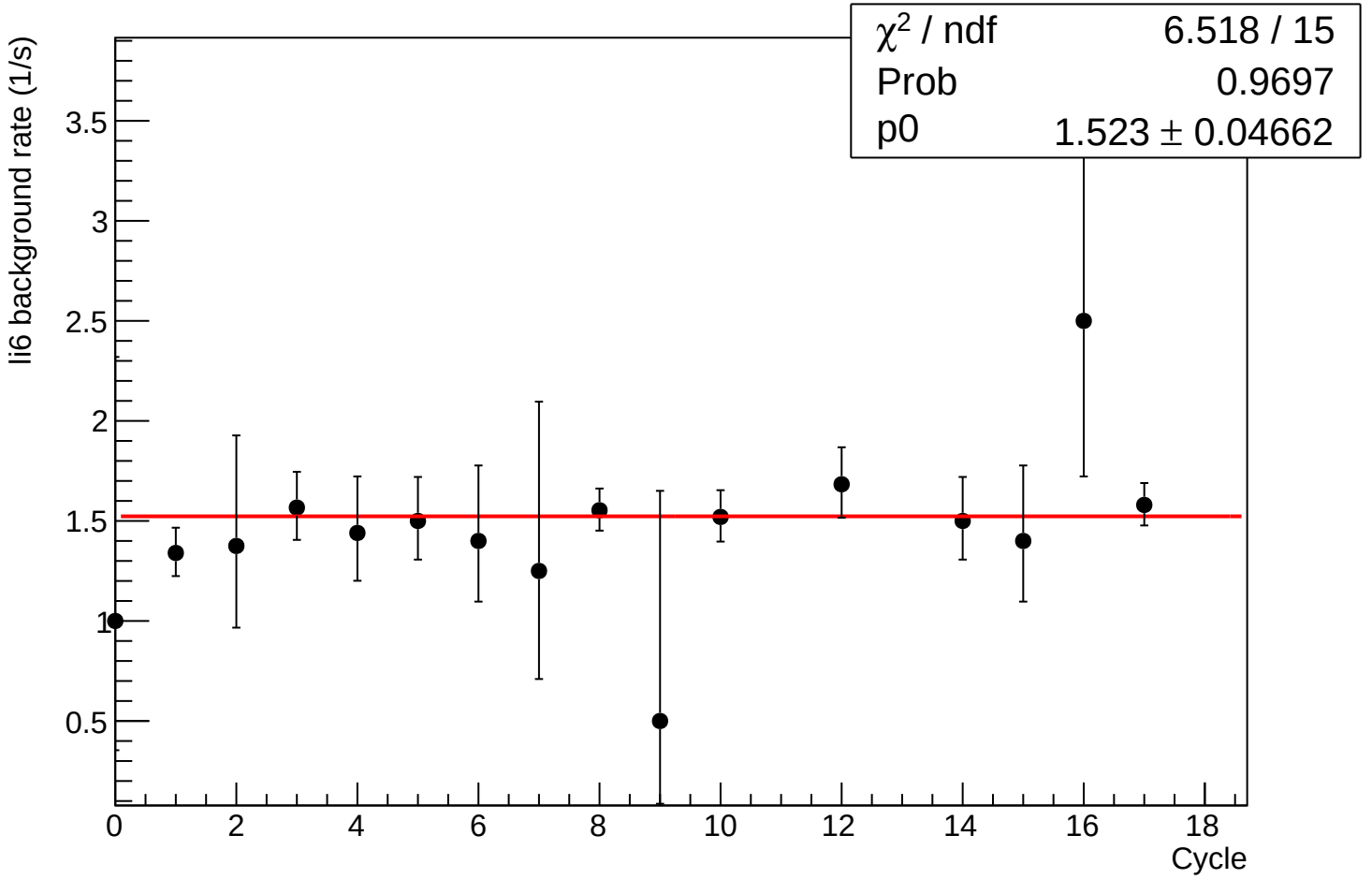
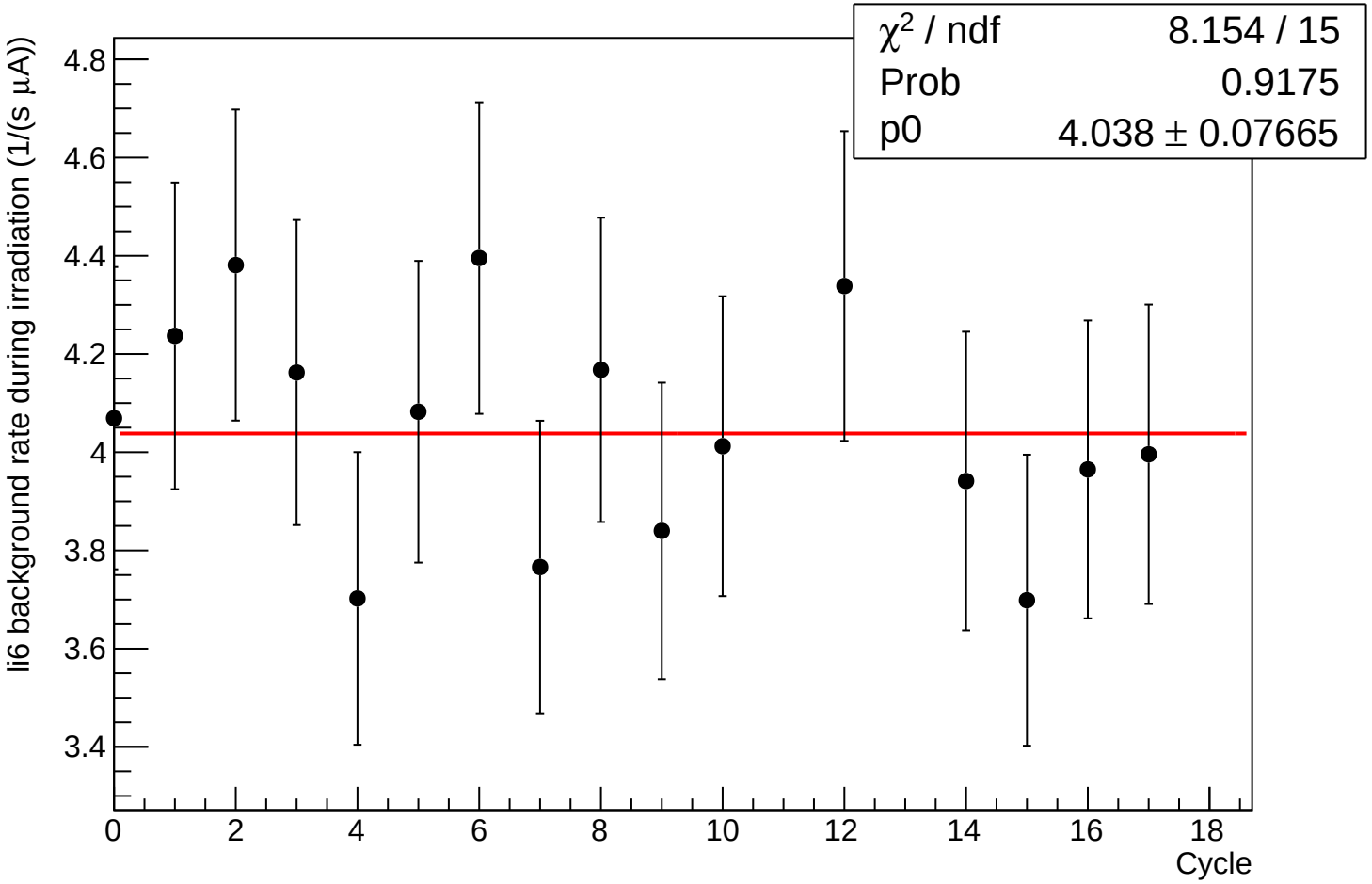
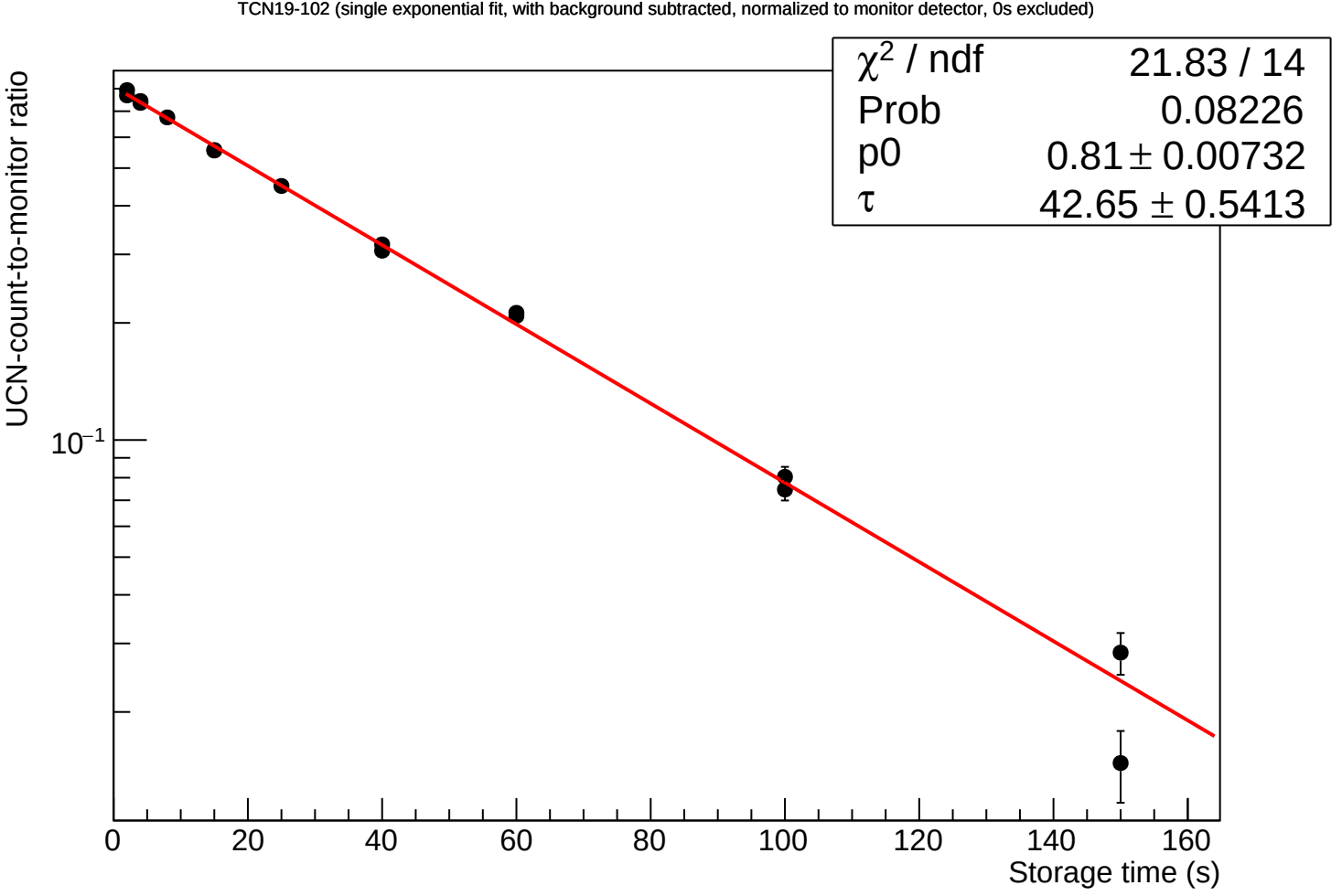
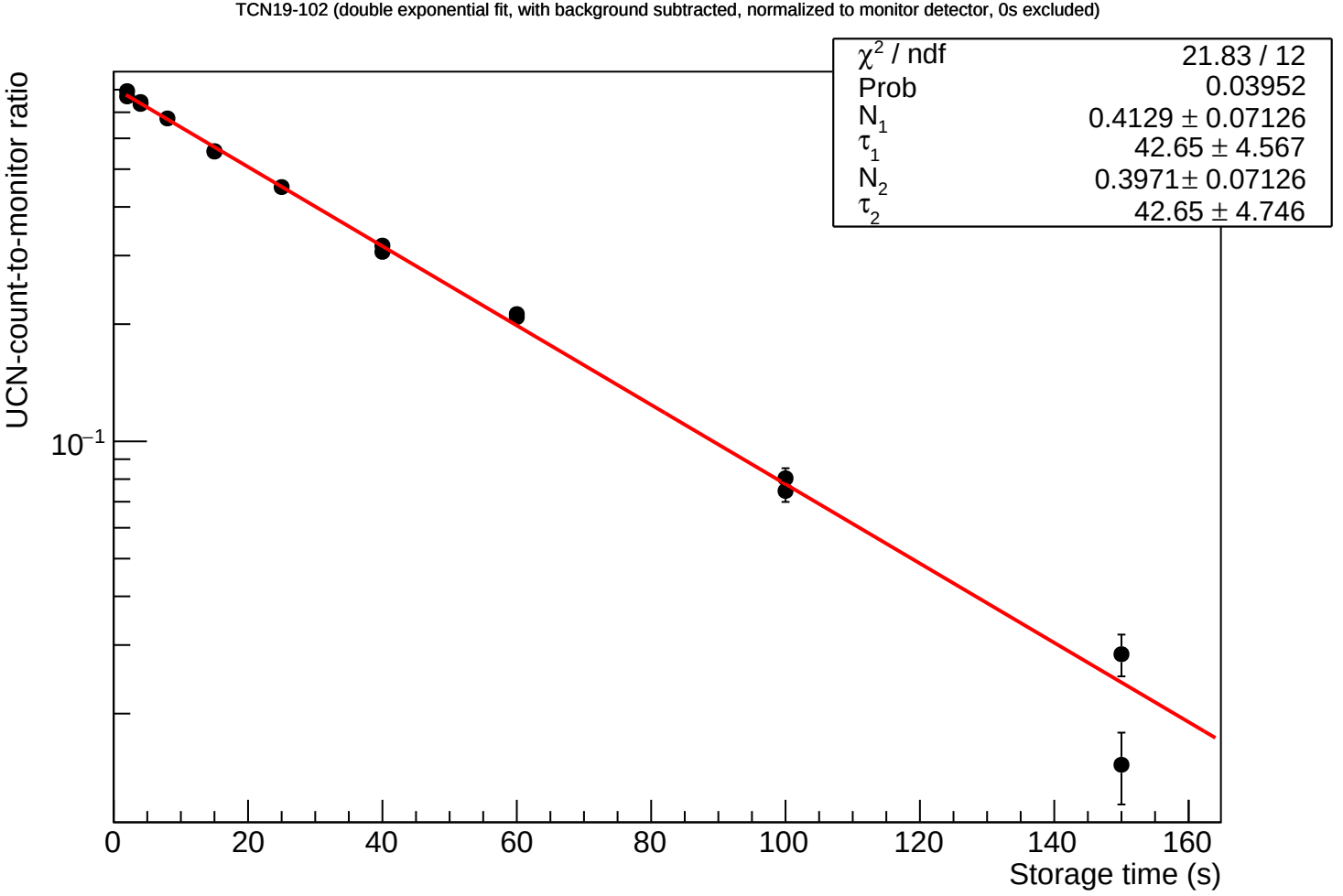
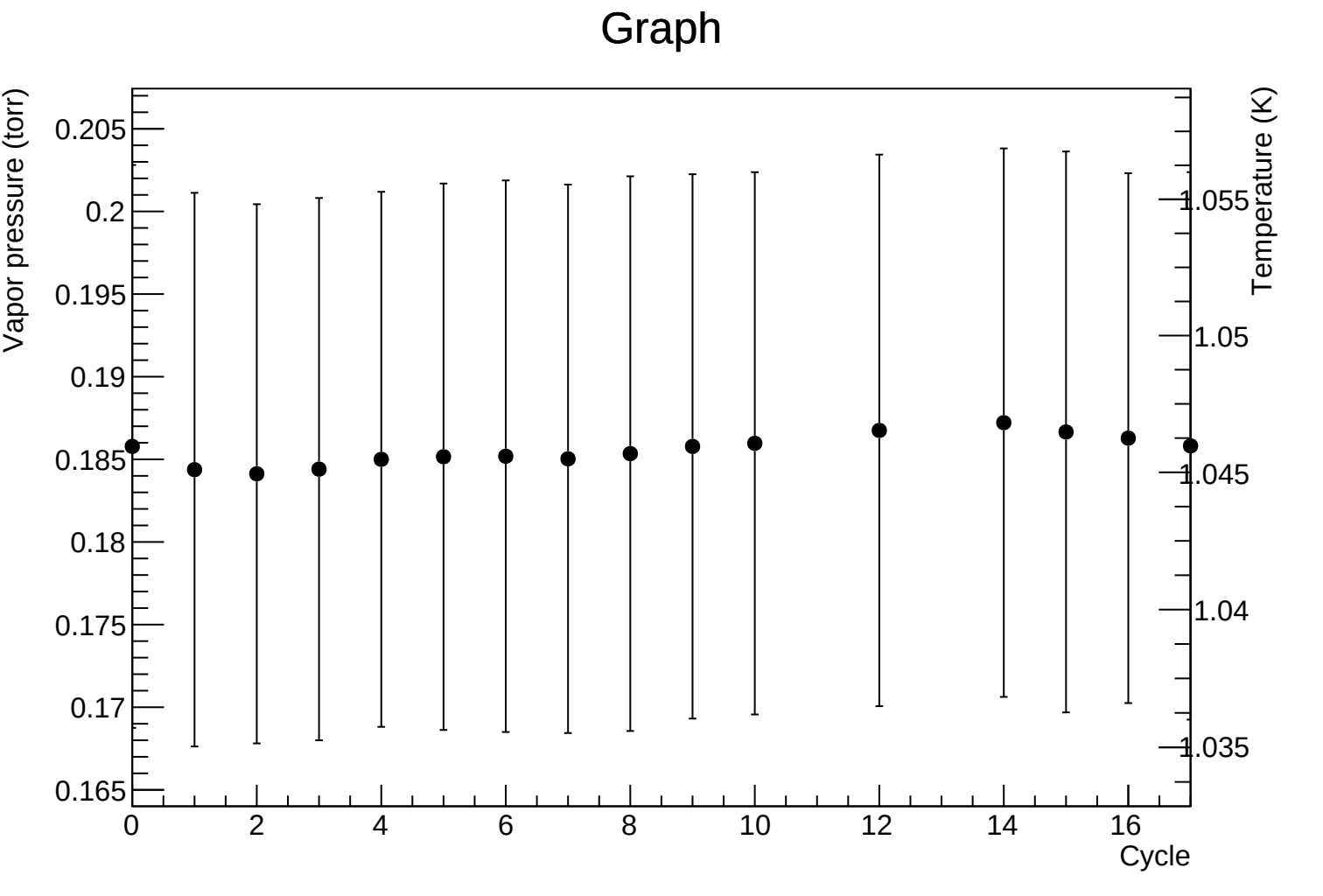
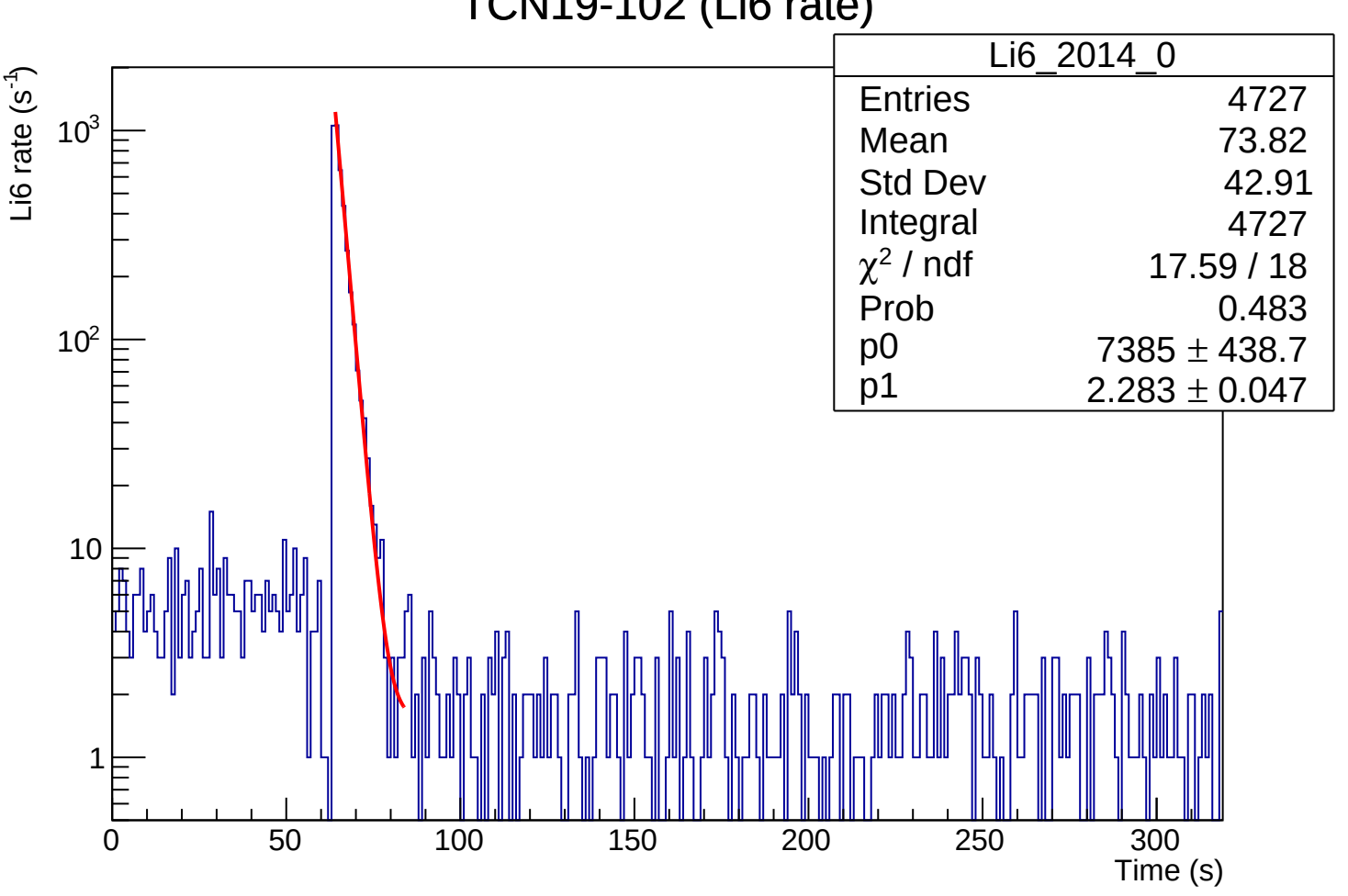

χ^2 / ndf 6.518 / 15
Prob 0.9697
p0 1.523 ± 0.04662
li6 background rate (1/s)
3.5
3
2.5
2
1.5
1
0.5
0
2
4
6
8
10
12
14
16
18
Cycle

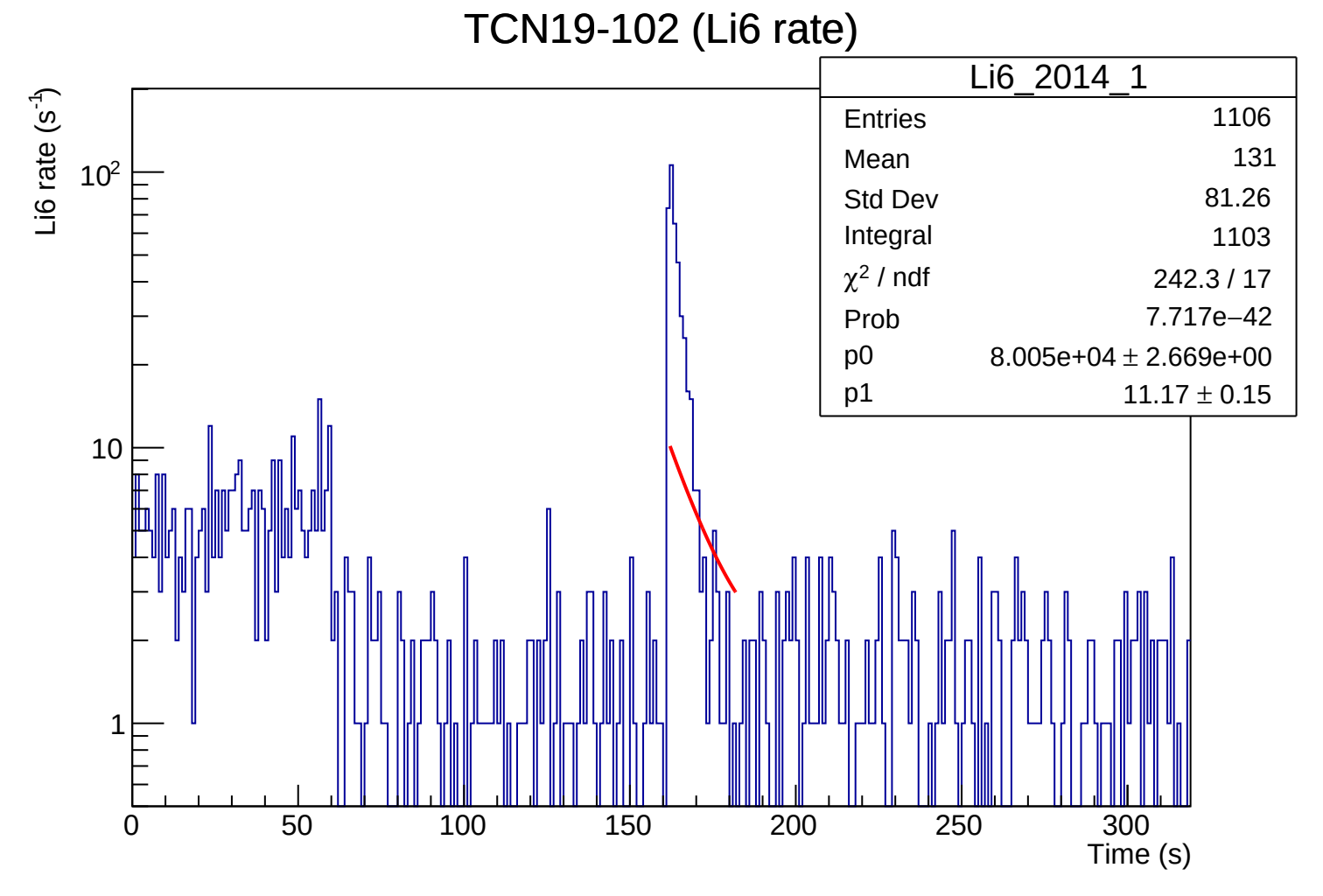

χ² / ndf 8.154 / 15
Prob 0.9175
p0 4.038 ± 0.07665
li6 background rate during irradiation (1/(s μA))
4.8
4.6
4.4
4.2
4
3.8
3.6
3.4
0
2
4
6
8
10
12
14
16
18
Cycle

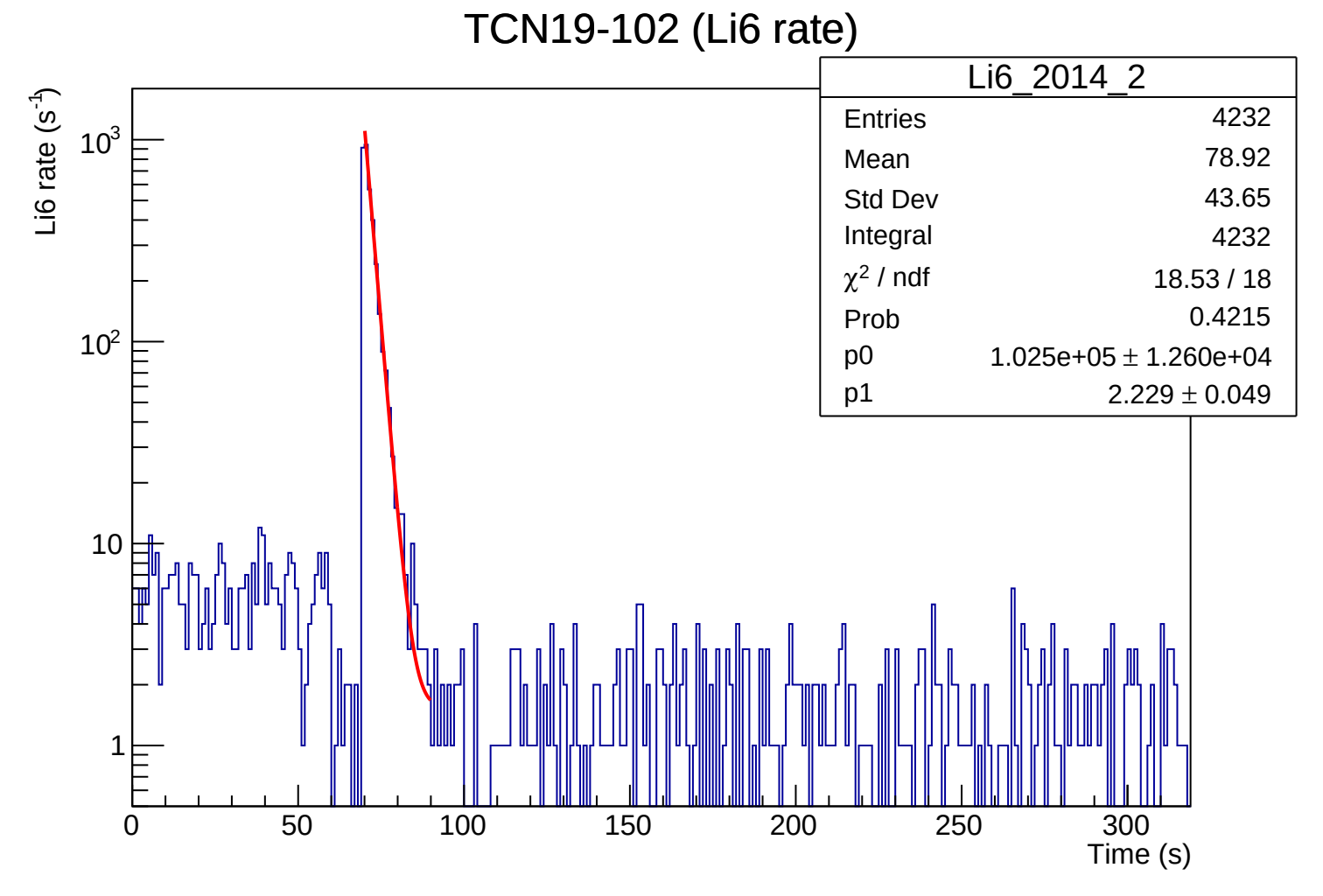

TCN19-102 (single exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ² / ndf 21.83 / 14
Prob 0.08226
p0 0.81 ± 0.00732
τ 42.65 ± 0.5413
UCN-count-to-monitor ratio
10⁻¹
0
20
40
60
80
100
120
140
160
Storage time (s)

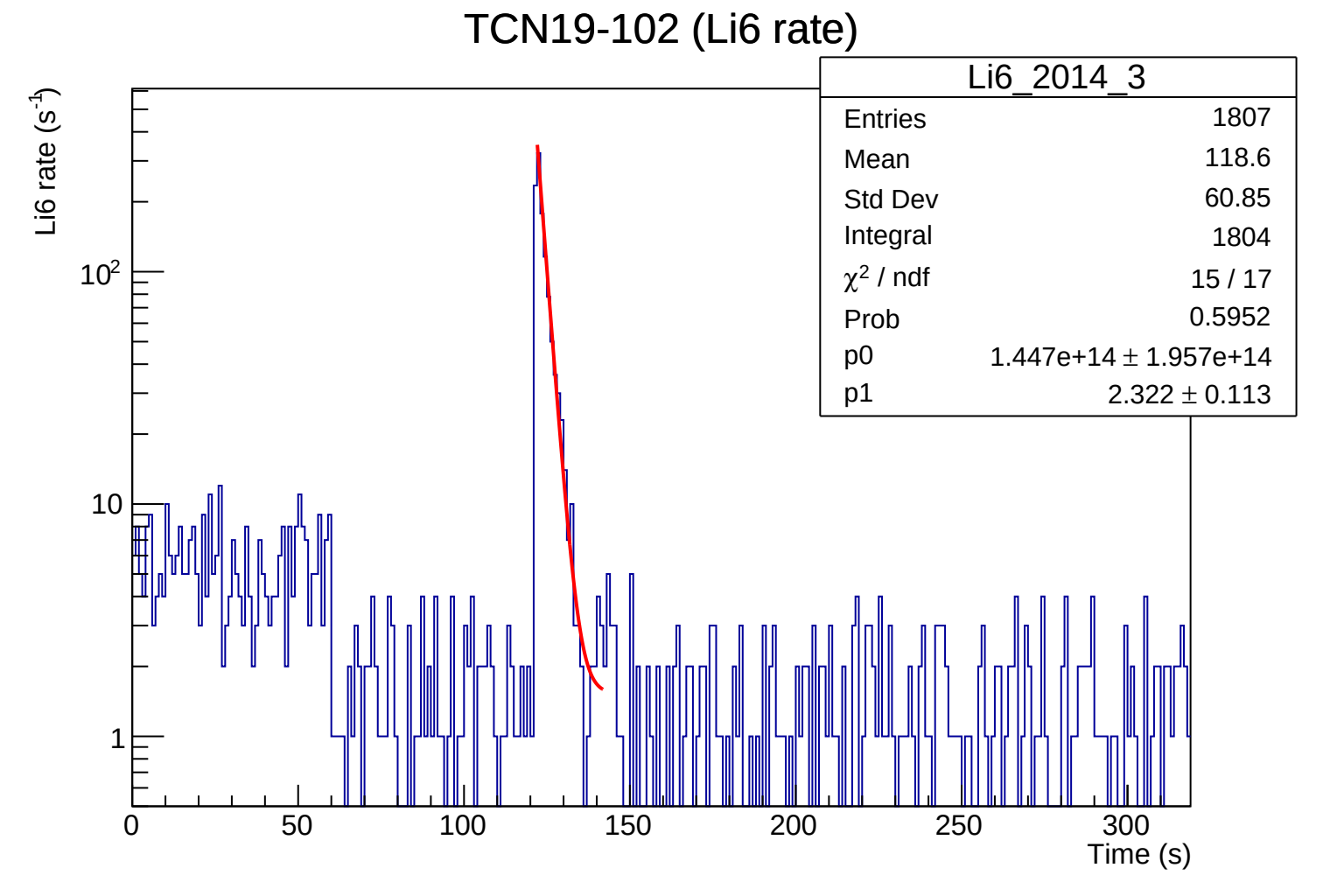

TCN19-102 (double exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ² / ndf 21.83 / 12
Prob 0.03952
N1 0.4129 ± 0.07126
τ1 42.65 ± 4.567
N2 0.3971± 0.07126
τ2 42.65 ± 4.746
UCN-count-to-monitor ratio
10⁻¹
0
20
40
60
80
100
120
140
160
Storage time (s)

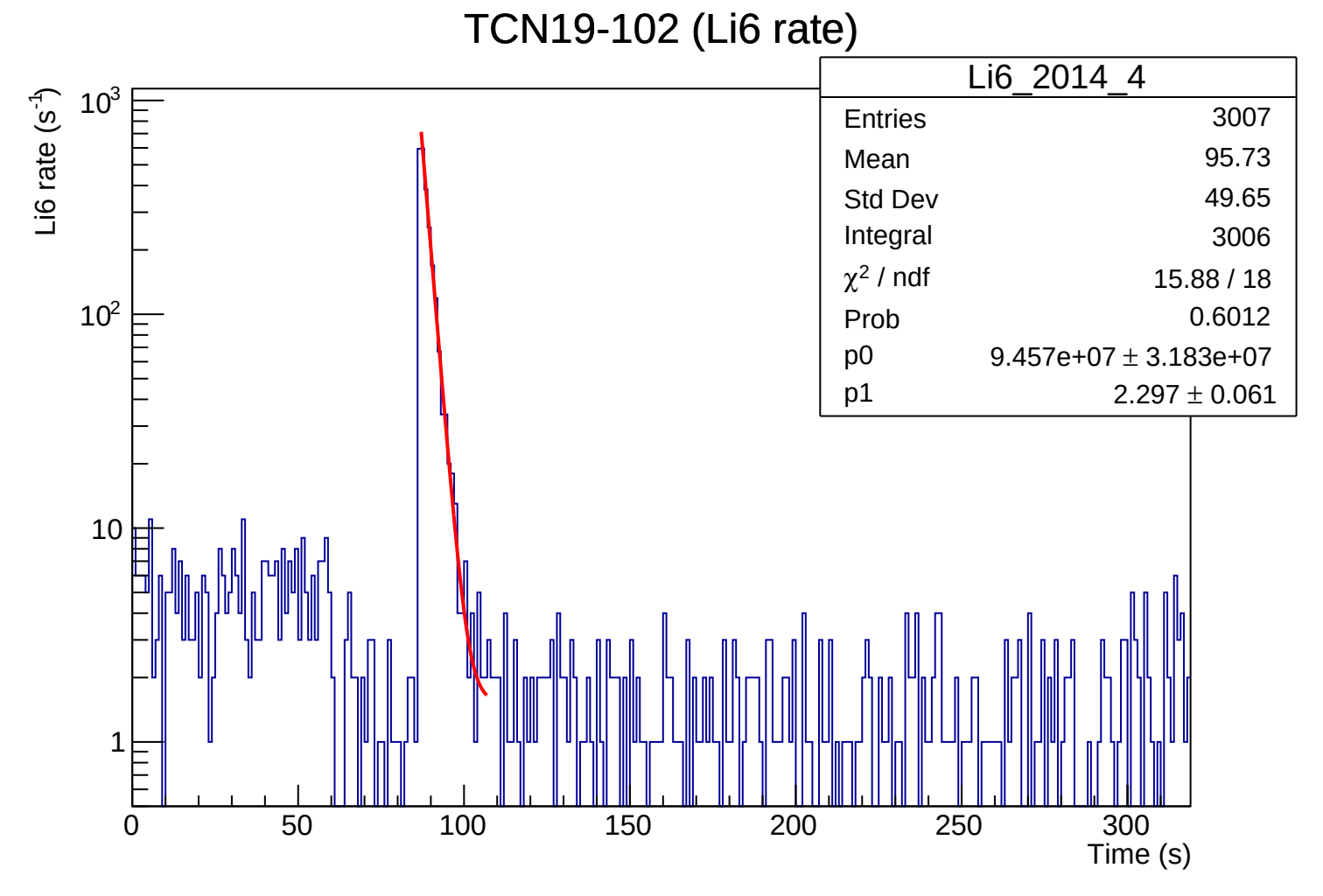

Graph
Vapor pressure (torr)
0.205
0.2
0.195
0.19
0.185
0.18
0.175
0.17
0.165
Temperature (K)
1.055
1.05
1.045
1.04
1.035
0
2
4
6
8
10
12
14
16
Cycle

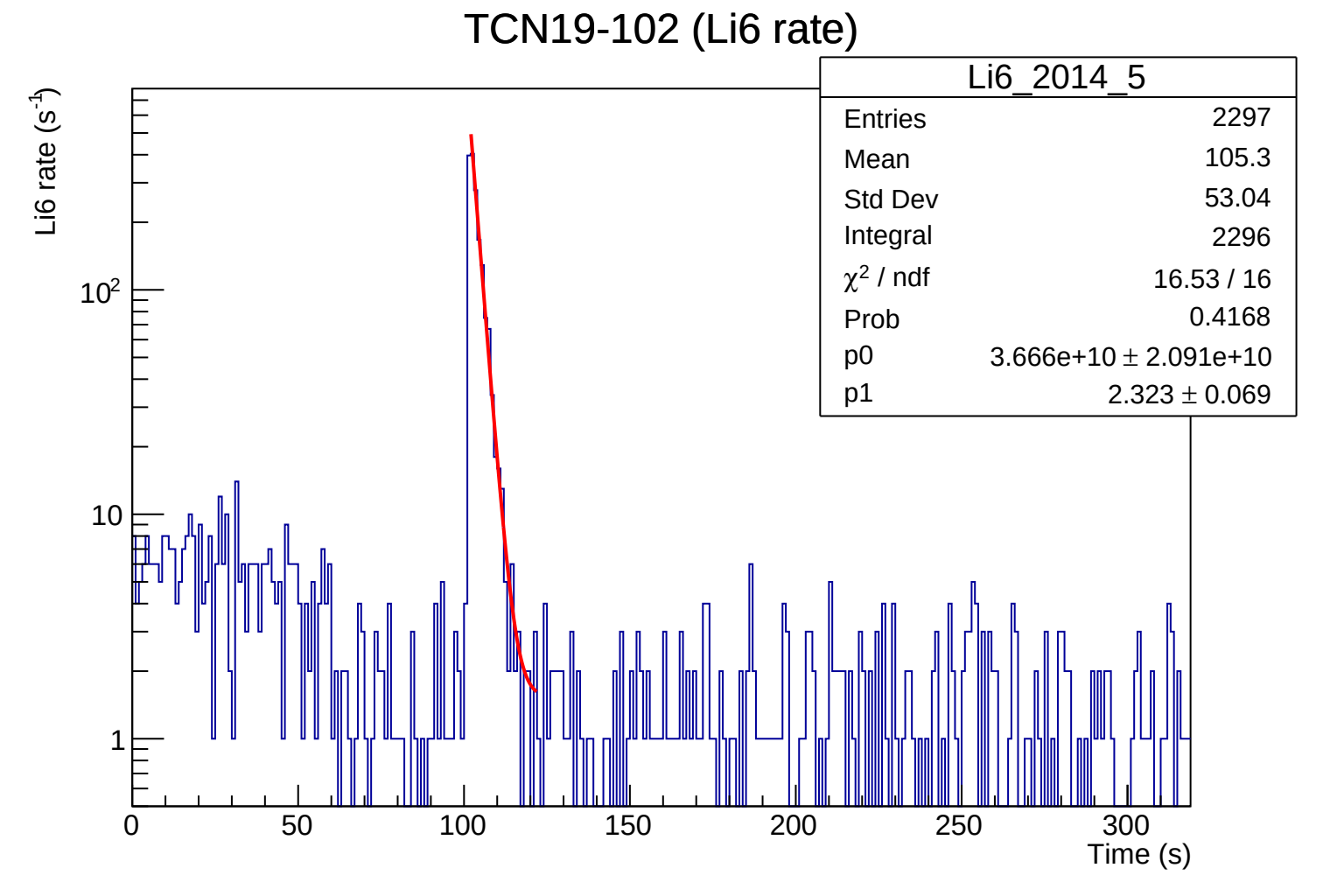

TCN19-102 (Li6 rate)
Li6_2014_0
Entries 4727
Mean 73.82
Std Dev 42.91
Integral 4727
χ² / ndf 17.59 / 18
Prob 0.483
p0 7385 ± 438.7
p1 2.283 ± 0.047
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
300
Time (s)

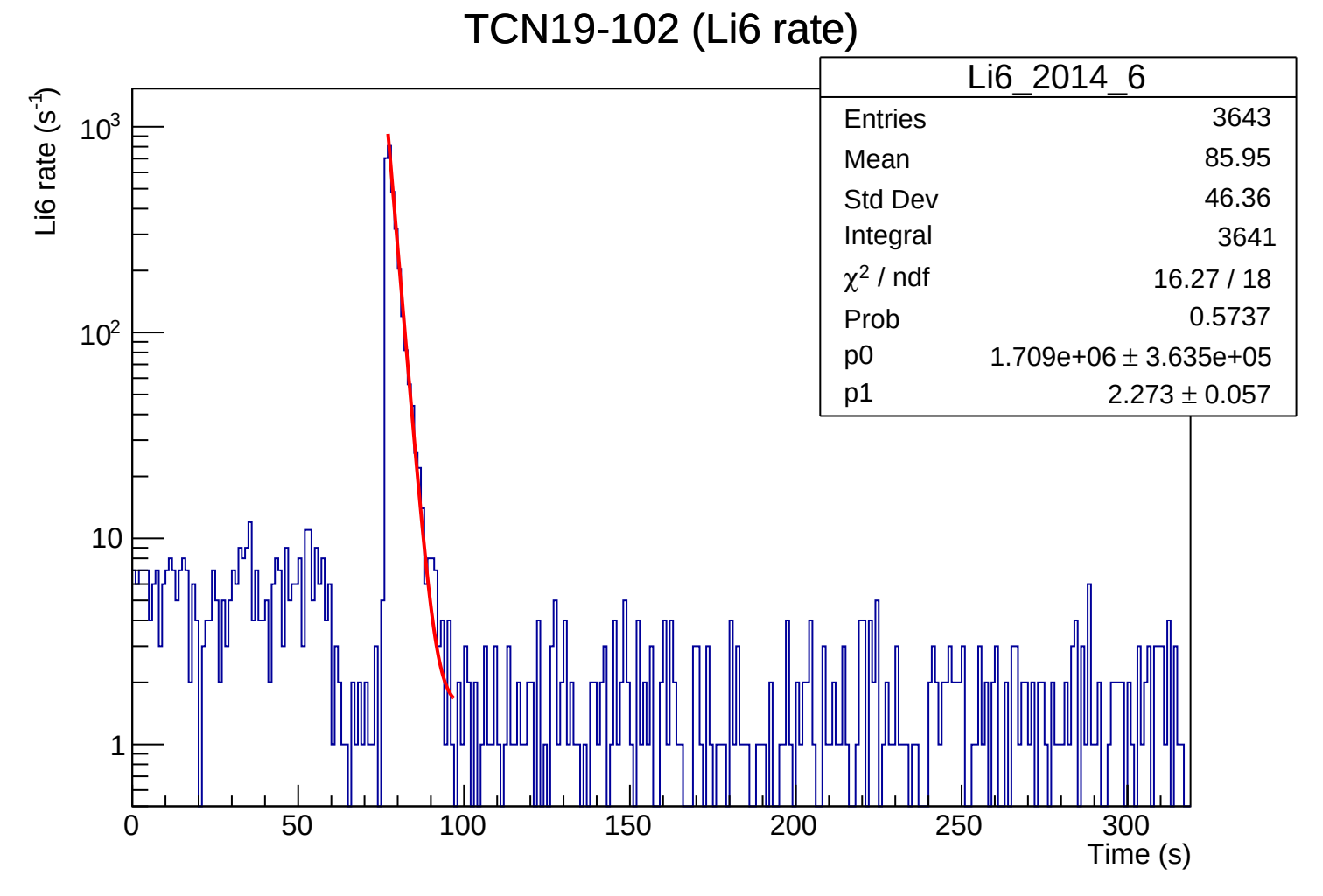

TCN19-102 (Li6 rate)
Li6_2014_1
Entries 1106
Mean 131
Std Dev 81.26
Integral 1103
χ² / ndf 242.3 / 17
Prob 7.717e−42
p0 8.005e+04 ± 2.669e+00
p1 11.17 ± 0.15
Li6 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

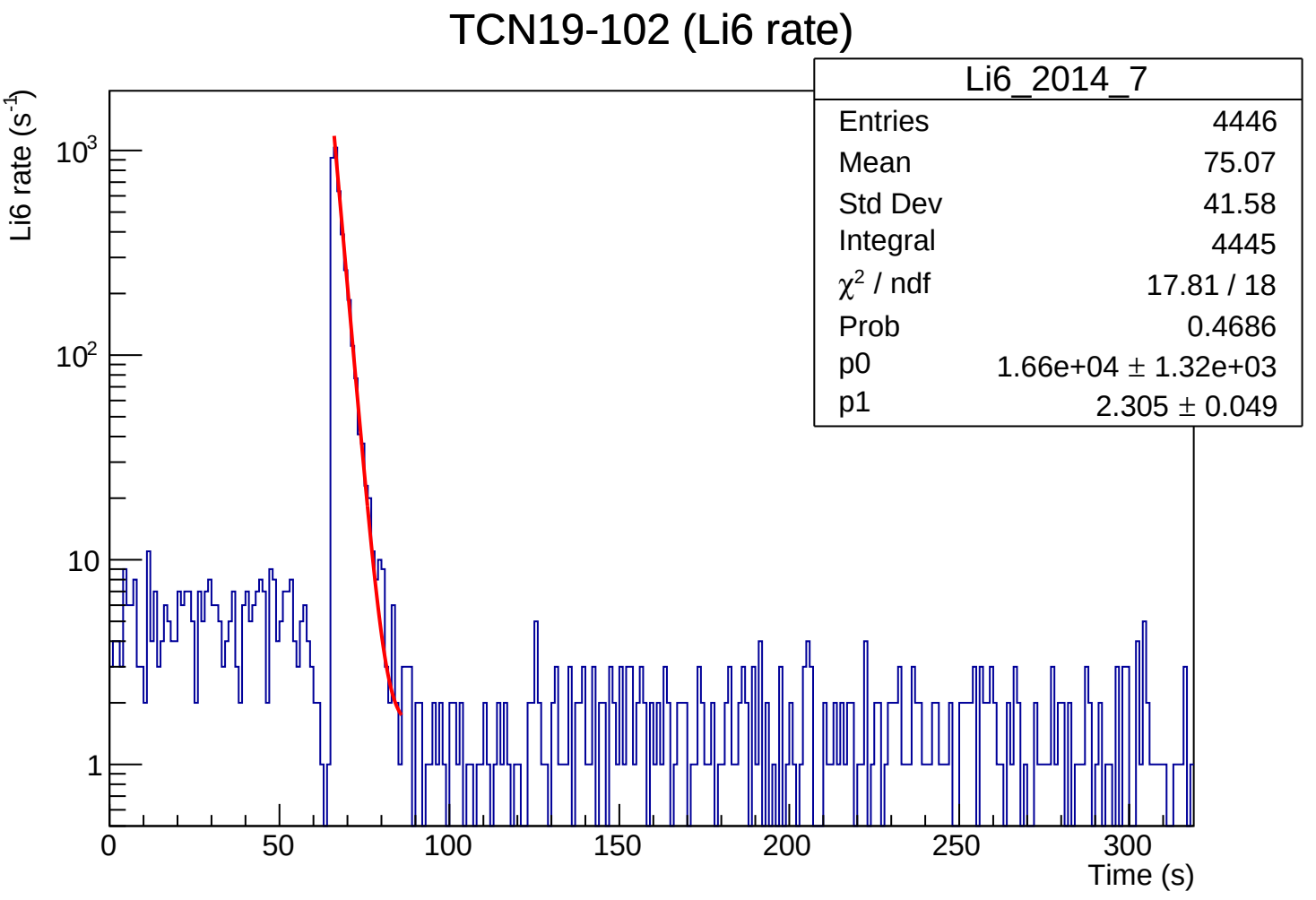

TCN19-102 (Li6 rate)
Li6_2014_2
Entries 4232
Mean 78.92
Std Dev 43.65
Integral 4232
χ2 / ndf 18.53 / 18
Prob 0.4215
p0 1.025e+05 ± 1.260e+04
p1 2.229 ± 0.049
Li6 rate (s-1)
10^3
10^2
10
1
0
50
100
150
200
250
300
Time (s)

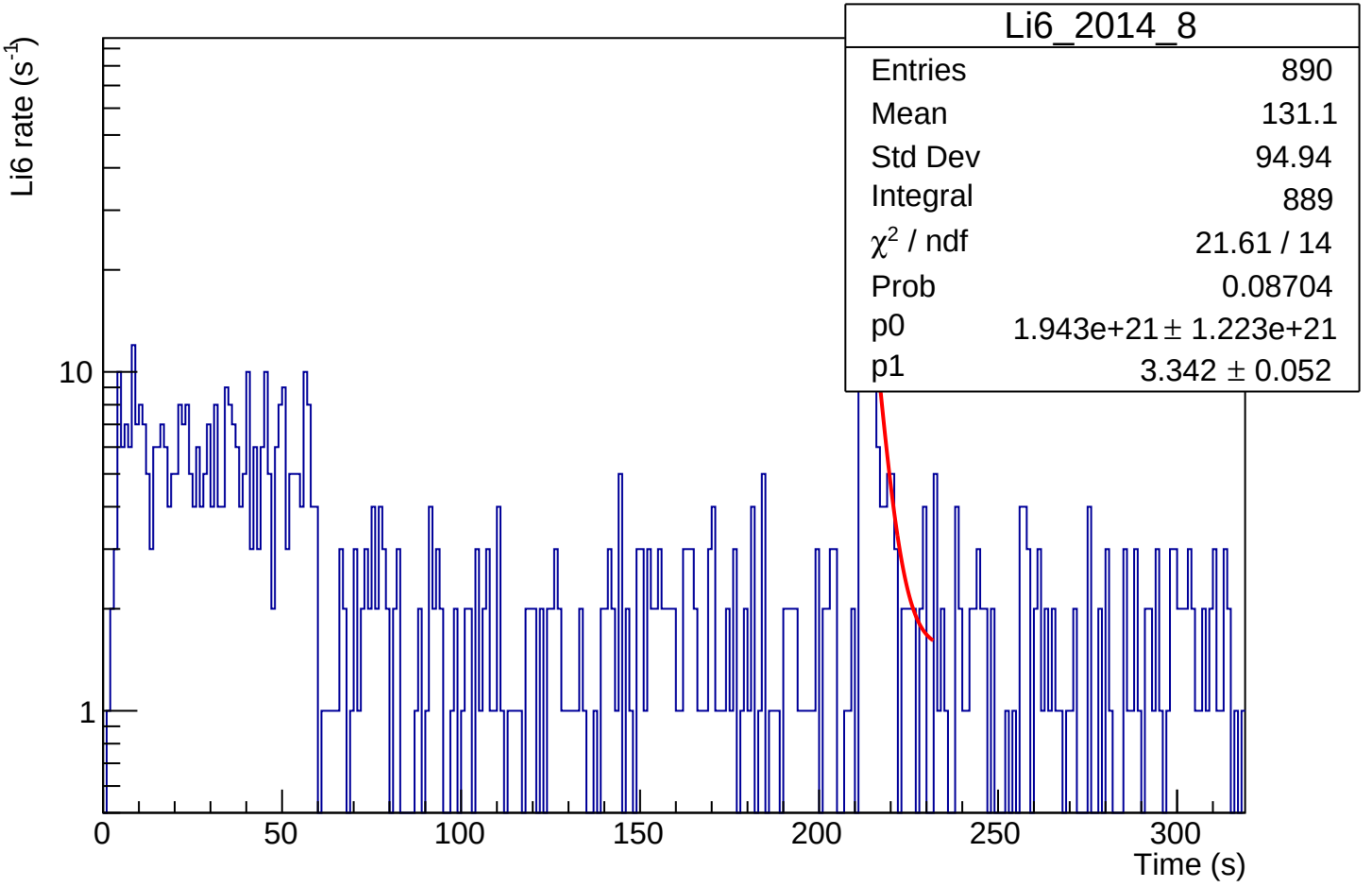

TCN19-102 (Li6 rate)
Li6_2014_3
Entries 1807
Mean 118.6
Std Dev 60.85
Integral 1804
χ² / ndf 15 / 17
Prob 0.5952
p0 1.447e+14 ± 1.957e+14
p1 2.322 ± 0.113
Li6 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

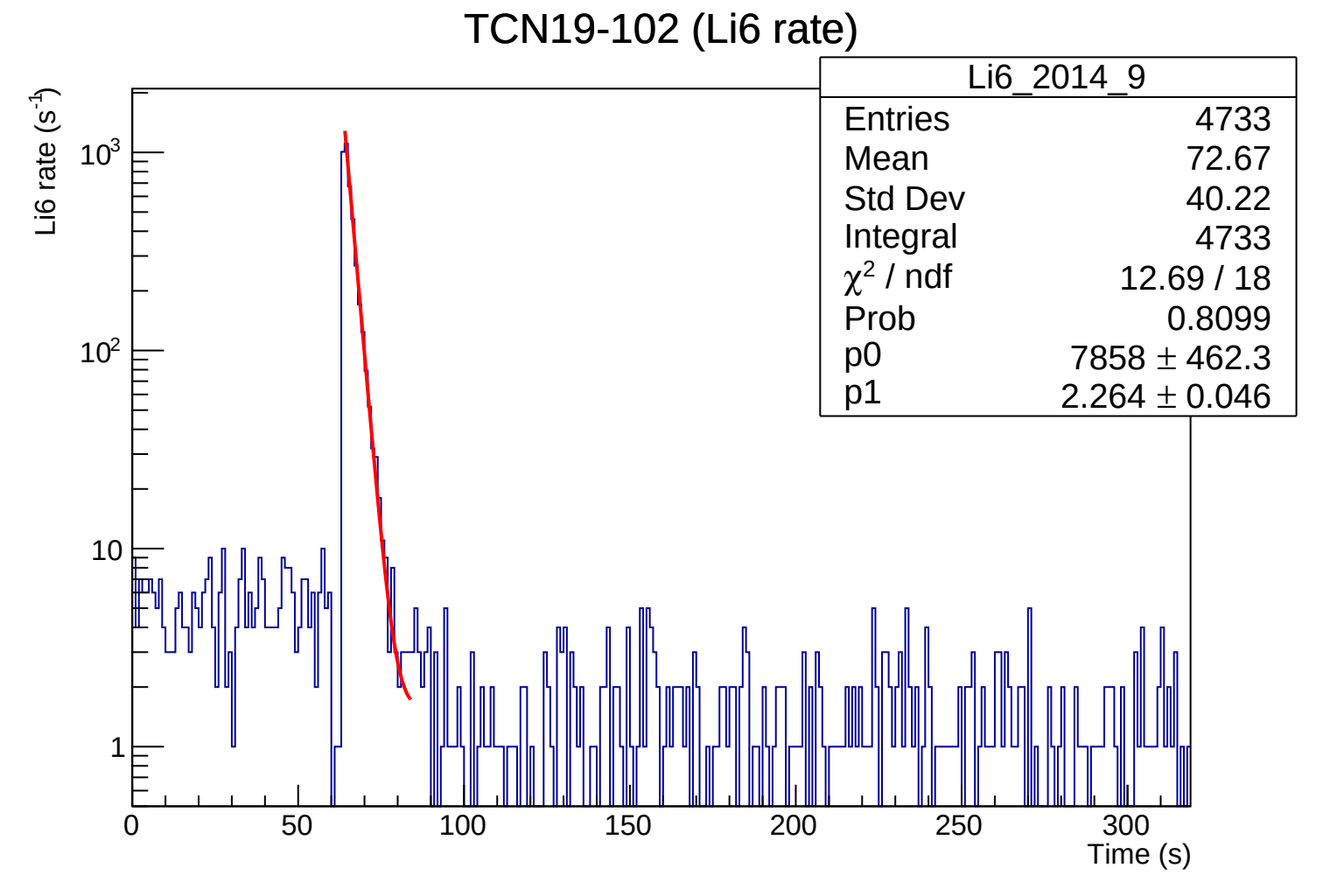

TCN19-102 (Li6 rate)
Li6_2014_4
Entries 3007
Mean 95.73
Std Dev 49.65
Integral 3006
χ² / ndf 15.88 / 18
Prob 0.6012
p0 9.457e+07 ± 3.183e+07
p1 2.297 ± 0.061
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
300
Time (s)

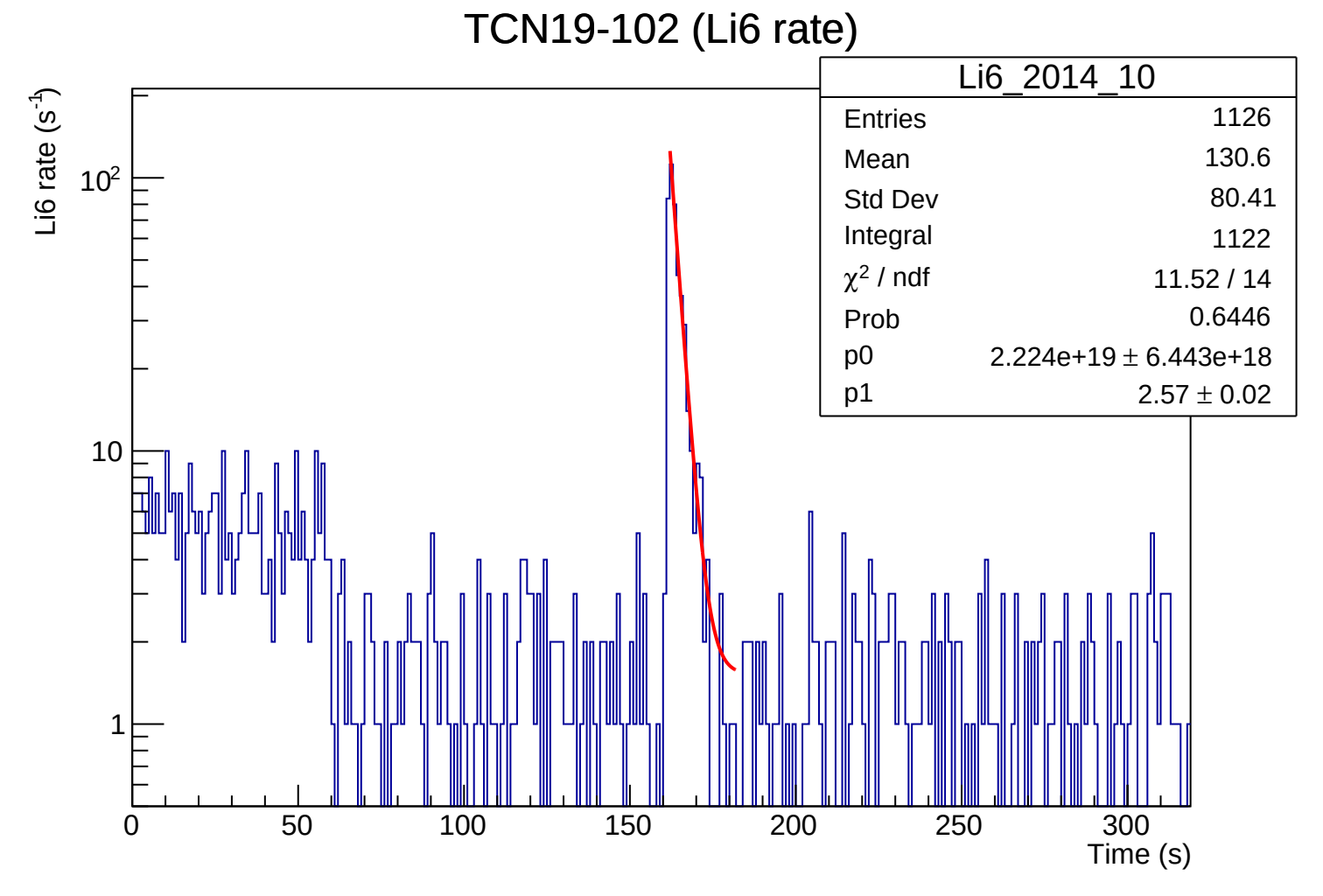

TCN19-102 (Li6 rate)
Li6_2014_5
Entries 2297
Mean 105.3
Std Dev 53.04
Integral 2296
χ² / ndf 16.53 / 16
Prob 0.4168
p0 3.666e+10 ± 2.091e+10
p1 2.323 ± 0.069
Li6 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

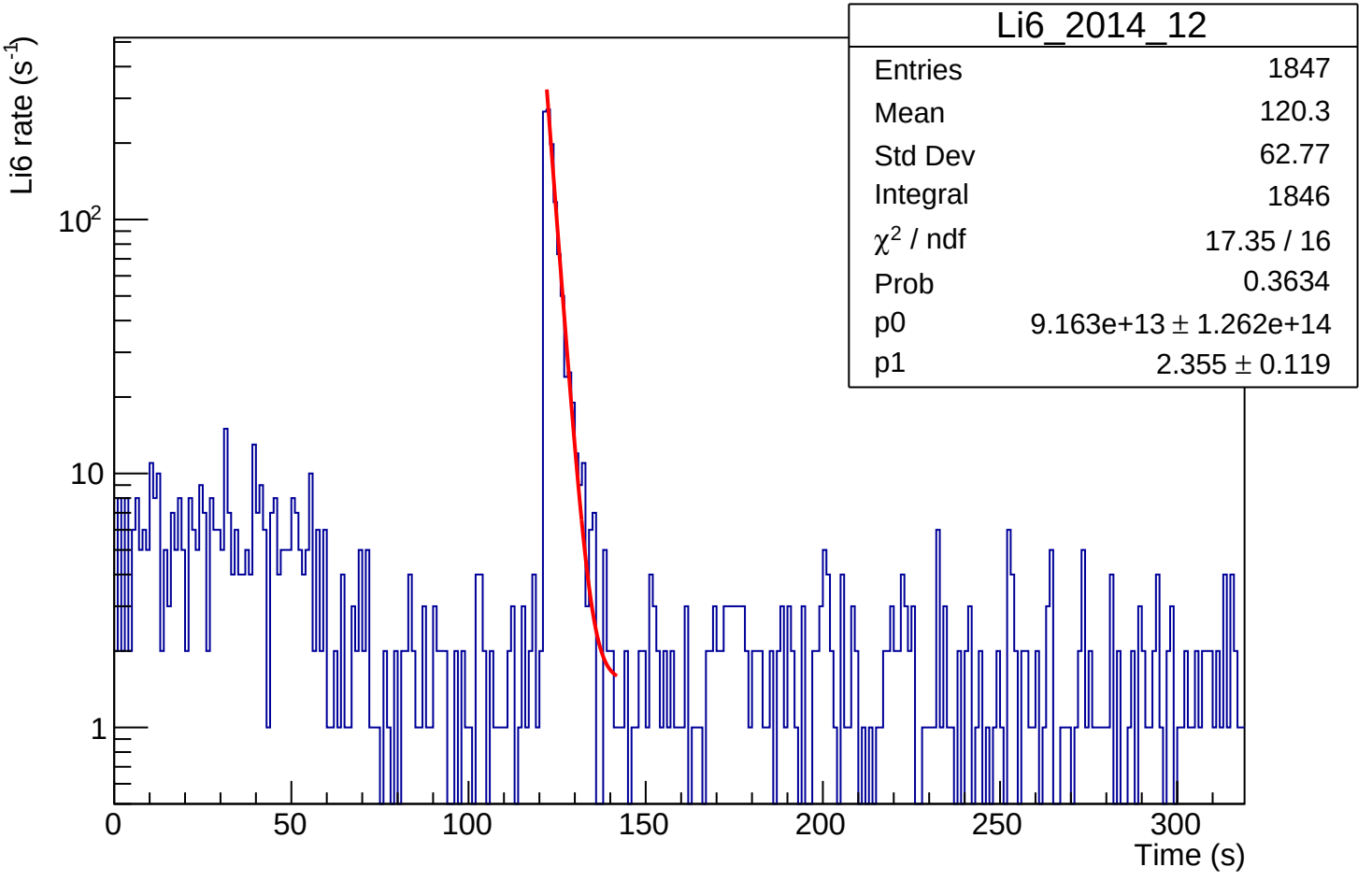

TCN19-102 (Li6 rate)
Li6_2014_6
Entries 3643
Mean 85.95
Std Dev 46.36
Integral 3641
χ² / ndf 16.27 / 18
Prob 0.5737
p0 1.709e+06 ± 3.635e+05
p1 2.273 ± 0.057
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
300
Time (s)

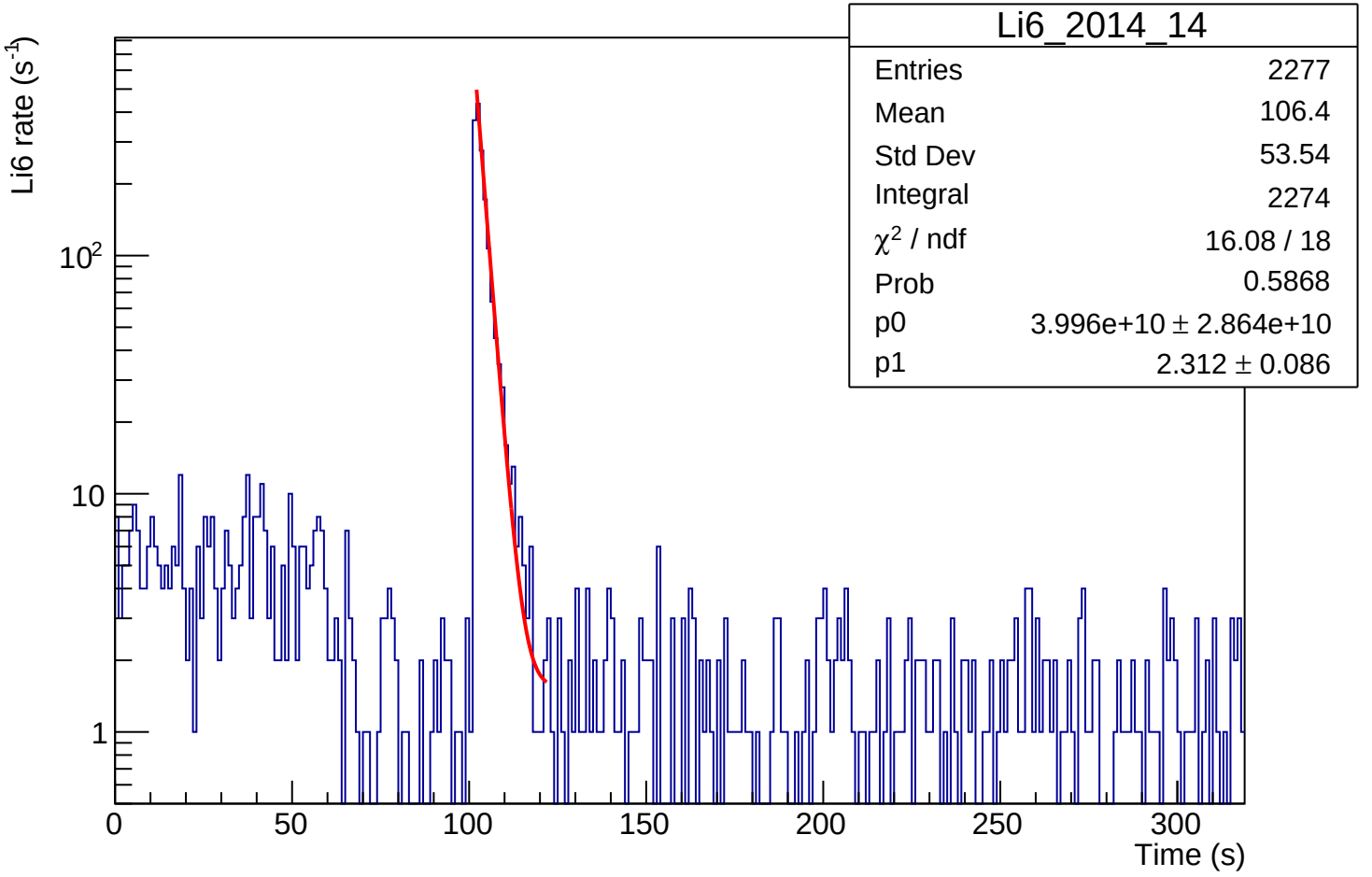

TCN19-102 (Li6 rate)
Li6_2014_7
Entries 4446
Mean 75.07
Std Dev 41.58
Integral 4445
χ² / ndf 17.81 / 18
Prob 0.4686
p0 1.66e+04 ± 1.32e+03
p1 2.305 ± 0.049
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
300
Time (s)

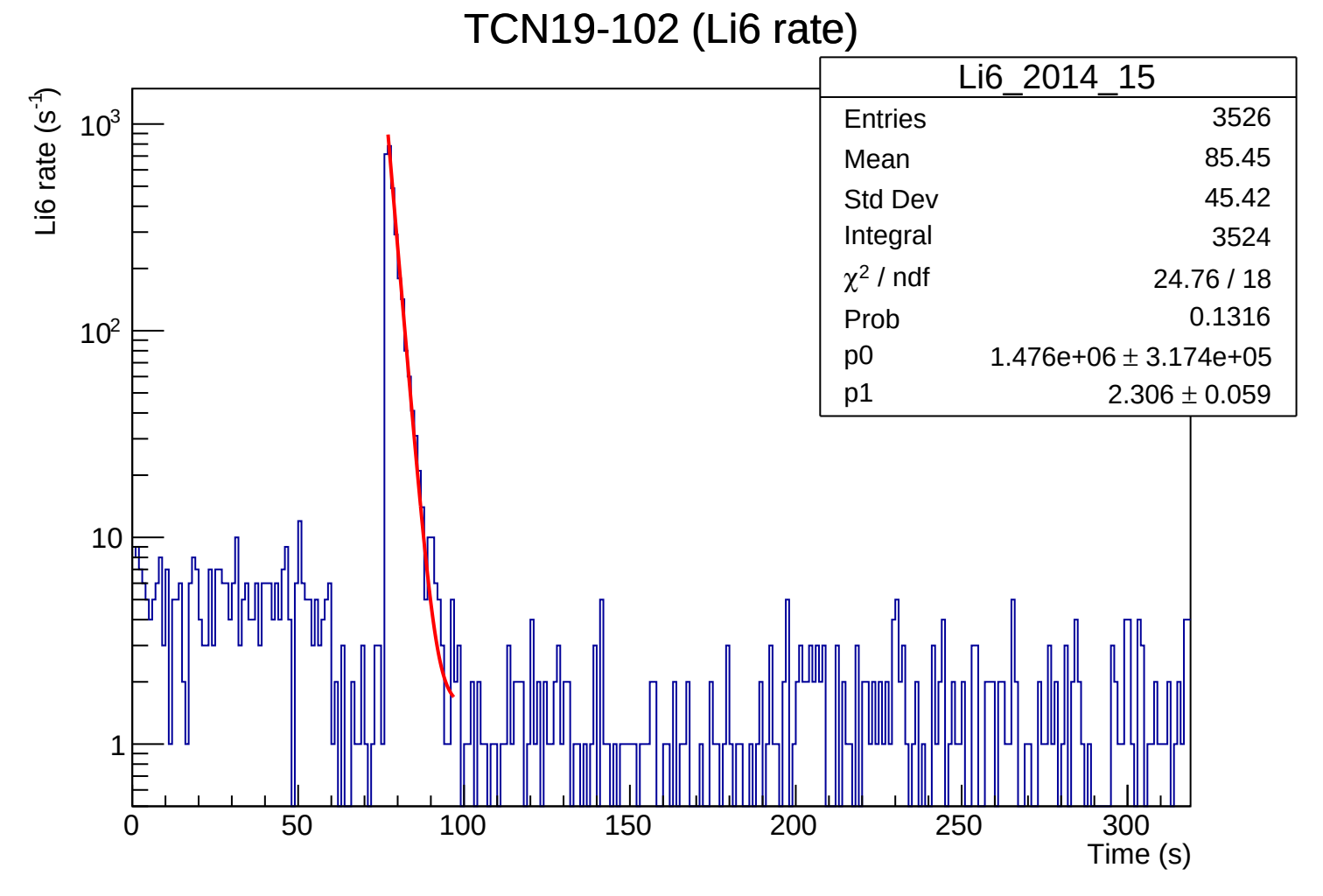

TCN19-102 (Li6 rate)
Li6_2014_8
Entries 890
Mean 131.1
Std Dev 94.94
Integral 889
χ² / ndf 21.61 / 14
Prob 0.08704
p0 1.943e+21 ± 1.223e+21
p1 3.342 ± 0.052
Li6 rate (s⁻¹)
10
1
0
50
100
150
200
250
300
Time (s)

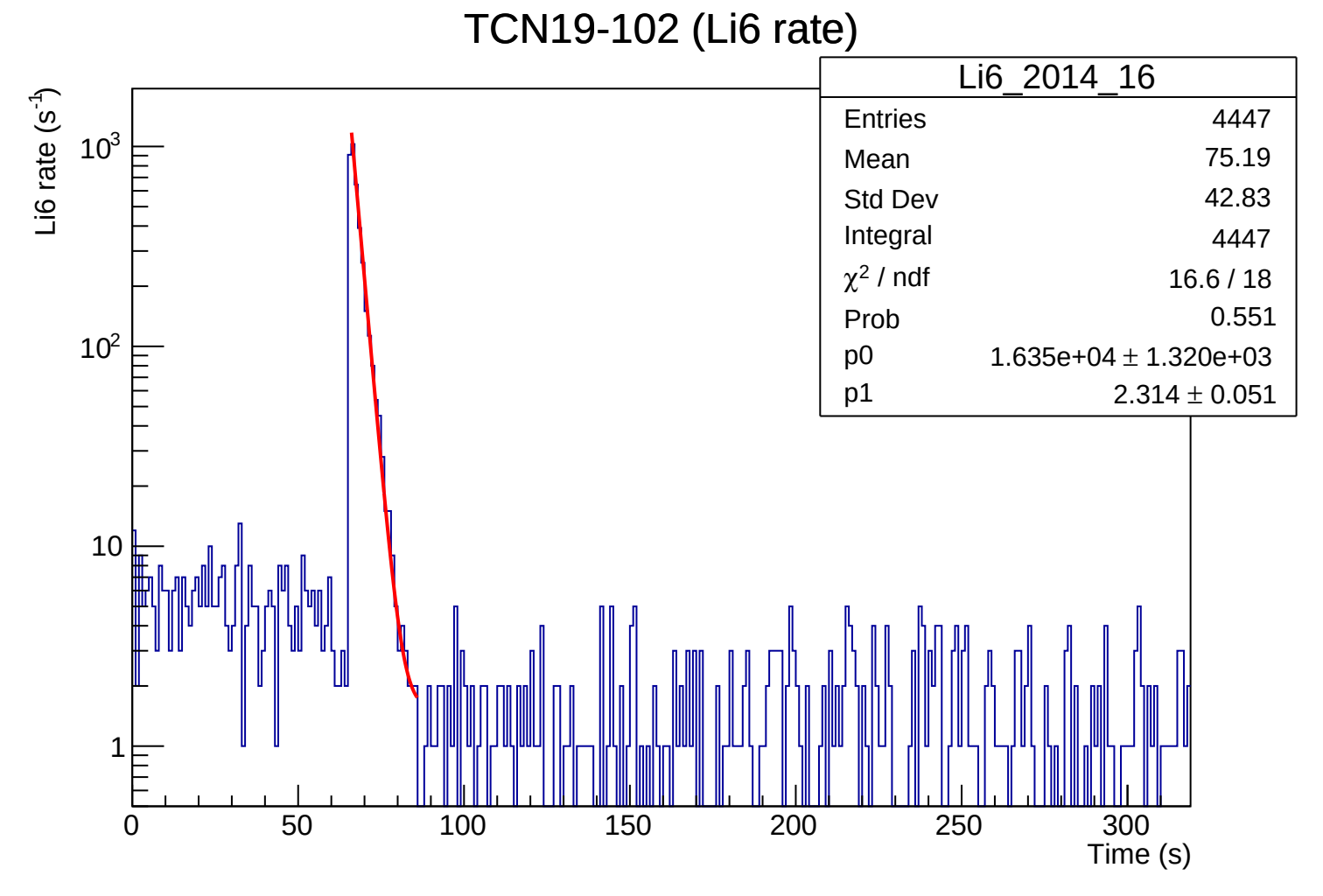

TCN19-102 (Li6 rate)
Li6_2014_9
Entries 4733
Mean 72.67
Std Dev 40.22
Integral 4733
χ² / ndf 12.69 / 18
Prob 0.8099
p0 7858 ± 462.3
p1 2.264 ± 0.046
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
300
Time (s)

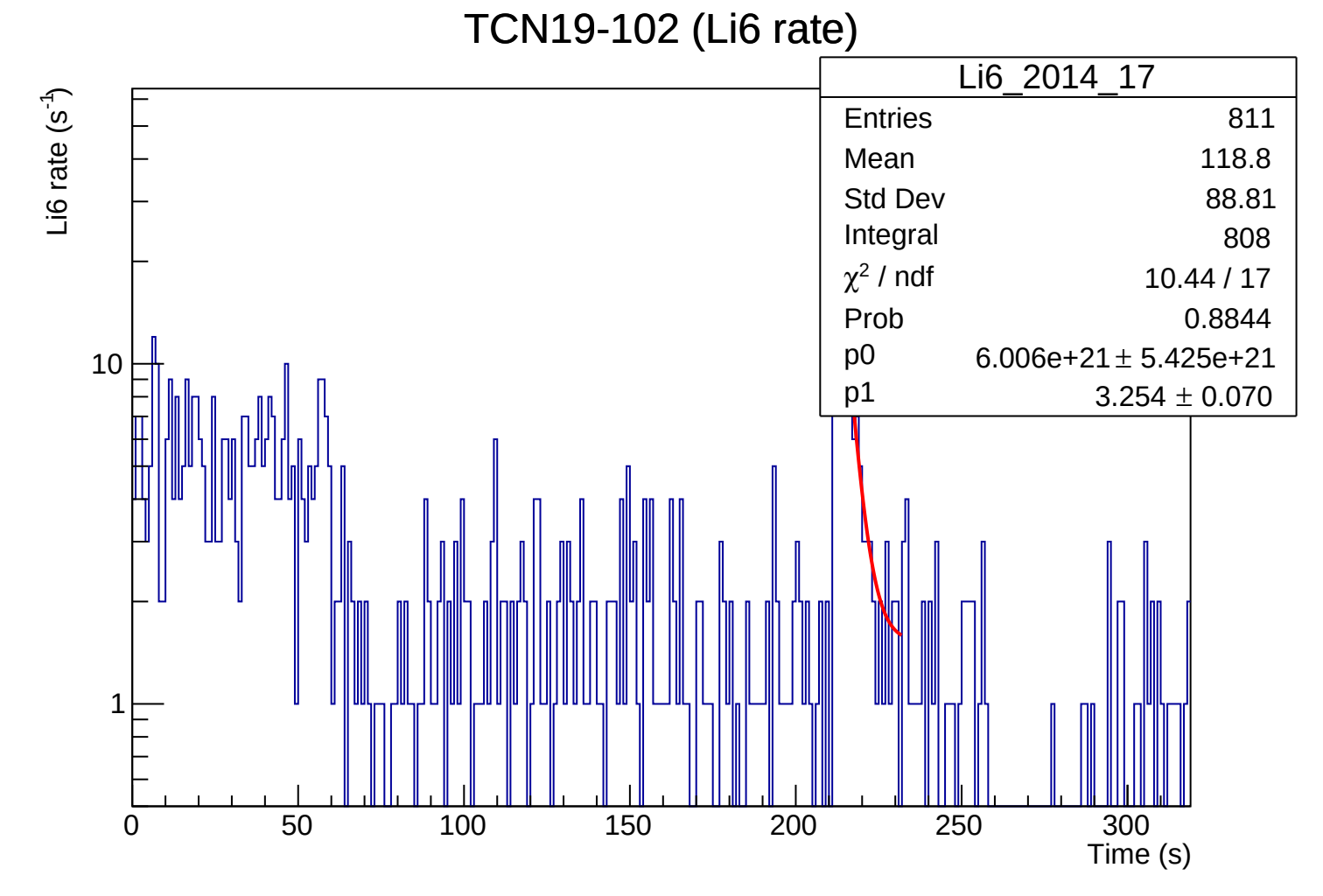

TCN19-102 (Li6 rate)
Li6_2014_10
Entries 1126
Mean 130.6
Std Dev 80.41
Integral 1122
χ2 / ndf 11.52 / 14
Prob 0.6446
p0 2.224e+19 ± 6.443e+18
p1 2.57 ± 0.02
Li6 rate (s-1)
10^2
10
1
0
50
100
150
200
250
300
Time (s)

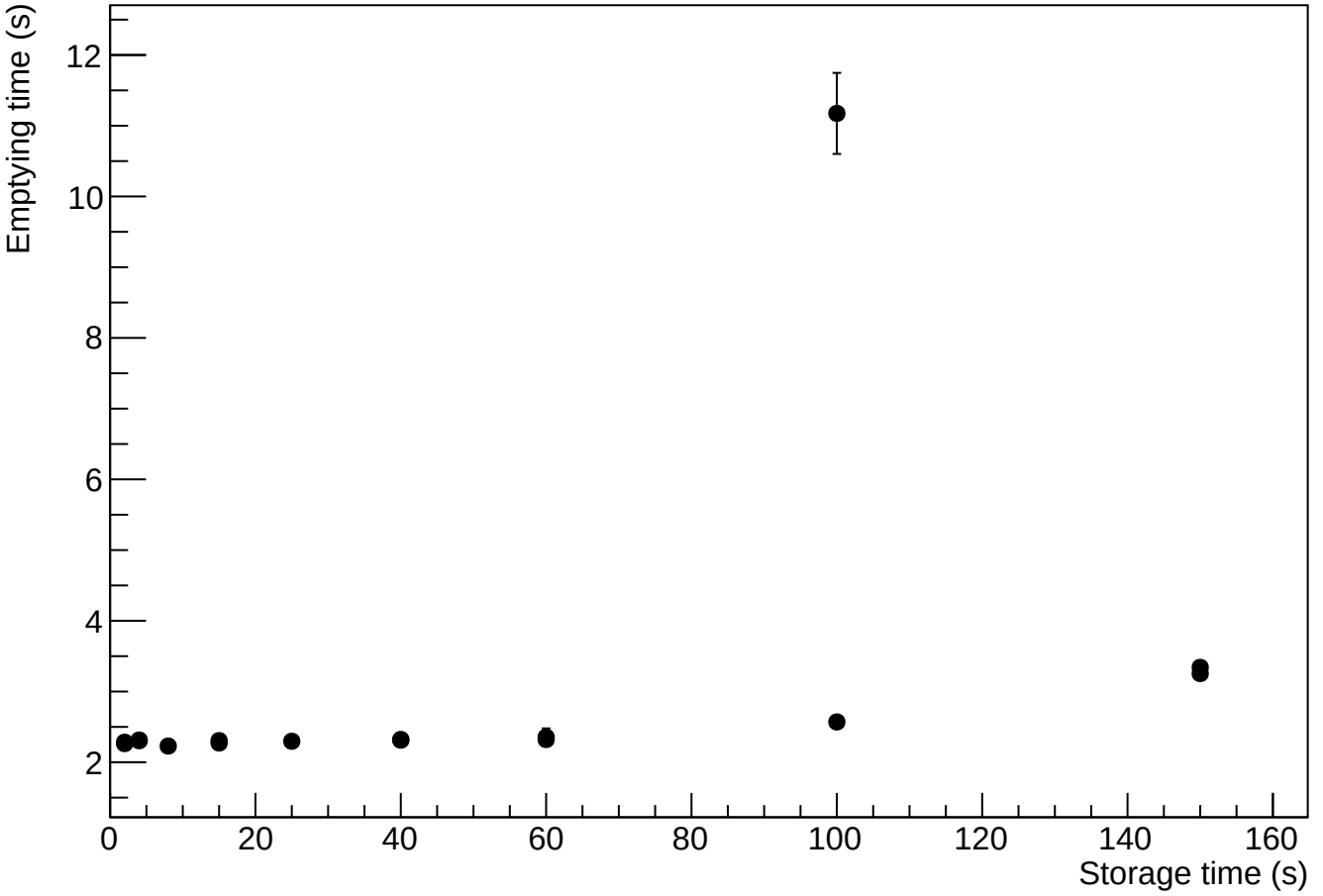

TCN19-102 (Li6 rate)
Li6_2014_12
Entries 1847
Mean 120.3
Std Dev 62.77
Integral 1846
χ² / ndf 17.35 / 16
Prob 0.3634
p0 9.163e+13 ± 1.262e+14
p1 2.355 ± 0.119
Li6 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

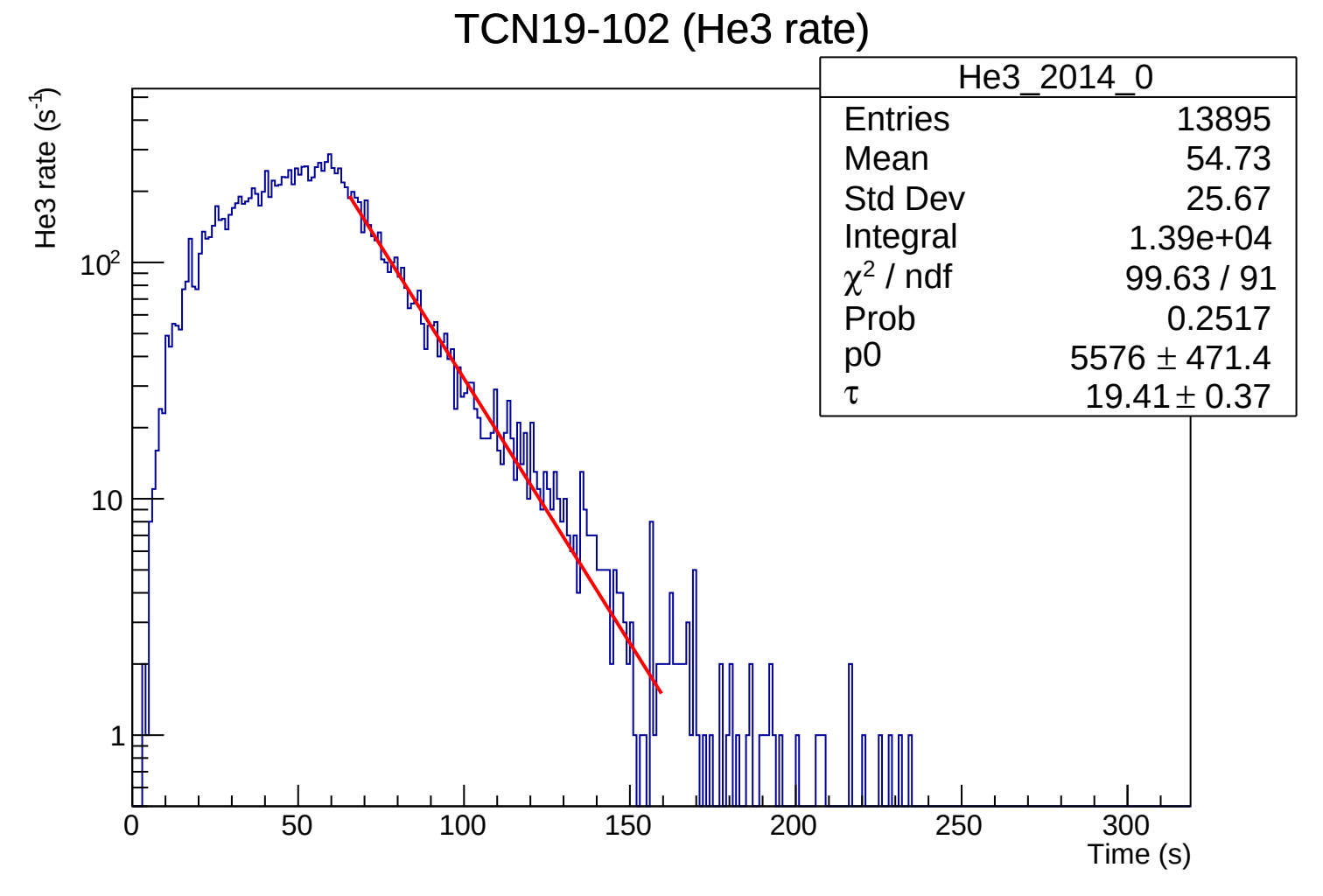

TCN19-102 (Li6 rate)
Li6_2014_14
Entries 2277
Mean 106.4
Std Dev 53.54
Integral 2274
χ² / ndf 16.08 / 18
Prob 0.5868
p0 3.996e+10 ± 2.864e+10
p1 2.312 ± 0.086
Li6 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

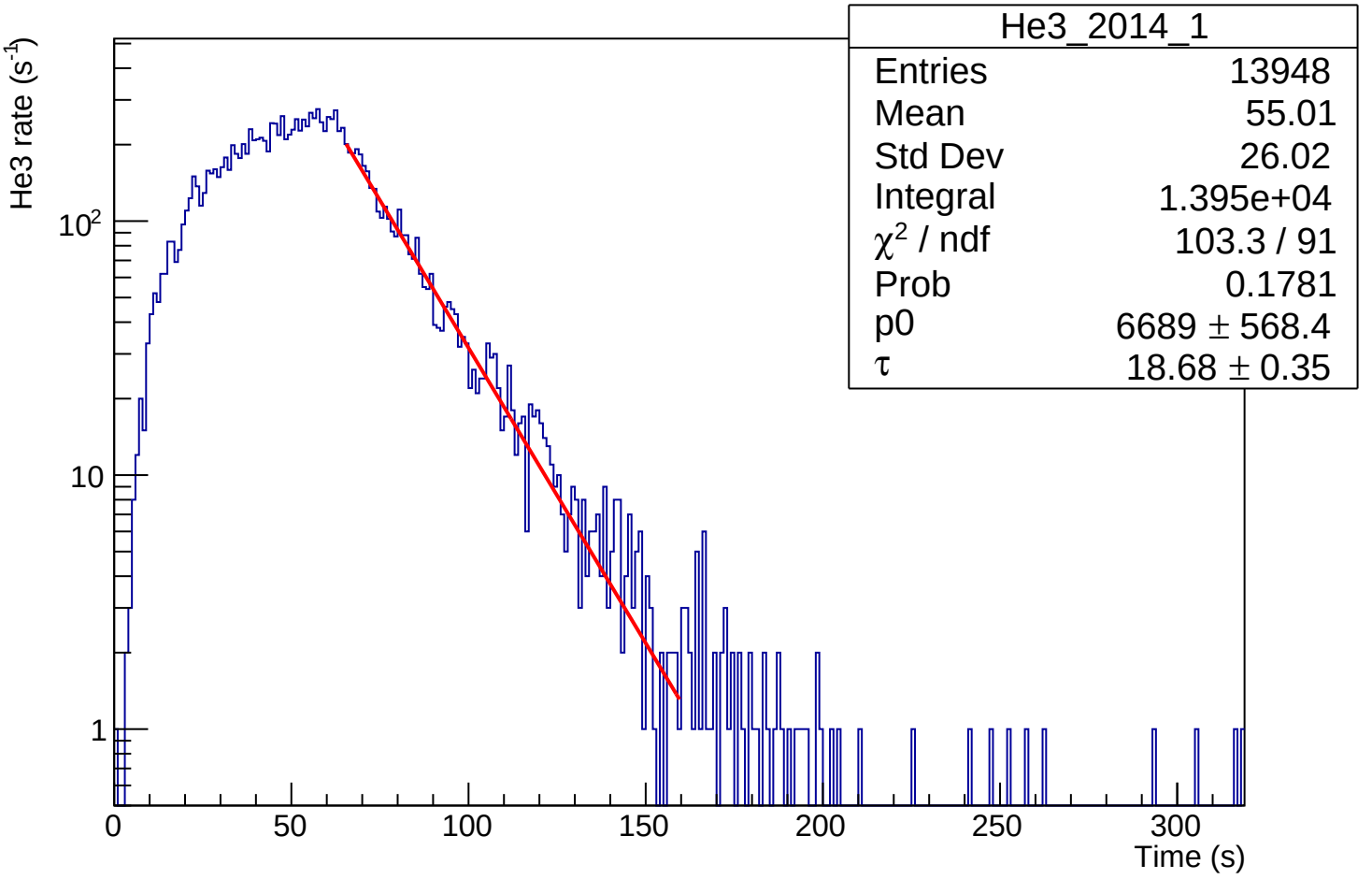

TCN19-102 (Li6 rate)
Li6_2014_15
Entries 3526
Mean 85.45
Std Dev 45.42
Integral 3524
χ2 / ndf 24.76 / 18
Prob 0.1316
p0 1.476e+06 ± 3.174e+05
p1 2.306 ± 0.059
Li6 rate (s-1)
10^3
10^2
10
1
0
50
100
150
200
250
300
Time (s)

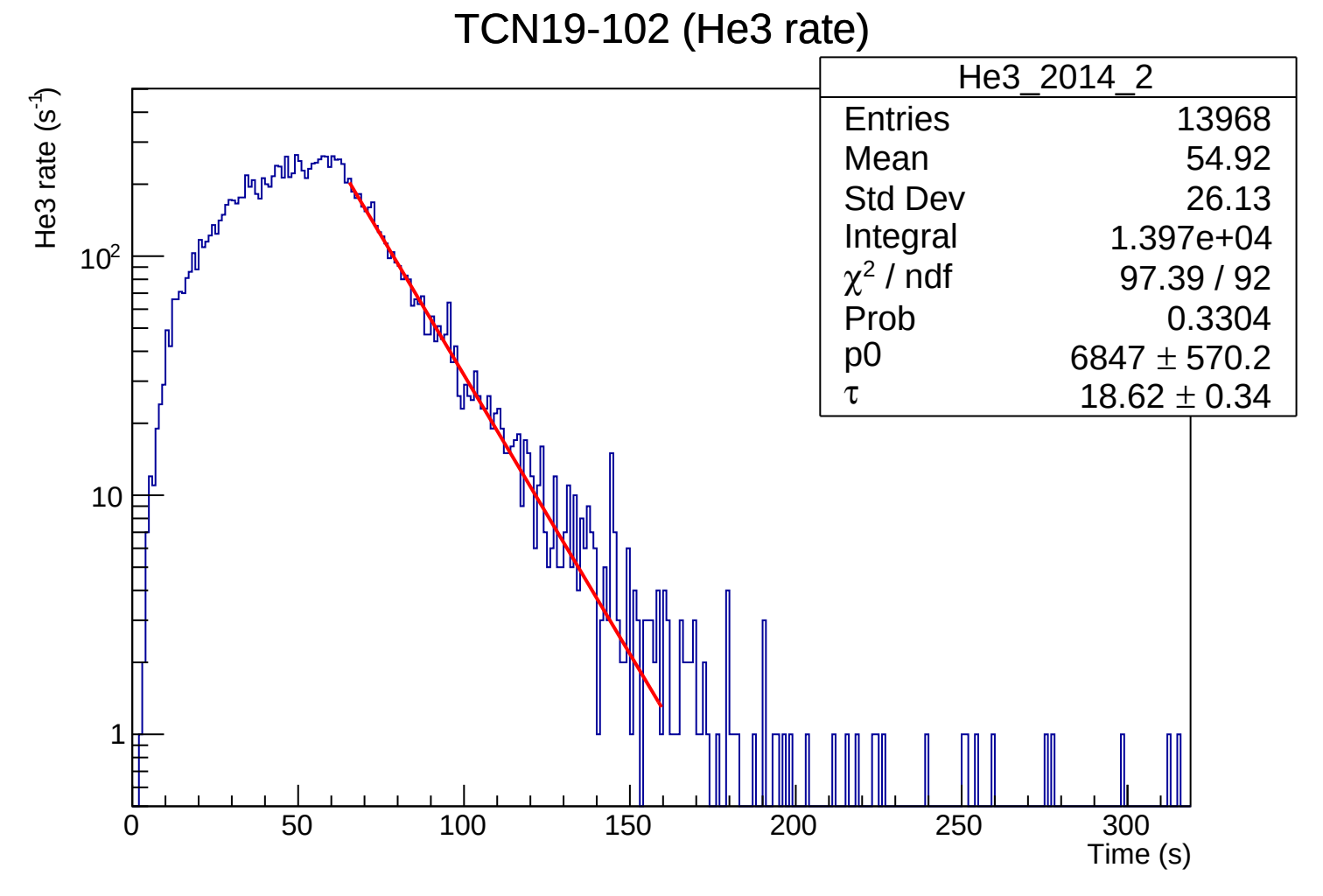

TCN19-102 (Li6 rate)
Li6_2014_16
Entries 4447
Mean 75.19
Std Dev 42.83
Integral 4447
χ2 / ndf 16.6 / 18
Prob 0.551
p0 1.635e+04 ± 1.320e+03
p1 2.314 ± 0.051
Li6 rate (s-1)
10^3
10^2
10
1
0
50
100
150
200
250
300
Time (s)

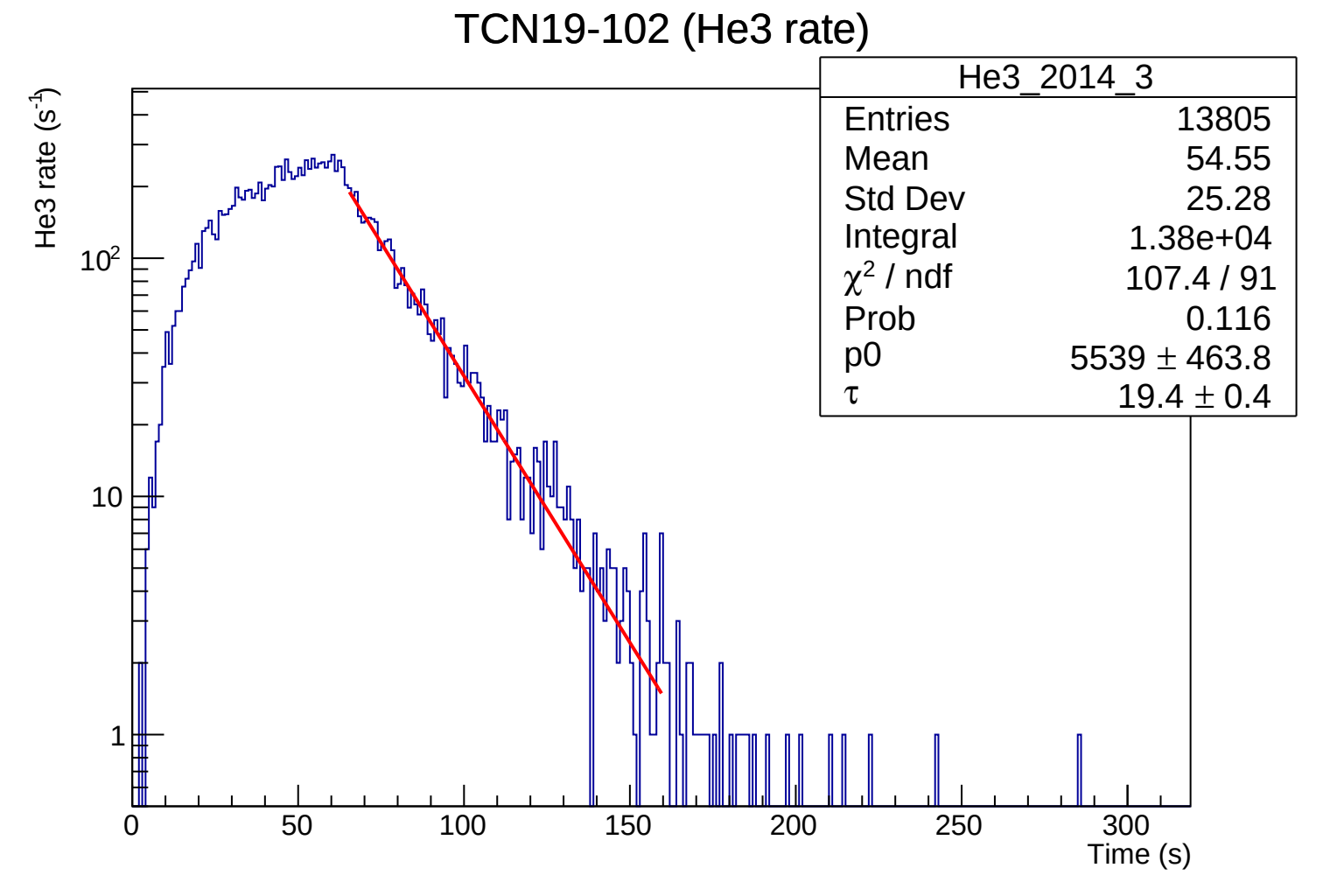

TCN19-102 (Li6 rate)
Li6_2014_17
Entries 811
Mean 118.8
Std Dev 88.81
Integral 808
χ² / ndf 10.44 / 17
Prob 0.8844
p0 6.006e+21 ± 5.425e+21
p1 3.254 ± 0.070
Li6 rate (s⁻¹)
10
1
0
50
100
150
200
250
300
Time (s)

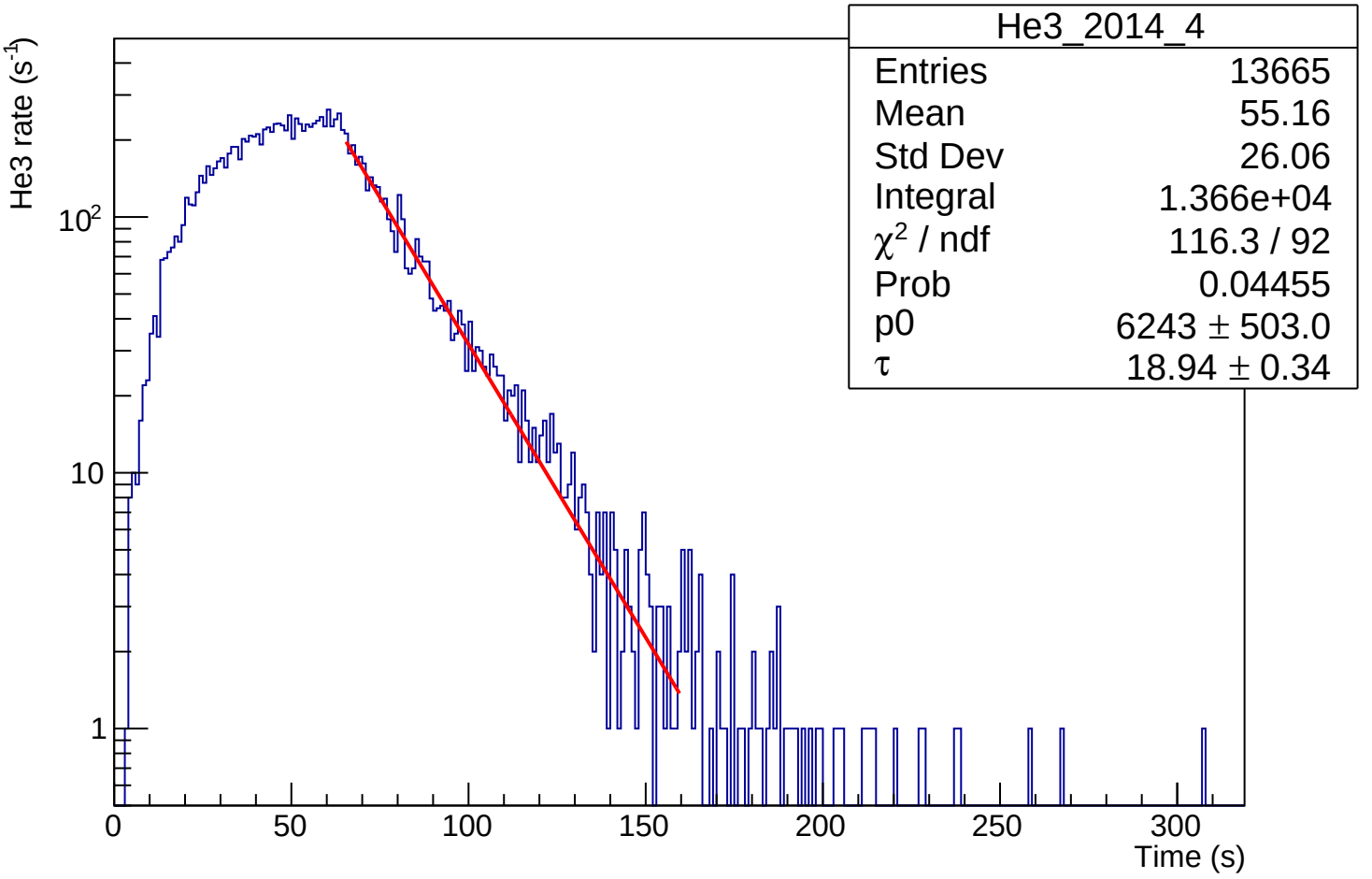

Emptying time (s)
12
10
8
6
4
2
0
20
40
60
80
100
120
140
160
Storage time (s)

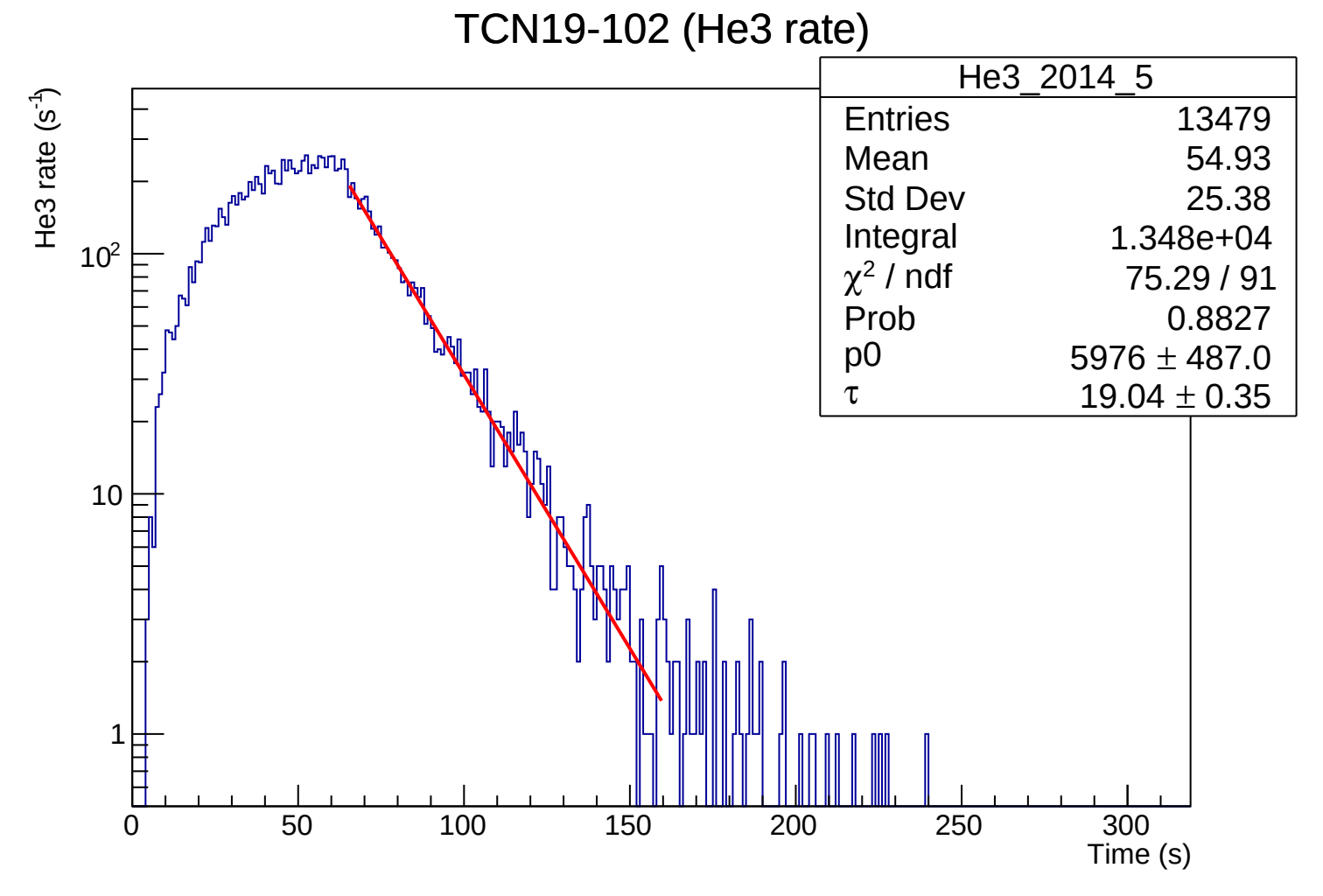

TCN19-102 (He3 rate)
He3_2014_0
Entries 13895
Mean 54.73
Std Dev 25.67
Integral 1.39e+04
χ² / ndf 99.63 / 91
Prob 0.2517
p0 5576 ± 471.4
τ 19.41 ± 0.37
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

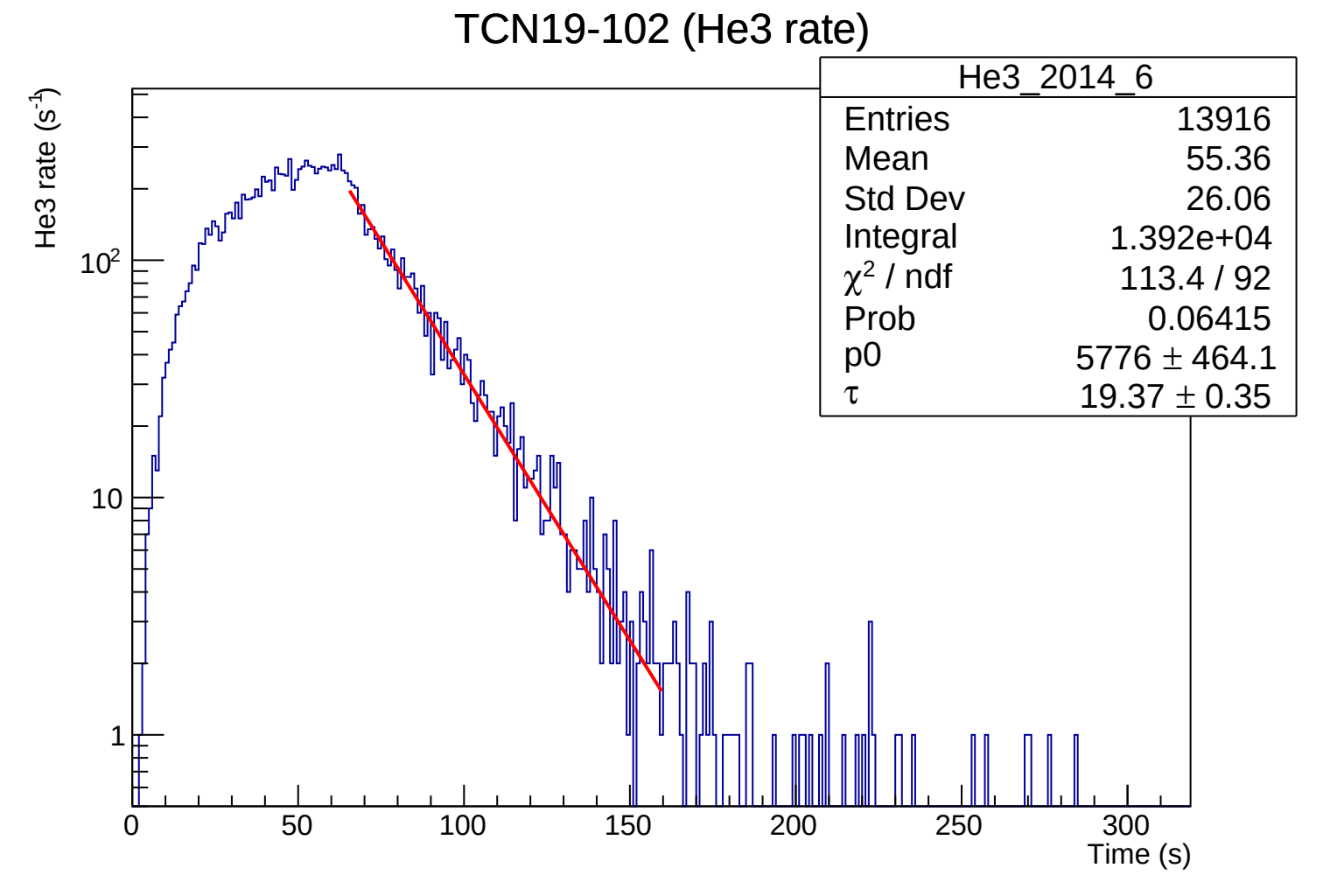

TCN19-102 (He3 rate)
He3_2014_1
Entries 13948
Mean 55.01
Std Dev 26.02
Integral 1.395e+04
χ² / ndf 103.3 / 91
Prob 0.1781
p0 6689 ± 568.4
τ 18.68 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

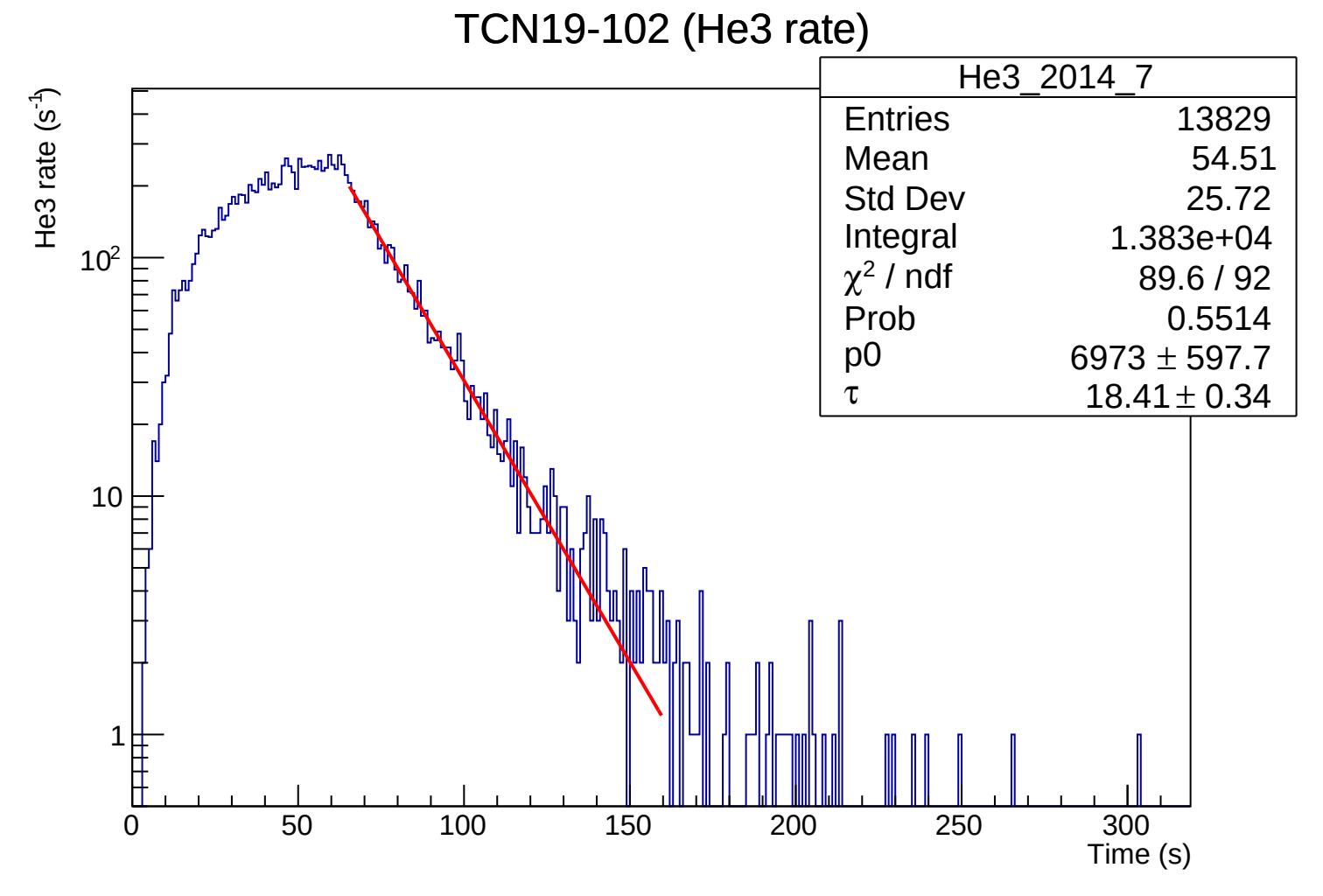

TCN19-102 (He3 rate)
He3_2014_2
Entries 13968
Mean 54.92
Std Dev 26.13
Integral 1.397e+04
χ² / ndf 97.39 / 92
Prob 0.3304
p0 6847 ± 570.2
τ 18.62 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

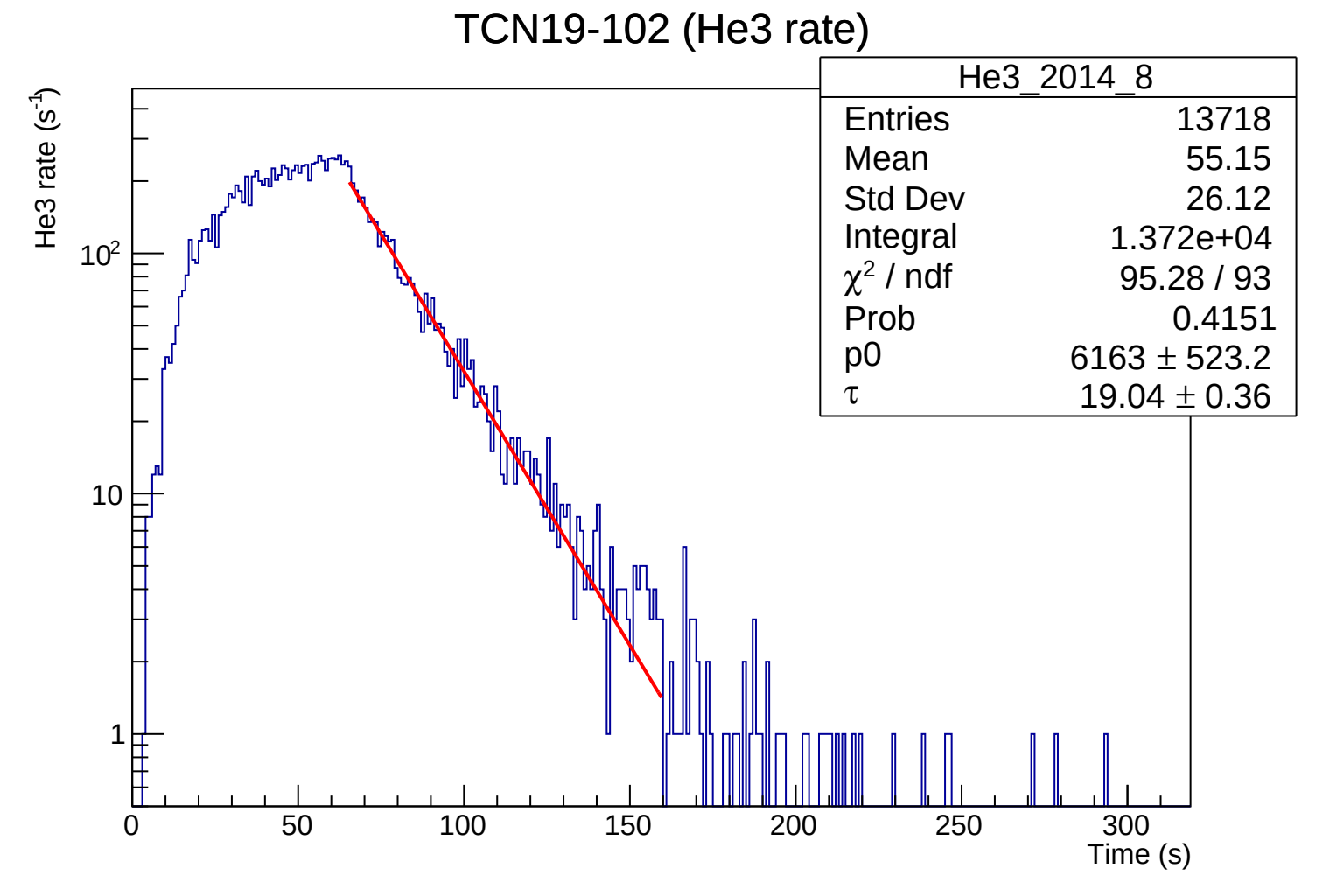

TCN19-102 (He3 rate)
He3_2014_3
Entries 13805
Mean 54.55
Std Dev 25.28
Integral 1.38e+04
χ² / ndf 107.4 / 91
Prob 0.116
p0 5539 ± 463.8
τ 19.4 ± 0.4
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

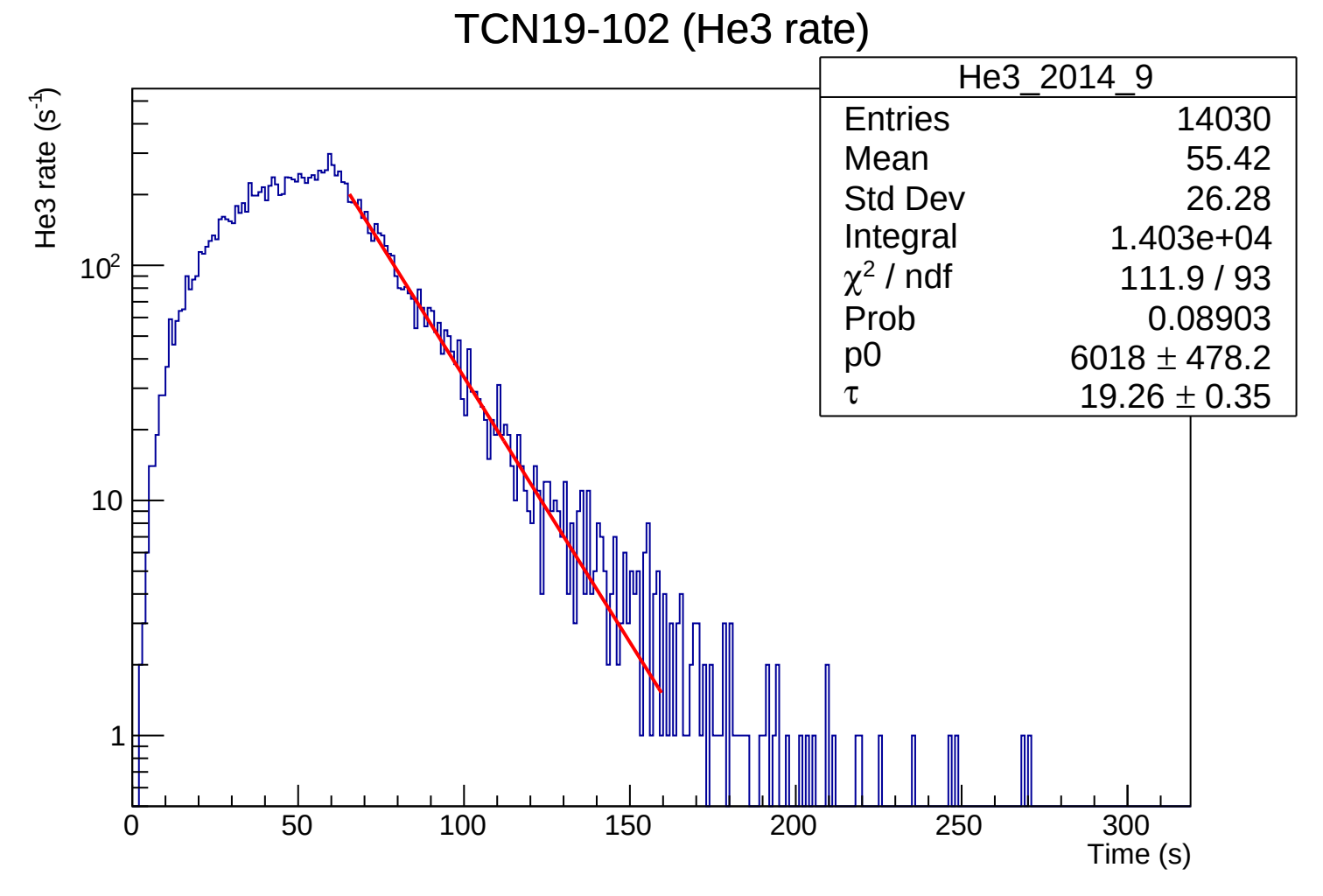

TCN19-102 (He3 rate)
He3_2014_4
Entries 13665
Mean 55.16
Std Dev 26.06
Integral 1.366e+04
χ² / ndf 116.3 / 92
Prob 0.04455
p0 6243 ± 503.0
τ 18.94 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

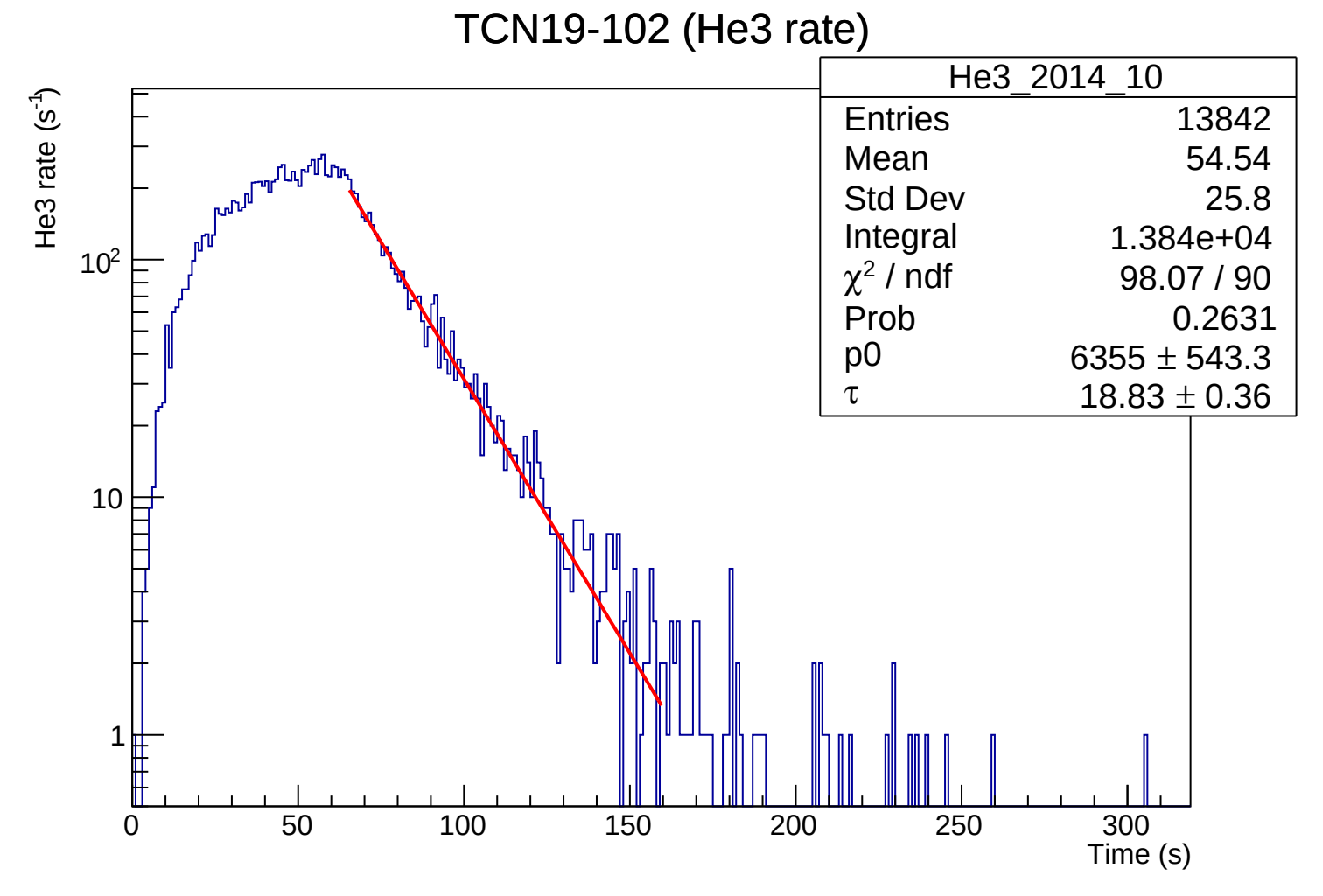

TCN19-102 (He3 rate)
He3_2014_5
Entries 13479
Mean 54.93
Std Dev 25.38
Integral 1.348e+04
χ² / ndf 75.29 / 91
Prob 0.8827
p0 5976 ± 487.0
τ 19.04 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

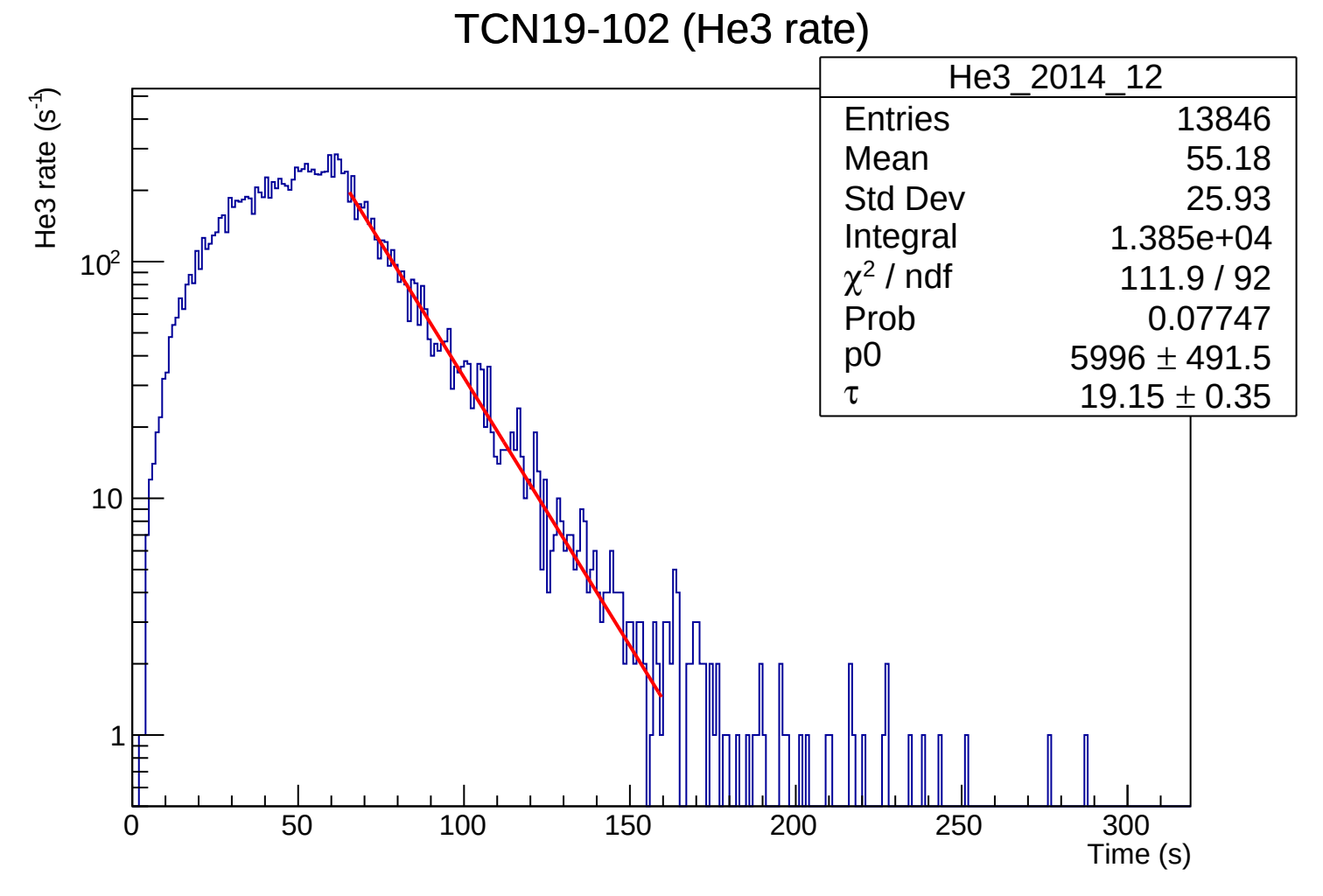

TCN19-102 (He3 rate)
He3_2014_6
Entries 13916
Mean 55.36
Std Dev 26.06
Integral 1.392e+04
χ² / ndf 113.4 / 92
Prob 0.06415
p0 5776 ± 464.1
τ 19.37 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

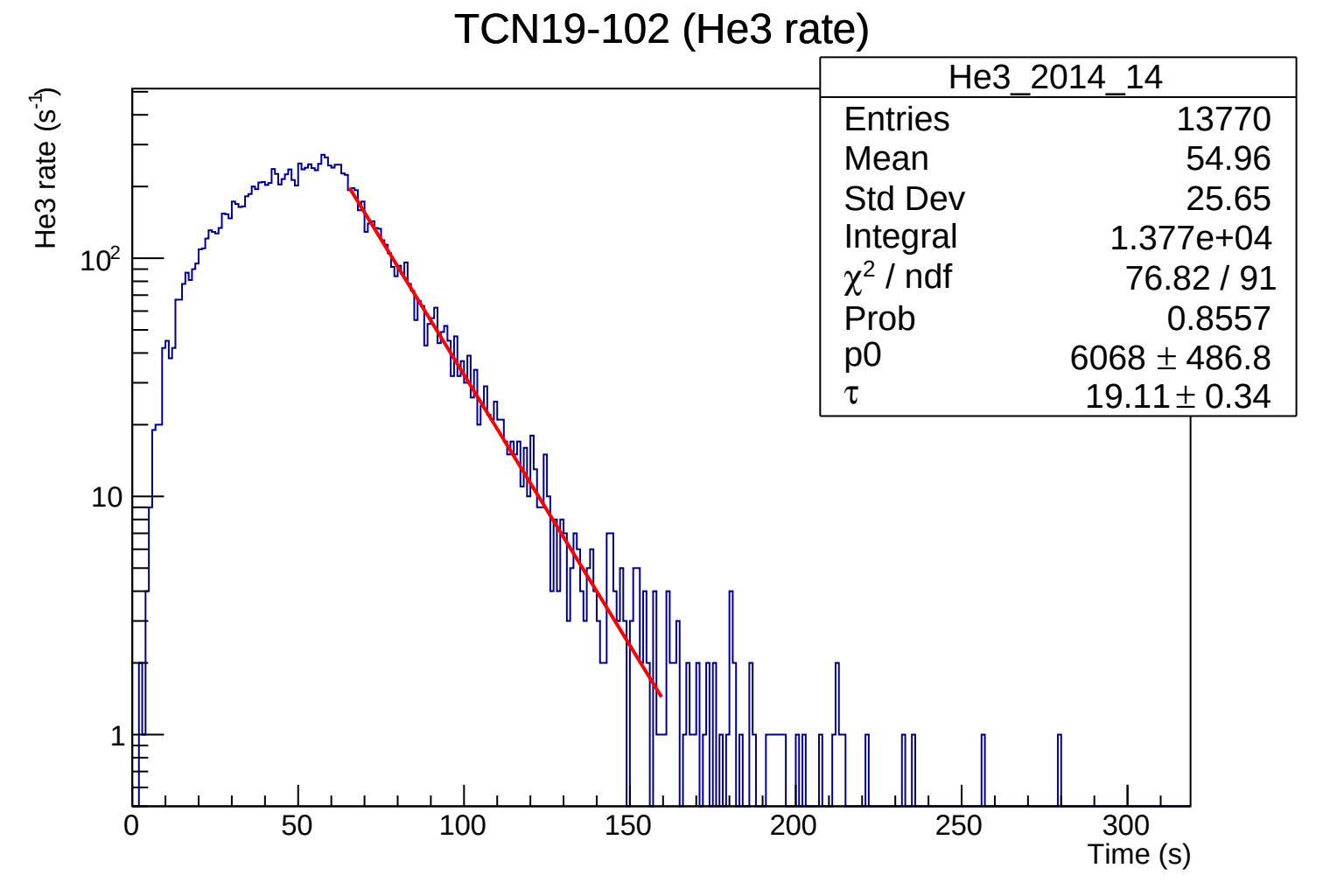

TCN19-102 (He3 rate)
He3_2014_7
Entries 13829
Mean 54.51
Std Dev 25.72
Integral 1.383e+04
χ² / ndf 89.6 / 92
Prob 0.5514
p0 6973 ± 597.7
τ 18.41 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

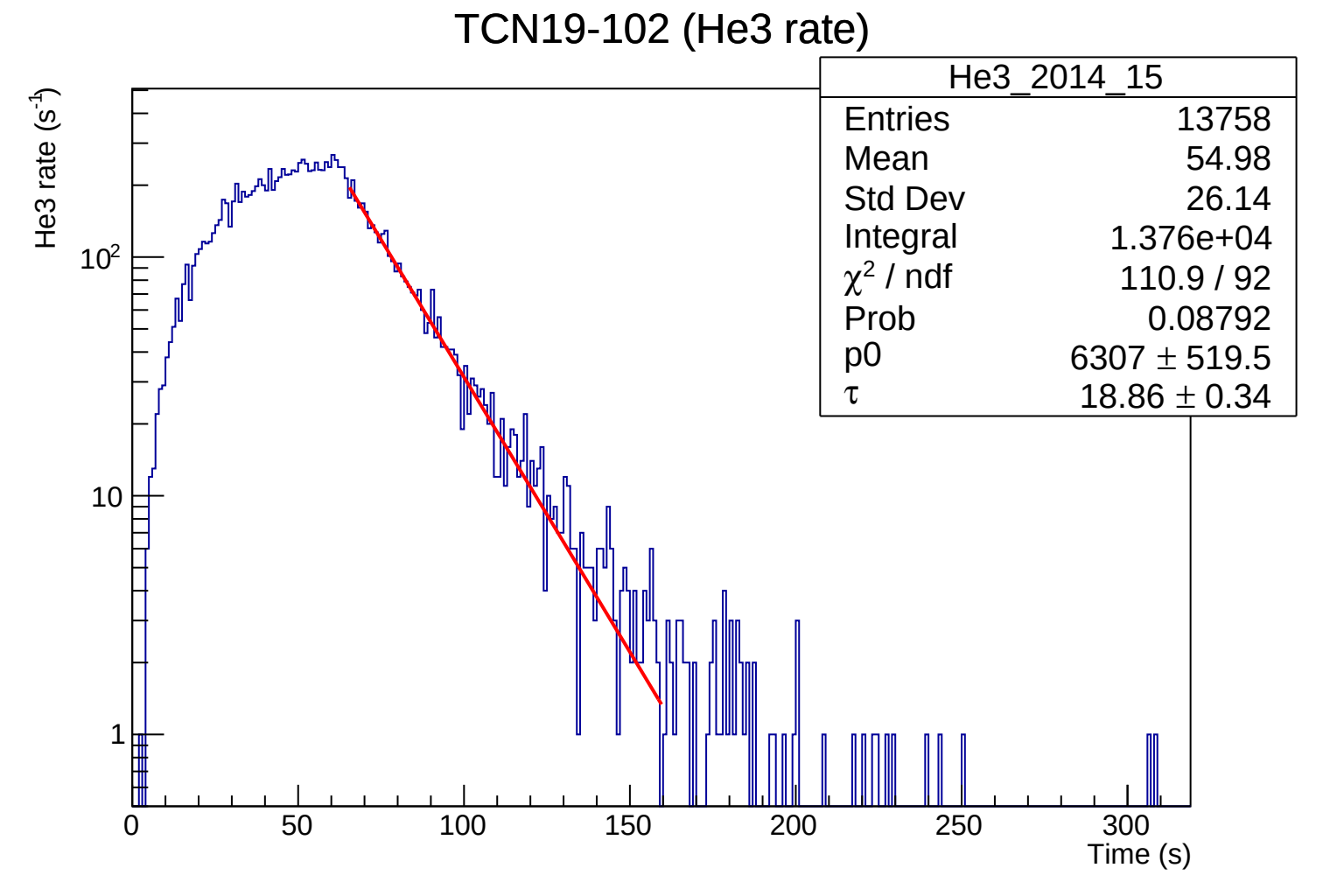

TCN19-102 (He3 rate)
He3_2014_8
Entries 13718
Mean 55.15
Std Dev 26.12
Integral 1.372e+04
χ² / ndf 95.28 / 93
Prob 0.4151
p0 6163 ± 523.2
τ 19.04 ± 0.36
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

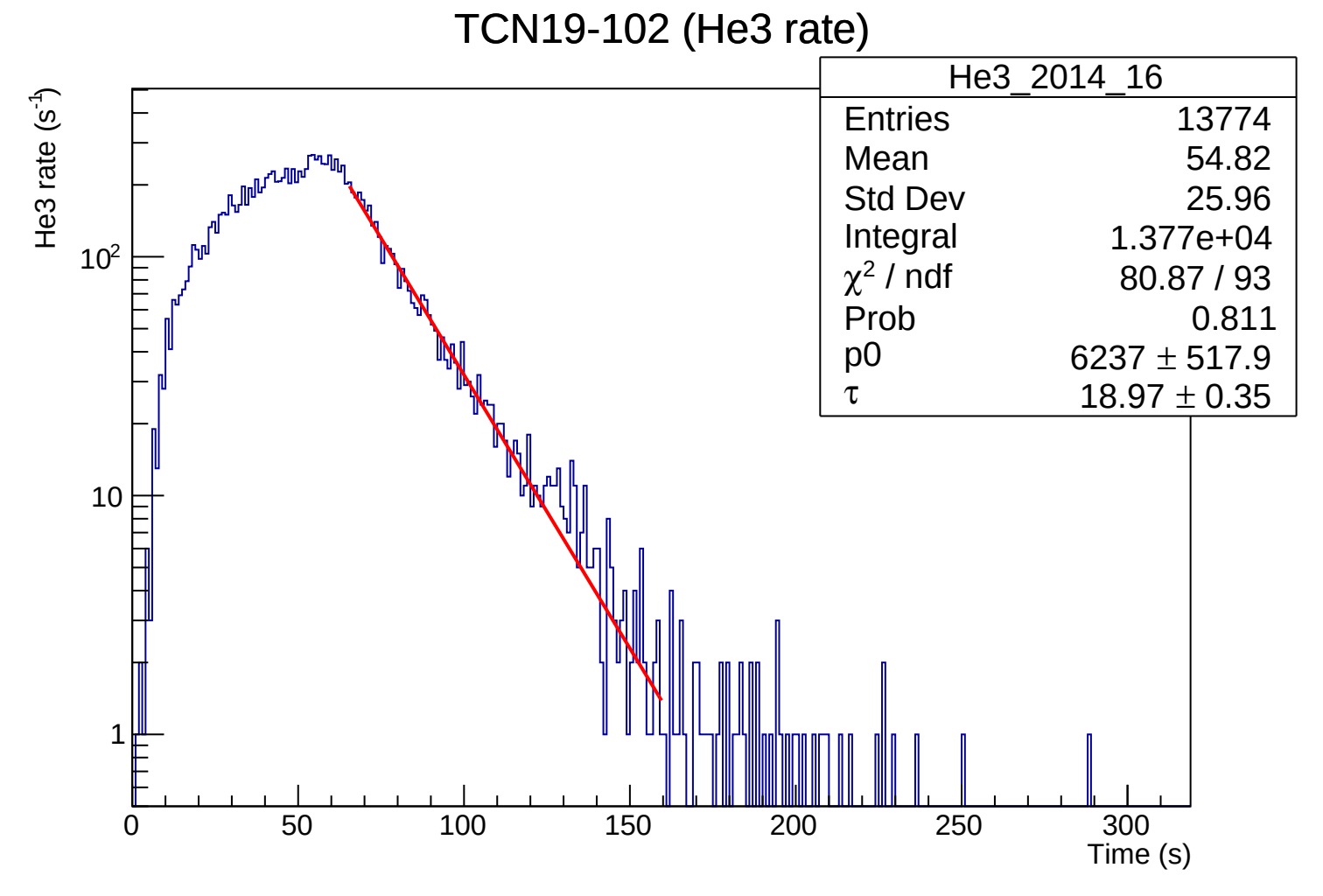

TCN19-102 (He3 rate)
He3_2014_9
Entries 14030
Mean 55.42
Std Dev 26.28
Integral 1.403e+04
χ² / ndf 111.9 / 93
Prob 0.08903
p0 6018 ± 478.2
τ 19.26 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

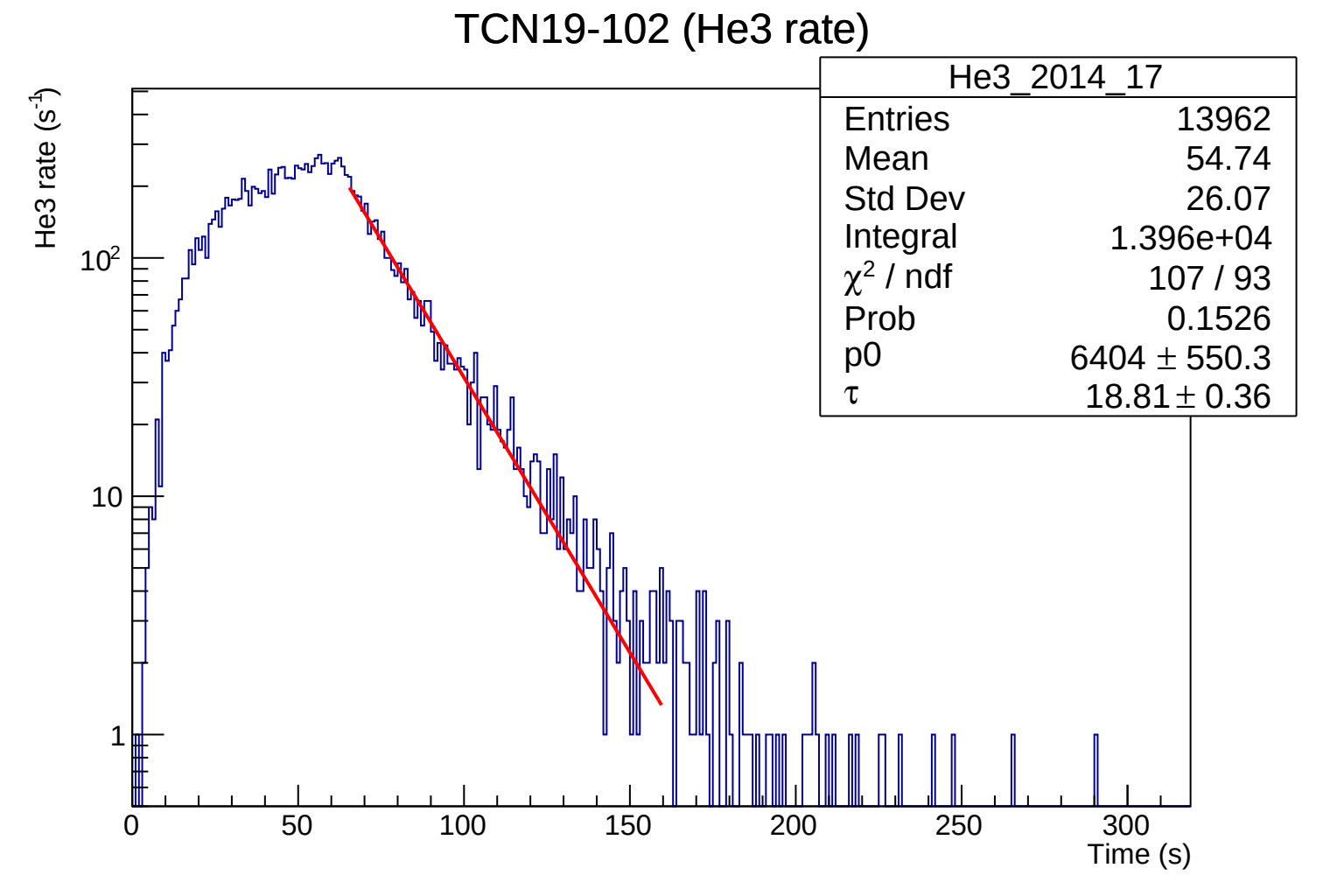

TCN19-102 (He3 rate)
He3_2014_10
Entries 13842
Mean 54.54
Std Dev 25.8
Integral 1.384e+04
χ² / ndf 98.07 / 90
Prob 0.2631
p0 6355 ± 543.3
τ 18.83 ± 0.36
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

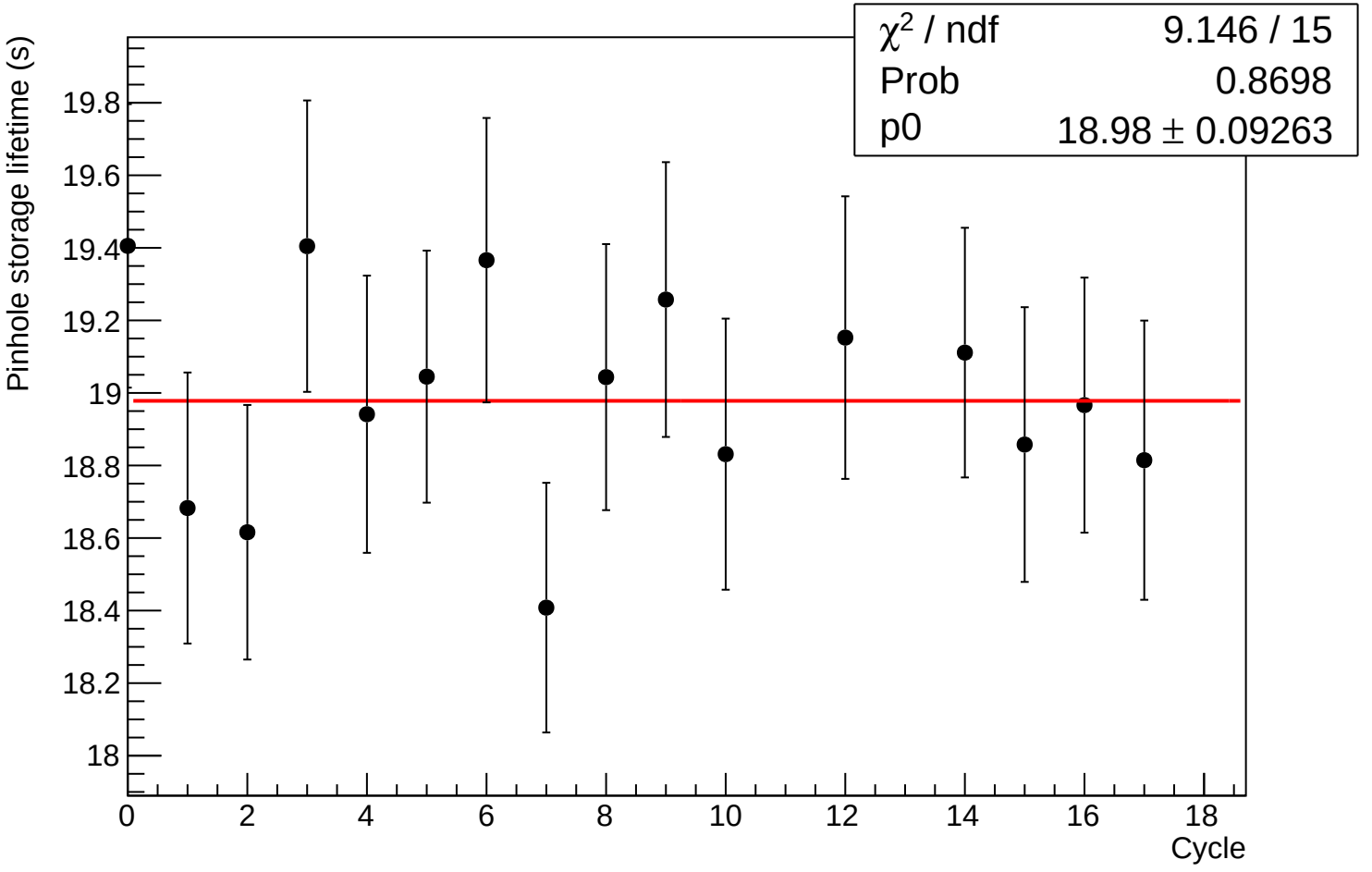

TCN19-102 (He3 rate)
He3_2014_12
Entries 13846
Mean 55.18
Std Dev 25.93
Integral 1.385e+04
χ² / ndf 111.9 / 92
Prob 0.07747
p0 5996 ± 491.5
τ 19.15 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

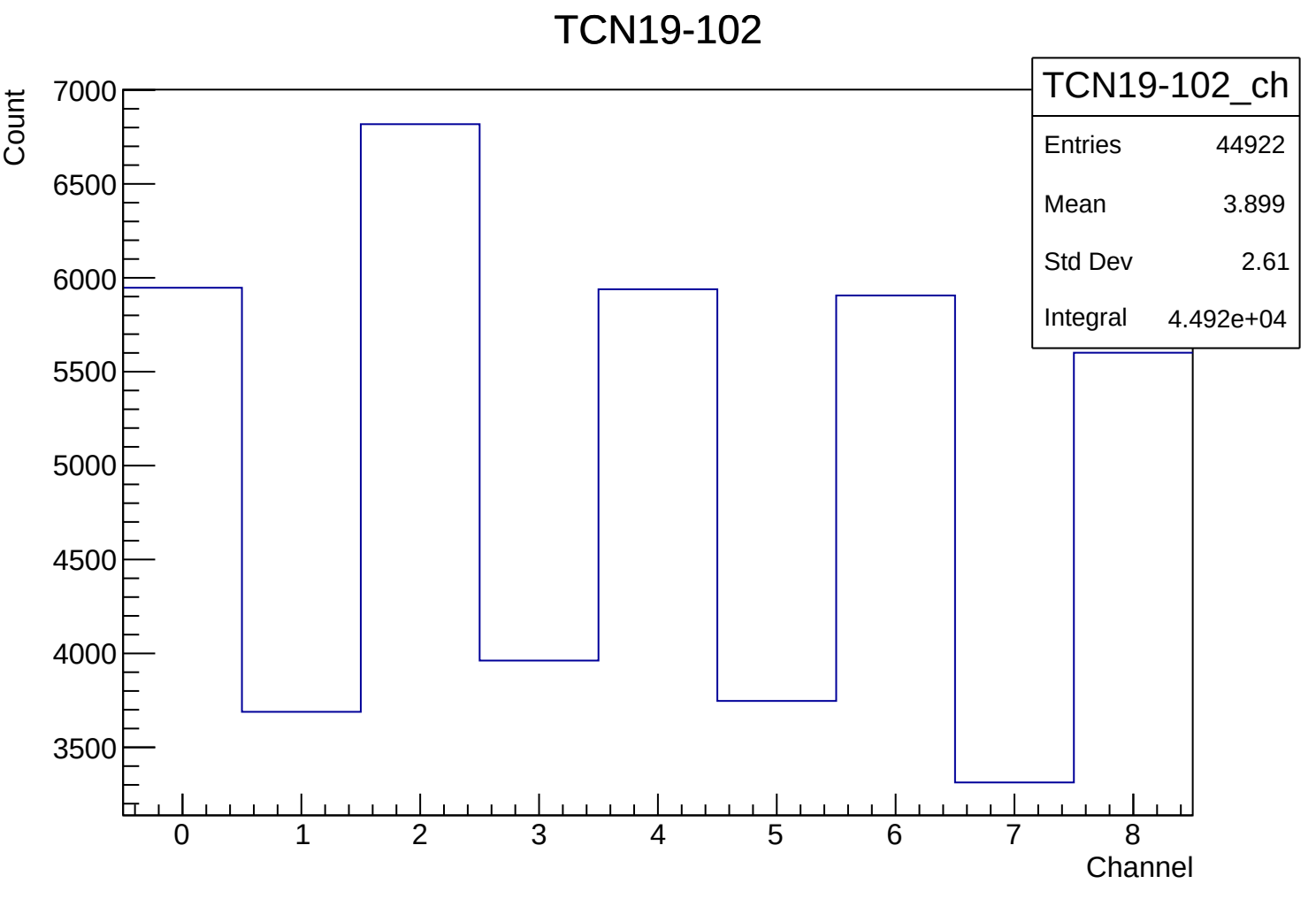

TCN19-102 (He3 rate)
He3_2014_14
Entries 13770
Mean 54.96
Std Dev 25.65
Integral 1.377e+04
χ² / ndf 76.82 / 91
Prob 0.8557
p0 6068 ± 486.8
τ 19.11 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


TCN19-102 (He3 rate)
He3_2014_15
Entries 13758
Mean 54.98
Std Dev 26.14
Integral 1.376e+04
χ² / ndf 110.9 / 92
Prob 0.08792
p0 6307 ± 519.5
τ 18.86 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


TCN19-102 (He3 rate)
He3_2014_16
Entries 13774
Mean 54.82
Std Dev 25.96
Integral 1.377e+04
χ² / ndf 80.87 / 93
Prob 0.811
p0 6237 ± 517.9
τ 18.97 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


TCN19-102 (He3 rate)
He3_2014_17
Entries 13962
Mean 54.74
Std Dev 26.07
Integral 1.396e+04
χ² / ndf 107 / 93
Prob 0.1526
p0 6404 ± 550.3
τ 18.81 ± 0.36
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


χ^2 / ndf 9.146 / 15
Prob 0.8698
p0 18.98 ± 0.09263
Pinhole storage lifetime (s)
19.8
19.6
19.4
19.2
19
18.8
18.6
18.4
18.2
18
0
2
4
6
8
10
12
14
16
18
Cycle


TCN19-102
TCN19-102_ch
Entries 44922
Mean 3.899
Std Dev 2.61
Integral 4.492e+04
Count
7000
6500
6000
5500
5000
4500
4000
3500
0
1
2
3
4
5
6
7
8
Channel