

# MUST2 DSSD Energy Calibration Report

## 1 Calibration Summary

**Experiment :** MUGAST *LISE23LaurieandHugo*

**Operator App. Date :** 24/05/23

**Source :** 3 alpha peaks  $^{239}\text{Pu}$ ,  $^{241}\text{Am}$ ,  $^{244}\text{Cm}$

**Dead Layer :** Al  $0.3\mu\text{m}$  + Si  $0\mu\text{m}$

**Comment :** MUST2

**Calibration Method :** ZeroExtrapolation

**Telescope Treated :** 4

**Strip Treated :** 1 to 128

**DSSD Side :** X

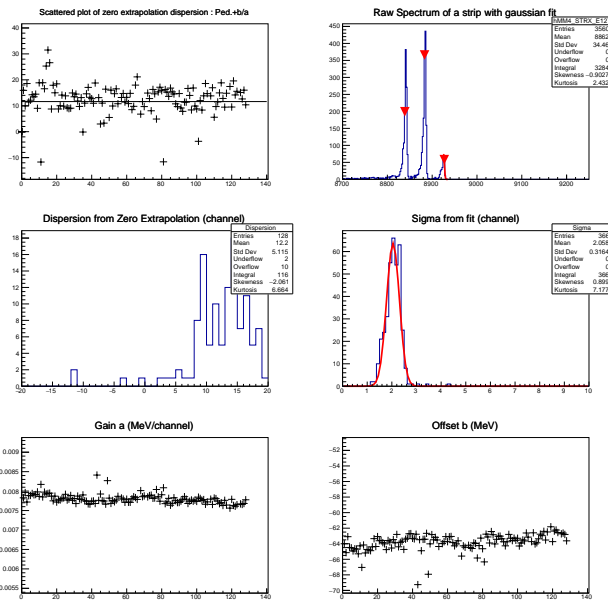
### Source Description :

Isotope	Original Energy (MeV)	Branching Ratio
$^{239}\text{Pu}$	5.15659	70.77
$^{239}\text{Pu}$	5.14438	17.11
$^{239}\text{Pu}$	5.1055	11.94
$^{241}\text{Am}$	5.48556	84.8
$^{241}\text{Am}$	5.4428	13.1
$^{241}\text{Am}$	5.388	1.66
$^{244}\text{Cm}$	5.80477	76.4
$^{244}\text{Cm}$	5.76264	23.6

## 2 Telescope 4

Bad Strip :

Strip Number	Problem
15	zero extrapolation too high :31.4869channels;
43	zero extrapolation too high :-40.646channels;
56	2 peak(s) found; zero extrapolation too high :8203.4channels;
67	2 peak(s) found; zero extrapolation too high :8203.4channels;
71	2 peak(s) found; zero extrapolation too high :8203.4channels;
107	2 peak(s) found; zero extrapolation too high :8203.4channels;
118	2 peak(s) found; zero extrapolation too high :8203.4channels;
124	2 peak(s) found; zero extrapolation too high :8203.4channels;



Sigma fit centroid : 2.04706  
Sigma fit sigma : 0.261771