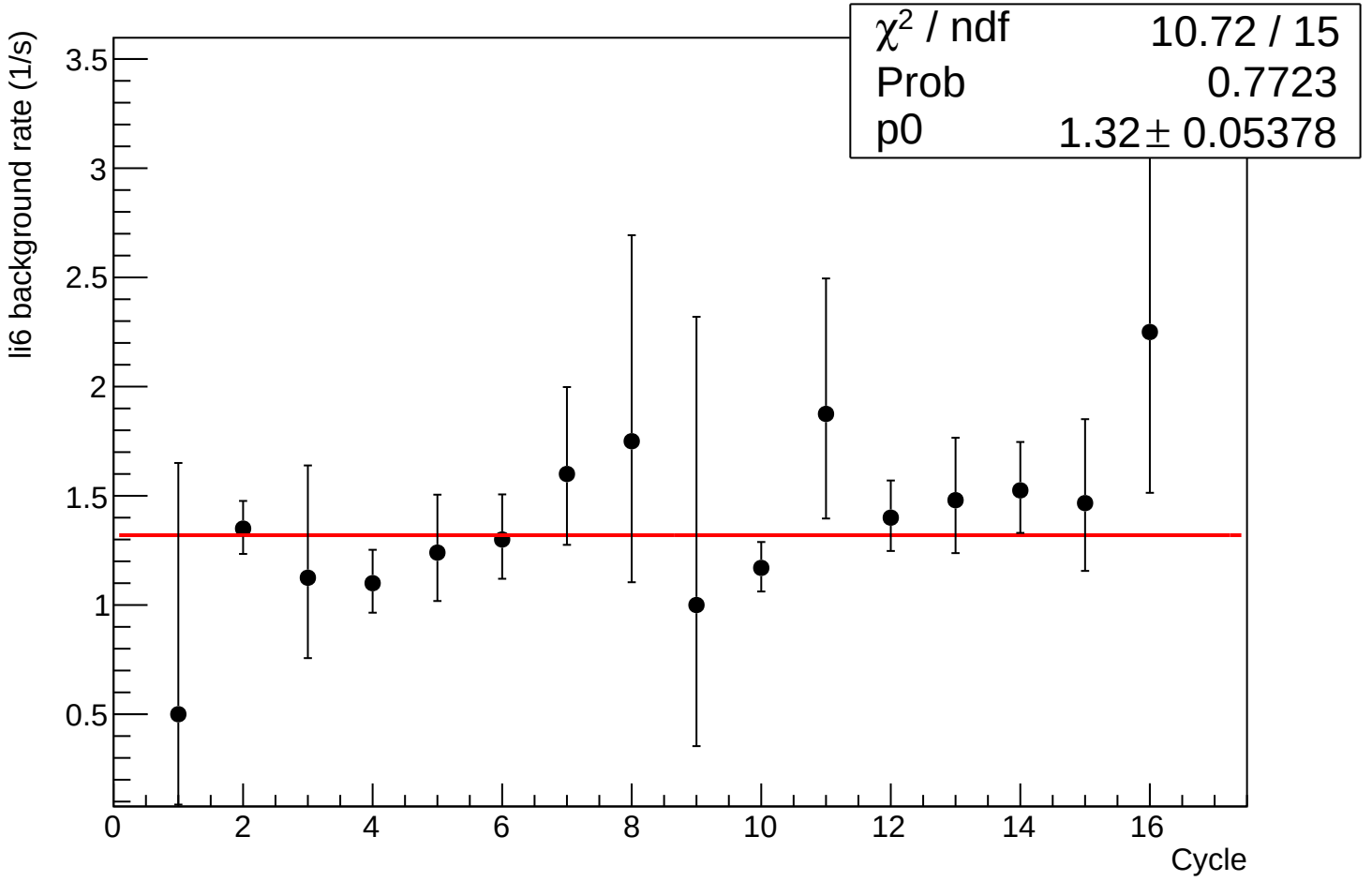
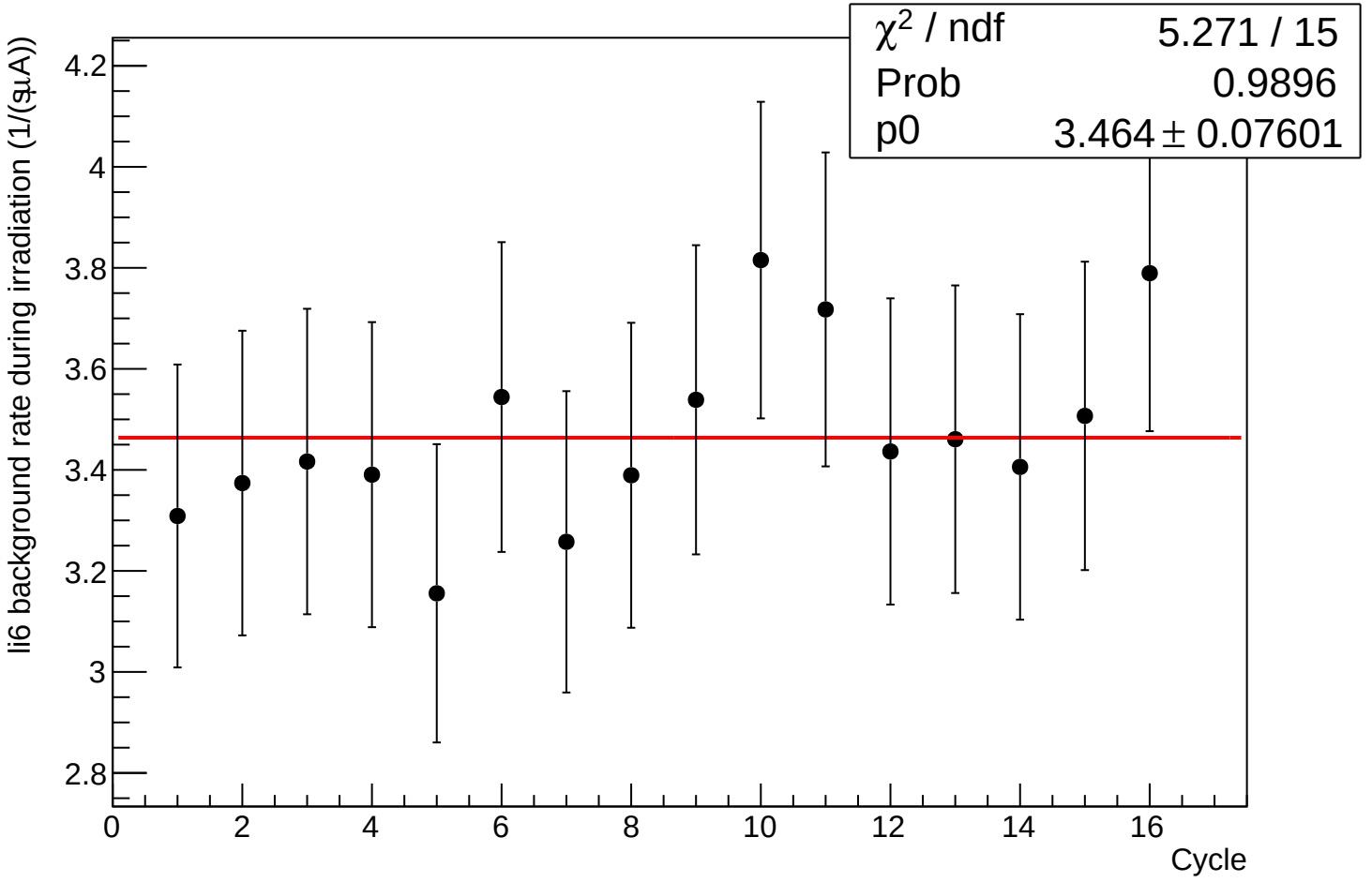
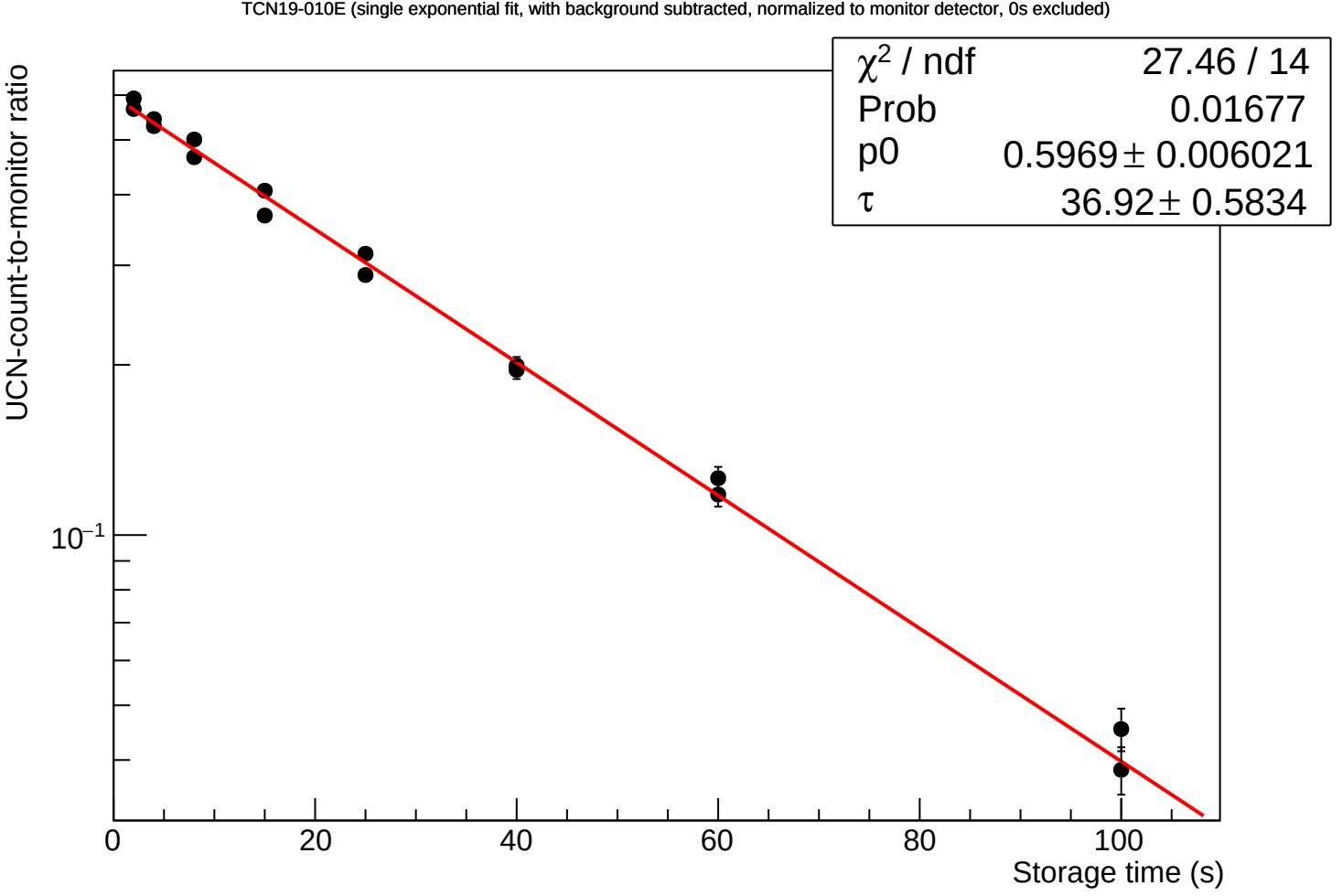
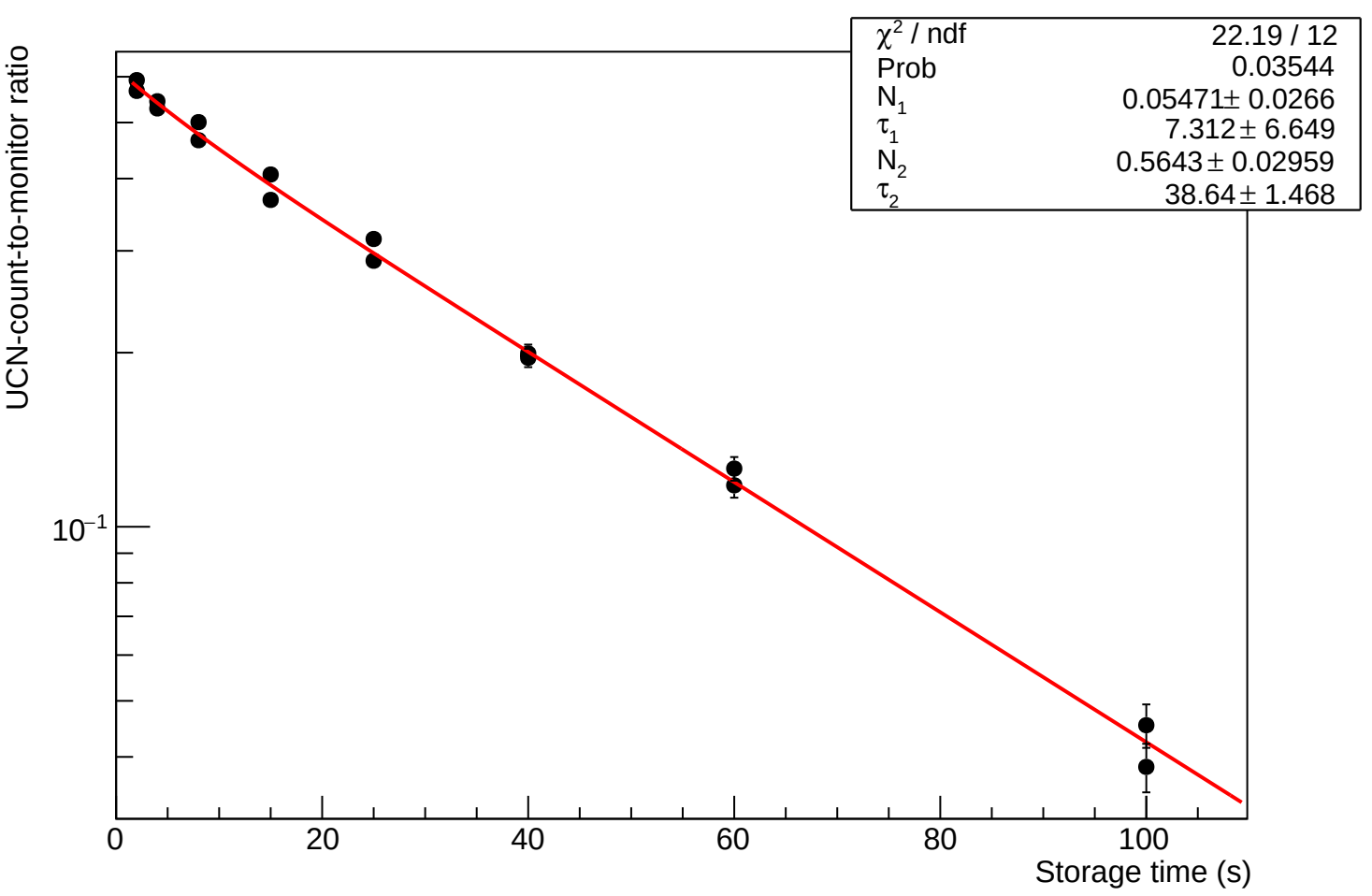
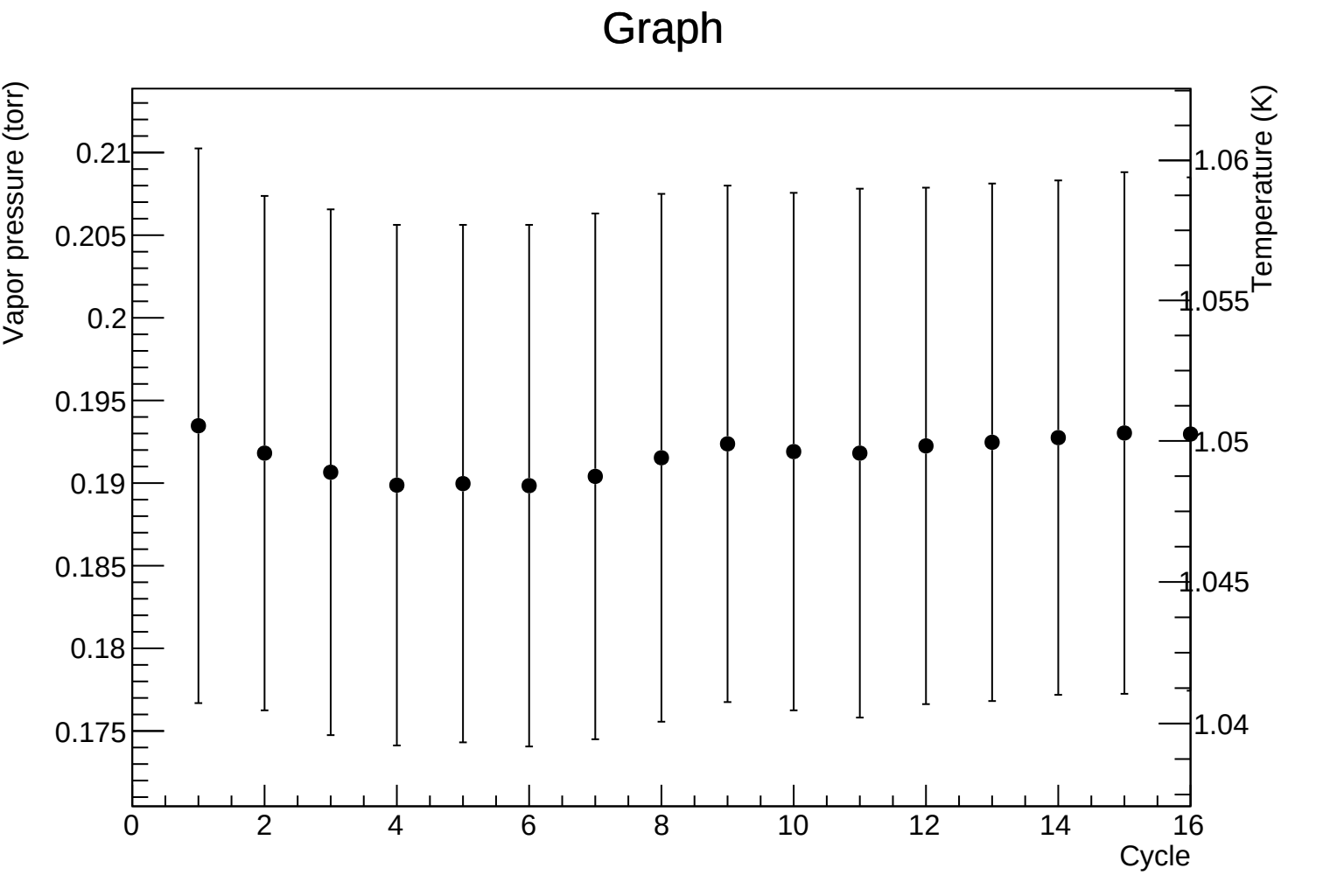
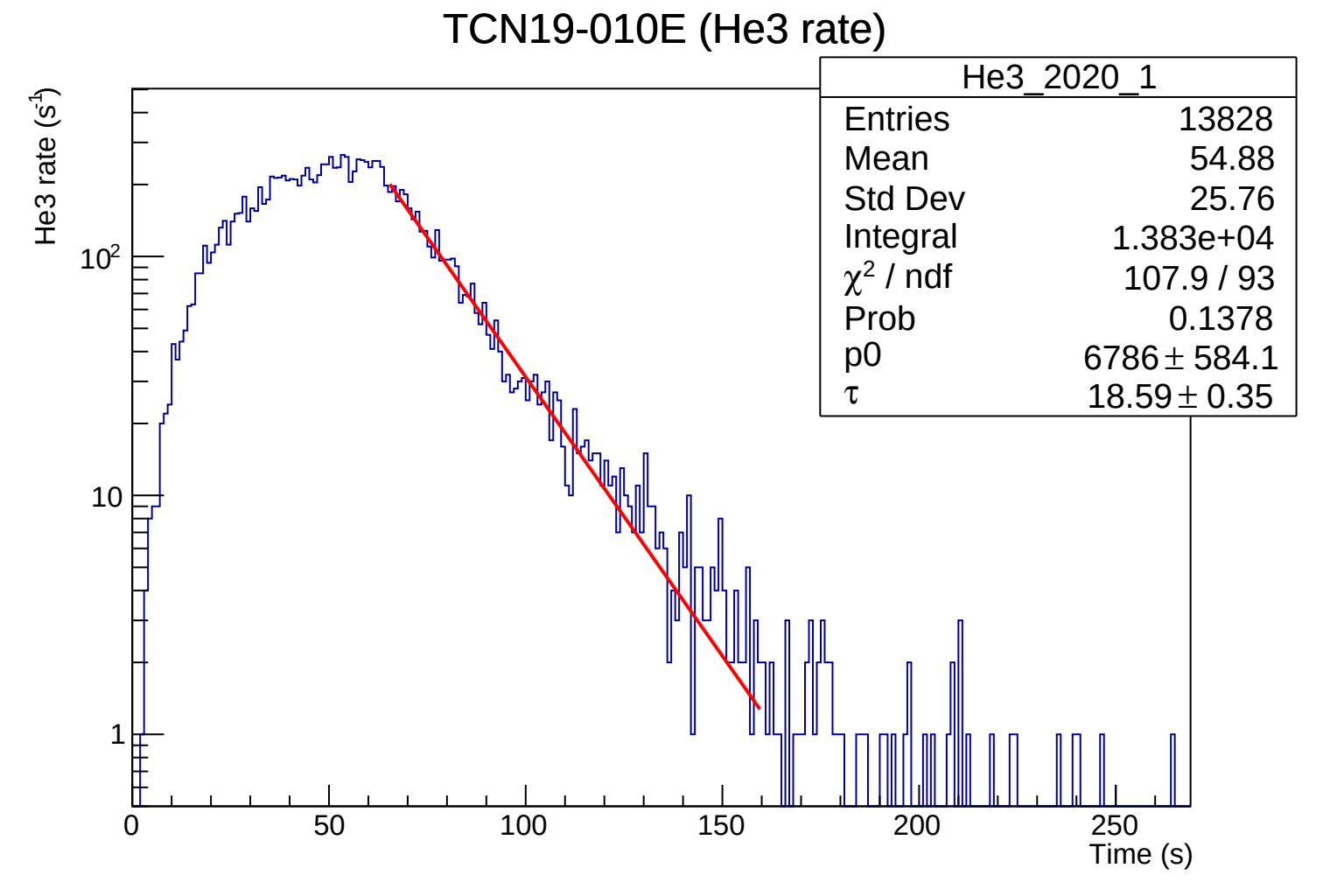

li6 background rate (1/s)
3.5
3
2.5
2
1.5
1
0.5
0
2
4
6
8
10
12
14
16
Cycle
χ² / ndf 10.72 / 15
Prob 0.7723
p0 1.32 ± 0.05378

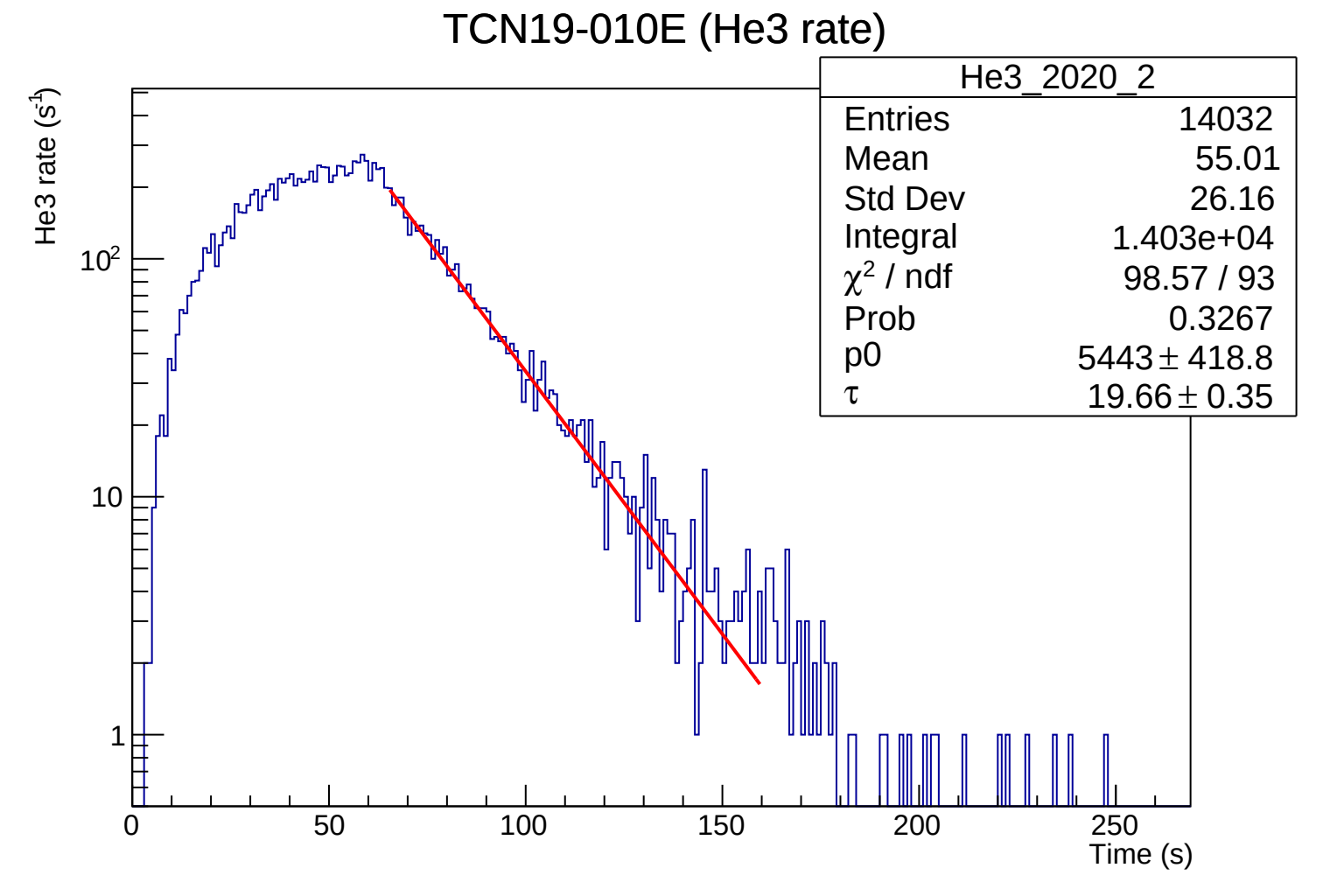

χ^2 / ndf 5.271 / 15
Prob 0.9896
p0 3.464 ± 0.07601
li6 background rate during irradiation (1/(μA))
Cycle
4.2
4
3.8
3.6
3.4
3.2
3
2.8
0
2
4
6
8
10
12
14
16

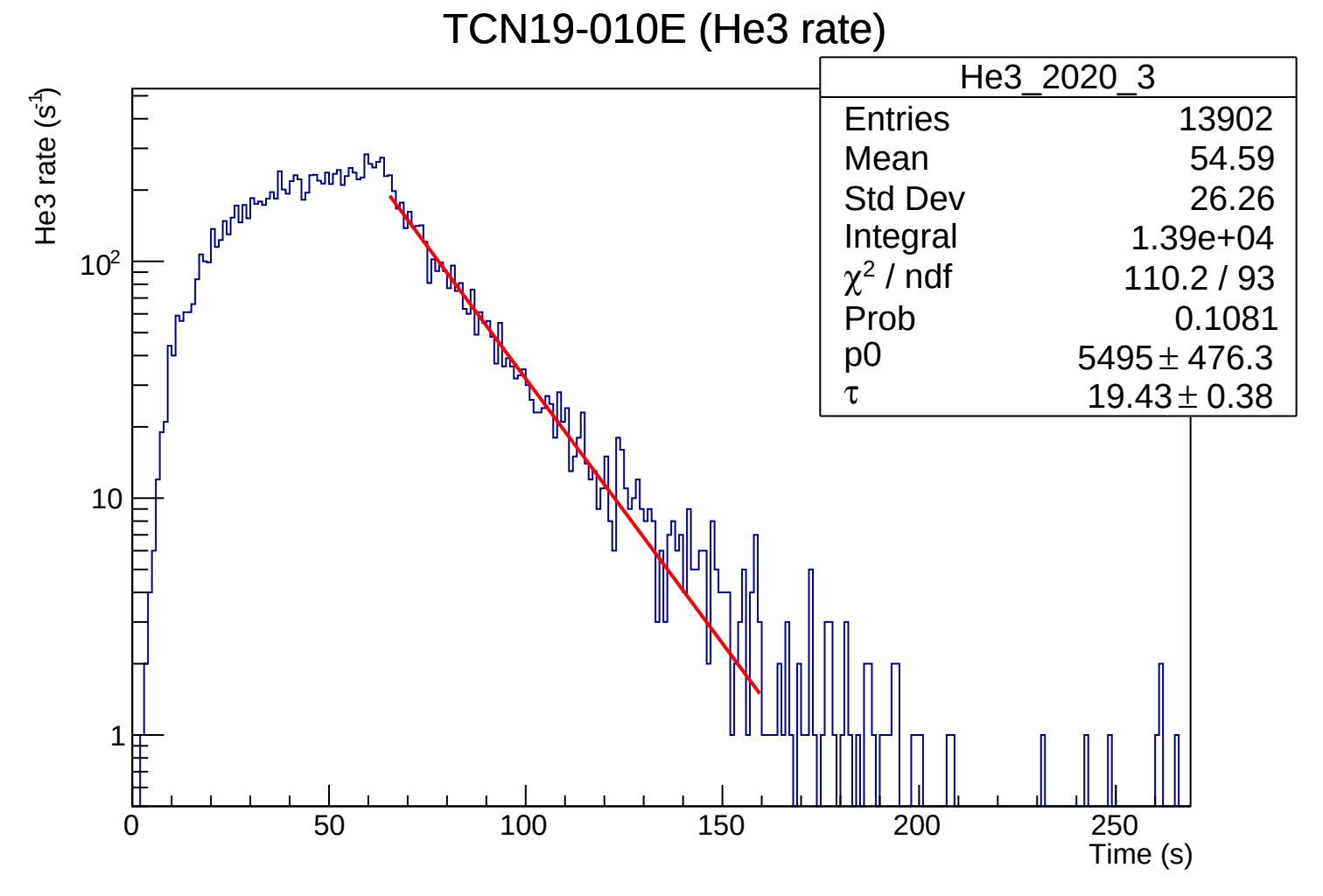

TCN19-010E (single exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ² / ndf 27.46 / 14
Prob 0.01677
p0 0.5969 ± 0.006021
τ 36.92 ± 0.5834
UCN-count-to-monitor ratio
10⁻¹
0
20
40
60
80
100
Storage time (s)

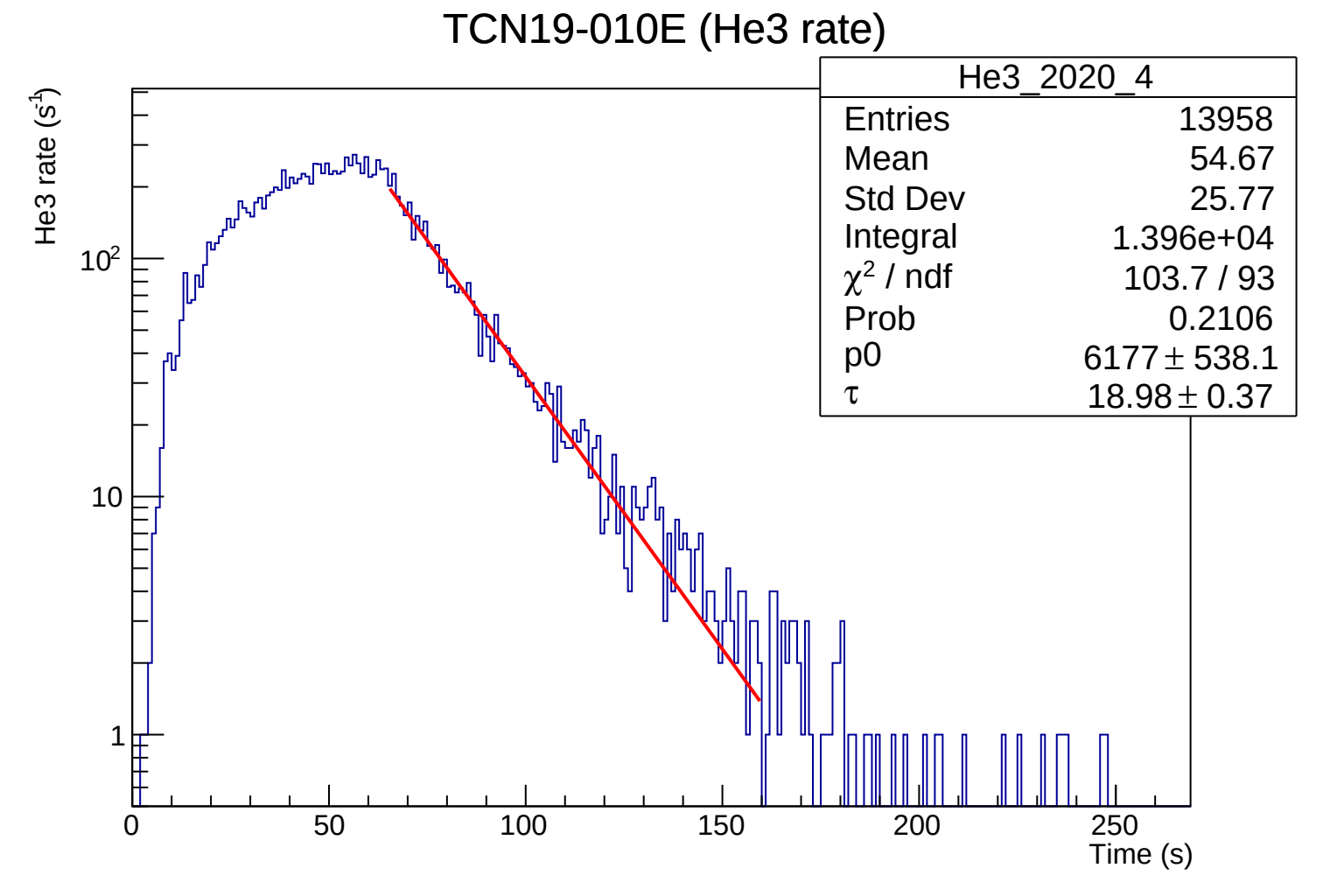

TCN19-010E (double exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ² / ndf 22.19 / 12
Prob 0.03544
N1 0.05471± 0.0266
τ1 7.312± 6.649
N2 0.5643± 0.02959
τ2 38.64± 1.468
UCN-count-to-monitor ratio
10⁻¹
0
20
40
60
80
100
Storage time (s)

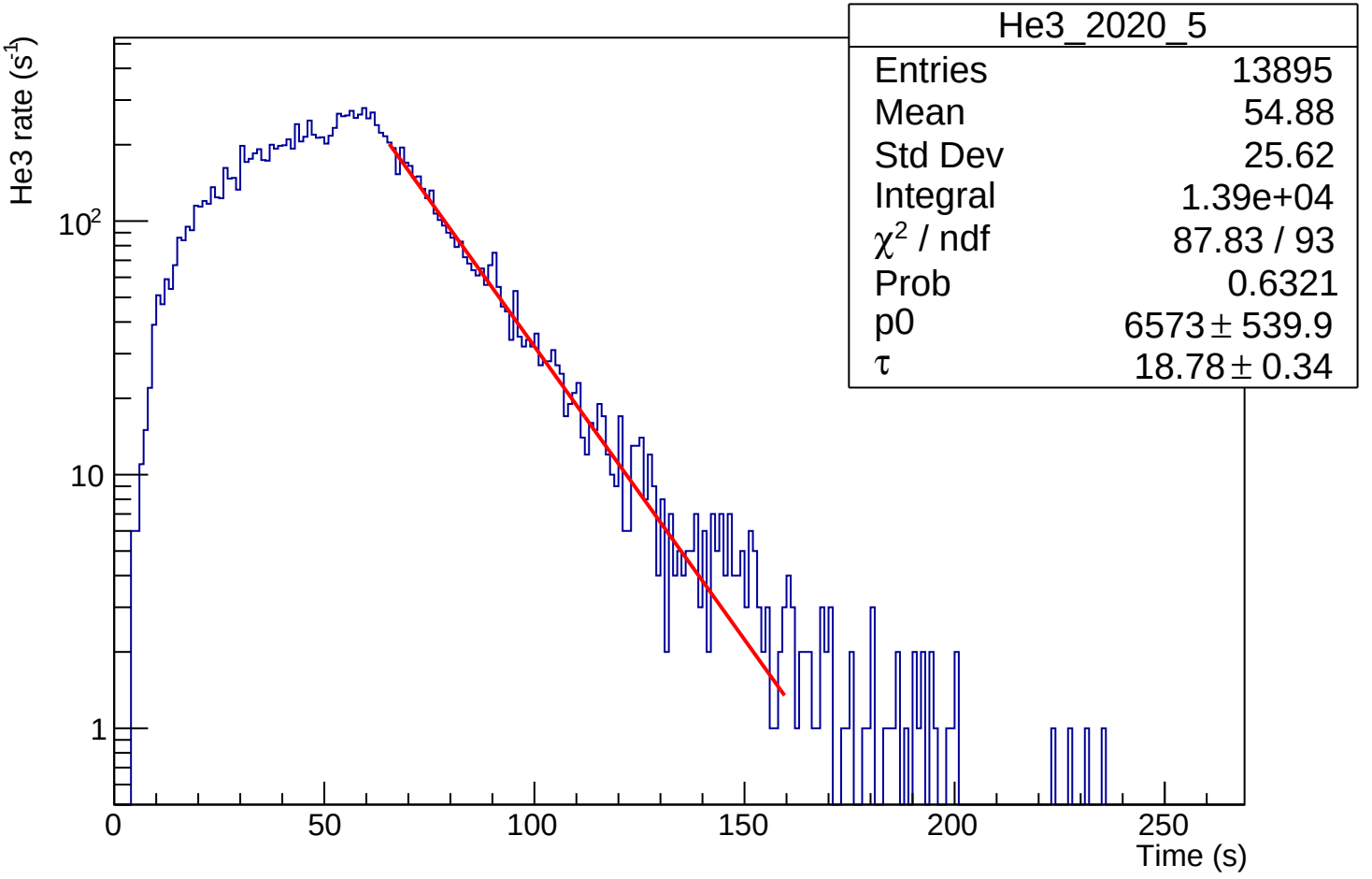

Graph
Vapor pressure (torr)
0.21
0.205
0.2
0.195
0.19
0.185
0.18
0.175
Temperature (K)
1.06
1.055
1.05
1.045
1.04
0
2
4
6
8
10
12
14
16
Cycle

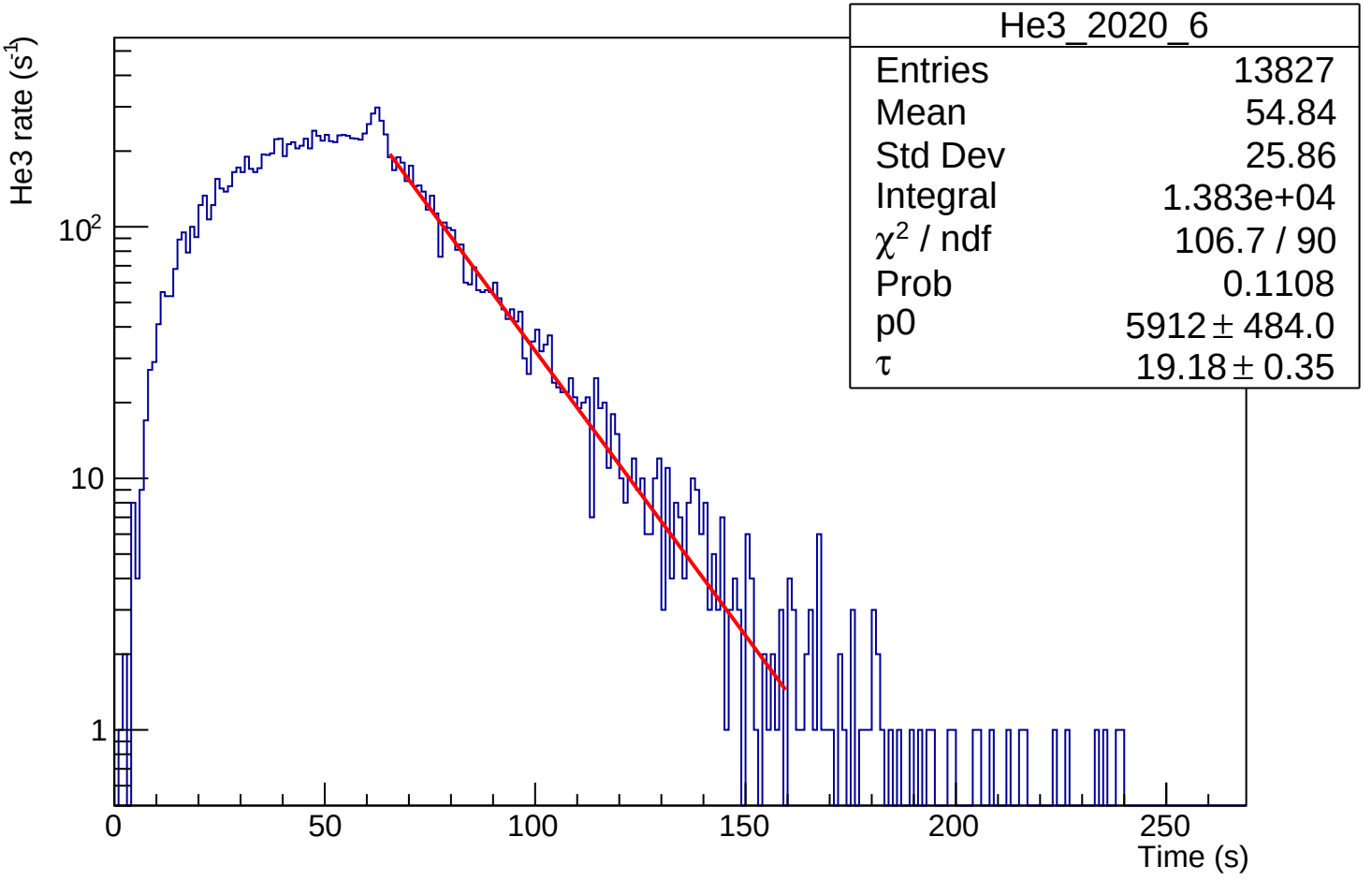

TCN19-010E (He3 rate)
He3_2020_1
Entries 13828
Mean 54.88
Std Dev 25.76
Integral 1.383e+04
χ² / ndf 107.9 / 93
Prob 0.1378
p0 6786 ± 584.1
τ 18.59 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

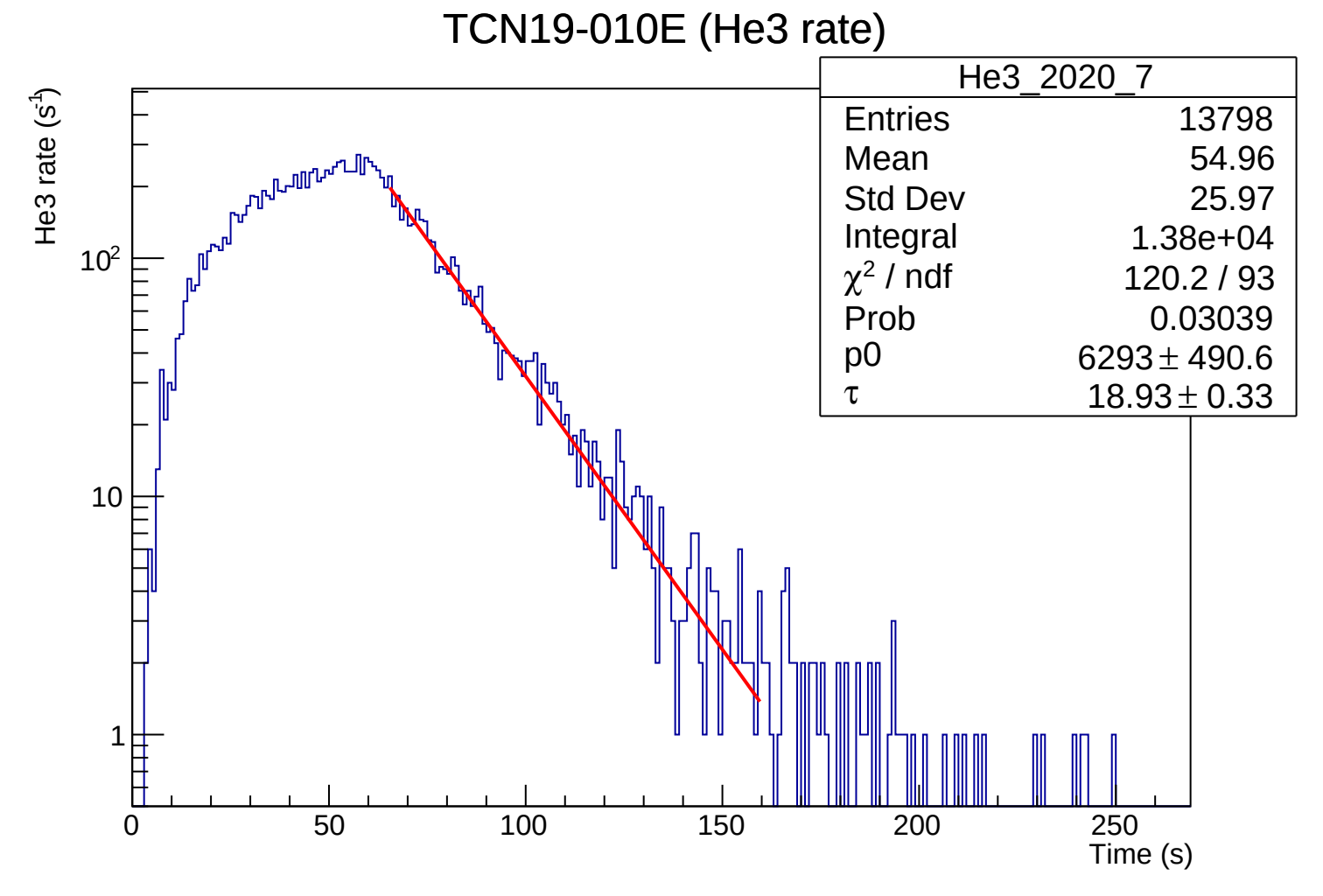

TCN19-010E (He3 rate)
He3_2020_2
Entries 14032
Mean 55.01
Std Dev 26.16
Integral 1.403e+04
χ² / ndf 98.57 / 93
Prob 0.3267
p0 5443 ± 418.8
τ 19.66 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

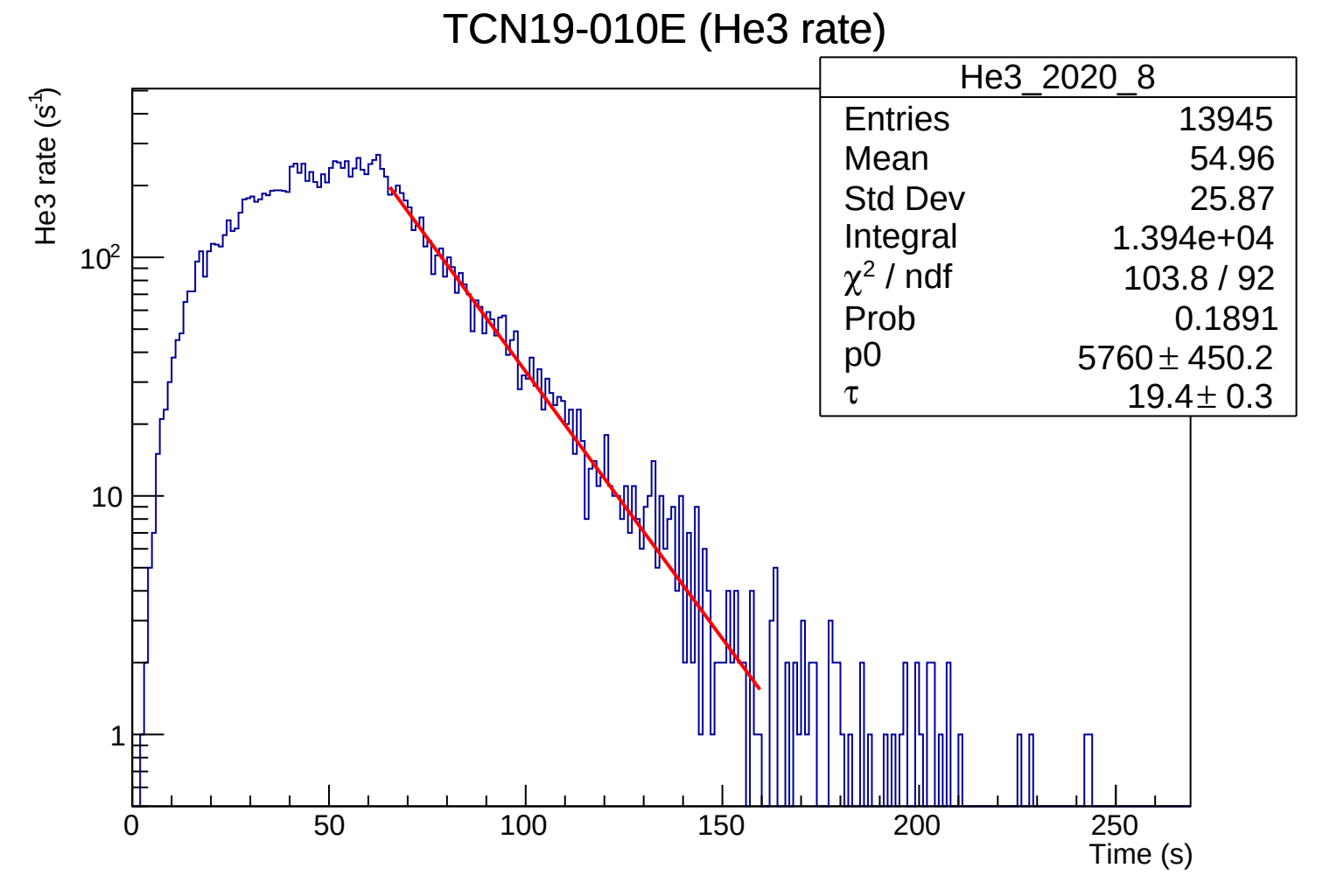

TCN19-010E (He3 rate)
He3_2020_3
Entries 13902
Mean 54.59
Std Dev 26.26
Integral 1.39e+04
χ² / ndf 110.2 / 93
Prob 0.1081
p0 5495 ± 476.3
τ 19.43 ± 0.38
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

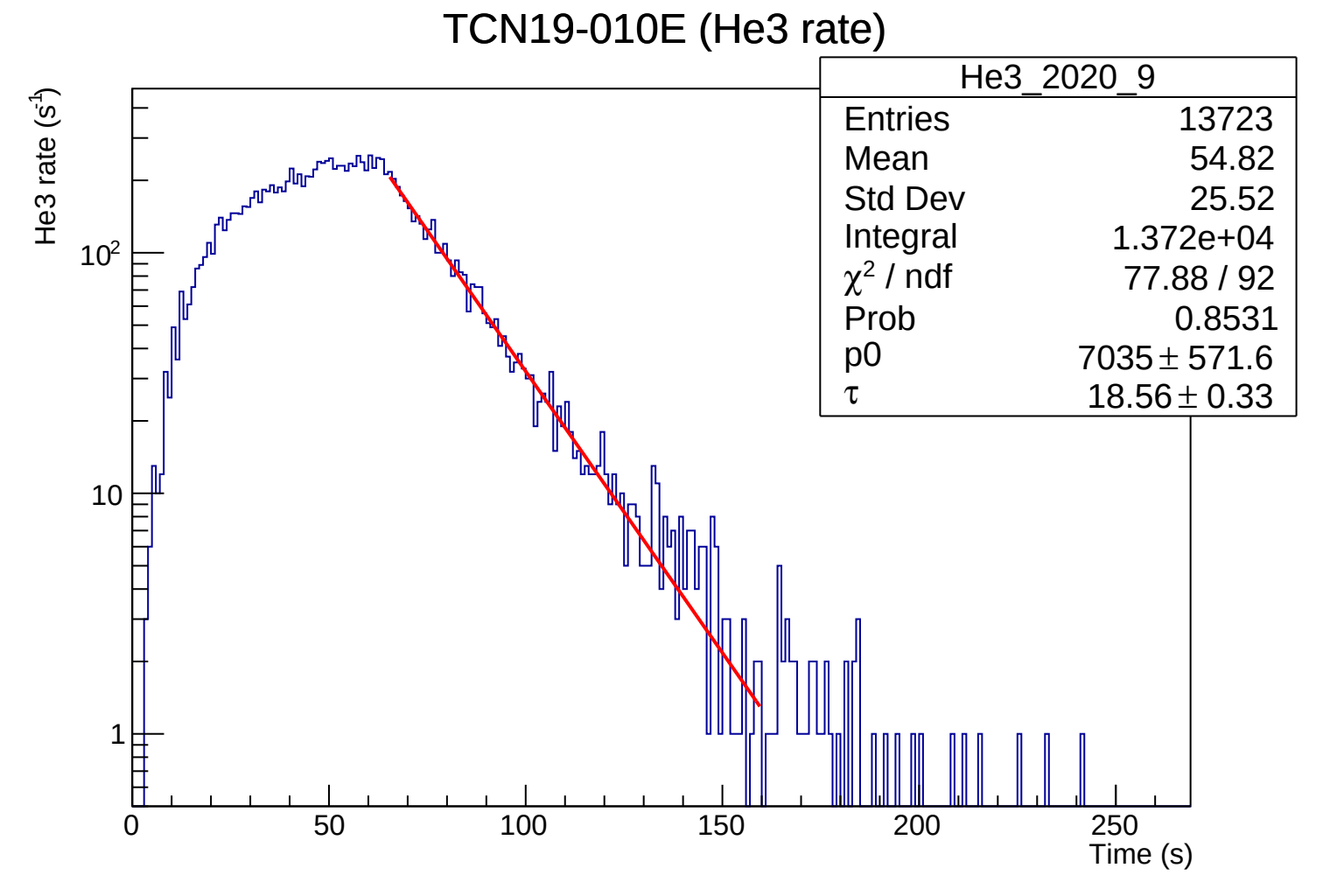

TCN19-010E (He3 rate)
He3_2020_4
Entries 13958
Mean 54.67
Std Dev 25.77
Integral 1.396e+04
χ² / ndf 103.7 / 93
Prob 0.2106
p0 6177 ± 538.1
τ 18.98 ± 0.37
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

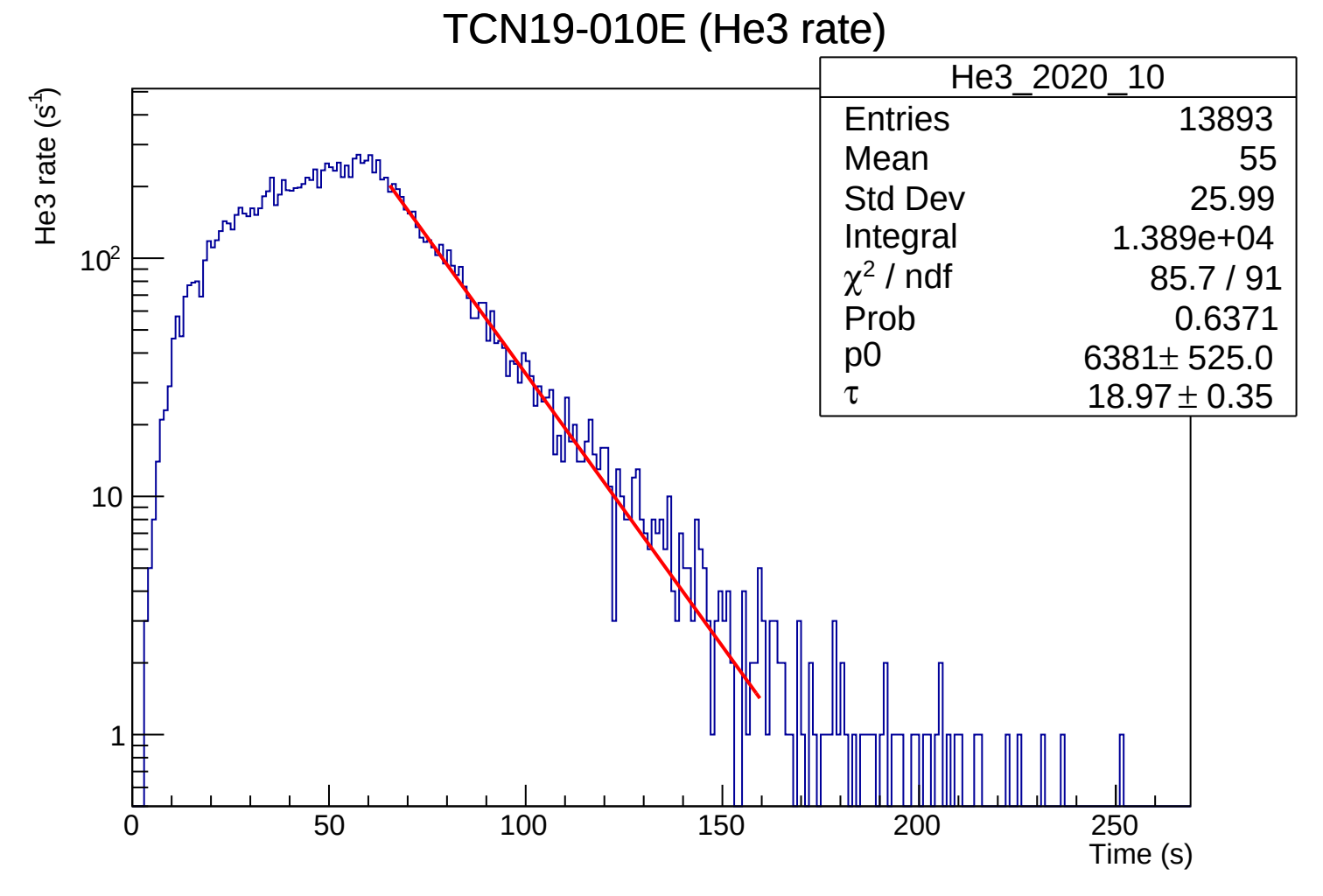

TCN19-010E (He3 rate)
He3_2020_5
Entries 13895
Mean 54.88
Std Dev 25.62
Integral 1.39e+04
χ² / ndf 87.83 / 93
Prob 0.6321
p0 6573 ± 539.9
τ 18.78 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

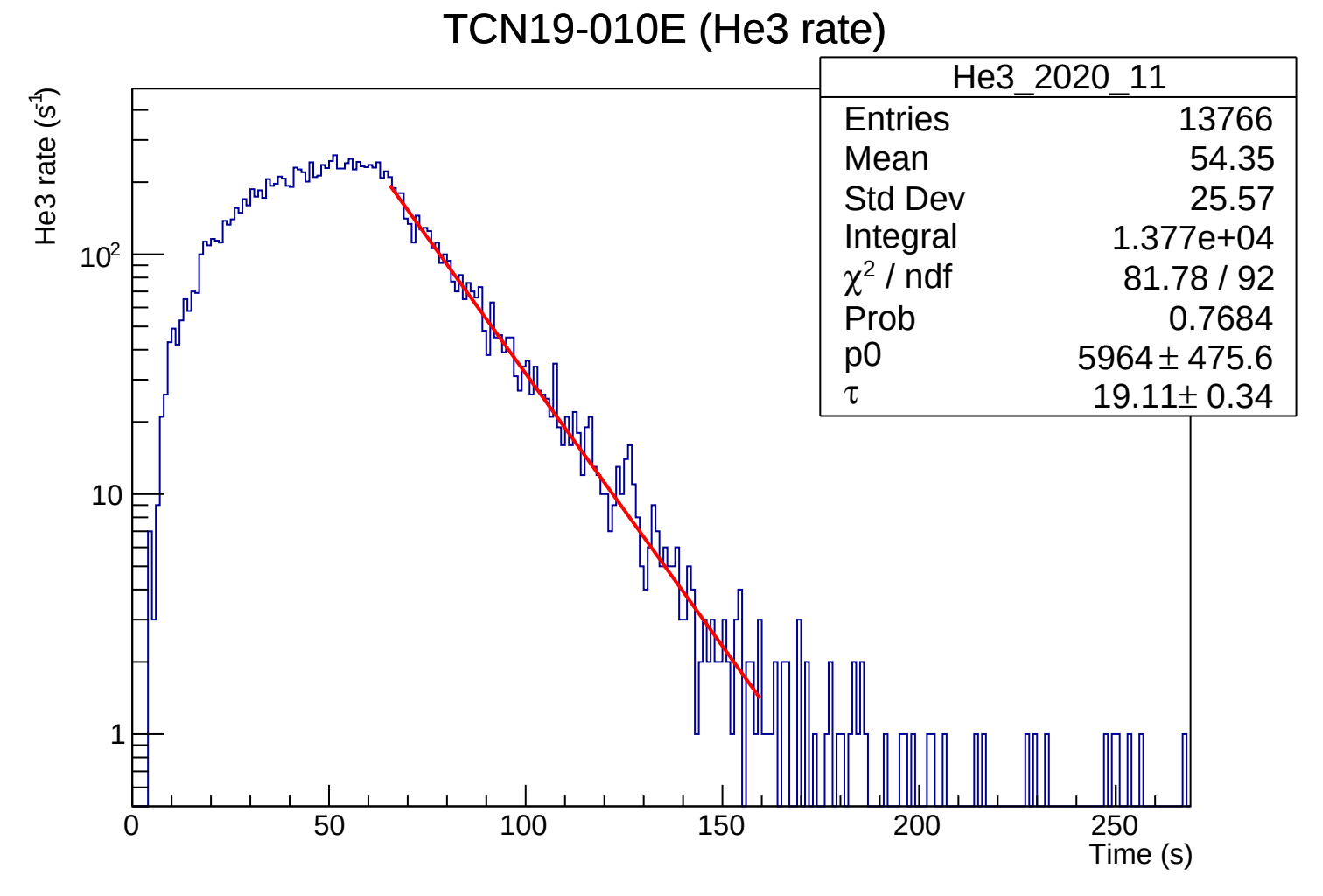

TCN19-010E (He3 rate)
He3_2020_6
Entries 13827
Mean 54.84
Std Dev 25.86
Integral 1.383e+04
χ² / ndf 106.7 / 90
Prob 0.1108
p0 5912 ± 484.0
τ 19.18 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

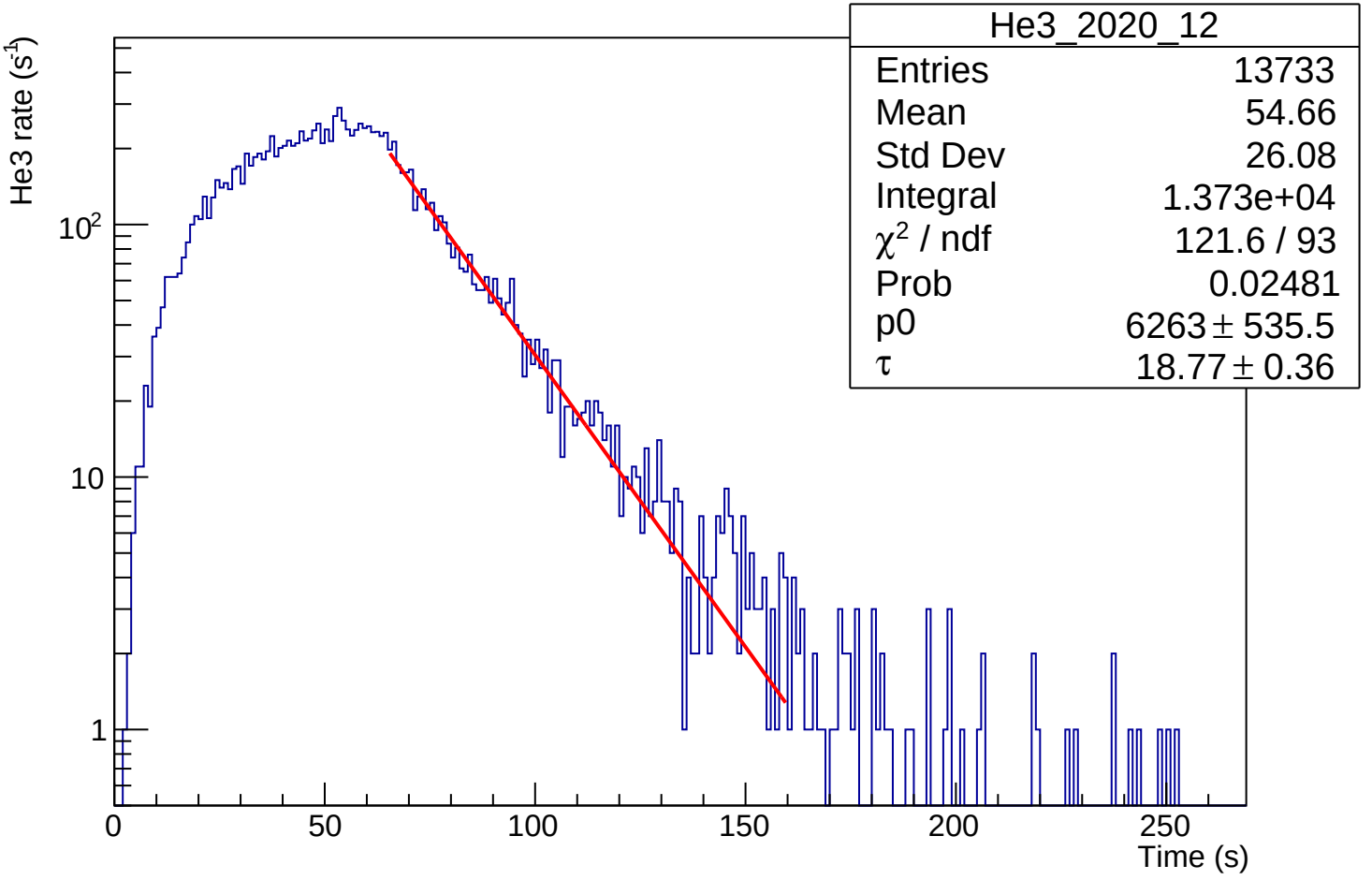

TCN19-010E (He3 rate)
He3_2020_7
Entries 13798
Mean 54.96
Std Dev 25.97
Integral 1.38e+04
χ² / ndf 120.2 / 93
Prob 0.03039
p0 6293 ± 490.6
τ 18.93 ± 0.33
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

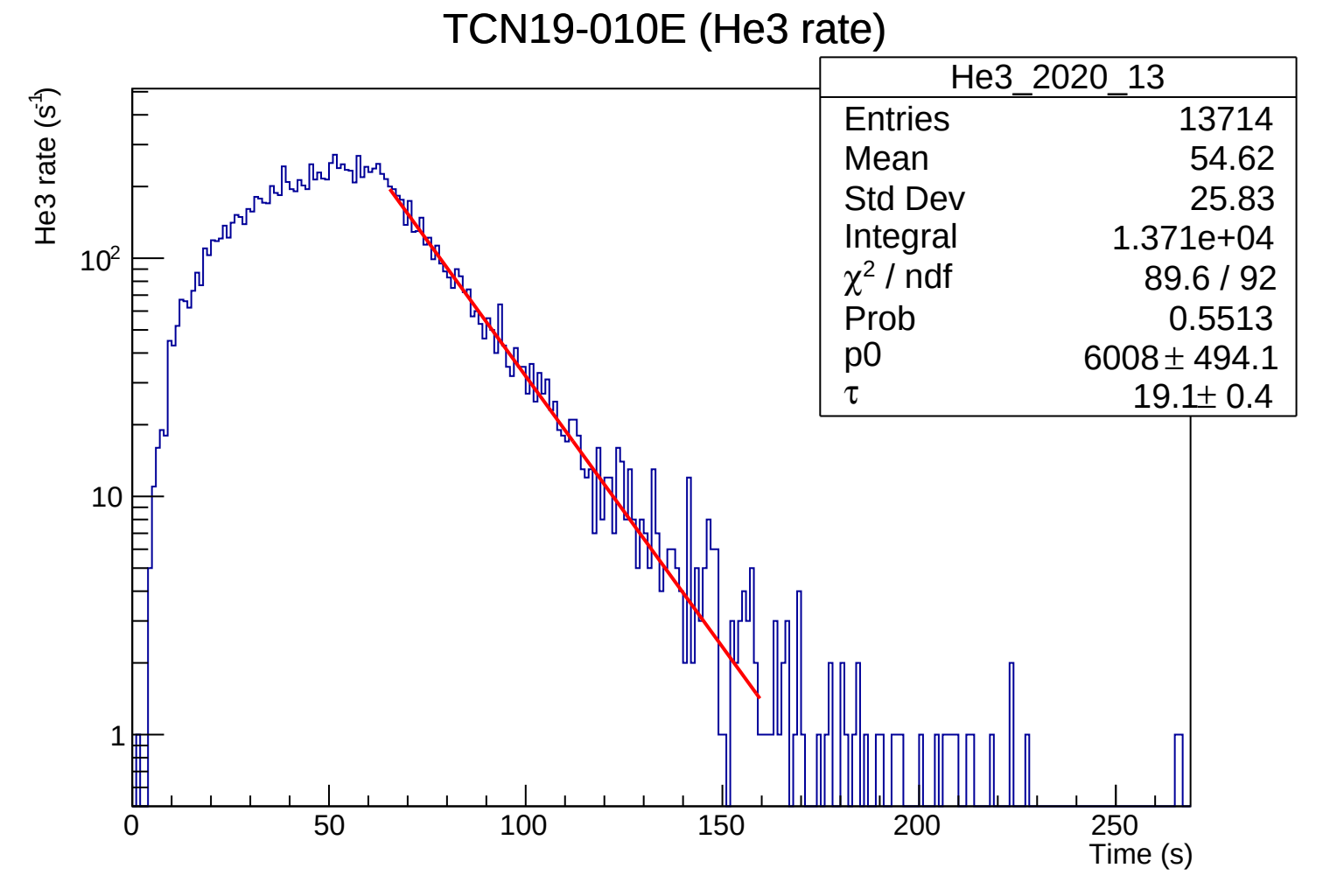

TCN19-010E (He3 rate)
He3_2020_8
Entries 13945
Mean 54.96
Std Dev 25.87
Integral 1.394e+04
χ² / ndf 103.8 / 92
Prob 0.1891
p0 5760 ± 450.2
τ 19.4 ± 0.3
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

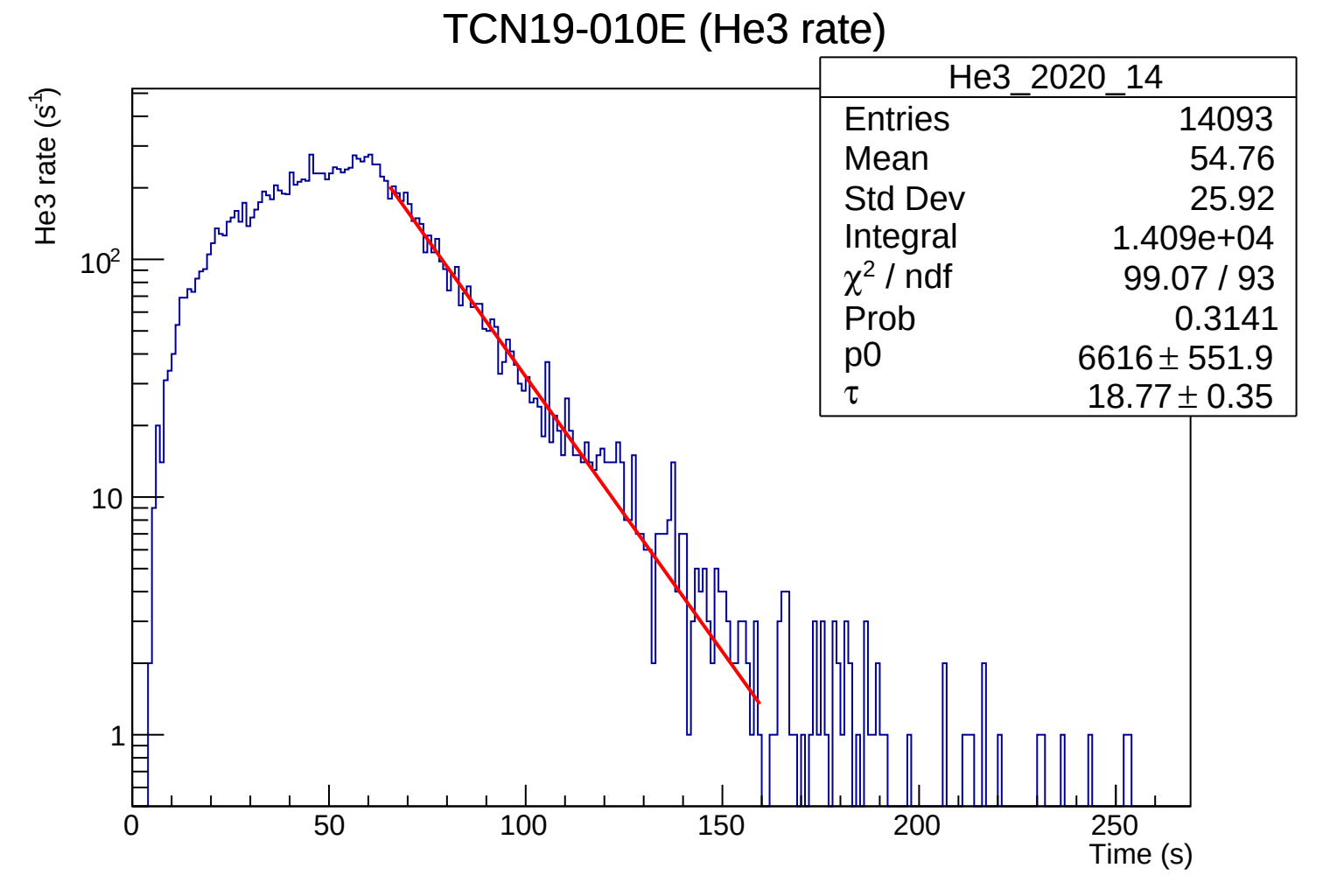

TCN19-010E (He3 rate)
He3_2020_9
Entries 13723
Mean 54.82
Std Dev 25.52
Integral 1.372e+04
χ² / ndf 77.88 / 92
Prob 0.8531
p0 7035 ± 571.6
τ 18.56 ± 0.33
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

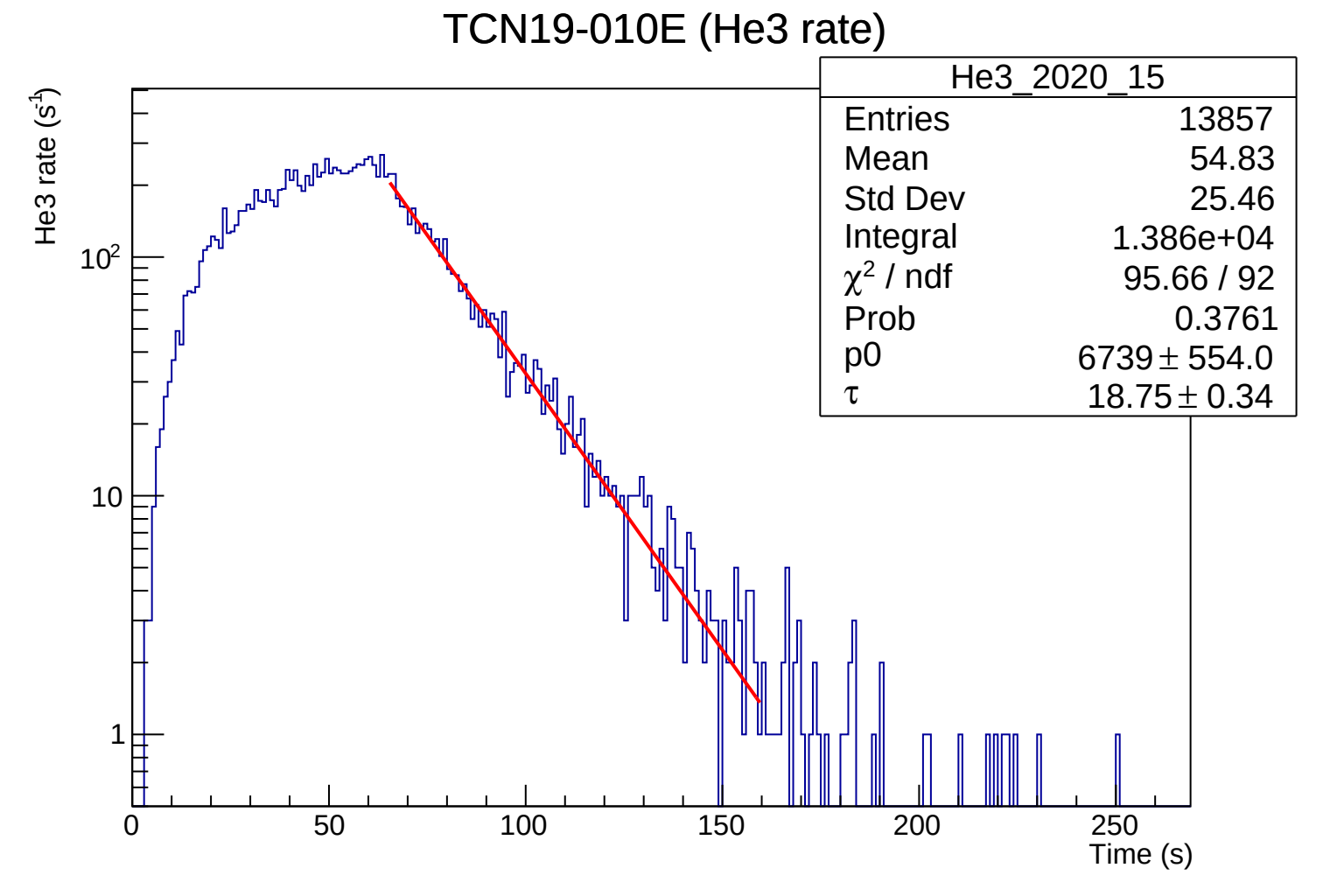

TCN19-010E (He3 rate)
He3_2020_10
Entries 13893
Mean 55
Std Dev 25.99
Integral 1.389e+04
χ² / ndf 85.7 / 91
Prob 0.6371
p0 6381± 525.0
τ 18.97 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

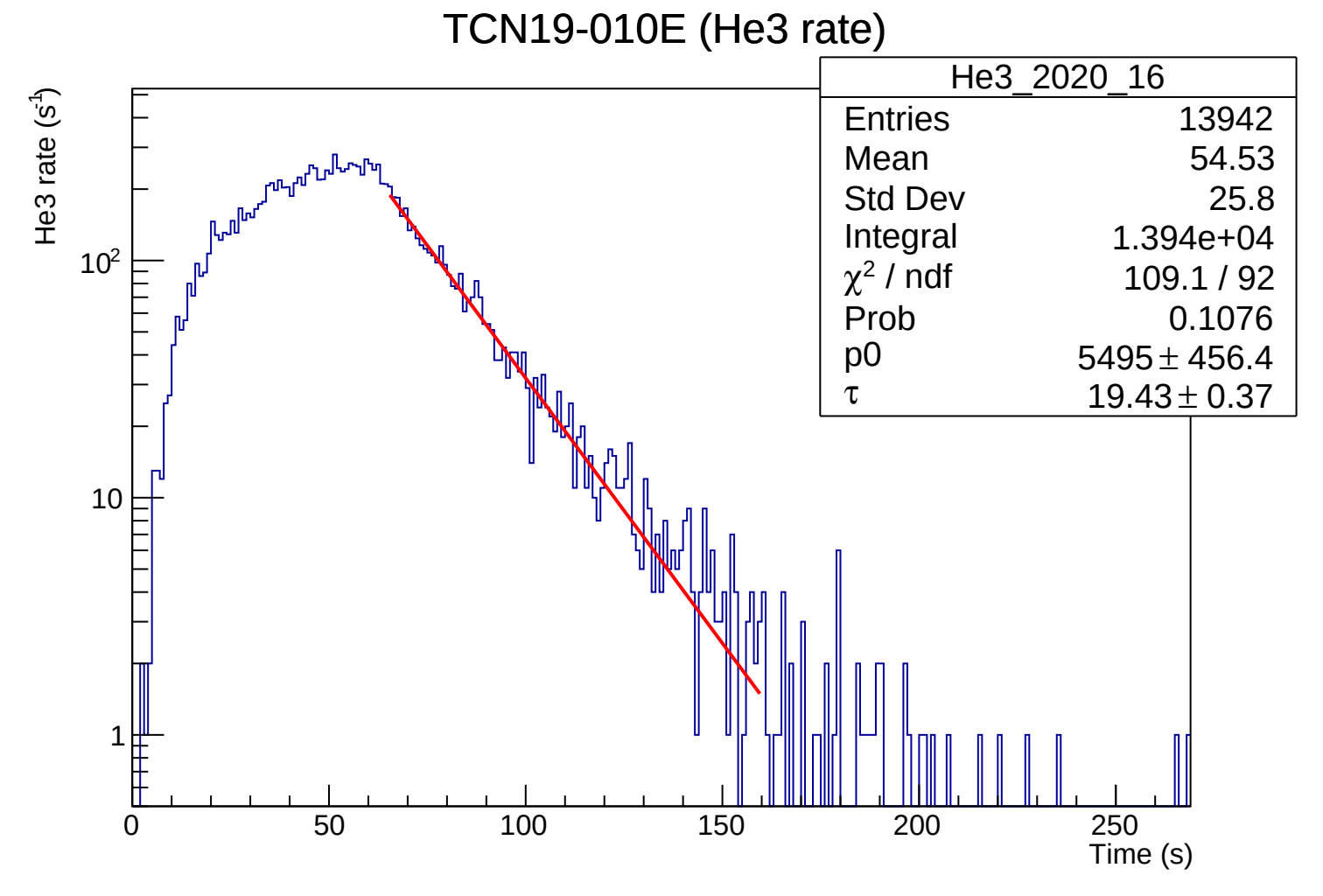

TCN19-010E (He3 rate)
He3_2020_11
Entries 13766
Mean 54.35
Std Dev 25.57
Integral 1.377e+04
χ² / ndf 81.78 / 92
Prob 0.7684
p0 5964 ± 475.6
τ 19.11 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

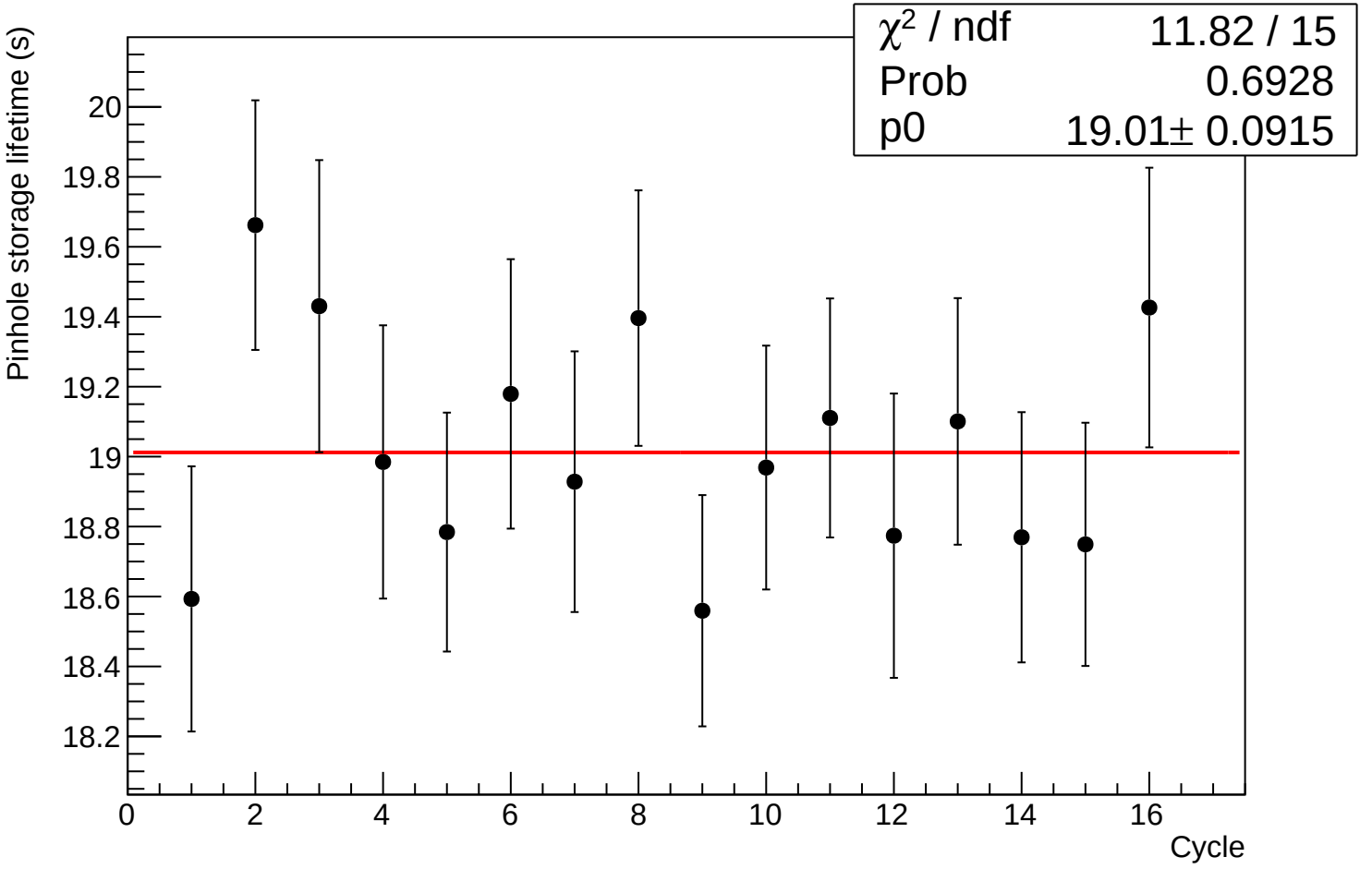

TCN19-010E (He3 rate)
He3_2020_12
Entries 13733
Mean 54.66
Std Dev 26.08
Integral 1.373e+04
χ² / ndf 121.6 / 93
Prob 0.02481
p0 6263 ± 535.5
τ 18.77 ± 0.36
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

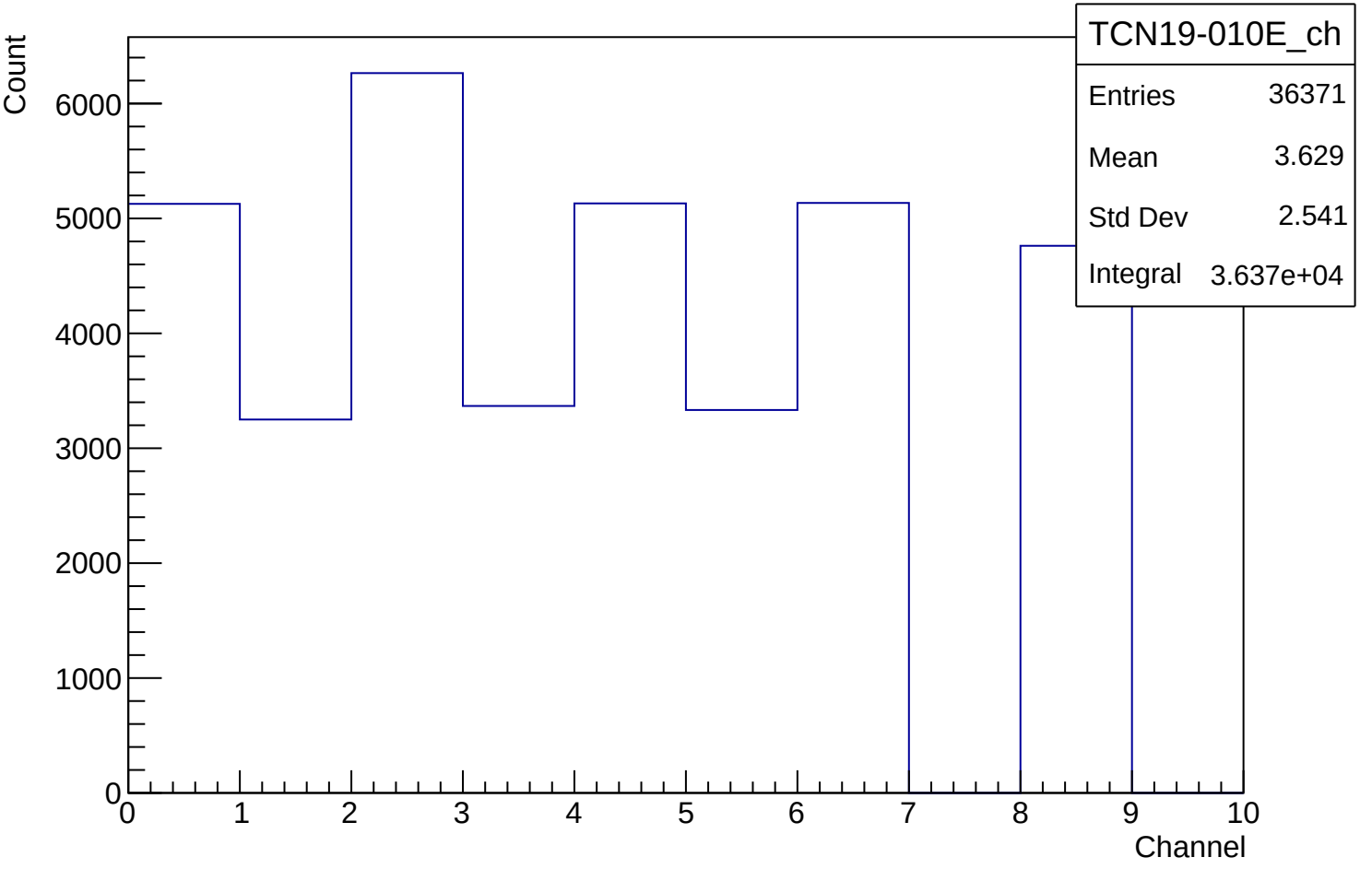

TCN19-010E (He3 rate)
He3_2020_13
Entries 13714
Mean 54.62
Std Dev 25.83
Integral 1.371e+04
χ² / ndf 89.6 / 92
Prob 0.5513
p0 6008 ± 494.1
τ 19.1 ± 0.4
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


TCN19-010E (He3 rate)
He3_2020_14
Entries 14093
Mean 54.76
Std Dev 25.92
Integral 1.409e+04
χ² / ndf 99.07 / 93
Prob 0.3141
p0 6616 ± 551.9
τ 18.77 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


TCN19-010E (He3 rate)
He3_2020_15
Entries 13857
Mean 54.83
Std Dev 25.46
Integral 1.386e+04
χ² / ndf 95.66 / 92
Prob 0.3761
p0 6739 ± 554.0
τ 18.75 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


TCN19-010E (He3 rate)
He3_2020_16
Entries 13942
Mean 54.53
Std Dev 25.8
Integral 1.394e+04
χ² / ndf 109.1 / 92
Prob 0.1076
p0 5495 ± 456.4
τ 19.43 ± 0.37
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


χ^2 / ndf 11.82 / 15
Prob 0.6928
p0 19.01± 0.0915
Pinhole storage lifetime (s)
20
19.8
19.6
19.4
19.2
19
18.8
18.6
18.4
18.2
0
2
4
6
8
10
12
14
16
Cycle


TCN19-010E
TCN19-010E_ch
Entries 36371
Mean 3.629
Std Dev 2.541
Integral 3.637e+04
Count
0
1000
2000
3000
4000
5000
6000
0
1
2
3
4
5
6
7
8
9
10
Channel