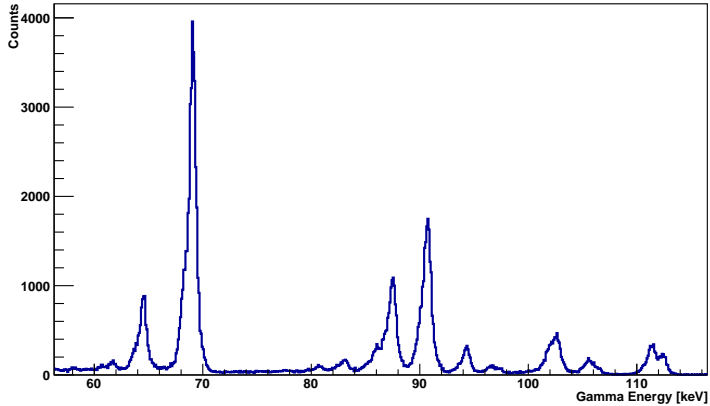


Mass 226



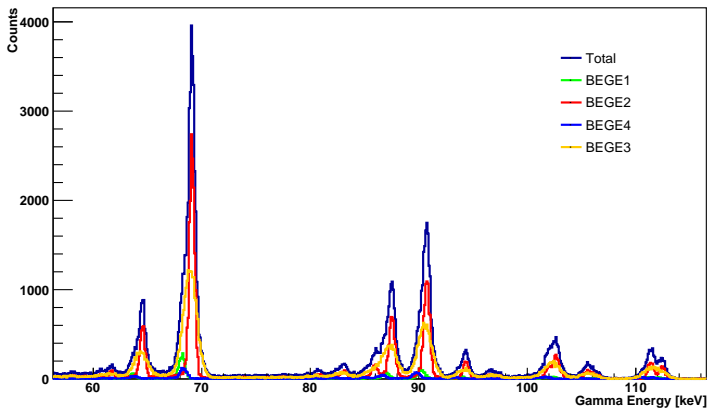


^{226}Pa Gamma spectrum



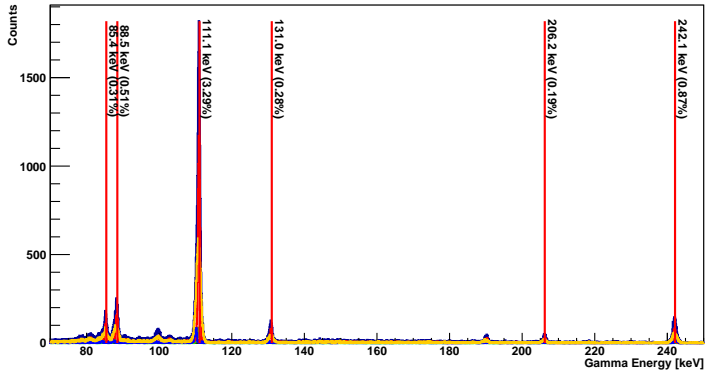


^{226}Pa Gamma spectrum





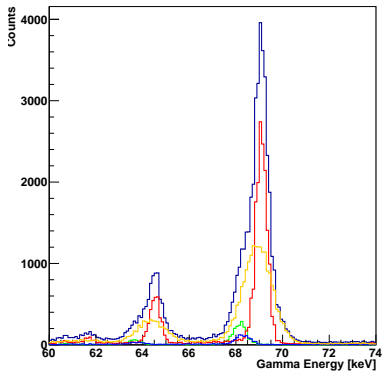
^{226}Th Gamma spectrum



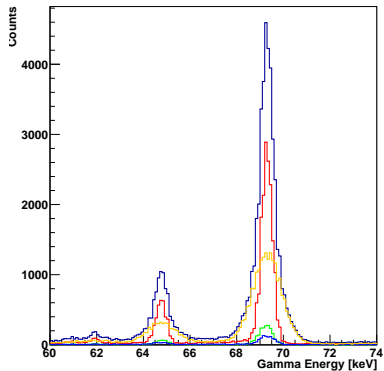


^{226}Pa Gamma spectrum

Before

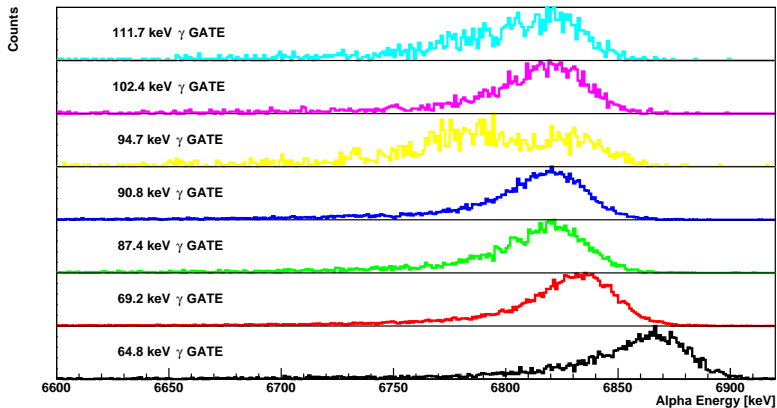


After





^{226}Pa $\alpha\gamma$ coincidence





^{226}Th electrons?

