

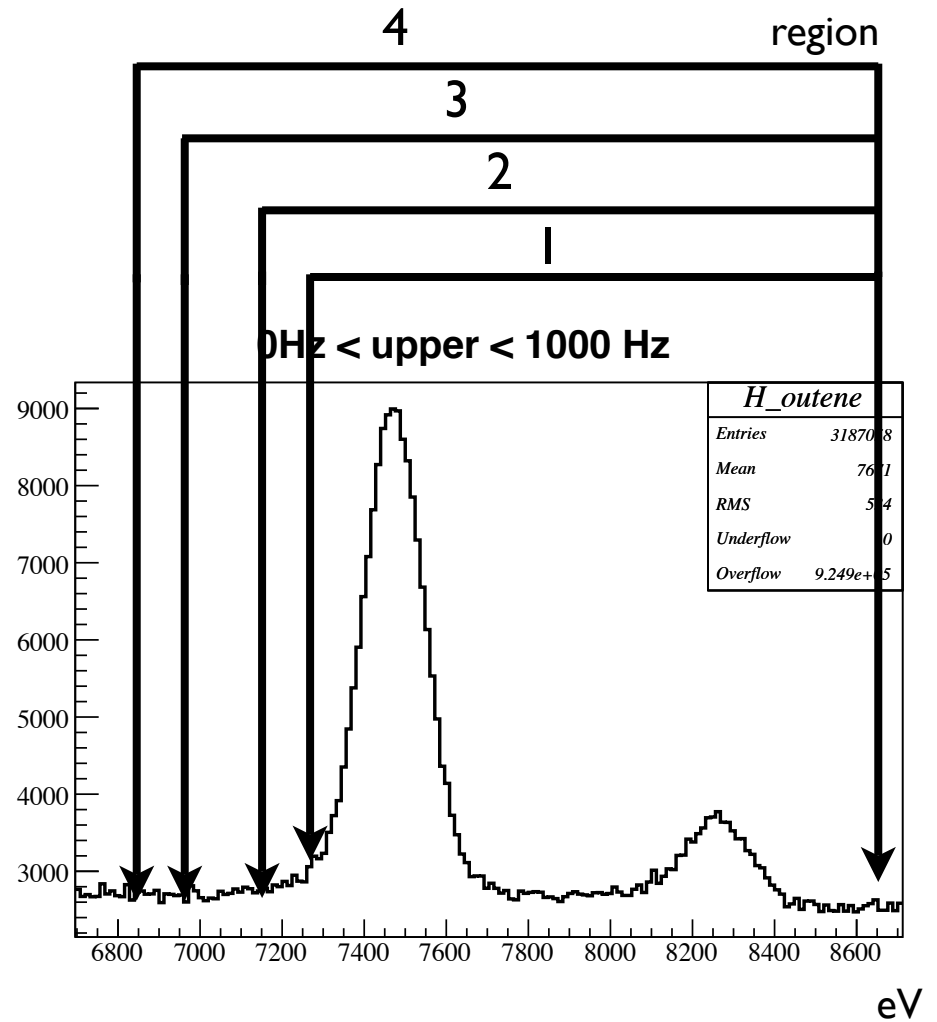
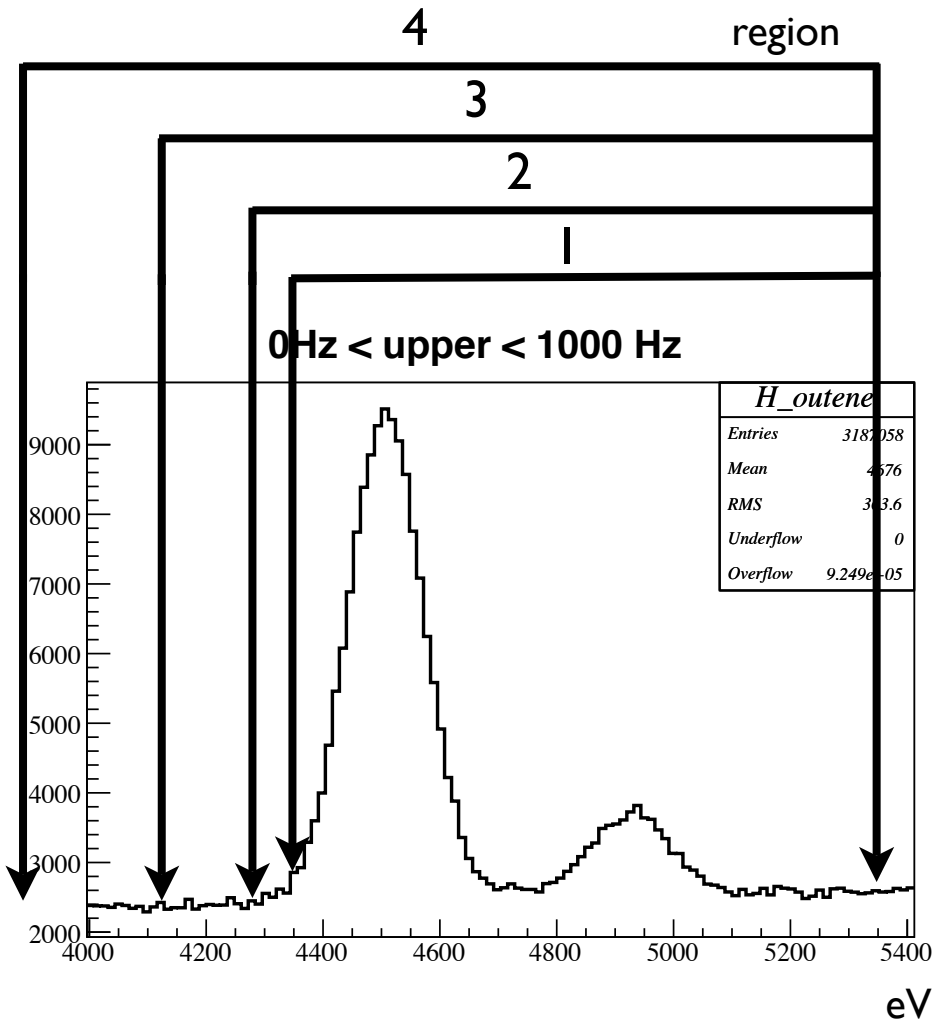
fit region study

—mean movement due to the lower side tail—

Ti

sdd1

Ni



data set

- cut the old data set by upper rate to reduce the excess between K_a and K_b
- gain correction parameters are calculated from upper rate < 1 kHz data set.
- all 2nd cycle runs, self trigger, sdd1

fit

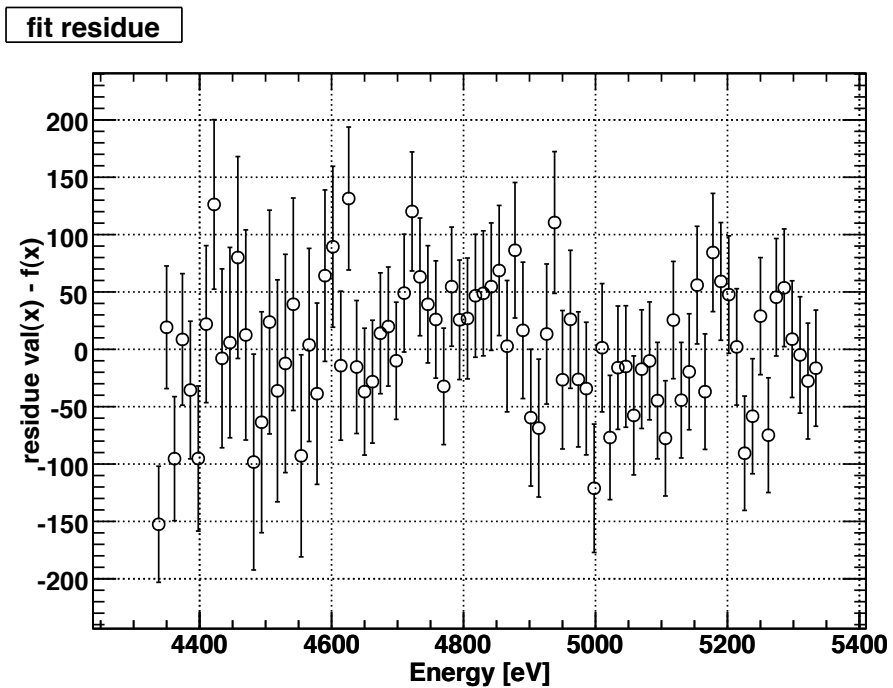
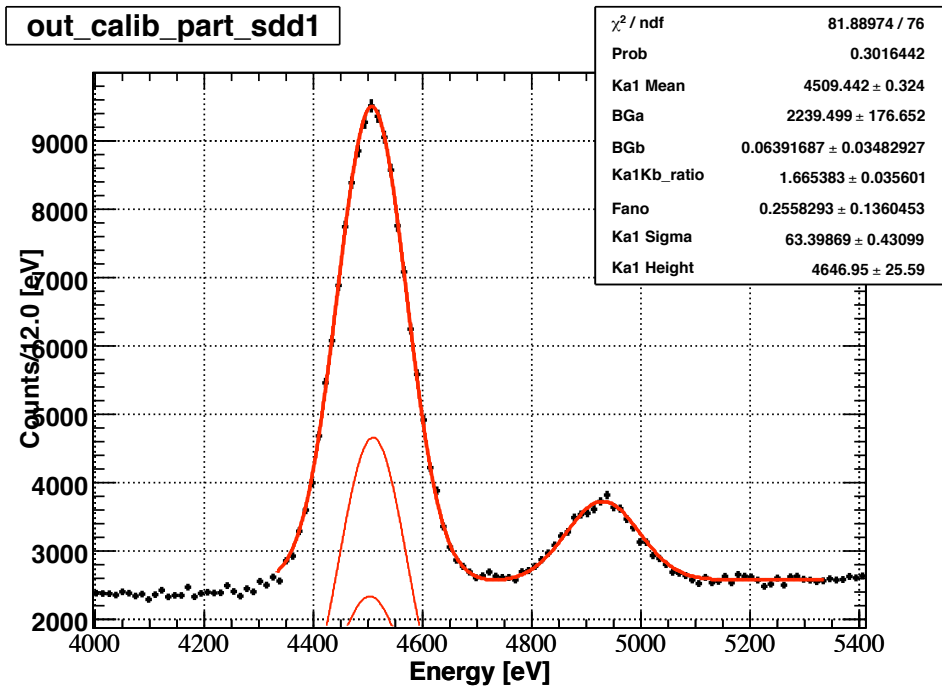
- local fit by simple 3 gaussians and background

	1	2	3	4	
χ^2/ndf	1.08	1.10	1.20	1.11	
mean	4509.4 \pm 0.3	4509.3 \pm 0.3	4509.2 \pm 0.3	4509.2 \pm 0.3	Ti
sigma	63.4 \pm 0.4	63.8 \pm 0.4	64.4 \pm 0.3	64.5 \pm 0.3	
χ^2/ndf	1.14	1.18	1.35	1.34	
mean	7477.6 \pm 0.4	7477.4 \pm 0.4	7476.9 \pm 0.4	7476.9 \pm 0.4	Ni
sigma	72.6 \pm 0.6	73.2 \pm 0.5	74.0 \pm 0.4	73.9 \pm 0.4	

Ti mean doesn't move.

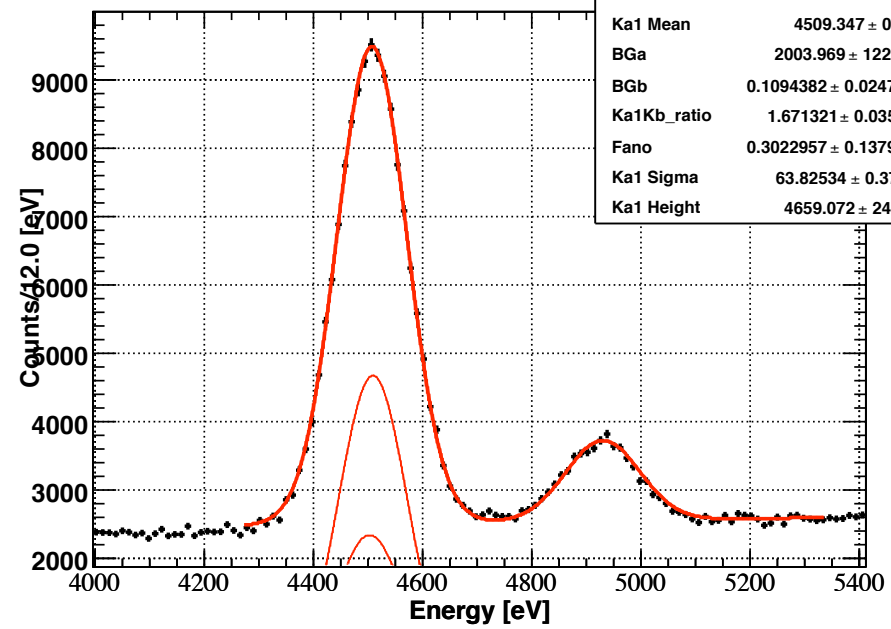
from this region, Ni values are jumping because of the lower side tail.

Ni lower side tail can pull the mean $\sim 0.7 \pm 0.6$ eV

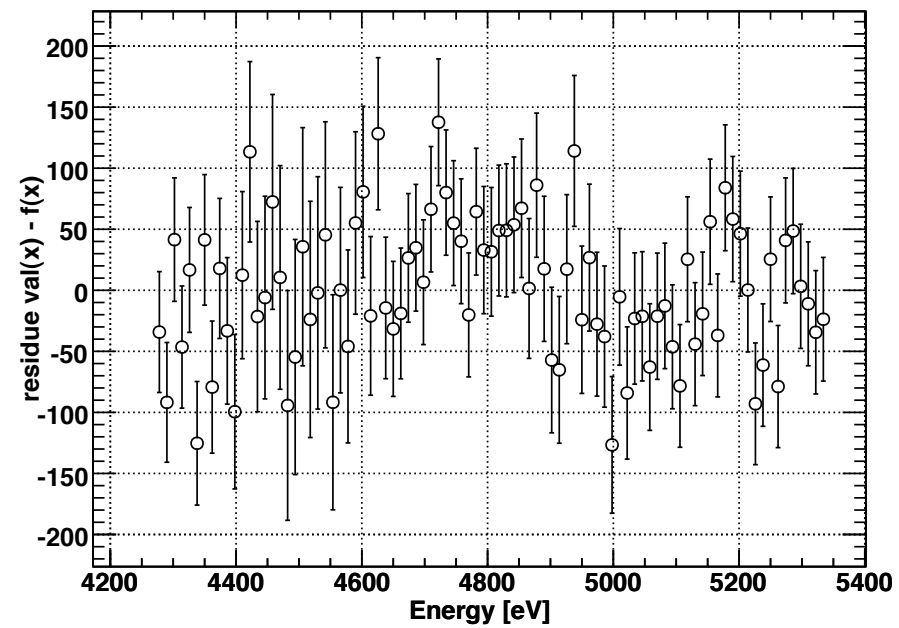


sorry the range of the residue plot is not same as the top figure.

out_calib_part_sdd1

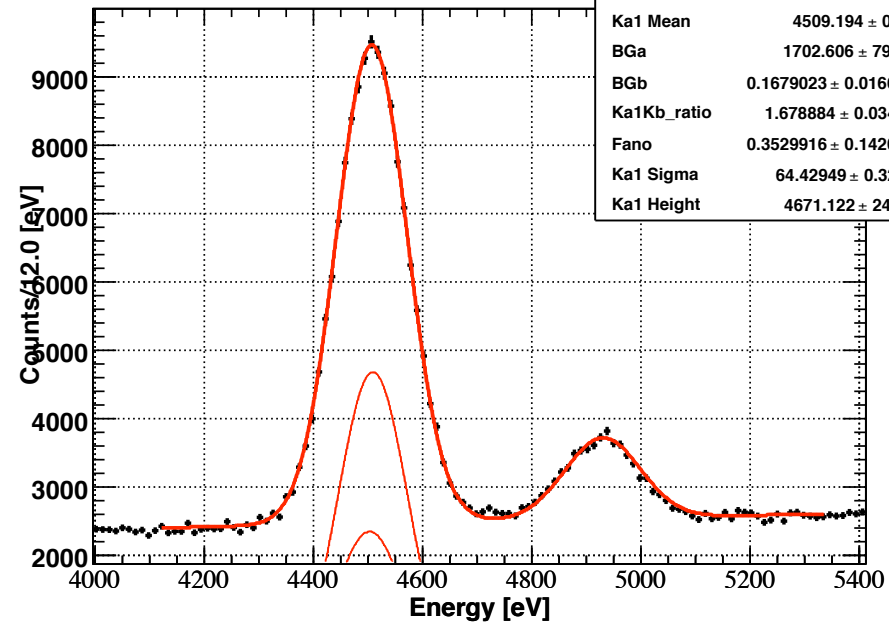


fit residue

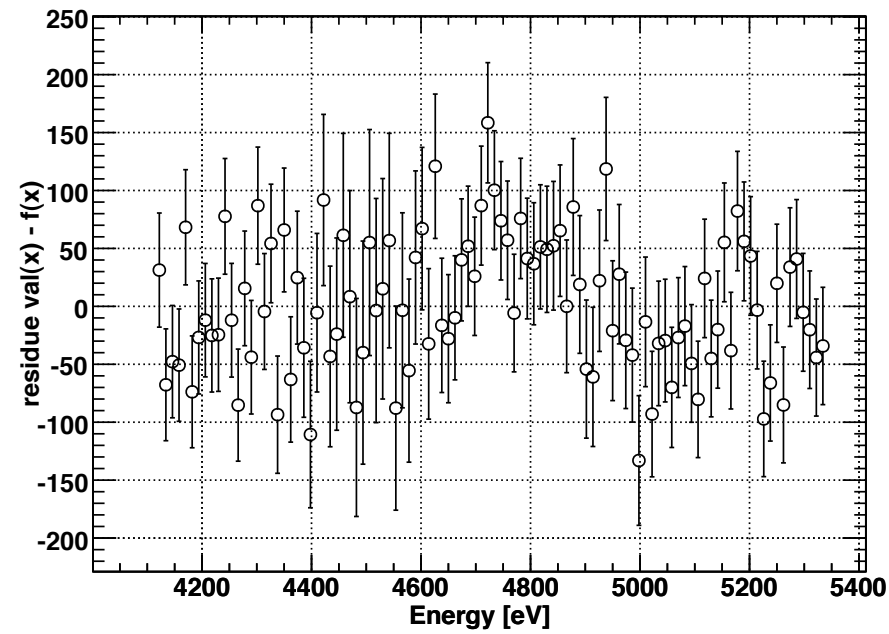


out_calib_part_sdd1

χ^2 / ndf	111.1552 / 93
Prob	0.0965548
Ka1 Mean	4509.194 \pm 0.316
BGa	1702.606 \pm 79.009
BGb	0.1679023 \pm 0.0166552
Ka1Kb_ratio	1.678884 \pm 0.034884
Fano	0.3529916 \pm 0.1420480
Ka1 Sigma	64.42949 \pm 0.32587
Ka1 Height	4671.122 \pm 24.176

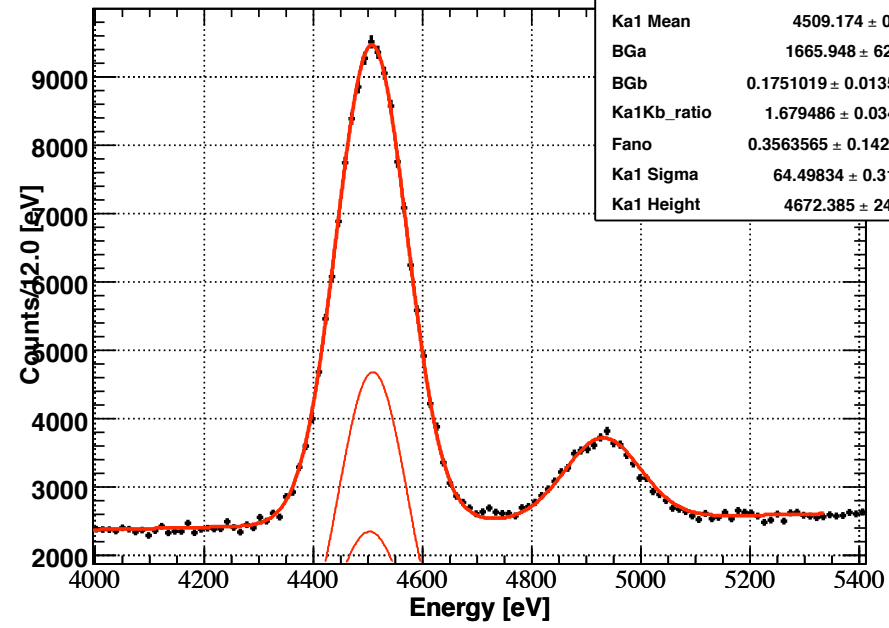


fit residue

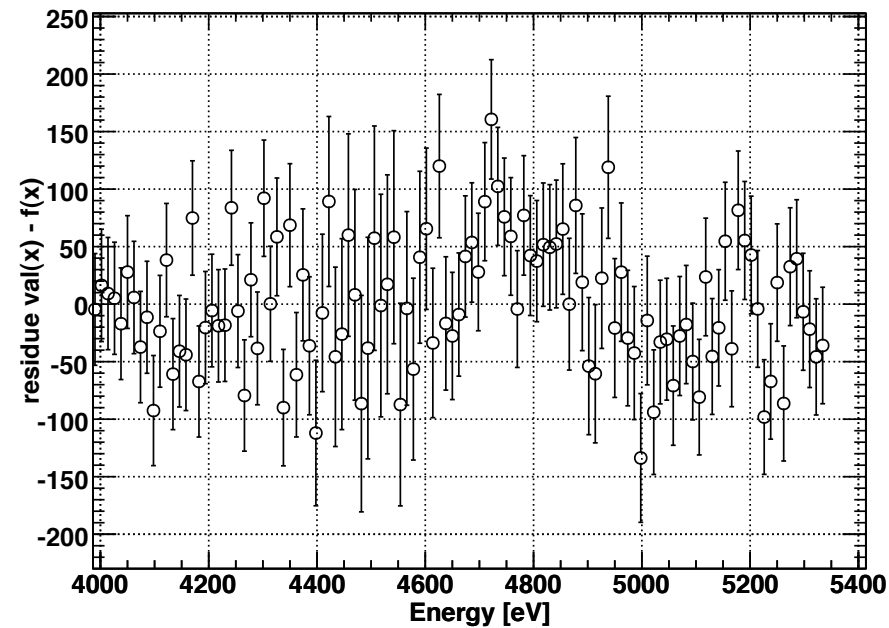


out_calib_part_sdd1

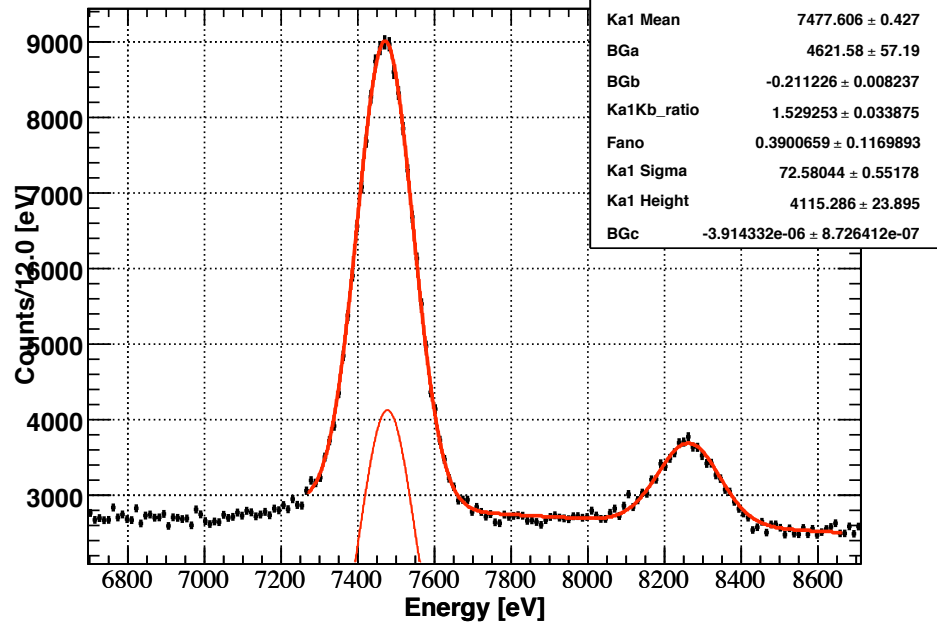
χ^2 / ndf	117.3454 / 106
Prob	0.2123084
Ka1 Mean	4509.174 \pm 0.315
BGa	1665.948 \pm 62.052
BGb	0.1751019 \pm 0.0135698
Ka1Kb_ratio	1.679486 \pm 0.034853
Fano	0.3563565 \pm 0.1424501
Ka1 Sigma	64.49834 \pm 0.31414
Ka1 Height	4672.385 \pm 24.114



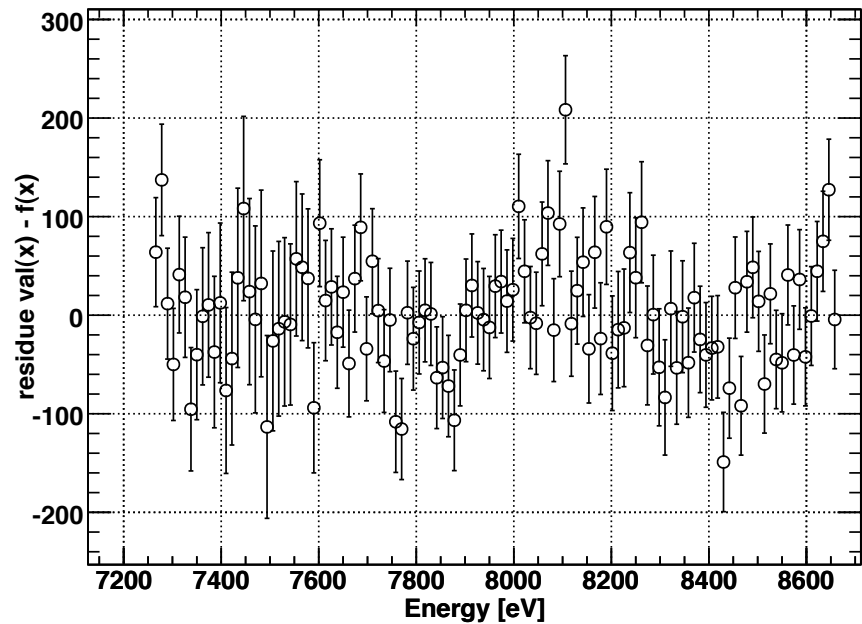
fit residue



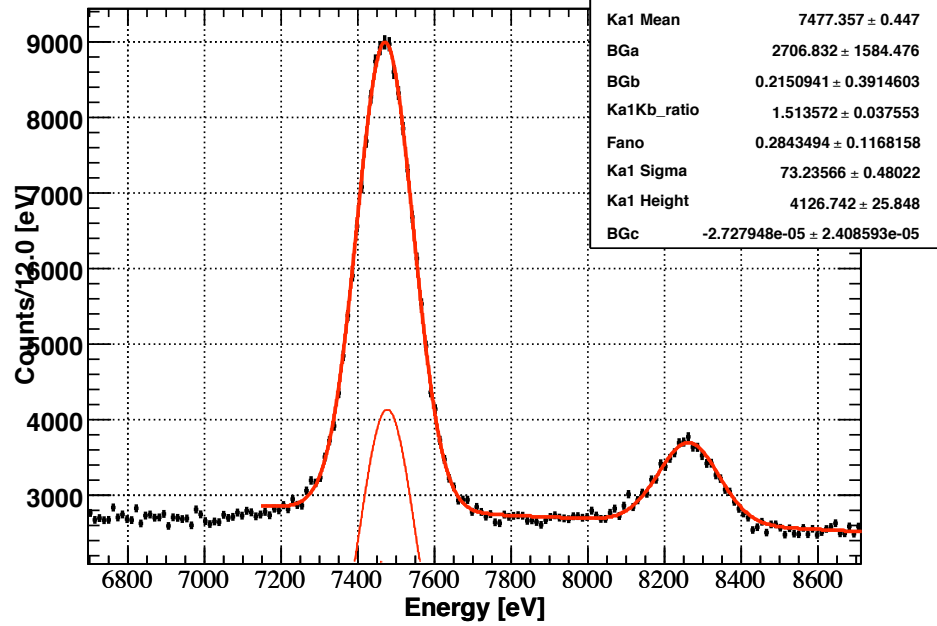
out_calib_part_sdd1



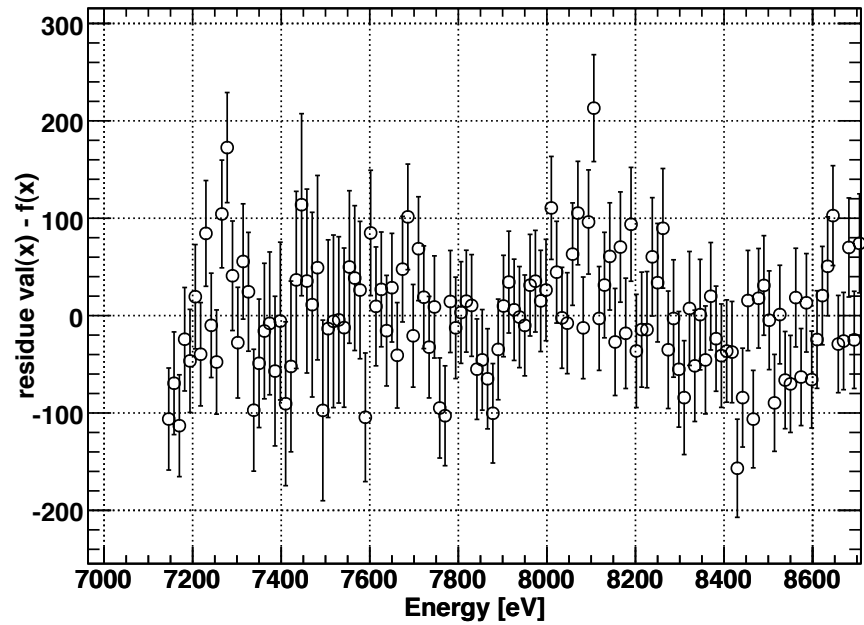
fit residue



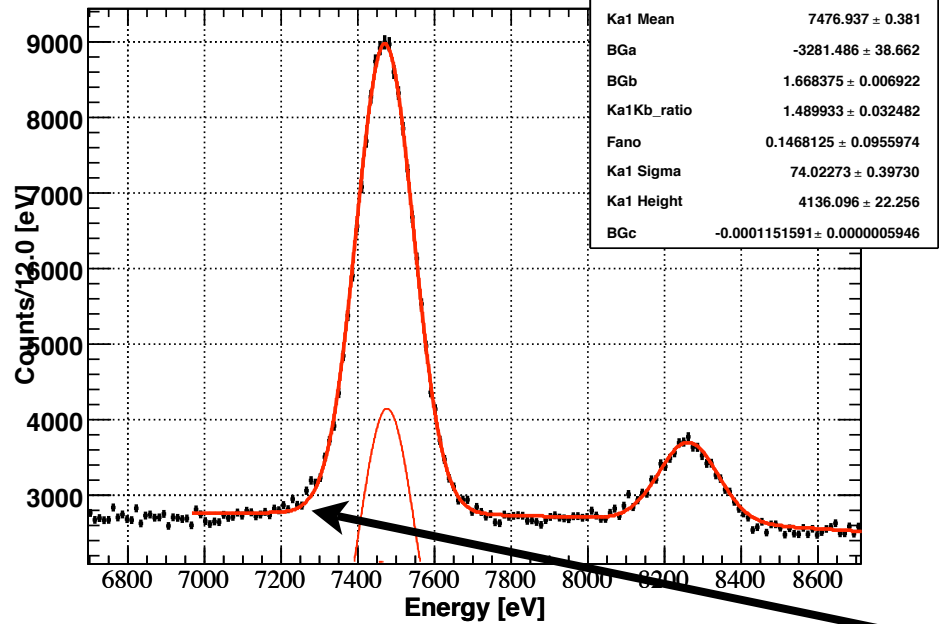
out_calib_part_sdd1



fit residue

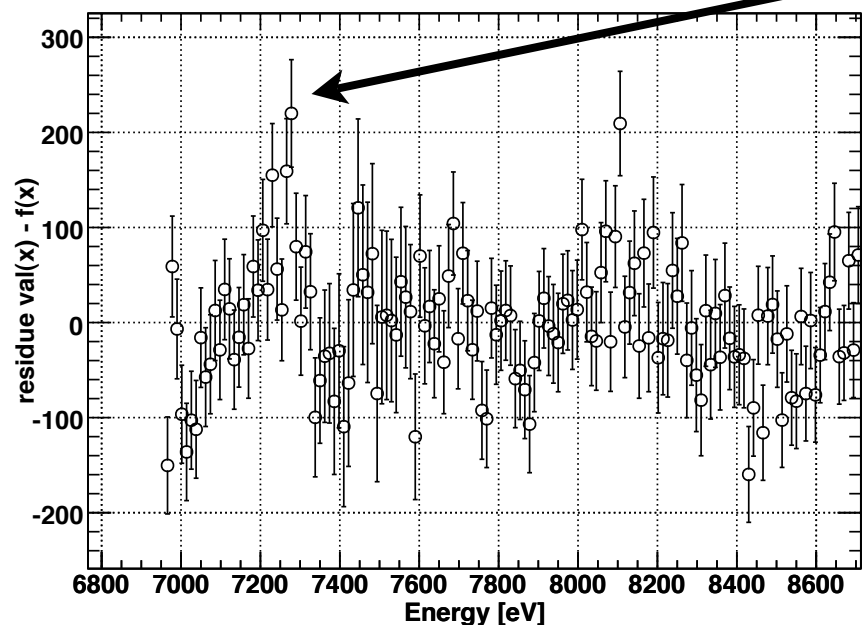


out_calib_part_sdd1

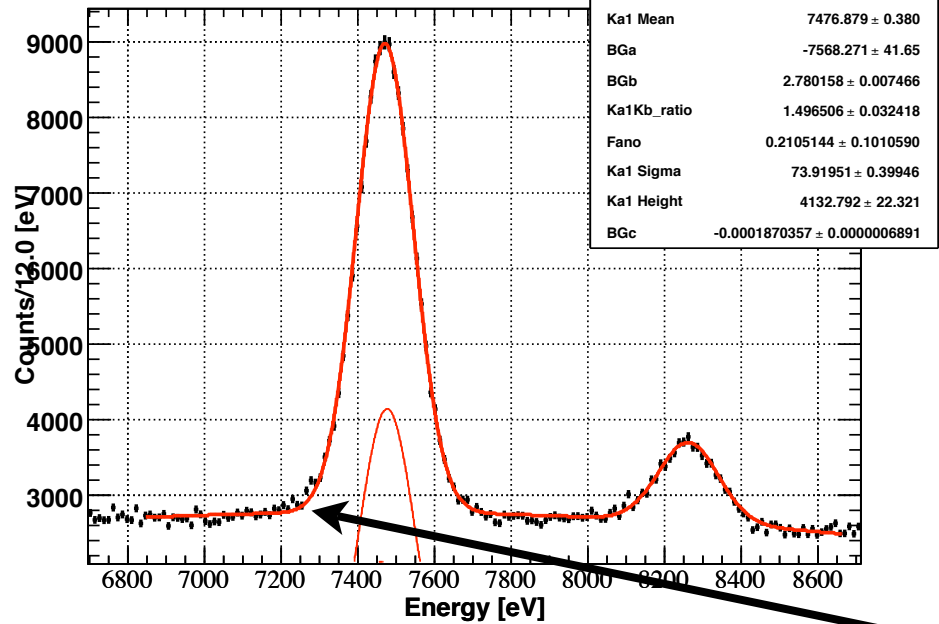


tail excess appears

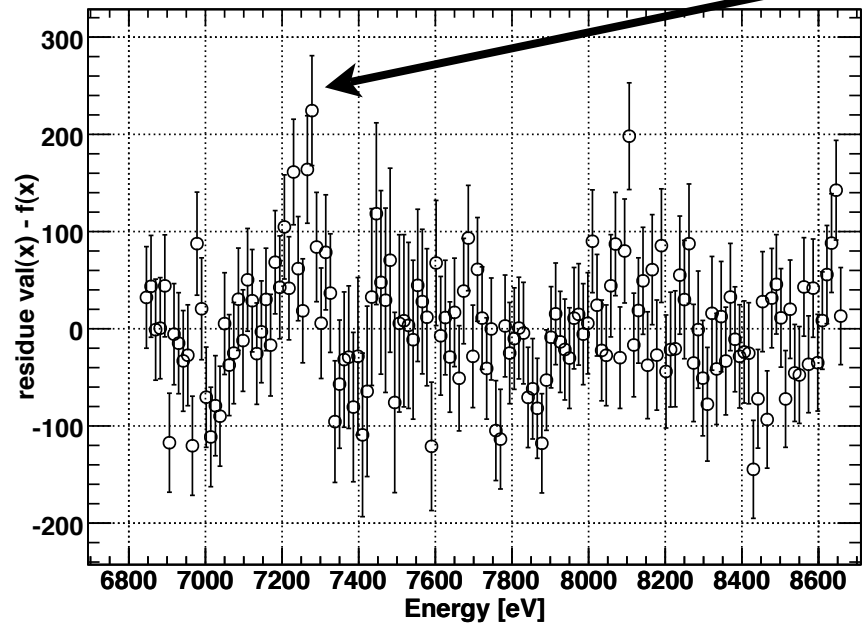
fit residue



out_calib_part_sdd1



fit residue



tail excess appears