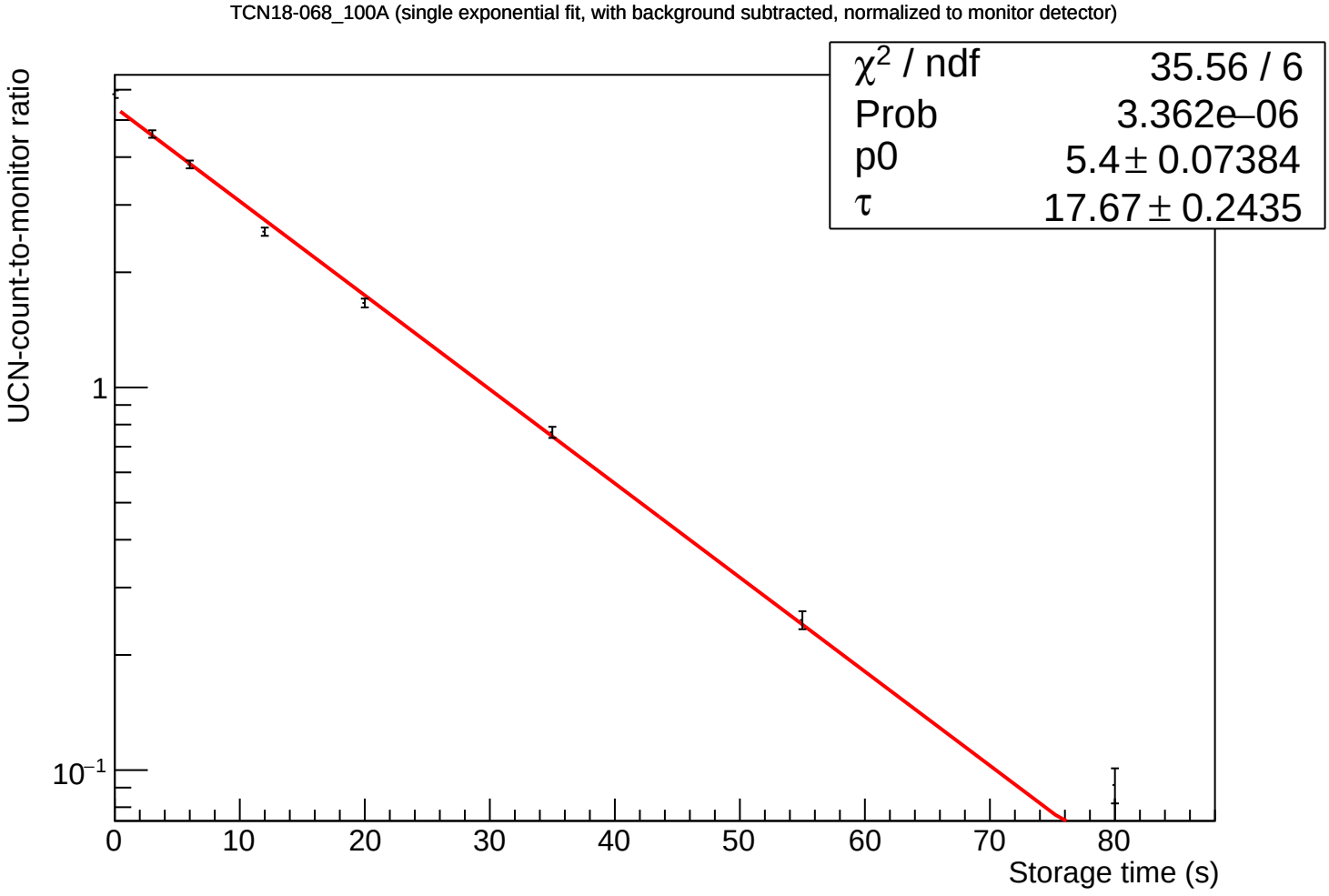
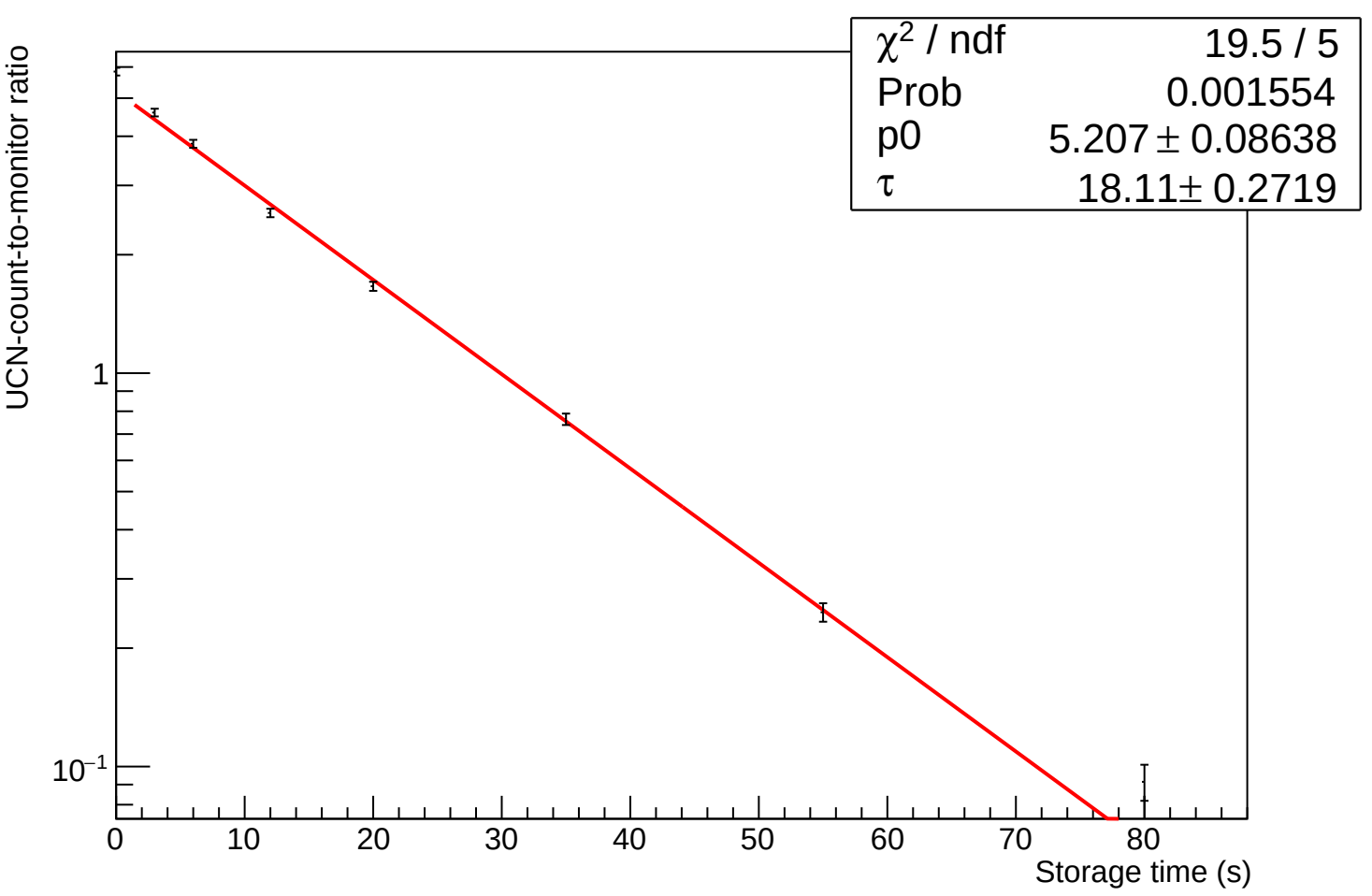
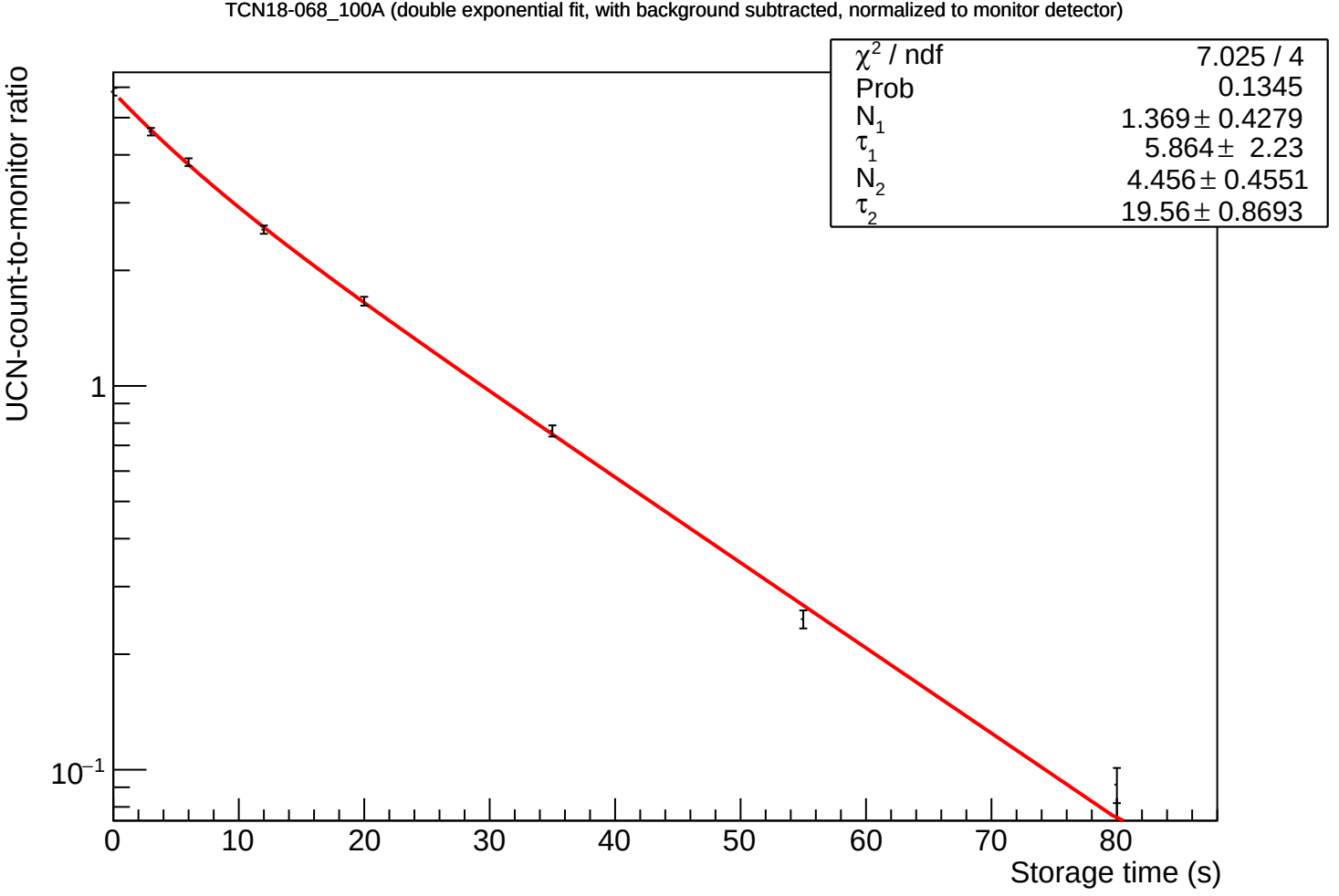
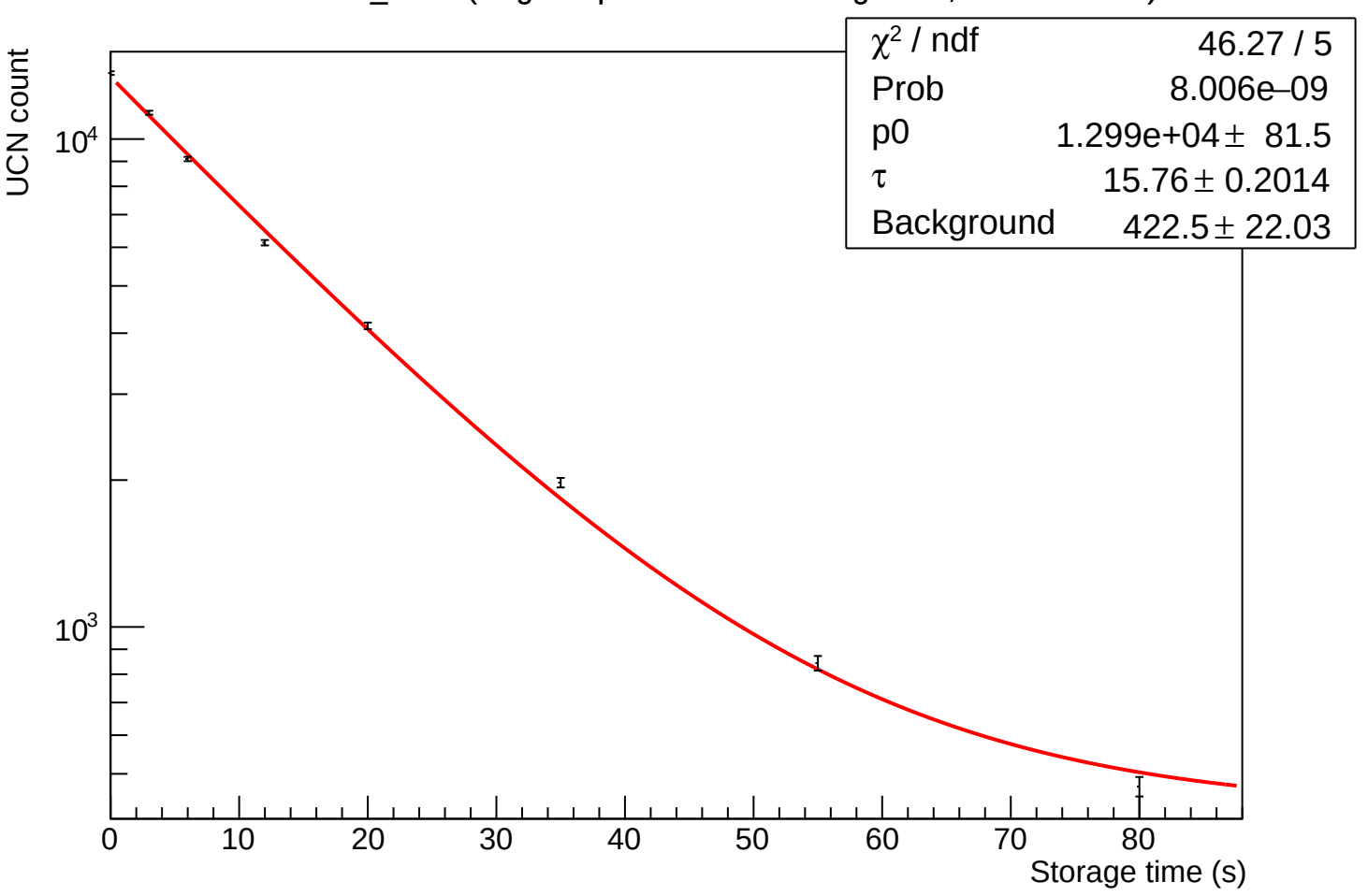
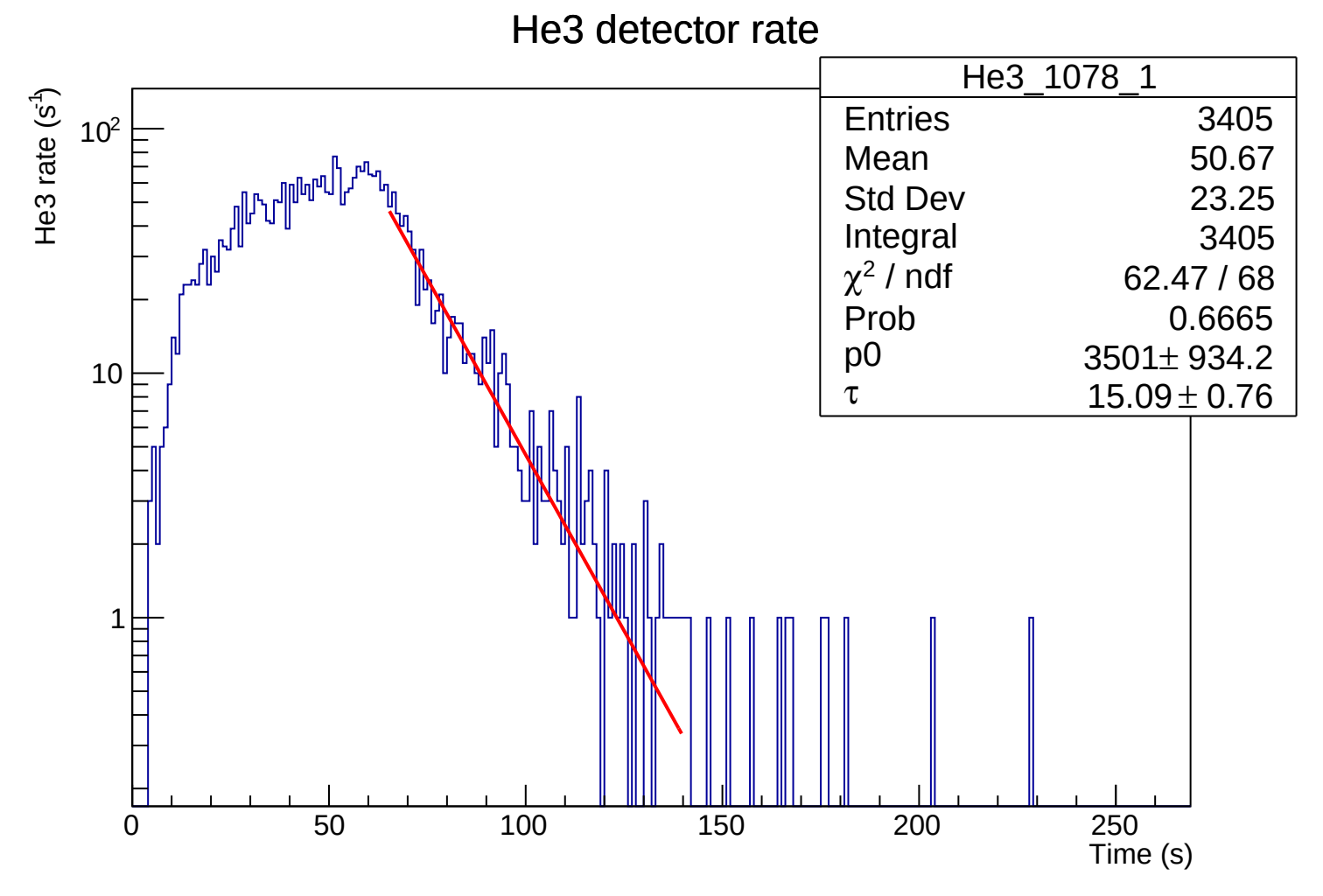
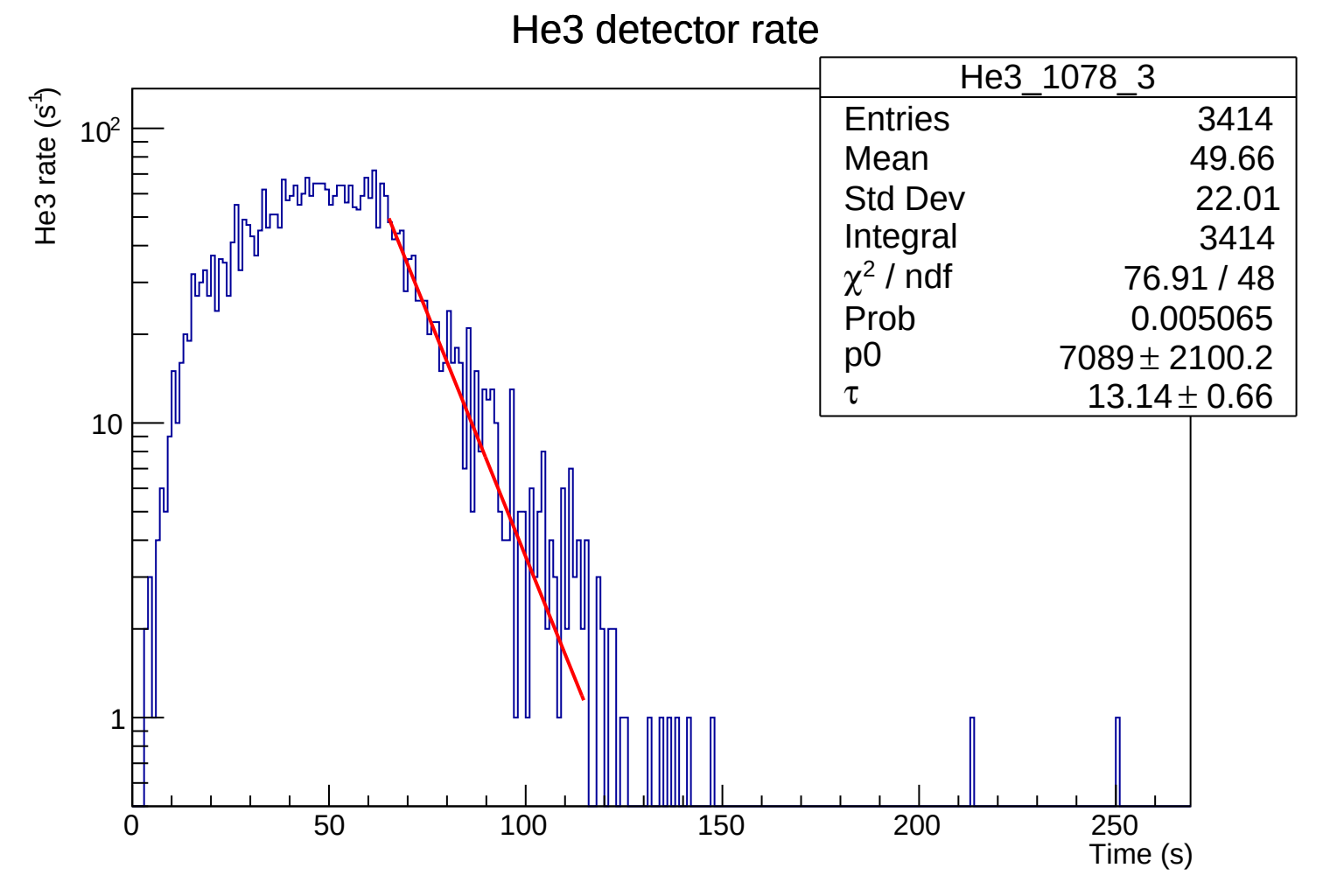

TCN18-068_100A (single exponential fit, with background subtracted, normalized to monitor detector)
χ² / ndf 35.56 / 6
Prob 3.362e–06
p0 5.4 ± 0.07384
τ 17.67 ± 0.2435
UCN-count-to-monitor ratio
1
10⁻¹
0
10
20
30
40
50
60
70
80
Storage time (s)

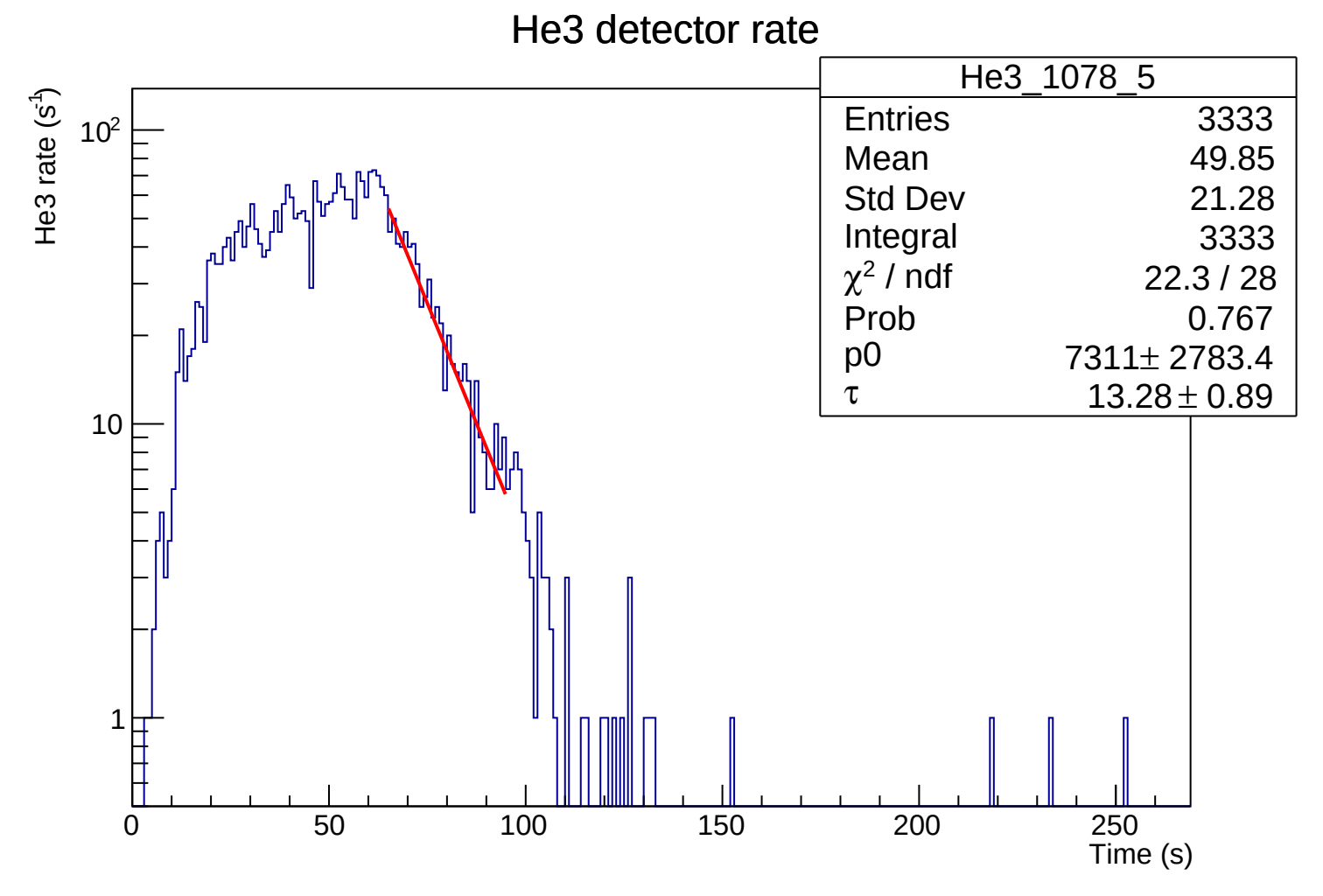

TCN18-068_100A (single exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ2 / ndf 19.5 / 5
Prob 0.001554
p0 5.207 ± 0.08638
τ 18.11± 0.2719
UCN-count-to-monitor ratio
1
10−1
0
10
20
30
40
50
60
70
80
Storage time (s)

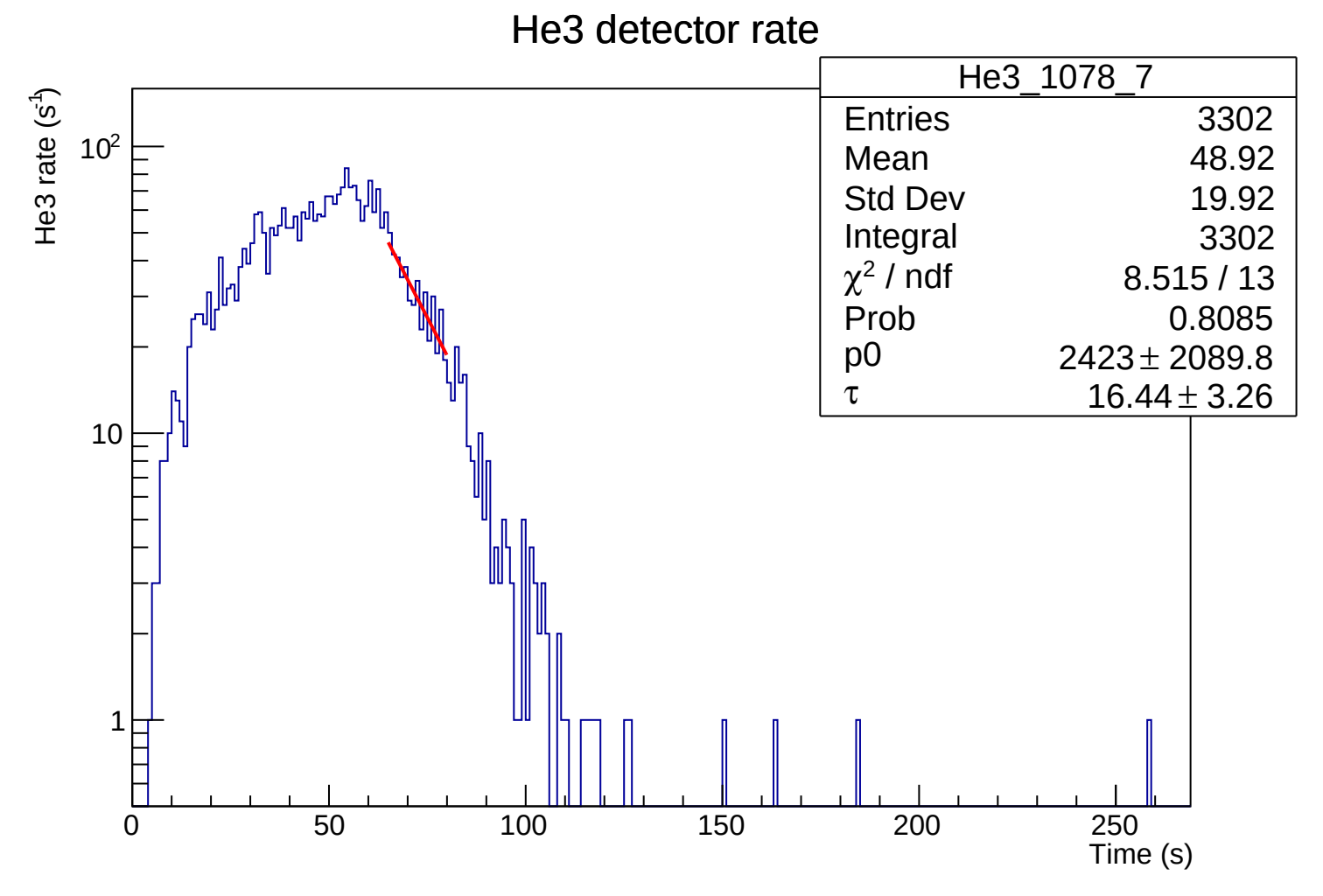

TCN18-068_100A (double exponential fit, with background subtracted, normalized to monitor detector)
χ^2 / ndf 7.025 / 4
Prob 0.1345
N_1 1.369 ± 0.4279
τ_1 5.864 ± 2.23
N_2 4.456 ± 0.4551
τ_2 19.56 ± 0.8693
UCN-count-to-monitor ratio
1
10^{-1}
0
10
20
30
40
50
60
70
80
Storage time (s)


TCN18-068_100A (single exponential fit + background, unnormalized)
χ² / ndf 46.27 / 5
Prob 8.006e–09
p0 1.299e+04 ± 81.5
τ 15.76 ± 0.2014
Background 422.5 ± 22.03
UCN count
10⁴
10³
0
10
20
30
40
50
60
70
80
Storage time (s)


He3 detector rate
He3_1078_1
Entries 3405
Mean 50.67
Std Dev 23.25
Integral 3405
χ² / ndf 62.47 / 68
Prob 0.6665
p0 3501 ± 934.2
τ 15.09 ± 0.76
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


He3 detector rate
He3_1078_3
Entries 3414
Mean 49.66
Std Dev 22.01
Integral 3414
χ² / ndf 76.91 / 48
Prob 0.005065
p0 7089 ± 2100.2
τ 13.14 ± 0.66
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


He3 detector rate
He3_1078_5
Entries 3333
Mean 49.85
Std Dev 21.28
Integral 3333
χ² / ndf 22.3 / 28
Prob 0.767
p0 7311± 2783.4
τ 13.28 ± 0.89
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


He3 detector rate
He3_1078_7
Entries 3302
Mean 48.92
Std Dev 19.92
Integral 3302
χ² / ndf 8.515 / 13
Prob 0.8085
p0 2423 ± 2089.8
τ 16.44 ± 3.26
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

Average lifetime from He3 data:

τ = 13.85943843 +/- 0.0343487952312 s