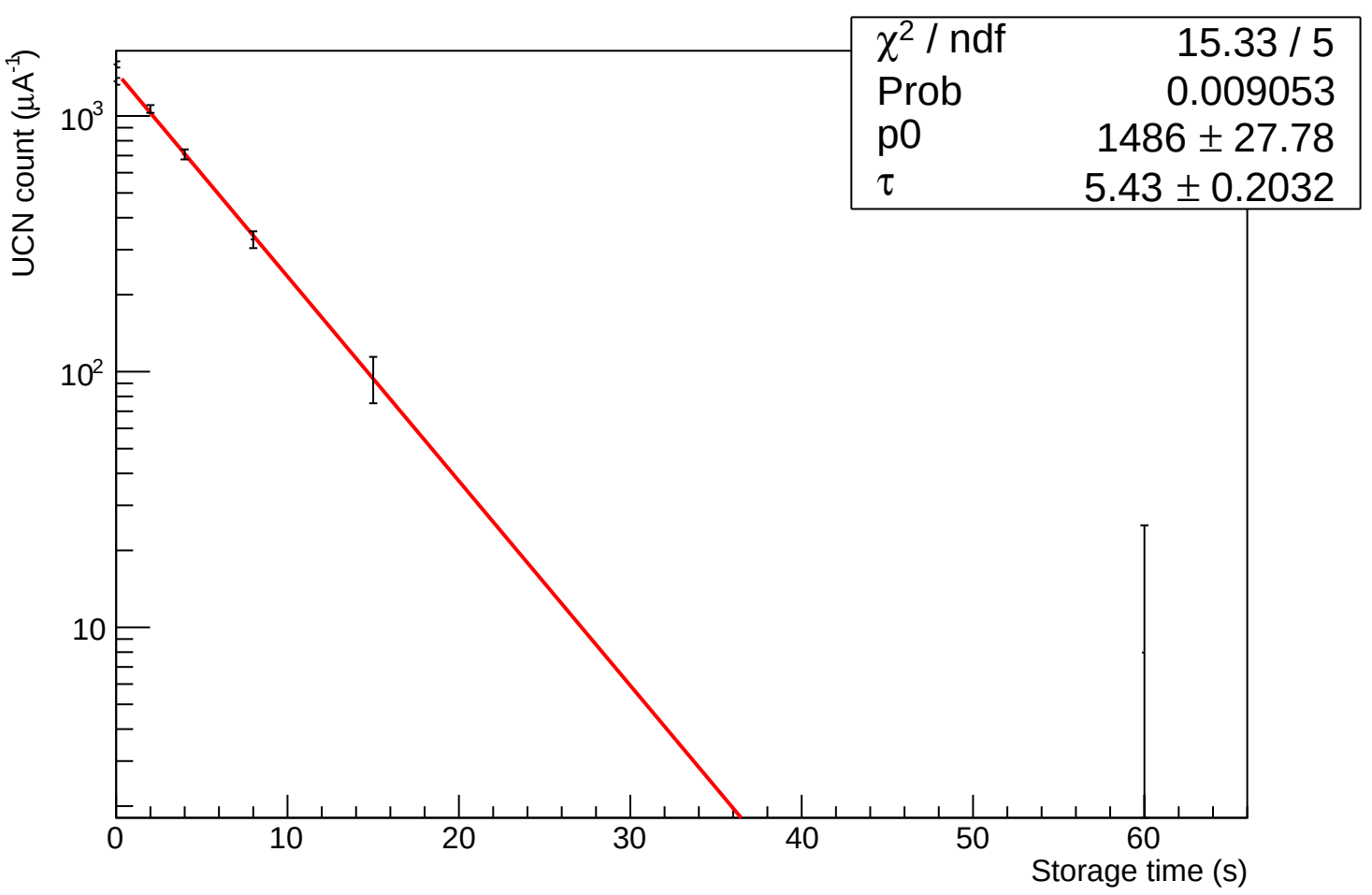
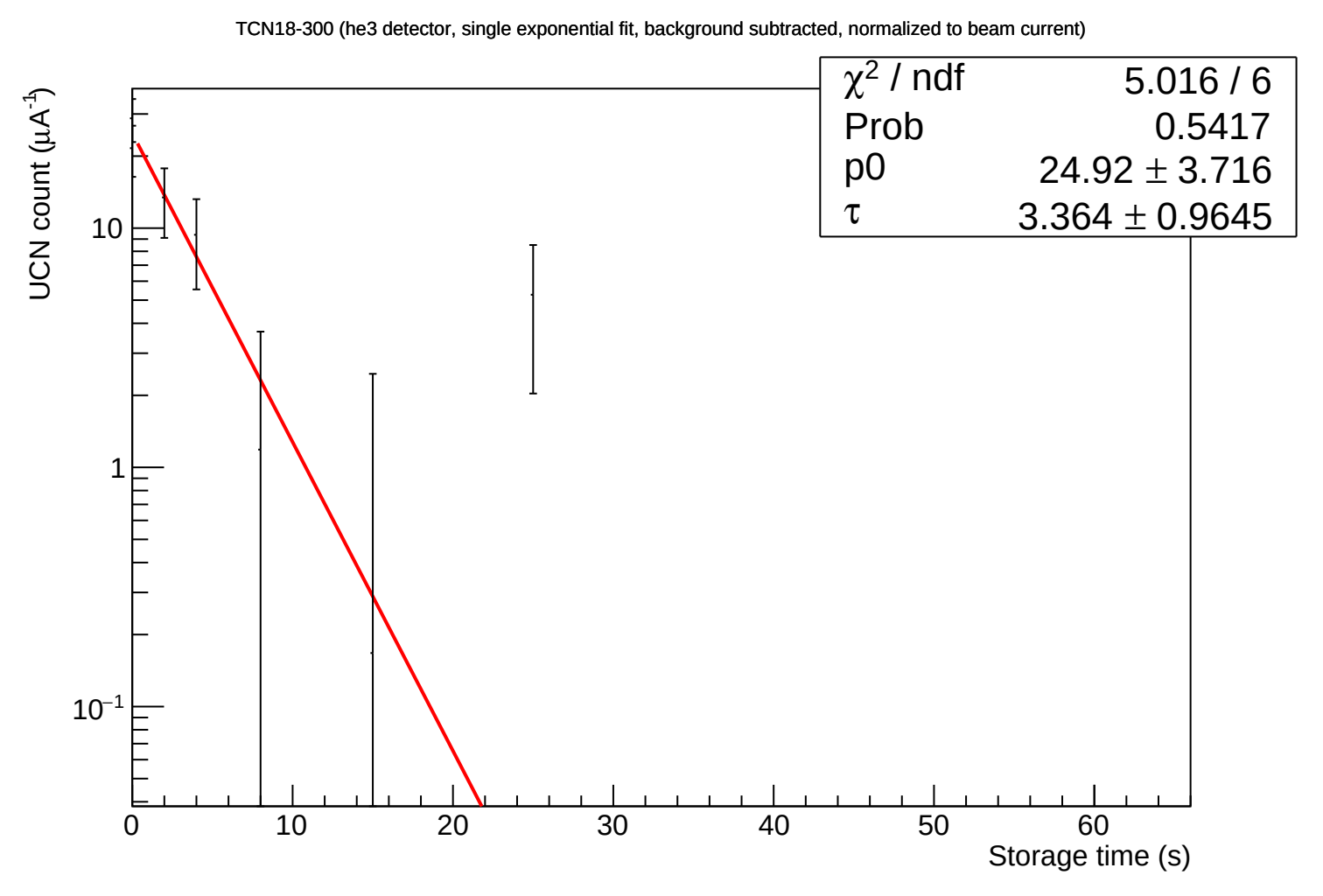
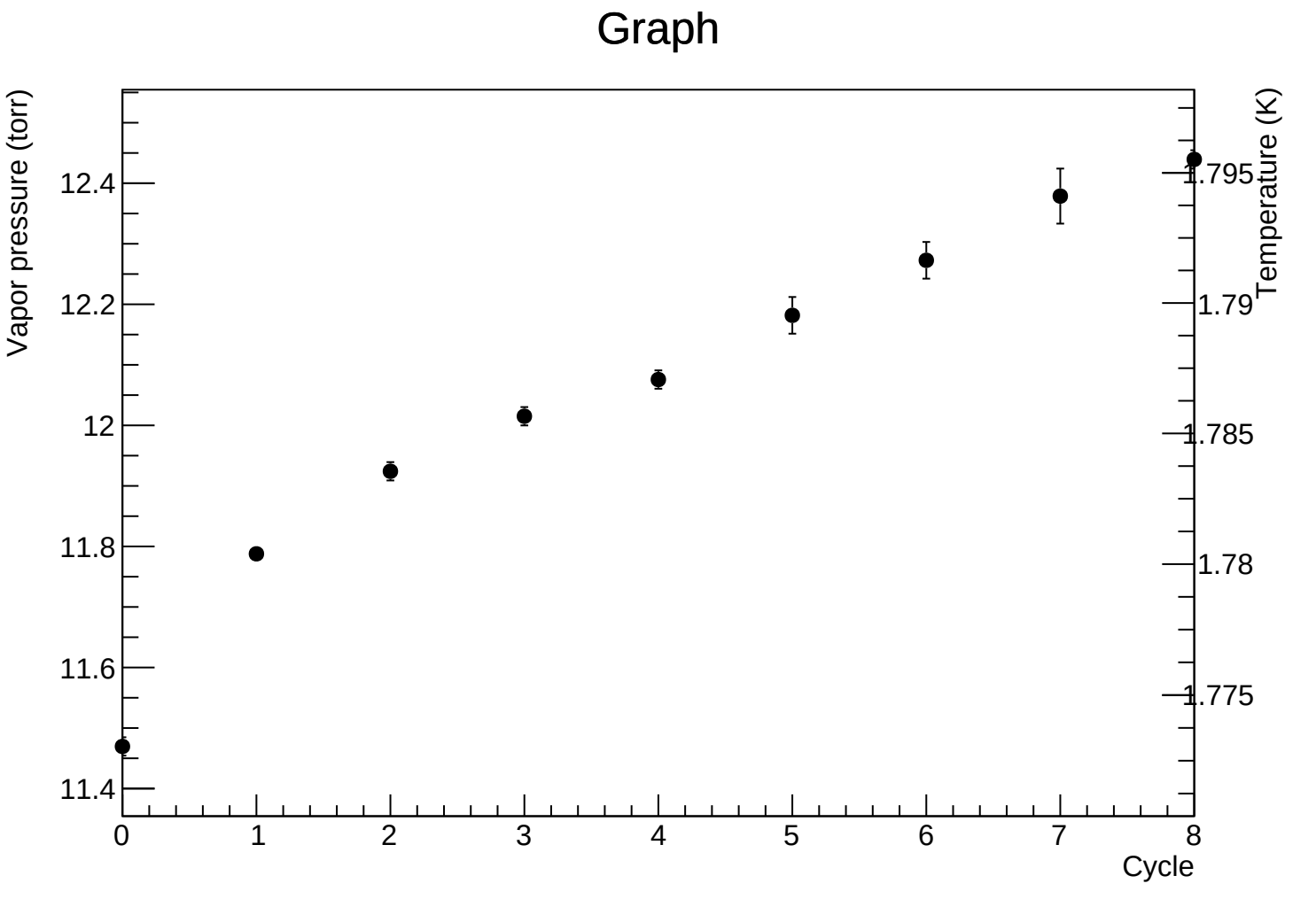
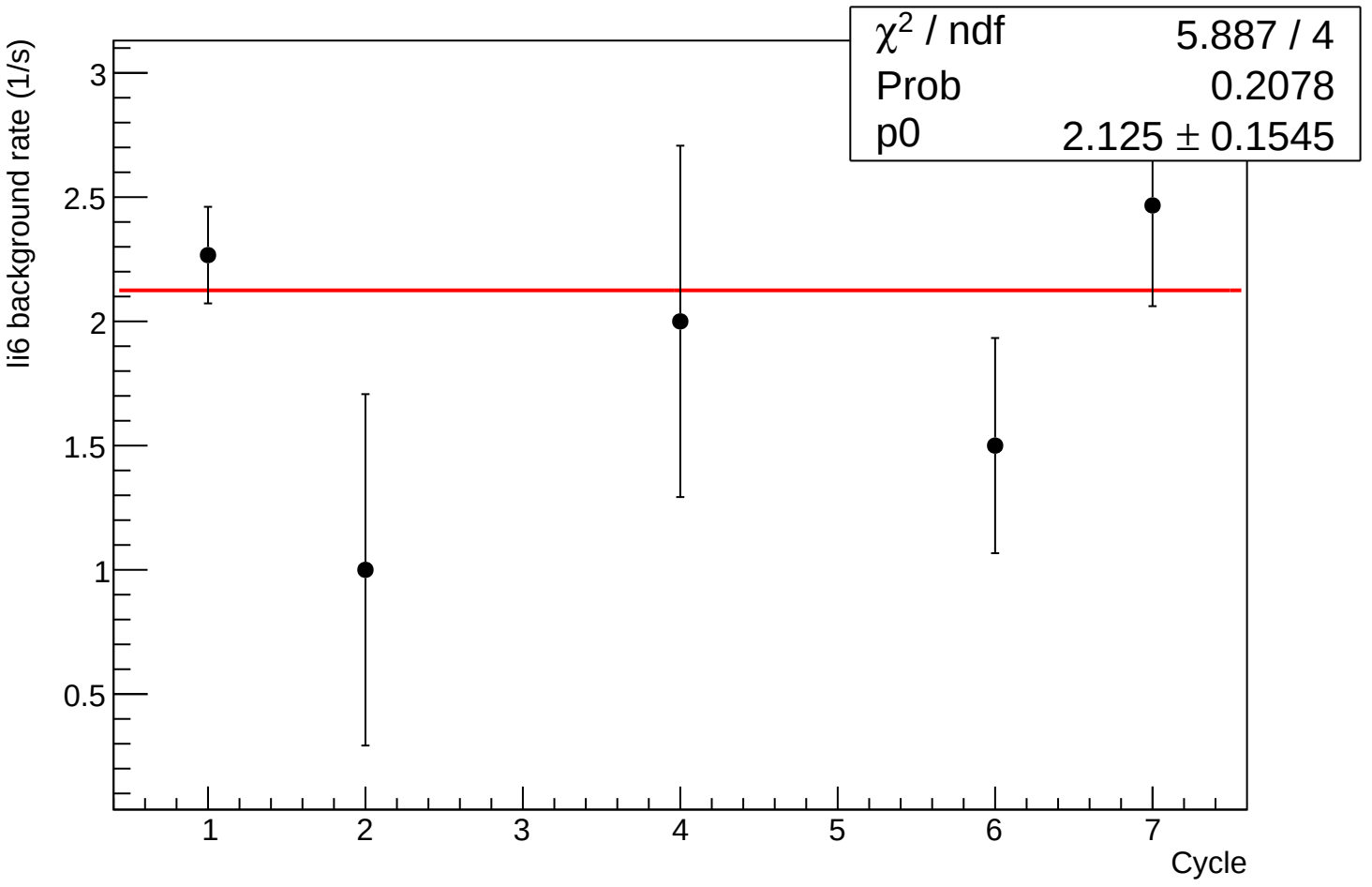
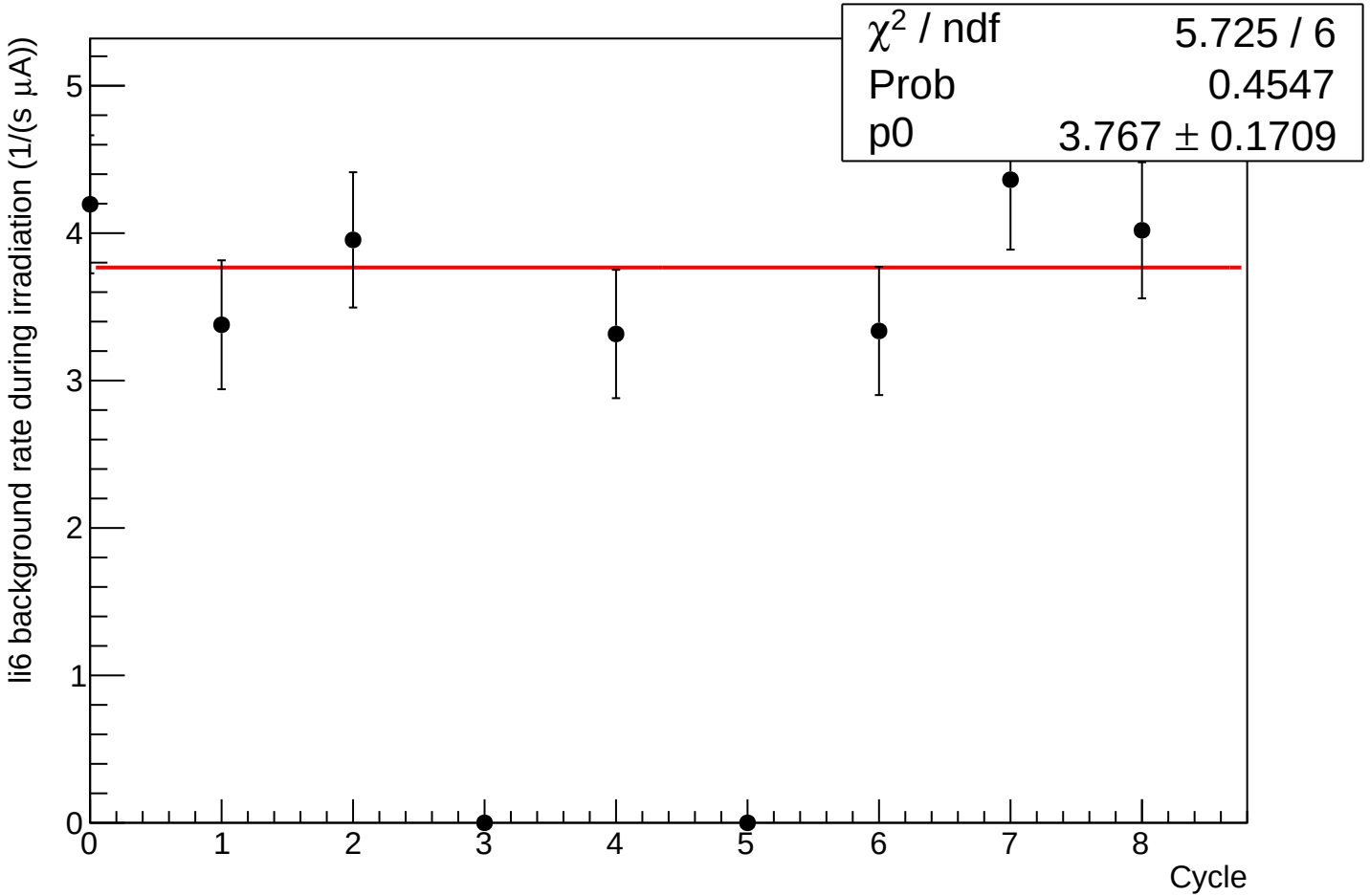
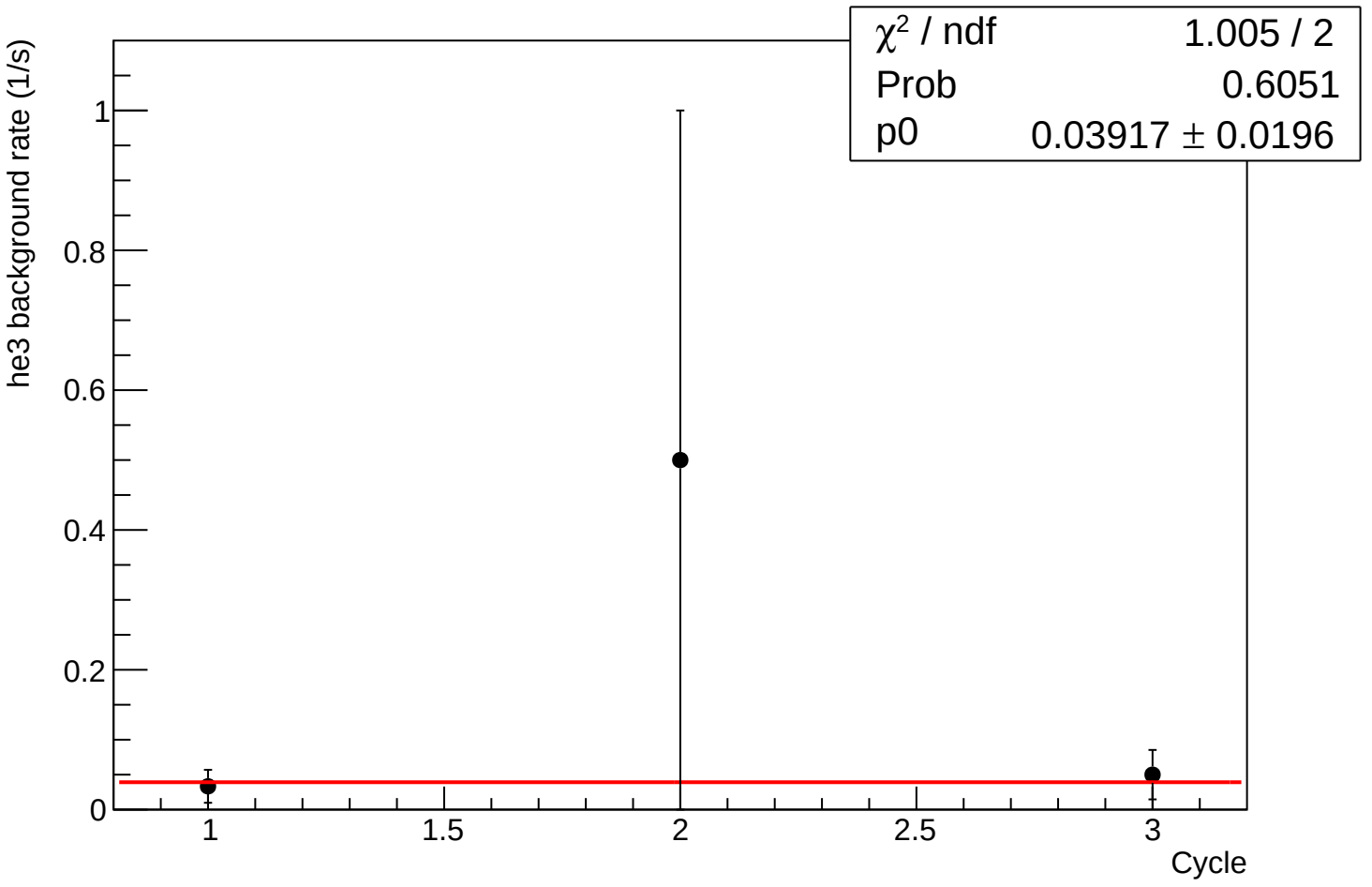

TCN18-300 (li6 detector, single exponential fit, background subtracted, normalized to beam current)
χ² / ndf 15.33 / 5
Prob 0.009053
p0 1486 ± 27.78
τ 5.43 ± 0.2032
UCN count (μA⁻¹)
10³
10²
10
0
10
20
30
40
50
60
Storage time (s)

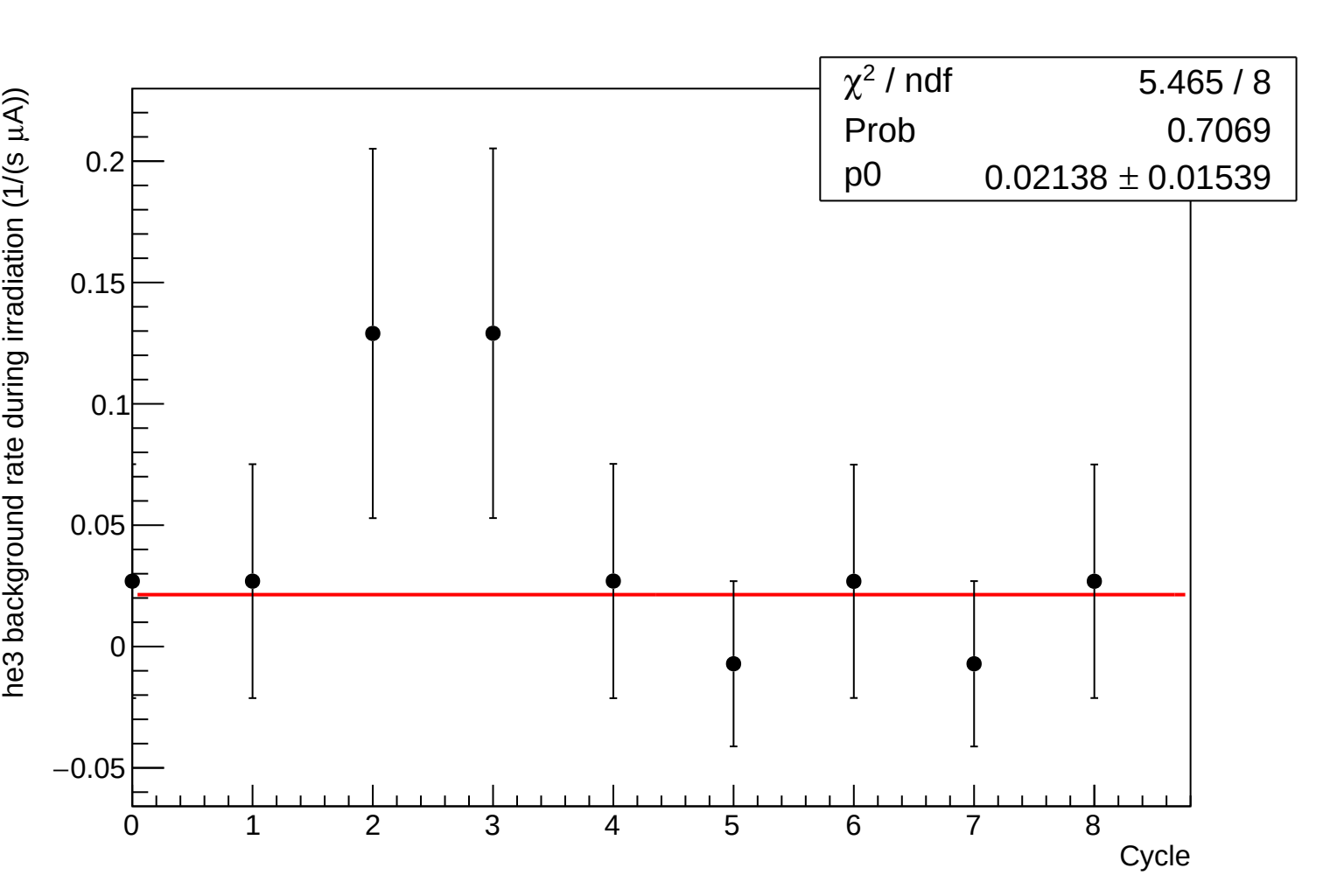

TCN18-300 (he3 detector, single exponential fit, background subtracted, normalized to beam current)
χ² / ndf 5.016 / 6
Prob 0.5417
p0 24.92 ± 3.716
τ 3.364 ± 0.9645
UCN count (μA⁻¹)
10
1
10⁻¹
0
10
20
30
40
50
60
Storage time (s)

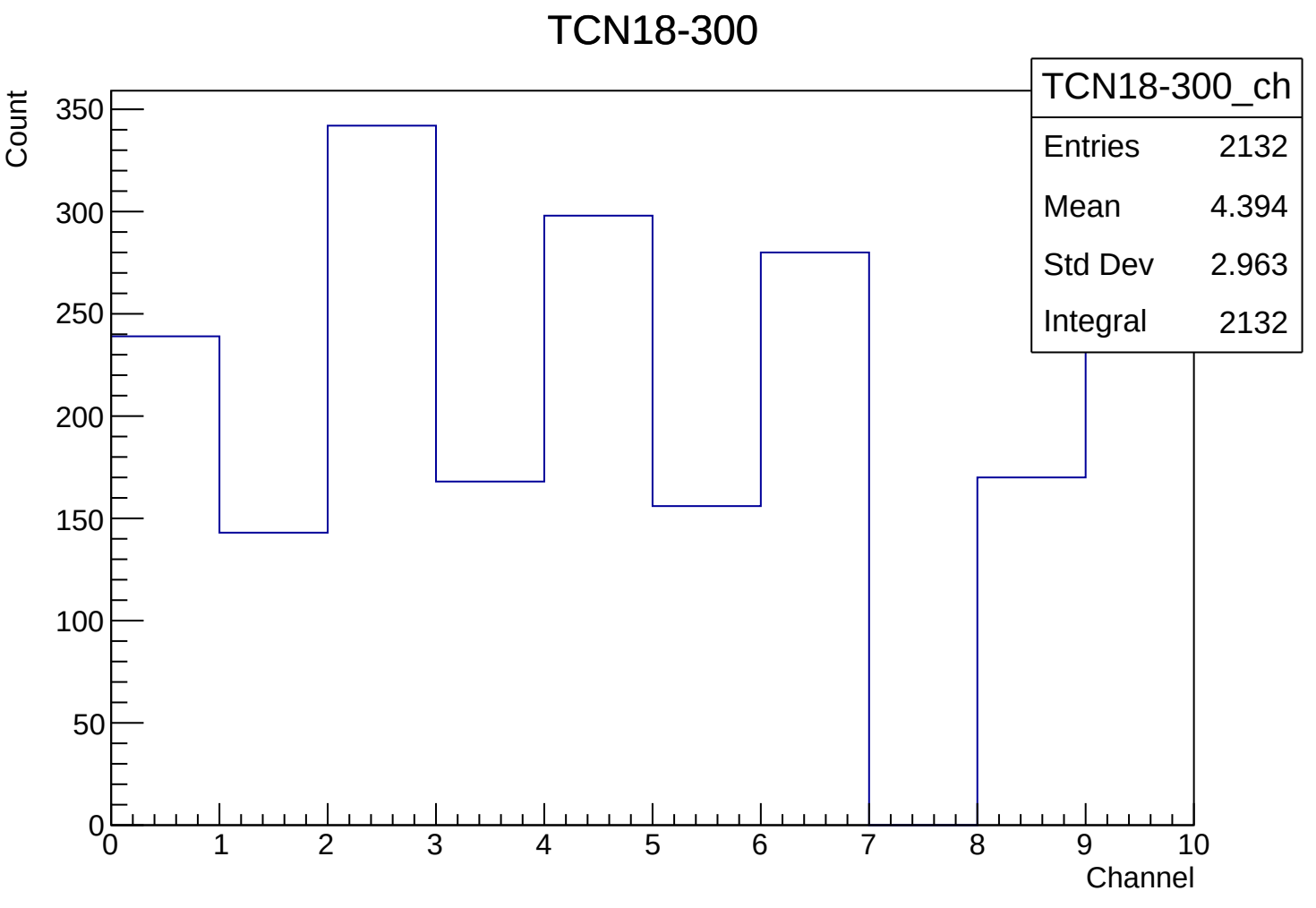

Graph
Vapor pressure (torr)
12.4
12.2
12
11.8
11.6
11.4
Temperature (K)
1.795
1.79
1.785
1.78
1.775
0
1
2
3
4
5
6
7
8
Cycle

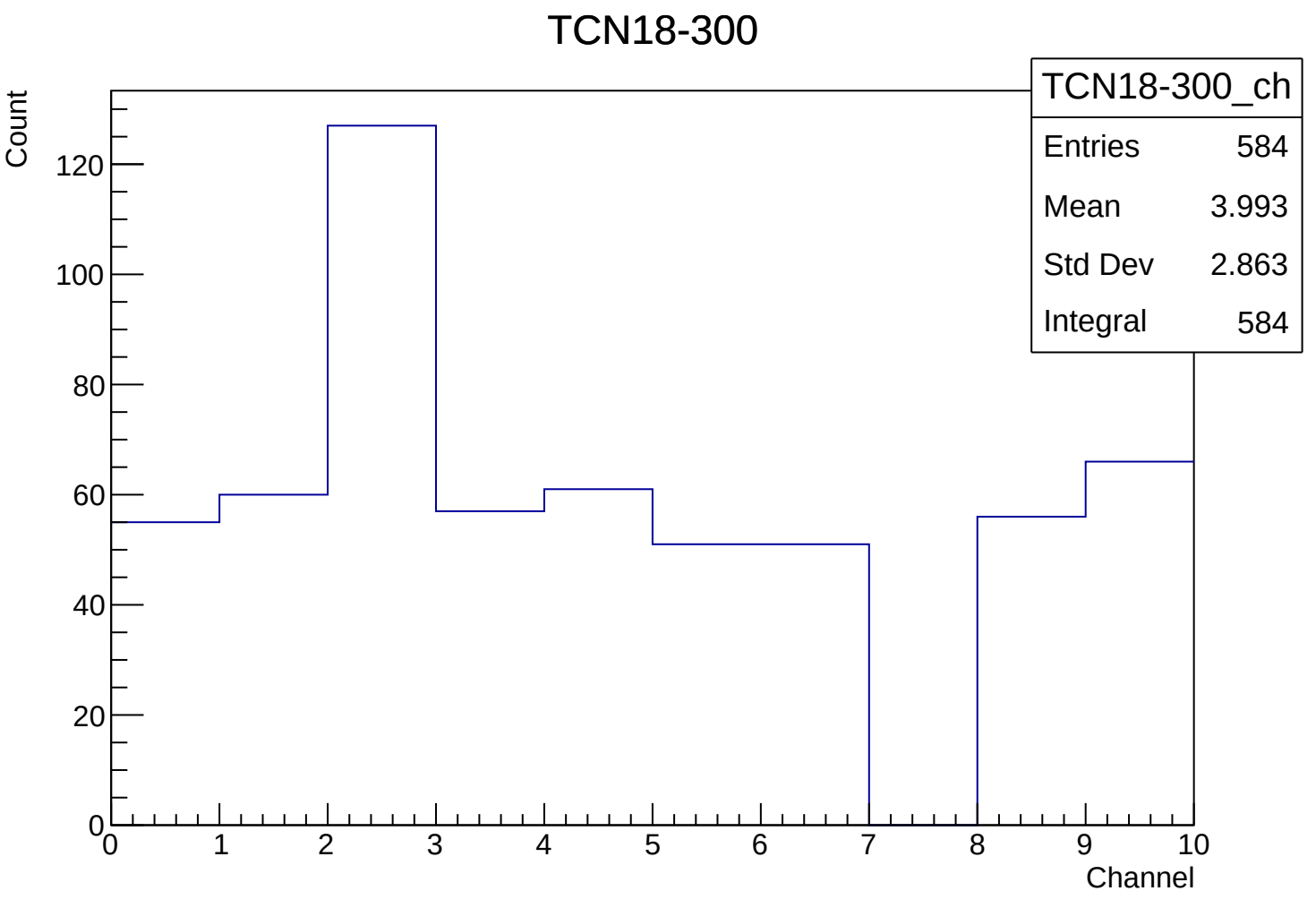

li6 background rate (1/s)
3
2.5
2
1.5
1
0.5
1
2
3
4
5
6
7
Cycle
χ² / ndf 5.887 / 4
Prob 0.2078
p0 2.125 ± 0.1545

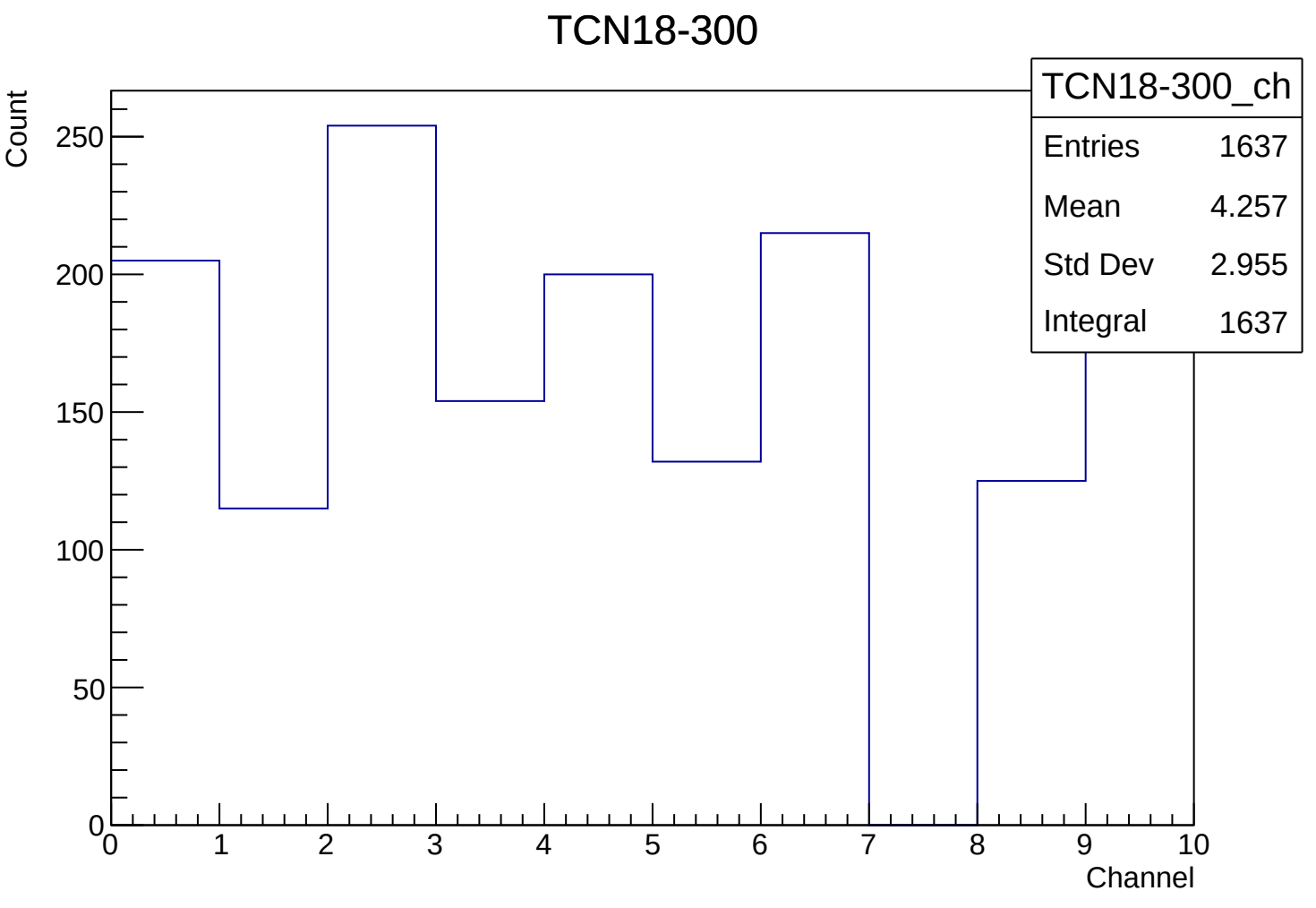

χ^2 / ndf 5.725 / 6
Prob 0.4547
p0 3.767 ± 0.1709
li6 background rate during irradiation (1/(s μA))
Cycle
0
1
2
3
4
5
6
7
8

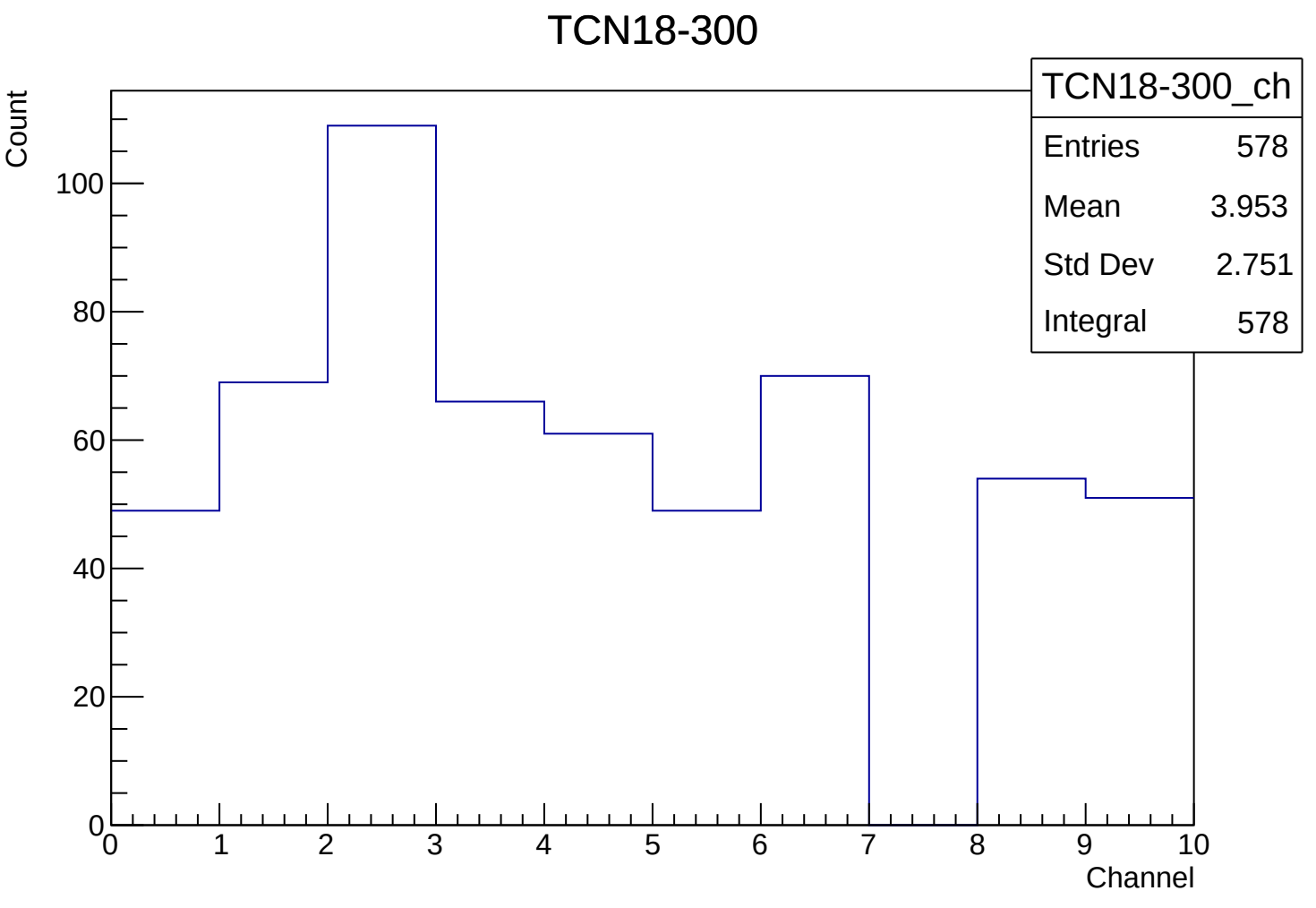

χ² / ndf 1.005 / 2
Prob 0.6051
p0 0.03917 ± 0.0196
he3 background rate (1/s)
0
0.2
0.4
0.6
0.8
1
1
1.5
2
2.5
3
Cycle

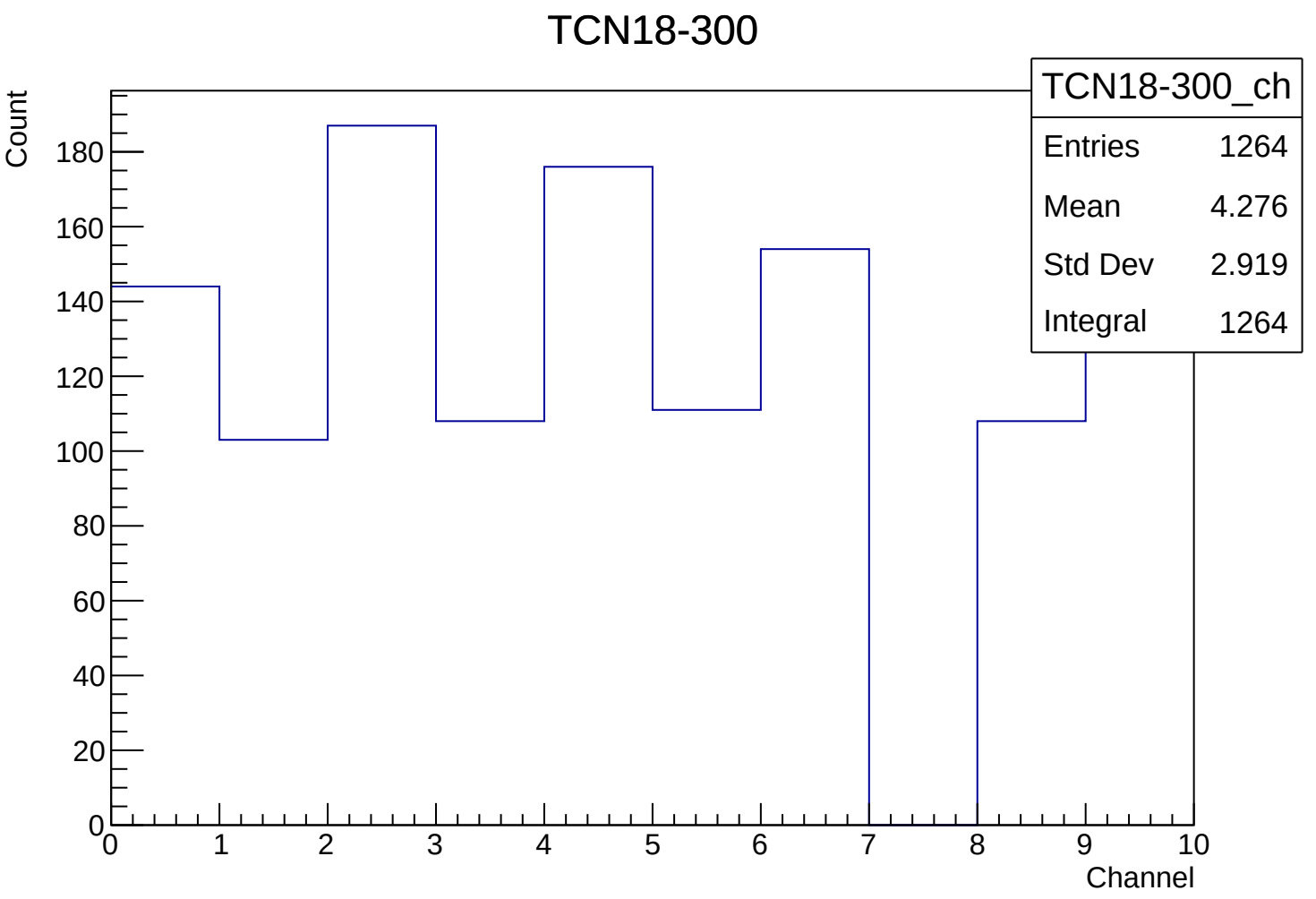

χ² / ndf 5.465 / 8
Prob 0.7069
p0 0.02138 ± 0.01539
he3 background rate during irradiation (1/(s μA))
0.2
0.15
0.1
0.05
0
−0.05
0
1
2
3
4
5
6
7
8
Cycle

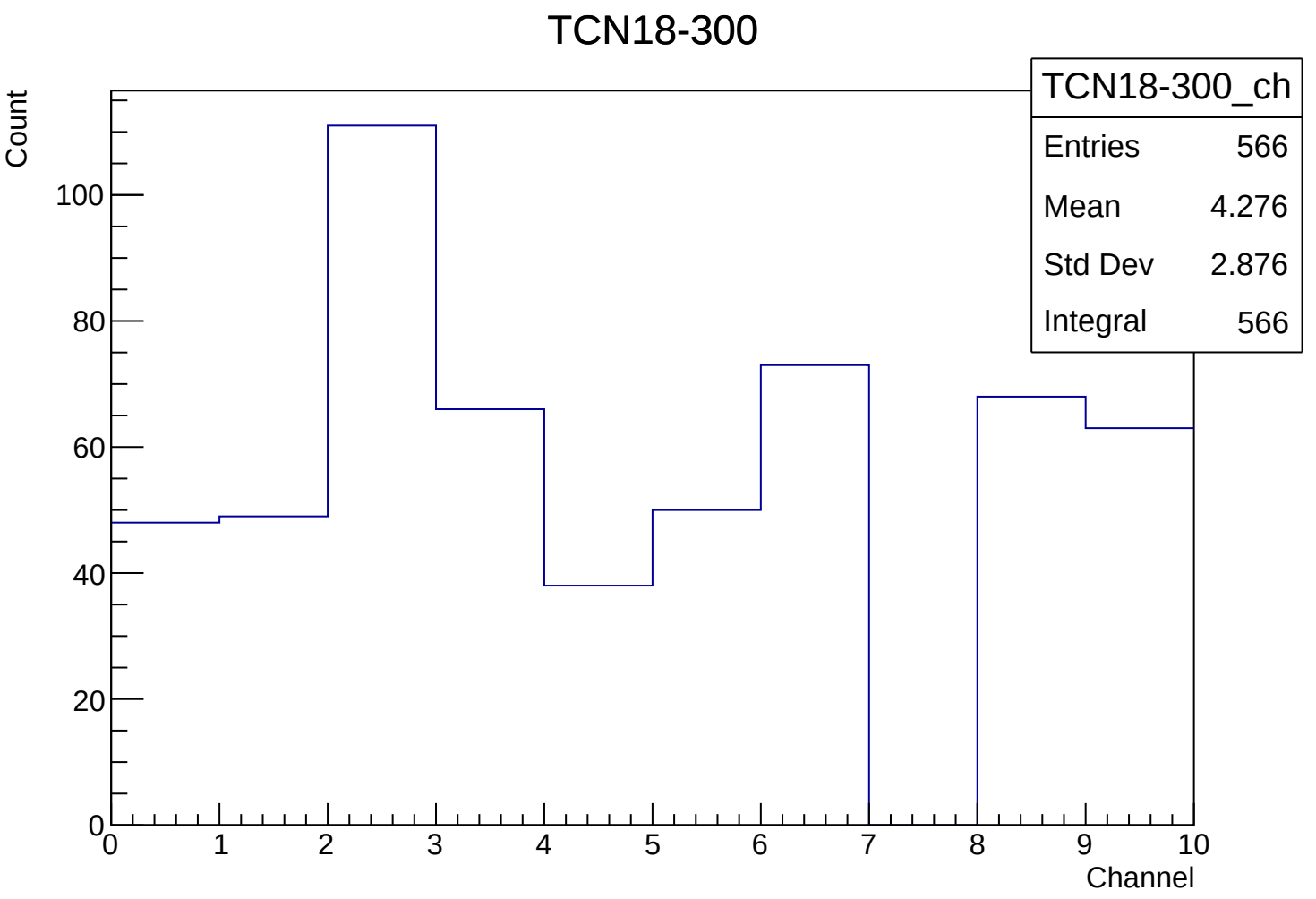

TCN18-300
TCN18-300_ch
Entries 2132
Mean 4.394
Std Dev 2.963
Integral 2132
Count
0
50
100
150
200
250
300
350
0
1
2
3
4
5
6
7
8
9
10
Channel

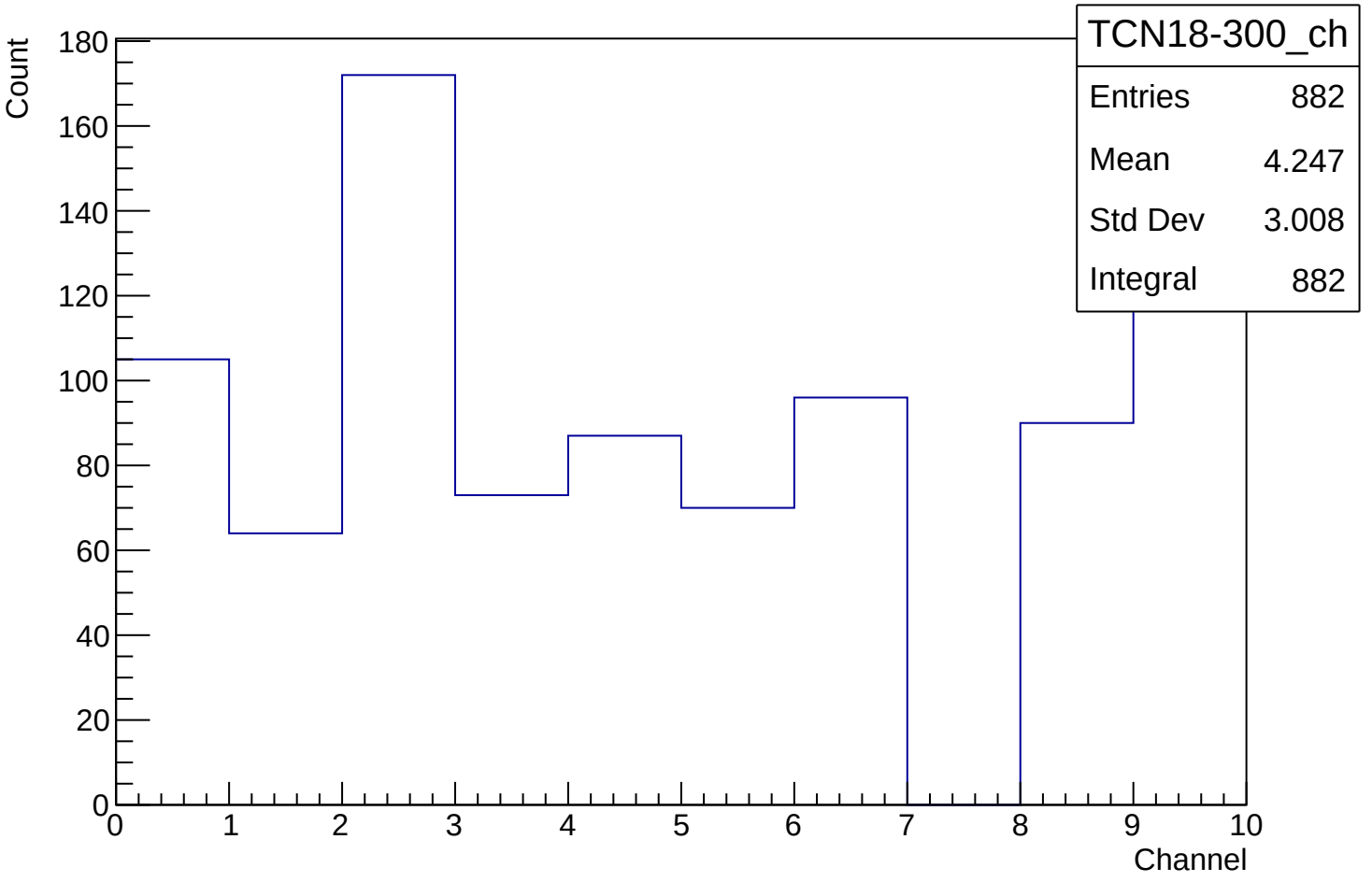

TCN18-300
TCN18-300_ch
Entries 584
Mean 3.993
Std Dev 2.863
Integral 584
Count
0
20
40
60
80
100
120
0
1
2
3
4
5
6
7
8
9
10
Channel

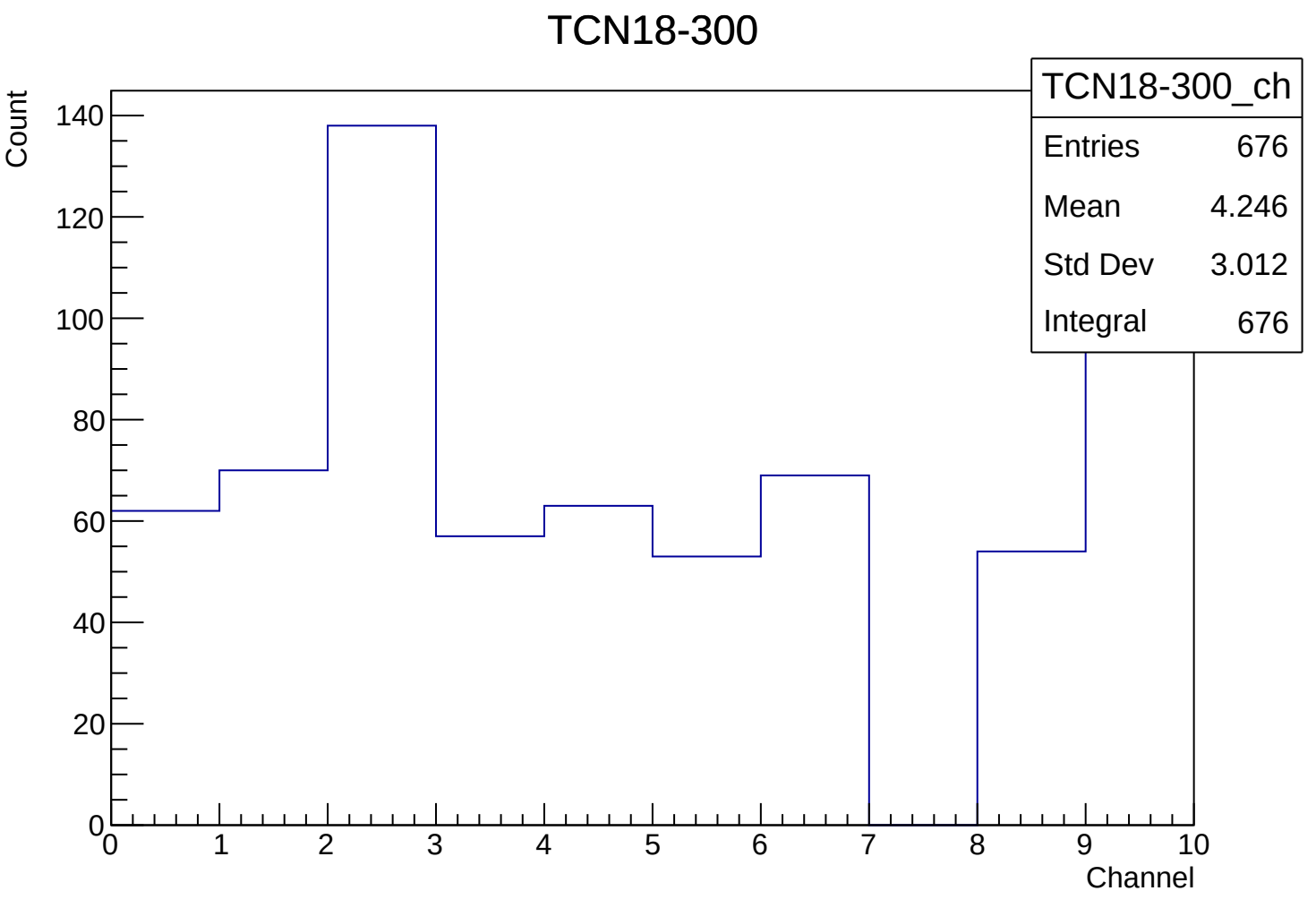

TCN18-300
TCN18-300_ch
Entries 1637
Mean 4.257
Std Dev 2.955
Integral 1637
Count
0
50
100
150
200
250
0 1 2 3 4 5 6 7 8 9 10
Channel

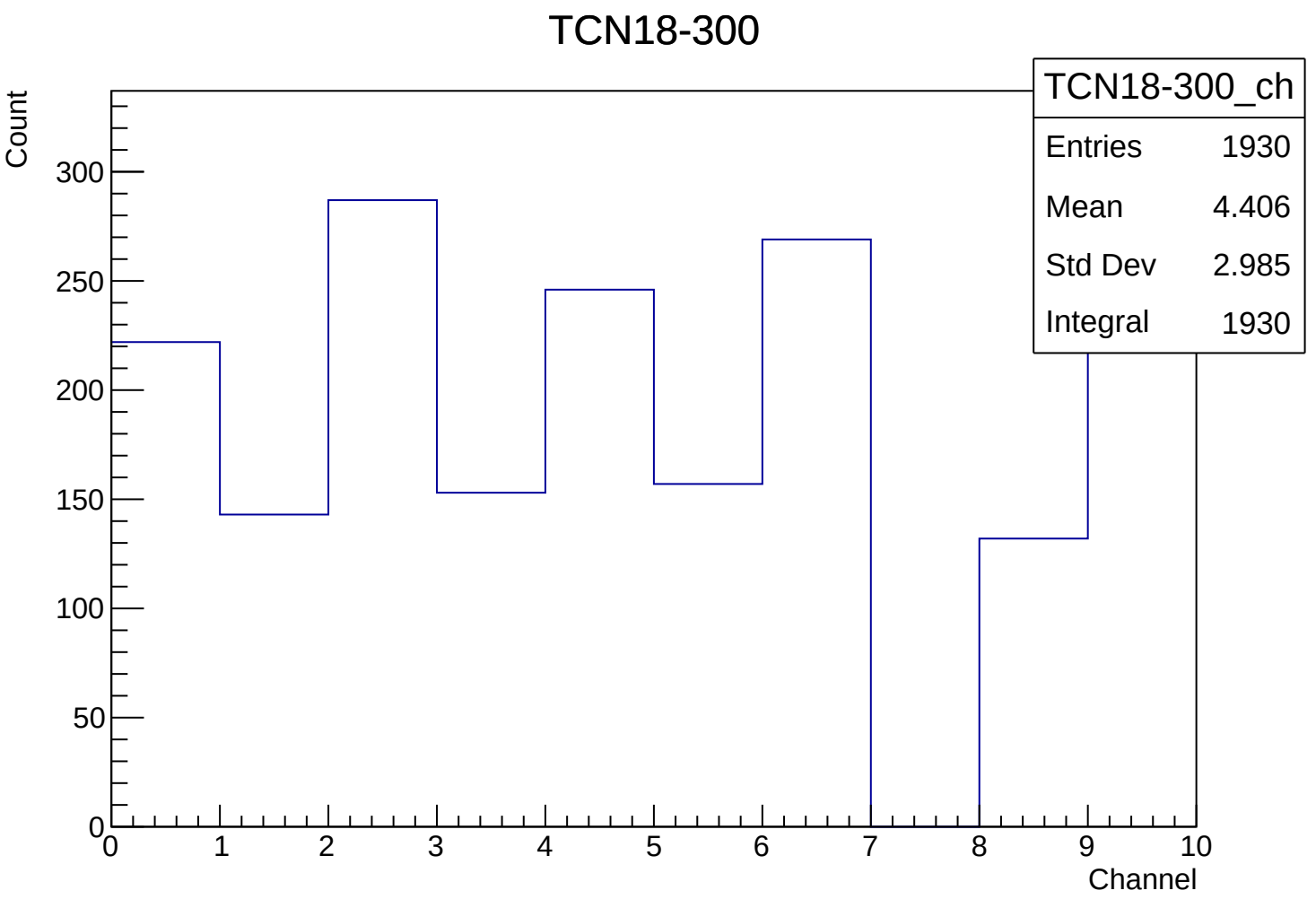

TCN18-300
TCN18-300_ch
Entries 578
Mean 3.953
Std Dev 2.751
Integral 578
Count
0
20
40
60
80
100
0
1
2
3
4
5
6
7
8
9
10
Channel


TCN18-300
TCN18-300_ch
Entries 1264
Mean 4.276
Std Dev 2.919
Integral 1264
Count
0
20
40
60
80
100
120
140
160
180
0
1
2
3
4
5
6
7
8
9
10
Channel


TCN18-300
TCN18-300_ch
Entries 566
Mean 4.276
Std Dev 2.876
Integral 566
Count
0
20
40
60
80
100
0
1
2
3
4
5
6
7
8
9
10
Channel


TCN18-300
TCN18-300_ch
Entries 882
Mean 4.247
Std Dev 3.008
Integral 882
Count
Channel
0
20
40
60
80
100
120
140
160
180
0
1
2
3
4
5
6
7
8
9
10


TCN18-300
TCN18-300_ch
Entries 676
Mean 4.246
Std Dev 3.012
Integral 676
Count
Channel
0
20
40
60
80
100
120
140
0
1
2
3
4
5
6
7
8
9
10


TCN18-300
TCN18-300_ch
Entries 1930
Mean 4.406
Std Dev 2.985
Integral 1930
Count
0
50
100
150
200
250
300
0
1
2
3
4
5
6
7
8
9
10
Channel