

# MUST2 DSSD Energy Calibration Report

## 1 Calibration Summary

**Experiment :** MUGAST@LISE23  
**Operator :** Valerian and Hugo  
**App. Date :** 16/02/23  
**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 :** 3  
**Strip Treated :** 1 to 128  
**DSSD Side :** X

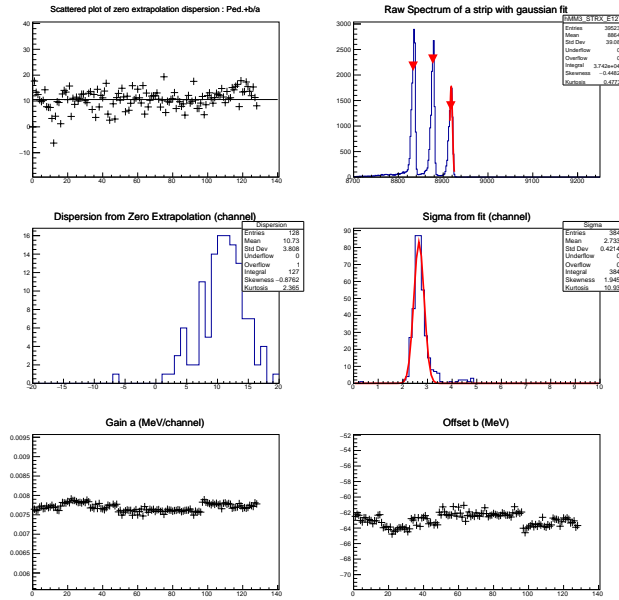
### Source Description :

| 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 3

Bad Strip :

| Strip Number | Problem                                       |
|--------------|---|
| 45           | zero extrapolation too high :548.916channels; |



Sigma fit centroid : 2.65462  
Sigma fit sigma : 0.208259