# Mugast DSSD Energy Calibration Report

## 1 Calibration Summary

**Experiment :** MUGAST_LISE23
**Operator :** test
**App. Date :** 09/02/24
**Source :** 3 alpha peaks $^{239}$Pu, $^{241}$Am, $^{244}$Cm
**Dead Layer :** Al 0.3$\mu$m + Si 0$\mu$m
**Comment :** Mugast

**Calibration Method :** ZeroExtrapolation
**Telescope Treated :** 5
**Strip Treated :** 1 to 128
**DSSD Side :** X

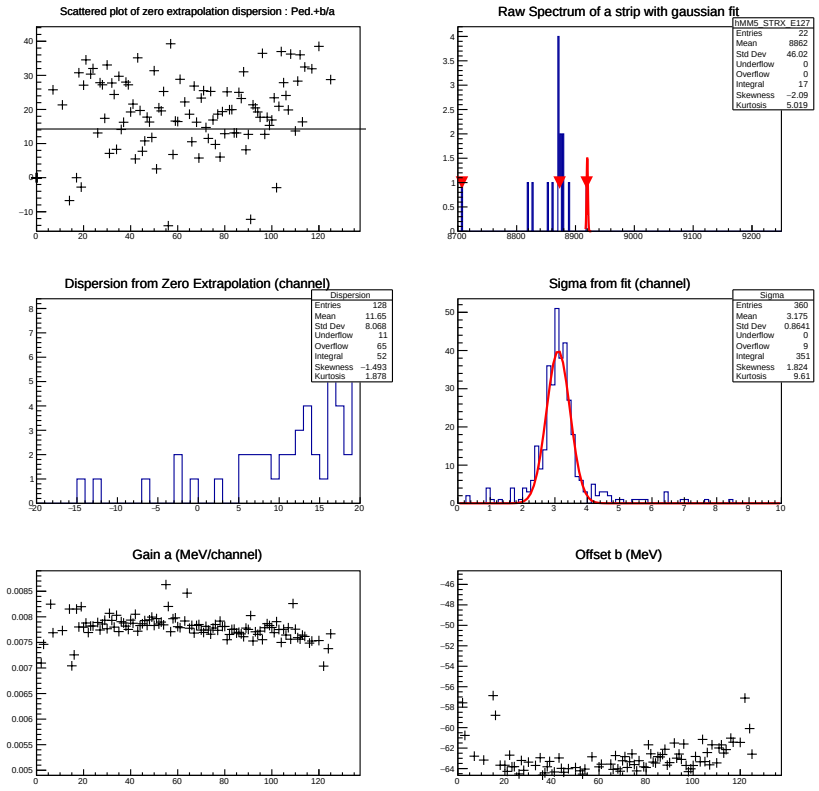
**Source Description :**

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

## 2 Telescope 5

Bad Strip :

| Strip Number | Problem |
|---|---|
| 1 | zero extrapolation too high :-370.05channels ; |
| 2 | zero extrapolation too high :78.1288channels ; |
| 3 | zero extrapolation too high :49.3862channels ; |
| 4 | zero extrapolation too high :-63.0843channels ; |
| 5 | zero extrapolation too high :-102.354channels ; |
| 8 | zero extrapolation too high :-71.5282channels ; |
| 9 | 0 peak(s) found ; zero extrapolation too high :8203.4channels ; |
| 10 | 0 peak(s) found ; zero extrapolation too high :8203.4channels ; |
| 12 | 0 peak(s) found ; zero extrapolation too high :8203.4channels ; |
| 13 | 0 peak(s) found ; zero extrapolation too high :8203.4channels ; |
| 15 | zero extrapolation too high :116.189channels ; |
| 16 | zero extrapolation too high :89.0112channels ; |
| 18 | zero extrapolation too high :30.7649channels ; |
| 21 | zero extrapolation too high :34.5466channels ; |
| 22 | zero extrapolation too high :42.9763channels ; |
| 23 | zero extrapolation too high :30.3691channels ; |
| 24 | zero extrapolation too high :32.0163channels ; |
| 25 | zero extrapolation too high :-98.4472channels ; |
| 30 | zero extrapolation too high :33.0459channels ; |
| 43 | zero extrapolation too high :35.1432channels ; |
| 50 | zero extrapolation too high :31.3659channels ; |
| 55 | zero extrapolation too high :-42.098channels ; |
| 57 | zero extrapolation too high :39.263channels ; |
| 62 | 2 peak(s) found ; zero extrapolation too high :8203.4channels ; |
| 88 | zero extrapolation too high :31.0443channels ; |
| 96 | zero extrapolation too high :36.459channels ; |
| 104 | zero extrapolation too high :36.9861channels ; |
| 108 | zero extrapolation too high :36.2459channels ; |
| 112 | zero extrapolation too high :36.0279channels ; |
| 114 | zero extrapolation too high :32.4558channels ; |
| 115 | zero extrapolation too high :-71.0787channels ; |
| 116 | zero extrapolation too high :40.147channels ; |
| 117 | zero extrapolation too high :31.9332channels ; |
| 118 | 2 peak(s) found ; zero extrapolation too high :8203.4channels ; |
| 119 | zero extrapolation too high :-189.648channels ; |
| 120 | zero extrapolation too high :38.5017channels ; |
| 121 | 2 peak(s) found ; zero extrapolation too high :8203.4channels ; |
| 122 | zero extrapolation too high :75.6035channels ; |
| 123 | zero extrapolation too high :700.138channels ; |
| 124 | zero extrapolation too high :47.3656channels ; |
| 126 | zero extrapolation too high :788.248channels ; |
| 127 | zero extrapolation too high :1196.05channels ; |
| 128 | 1 peak(s) found ; zero extrapolation too high :8203.4channels ; |




Sigma fit centroid : 3.10388

Sigma fit sigma : 0.363395