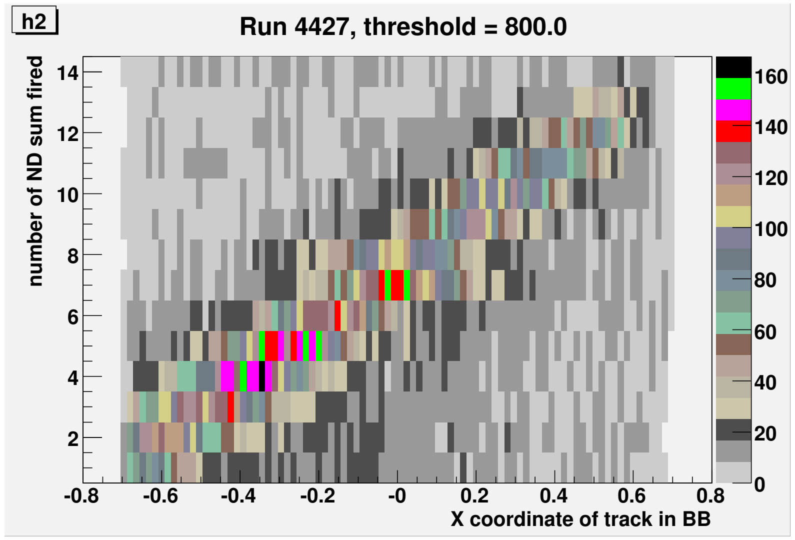
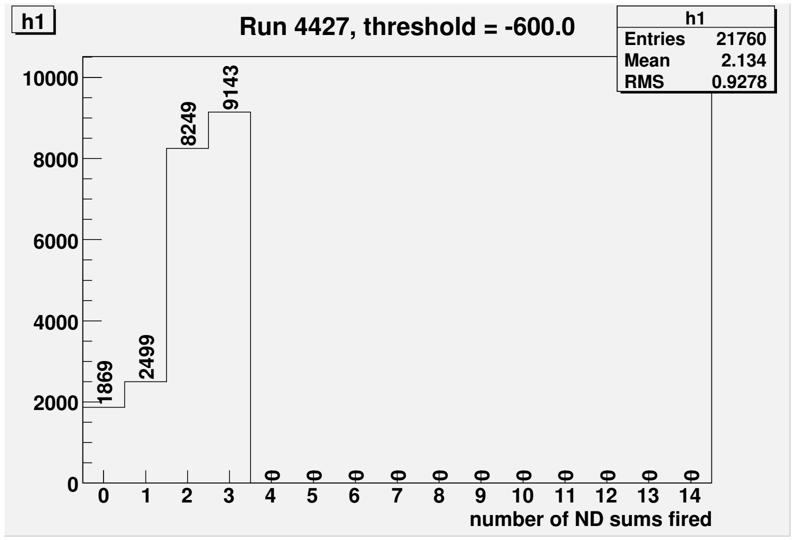
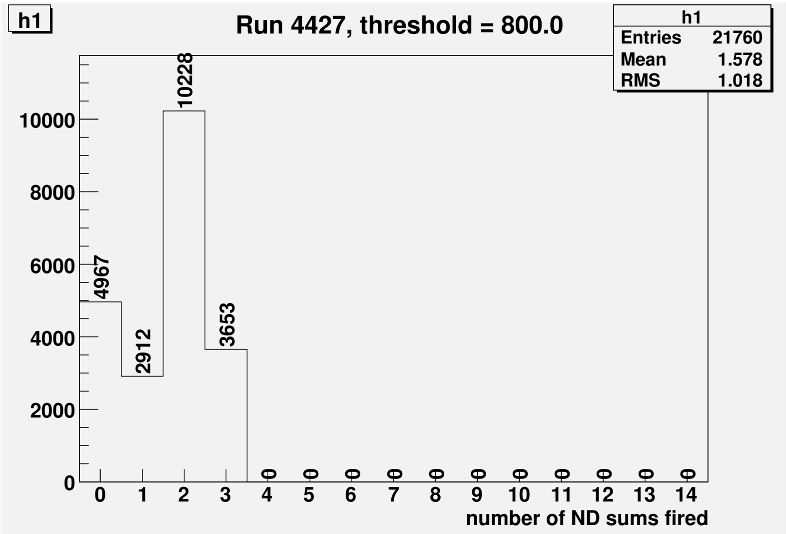
Run 4427: H2, 2.5 μA



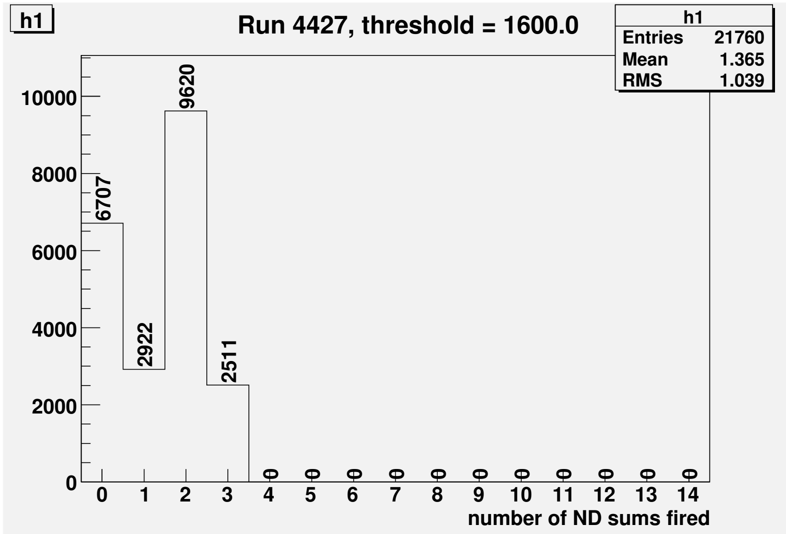
(a)



(b)



(c)



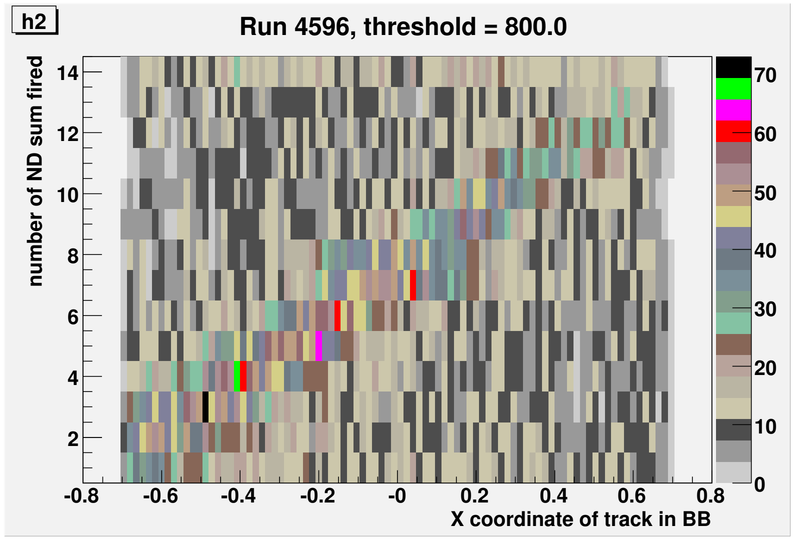
(d)

Event selection based on following cuts applied to all these plots: $08 < W < 1.15$, $PS\_E > 500$, $-0.2 < V\_z < 0.2$, T3 events only.

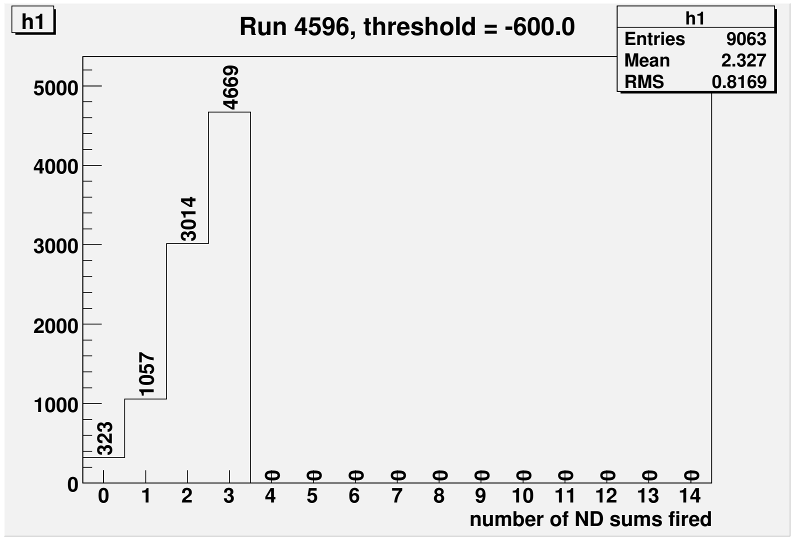
a) Correlation beetween number of ND sum fired vs X-coordinate in the BigBite for selected events.

b), c), d) Distribution of number of sums fired in ND detector for selected events. Only sums which are whithin correlation region on plot a) were counted.

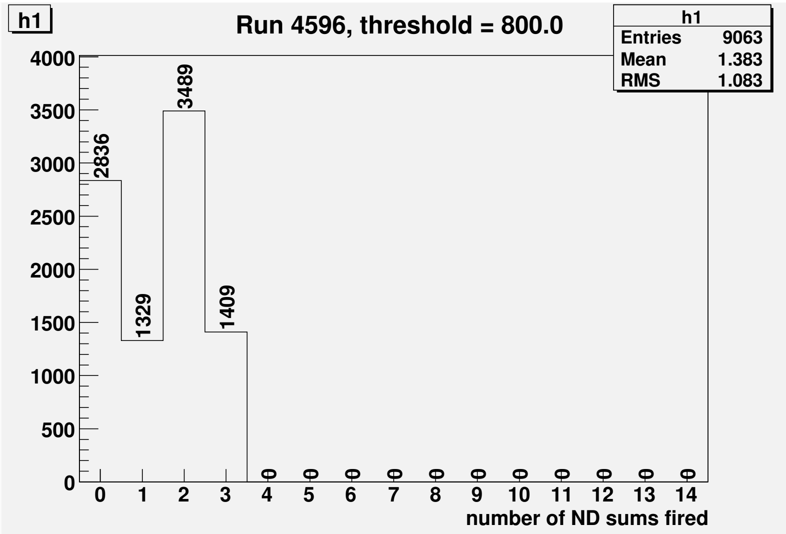
Run 4596: H2, 5.8 μA



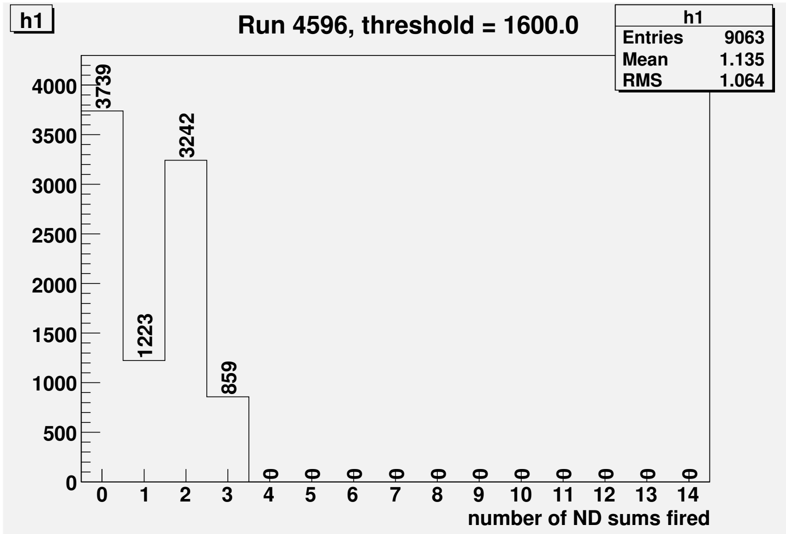
(a)



(b)



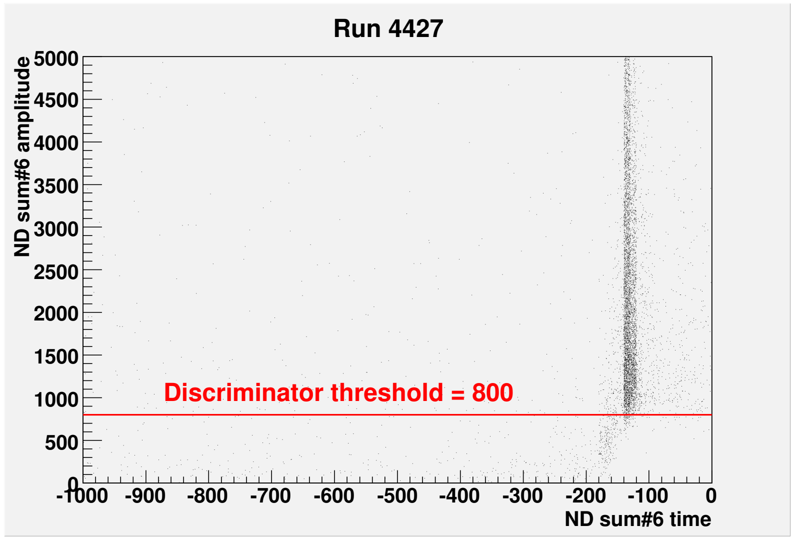
(c)



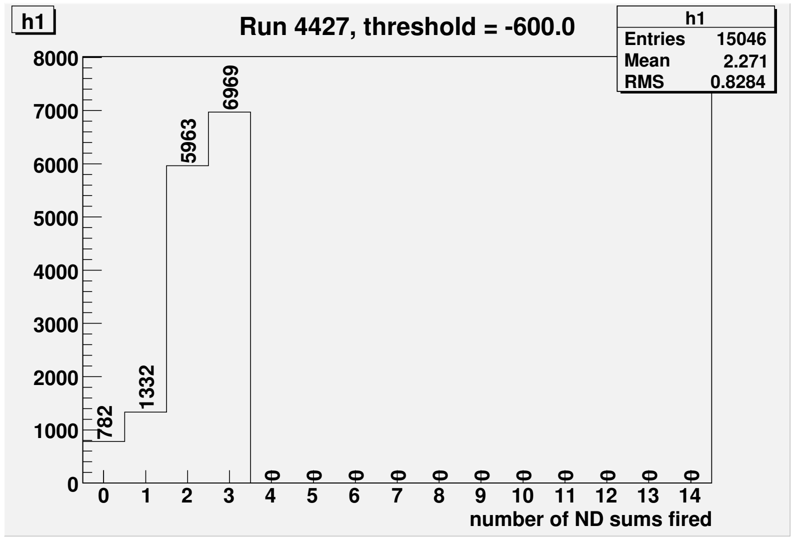
(d)

For both high and low current runs there are a lot of events that has no sum fired.
For high current run on threshold 800, we have 69% events with at least 1 sum fired in ND.
For low current run with the same threshold, we have 77% events with at least one sum fired.
The ratio for 2 runs is 0.9.

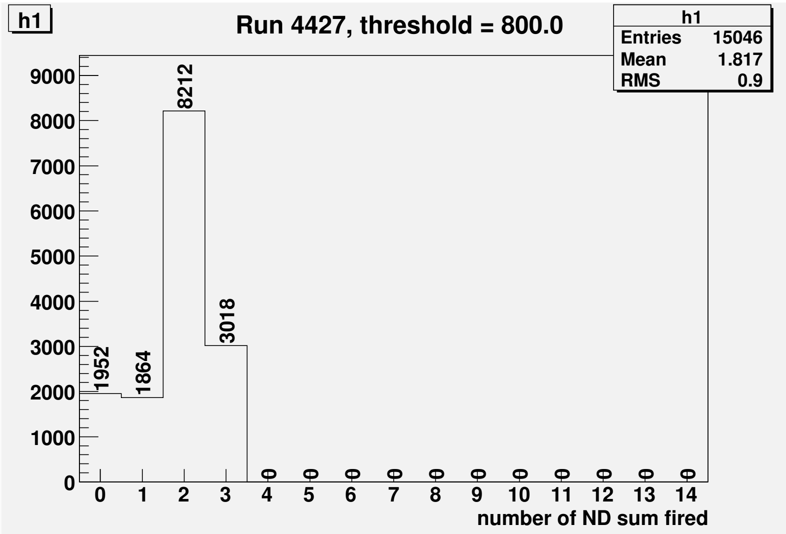
Run 4427: H2, 2.5 μA



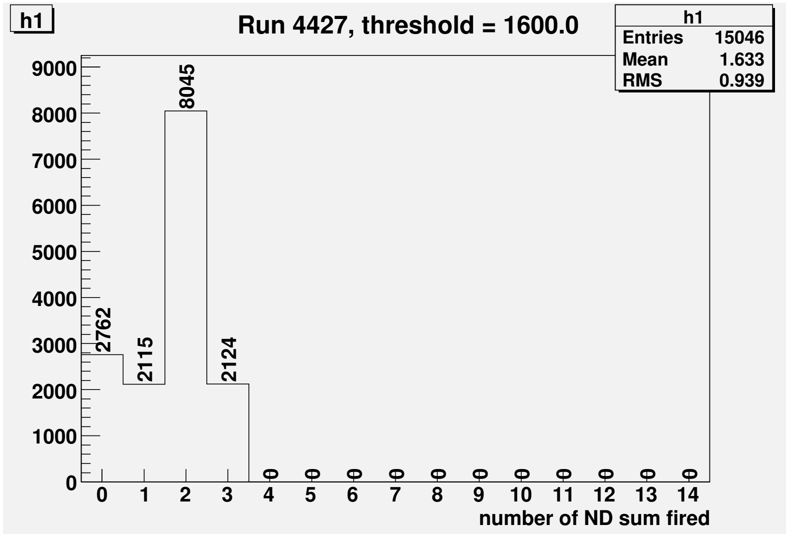
(a)



(b)



(c)



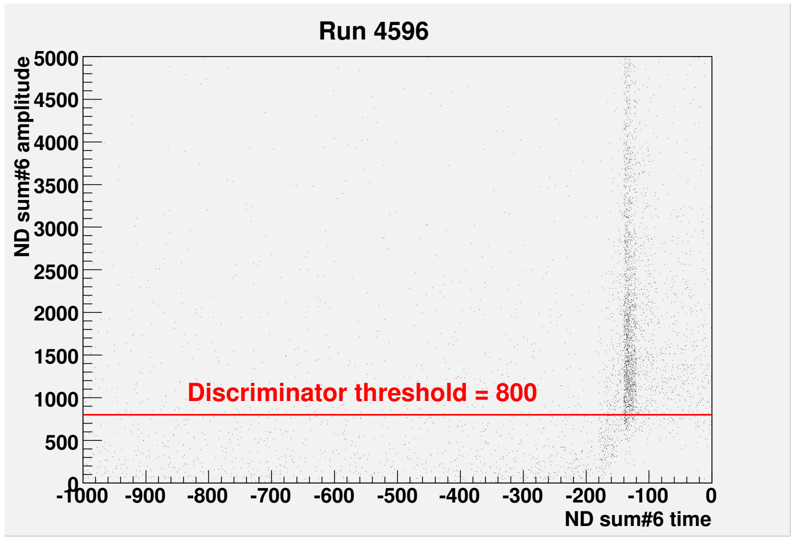
(d)

a) One of the ND trigger sum amplitude vs time.

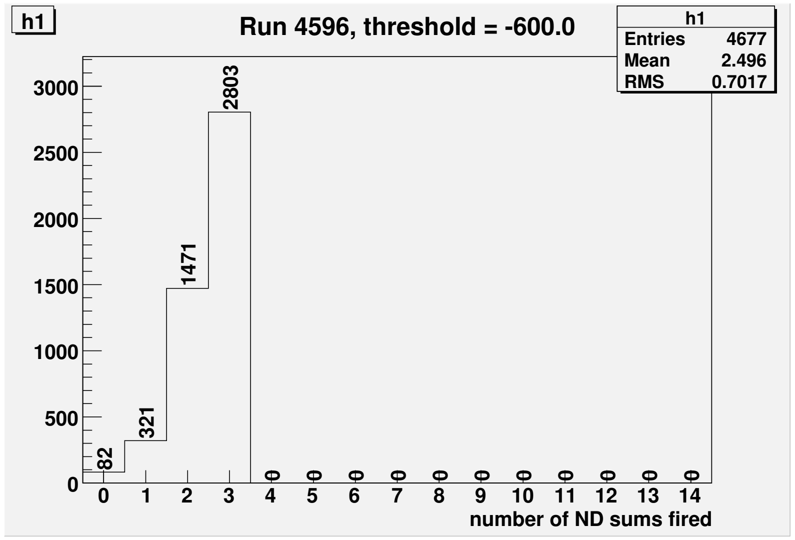
In addition to previous cuts on figures b), c), d) coincidence time cut is applied: $150 < ctime < 170$.

With coincidence time applied number of events with 0 sum fired decreased, but there are still significant number of that events.

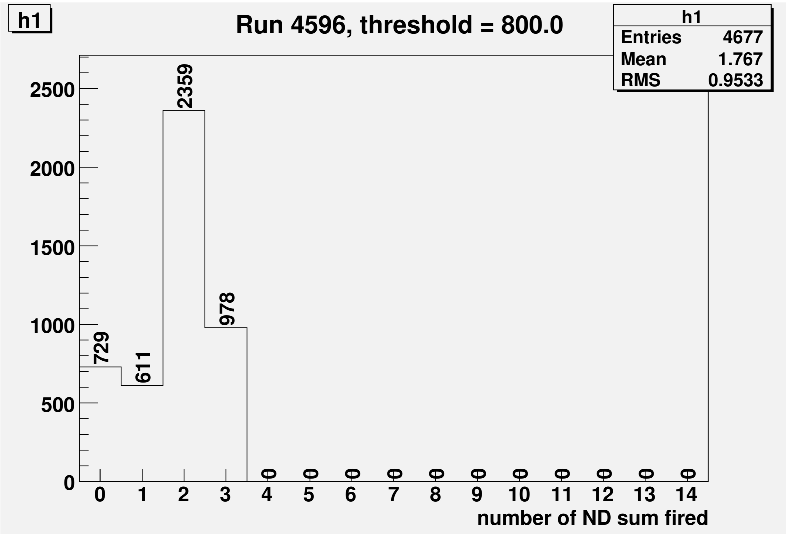
Run 4596: H2, 5.8 μA



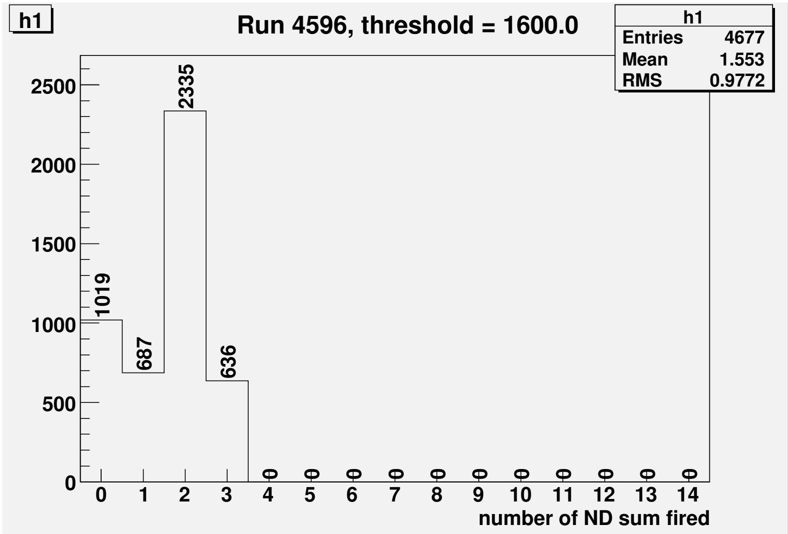
(a)



(b)

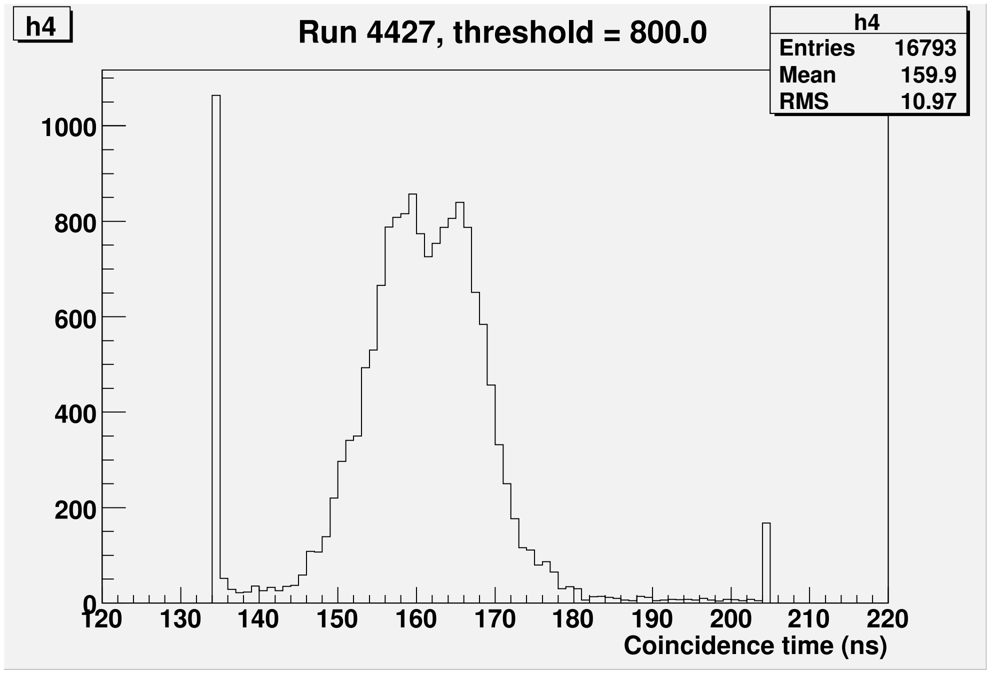


(c)

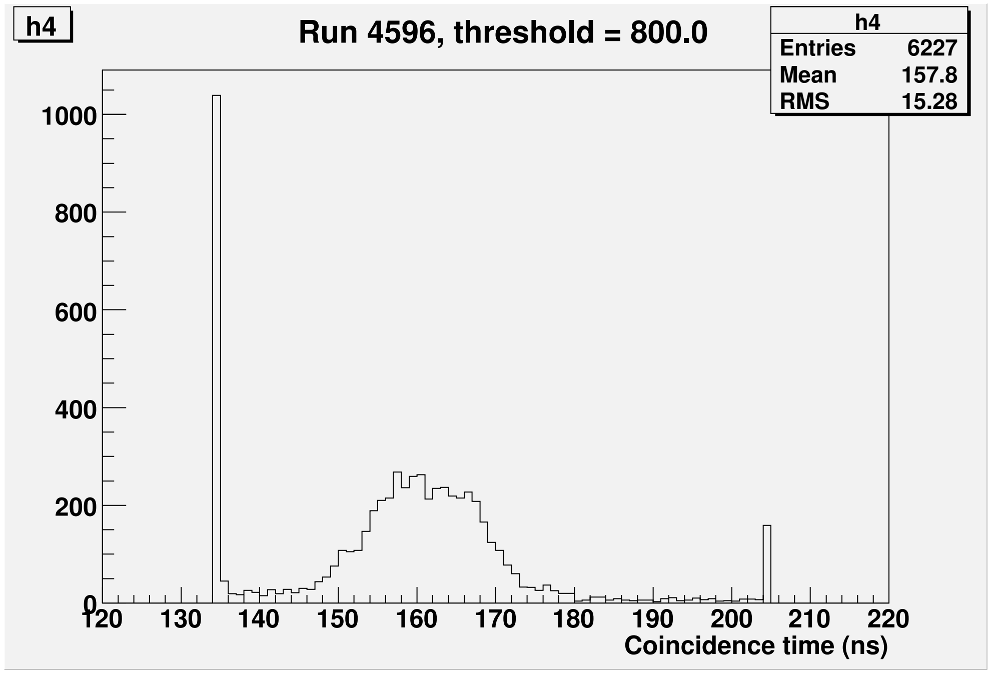


(d)

We still have a lot of events that has no sum fired for both hig and low current runs.
For high current run on threshold 800, we have 44% events with at least 1 sum fired in ND.
For low current run with the same threshold, we have 60% events with at least 1 sum fired.
The ratio for 2 runs is 0.73.

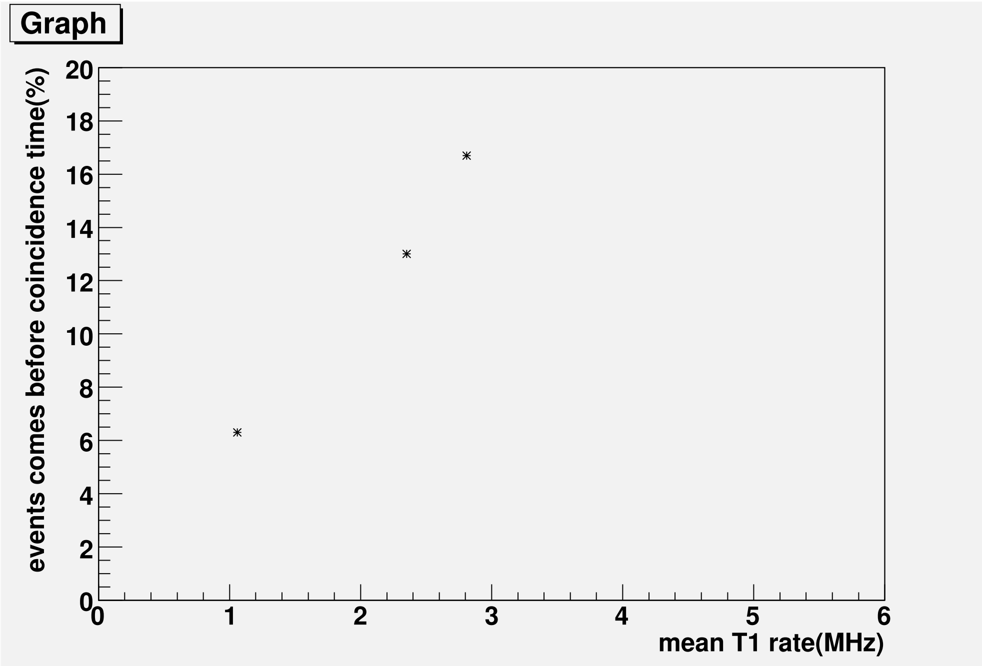


(a)

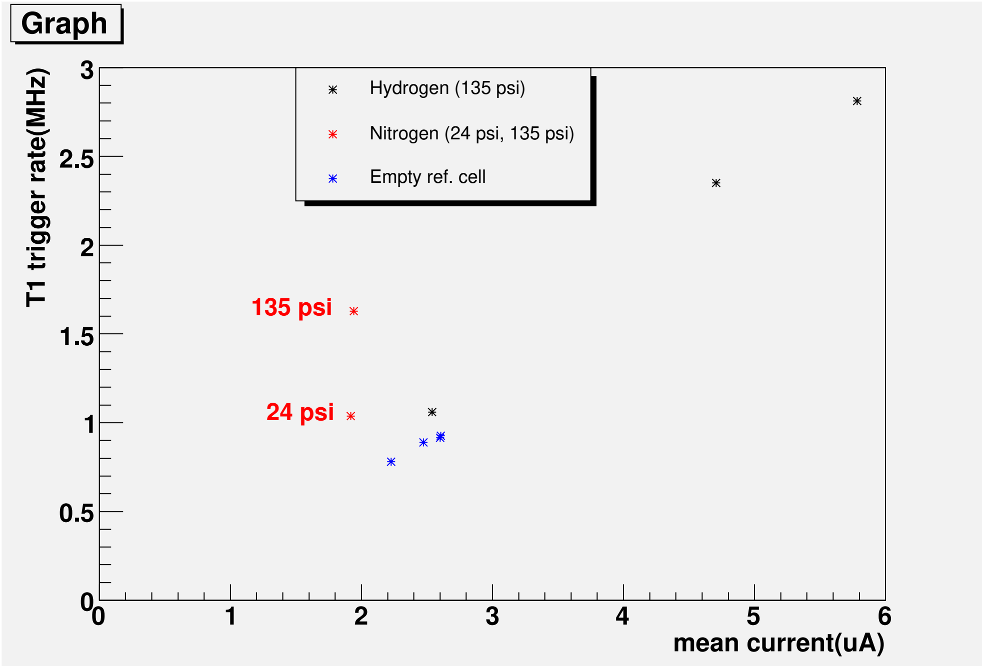


(b)

a) Coincidence time distribution for events with at least one ND sum fired. Threshold 800, Run 4427.
b) Coincidence time distribution for events with at least one ND sum fired. Threshold 800, Run 4596.
For high current run we have 17% events comes before time, for low current run 6.3%.



(a)



(b)

a) Events comes before coincidence time with at least one ND sum fired(threshold 800) vs T1 rate.
b) T1 rate vs current for differsnt runs.

Number of events(%) that comes before good coincidence time for different thresholds and different runs presented in following table.

Run \ Thr	-600	800	1600	2400
4596	20.3	16.7	15.2	14.3
4597	17.2	13.0	11.6	11.1
4427	8.8	6.3	5.5	5.2