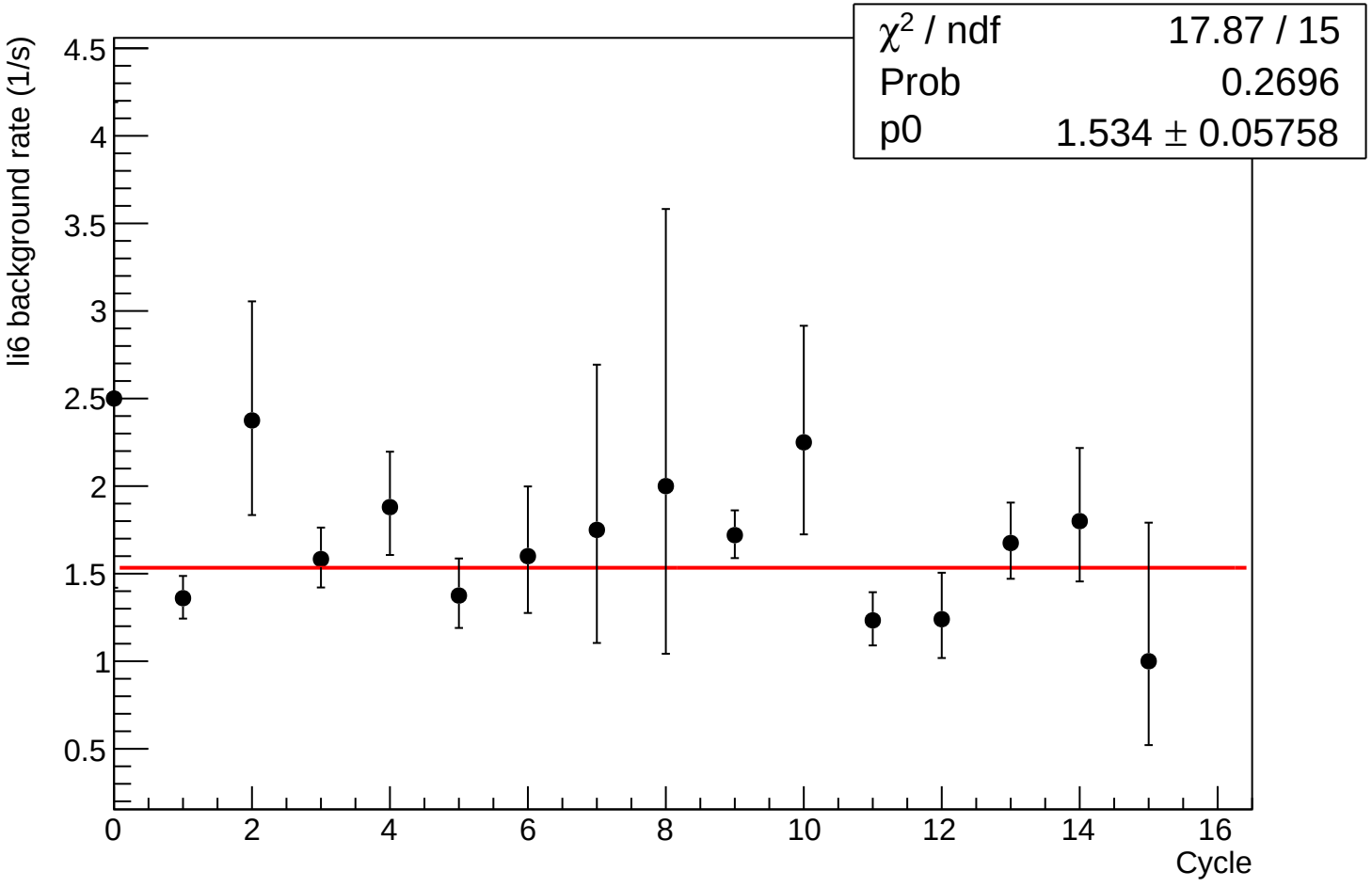
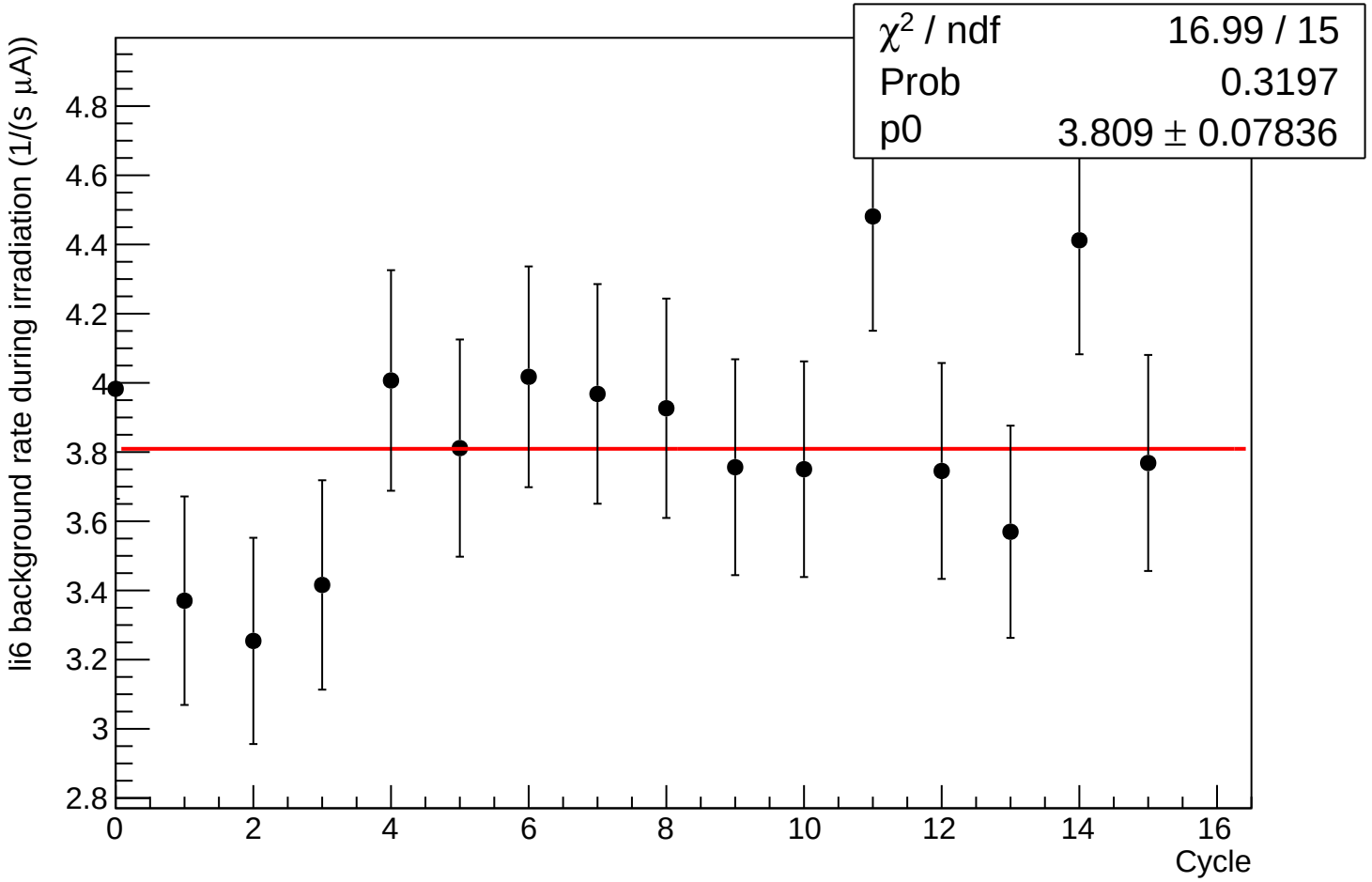
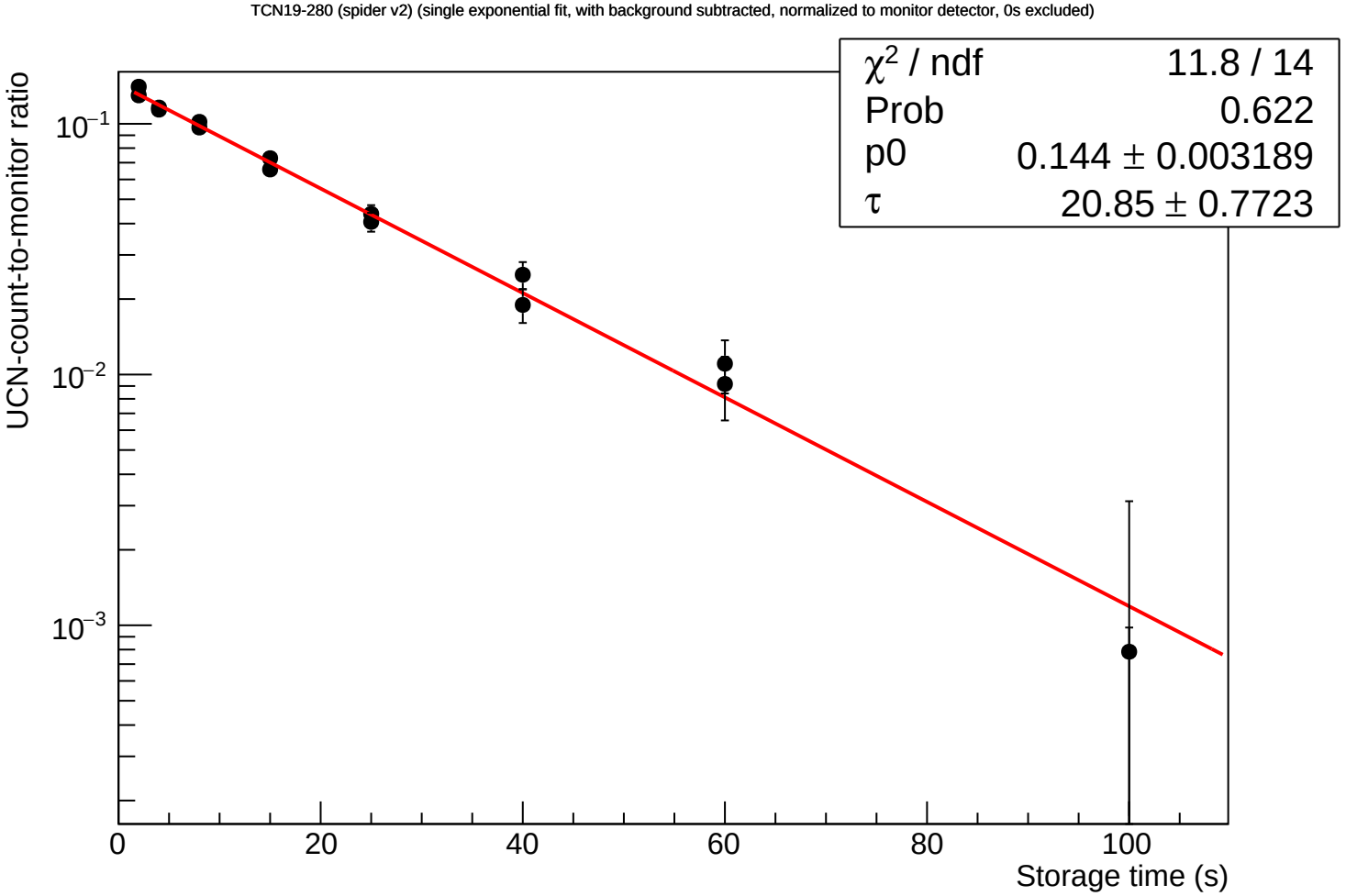
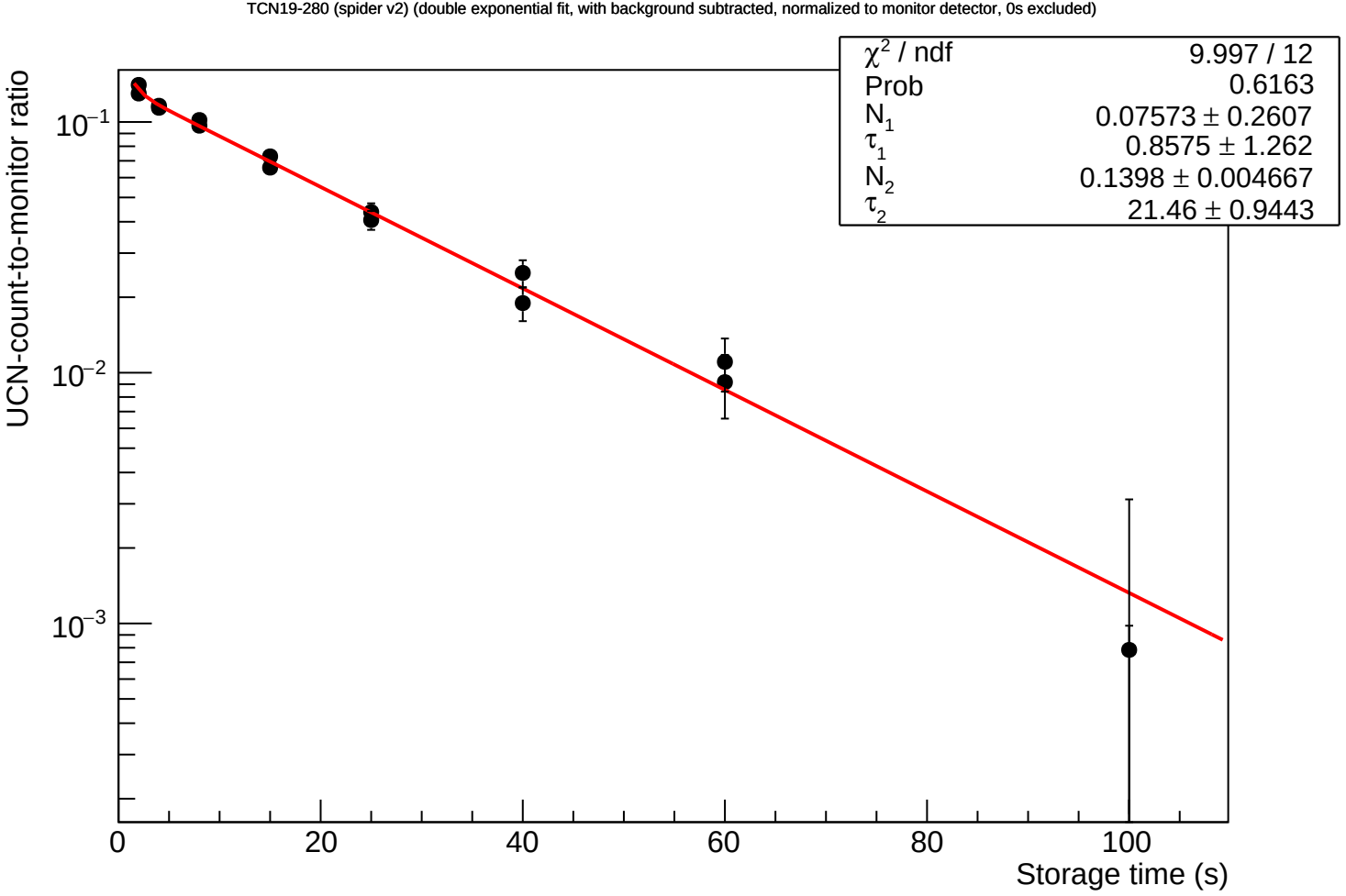
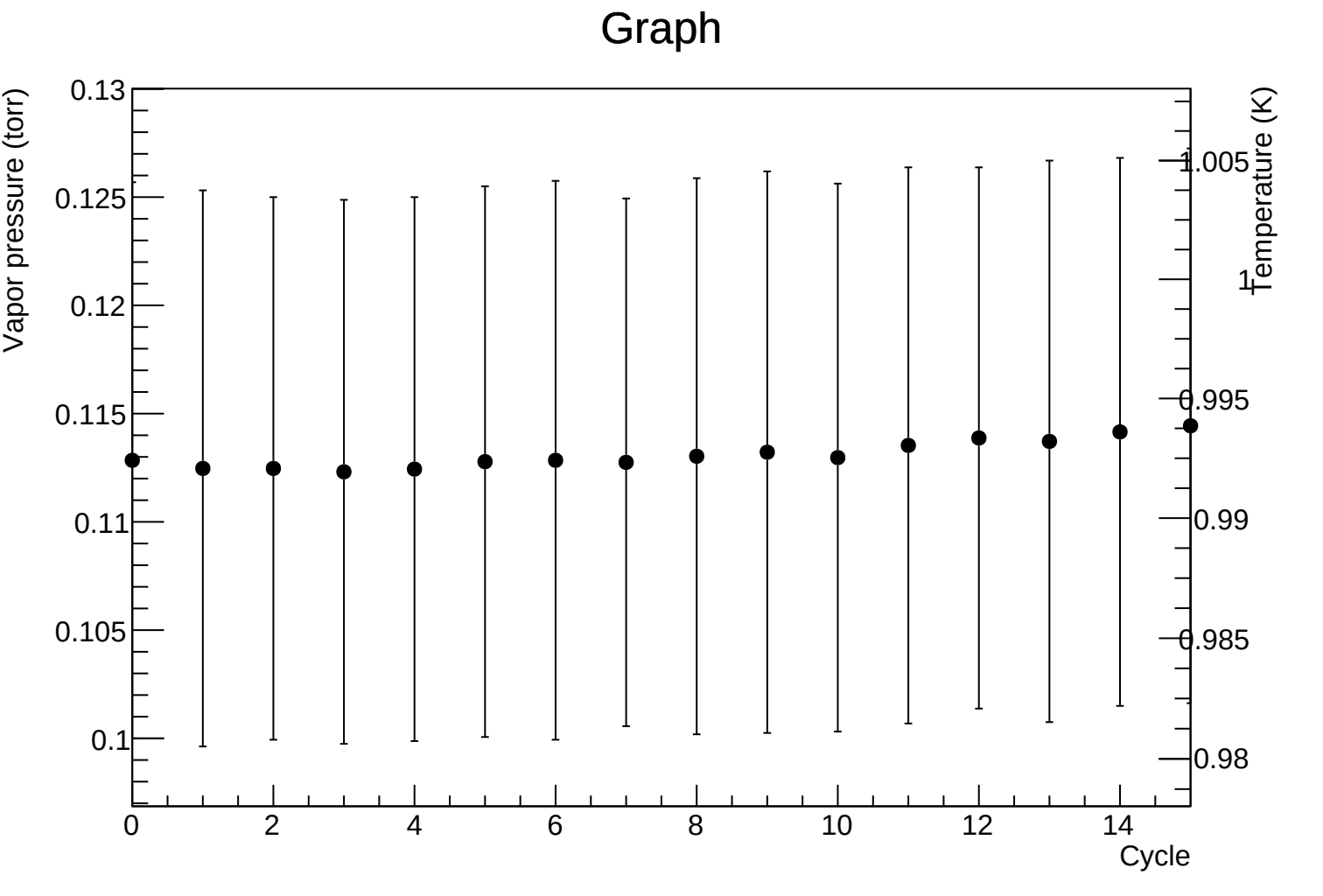
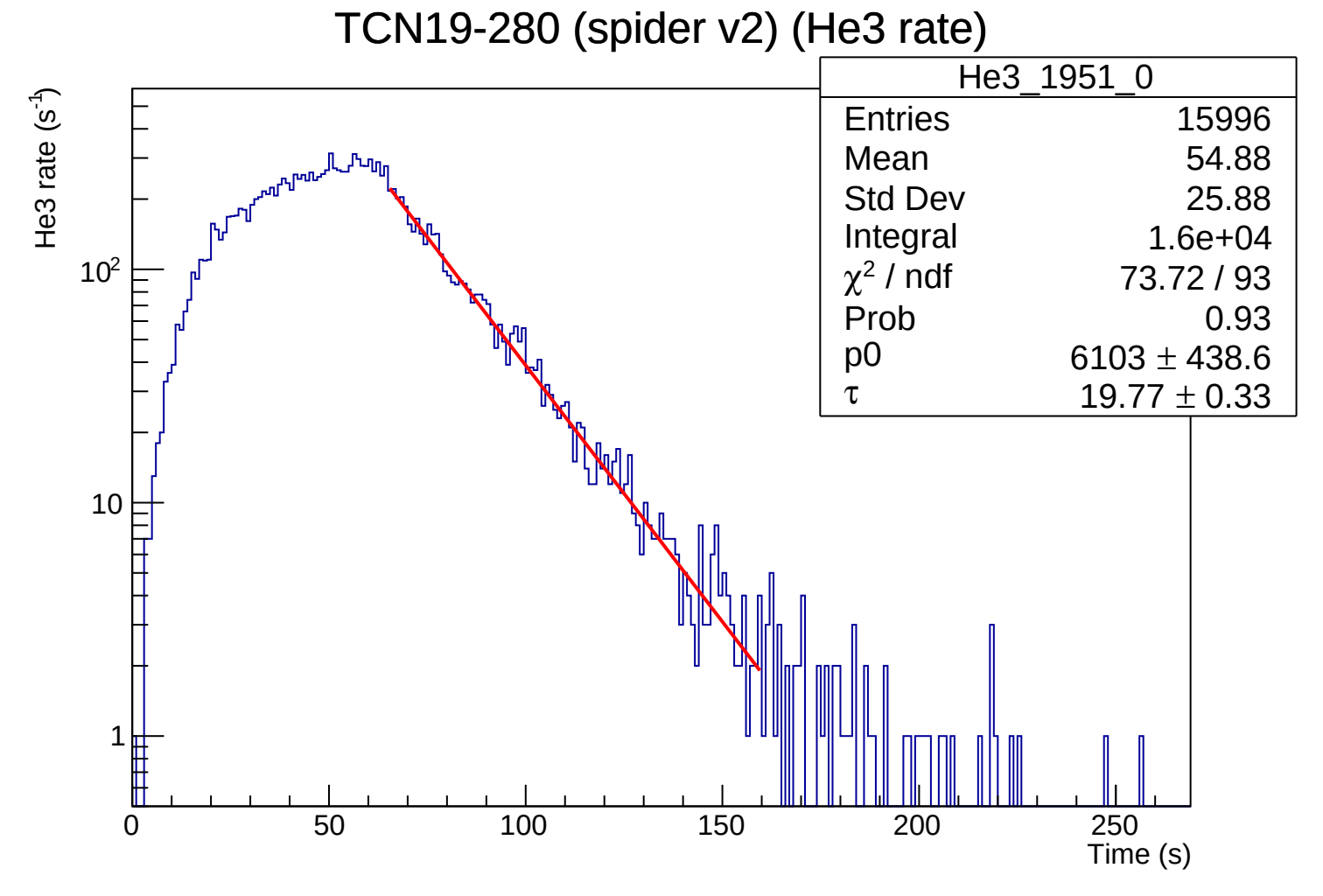

li6 background rate (1/s)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2
4
6
8
10
12
14
16
Cycle
χ² / ndf 17.87 / 15
Prob 0.2696
p0 1.534 ± 0.05758

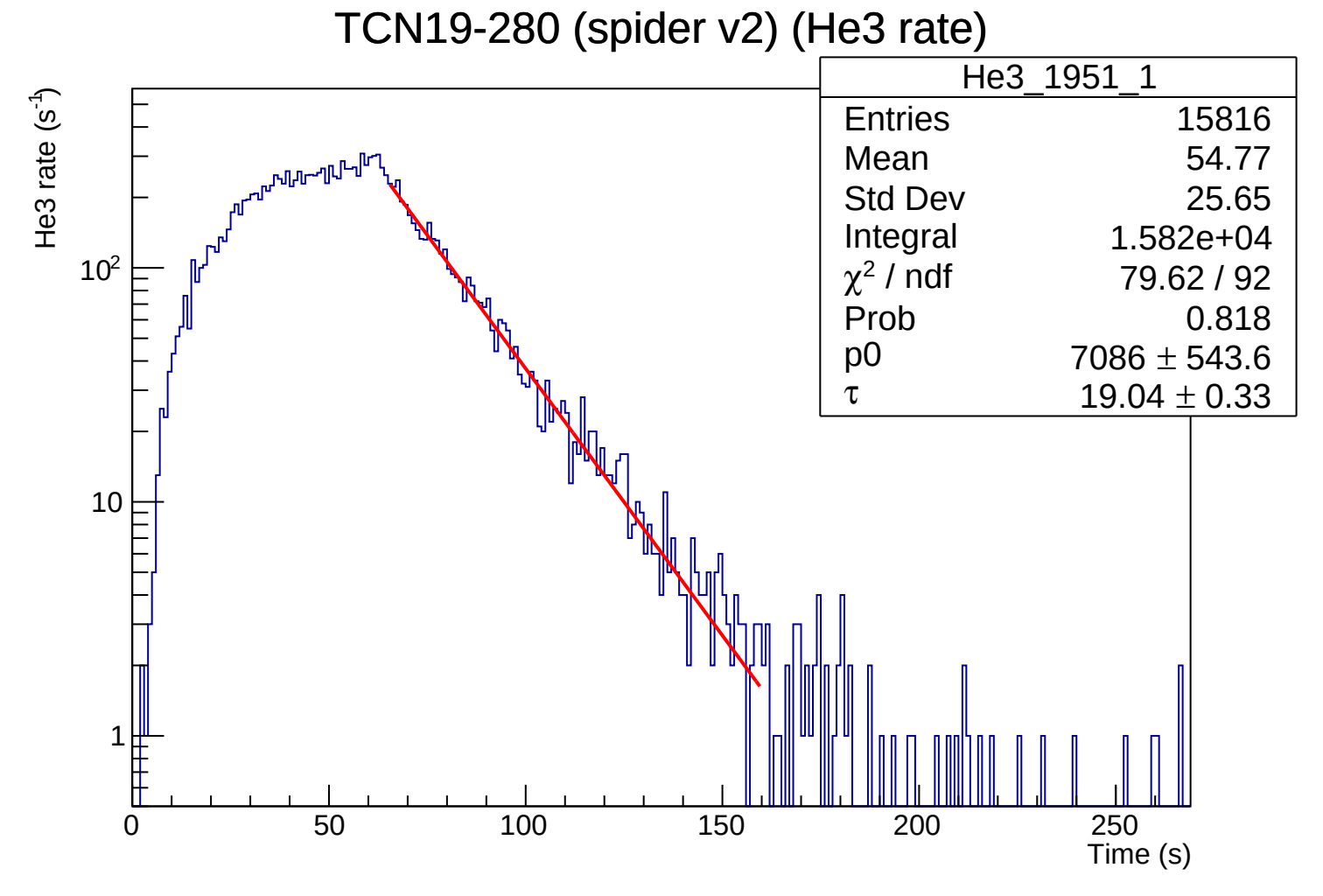

χ² / ndf 16.99 / 15
Prob 0.3197
p0 3.809 ± 0.07836
li6 background rate during irradiation (1/(s μA))
Cycle
2.8
3
3.2
3.4
3.6
3.8
4
4.2
4.4
4.6
4.8
0
2
4
6
8
10
12
14
16

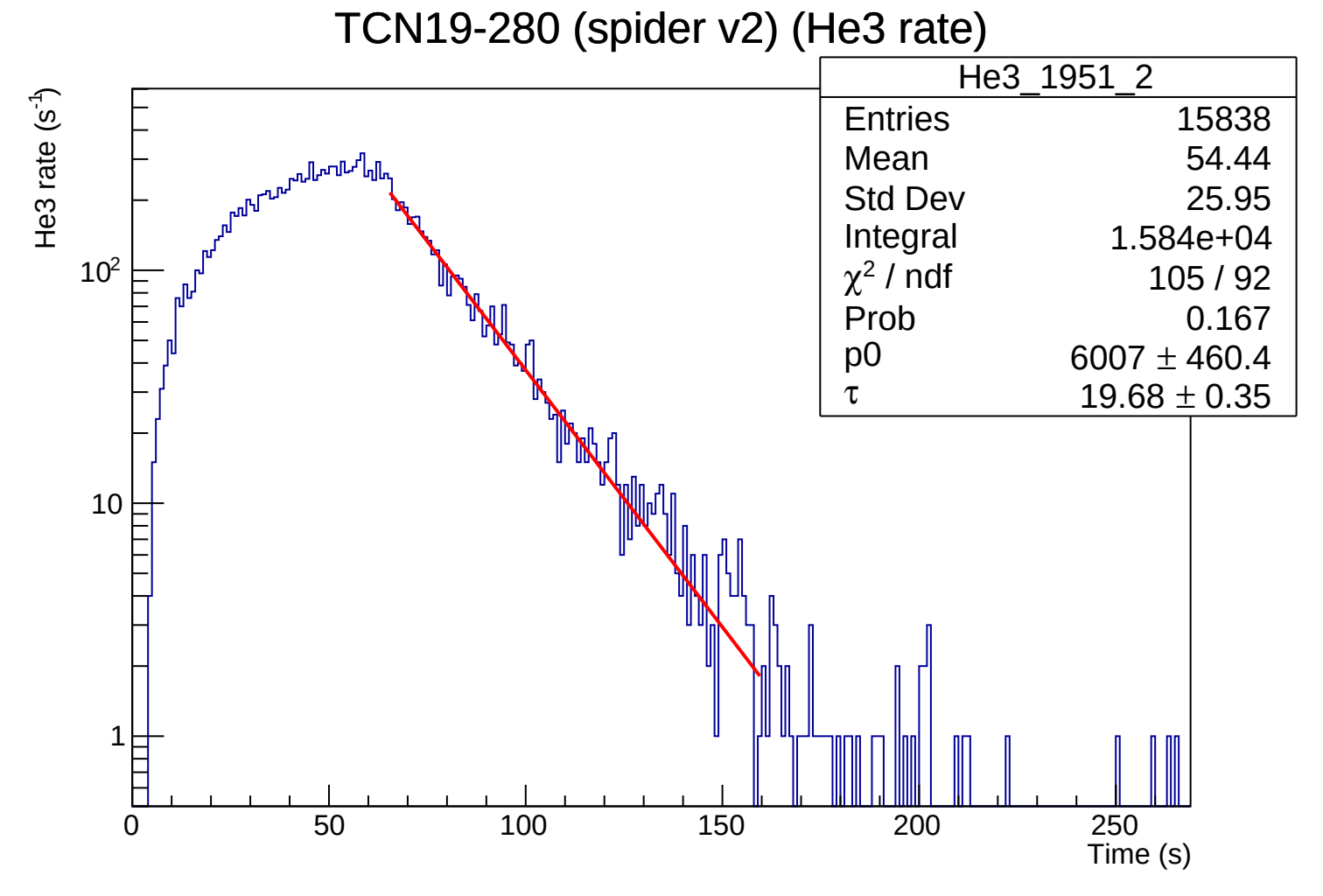

TCN19-280 (spider v2) (single exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ² / ndf 11.8 / 14
Prob 0.622
p0 0.144 ± 0.003189
τ 20.85 ± 0.7723
UCN-count-to-monitor ratio
10⁻¹
10⁻²
10⁻³
0
20
40
60
80
100
Storage time (s)

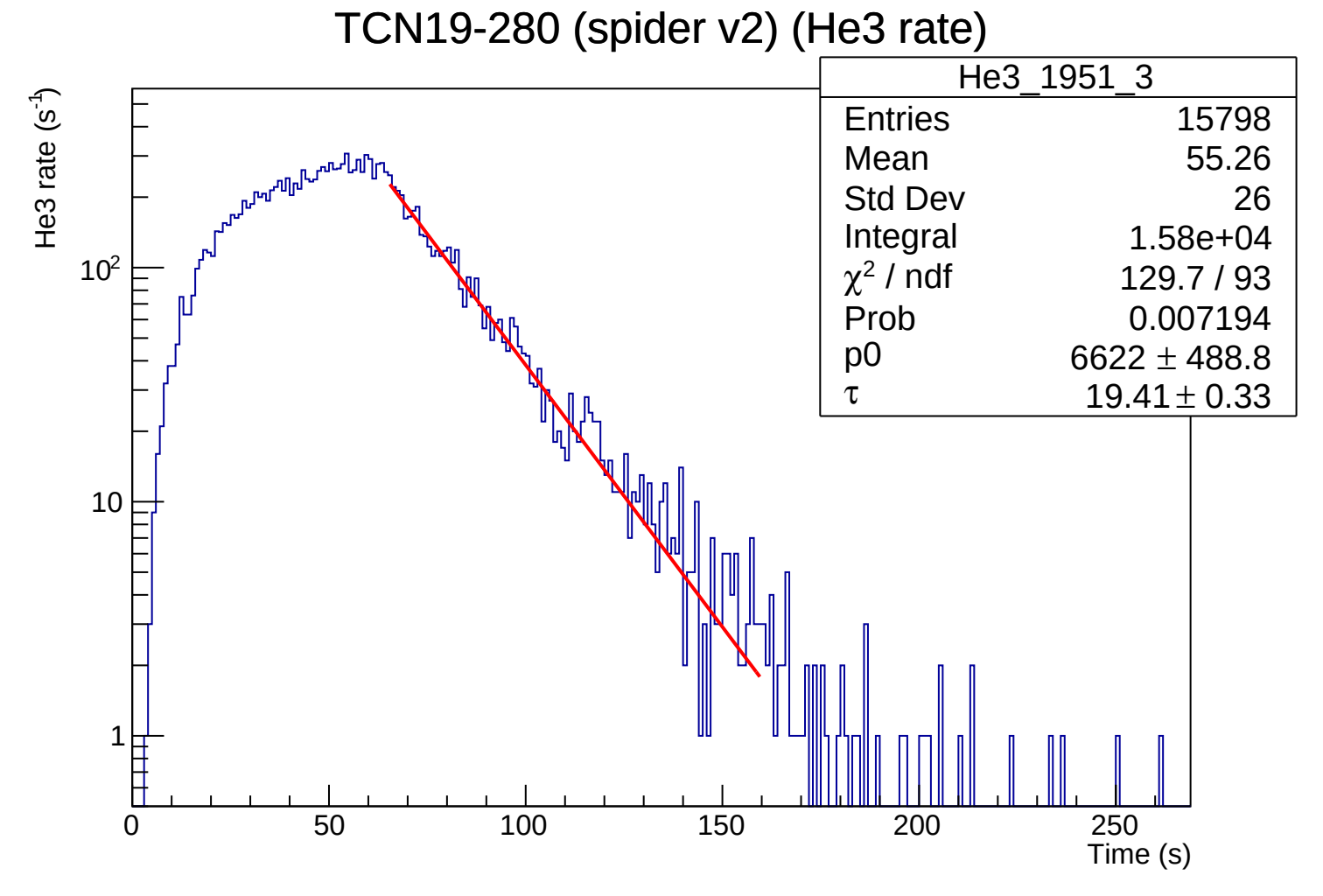

TCN19-280 (spider v2) (double exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ² / ndf 9.997 / 12
Prob 0.6163
N1 0.07573 ± 0.2607
τ1 0.8575 ± 1.262
N2 0.1398 ± 0.004667
τ2 21.46 ± 0.9443
UCN-count-to-monitor ratio
10⁻¹
10⁻²
10⁻³
0
20
40
60
80
100
Storage time (s)

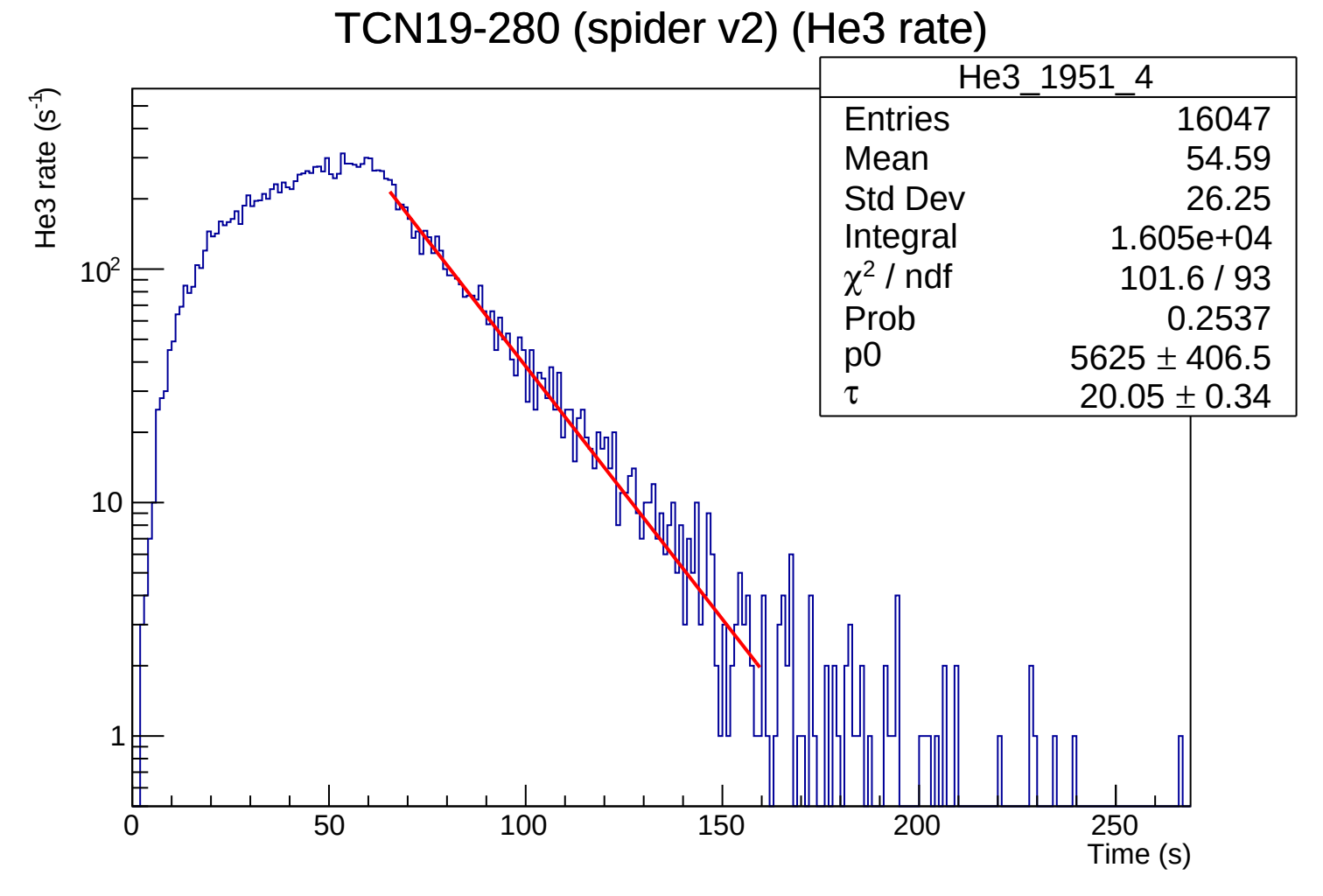

Graph
Vapor pressure (torr)
0.13
0.125
0.12
0.115
0.11
0.105
0.1
Temperature (K)
1.005
1
0.995
0.99
0.985
0.98
0
2
4
6
8
10
12
14
Cycle

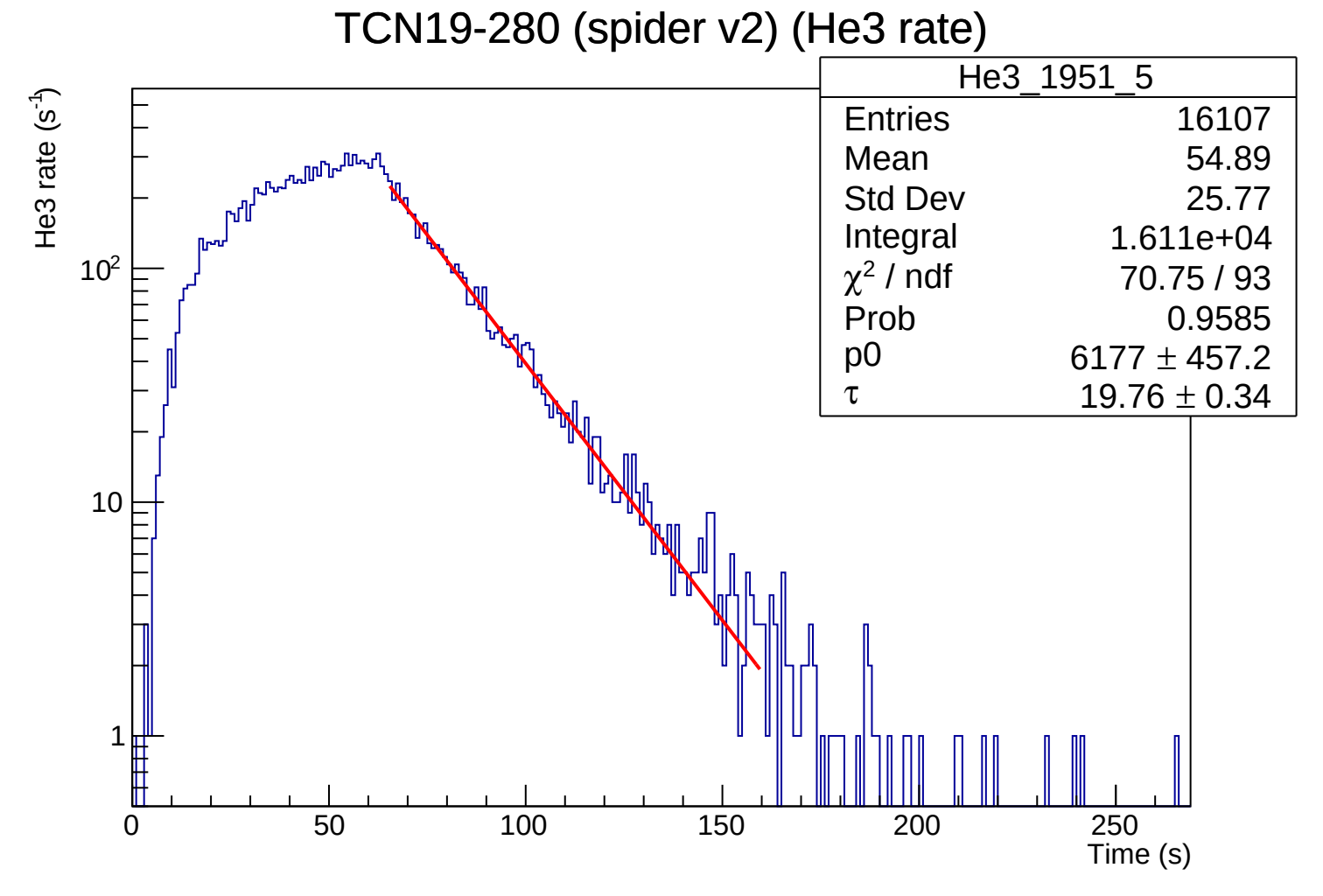

TCN19-280 (spider v2) (He3 rate)
He3_1951_0
Entries 15996
Mean 54.88
Std Dev 25.88
Integral 1.6e+04
χ² / ndf 73.72 / 93
Prob 0.93
p0 6103 ± 438.6
τ 19.77 ± 0.33
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

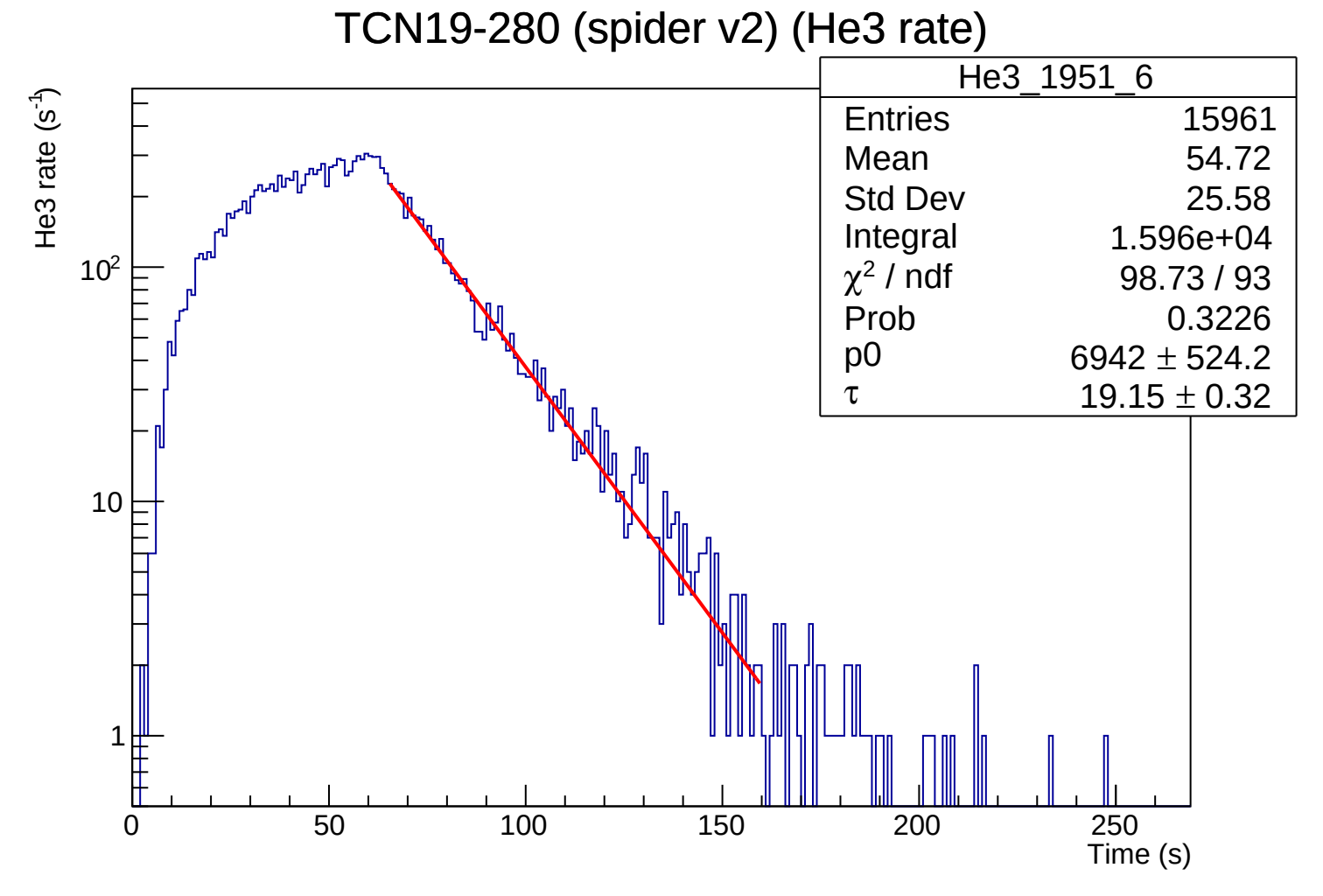

TCN19-280 (spider v2) (He3 rate)
He3_1951_1
Entries 15816
Mean 54.77
Std Dev 25.65
Integral 1.582e+04
χ² / ndf 79.62 / 92
Prob 0.818
p0 7086 ± 543.6
τ 19.04 ± 0.33
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

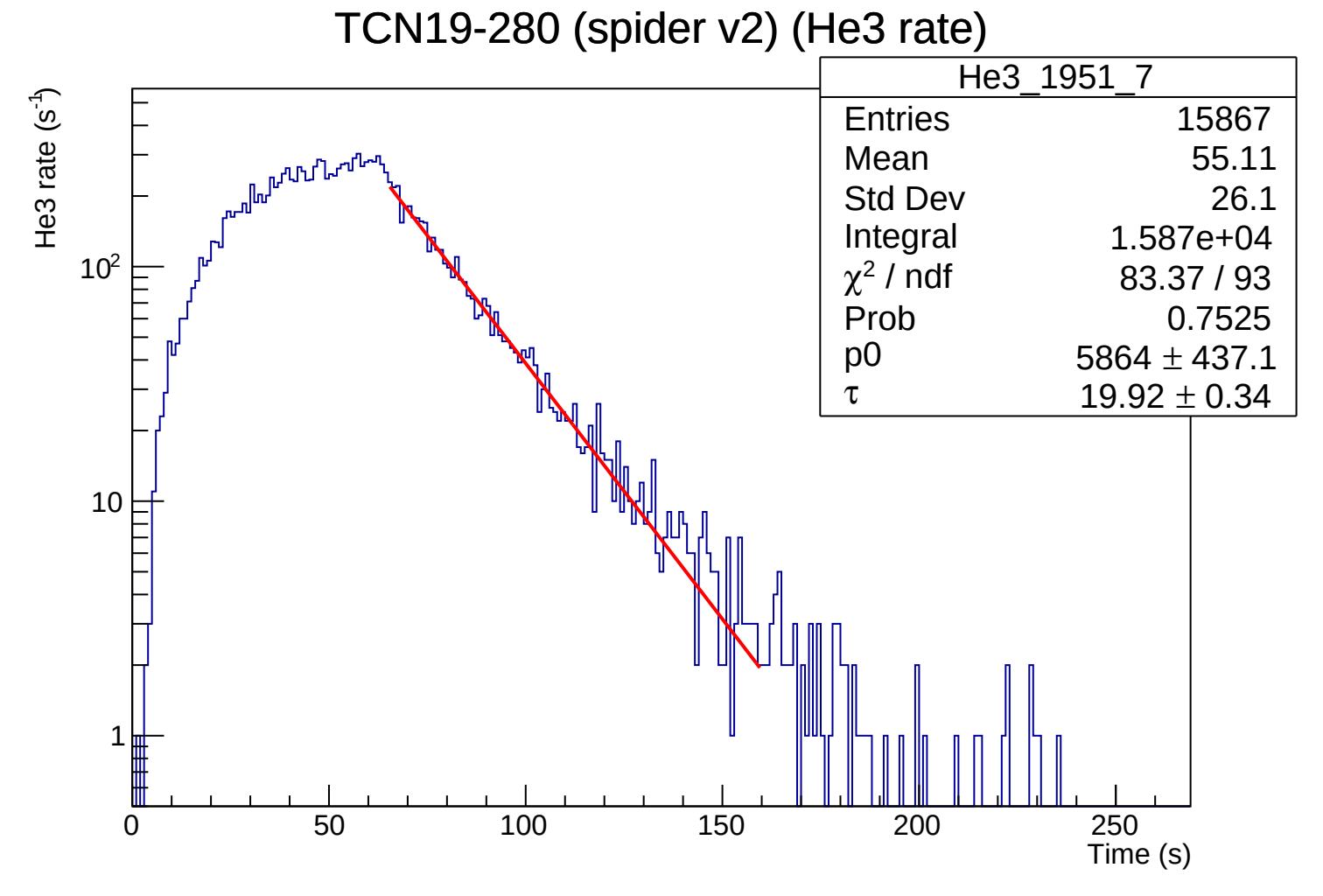

TCN19-280 (spider v2) (He3 rate)
He3_1951_2
Entries 15838
Mean 54.44
Std Dev 25.95
Integral 1.584e+04
χ² / ndf 105 / 92
Prob 0.167
p0 6007 ± 460.4
τ 19.68 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

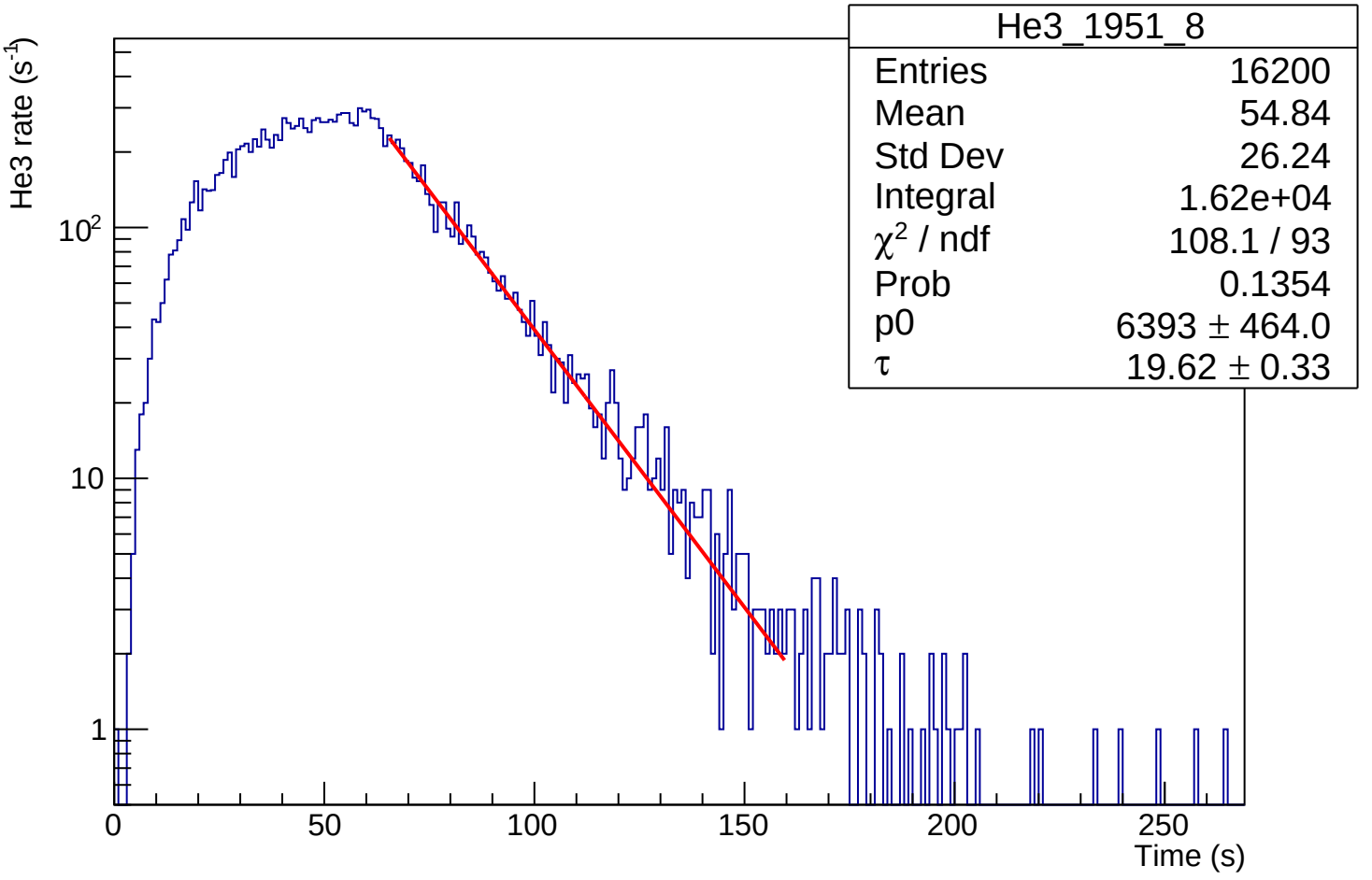

TCN19-280 (spider v2) (He3 rate)
He3_1951_3
Entries 15798
Mean 55.26
Std Dev 26
Integral 1.58e+04
χ² / ndf 129.7 / 93
Prob 0.007194
p0 6622 ± 488.8
τ 19.41 ± 0.33
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

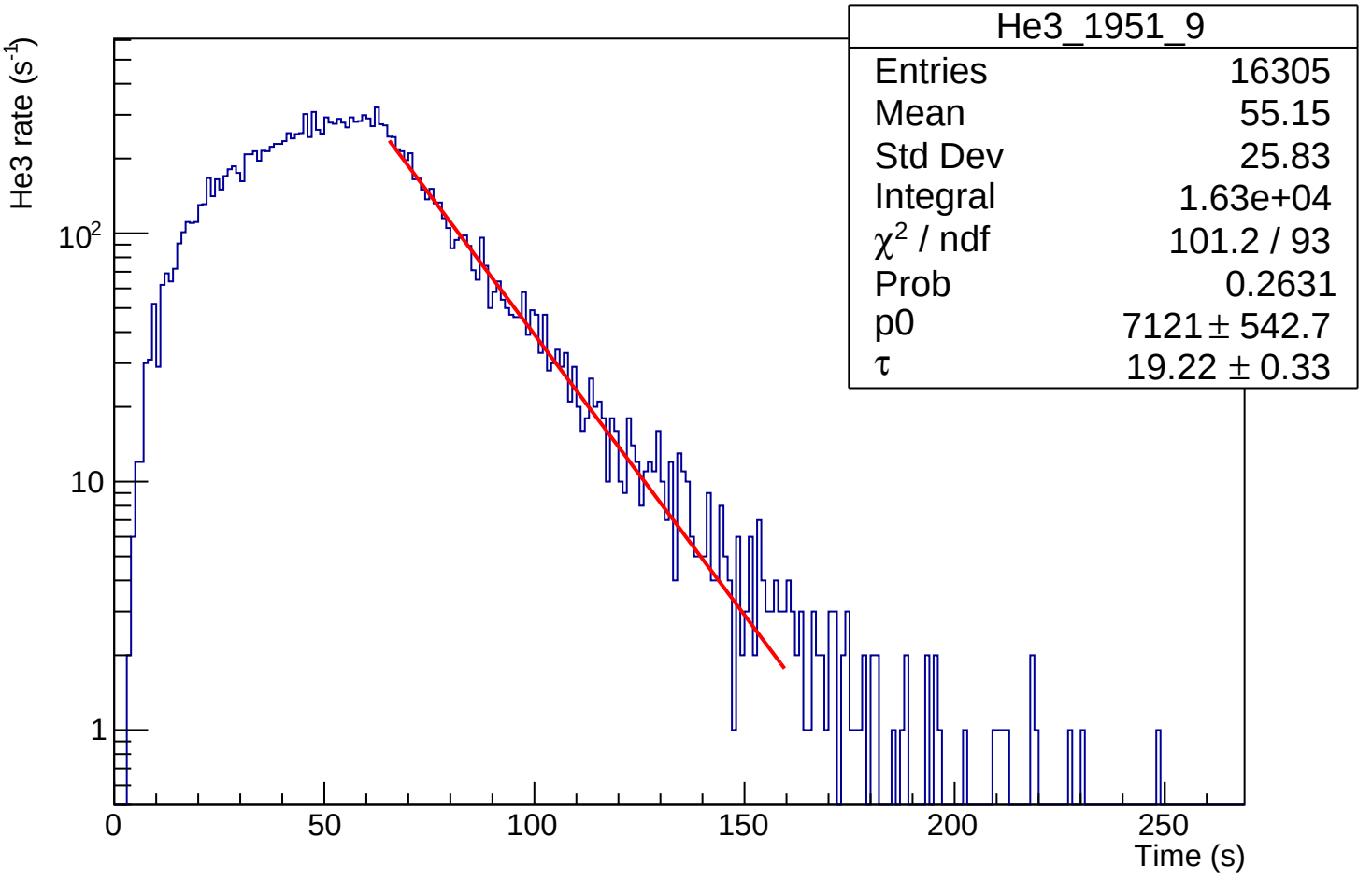

TCN19-280 (spider v2) (He3 rate)
He3_1951_4
Entries 16047
Mean 54.59
Std Dev 26.25
Integral 1.605e+04
χ² / ndf 101.6 / 93
Prob 0.2537
p0 5625 ± 406.5
τ 20.05 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

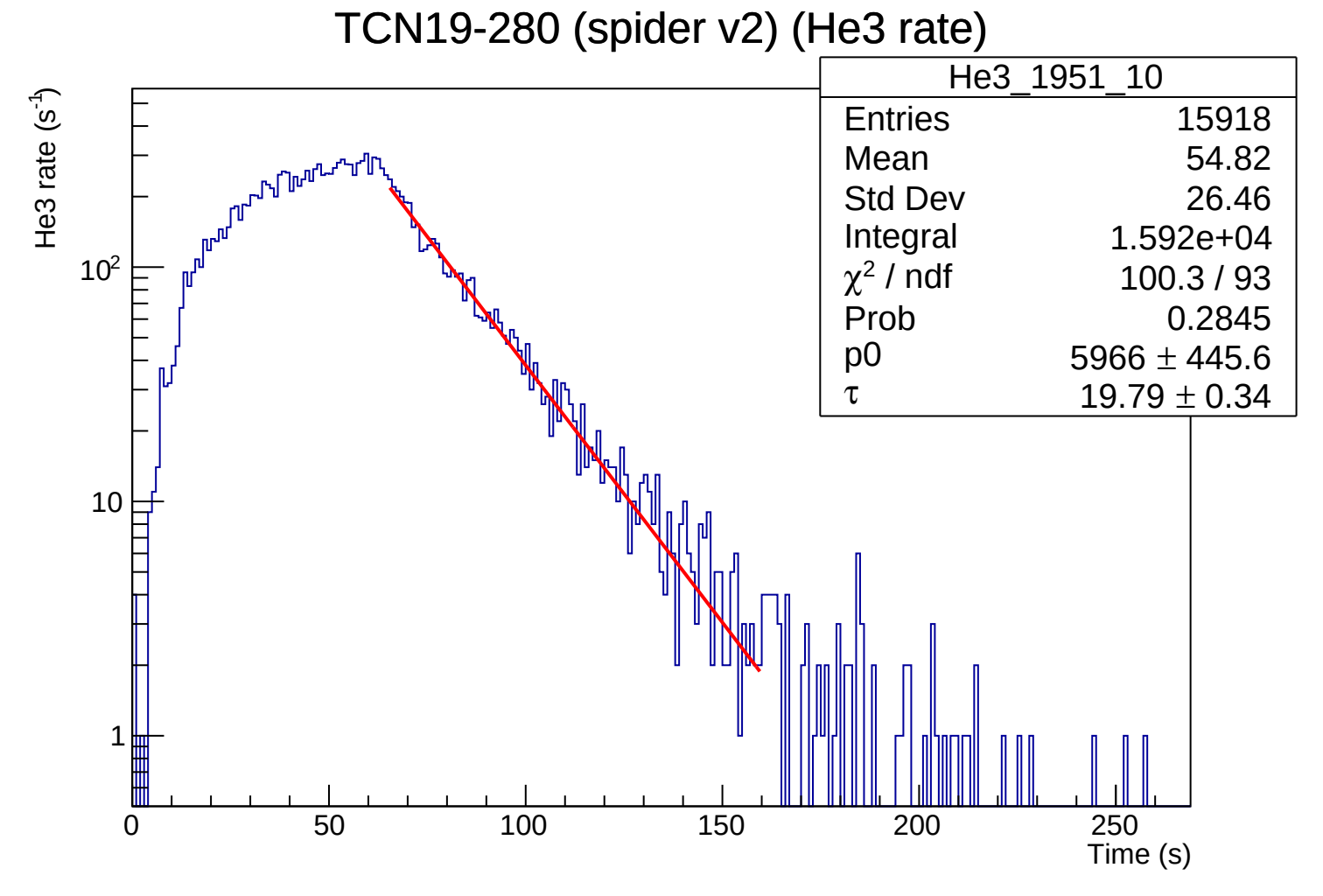

TCN19-280 (spider v2) (He3 rate)
He3_1951_5
Entries 16107
Mean 54.89
Std Dev 25.77
Integral 1.611e+04
χ² / ndf 70.75 / 93
Prob 0.9585
p0 6177 ± 457.2
τ 19.76 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

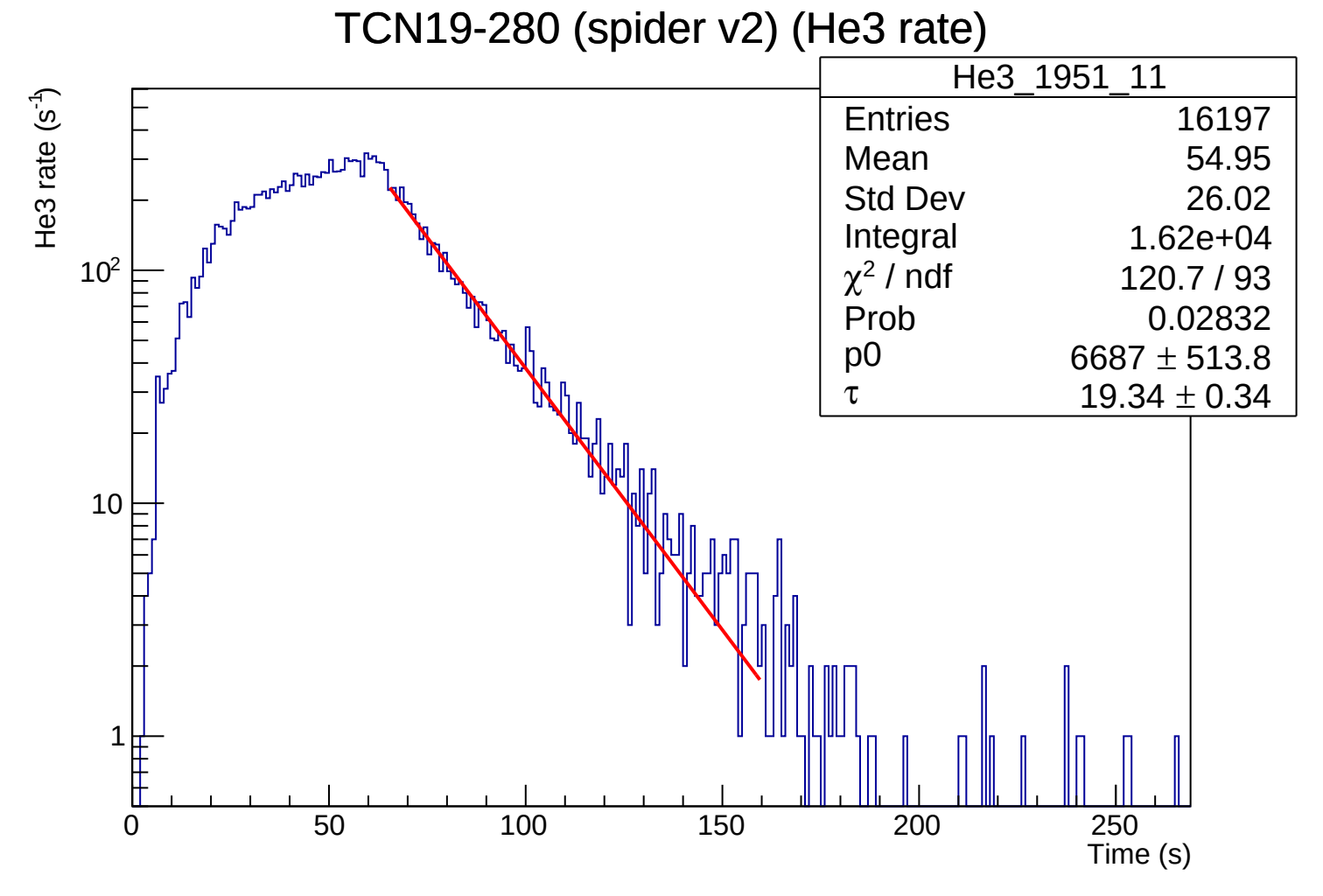

TCN19-280 (spider v2) (He3 rate)
He3_1951_6
Entries 15961
Mean 54.72
Std Dev 25.58
Integral 1.596e+04
χ² / ndf 98.73 / 93
Prob 0.3226
p0 6942 ± 524.2
τ 19.15 ± 0.32
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

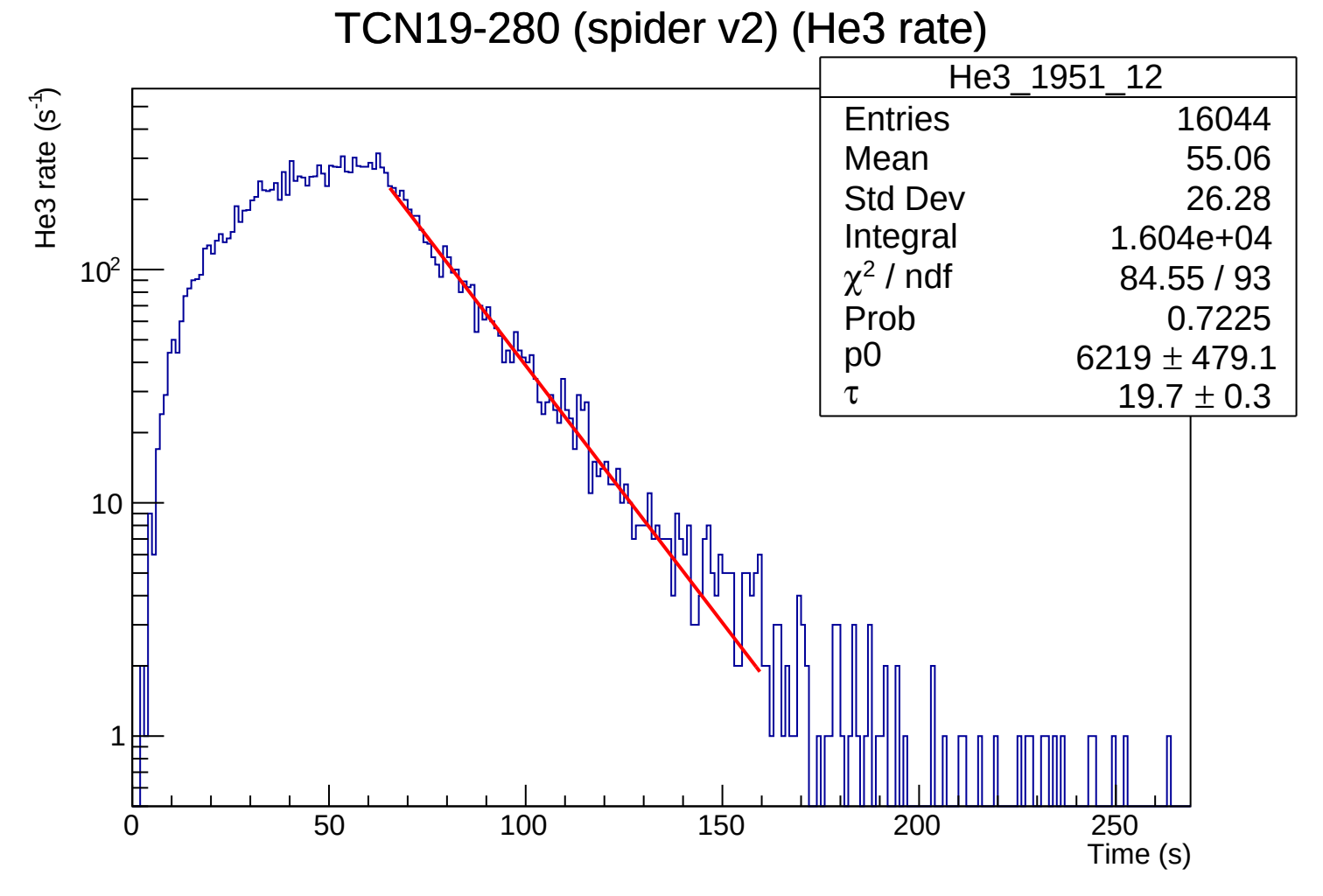

TCN19-280 (spider v2) (He3 rate)
He3_1951_7
Entries 15867
Mean 55.11
Std Dev 26.1
Integral 1.587e+04
χ² / ndf 83.37 / 93
Prob 0.7525
p0 5864 ± 437.1
τ 19.92 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

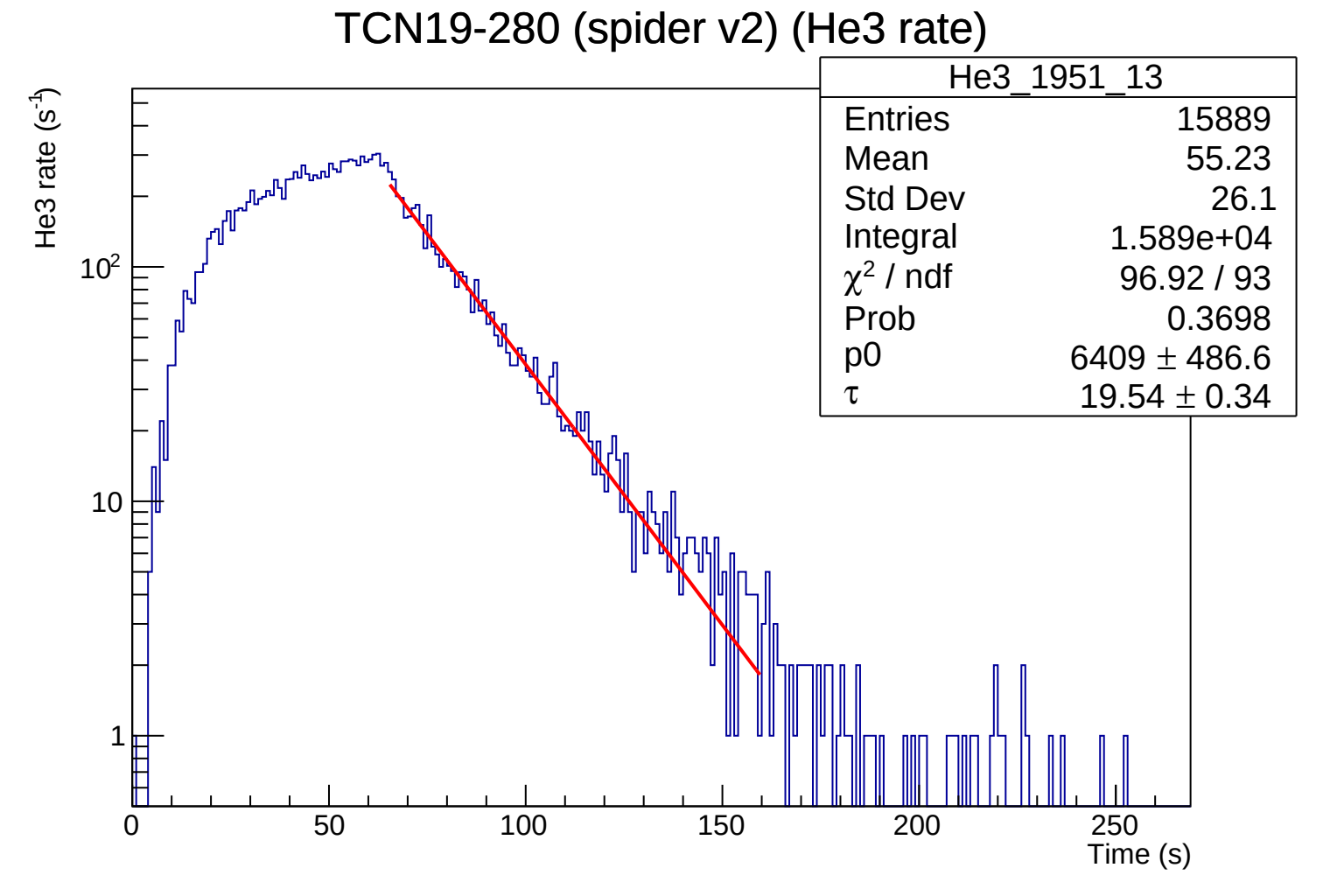

TCN19-280 (spider v2) (He3 rate)
He3_1951_8
Entries 16200
Mean 54.84
Std Dev 26.24
Integral 1.62e+04
χ² / ndf 108.1 / 93
Prob 0.1354
p0 6393 ± 464.0
τ 19.62 ± 0.33
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

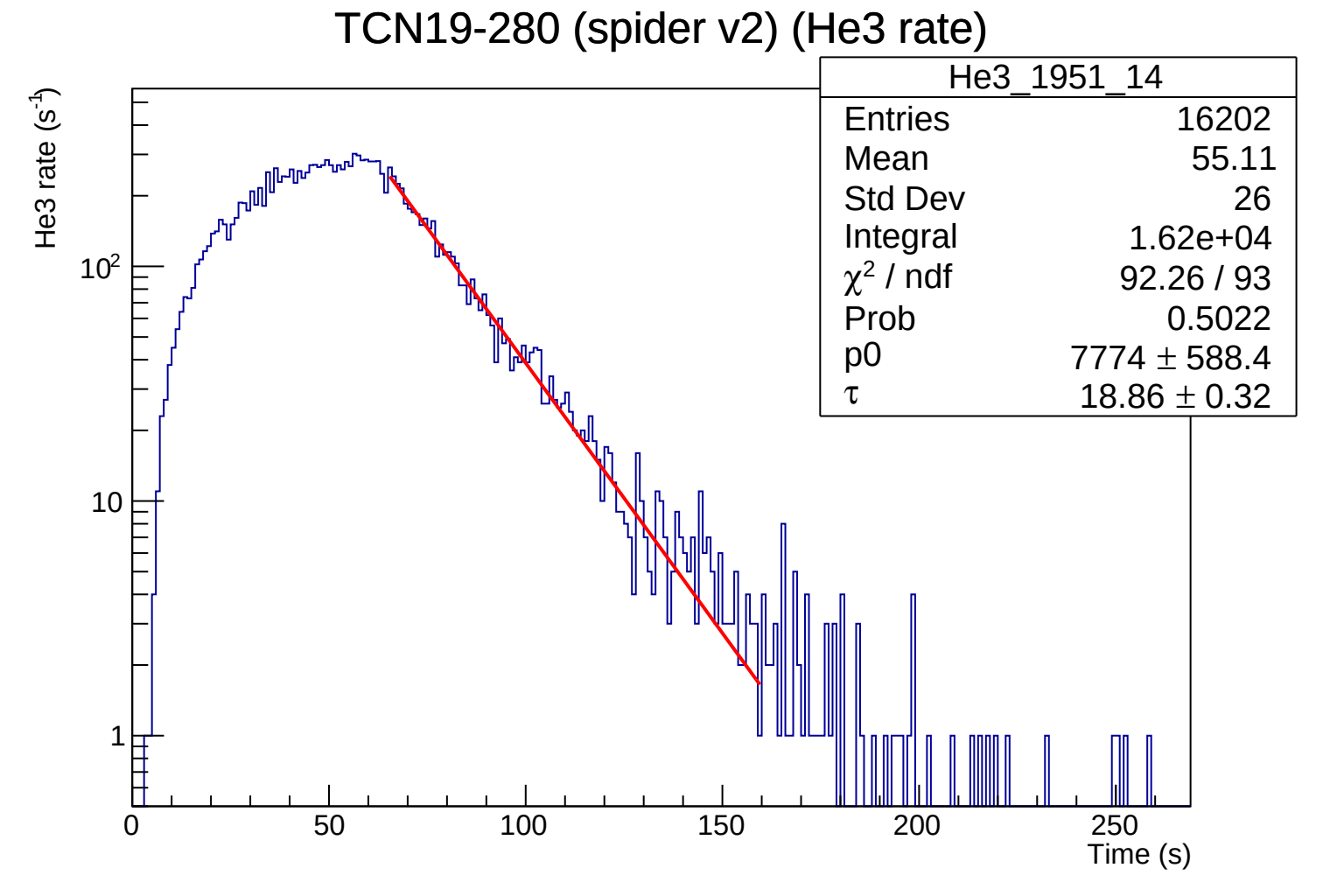

TCN19-280 (spider v2) (He3 rate)
He3_1951_9
Entries 16305
Mean 55.15
Std Dev 25.83
Integral 1.63e+04
χ² / ndf 101.2 / 93
Prob 0.2631
p0 7121 ± 542.7
τ 19.22 ± 0.33
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

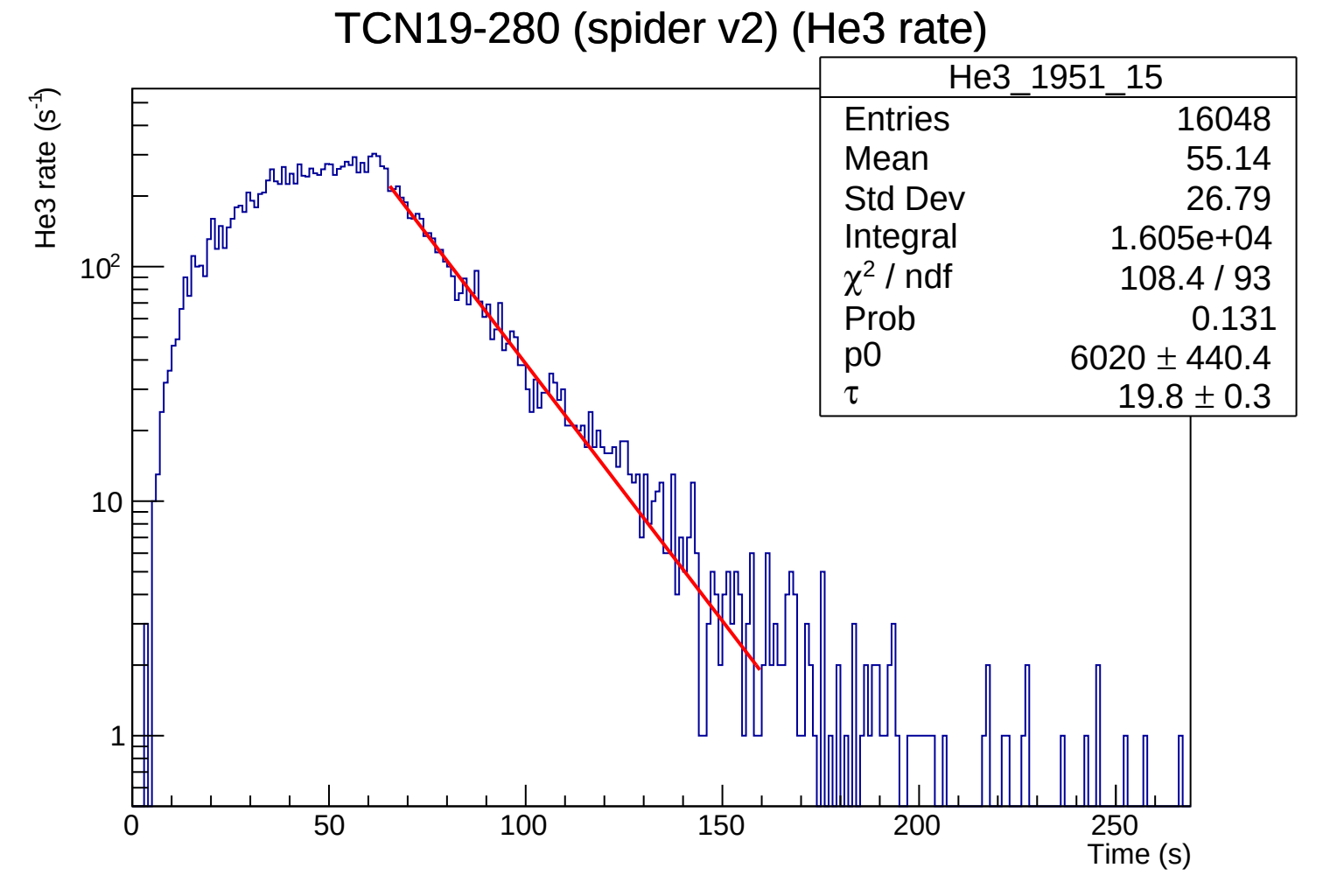

TCN19-280 (spider v2) (He3 rate)
He3_1951_10
Entries 15918
Mean 54.82
Std Dev 26.46
Integral 1.592e+04
χ² / ndf 100.3 / 93
Prob 0.2845
p0 5966 ± 445.6
τ 19.79 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

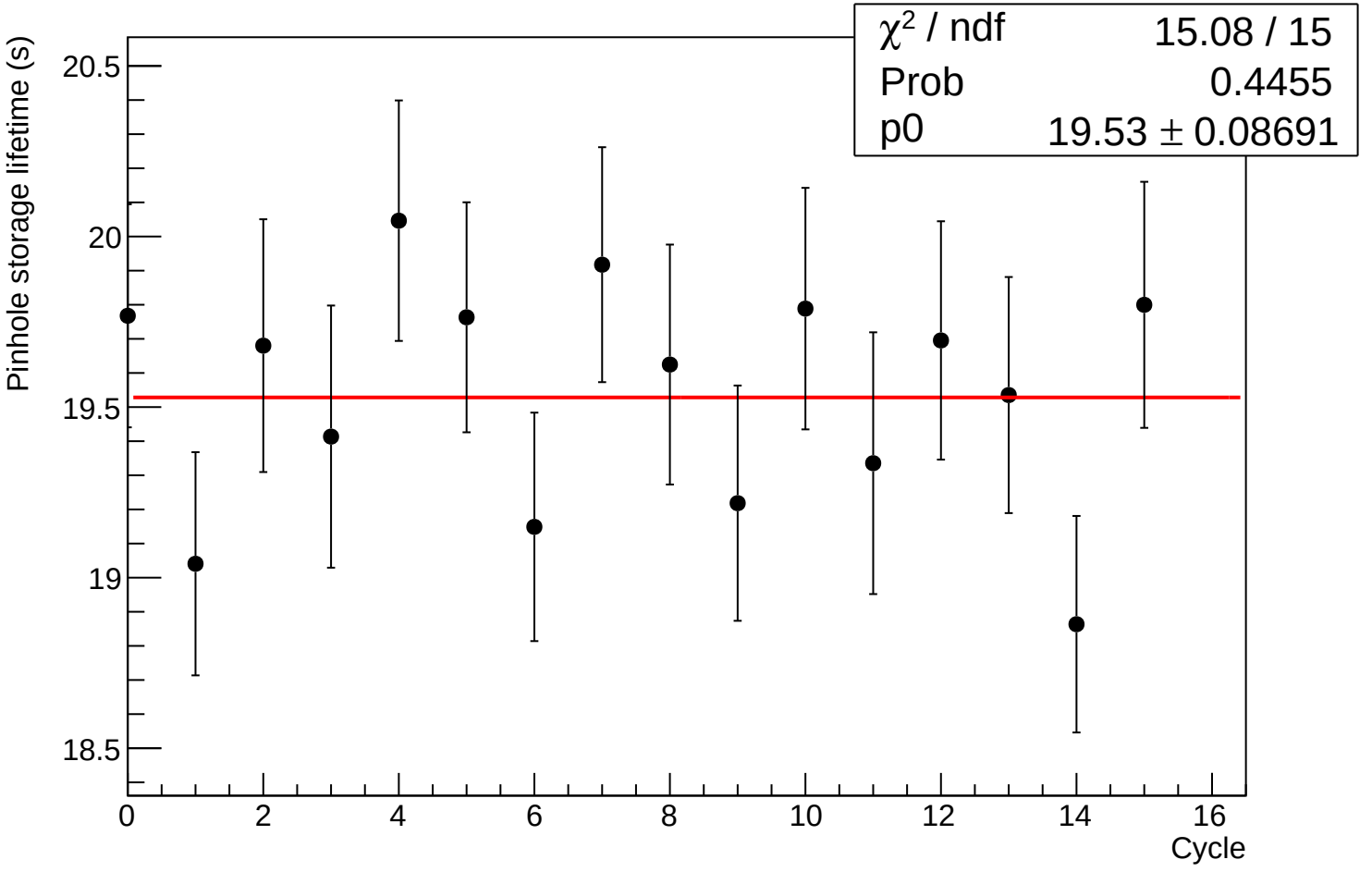

TCN19-280 (spider v2) (He3 rate)
He3_1951_11
Entries 16197
Mean 54.95
Std Dev 26.02
Integral 1.62e+04
χ² / ndf 120.7 / 93
Prob 0.02832
p0 6687 ± 513.8
τ 19.34 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

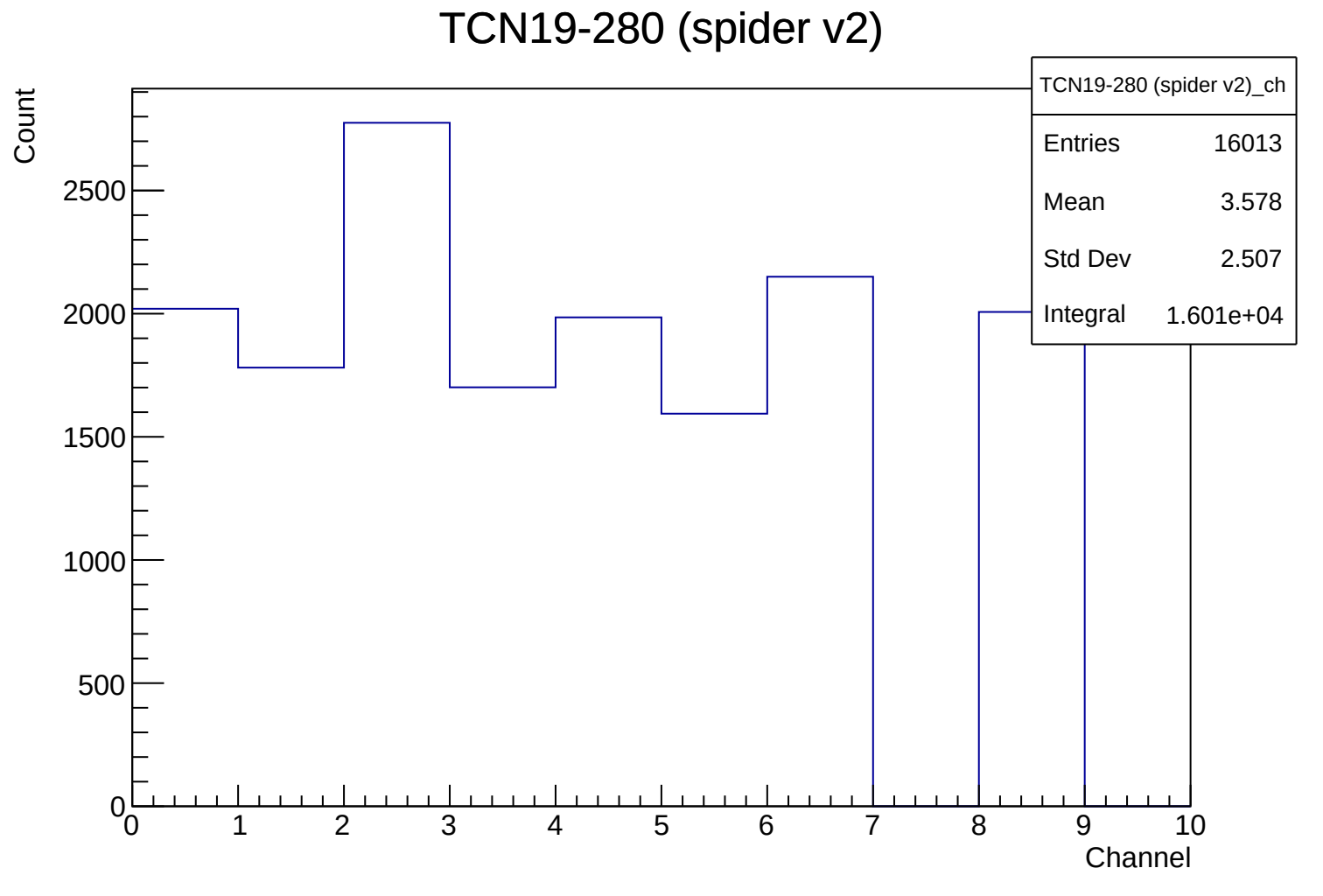

TCN19-280 (spider v2) (He3 rate)
He3_1951_12
Entries 16044
Mean 55.06
Std Dev 26.28
Integral 1.604e+04
χ² / ndf 84.55 / 93
Prob 0.7225
p0 6219 ± 479.1
τ 19.7 ± 0.3
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


TCN19-280 (spider v2) (He3 rate)
He3_1951_13
Entries 15889
Mean 55.23
Std Dev 26.1
Integral 1.589e+04
χ² / ndf 96.92 / 93
Prob 0.3698
p0 6409 ± 486.6
τ 19.54 ± 0.34
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


TCN19-280 (spider v2) (He3 rate)
He3_1951_14
Entries 16202
Mean 55.11
Std Dev 26
Integral 1.62e+04
χ² / ndf 92.26 / 93
Prob 0.5022
p0 7774 ± 588.4
τ 18.86 ± 0.32
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


TCN19-280 (spider v2) (He3 rate)
He3_1951_15
Entries 16048
Mean 55.14
Std Dev 26.79
Integral 1.605e+04
χ² / ndf 108.4 / 93
Prob 0.131
p0 6020 ± 440.4
τ 19.8 ± 0.3
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


χ^2 / ndf 15.08 / 15
Prob 0.4455
p0 19.53 ± 0.08691
Pinhole storage lifetime (s)
20.5
20
19.5
19
18.5
0
2
4
6
8
10
12
14
16
Cycle


TCN19-280 (spider v2)
TCN19-280 (spider v2)_ch
Entries 16013
Mean 3.578
Std Dev 2.507
Integral 1.601e+04
Count
2500
2000
1500
1000
500
0
0 1 2 3 4 5 6 7 8 9 10
Channel