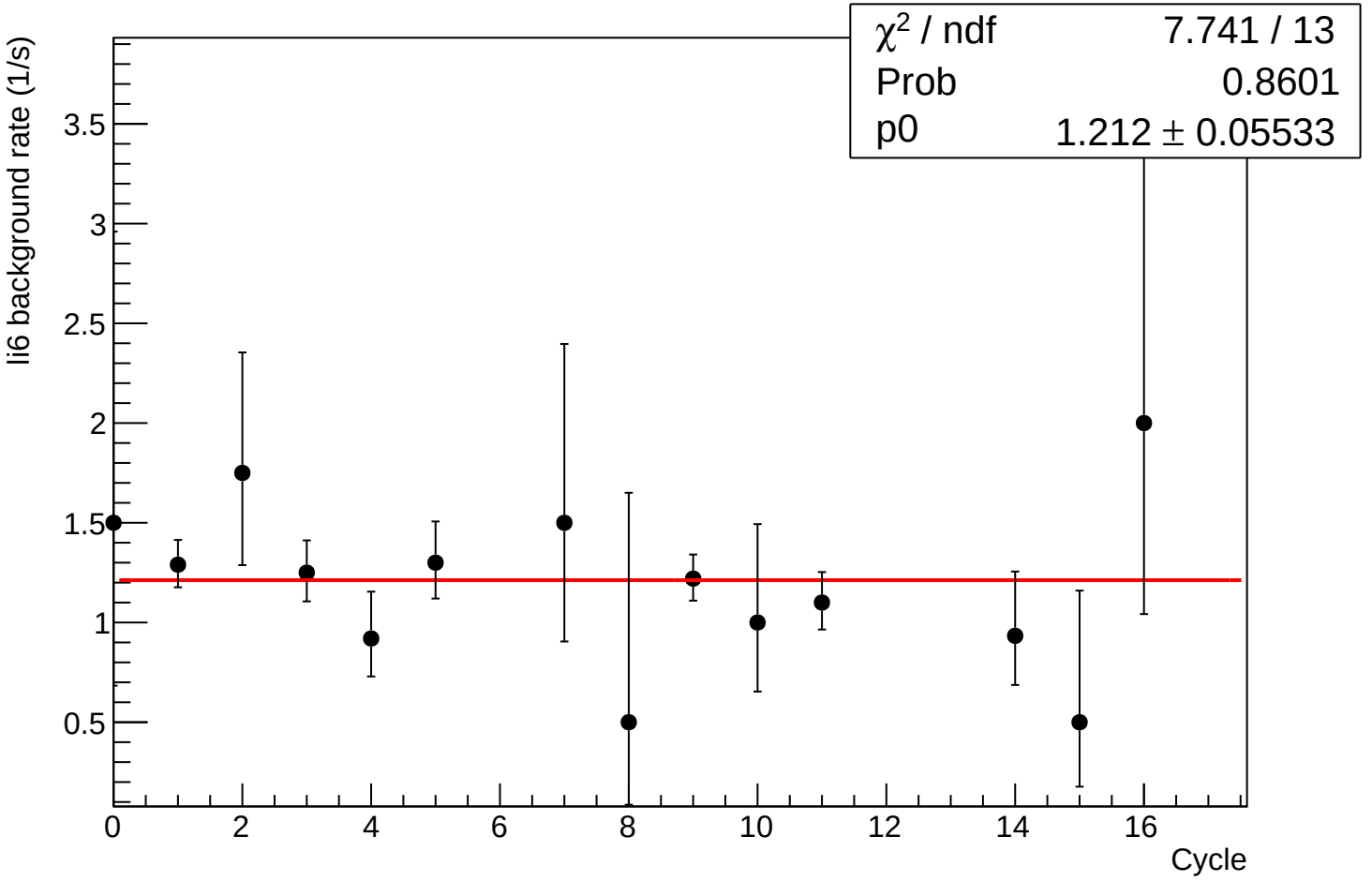
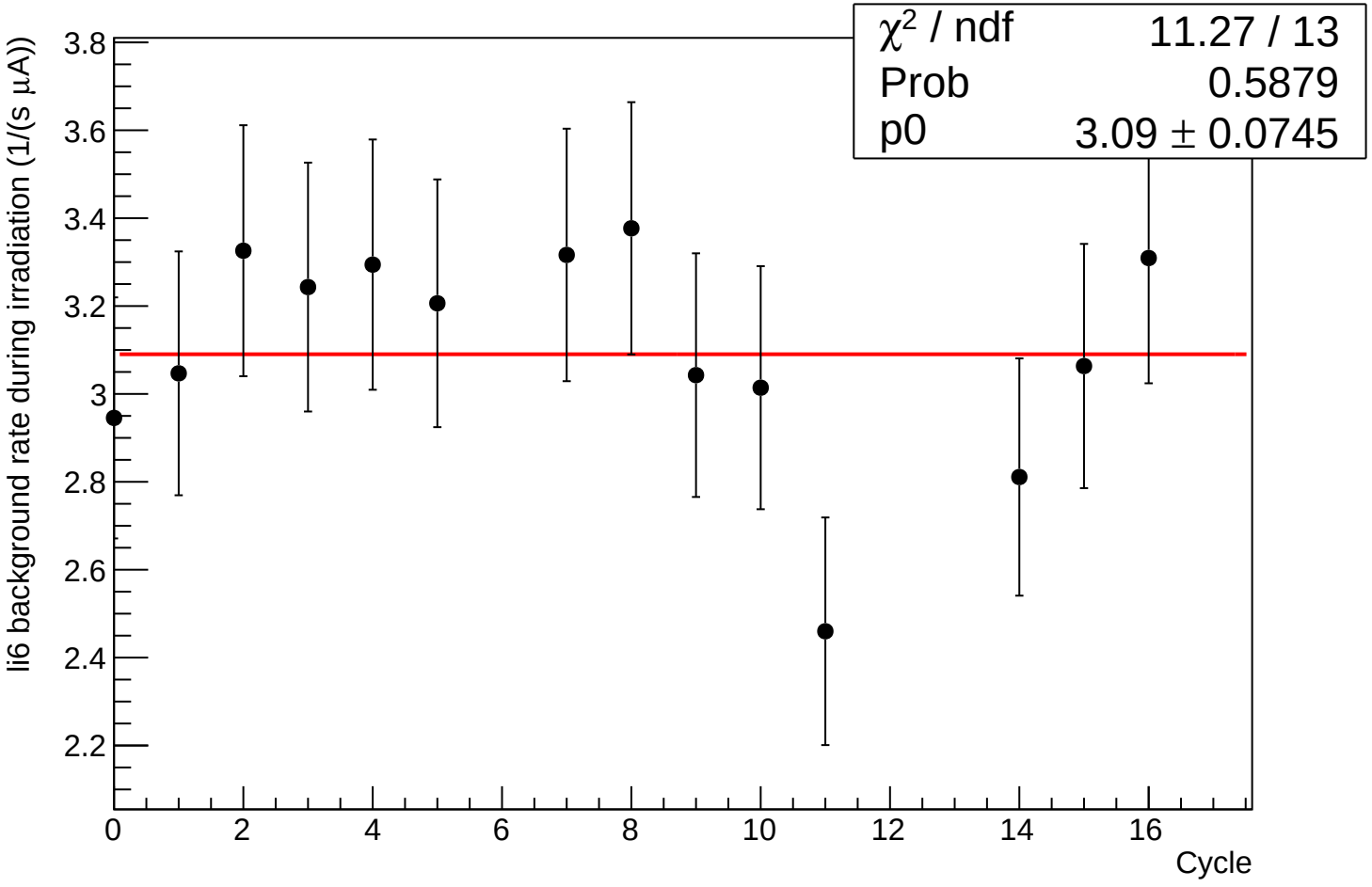
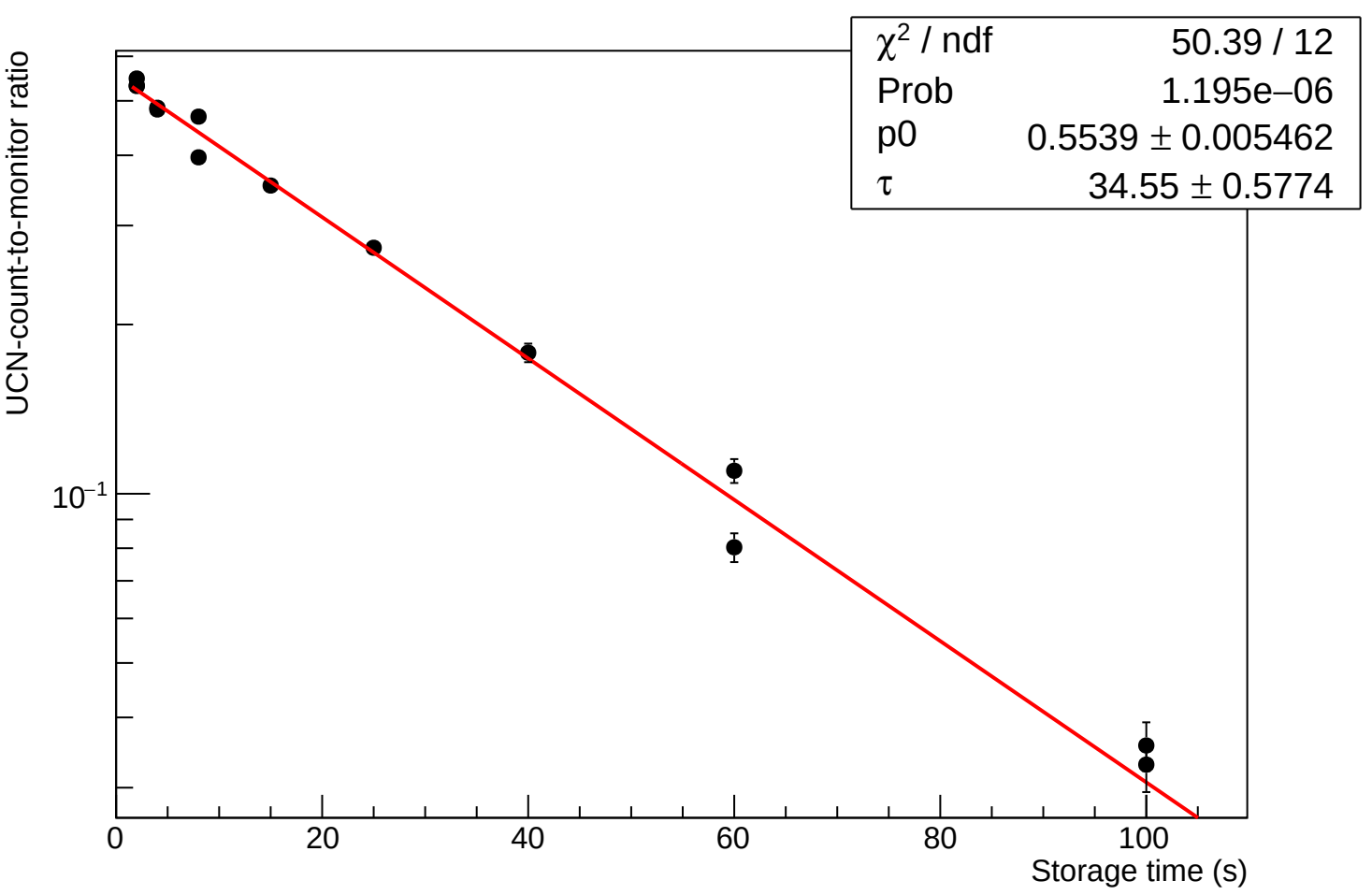
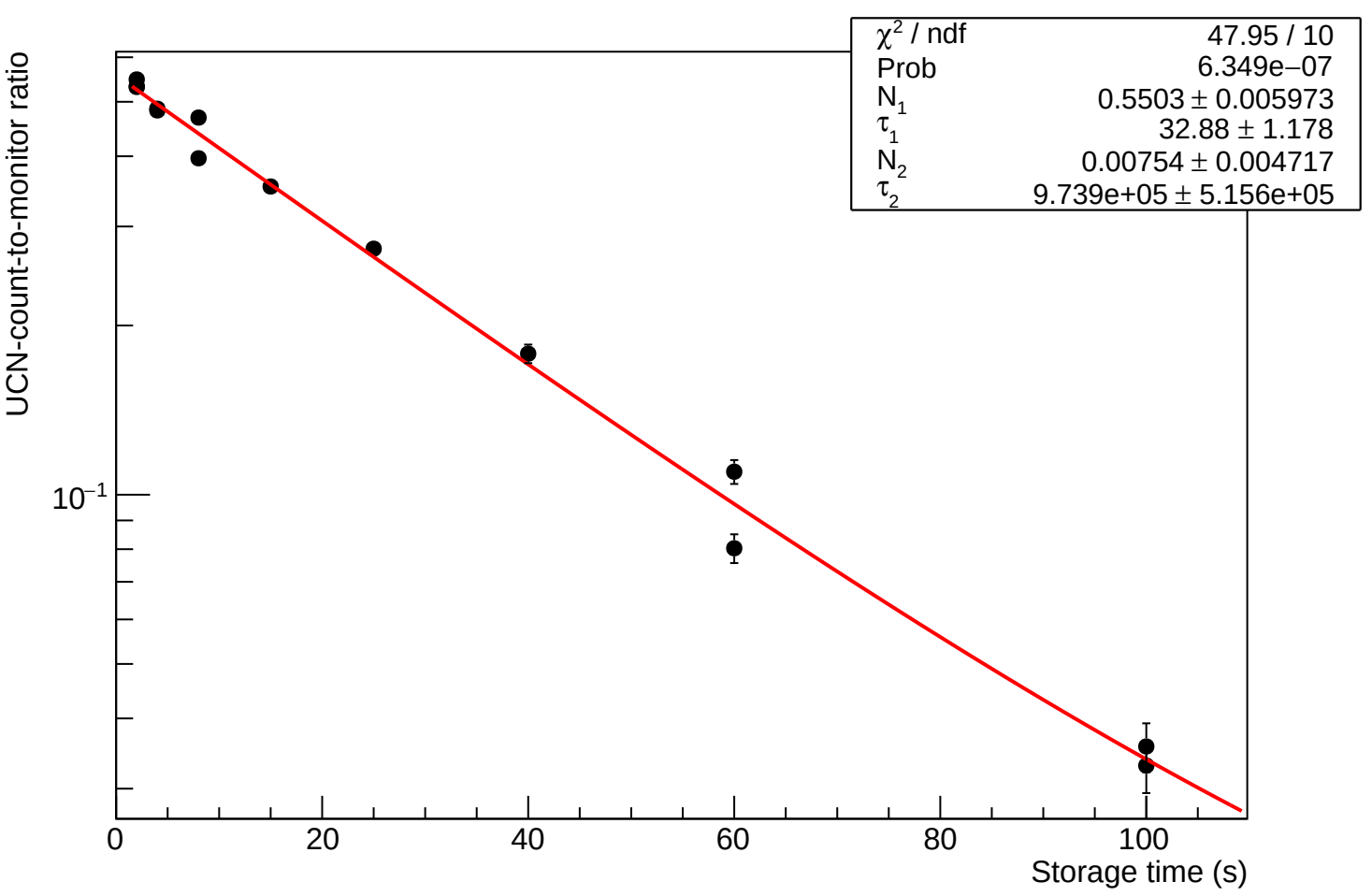
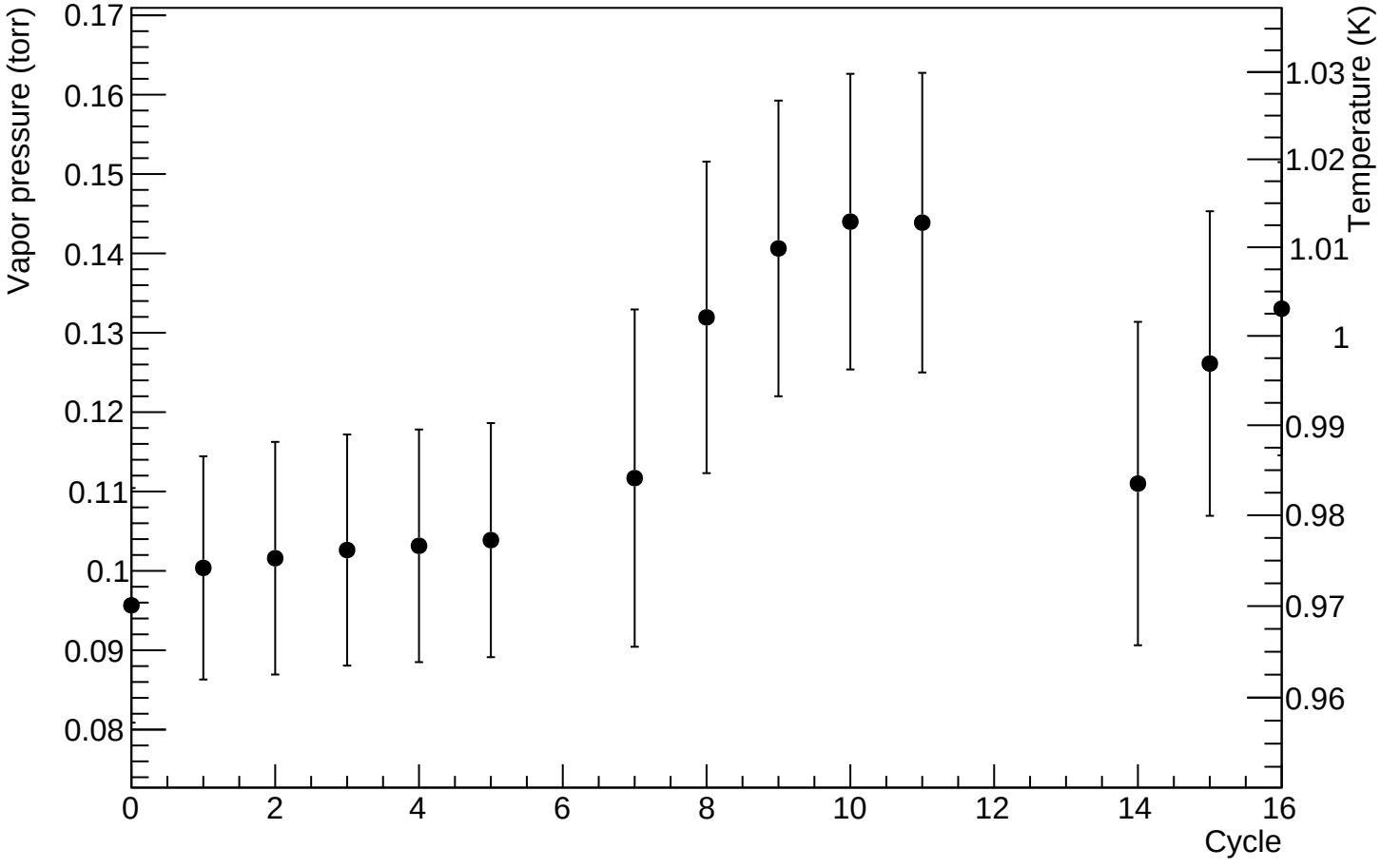
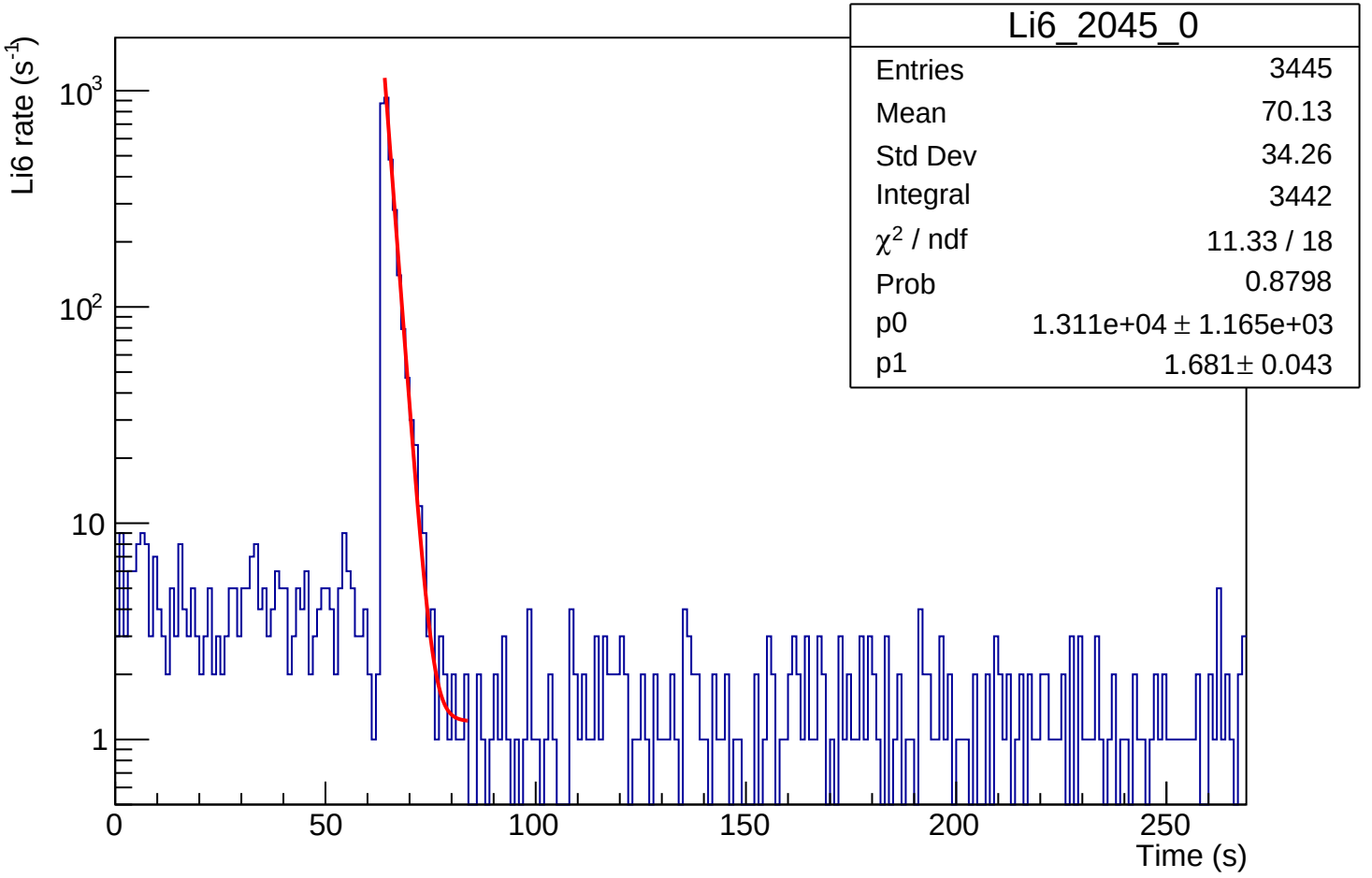

χ^2 / ndf 7.741 / 13
Prob 0.8601
p0 1.212 ± 0.05533
li6 background rate (1/s)
0.5
1
1.5
2
2.5
3
3.5
0
2
4
6
8
10
12
14
16
Cycle

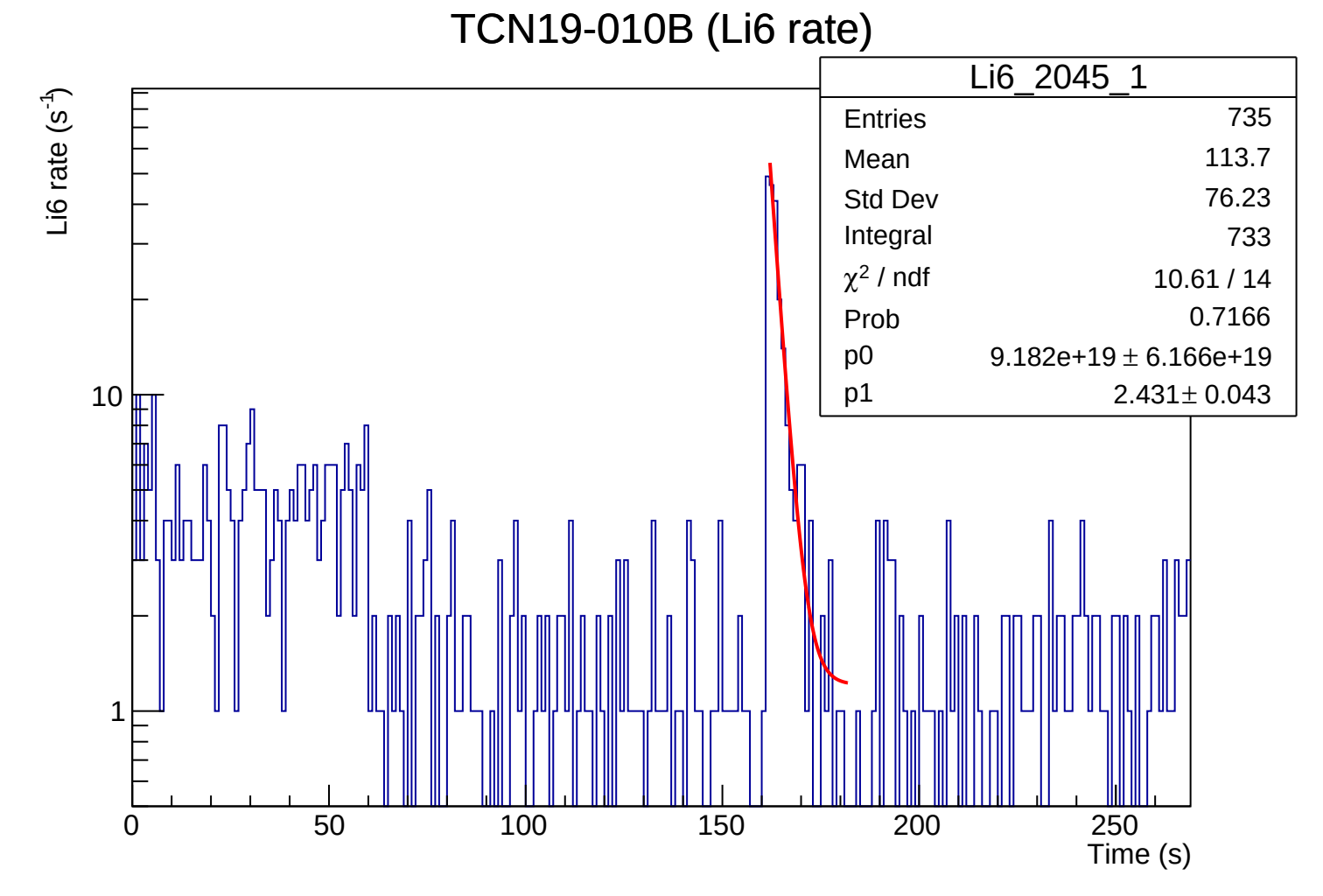

li6 background rate during irradiation (1/(s μA))
Cycle
χ² / ndf 11.27 / 13
Prob 0.5879
p0 3.09 ± 0.0745
3.8
3.6
3.4
3.2
3
2.8
2.6
2.4
2.2
0
2
4
6
8
10
12
14
16

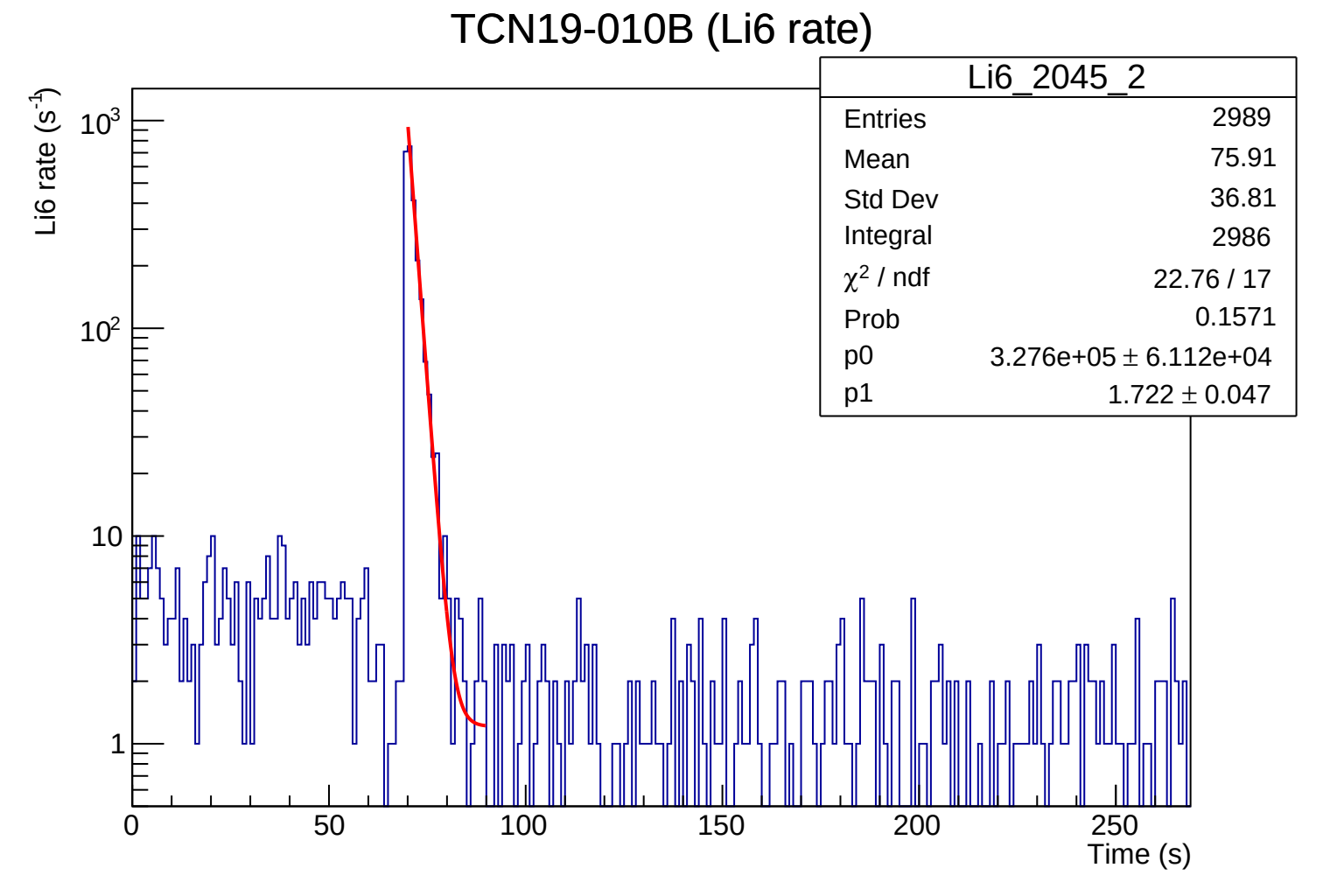

TCN19-010B (single exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ² / ndf 50.39 / 12
Prob 1.195e−06
p0 0.5539 ± 0.005462
τ 34.55 ± 0.5774
UCN-count-to-monitor ratio
10⁻¹
0
20
40
60
80
100
Storage time (s)

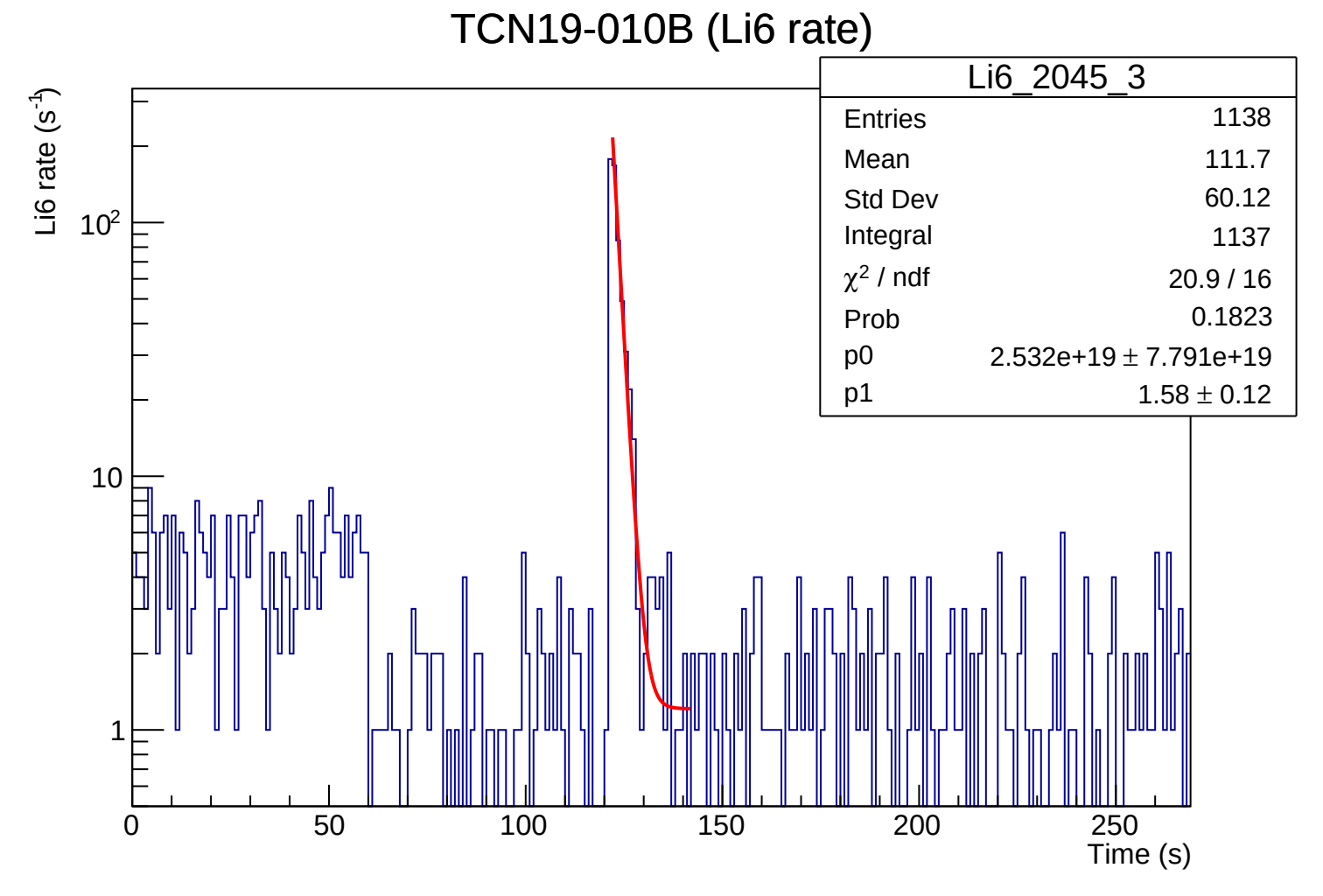

TCN19-010B (double exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ² / ndf 47.95 / 10
Prob 6.349e−07
N1 0.5503 ± 0.005973
τ1 32.88 ± 1.178
N2 0.00754 ± 0.004717
τ2 9.739e+05 ± 5.156e+05
UCN-count-to-monitor ratio
10⁻¹
0
20
40
60
80
100
Storage time (s)

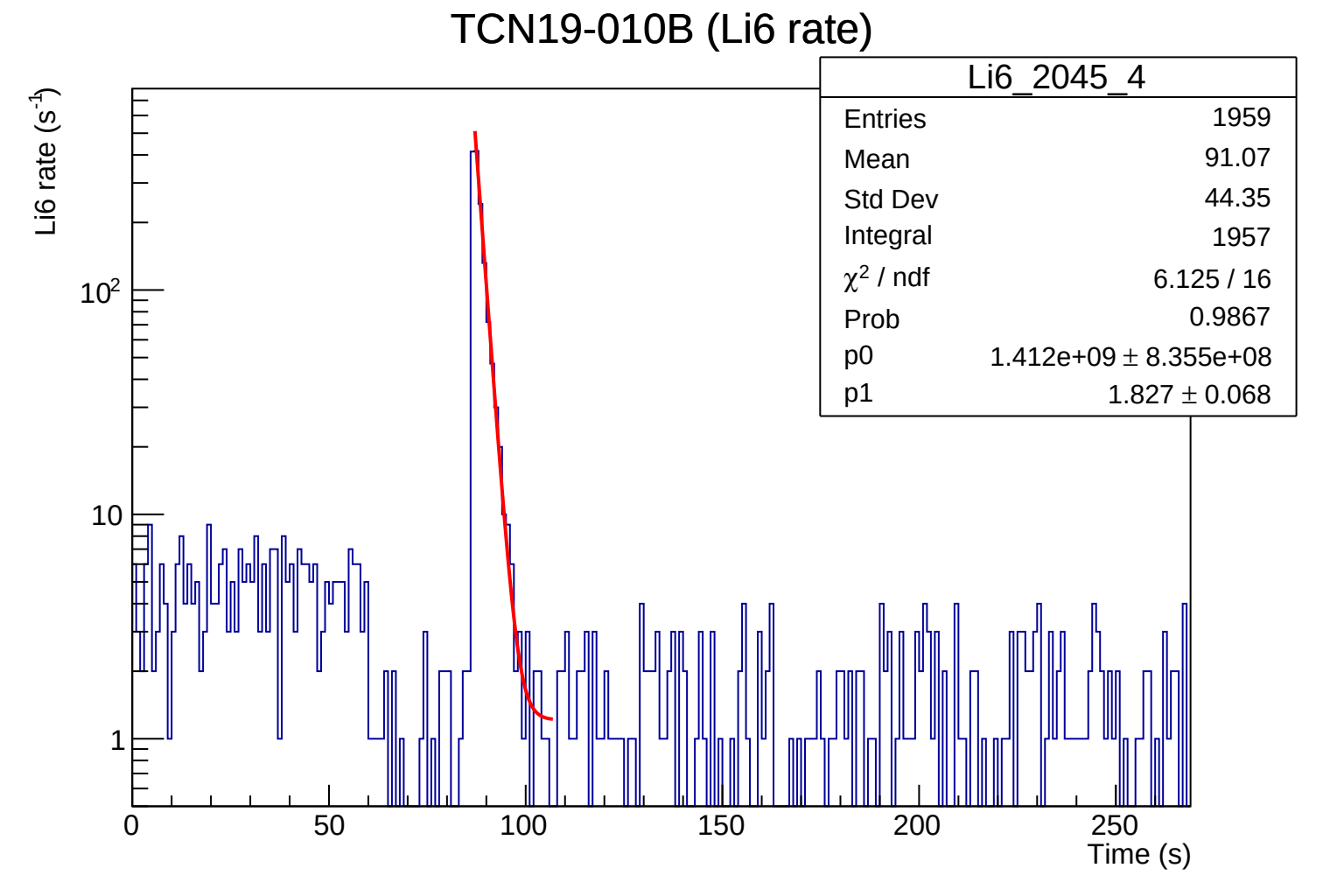

Graph
Vapor pressure (torr)
0.17
0.16
0.15
0.14
0.13
0.12
0.11
0.1
0.09
0.08
Temperature (K)
1.03
1.02
1.01
1
0.99
0.98
0.97
0.96
0
2
4
6
8
10
12
14
16
Cycle

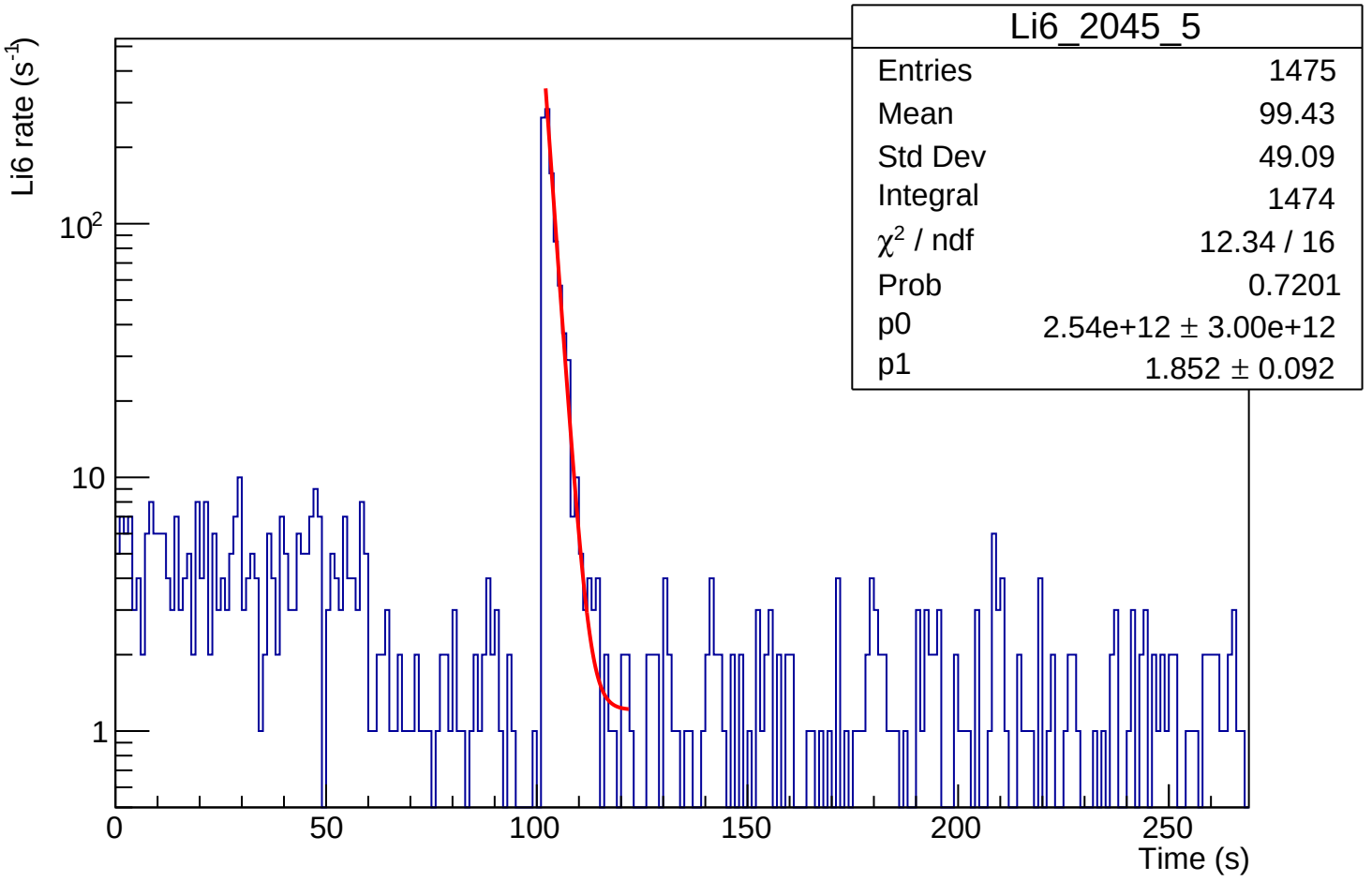

TCN19-010B (Li6 rate)
Li6_2045_0
Entries 3445
Mean 70.13
Std Dev 34.26
Integral 3442
χ² / ndf 11.33 / 18
Prob 0.8798
p0 1.311e+04 ± 1.165e+03
p1 1.681± 0.043
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
Time (s)

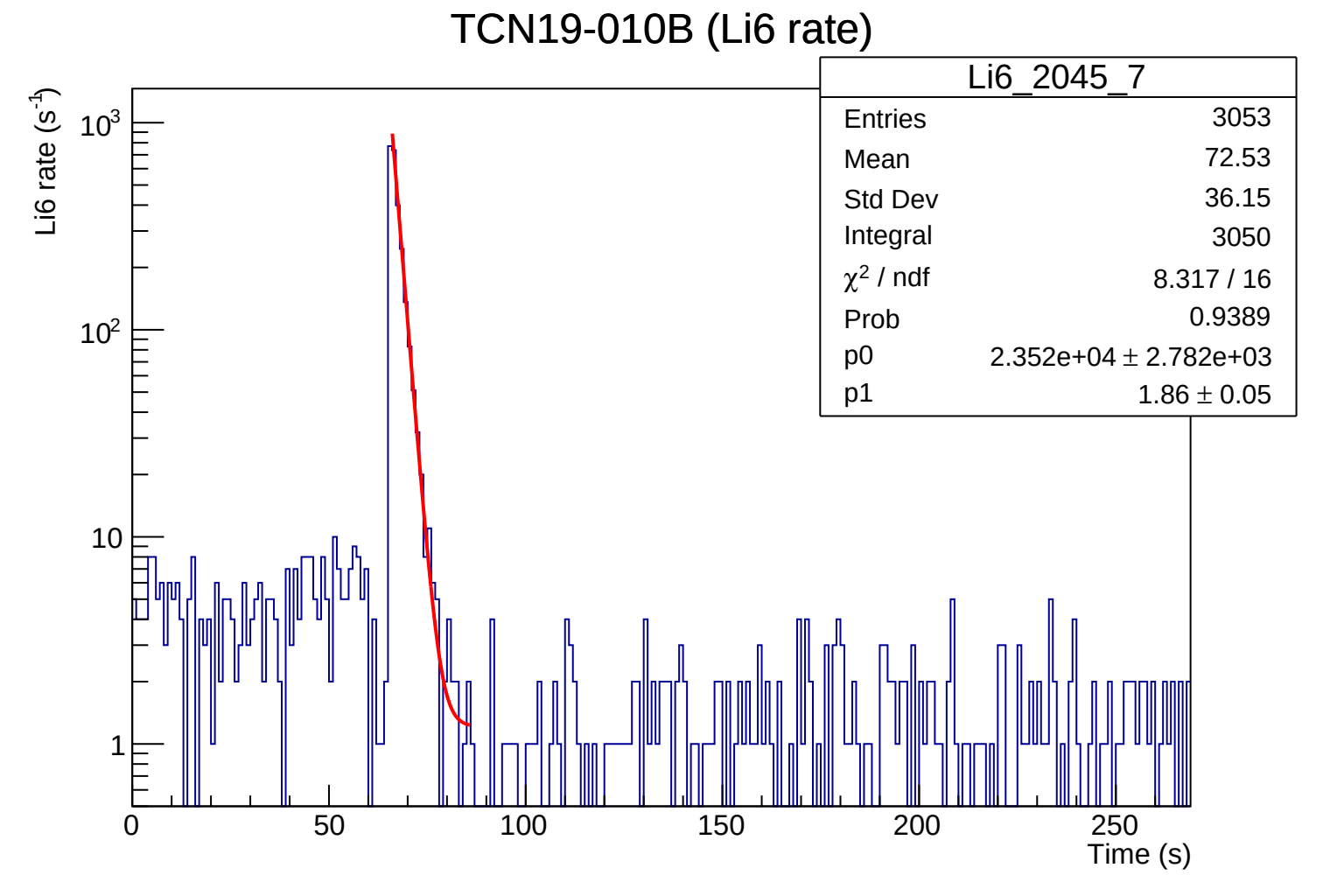

TCN19-010B (Li6 rate)
Li6_2045_1
Entries 735
Mean 113.7
Std Dev 76.23
Integral 733
χ² / ndf 10.61 / 14
Prob 0.7166
p0 9.182e+19 ± 6.166e+19
p1 2.431± 0.043
Li6 rate (s⁻¹)
10
1
0
50
100
150
200
250
Time (s)

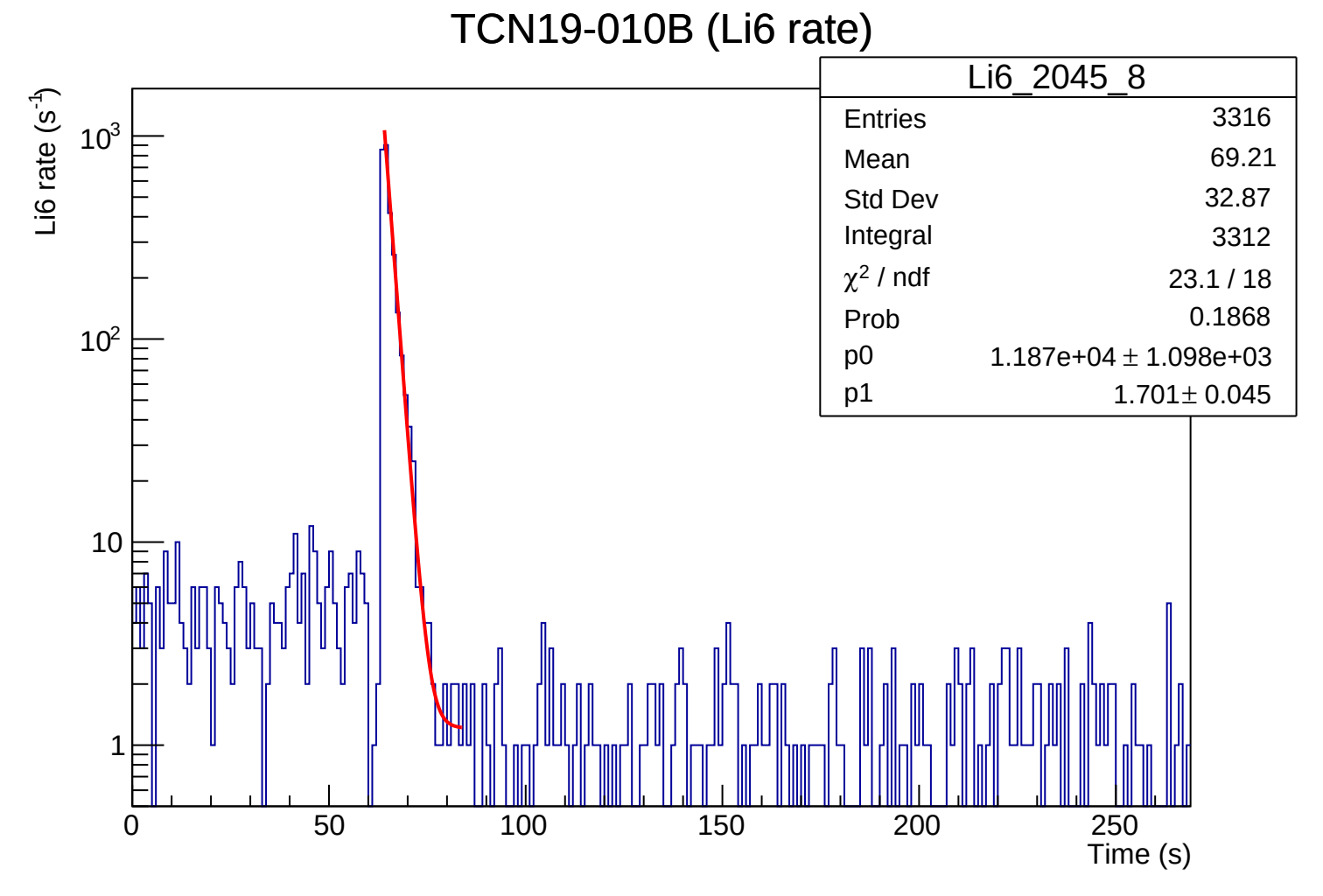

TCN19-010B (Li6 rate)
Li6_2045_2
Entries 2989
Mean 75.91
Std Dev 36.81
Integral 2986
χ² / ndf 22.76 / 17
Prob 0.1571
p0 3.276e+05 ± 6.112e+04
p1 1.722 ± 0.047
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
Time (s)

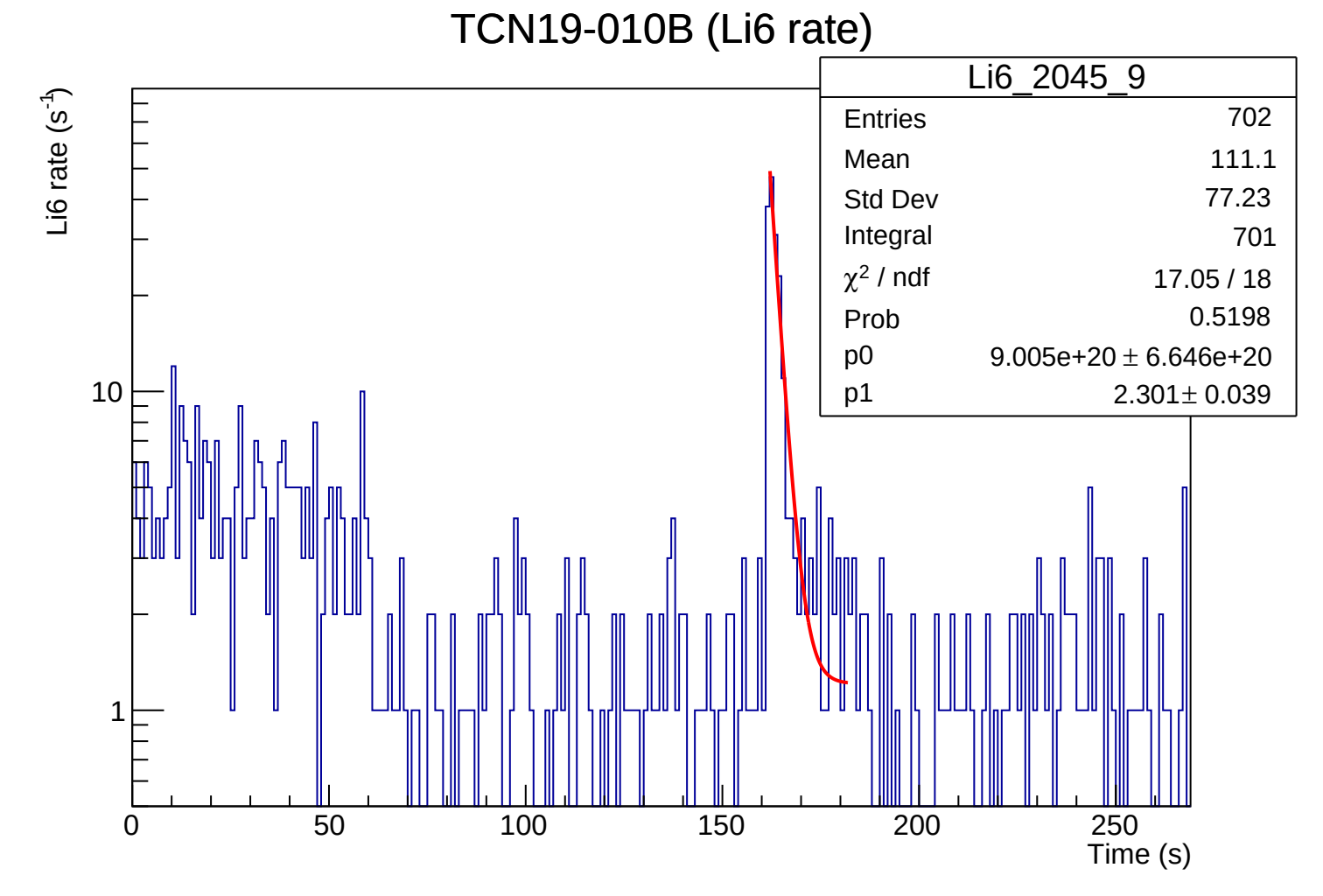

TCN19-010B (Li6 rate)
Li6_2045_3
Entries 1138
Mean 111.7
Std Dev 60.12
Integral 1137
χ2 / ndf 20.9 / 16
Prob 0.1823
p0 2.532e+19 ± 7.791e+19
p1 1.58 ± 0.12
Li6 rate (s-1)
10^2
10
1
0
50
100
150
200
250
Time (s)

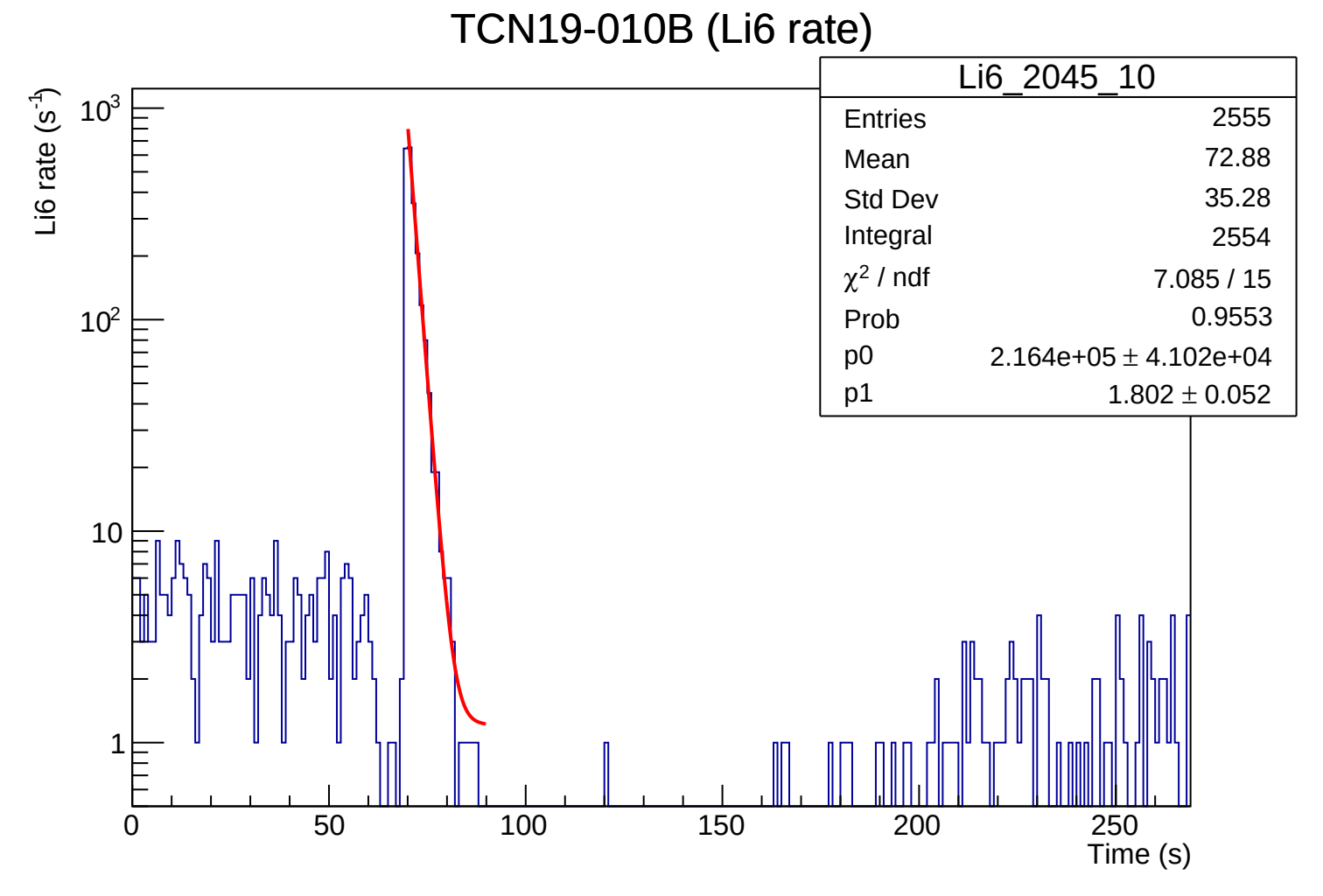

TCN19-010B (Li6 rate)
Li6_2045_4
Entries 1959
Mean 91.07
Std Dev 44.35
Integral 1957
χ² / ndf 6.125 / 16
Prob 0.9867
p0 1.412e+09 ± 8.355e+08
p1 1.827 ± 0.068
Li6 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

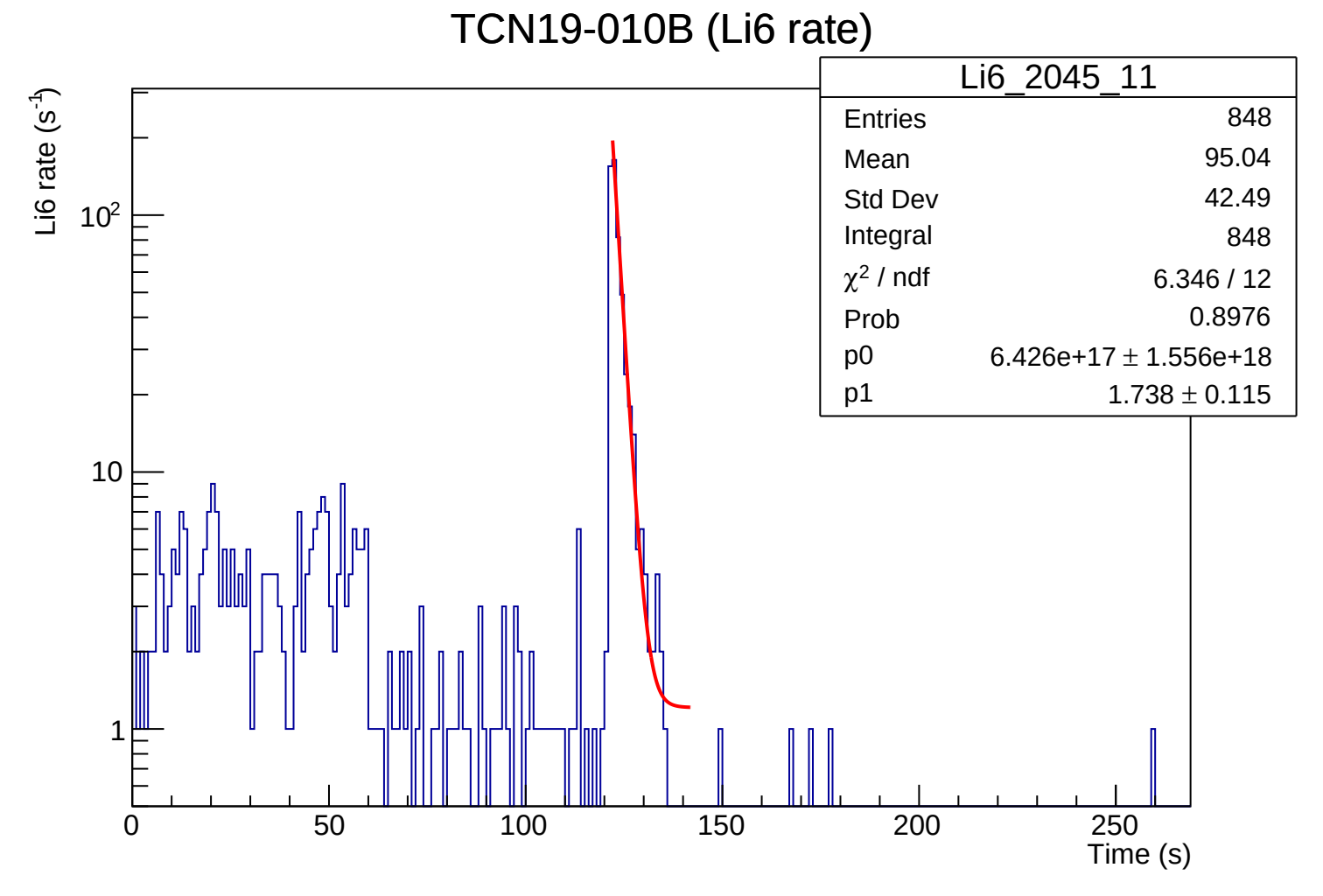

TCN19-010B (Li6 rate)
Li6_2045_5
Entries 1475
Mean 99.43
Std Dev 49.09
Integral 1474
χ² / ndf 12.34 / 16
Prob 0.7201
p0 2.54e+12 ± 3.00e+12
p1 1.852 ± 0.092
Li6 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

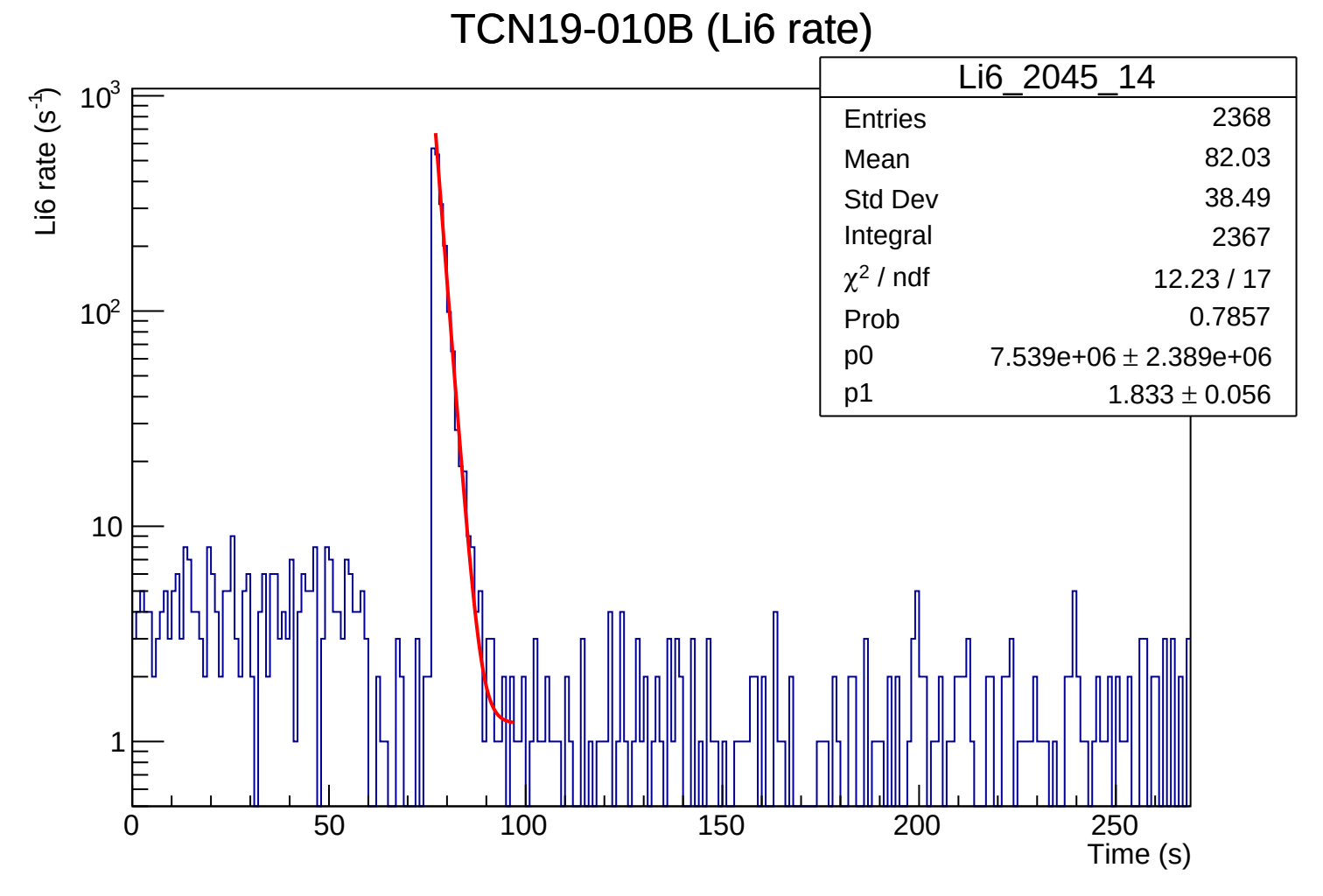

TCN19-010B (Li6 rate)
Li6_2045_7
Entries 3053
Mean 72.53
Std Dev 36.15
Integral 3050
χ2 / ndf 8.317 / 16
Prob 0.9389
p0 2.352e+04 ± 2.782e+03
p1 1.86 ± 0.05
Li6 rate (s-1)
10^3
10^2
10
1
0
50
100
150
200
250
Time (s)

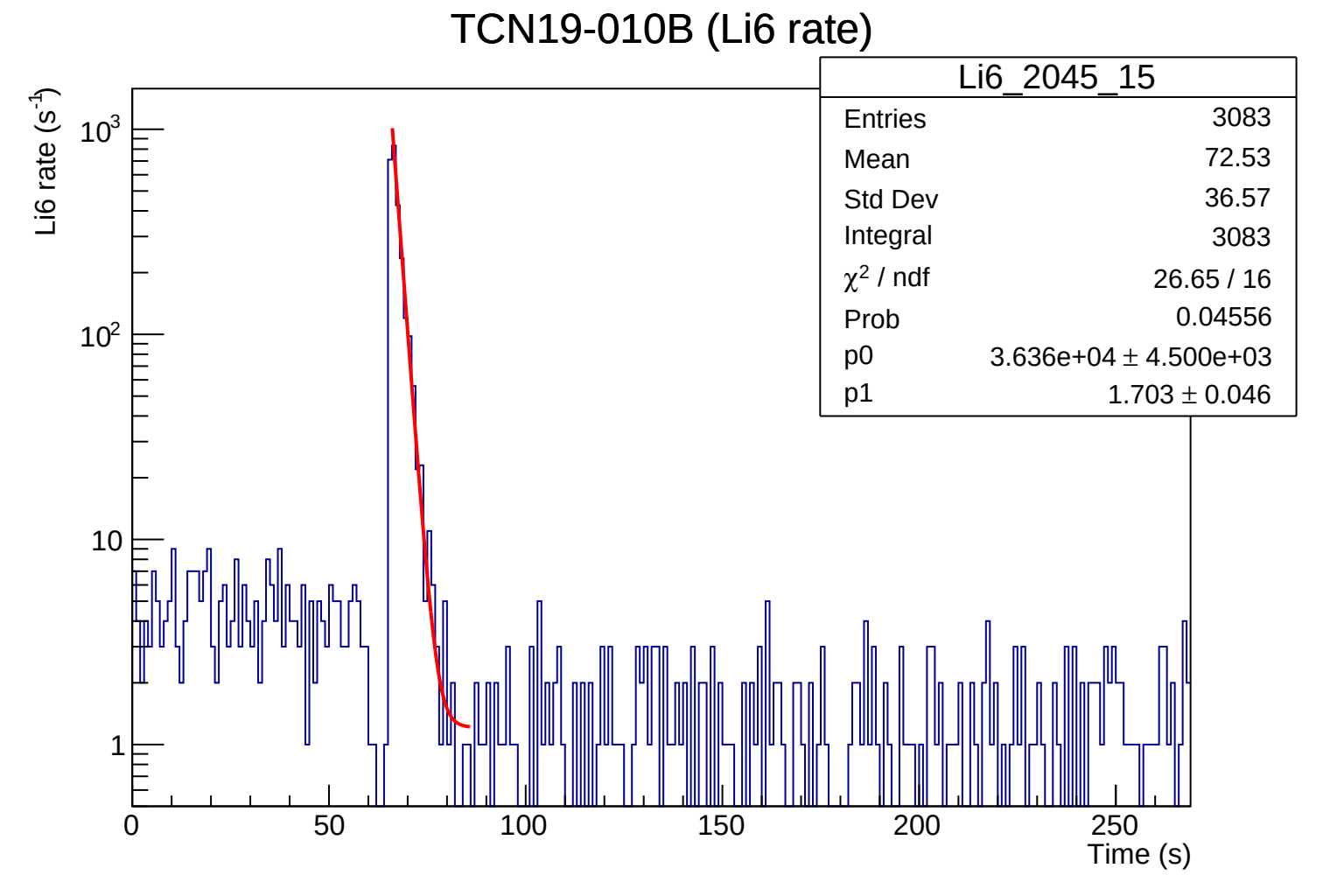

TCN19-010B (Li6 rate)
Li6_2045_8
Entries 3316
Mean 69.21
Std Dev 32.87
Integral 3312
χ² / ndf 23.1 / 18
Prob 0.1868
p0 1.187e+04 ± 1.098e+03
p1 1.701± 0.045
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
Time (s)

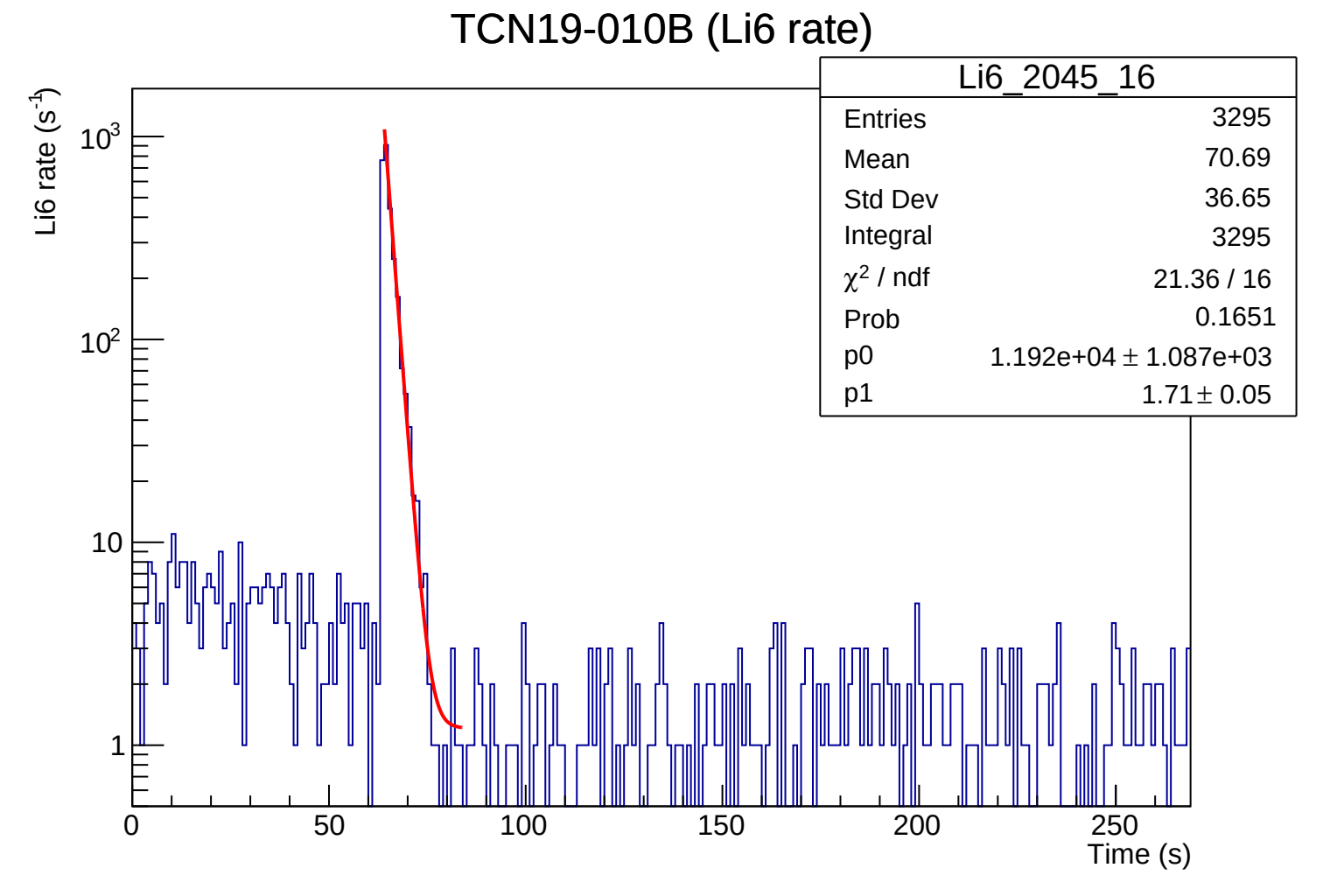

TCN19-010B (Li6 rate)
Li6_2045_9
Entries 702
Mean 111.1
Std Dev 77.23
Integral 701
χ2 / ndf 17.05 / 18
Prob 0.5198
p0 9.005e+20 ± 6.646e+20
p1 2.301± 0.039
Li6 rate (s-1)
10
1
0
50
100
150
200
250
Time (s)

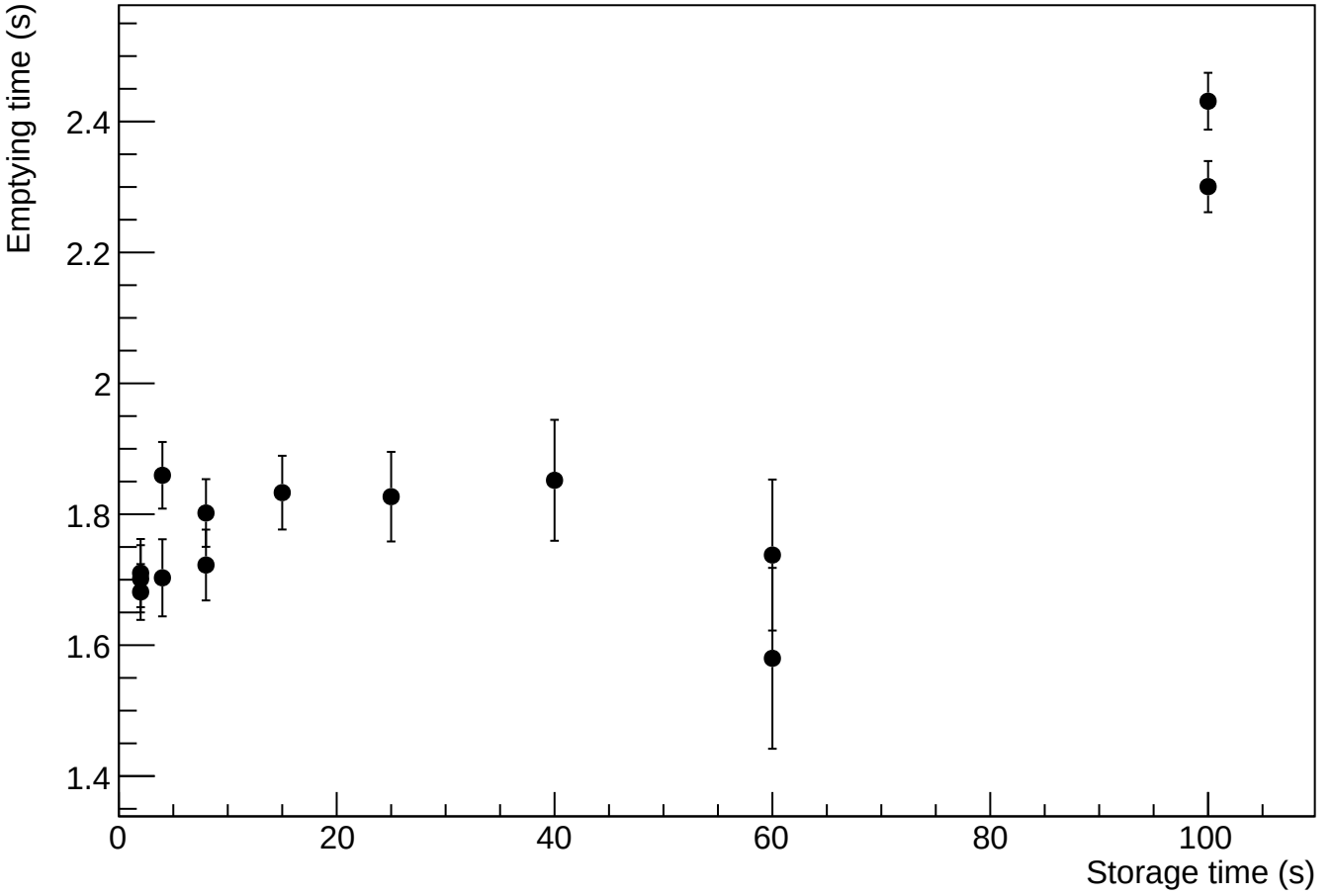

TCN19-010B (Li6 rate)
Li6_2045_10
Entries 2555
Mean 72.88
Std Dev 35.28
Integral 2554
χ² / ndf 7.085 / 15
Prob 0.9553
p0 2.164e+05 ± 4.102e+04
p1 1.802 ± 0.052
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
Time (s)

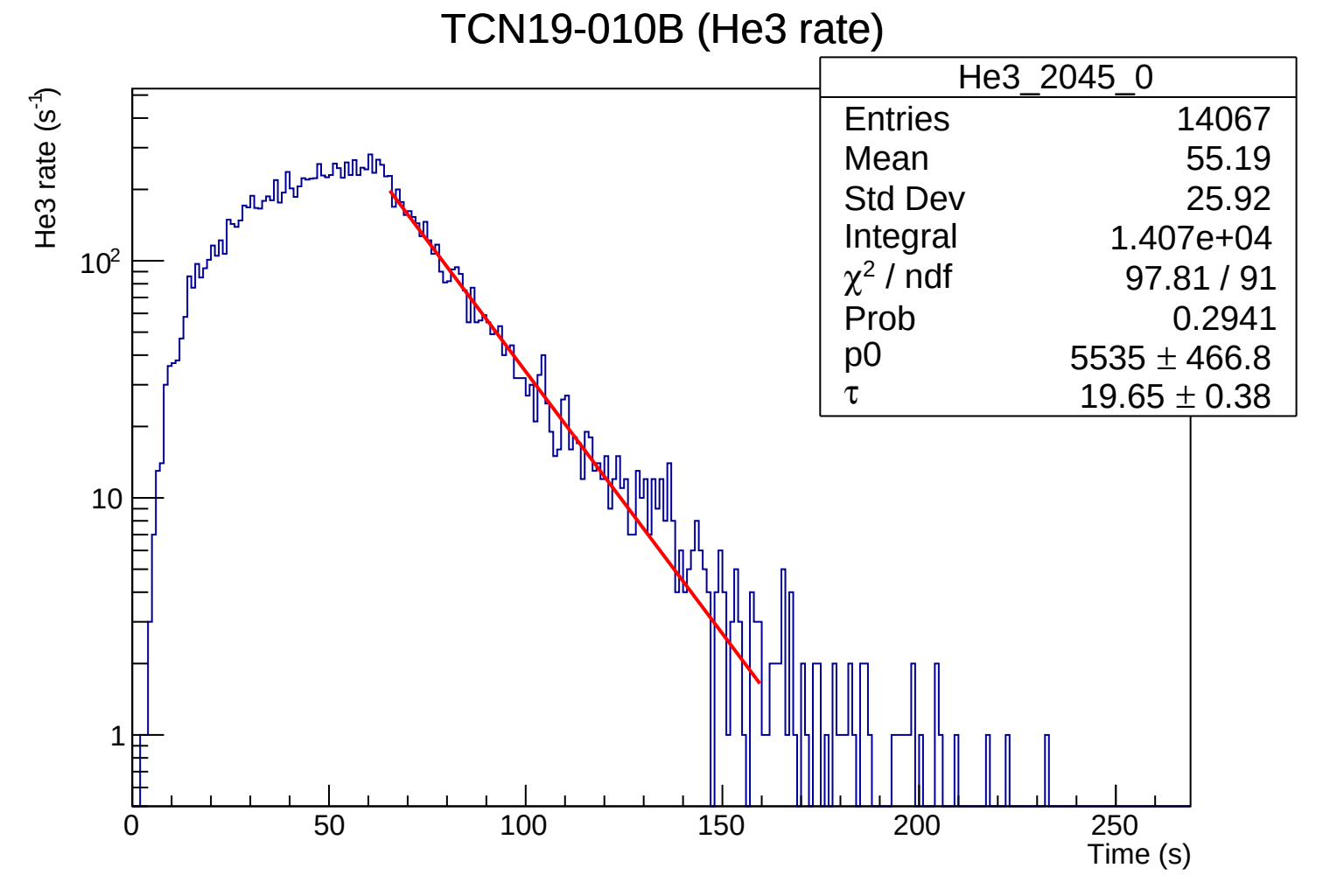

TCN19-010B (Li6 rate)
Li6_2045_11
Entries 848
Mean 95.04
Std Dev 42.49
Integral 848
χ2 / ndf 6.346 / 12
Prob 0.8976
p0 6.426e+17 ± 1.556e+18
p1 1.738 ± 0.115
Li6 rate (s-1)
10^2
10
1
0
50
100
150
200
250
Time (s)

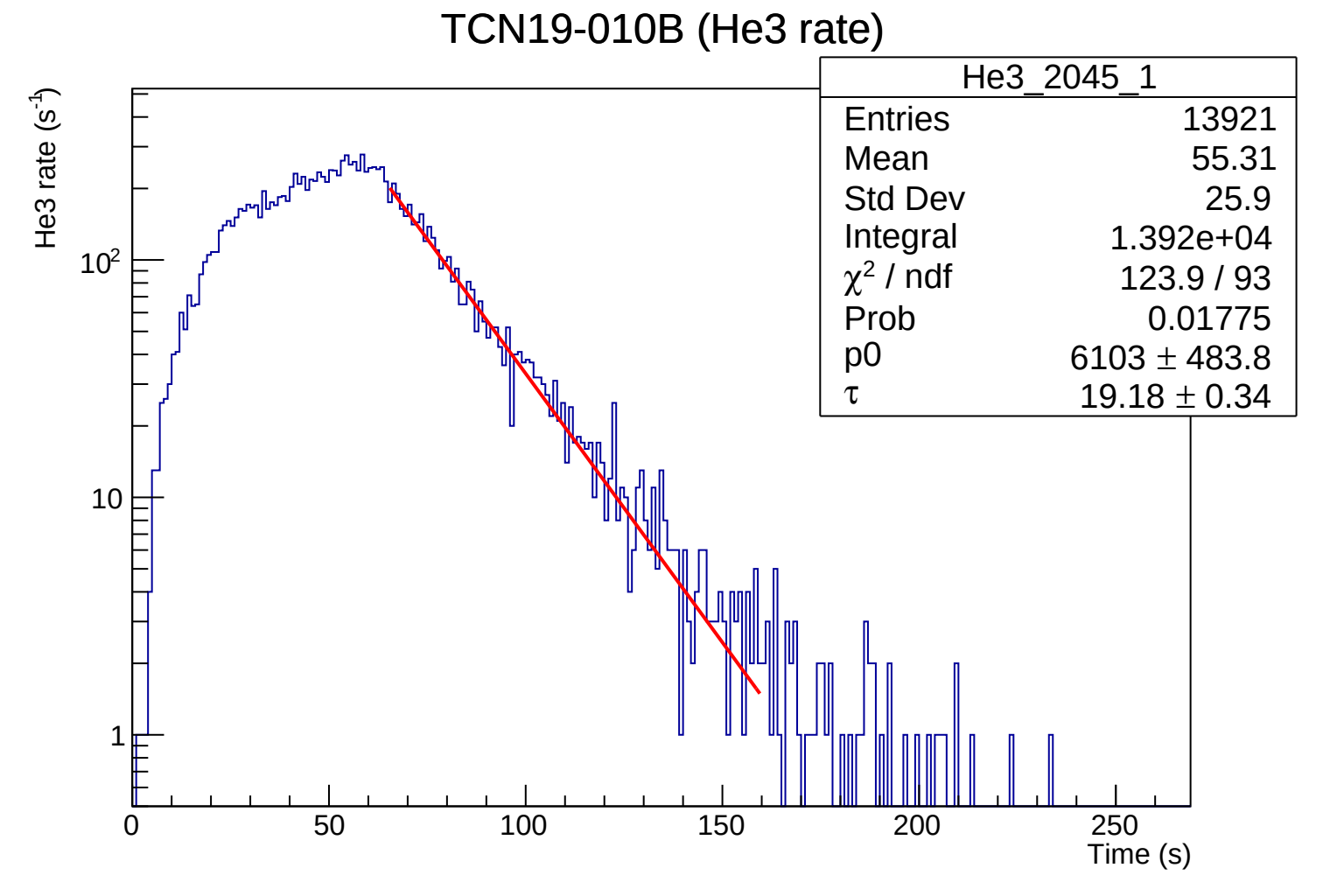

TCN19-010B (Li6 rate)
Li6_2045_14
Entries 2368
Mean 82.03
Std Dev 38.49
Integral 2367
χ² / ndf 12.23 / 17
Prob 0.7857
p0 7.539e+06 ± 2.389e+06
p1 1.833 ± 0.056
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
Time (s)

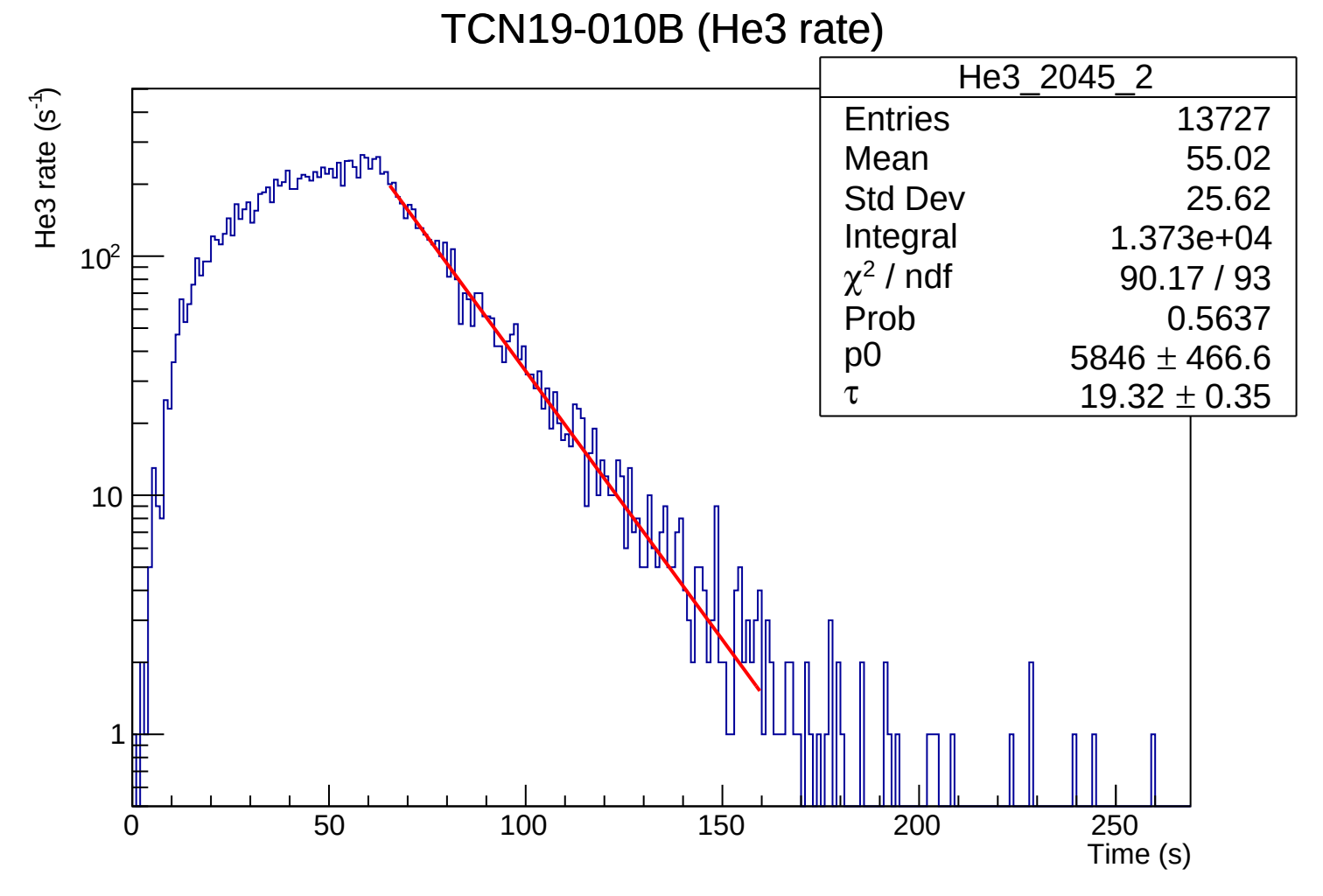

TCN19-010B (Li6 rate)
Li6_2045_15
Entries 3083
Mean 72.53
Std Dev 36.57
Integral 3083
χ2 / ndf 26.65 / 16
Prob 0.04556
p0 3.636e+04 ± 4.500e+03
p1 1.703 ± 0.046
Li6 rate (s-1)
10^3
10^2
10
1
0
50
100
150
200
250
Time (s)

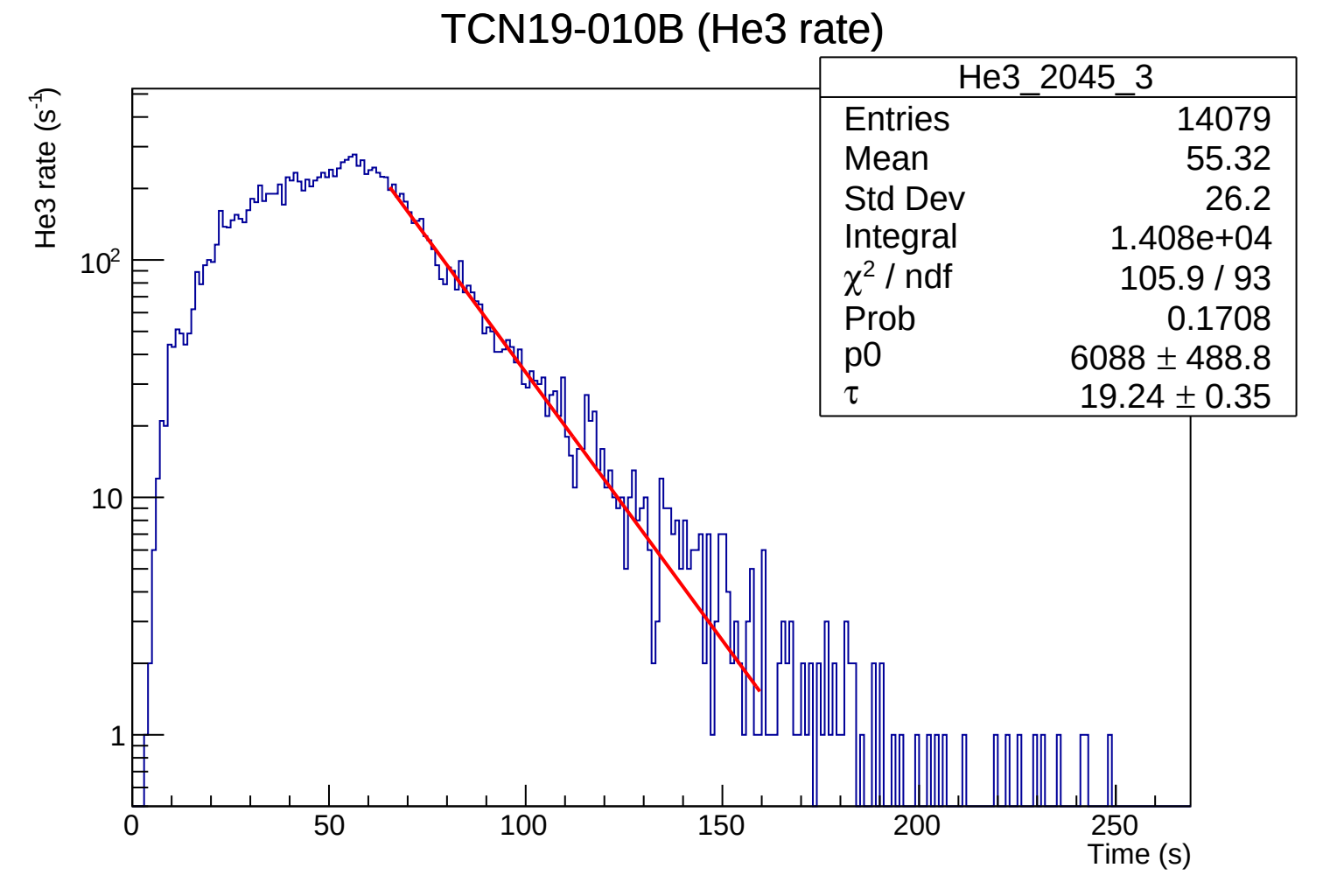

TCN19-010B (Li6 rate)
Li6_2045_16
Entries 3295
Mean 70.69
Std Dev 36.65
Integral 3295
χ² / ndf 21.36 / 16
Prob 0.1651
p0 1.192e+04 ± 1.087e+03
p1 1.71 ± 0.05
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
Time (s)

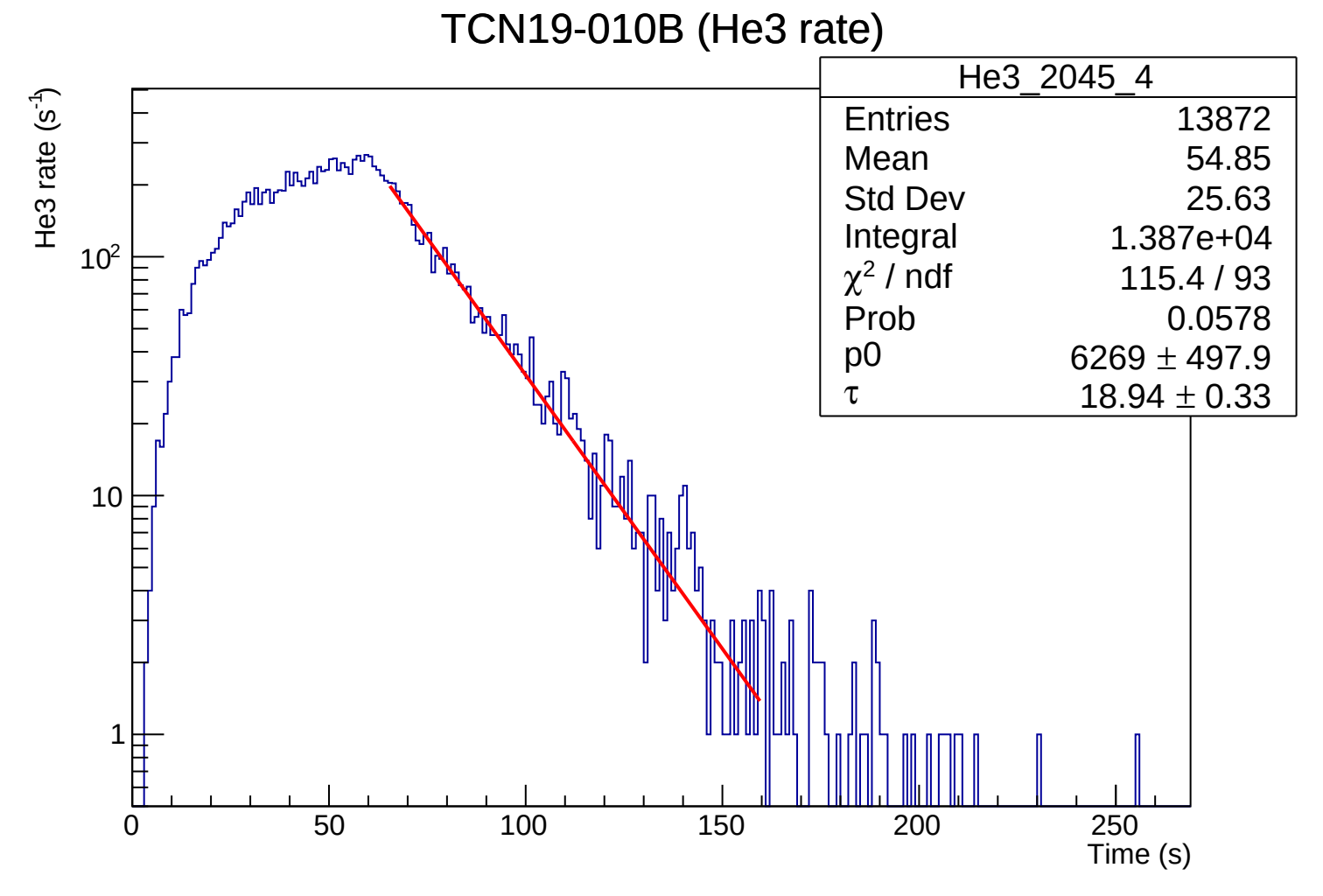

Emptying time (s)
2.4
2.2
2
1.8
1.6
1.4
0
20
40
60
80
100
Storage time (s)

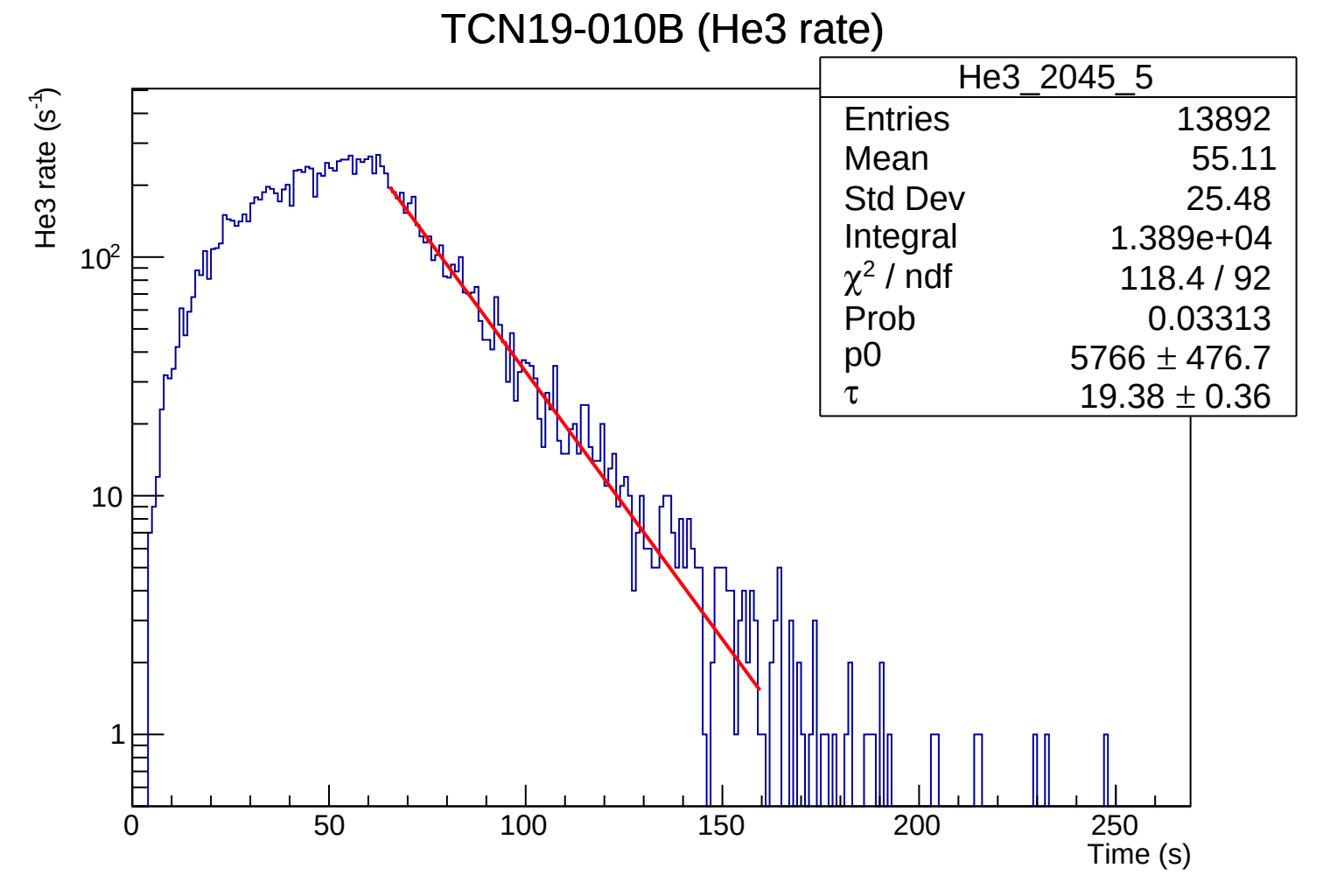

TCN19-010B (He3 rate)
He3_2045_0
Entries 14067
Mean 55.19
Std Dev 25.92
Integral 1.407e+04
χ² / ndf 97.81 / 91
Prob 0.2941
p0 5535 ± 466.8
τ 19.65 ± 0.38
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

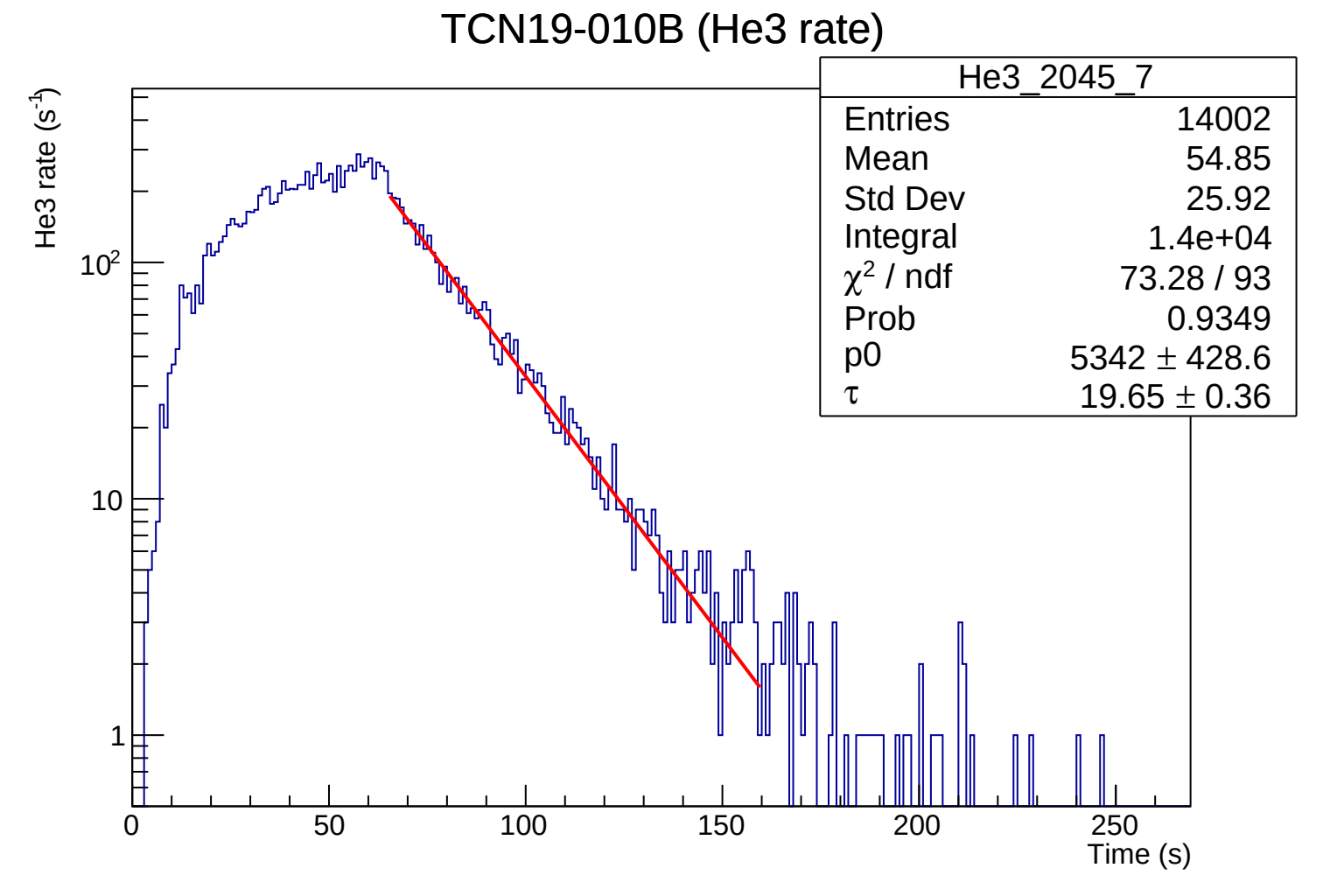

TCN19-010B (He3 rate)
He3_2045_1
Entries 13921
Mean 55.31
Std Dev 25.9
Integral 1.392e+04
χ² / ndf 123.9 / 93
Prob 0.01775
p0 6103 ± 483.8
τ 19.18 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

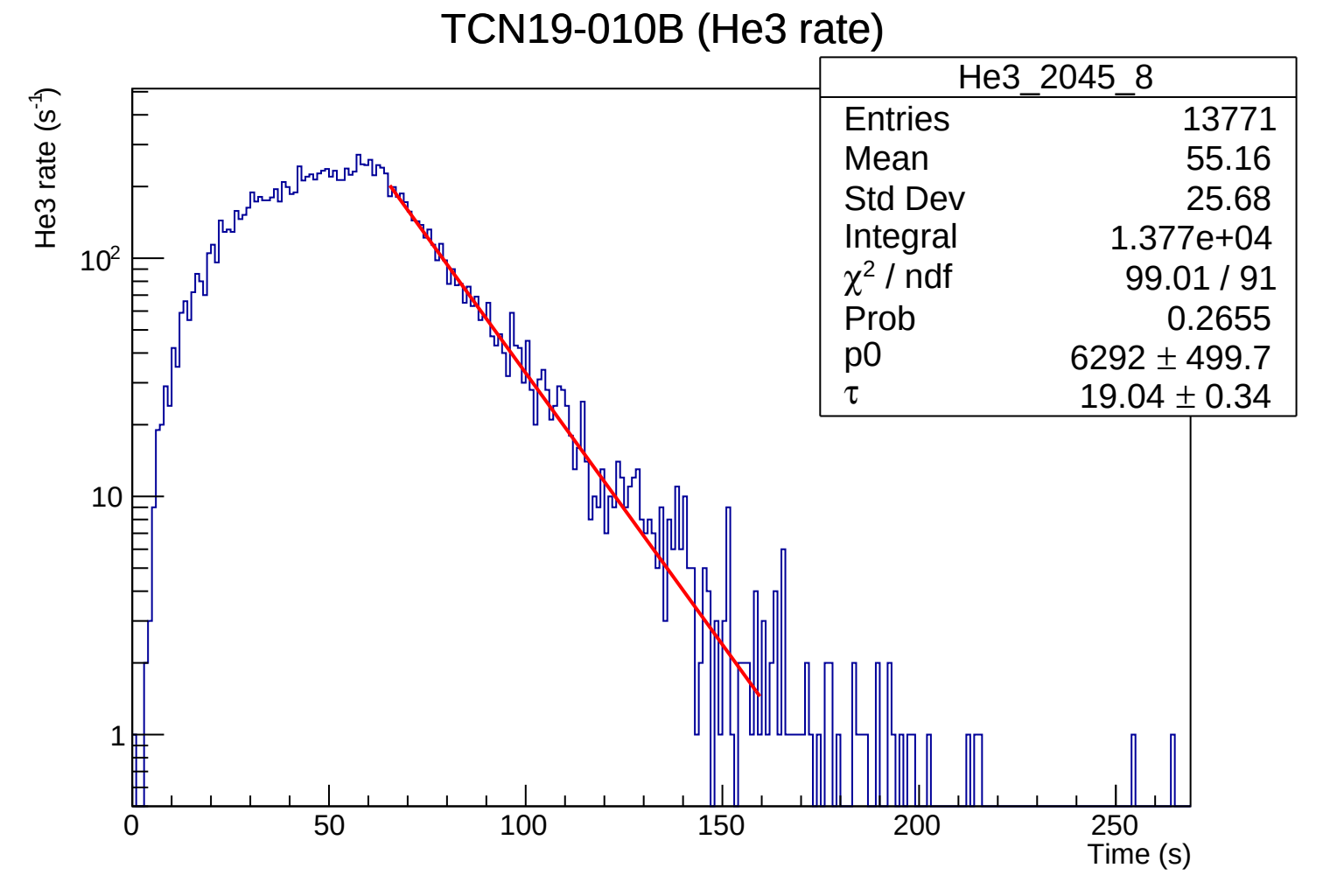

TCN19-010B (He3 rate)
He3_2045_2
Entries 13727
Mean 55.02
Std Dev 25.62
Integral 1.373e+04
χ² / ndf 90.17 / 93
Prob 0.5637
p0 5846 ± 466.6
τ 19.32 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

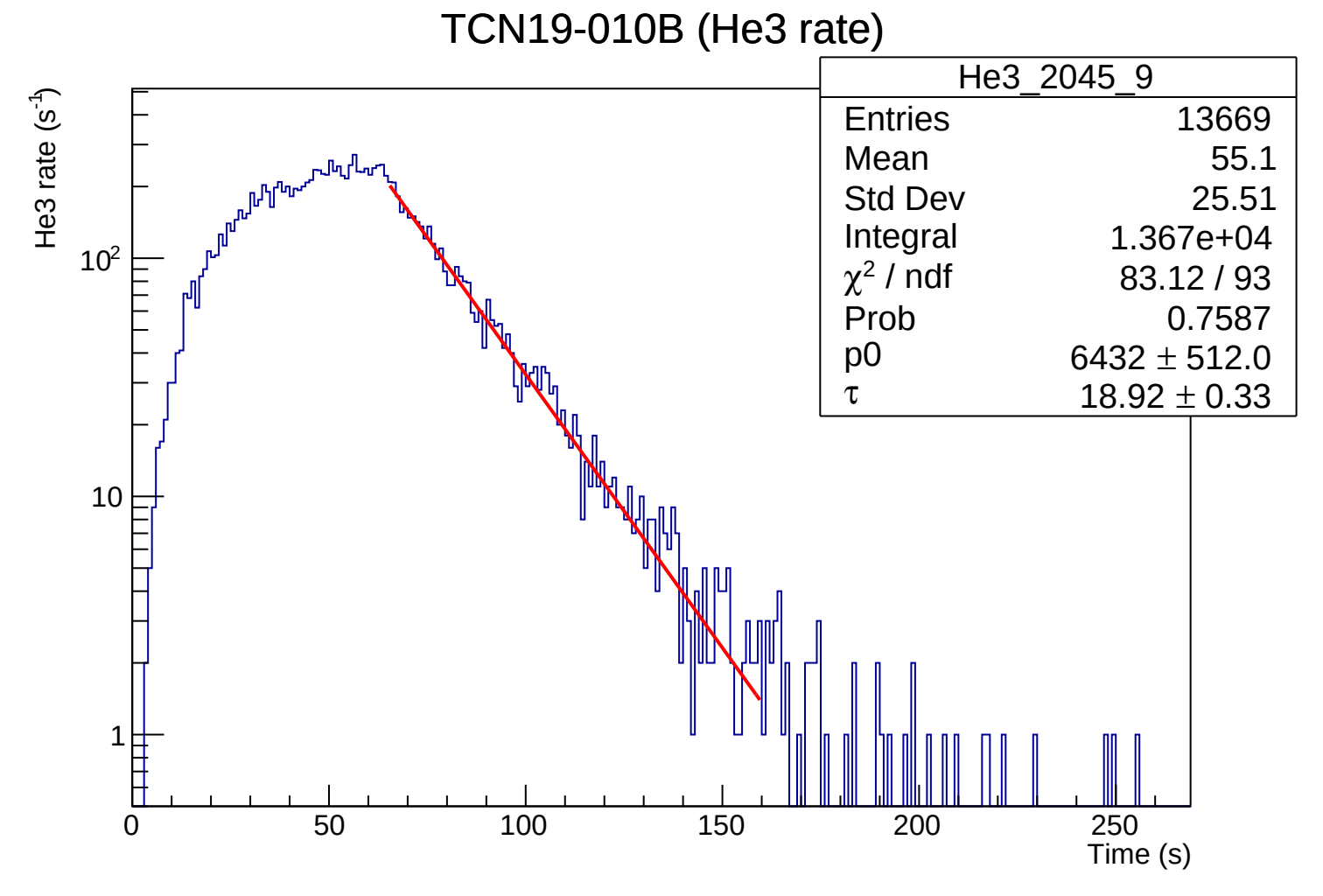

TCN19-010B (He3 rate)
He3_2045_3
Entries 14079
Mean 55.32
Std Dev 26.2
Integral 1.408e+04
χ² / ndf 105.9 / 93
Prob 0.1708
p0 6088 ± 488.8
τ 19.24 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

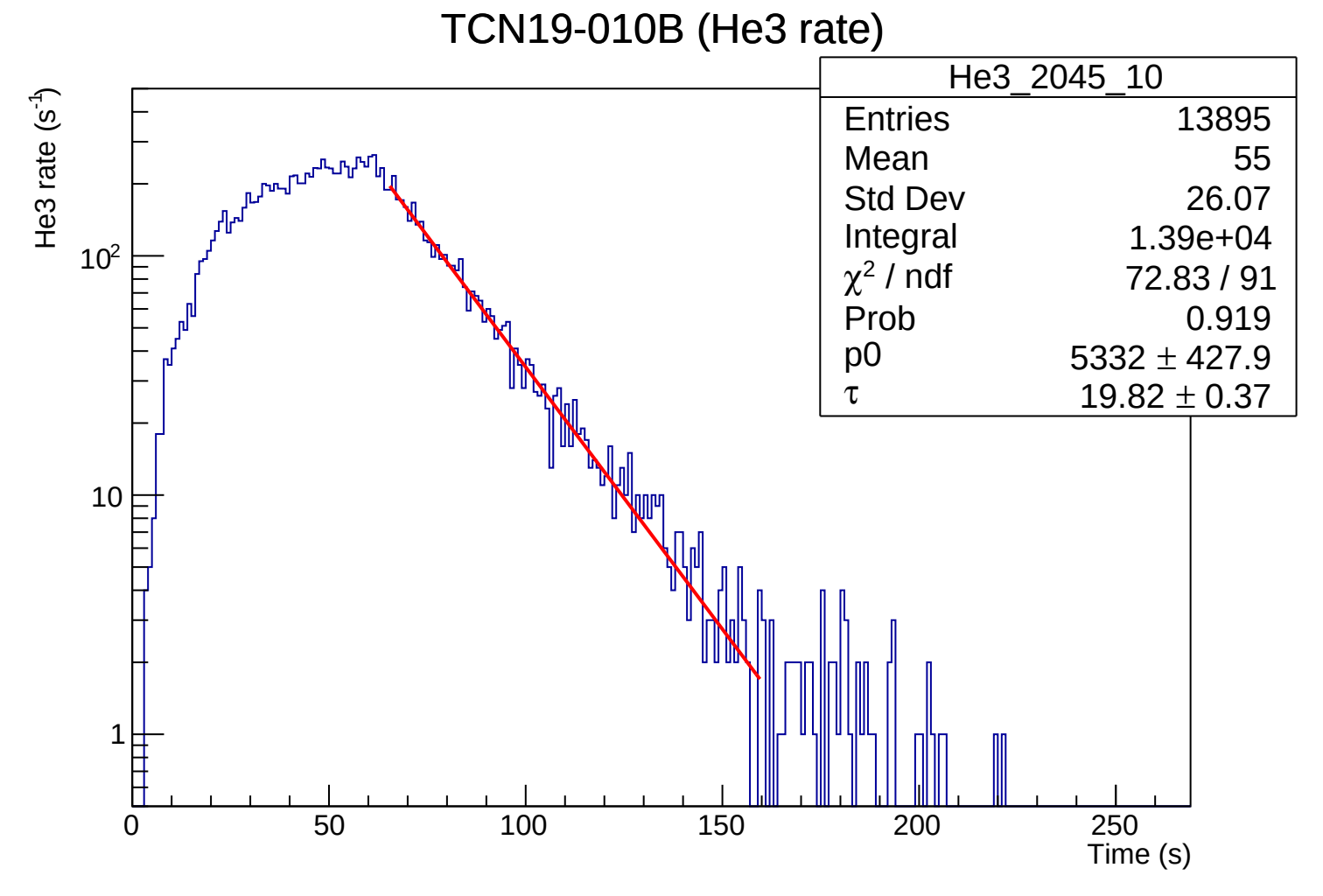

TCN19-010B (He3 rate)
He3_2045_4
Entries 13872
Mean 54.85
Std Dev 25.63
Integral 1.387e+04
χ² / ndf 115.4 / 93
Prob 0.0578
p0 6269 ± 497.9
τ 18.94 ± 0.33
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

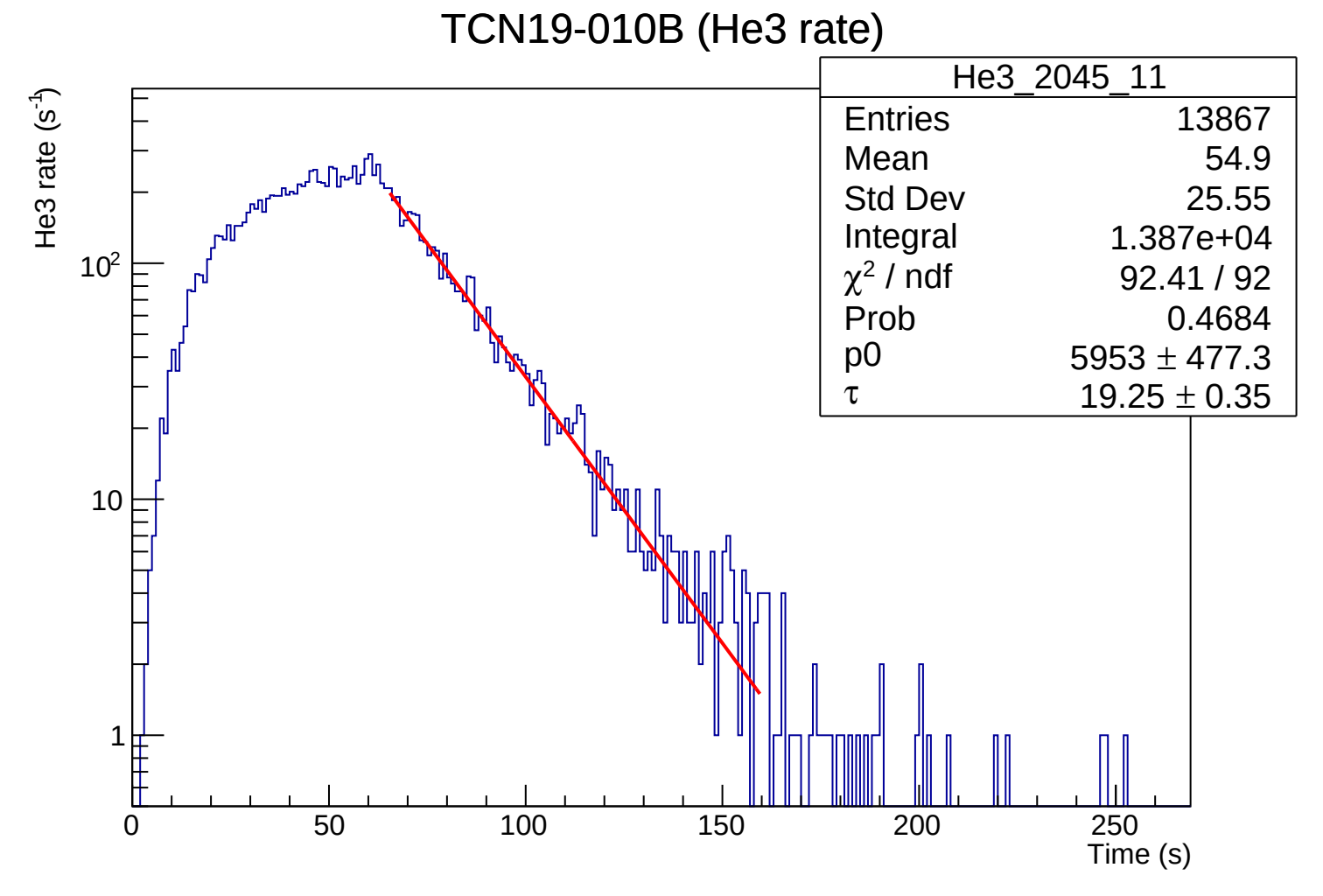

TCN19-010B (He3 rate)
He3_2045_5
Entries 13892
Mean 55.11
Std Dev 25.48
Integral 1.389e+04
χ² / ndf 118.4 / 92
Prob 0.03313
p0 5766 ± 476.7
τ 19.38 ± 0.36
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

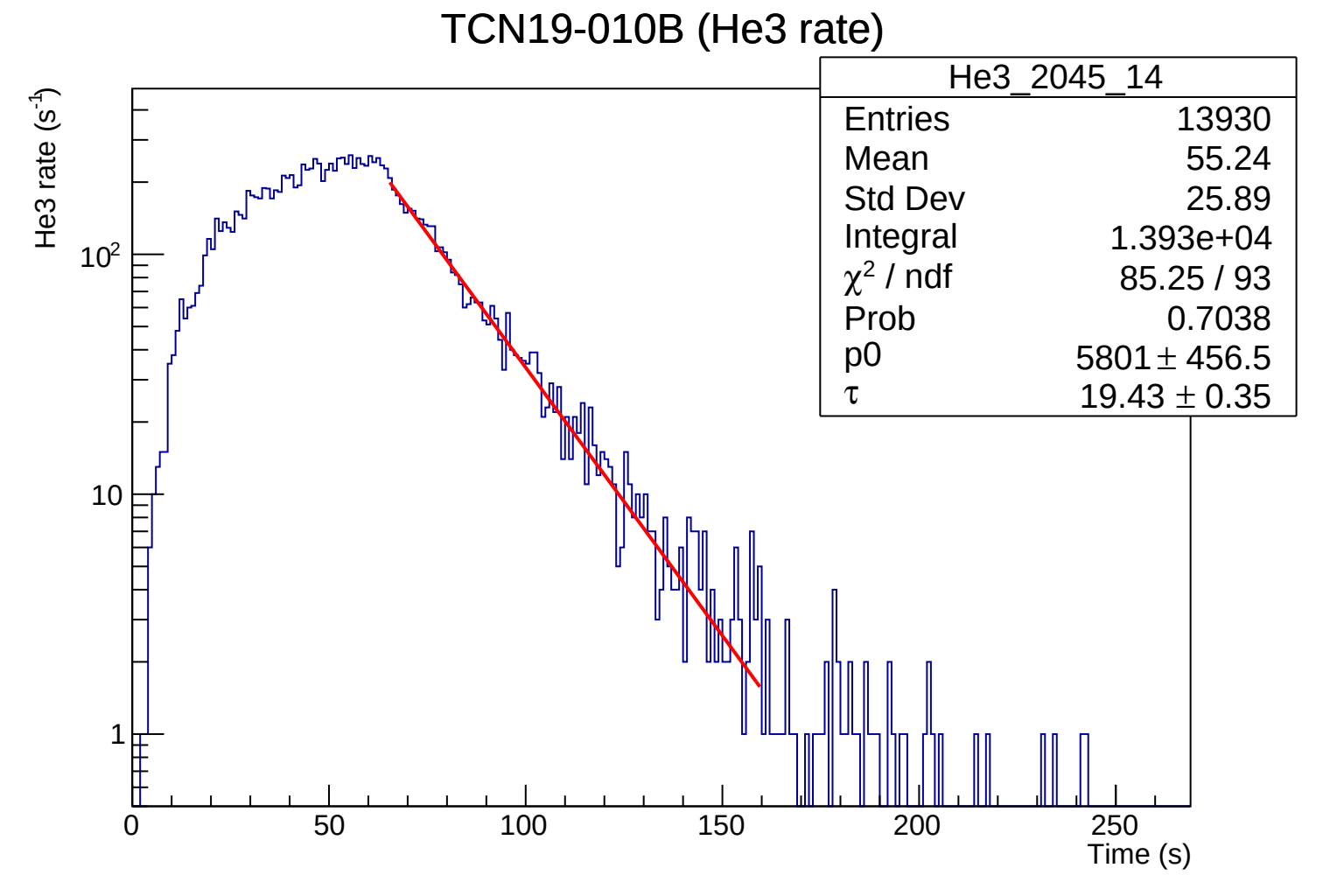

TCN19-010B (He3 rate)
He3_2045_7
Entries 14002
Mean 54.85
Std Dev 25.92
Integral 1.4e+04
χ² / ndf 73.28 / 93
Prob 0.9349
p0 5342 ± 428.6
τ 19.65 ± 0.36
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

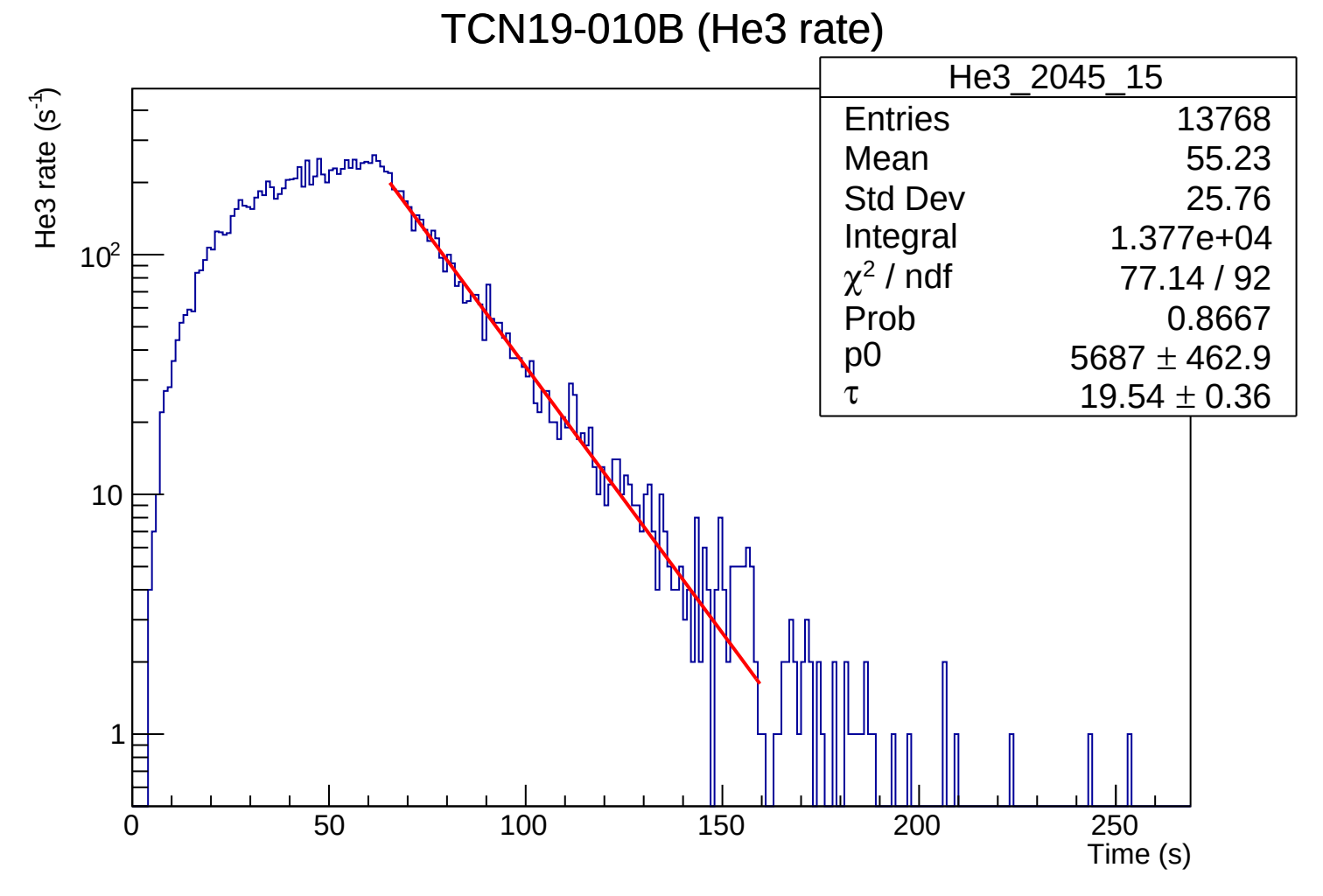

TCN19-010B (He3 rate)
He3_2045_8
Entries 13771
Mean 55.16
Std Dev 25.68
Integral 1.377e+04
χ² / ndf 99.01 / 91
Prob 0.2655
p0 6292 ± 499.7
τ 19.04 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

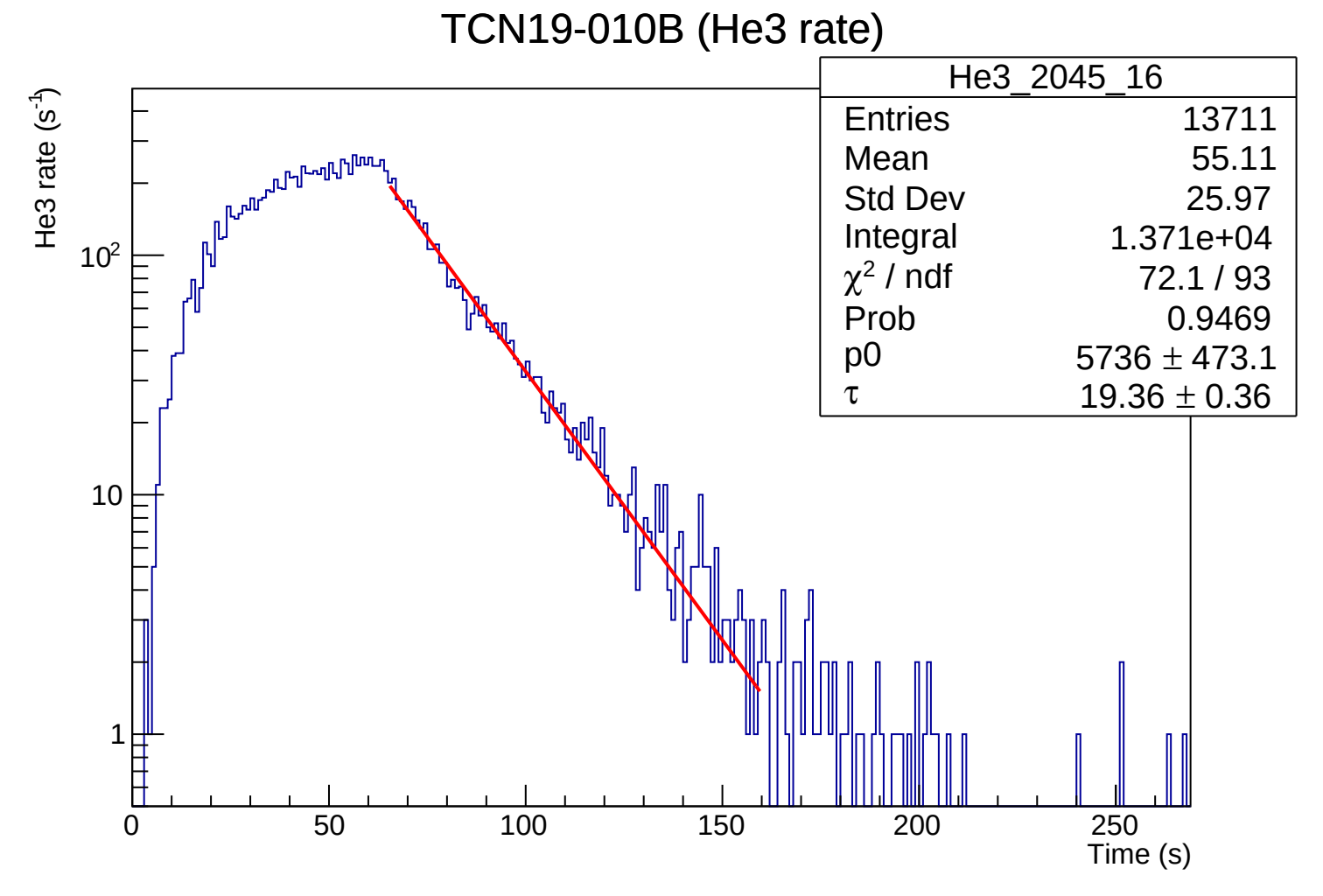

TCN19-010B (He3 rate)
He3_2045_9
Entries 13669
Mean 55.1
Std Dev 25.51
Integral 1.367e+04
χ² / ndf 83.12 / 93
Prob 0.7587
p0 6432 ± 512.0
τ 18.92 ± 0.33
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

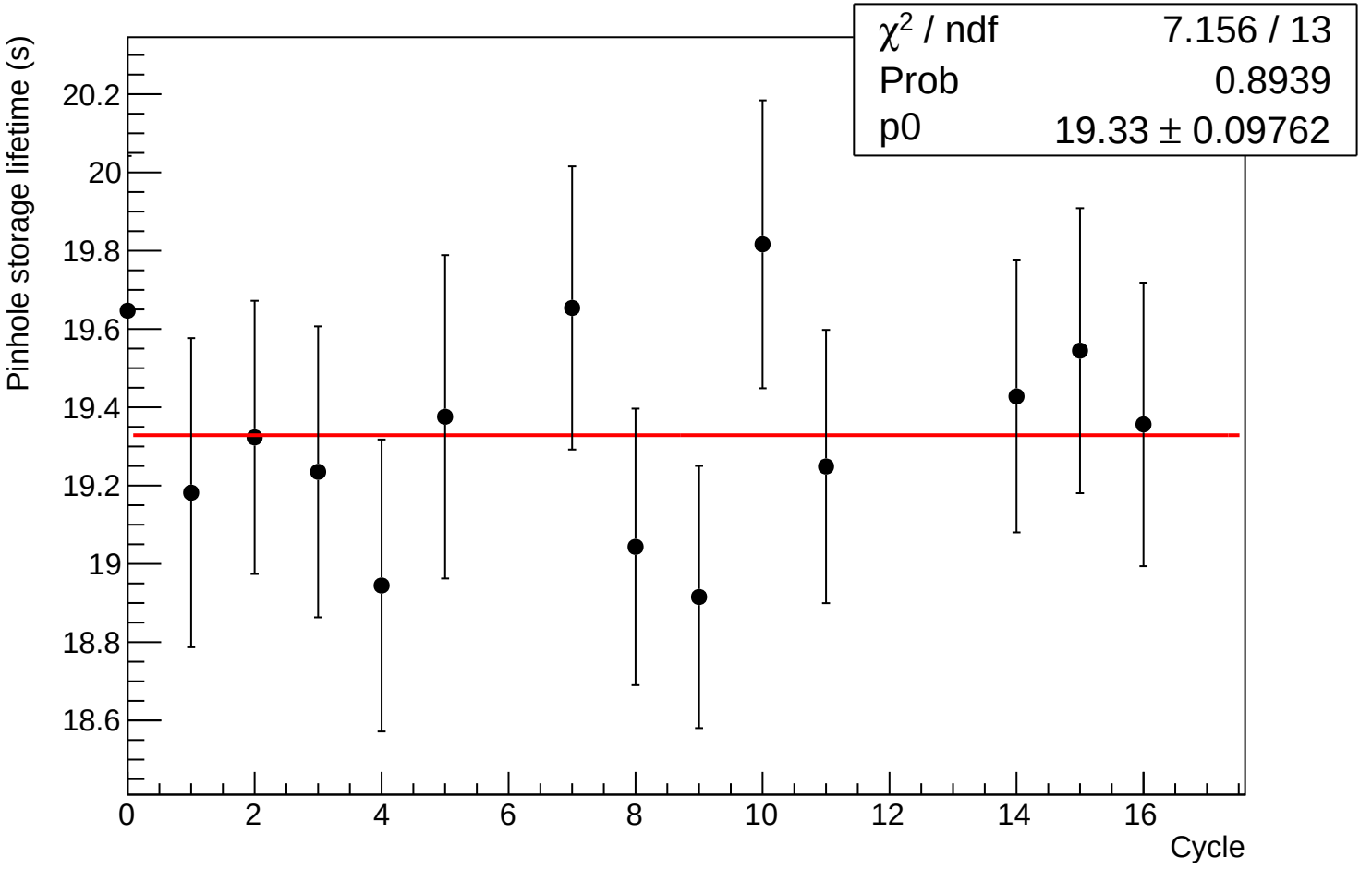

TCN19-010B (He3 rate)
He3_2045_10
Entries 13895
Mean 55
Std Dev 26.07
Integral 1.39e+04
χ² / ndf 72.83 / 91
Prob 0.919
p0 5332 ± 427.9
τ 19.82 ± 0.37
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

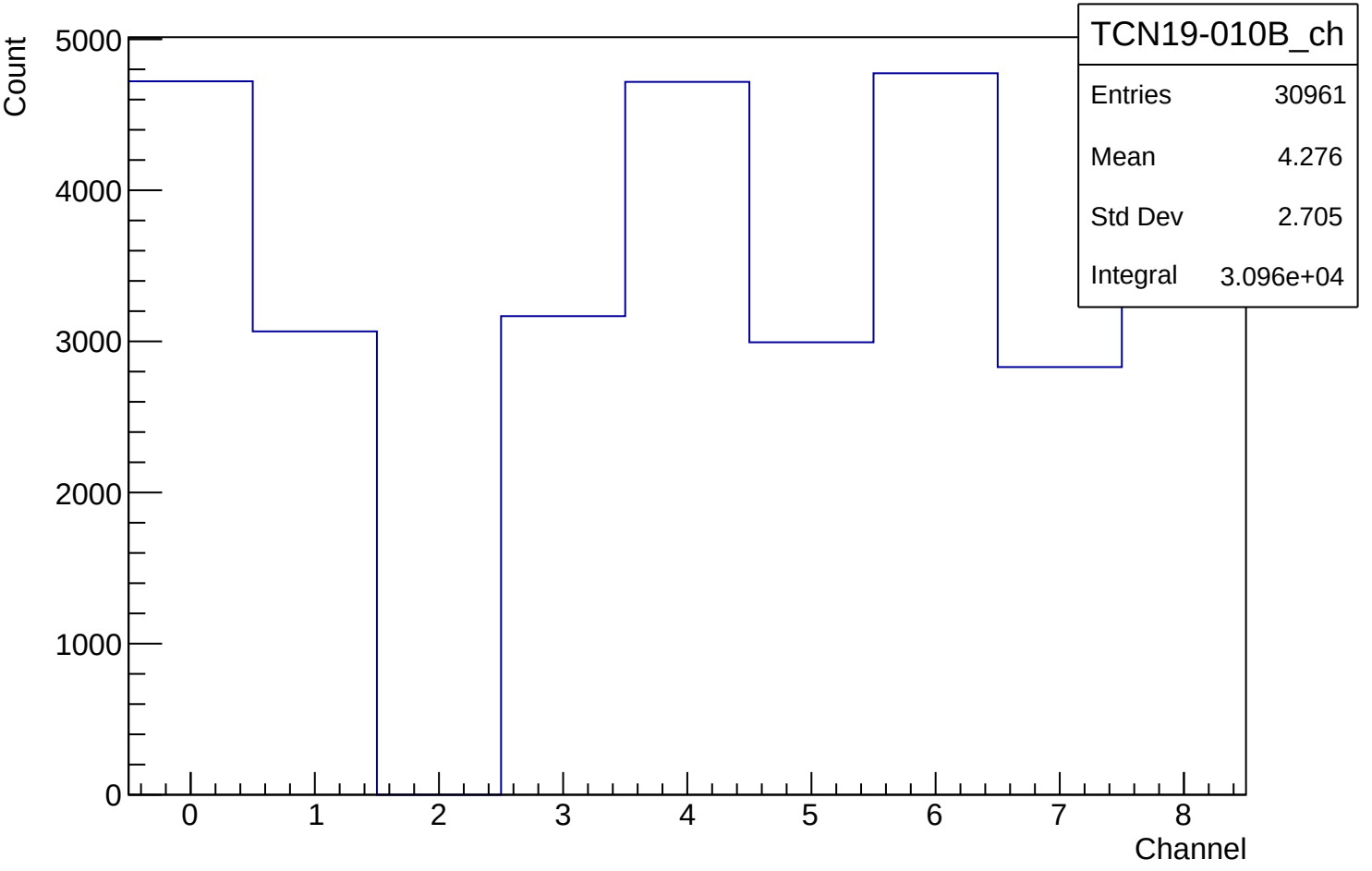

TCN19-010B (He3 rate)
He3_2045_11
Entries 13867
Mean 54.9
Std Dev 25.55
Integral 1.387e+04
χ² / ndf 92.41 / 92
Prob 0.4684
p0 5953 ± 477.3
τ 19.25 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


TCN19-010B (He3 rate)
He3_2045_14
Entries 13930
Mean 55.24
Std Dev 25.89
Integral 1.393e+04
χ² / ndf 85.25 / 93
Prob 0.7038
p0 5801 ± 456.5
τ 19.43 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


TCN19-010B (He3 rate)
He3_2045_15
Entries 13768
Mean 55.23
Std Dev 25.76
Integral 1.377e+04
χ² / ndf 77.14 / 92
Prob 0.8667
p0 5687 ± 462.9
τ 19.54 ± 0.36
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


TCN19-010B (He3 rate)
He3_2045_16
Entries 13711
Mean 55.11
Std Dev 25.97
Integral 1.371e+04
χ² / ndf 72.1 / 93
Prob 0.9469
p0 5736 ± 473.1
τ 19.36 ± 0.36
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


χ^2 / ndf 7.156 / 13
Prob 0.8939
p0 19.33 ± 0.09762
Pinhole storage lifetime (s)
20.2
20
19.8
19.6
19.4
19.2
19
18.8
18.6
0
2
4
6
8
10
12
14
16
Cycle


TCN19-010B
Count
5000
4000
3000
2000
1000
0
0
1
2
3
4
5
6
7
8
Channel
TCN19-010B_ch
Entries 30961
Mean 4.276
Std Dev 2.705
Integral 3.096e+04