

Mugast DSSD Energy Calibration Report

1 Calibration Summary

Experiment : MUGAST_{LISE23}LaurieandHugo

Operator App. Date : 24/05/23

Source : 3 alpha peaks ²³⁹Pu, ²⁴¹Am, ²⁴⁴Cm

Dead Layer : Al 0.3 μ m + Si 0 μ m

Comment : Mugast

Calibration Method : ZeroExtrapolation

Telescope Treated : 5

Strip Treated : 1 to 128

DSSD Side : X

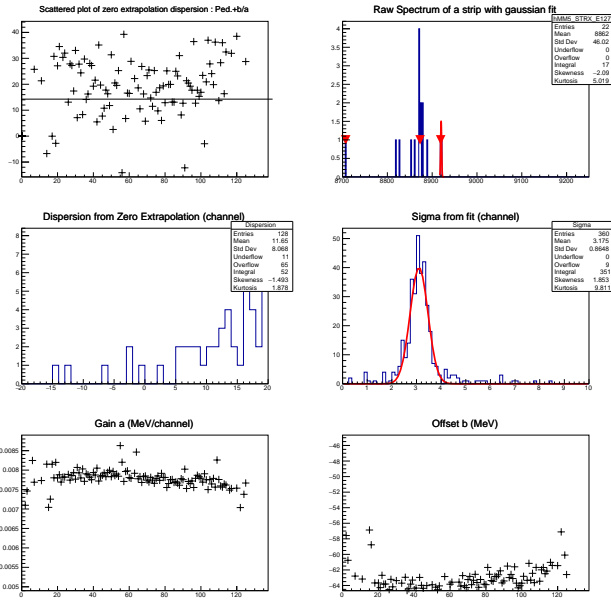
Source Description :

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 :-103.74channels ;
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 :89.3072channels ;
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 :-98.5421channels ;
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 :-70.8774channels ;
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 :-191.62channels ;
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 :808.016channels ;
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