

# 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 :** 1

**Strip Treated :** 1 to 128

**DSSD Side :** Y

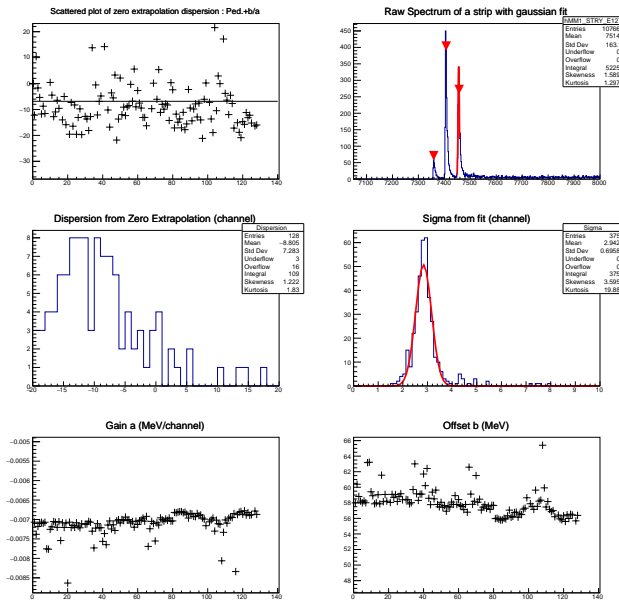
### Source Description :

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 1

Bad Strip :

Strip Number	Problem
8	zero extrapolation too high :45.9981channels ;
9	zero extrapolation too high :48.795channels ;
16	zero extrapolation too high :30.3513channels ;
20	zero extrapolation too high :110.162channels ;
29	0 peak(s) found ; zero extrapolation too high :8181.16channels ;
35	zero extrapolation too high :42.6453channels ;
40	zero extrapolation too high :32.9979channels ;
42	zero extrapolation too high :31.0117channels ;
66	zero extrapolation too high :56.0012channels ;
70	zero extrapolation too high :48.2039channels ;
100	0 peak(s) found ; zero extrapolation too high :8181.16channels ;
108	zero extrapolation too high :79.6196channels ;
116	zero extrapolation too high :118.238channels ;
126	0 peak(s) found ; zero extrapolation too high :8181.16channels ;



Sigma fit centroid : 2.84118  
Sigma fit sigma : 0.32511