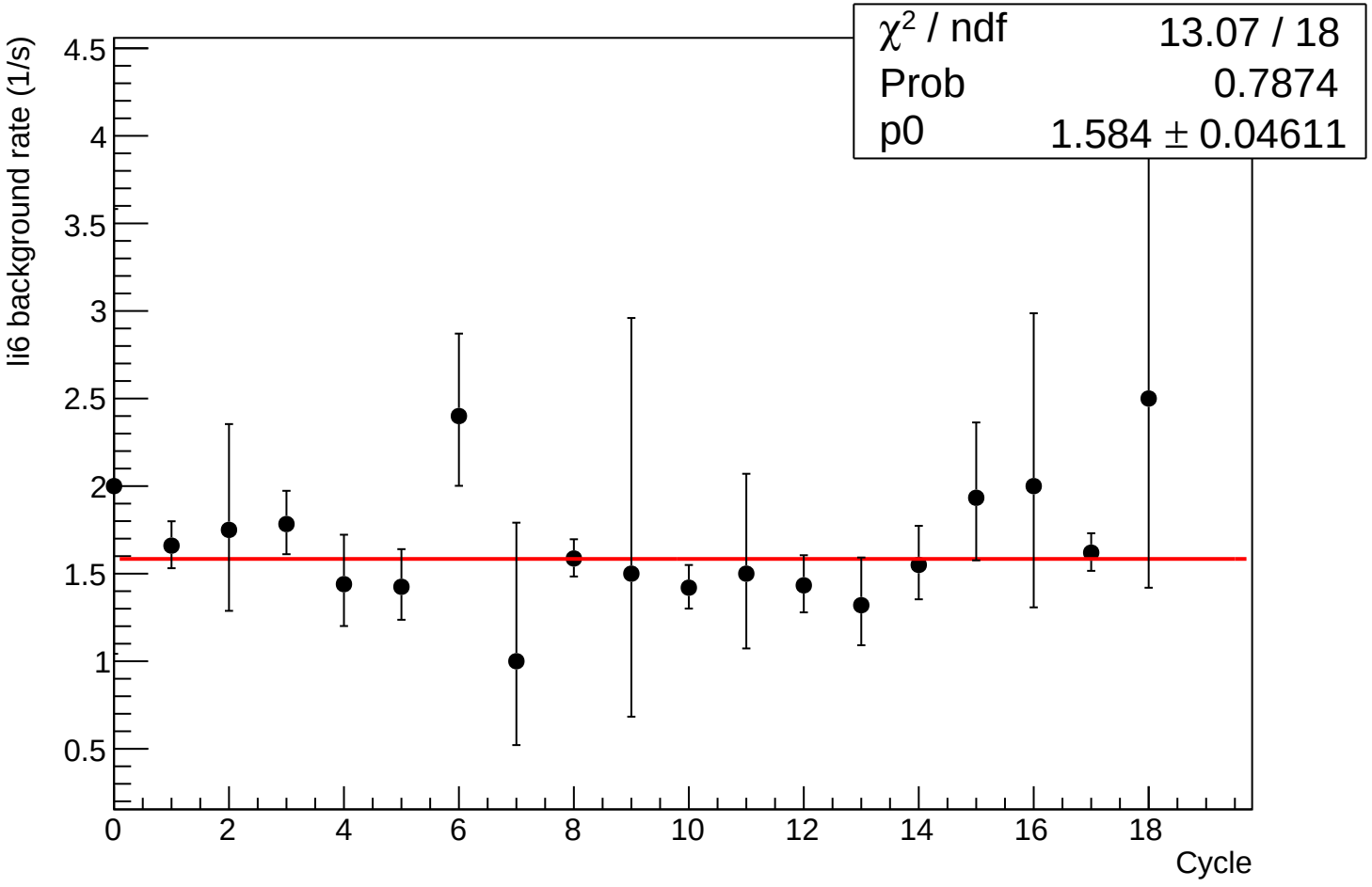
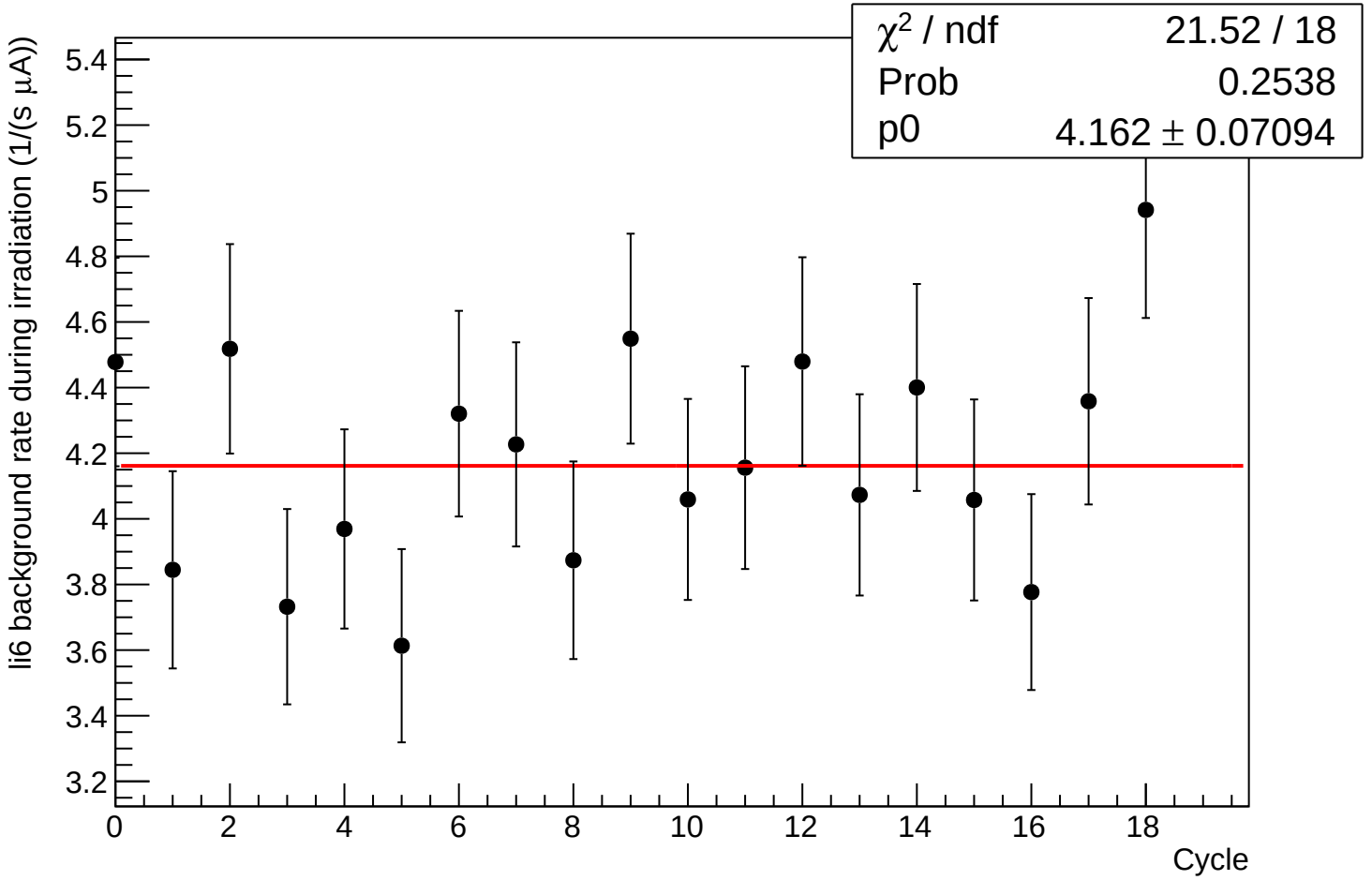
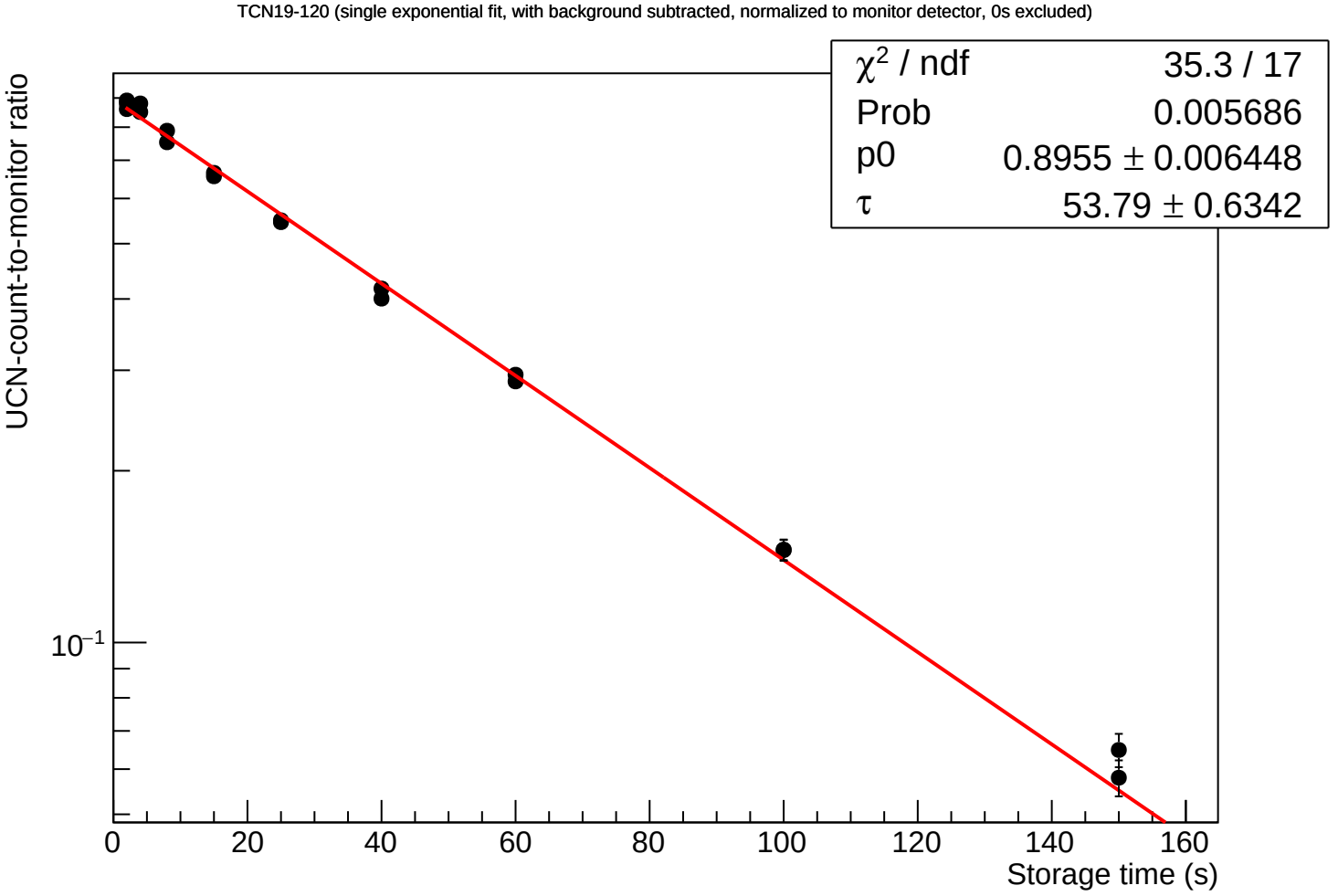
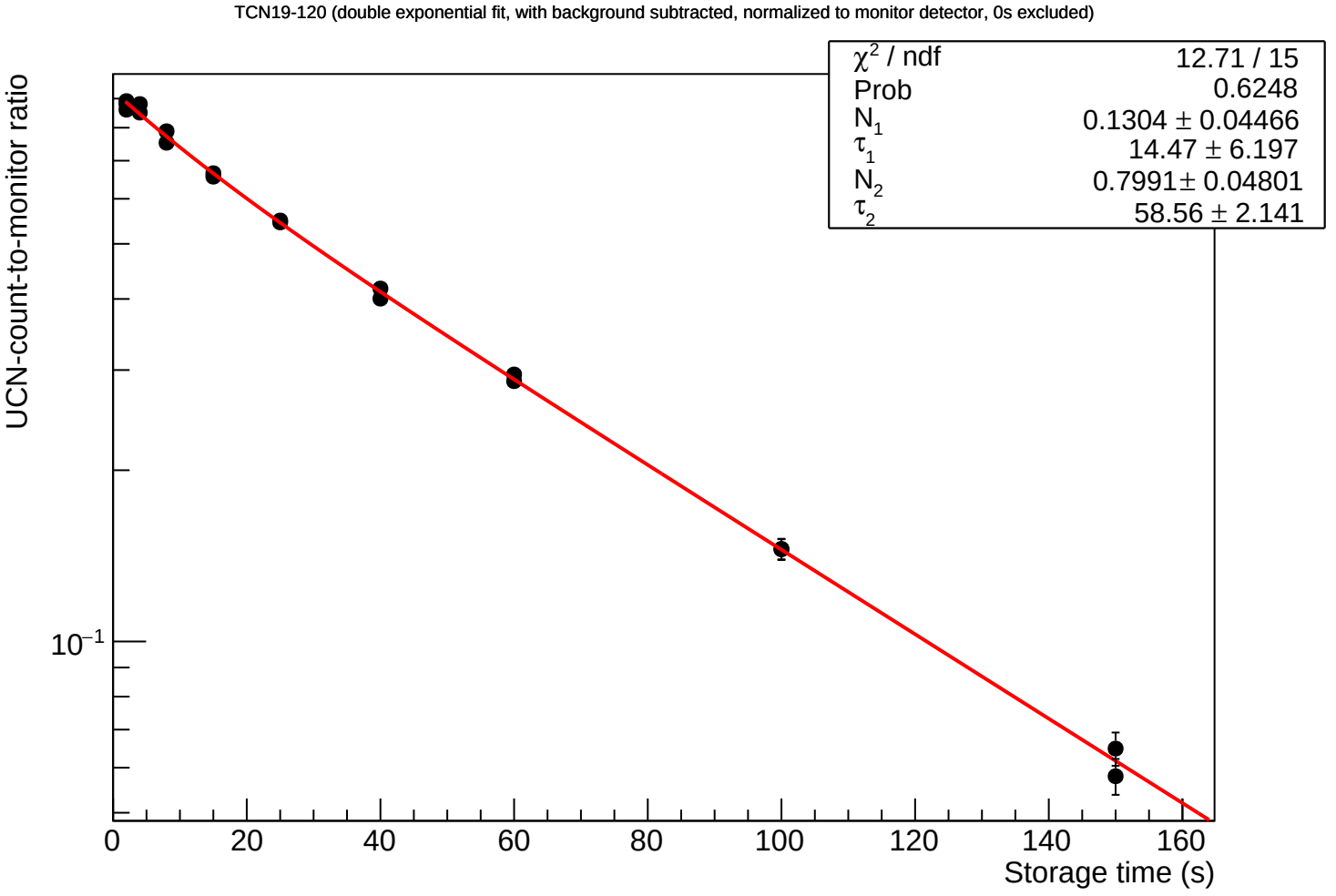
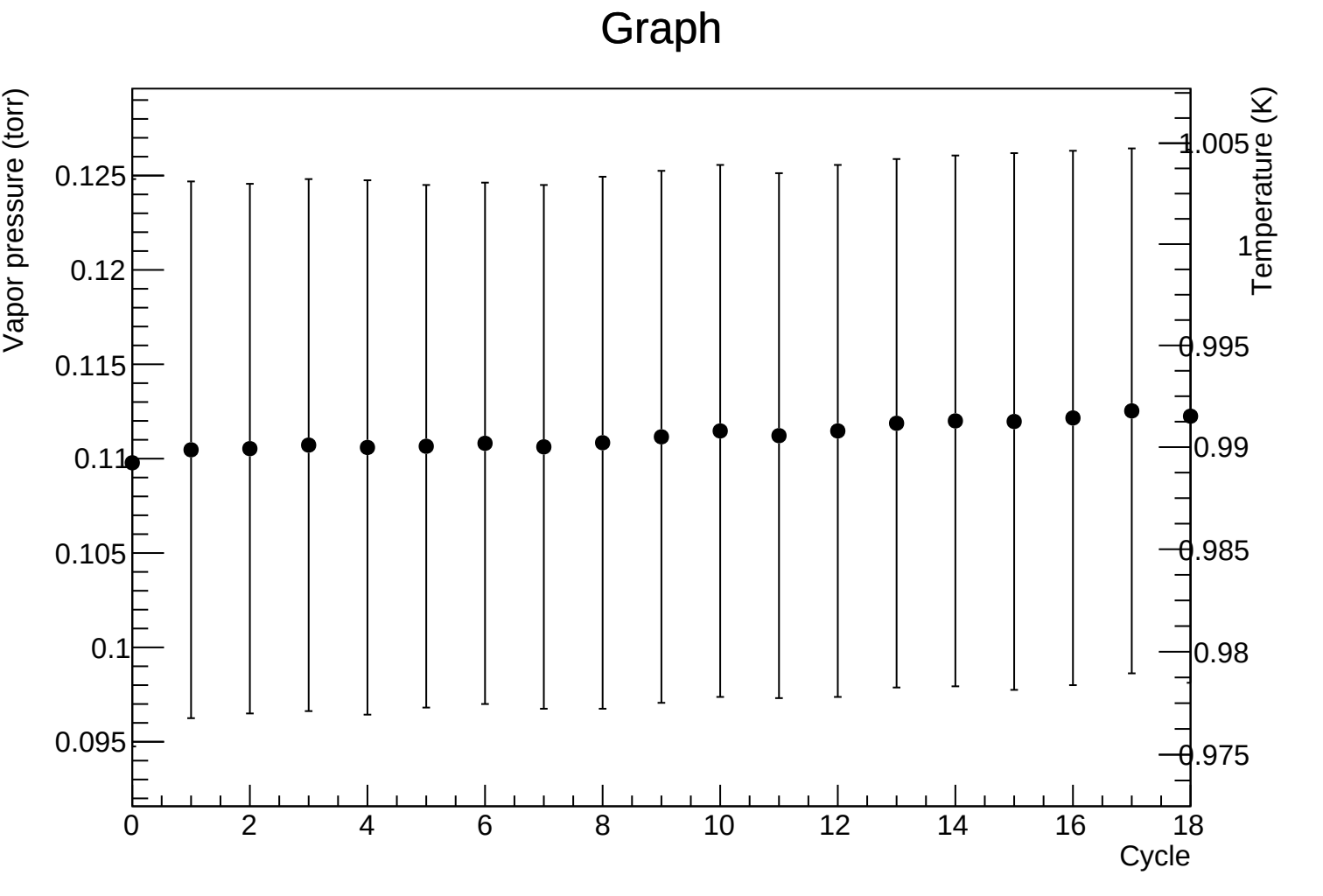
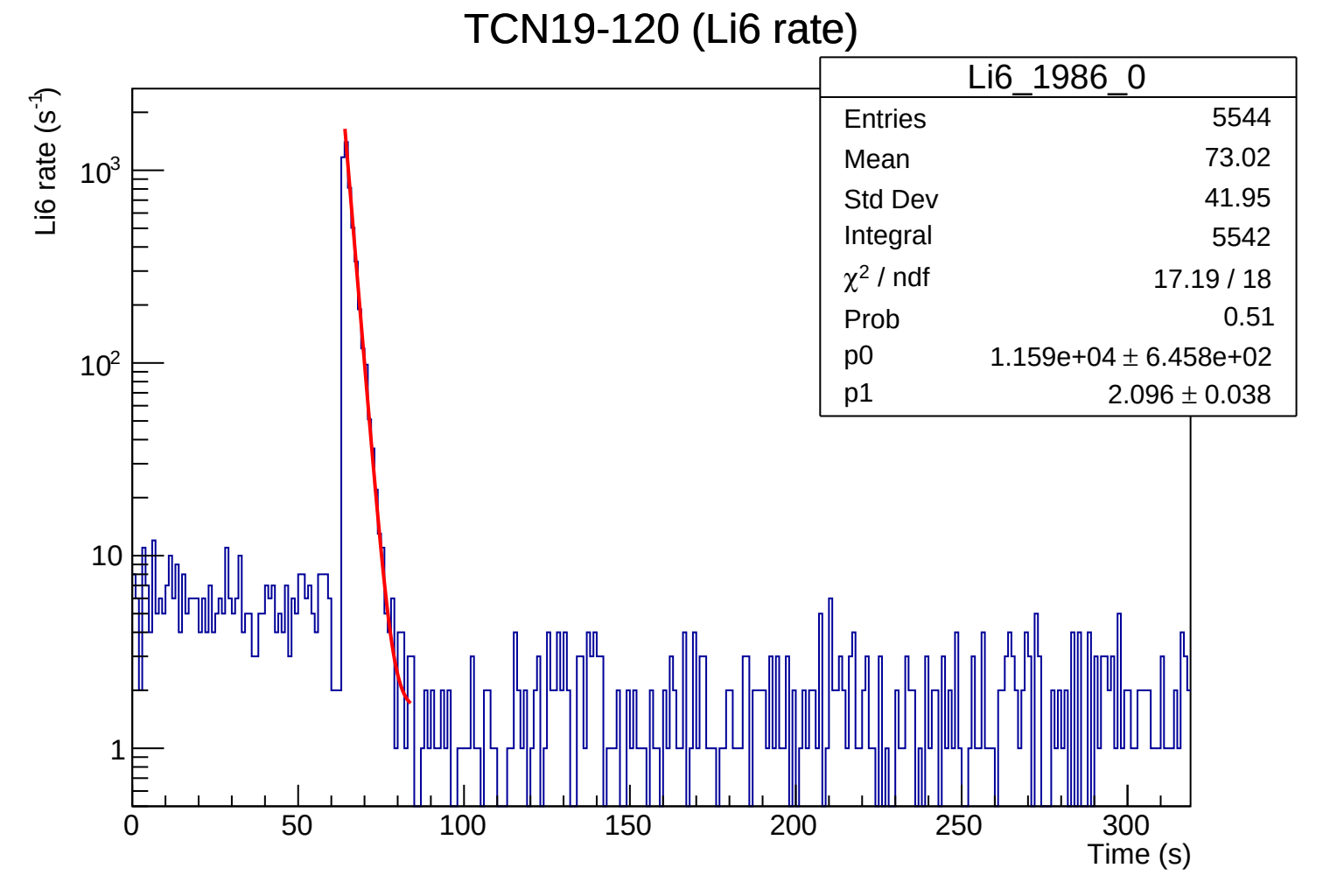

χ^2 / ndf 13.07 / 18
Prob 0.7874
p0 1.584 ± 0.04611
li6 background rate (1/s)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2
4
6
8
10
12
14
16
18
Cycle

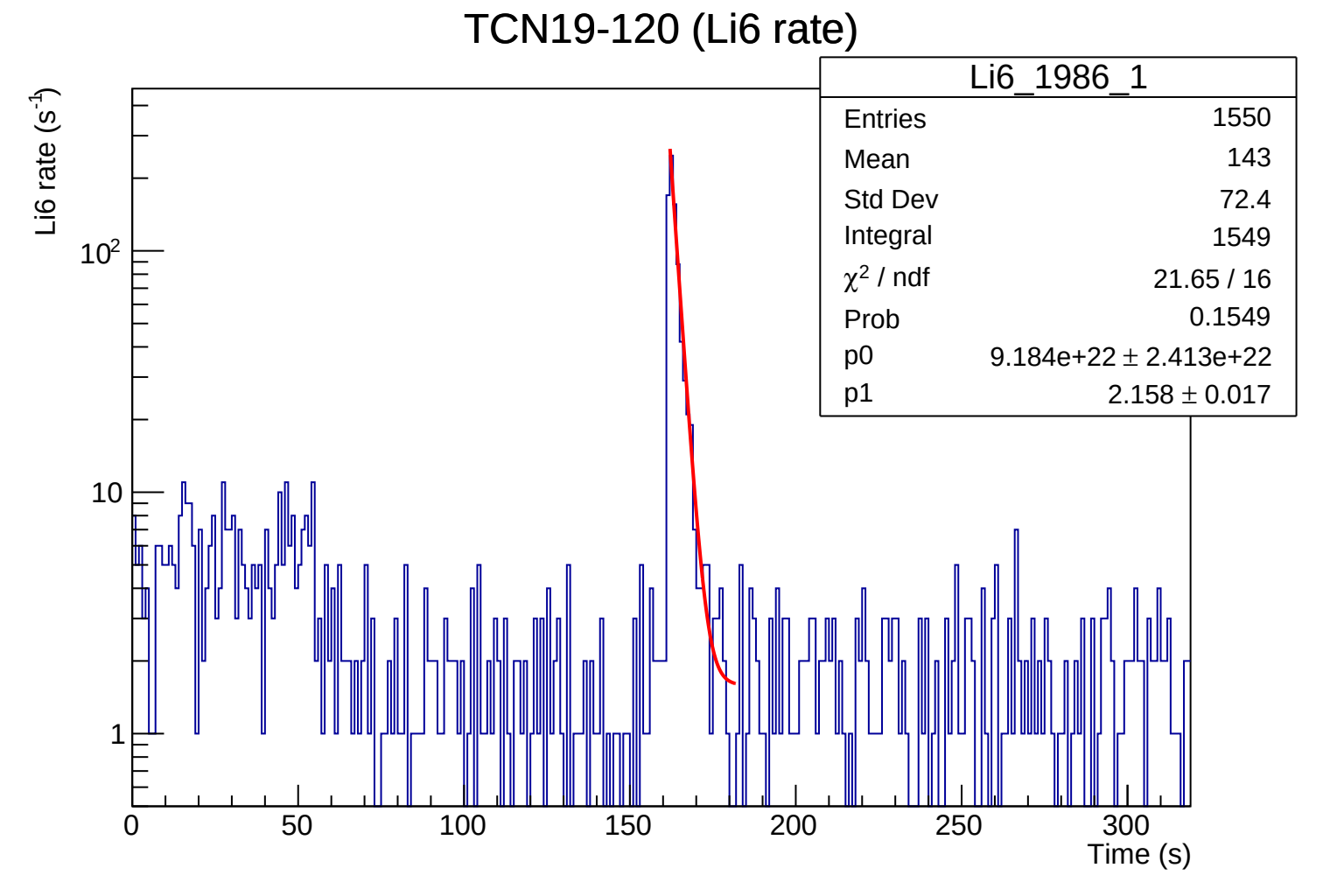

χ^2 / ndf 21.52 / 18
Prob 0.2538
p0 4.162 ± 0.07094
li6 background rate during irradiation (1/(s μA))
Cycle
5.4
5.2
5
4.8
4.6
4.4
4.2
4
3.8
3.6
3.4
3.2
0
2
4
6
8
10
12
14
16
18

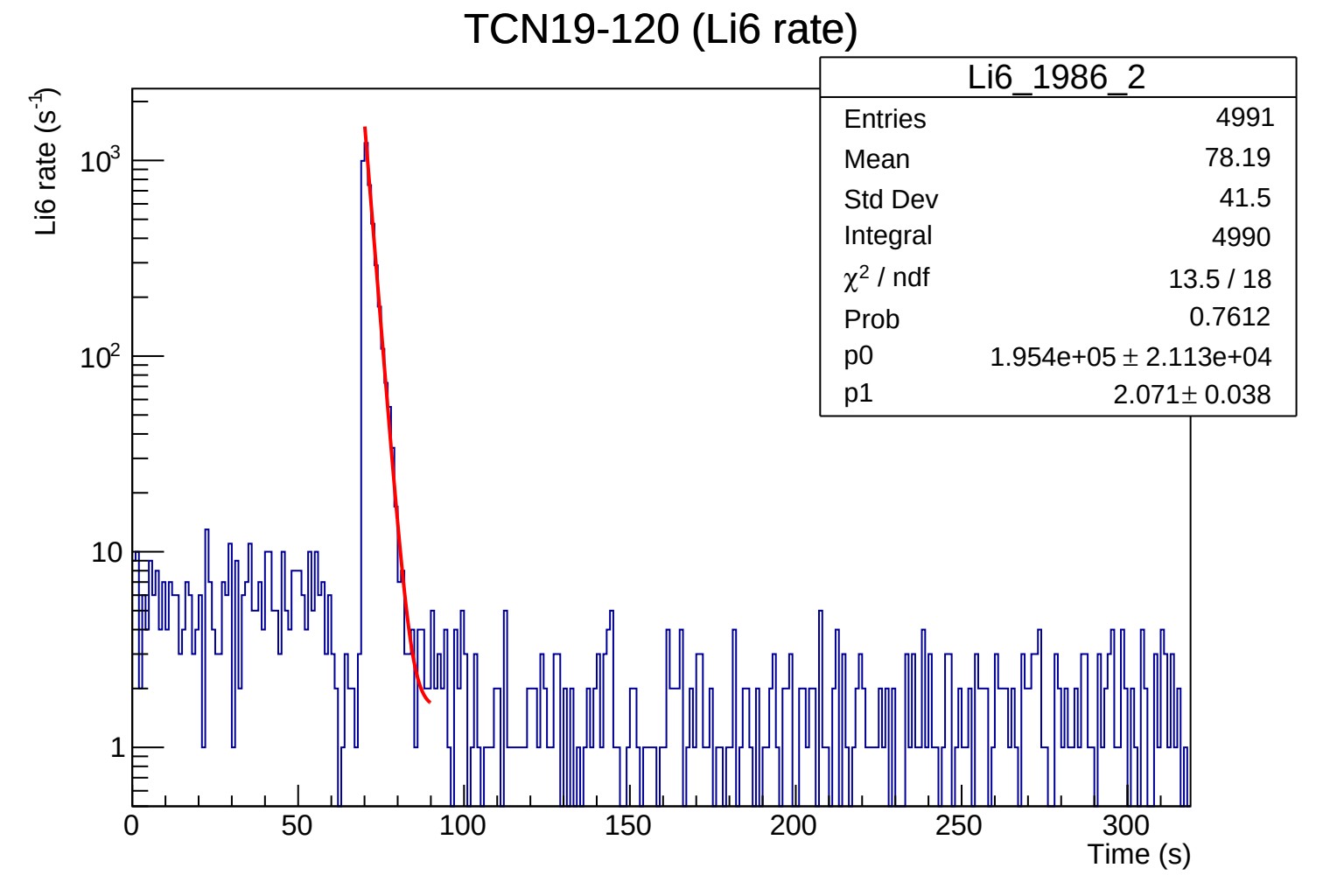

TCN19-120 (single exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ² / ndf 35.3 / 17
Prob 0.005686
p0 0.8955 ± 0.006448
τ 53.79 ± 0.6342
UCN-count-to-monitor ratio
10⁻¹
0
20
40
60
80
100
120
140
160
Storage time (s)

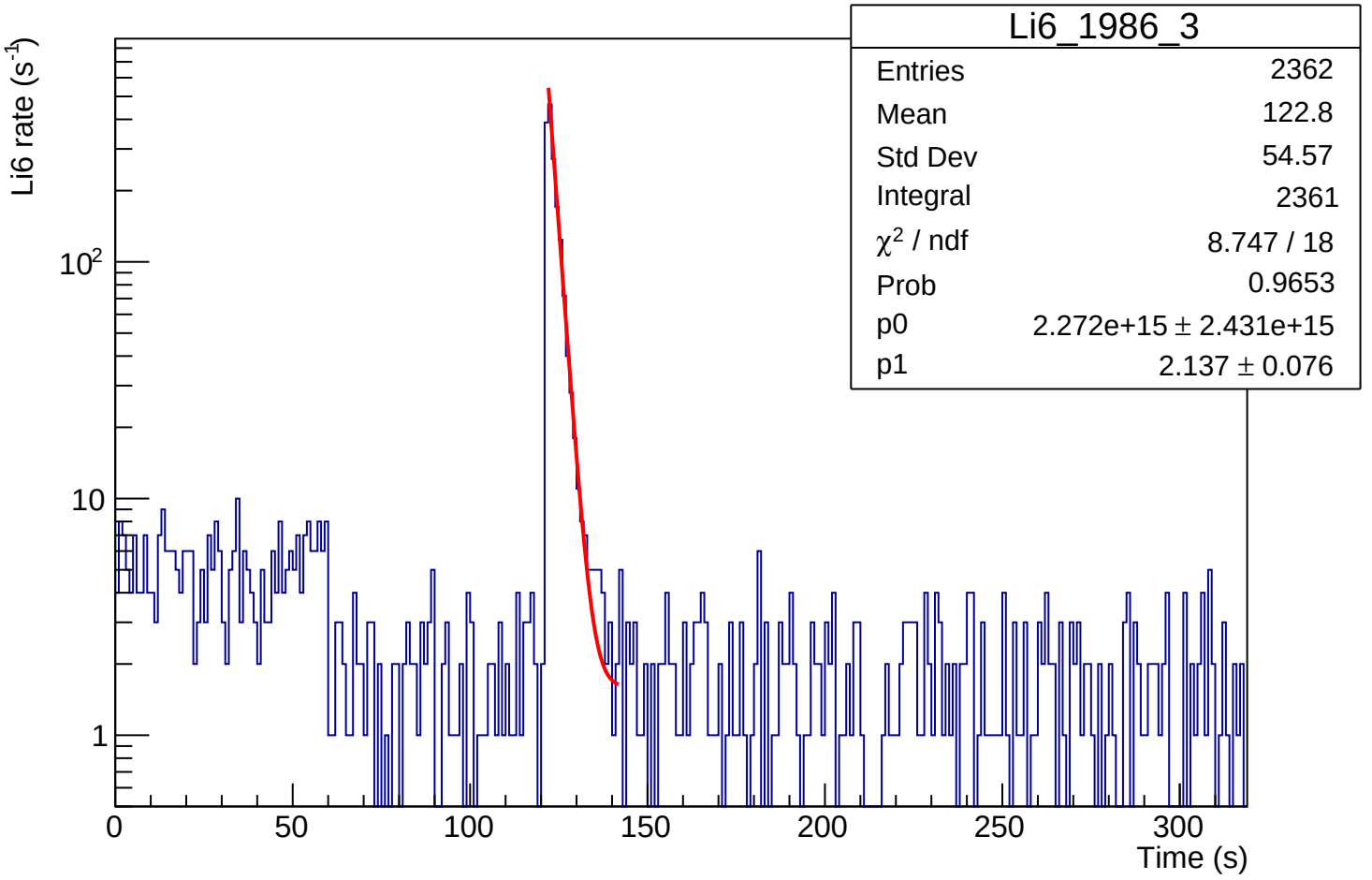

TCN19-120 (double exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ² / ndf 12.71 / 15
Prob 0.6248
N1 0.1304 ± 0.04466
τ1 14.47 ± 6.197
N2 0.7991± 0.04801
τ2 58.56 ± 2.141
UCN-count-to-monitor ratio
10⁻¹
0
20
40
60
80
100
120
140
160
Storage time (s)

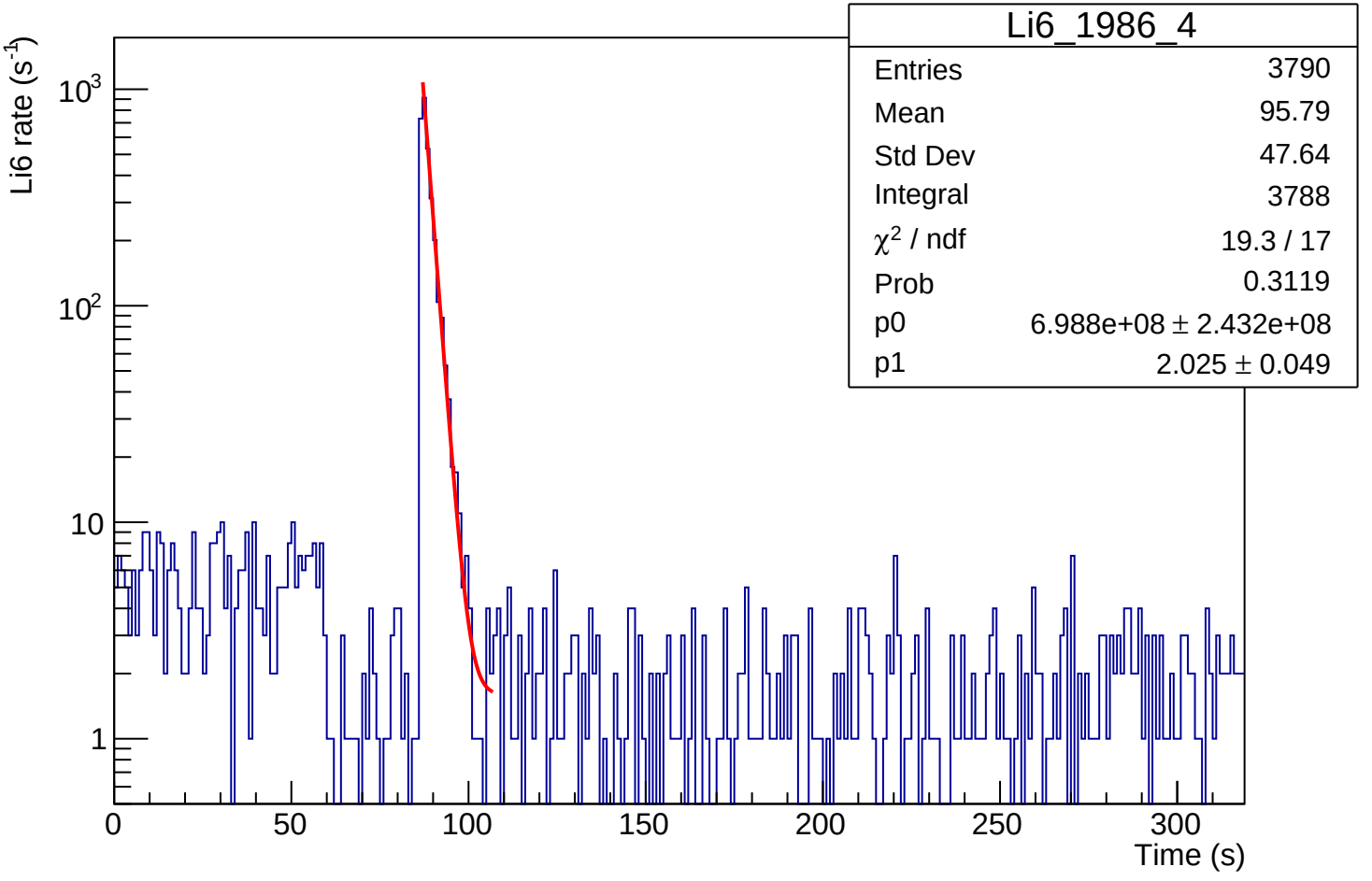

Graph
Vapor pressure (torr)
0.125
0.12
0.115
0.11
0.105
0.1
0.095
Temperature (K)
1.005
1
0.995
0.99
0.985
0.98
0.975
0
2
4
6
8
10
12
14
16
18
Cycle

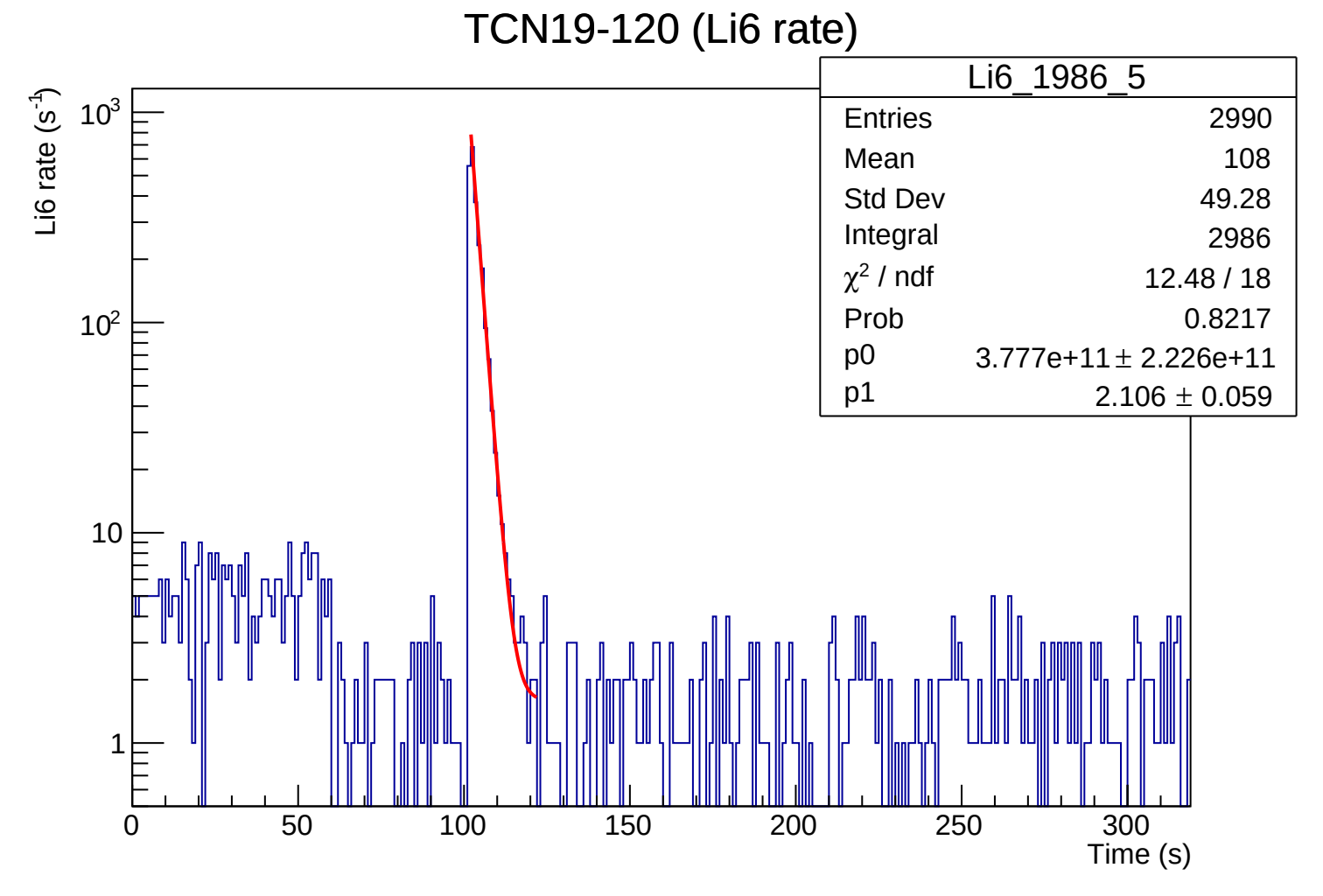

TCN19-120 (Li6 rate)
Li6_1986_0
Entries 5544
Mean 73.02
Std Dev 41.95
Integral 5542
χ2 / ndf 17.19 / 18
Prob 0.51
p0 1.159e+04 ± 6.458e+02
p1 2.096 ± 0.038
Li6 rate (s-1)
10^3
10^2
10
1
0
50
100
150
200
250
300
Time (s)

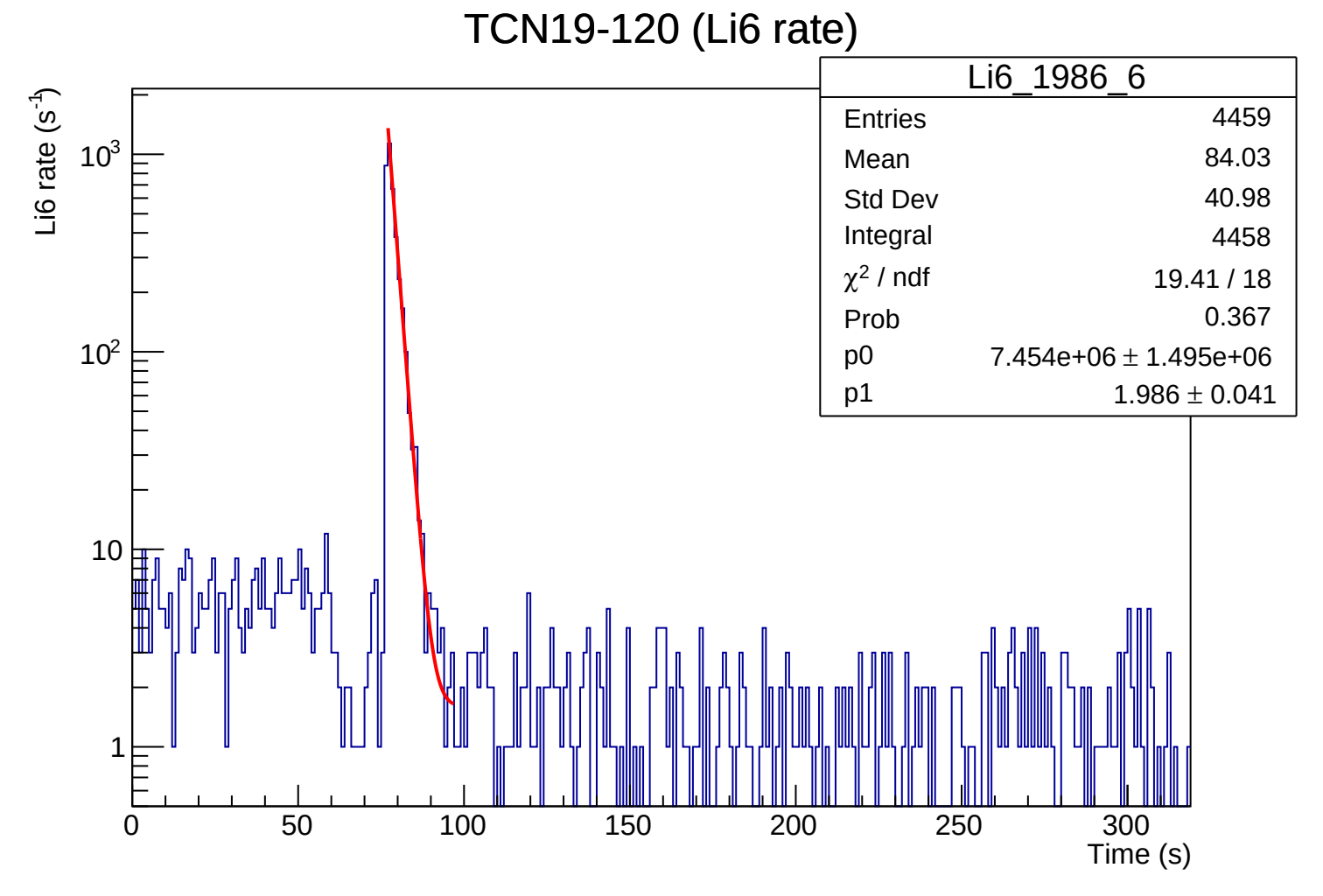

TCN19-120 (Li6 rate)
Li6_1986_1
Entries 1550
Mean 143
Std Dev 72.4
Integral 1549
χ² / ndf 21.65 / 16
Prob 0.1549
p0 9.184e+22 ± 2.413e+22
p1 2.158 ± 0.017
Li6 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

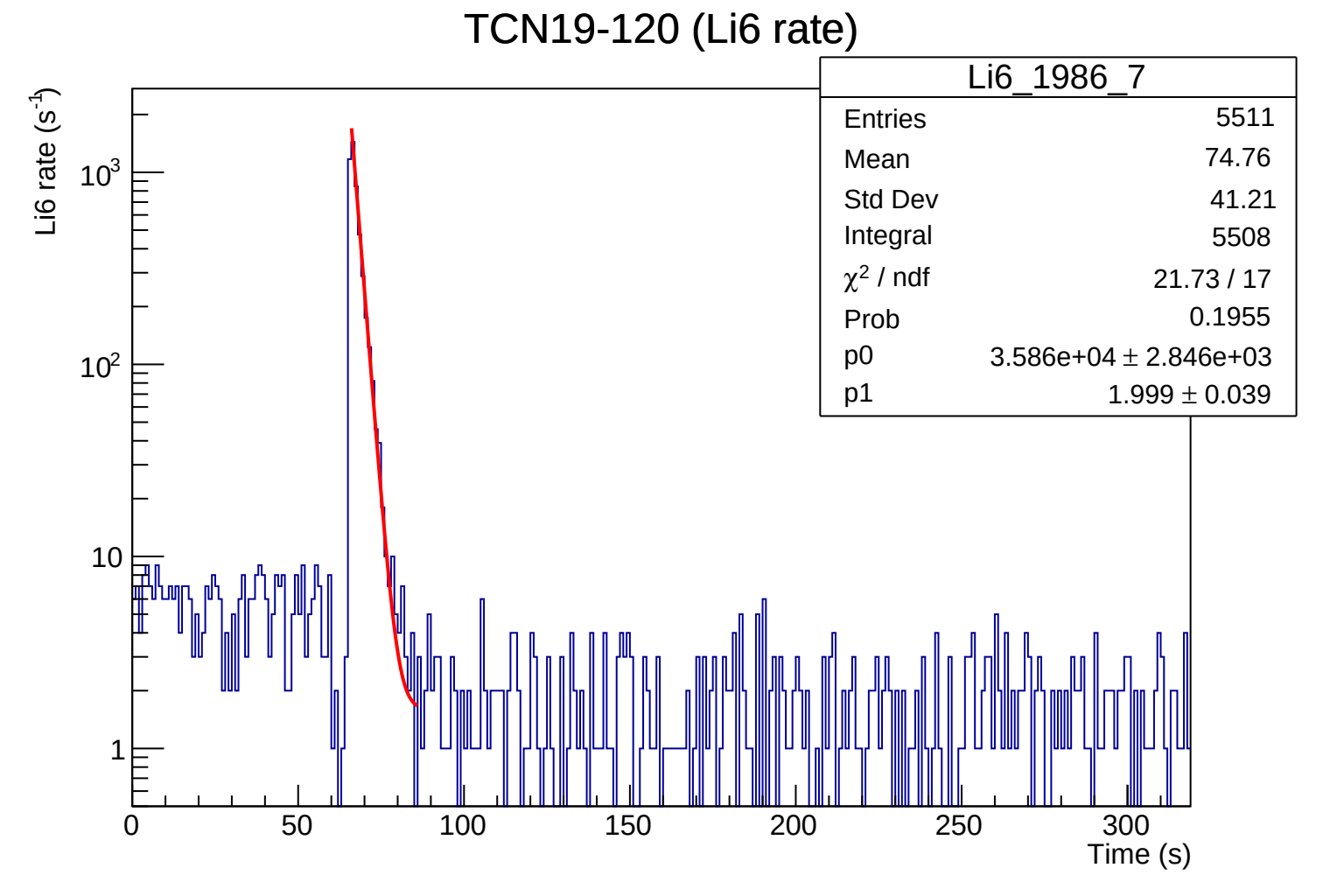

TCN19-120 (Li6 rate)
Li6_1986_2
Entries 4991
Mean 78.19
Std Dev 41.5
Integral 4990
χ² / ndf 13.5 / 18
Prob 0.7612
p0 1.954e+05 ± 2.113e+04
p1 2.071± 0.038
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
300
Time (s)

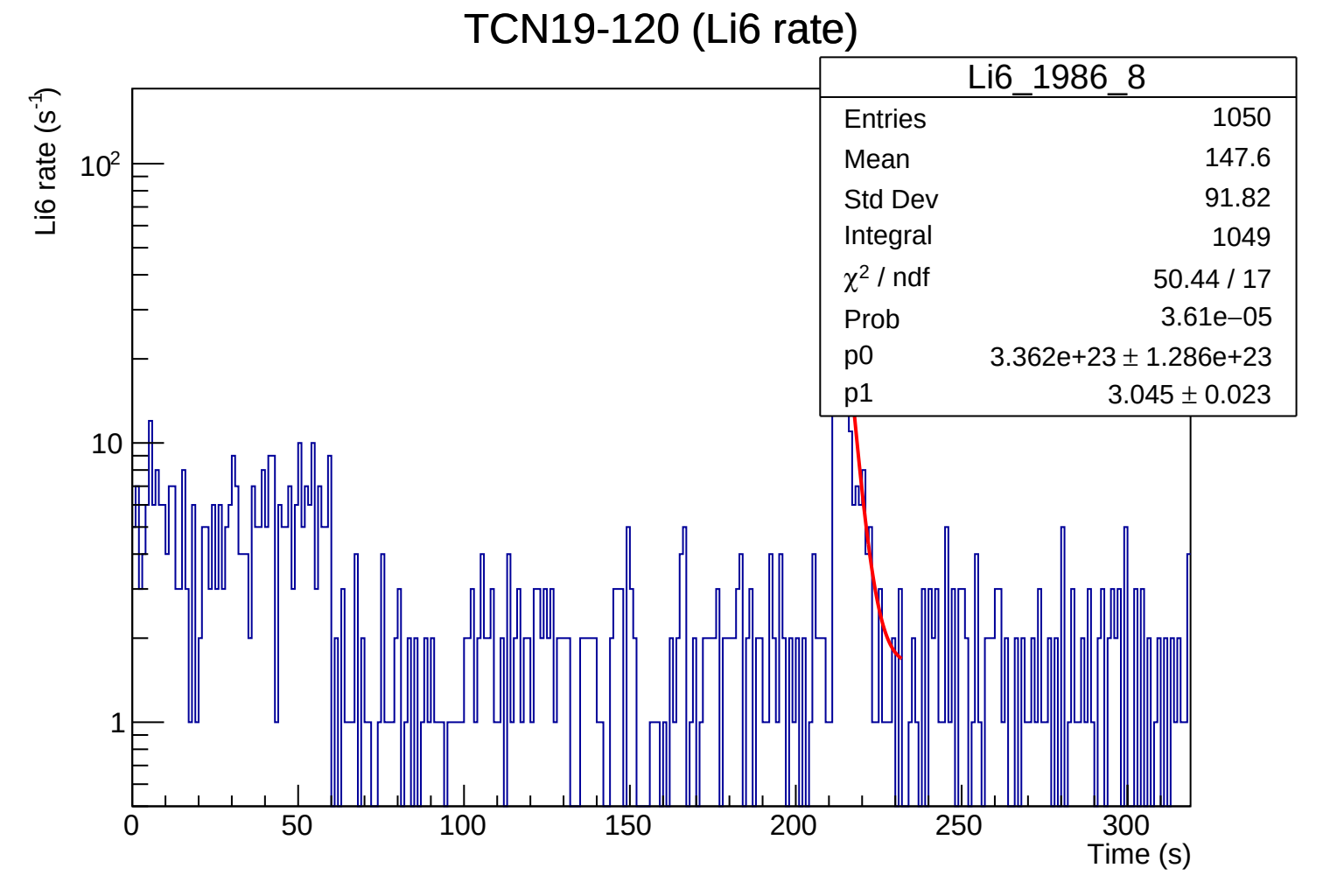

TCN19-120 (Li6 rate)
Li6_1986_3
Entries 2362
Mean 122.8
Std Dev 54.57
Integral 2361
χ² / ndf 8.747 / 18
Prob 0.9653
p0 2.272e+15 ± 2.431e+15
p1 2.137 ± 0.076
Li6 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

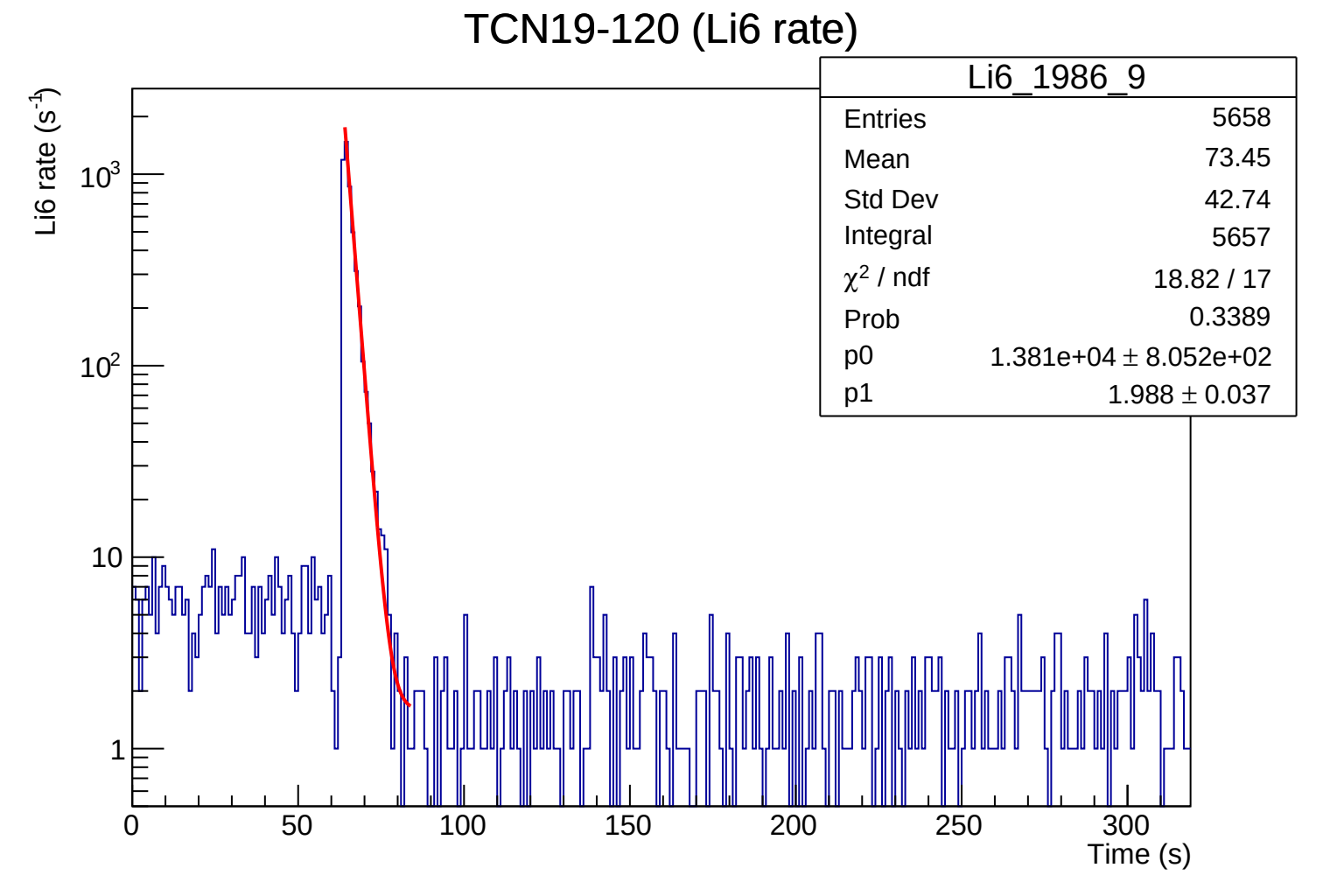

TCN19-120 (Li6 rate)
Li6_1986_4
Entries 3790
Mean 95.79
Std Dev 47.64
Integral 3788
χ² / ndf 19.3 / 17
Prob 0.3119
p0 6.988e+08 ± 2.432e+08
p1 2.025 ± 0.049
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
300
Time (s)

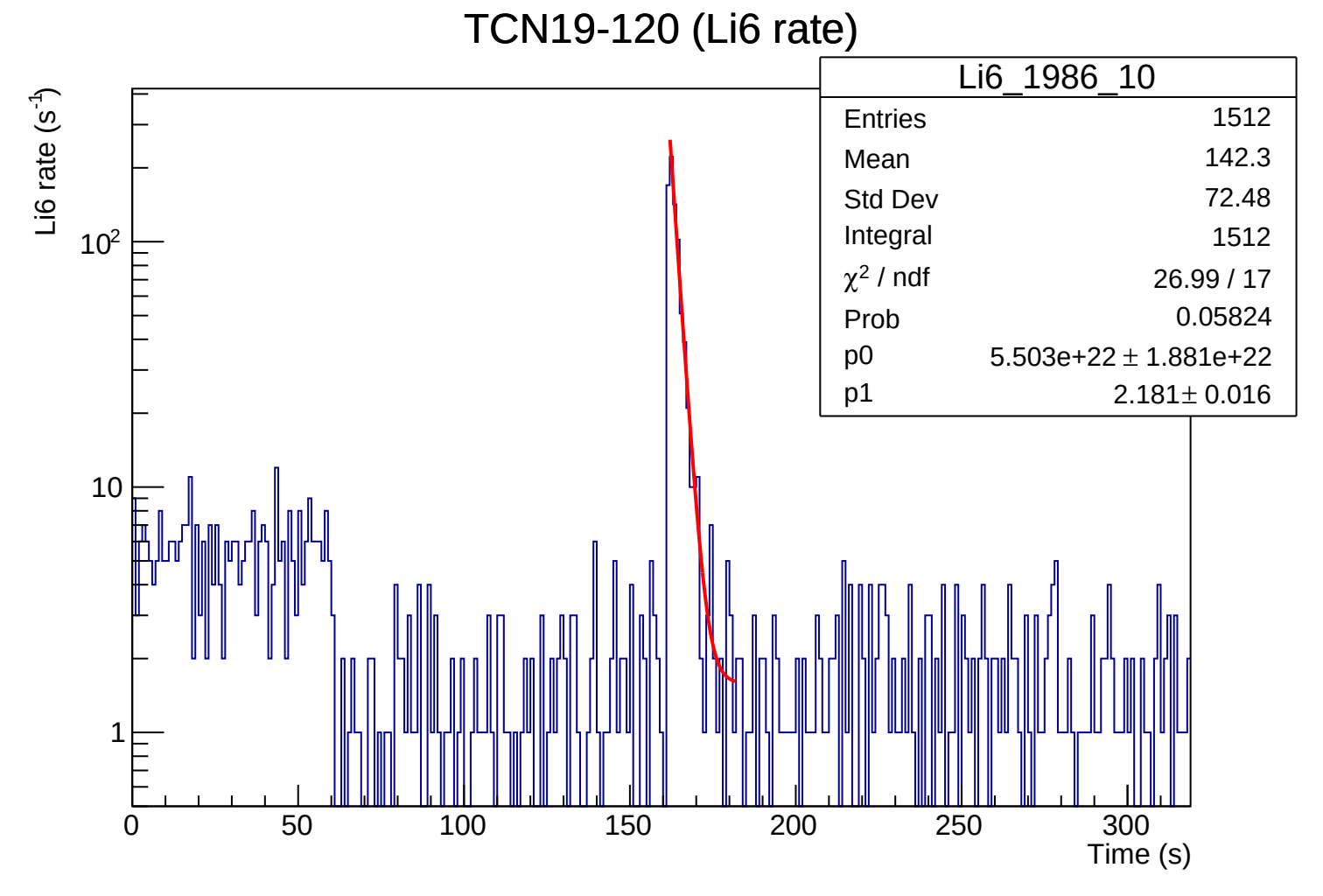

TCN19-120 (Li6 rate)
Li6_1986_5
Entries 2990
Mean 108
Std Dev 49.28
Integral 2986
χ² / ndf 12.48 / 18
Prob 0.8217
p0 3.777e+11 ± 2.226e+11
p1 2.106 ± 0.059
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
300
Time (s)

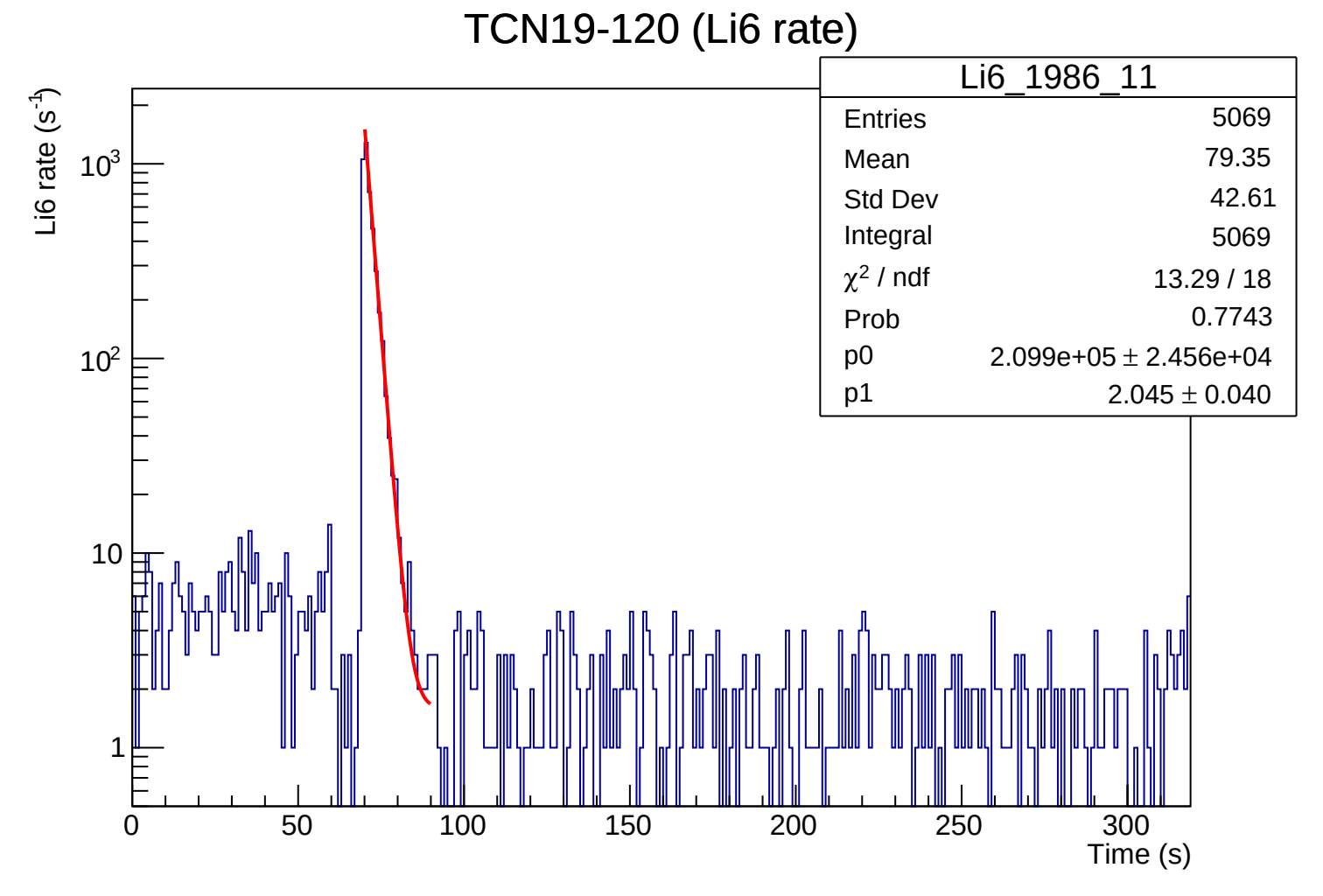

TCN19-120 (Li6 rate)
Li6_1986_6
Entries 4459
Mean 84.03
Std Dev 40.98
Integral 4458
χ² / ndf 19.41 / 18
Prob 0.367
p0 7.454e+06 ± 1.495e+06
p1 1.986 ± 0.041
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
300
Time (s)

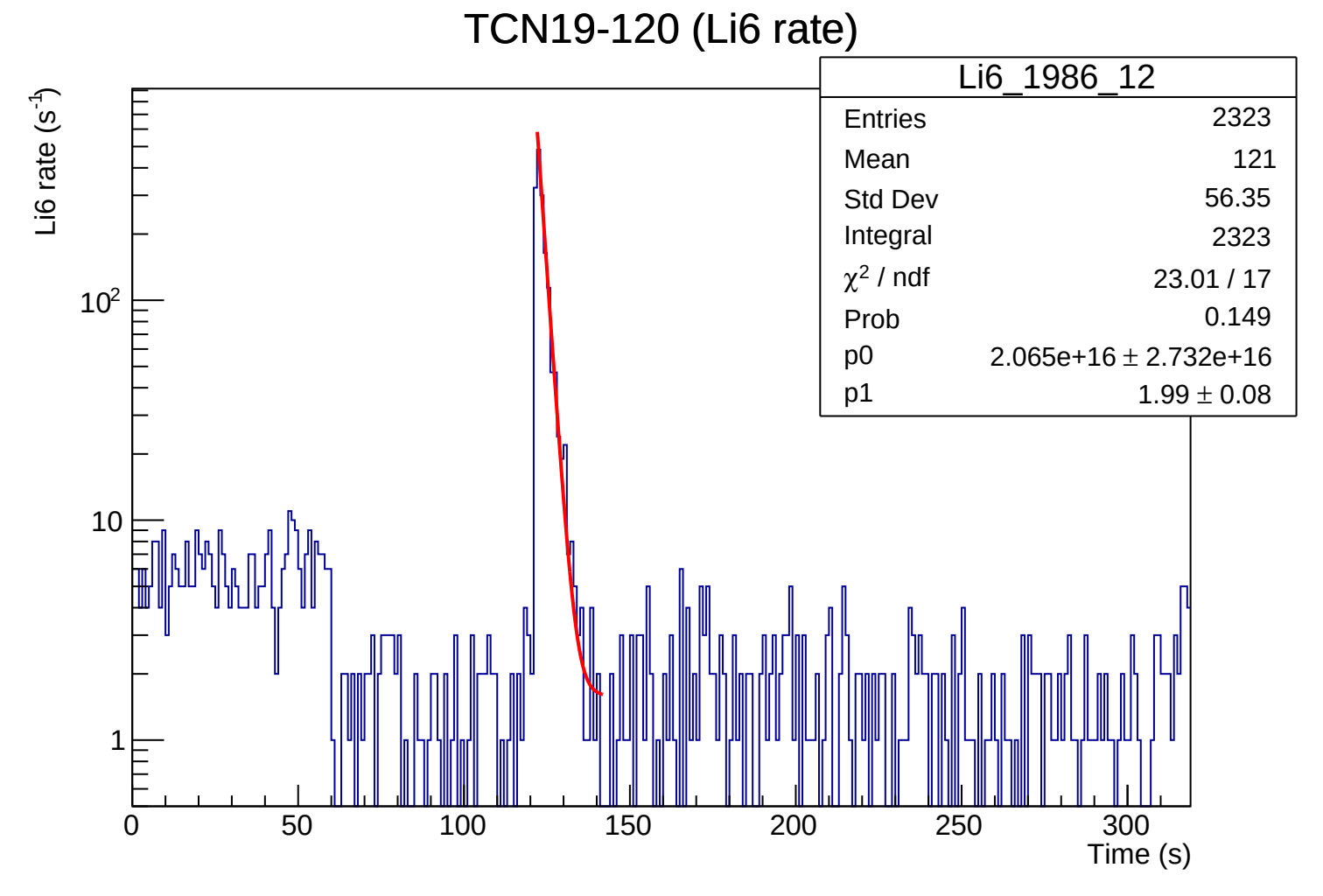

TCN19-120 (Li6 rate)
Li6_1986_7
Entries 5511
Mean 74.76
Std Dev 41.21
Integral 5508
χ2 / ndf 21.73 / 17
Prob 0.1955
p0 3.586e+04 ± 2.846e+03
p1 1.999 ± 0.039
Li6 rate (s-1)
10^3
10^2
10
1
0
50
100
150
200
250
300
Time (s)

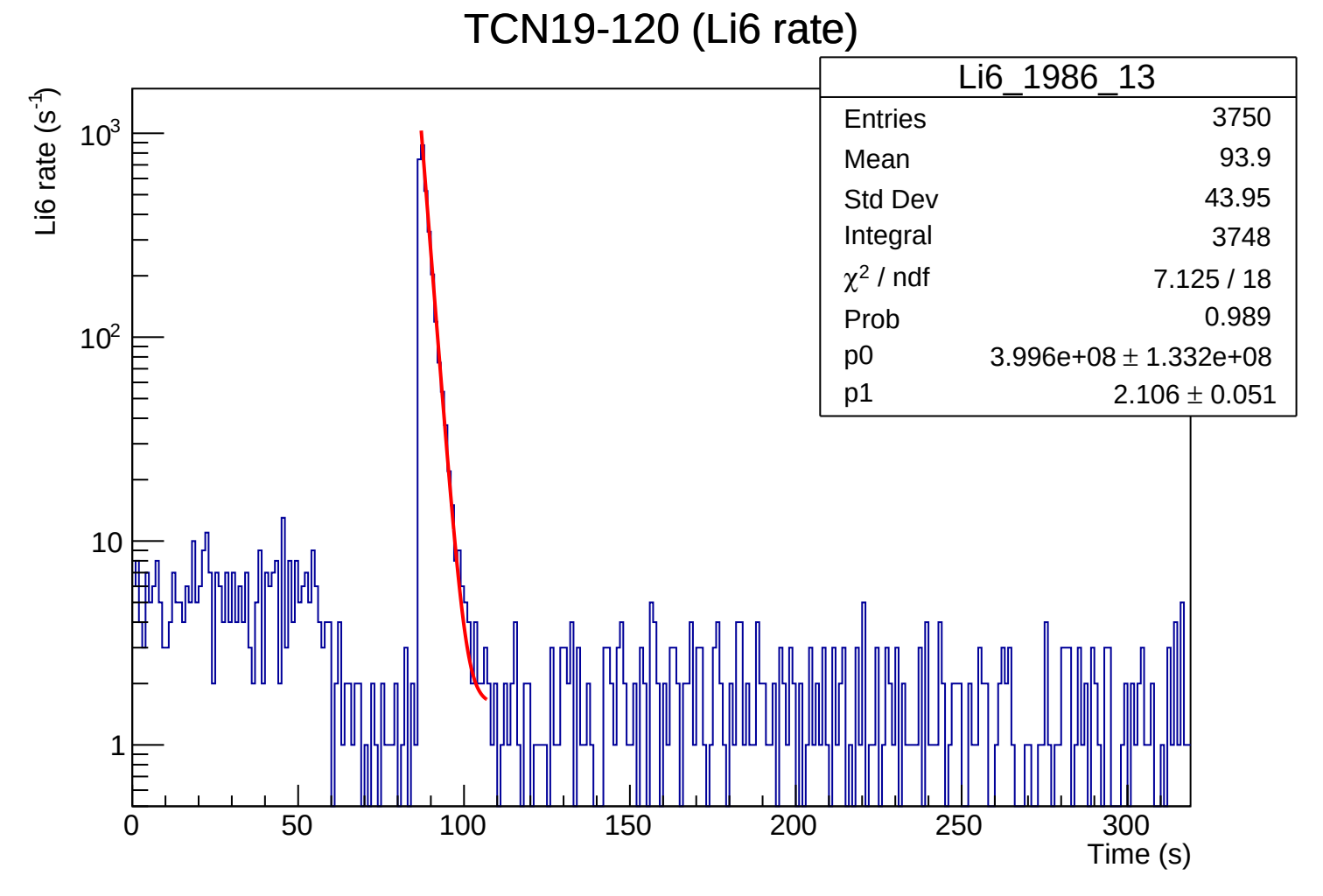

TCN19-120 (Li6 rate)
Li6_1986_8
Entries 1050
Mean 147.6
Std Dev 91.82
Integral 1049
χ² / ndf 50.44 / 17
Prob 3.61e−05
p0 3.362e+23 ± 1.286e+23
p1 3.045 ± 0.023
Li6 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

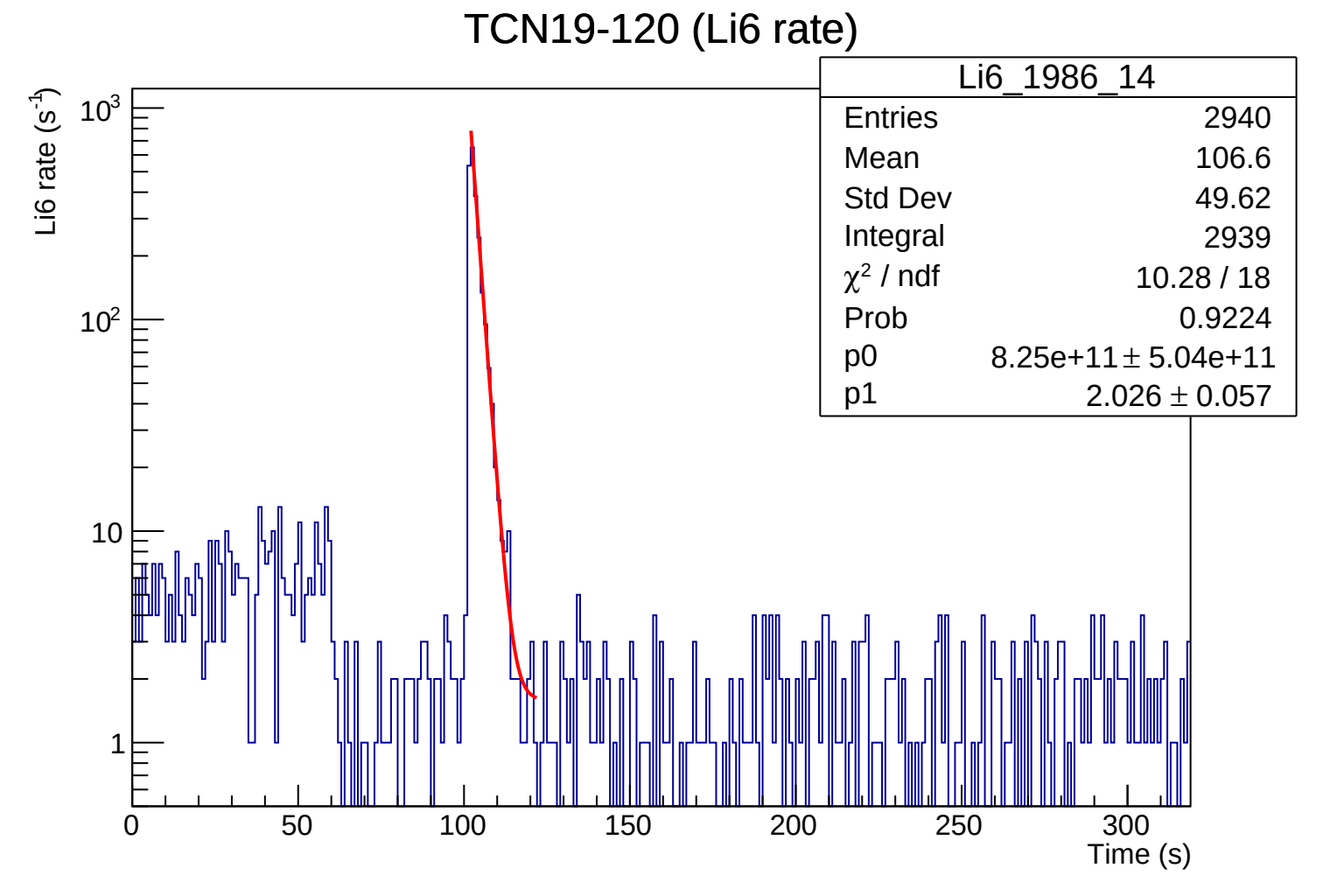

TCN19-120 (Li6 rate)
Li6_1986_9
Entries 5658
Mean 73.45
Std Dev 42.74
Integral 5657
χ² / ndf 18.82 / 17
Prob 0.3389
p0 1.381e+04 ± 8.052e+02
p1 1.988 ± 0.037
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
300
Time (s)

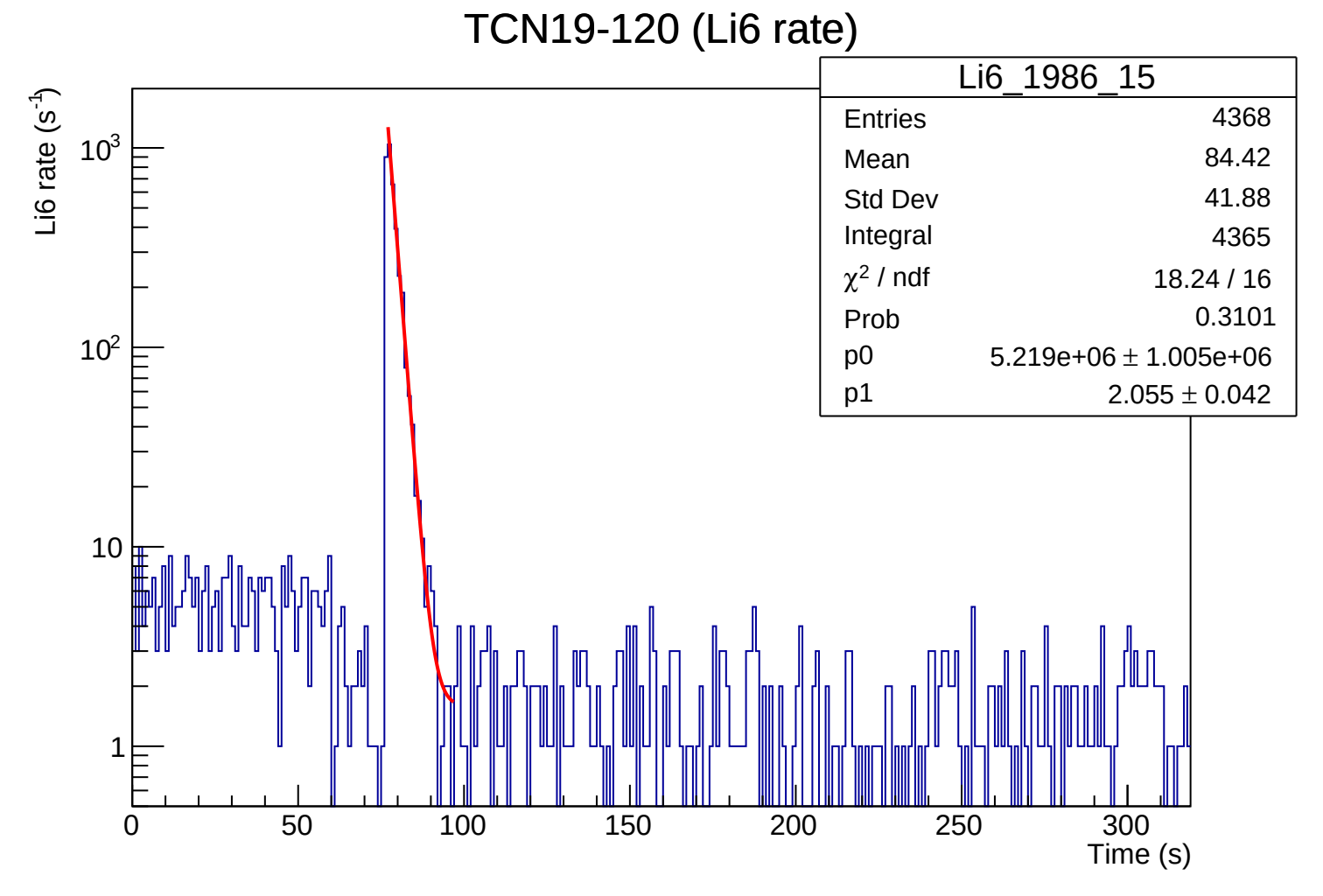

TCN19-120 (Li6 rate)
Li6_1986_10
Entries 1512
Mean 142.3
Std Dev 72.48
Integral 1512
χ² / ndf 26.99 / 17
Prob 0.05824
p0 5.503e+22 ± 1.881e+22
p1 2.181± 0.016
Li6 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

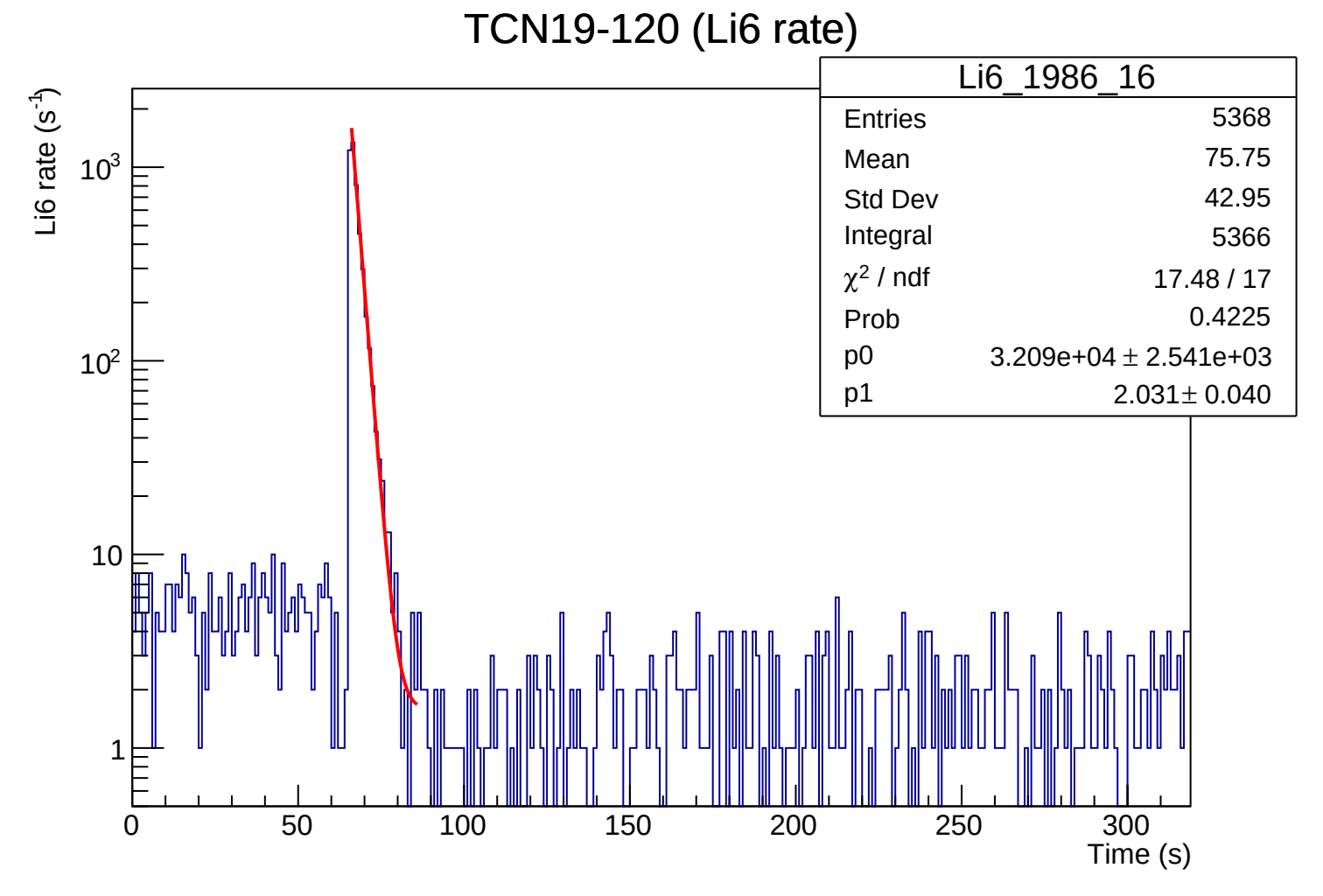

TCN19-120 (Li6 rate)
Li6_1986_11
Entries 5069
Mean 79.35
Std Dev 42.61
Integral 5069
χ2 / ndf 13.29 / 18
Prob 0.7743
p0 2.099e+05 ± 2.456e+04
p1 2.045 ± 0.040
Li6 rate (s-1)
10^3
10^2
10
1
0
50
100
150
200
250
300
Time (s)

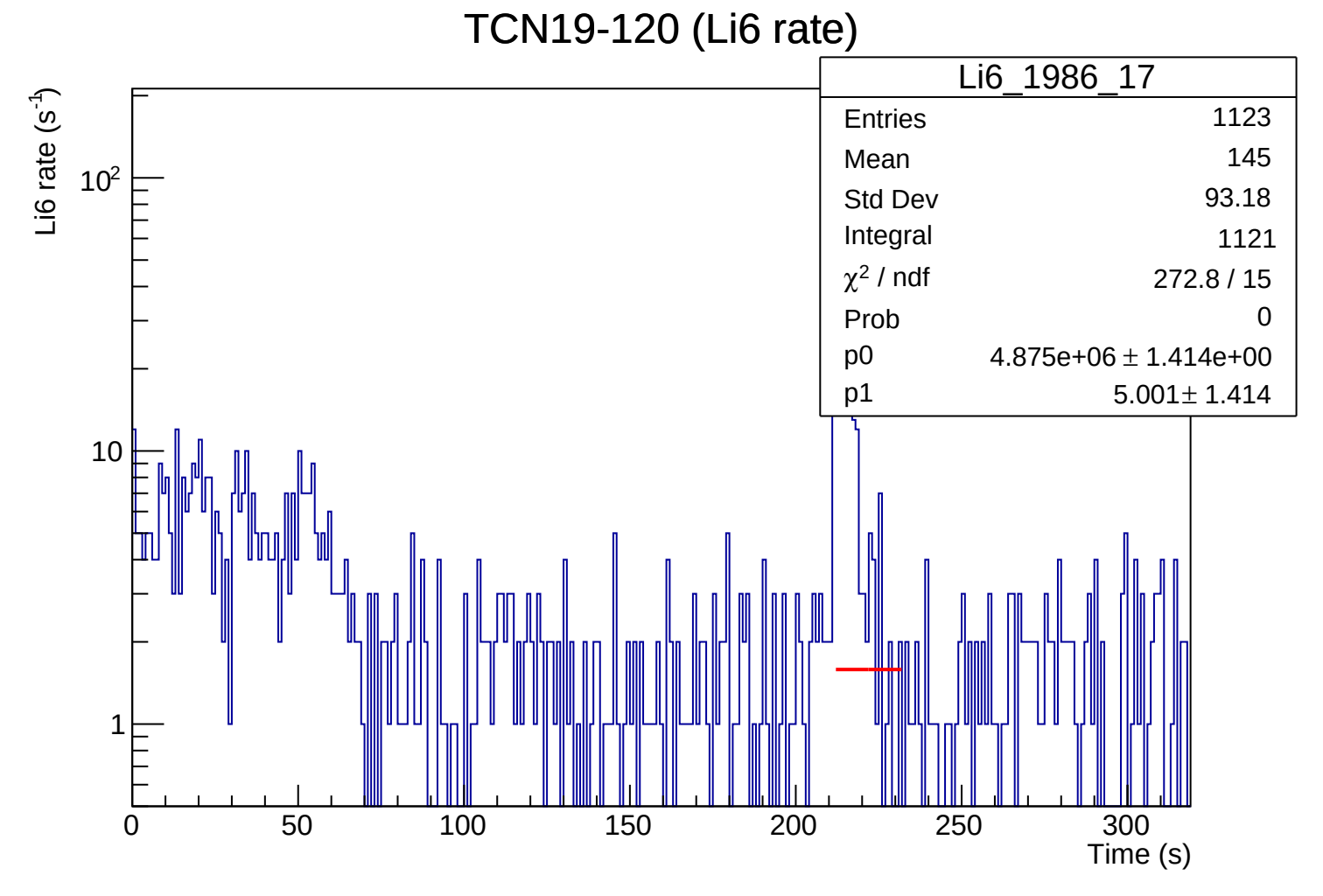

TCN19-120 (Li6 rate)
Li6_1986_12
Entries 2323
Mean 121
Std Dev 56.35
Integral 2323
χ2 / ndf 23.01 / 17
Prob 0.149
p0 2.065e+16 ± 2.732e+16
p1 1.99 ± 0.08
Li6 rate (s-1)
10^2
10
1
0
50
100
150
200
250
300
Time (s)

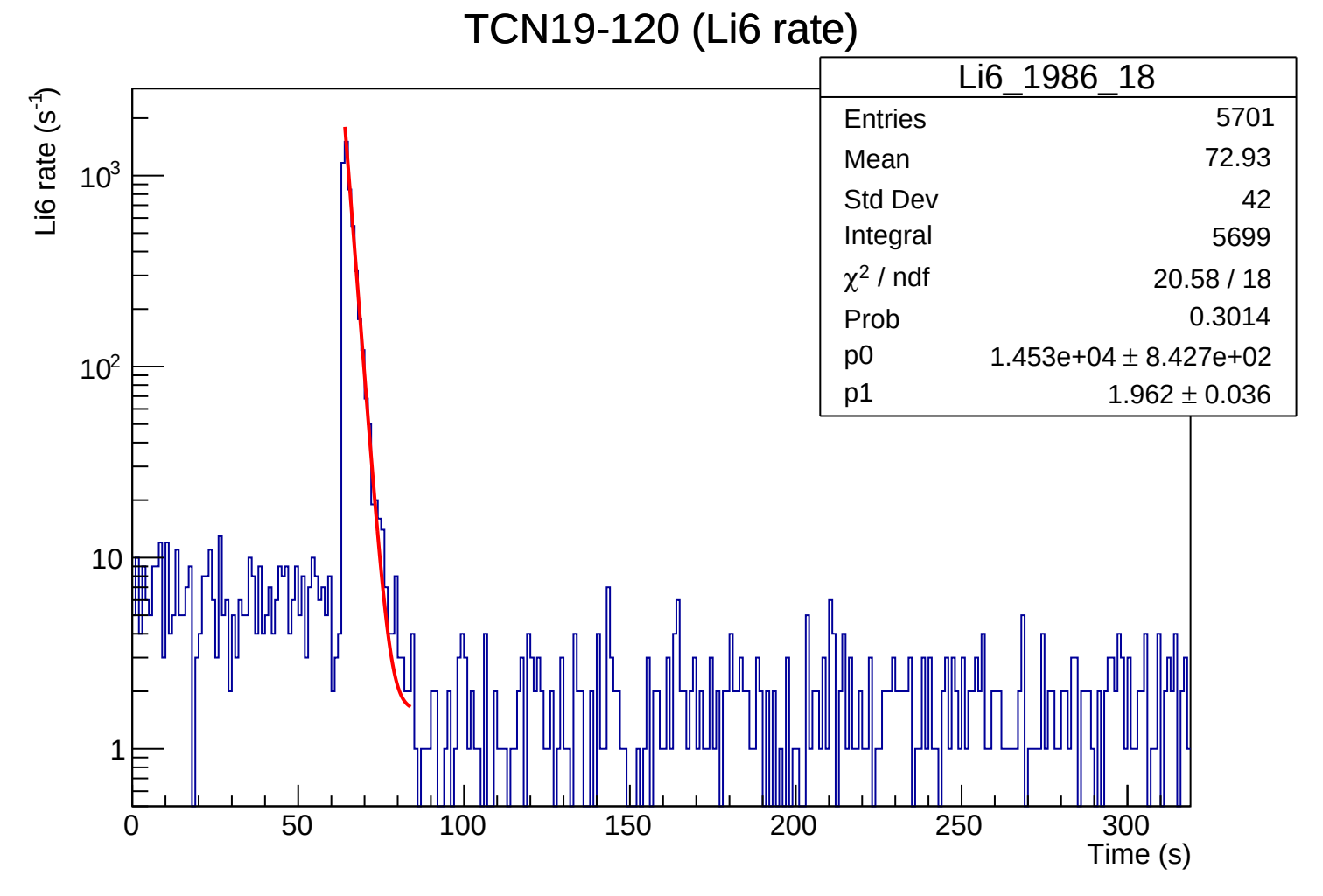

TCN19-120 (Li6 rate)
Li6_1986_13
Entries 3750
Mean 93.9
Std Dev 43.95
Integral 3748
χ² / ndf 7.125 / 18
Prob 0.989
p0 3.996e+08 ± 1.332e+08
p1 2.106 ± 0.051
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
300
Time (s)

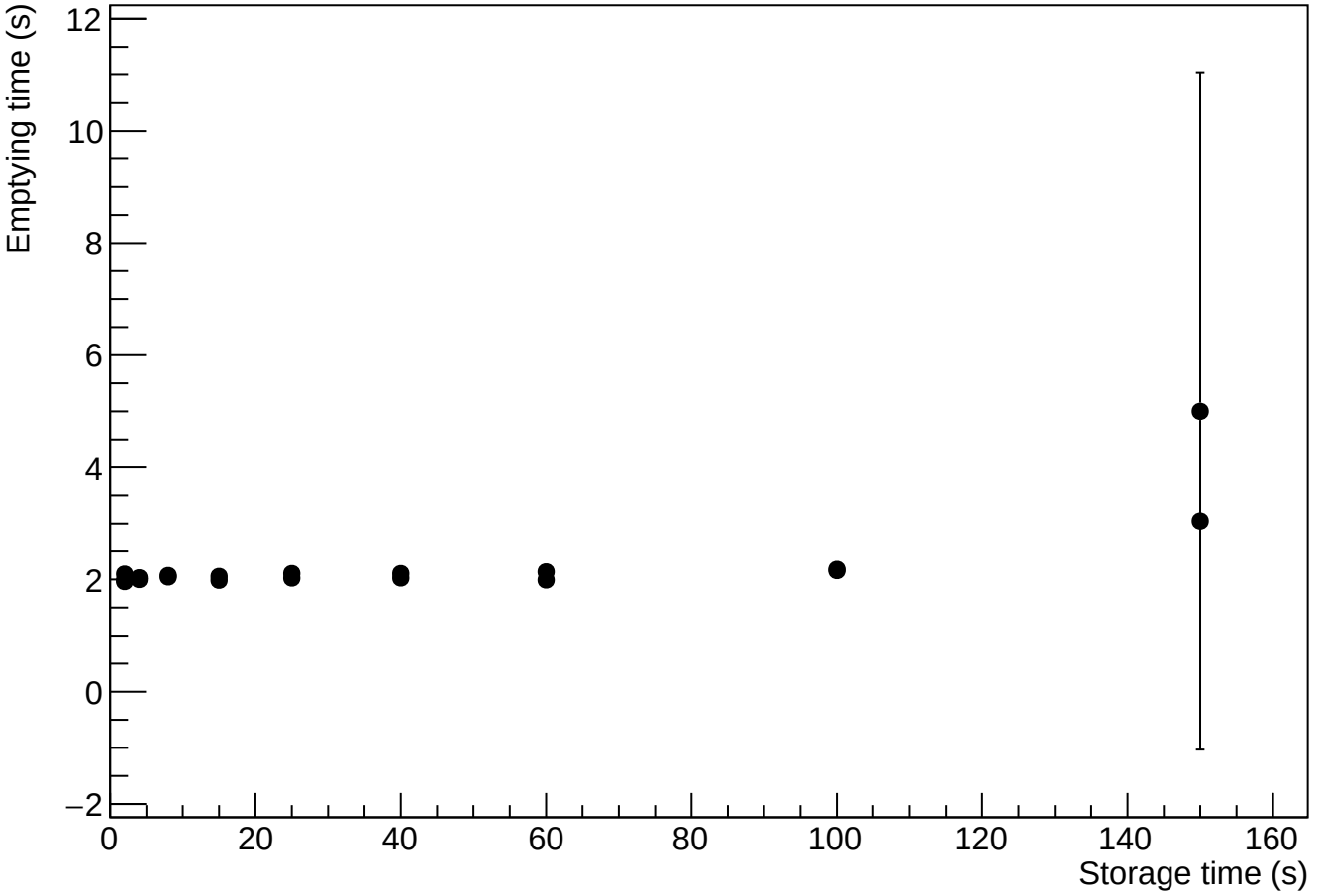

TCN19-120 (Li6 rate)
Li6_1986_14
Entries 2940
Mean 106.6
Std Dev 49.62
Integral 2939
χ² / ndf 10.28 / 18
Prob 0.9224
p0 8.25e+11 ± 5.04e+11
p1 2.026 ± 0.057
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
300
Time (s)

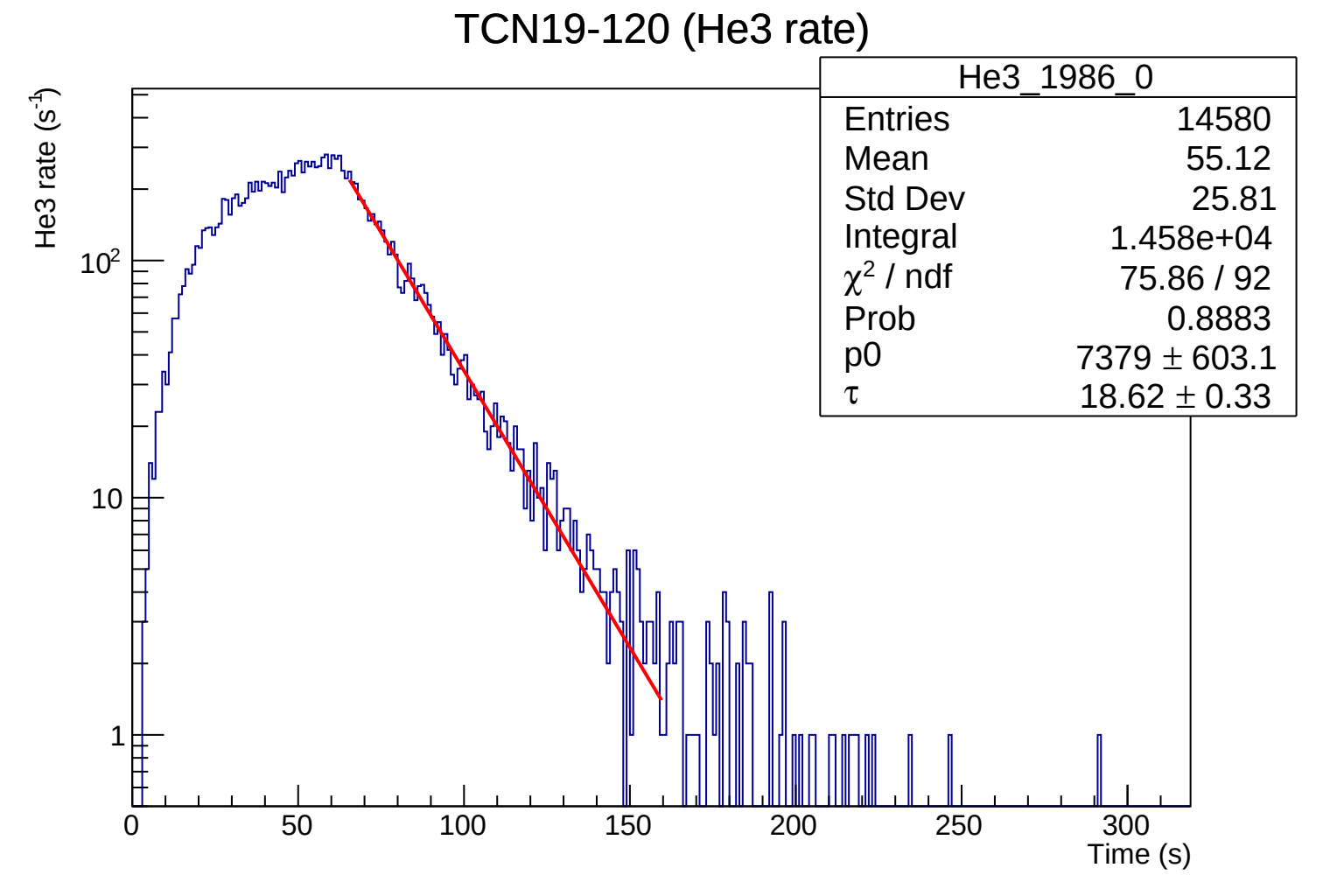

TCN19-120 (Li6 rate)
Li6_1986_15
Entries 4368
Mean 84.42
Std Dev 41.88
Integral 4365
χ2 / ndf 18.24 / 16
Prob 0.3101
p0 5.219e+06 ± 1.005e+06
p1 2.055 ± 0.042
Li6 rate (s-1)
10^3
10^2
10
1
0
50
100
150
200
250
300
Time (s)

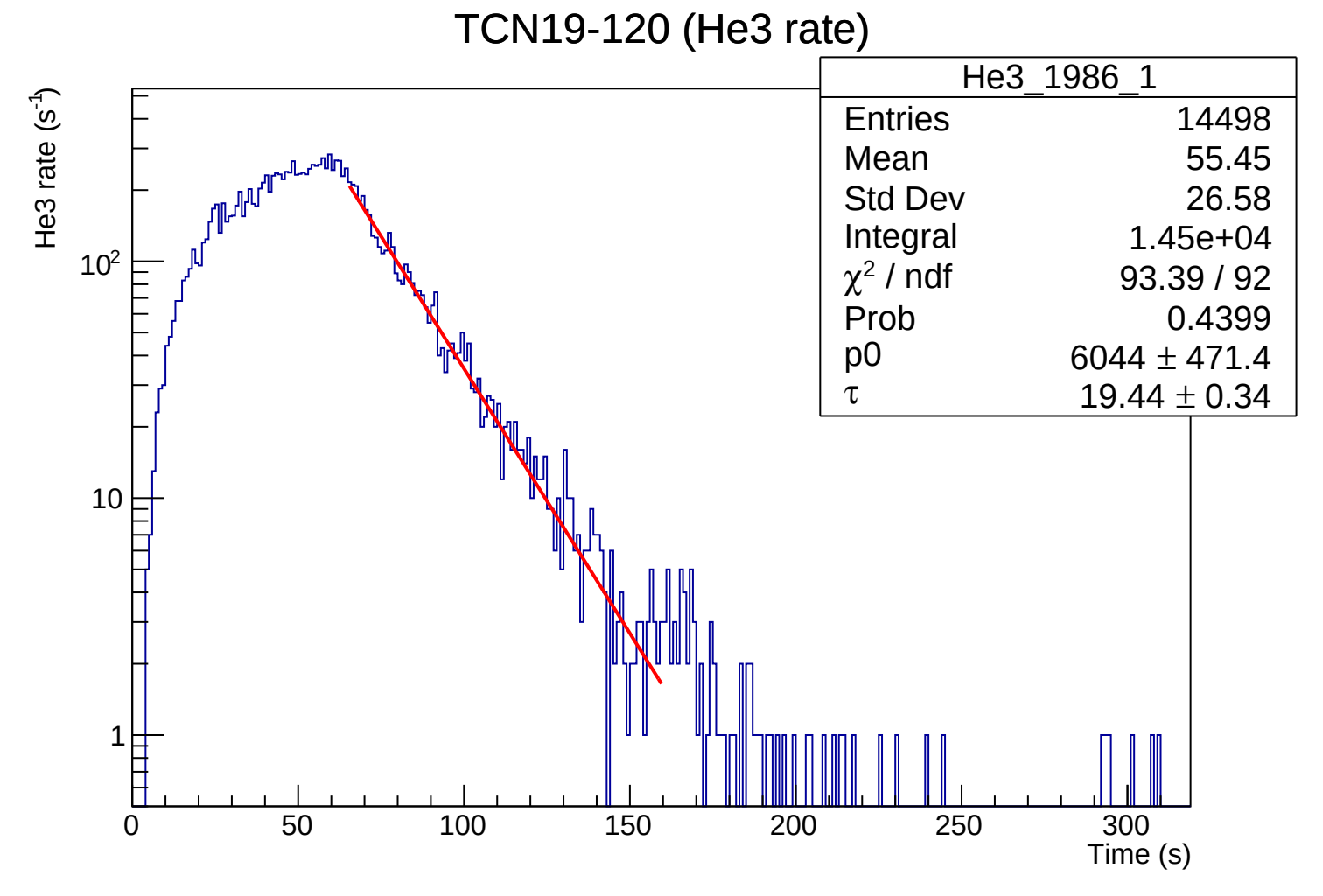

TCN19-120 (Li6 rate)
Li6_1986_16
Entries 5368
Mean 75.75
Std Dev 42.95
Integral 5366
χ² / ndf 17.48 / 17
Prob 0.4225
p0 3.209e+04 ± 2.541e+03
p1 2.031± 0.040
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
300
Time (s)

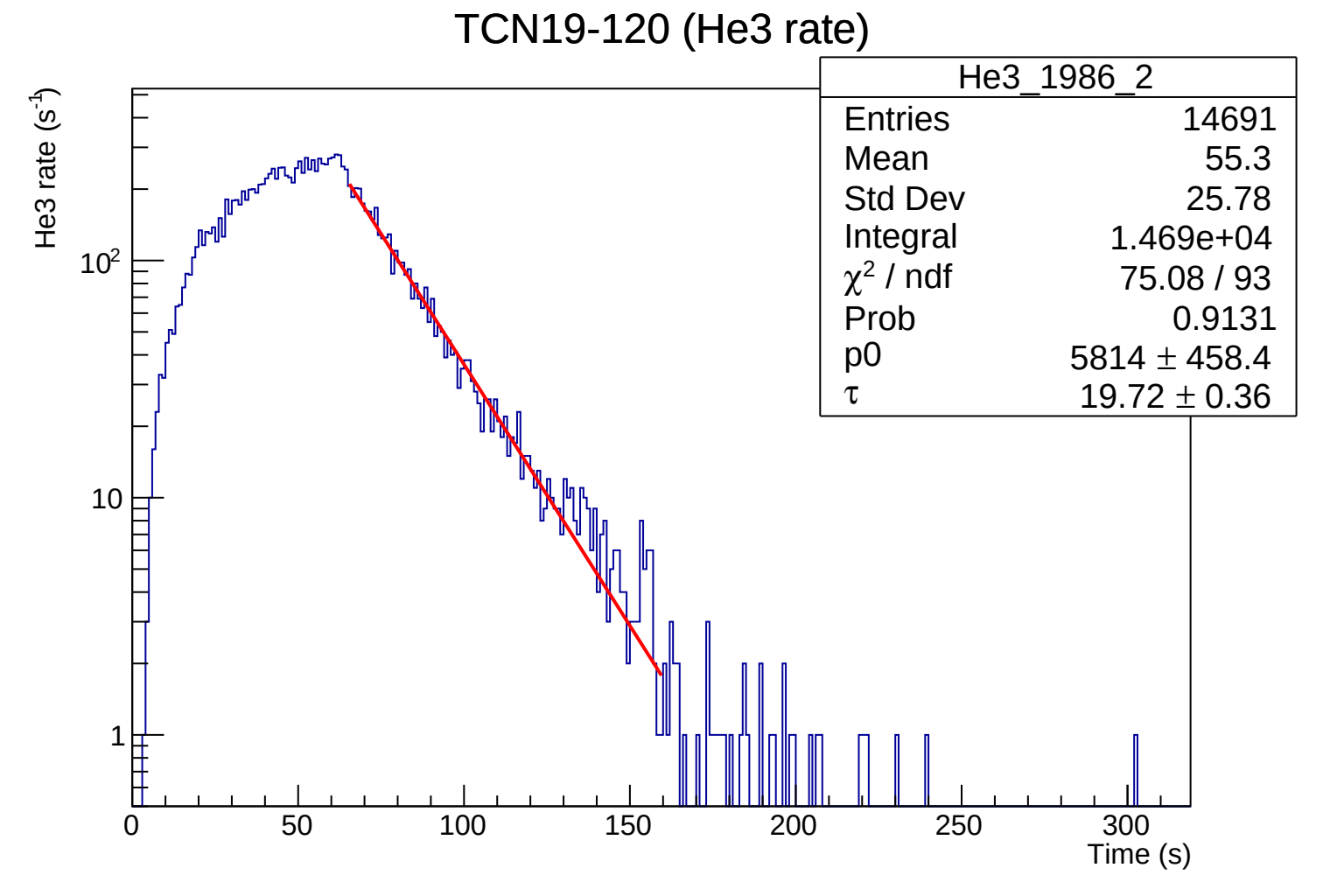

TCN19-120 (Li6 rate)
Li6_1986_17
Entries 1123
Mean 145
Std Dev 93.18
Integral 1121
χ² / ndf 272.8 / 15
Prob 0
p0 4.875e+06 ± 1.414e+00
p1 5.001± 1.414
Li6 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

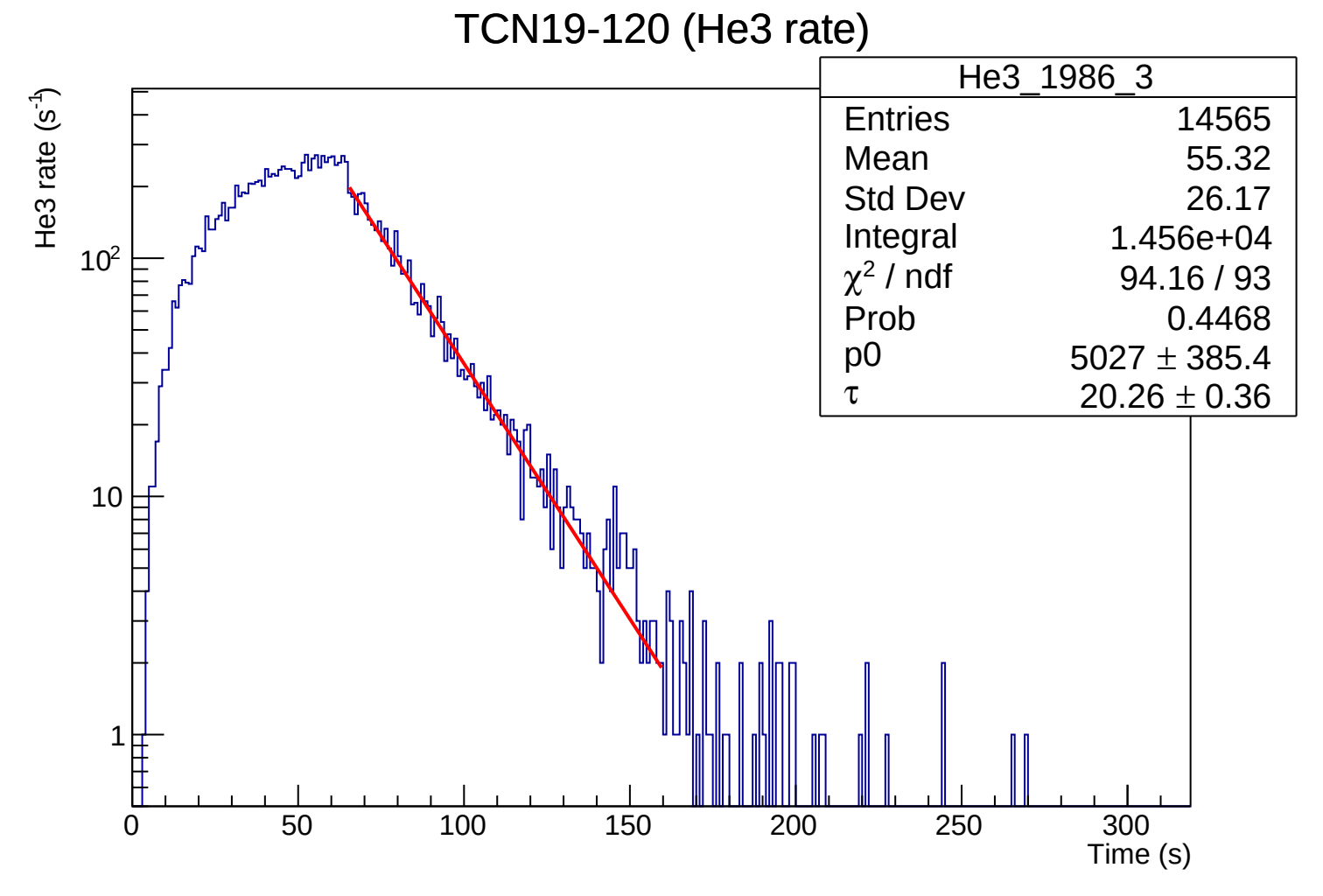

TCN19-120 (Li6 rate)
Li6_1986_18
Entries 5701
Mean 72.93
Std Dev 42
Integral 5699
χ² / ndf 20.58 / 18
Prob 0.3014
p0 1.453e+04 ± 8.427e+02
p1 1.962 ± 0.036
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
300
Time (s)

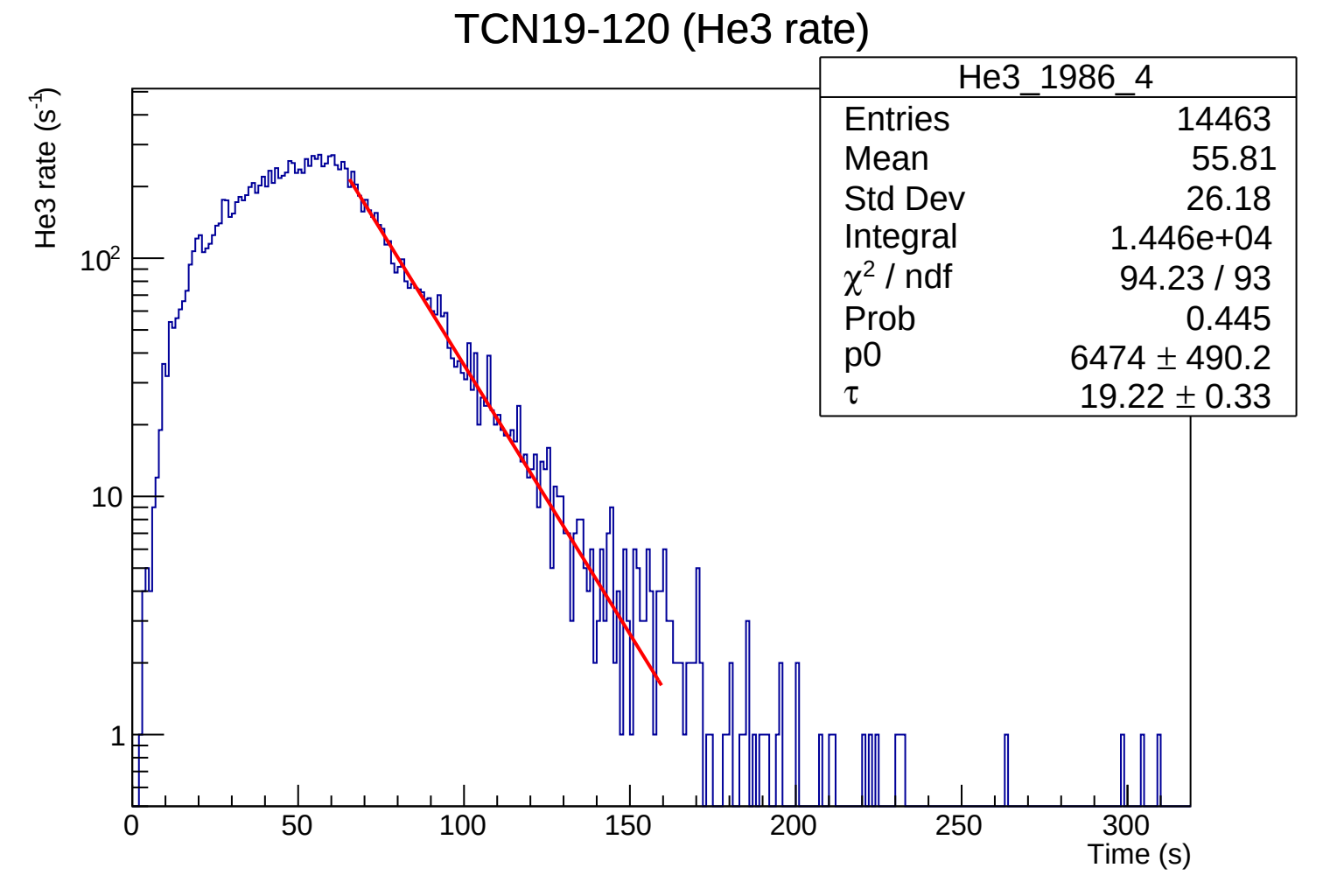

Emptying time (s)
12
10
8
6
4
2
0
−2
0
20
40
60
80
100
120
140
160
Storage time (s)

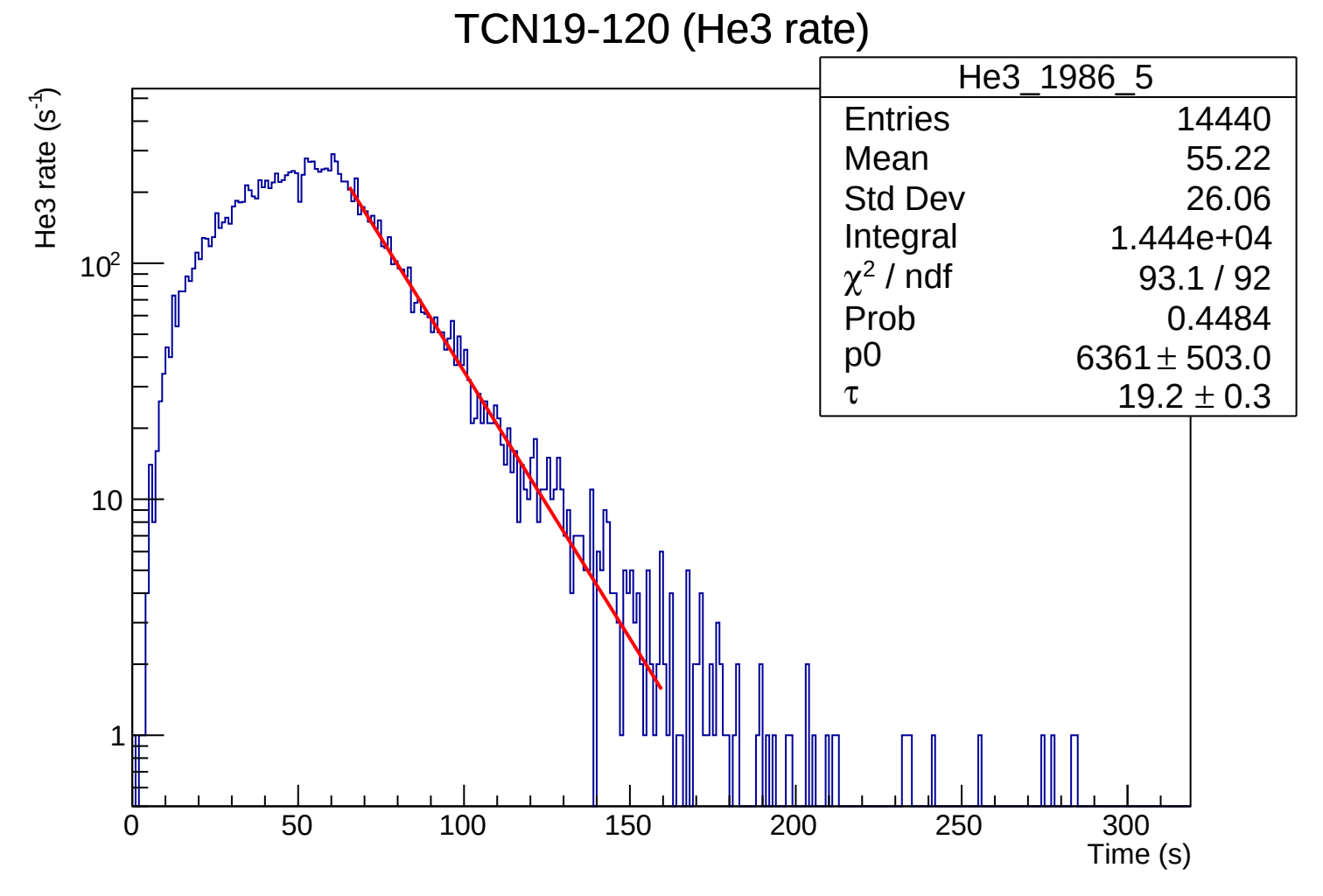

TCN19-120 (He3 rate)
He3_1986_0
Entries 14580
Mean 55.12
Std Dev 25.81
Integral 1.458e+04
χ² / ndf 75.86 / 92
Prob 0.8883
p0 7379 ± 603.1
τ 18.62 ± 0.33
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

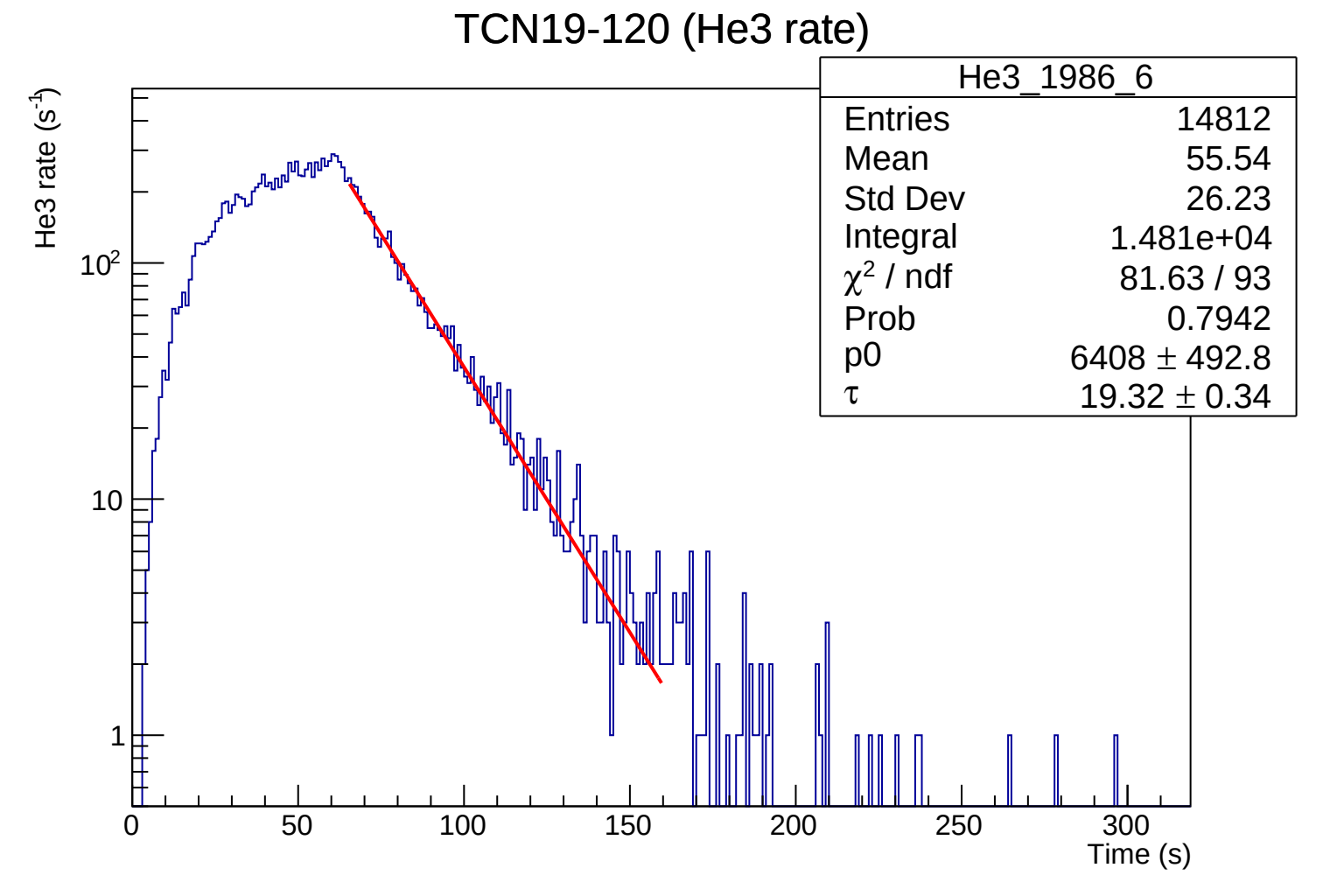

TCN19-120 (He3 rate)
He3_1986_1
Entries 14498
Mean 55.45
Std Dev 26.58
Integral 1.45e+04
χ² / ndf 93.39 / 92
Prob 0.4399
p0 6044 ± 471.4
τ 19.44 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

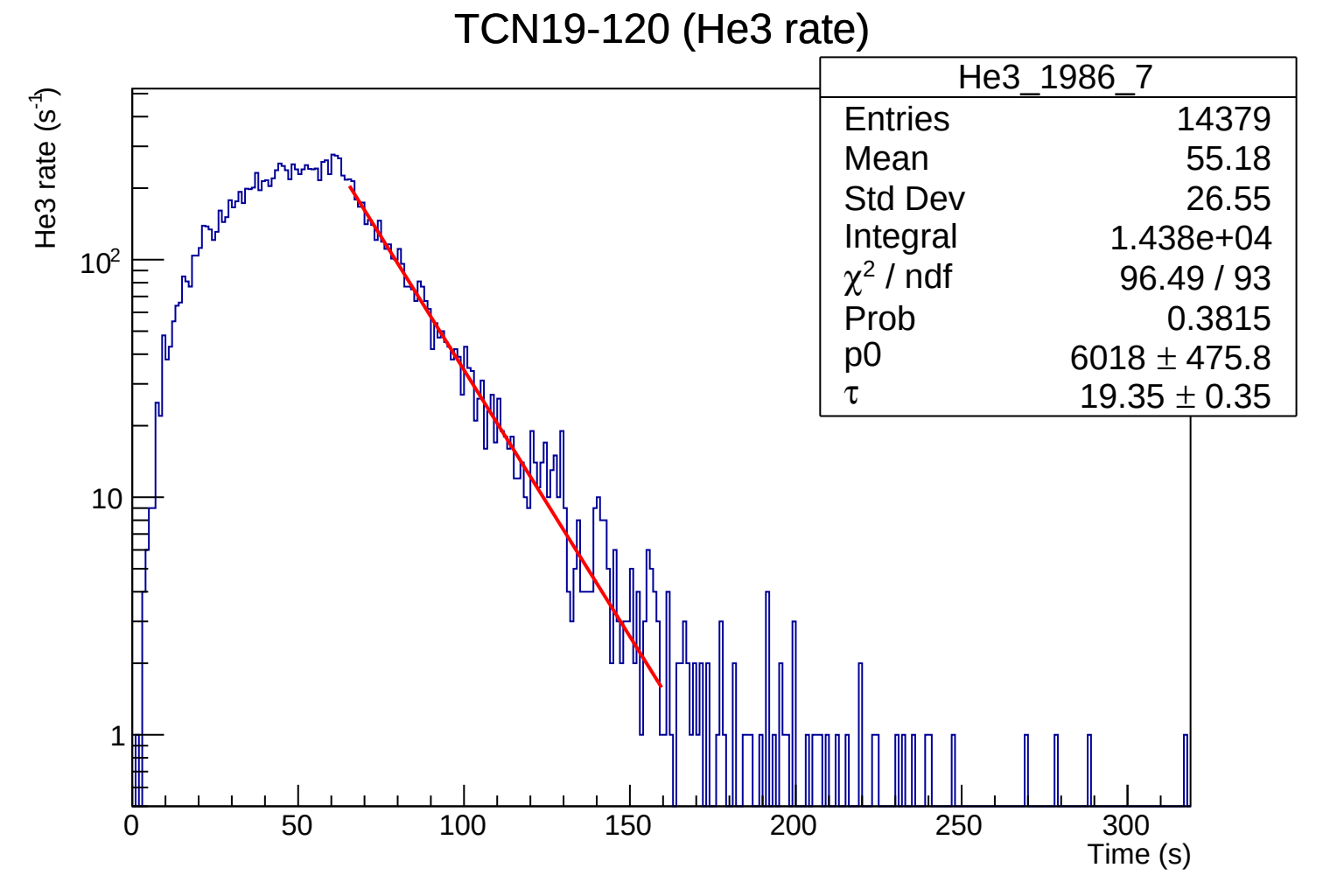

TCN19-120 (He3 rate)
He3_1986_2
Entries 14691
Mean 55.3
Std Dev 25.78
Integral 1.469e+04
χ² / ndf 75.08 / 93
Prob 0.9131
p0 5814 ± 458.4
τ 19.72 ± 0.36
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

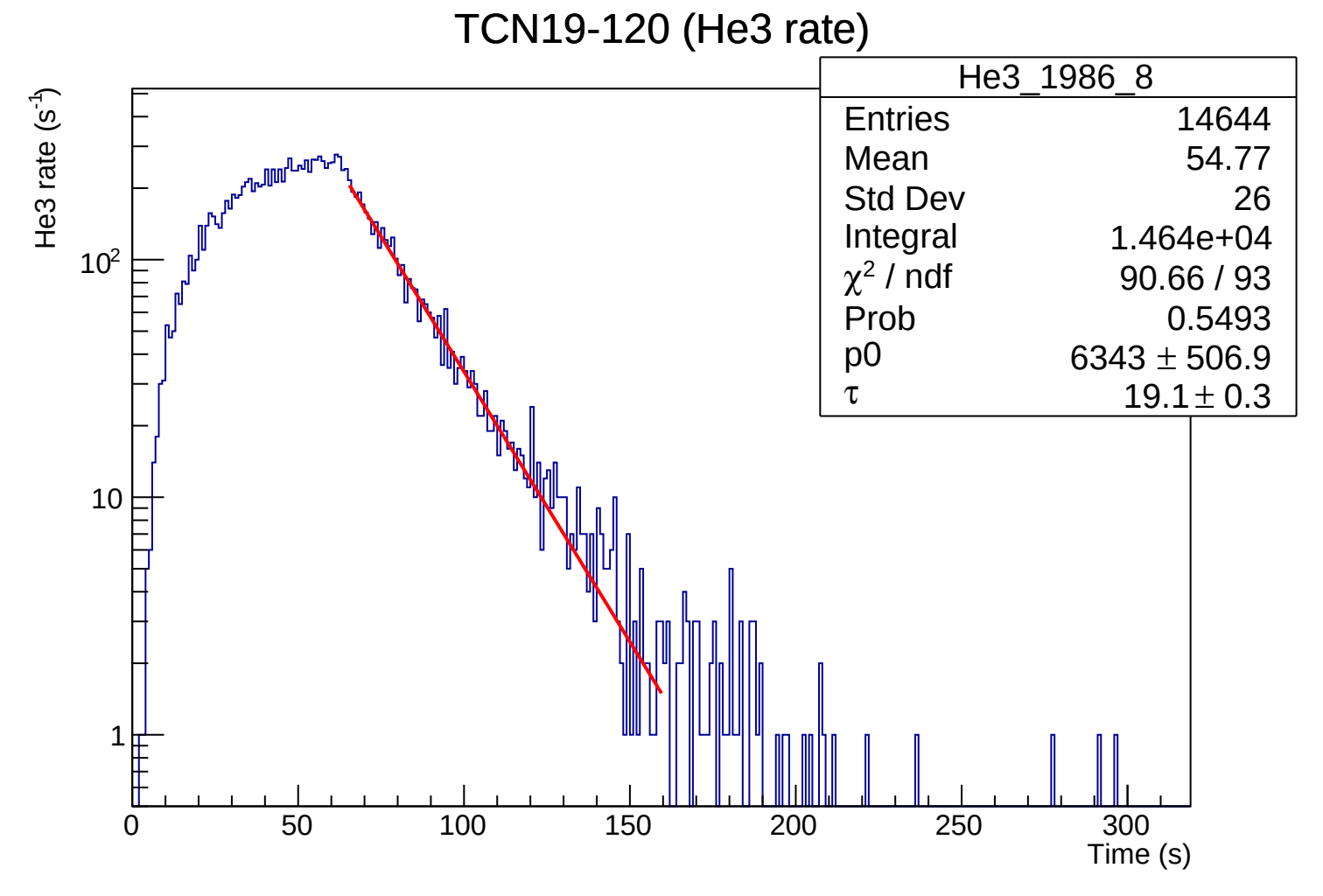

TCN19-120 (He3 rate)
He3_1986_3
Entries 14565
Mean 55.32
Std Dev 26.17
Integral 1.456e+04
χ² / ndf 94.16 / 93
Prob 0.4468
p0 5027 ± 385.4
τ 20.26 ± 0.36
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

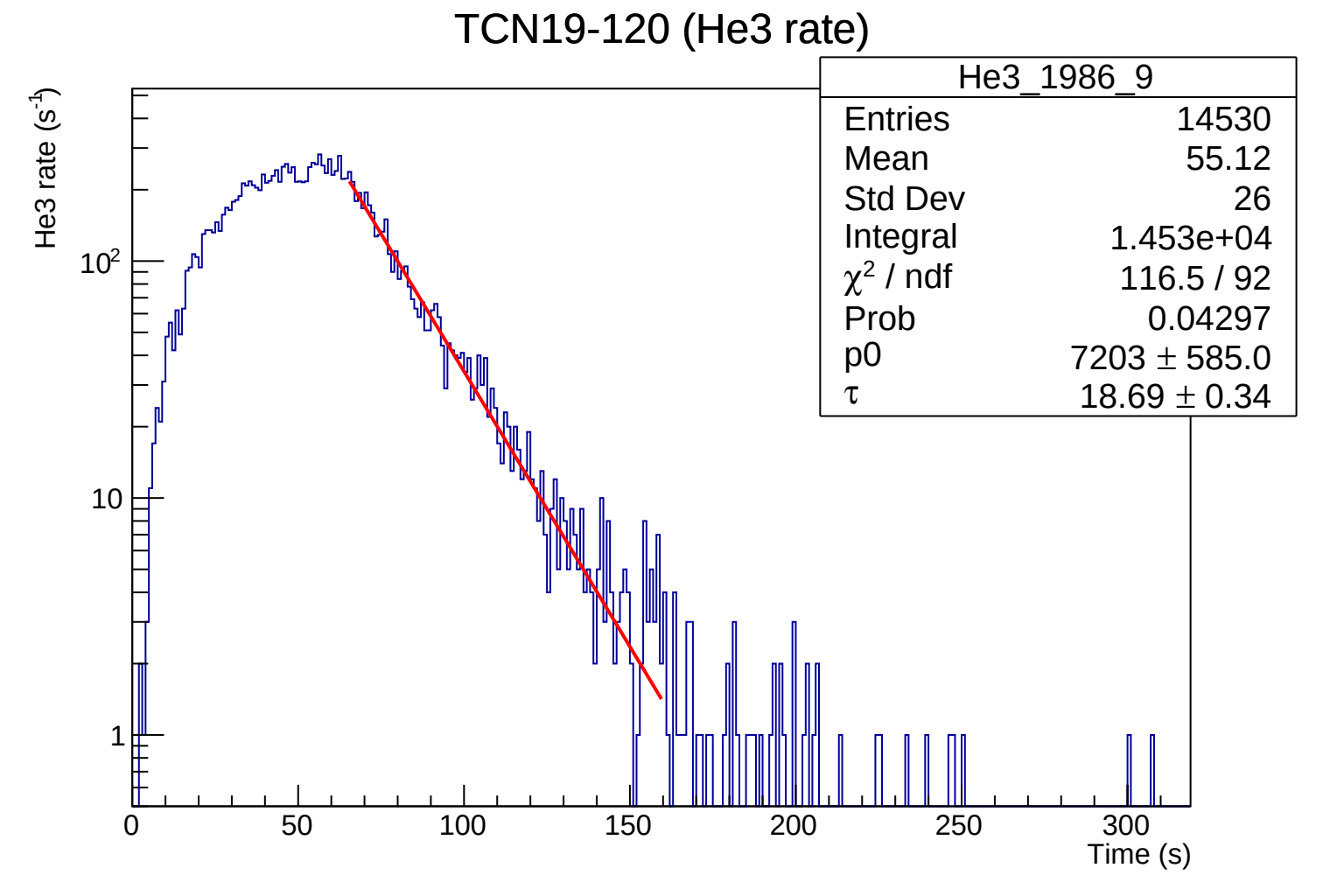

TCN19-120 (He3 rate)
He3_1986_4
Entries 14463
Mean 55.81
Std Dev 26.18
Integral 1.446e+04
χ² / ndf 94.23 / 93
Prob 0.445
p0 6474 ± 490.2
τ 19.22 ± 0.33
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

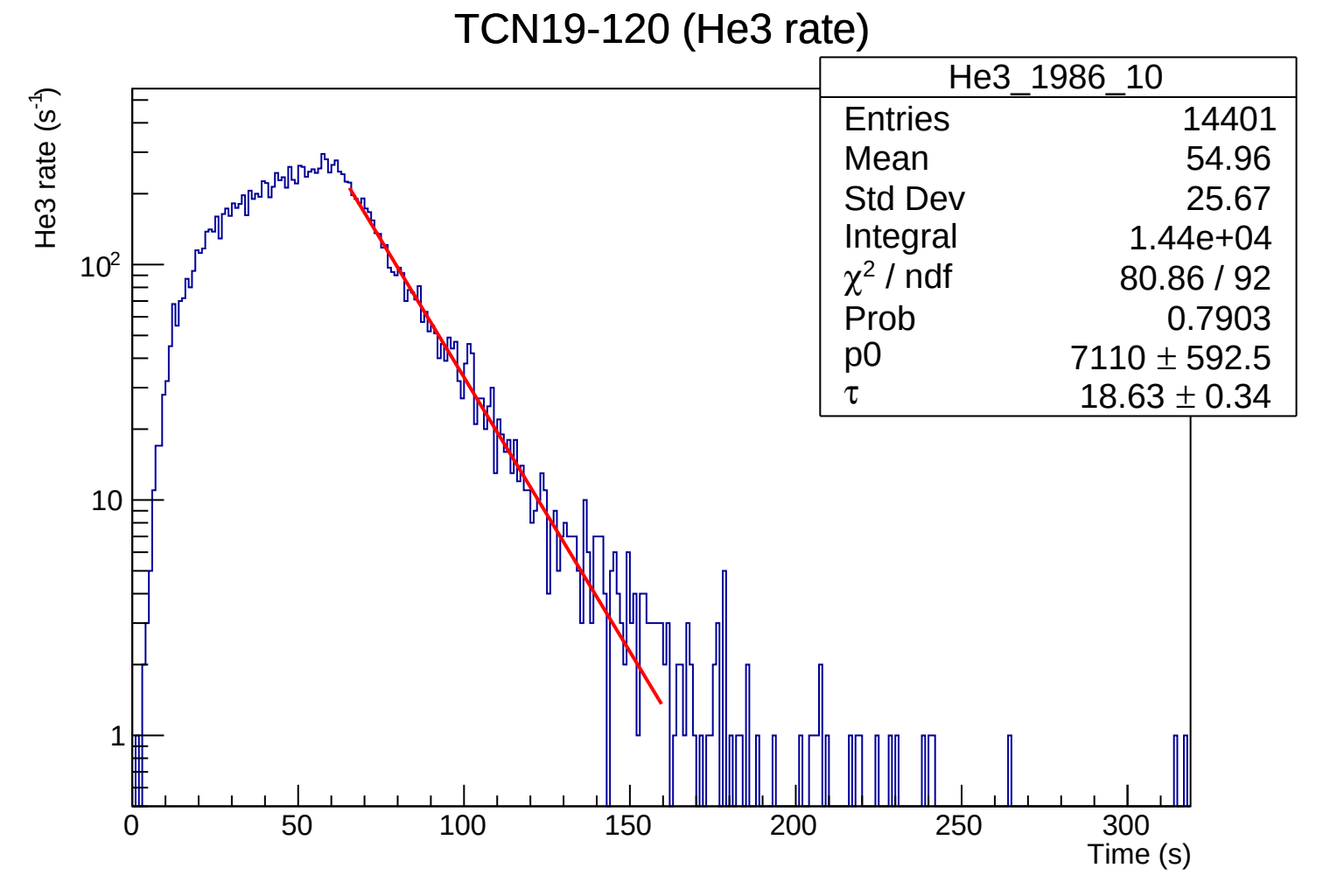

TCN19-120 (He3 rate)
He3_1986_5
Entries 14440
Mean 55.22
Std Dev 26.06
Integral 1.444e+04
χ² / ndf 93.1 / 92
Prob 0.4484
p0 6361 ± 503.0
τ 19.2 ± 0.3
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

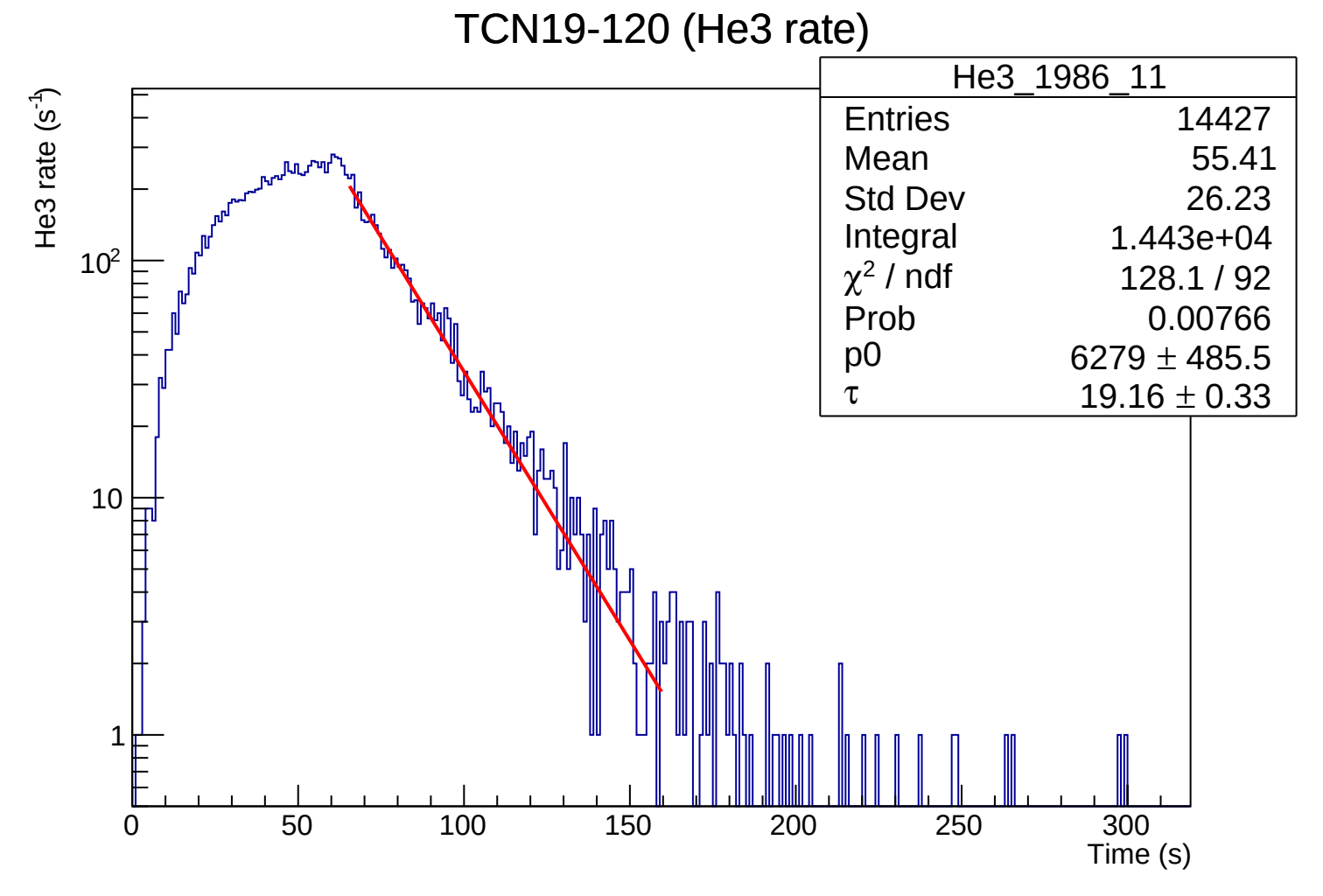

TCN19-120 (He3 rate)
He3_1986_6
Entries 14812
Mean 55.54
Std Dev 26.23
Integral 1.481e+04
χ² / ndf 81.63 / 93
Prob 0.7942
p0 6408 ± 492.8
τ 19.32 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

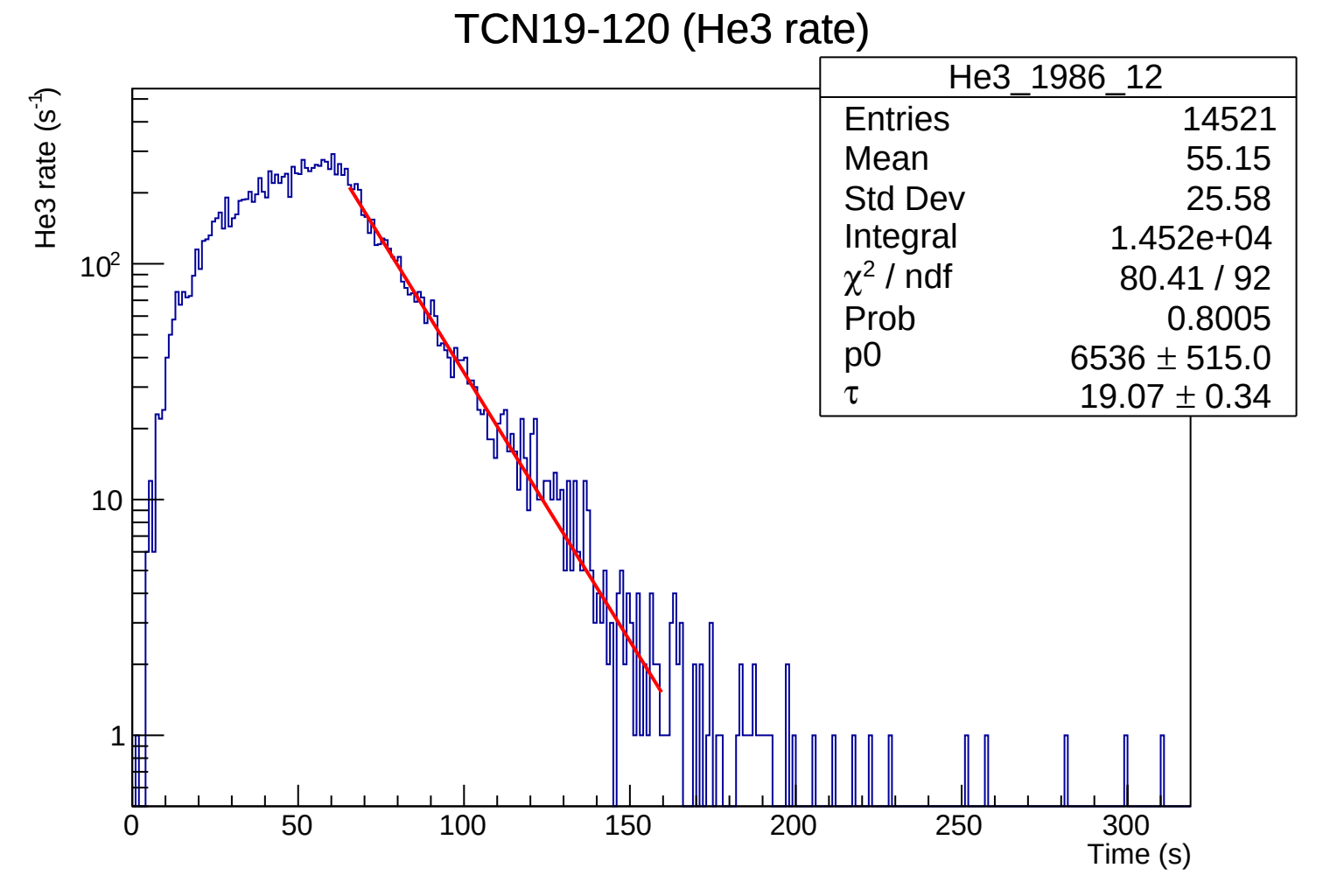

TCN19-120 (He3 rate)
He3_1986_7
Entries 14379
Mean 55.18
Std Dev 26.55
Integral 1.438e+04
χ² / ndf 96.49 / 93
Prob 0.3815
p0 6018 ± 475.8
τ 19.35 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

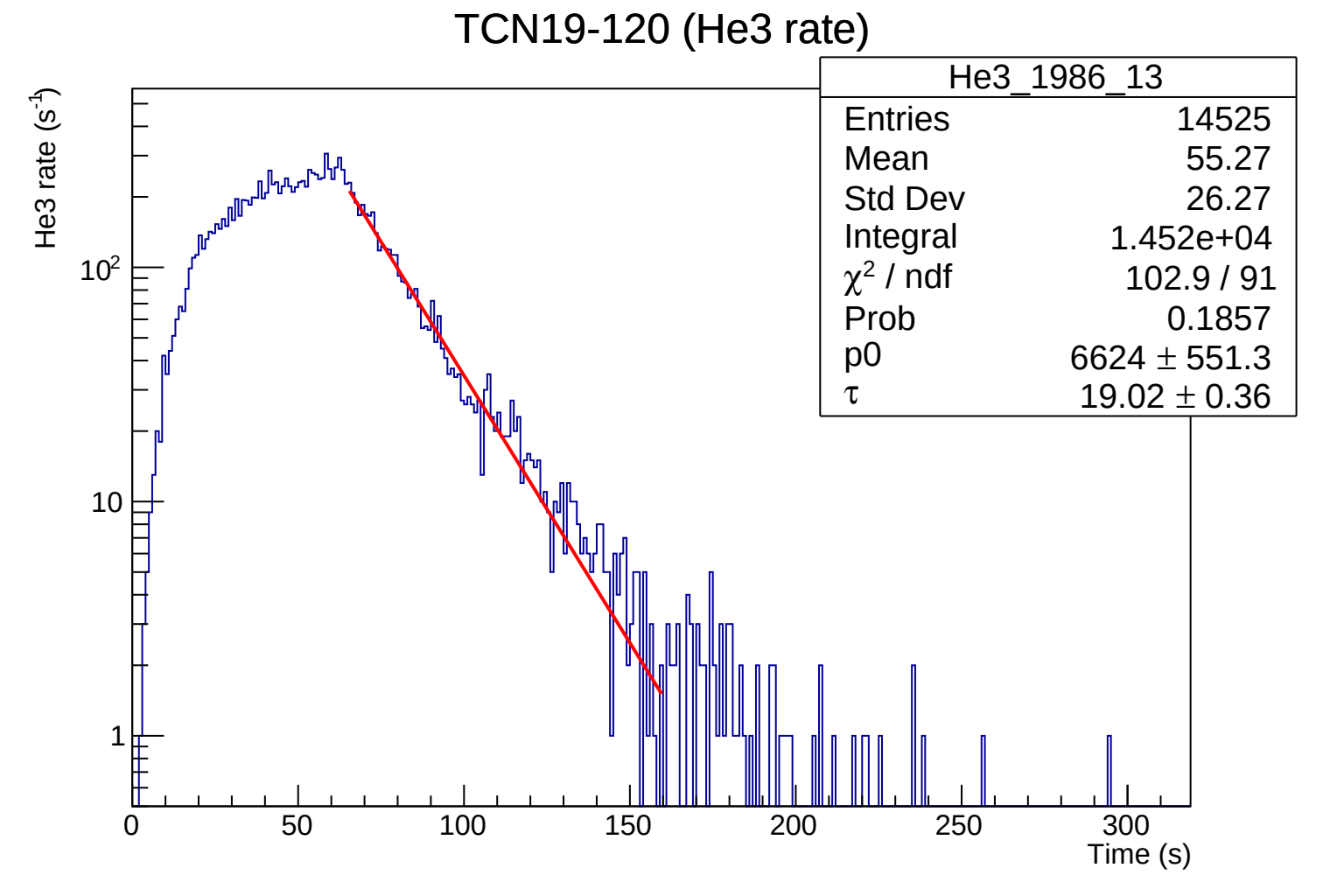

TCN19-120 (He3 rate)
He3_1986_8
Entries 14644
Mean 54.77
Std Dev 26
Integral 1.464e+04
χ² / ndf 90.66 / 93
Prob 0.5493
p0 6343 ± 506.9
τ 19.1 ± 0.3
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

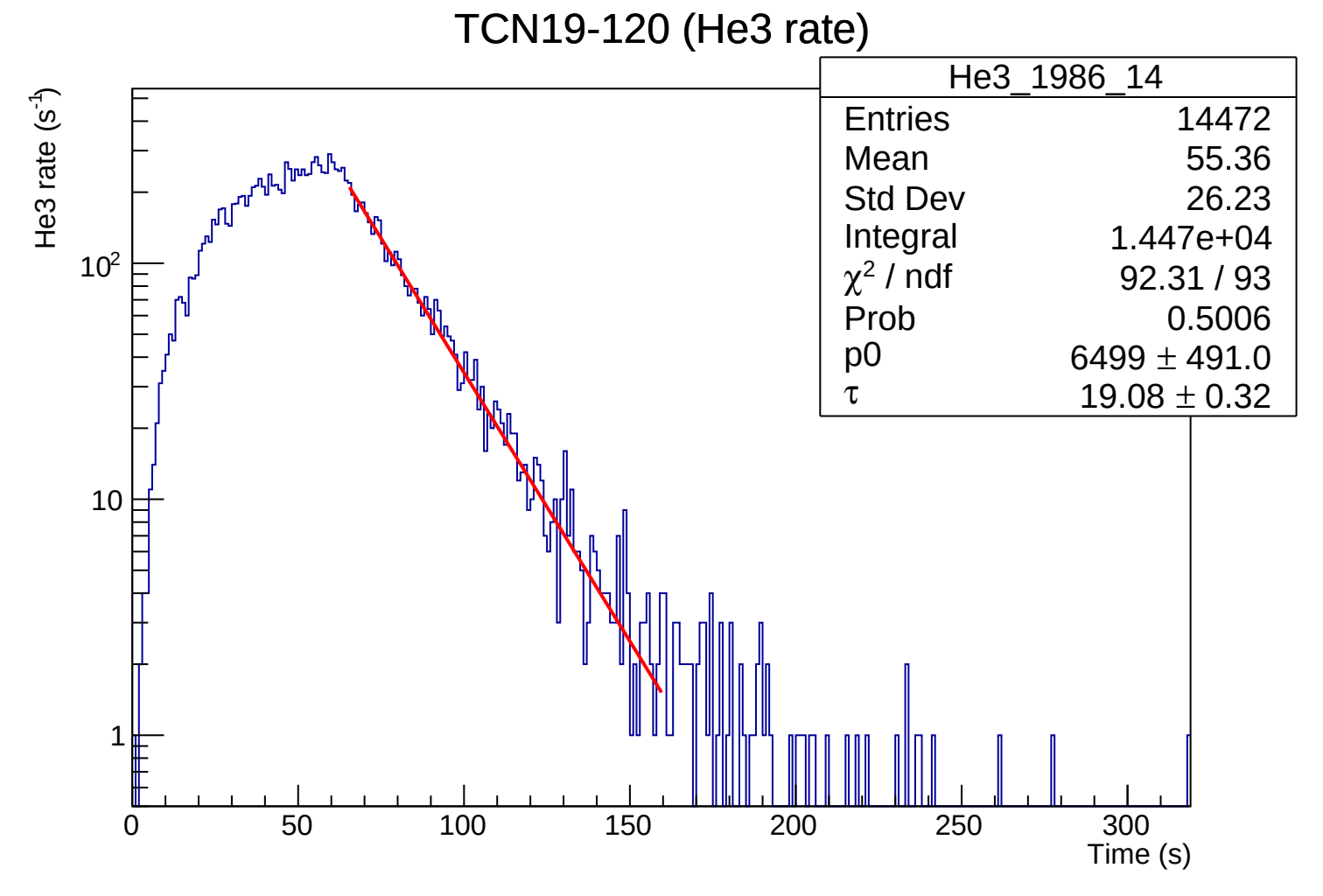

TCN19-120 (He3 rate)
He3_1986_9
Entries 14530
Mean 55.12
Std Dev 26
Integral 1.453e+04
χ² / ndf 116.5 / 92
Prob 0.04297
p0 7203 ± 585.0
τ 18.69 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

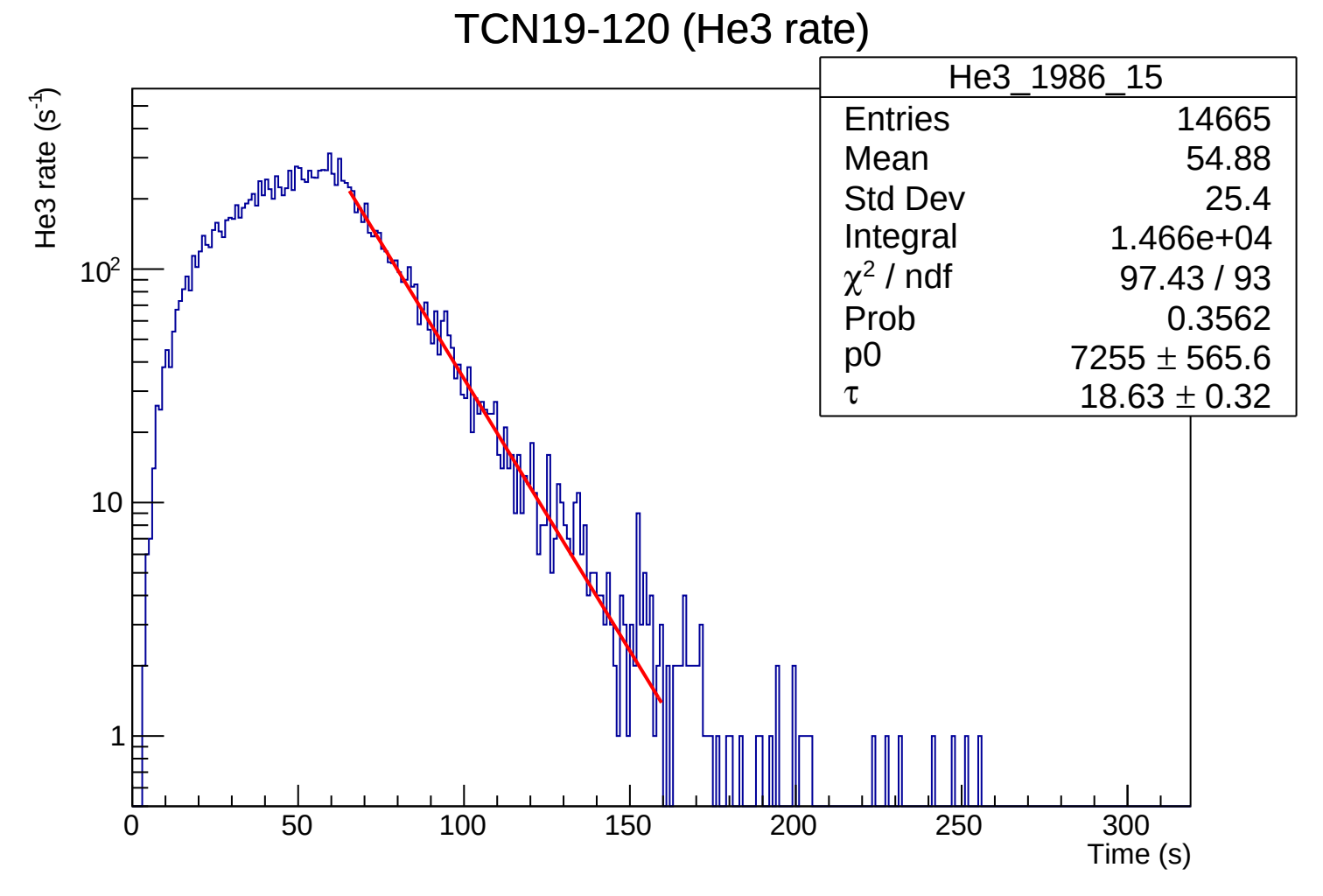

TCN19-120 (He3 rate)
He3_1986_10
Entries 14401
Mean 54.96
Std Dev 25.67
Integral 1.44e+04
χ² / ndf 80.86 / 92
Prob 0.7903
p0 7110 ± 592.5
τ 18.63 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

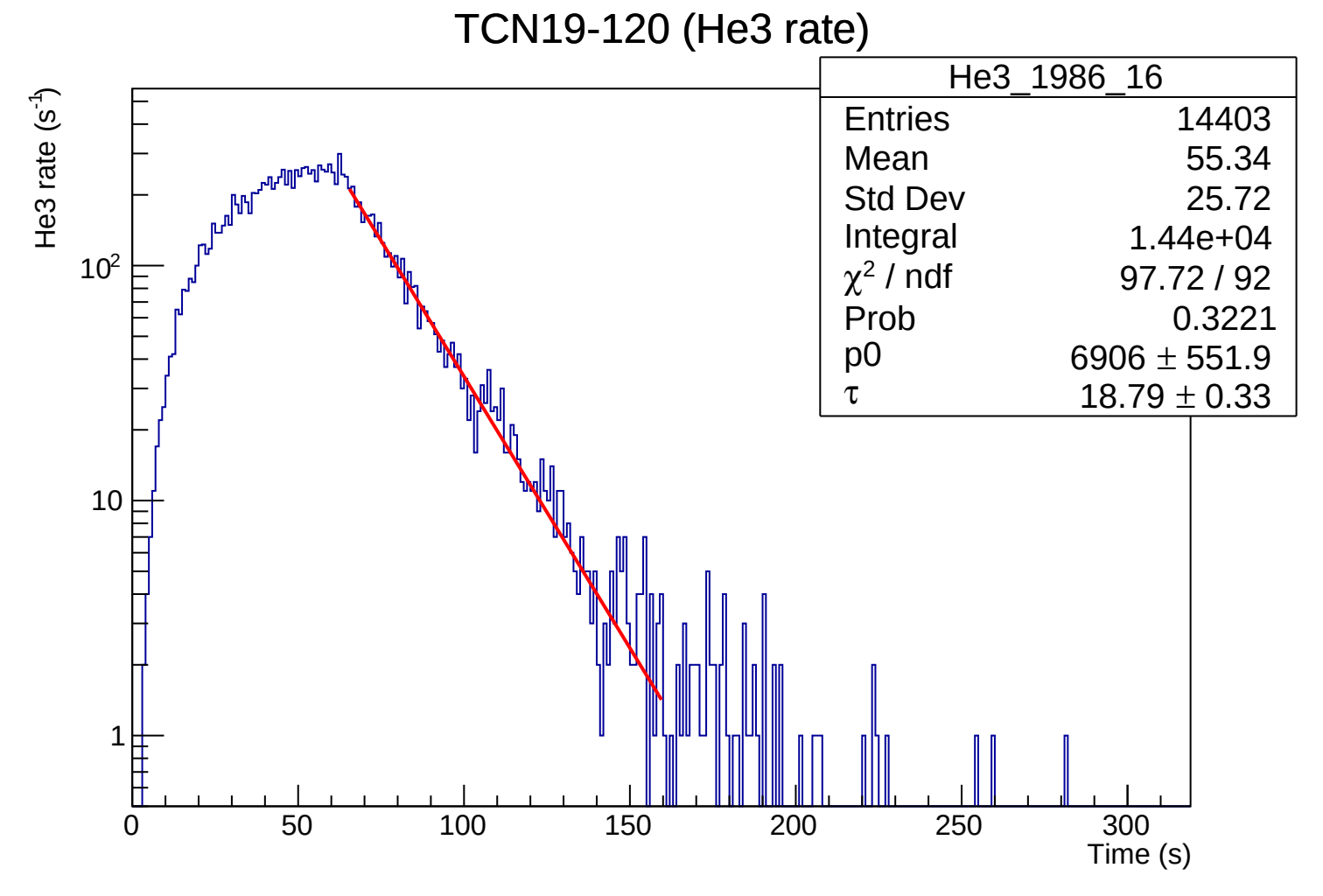

TCN19-120 (He3 rate)
He3_1986_11
Entries 14427
Mean 55.41
Std Dev 26.23
Integral 1.443e+04
χ² / ndf 128.1 / 92
Prob 0.00766
p0 6279 ± 485.5
τ 19.16 ± 0.33
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

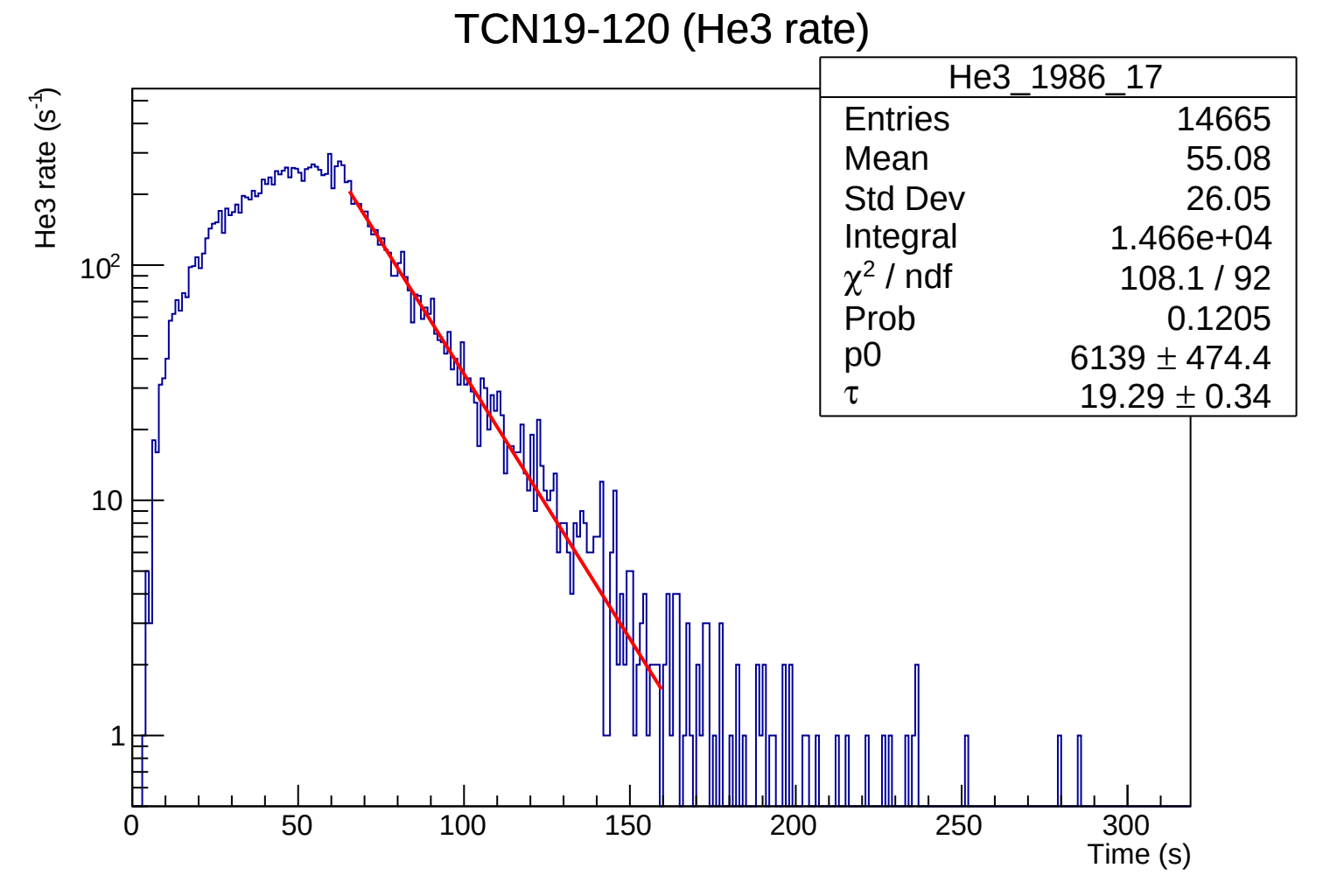

TCN19-120 (He3 rate)
He3_1986_12
Entries 14521
Mean 55.15
Std Dev 25.58
Integral 1.452e+04
χ² / ndf 80.41 / 92
Prob 0.8005
p0 6536 ± 515.0
τ 19.07 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

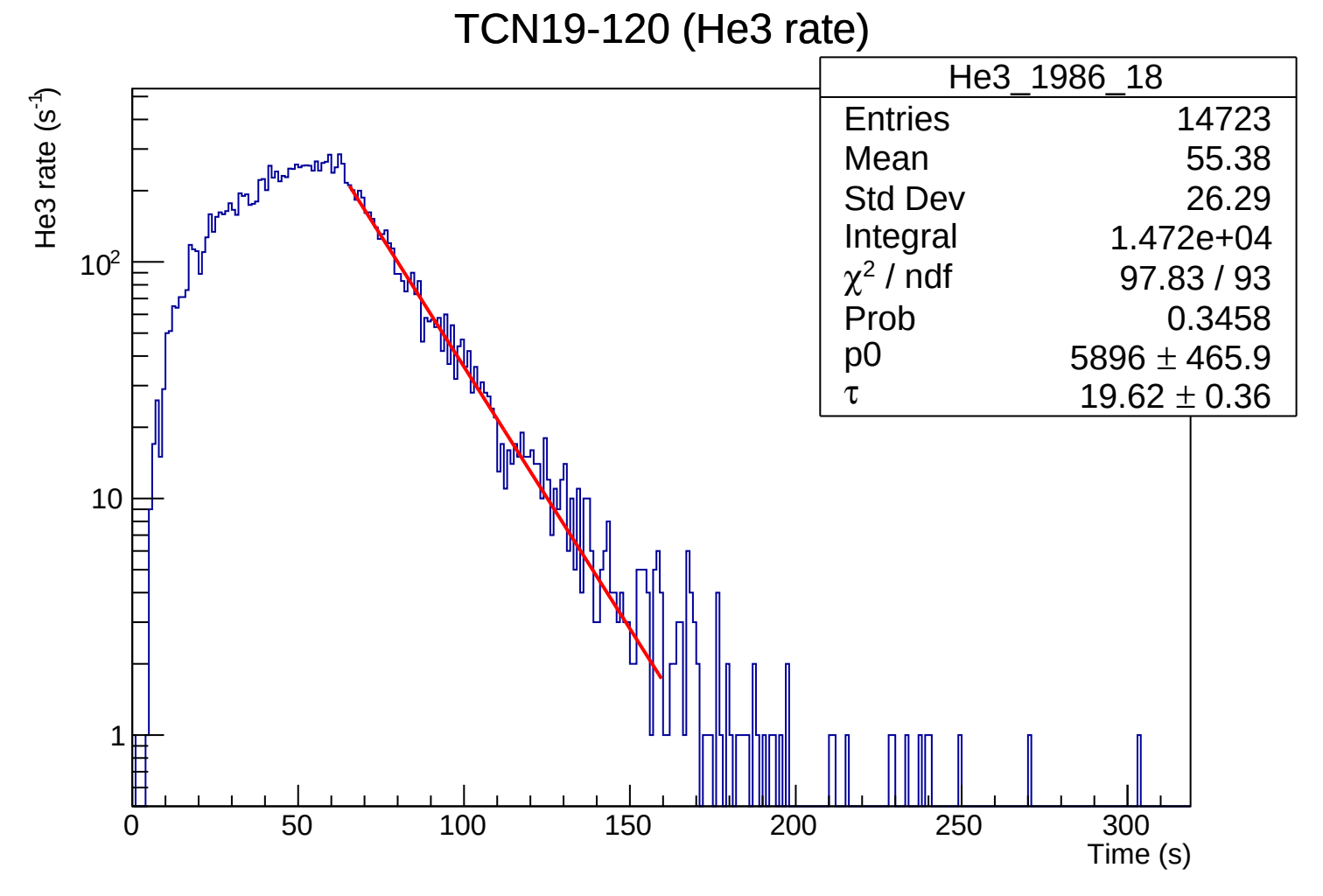

TCN19-120 (He3 rate)
He3_1986_13
Entries 14525
Mean 55.27
Std Dev 26.27
Integral 1.452e+04
χ² / ndf 102.9 / 91
Prob 0.1857
p0 6624 ± 551.3
τ 19.02 ± 0.36
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

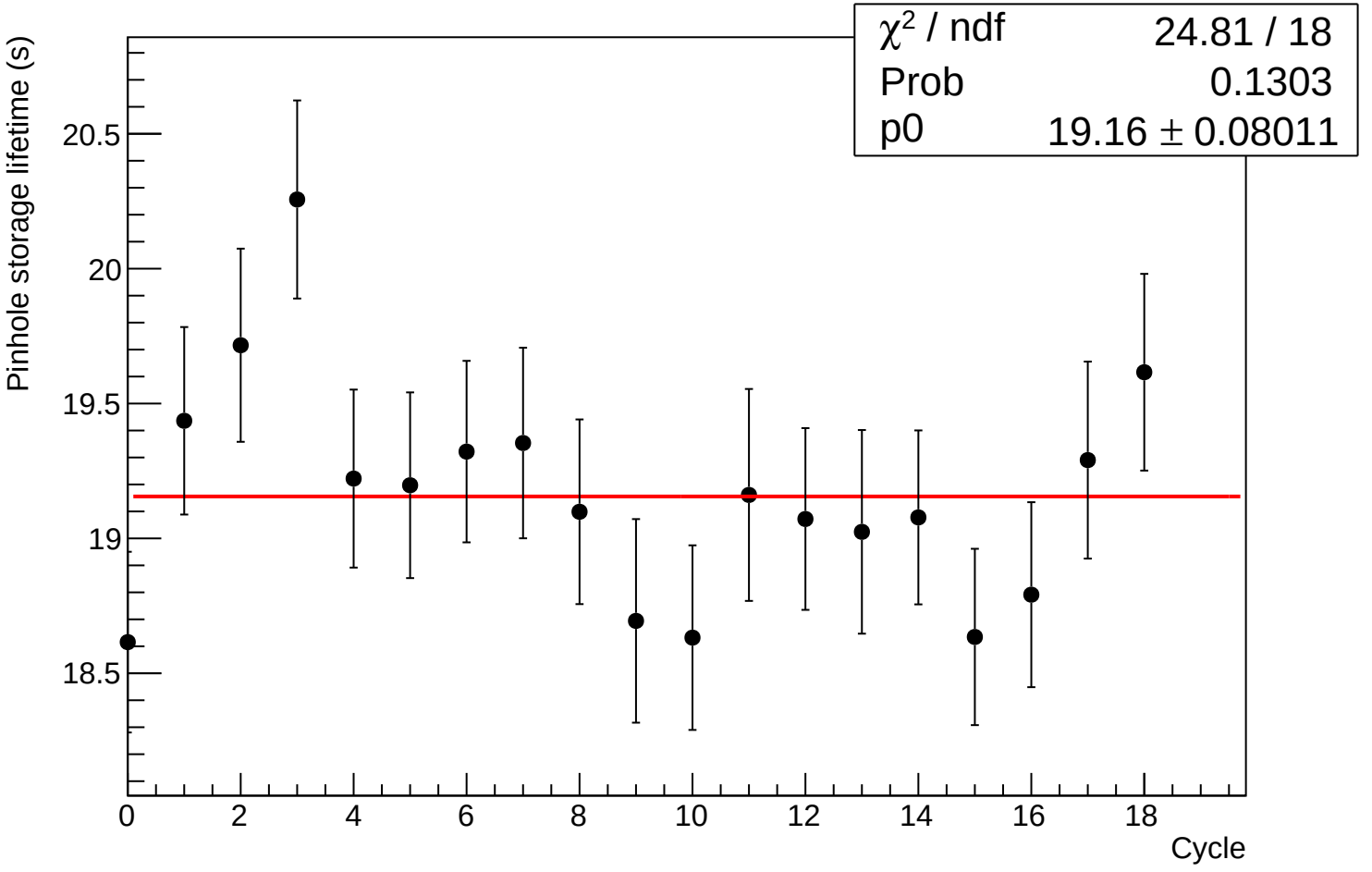

TCN19-120 (He3 rate)
He3_1986_14
Entries 14472
Mean 55.36
Std Dev 26.23
Integral 1.447e+04
χ² / ndf 92.31 / 93
Prob 0.5006
p0 6499 ± 491.0
τ 19.08 ± 0.32
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

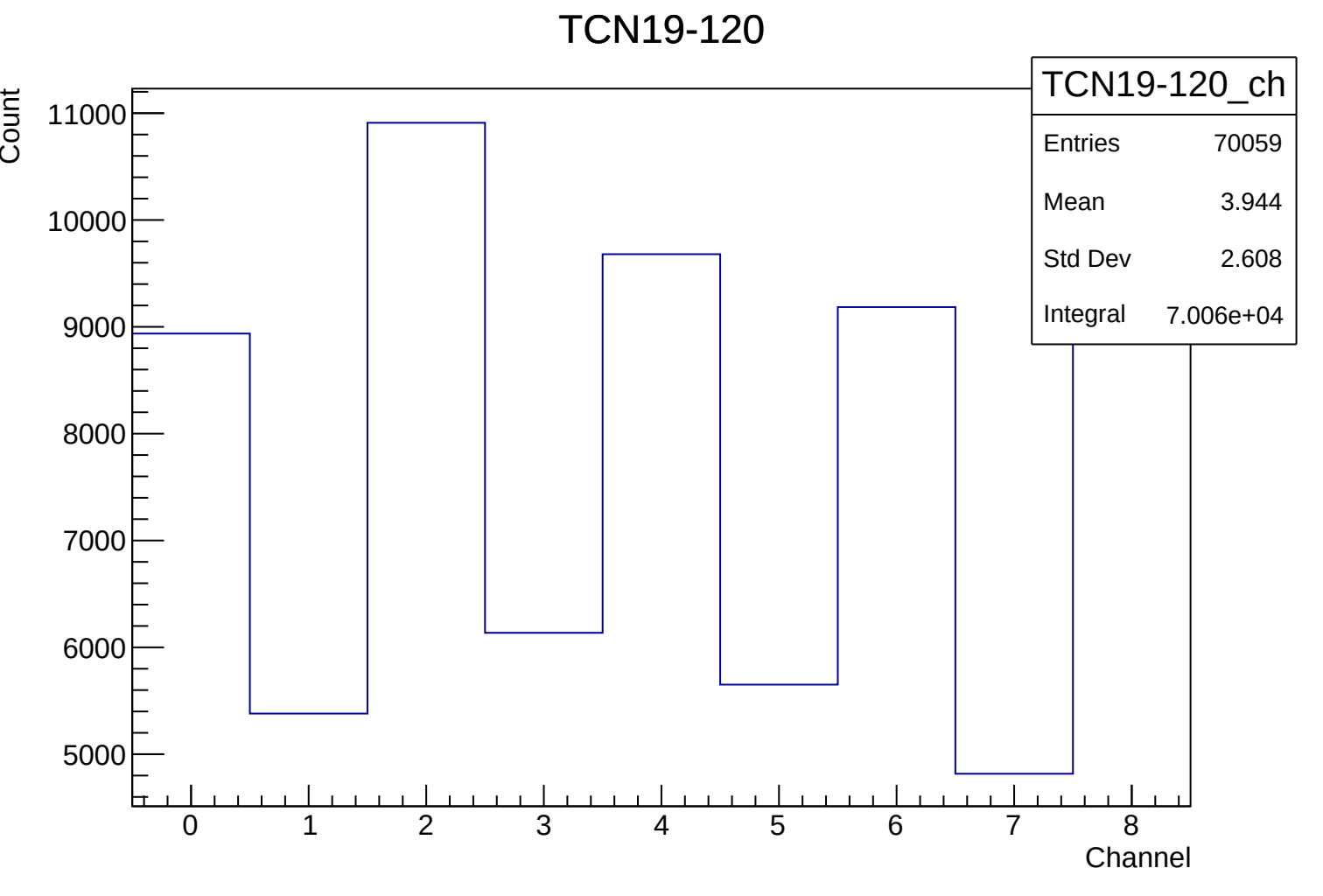

TCN19-120 (He3 rate)
He3_1986_15
Entries 14665
Mean 54.88
Std Dev 25.4
Integral 1.466e+04
χ² / ndf 97.43 / 93
Prob 0.3562
p0 7255 ± 565.6
τ 18.63 ± 0.32
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


TCN19-120 (He3 rate)
He3_1986_16
Entries 14403
Mean 55.34
Std Dev 25.72
Integral 1.44e+04
χ² / ndf 97.72 / 92
Prob 0.3221
p0 6906 ± 551.9
τ 18.79 ± 0.33
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


TCN19-120 (He3 rate)
He3_1986_17
Entries 14665
Mean 55.08
Std Dev 26.05
Integral 1.466e+04
χ² / ndf 108.1 / 92
Prob 0.1205
p0 6139 ± 474.4
τ 19.29 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


TCN19-120 (He3 rate)
He3_1986_18
Entries 14723
Mean 55.38
Std Dev 26.29
Integral 1.472e+04
χ² / ndf 97.83 / 93
Prob 0.3458
p0 5896 ± 465.9
τ 19.62 ± 0.36
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


χ^2 / ndf 24.81 / 18
Prob 0.1303
p0 19.16 ± 0.08011
Pinhole storage lifetime (s)
20.5
20
19.5
19
18.5
0
2
4
6
8
10
12
14
16
18
Cycle


TCN19-120
TCN19-120_ch
Entries 70059
Mean 3.944
Std Dev 2.608
Integral 7.006e+04
Count
11000
10000
9000
8000
7000
6000
5000
0
1
2
3
4
5
6
7
8
Channel