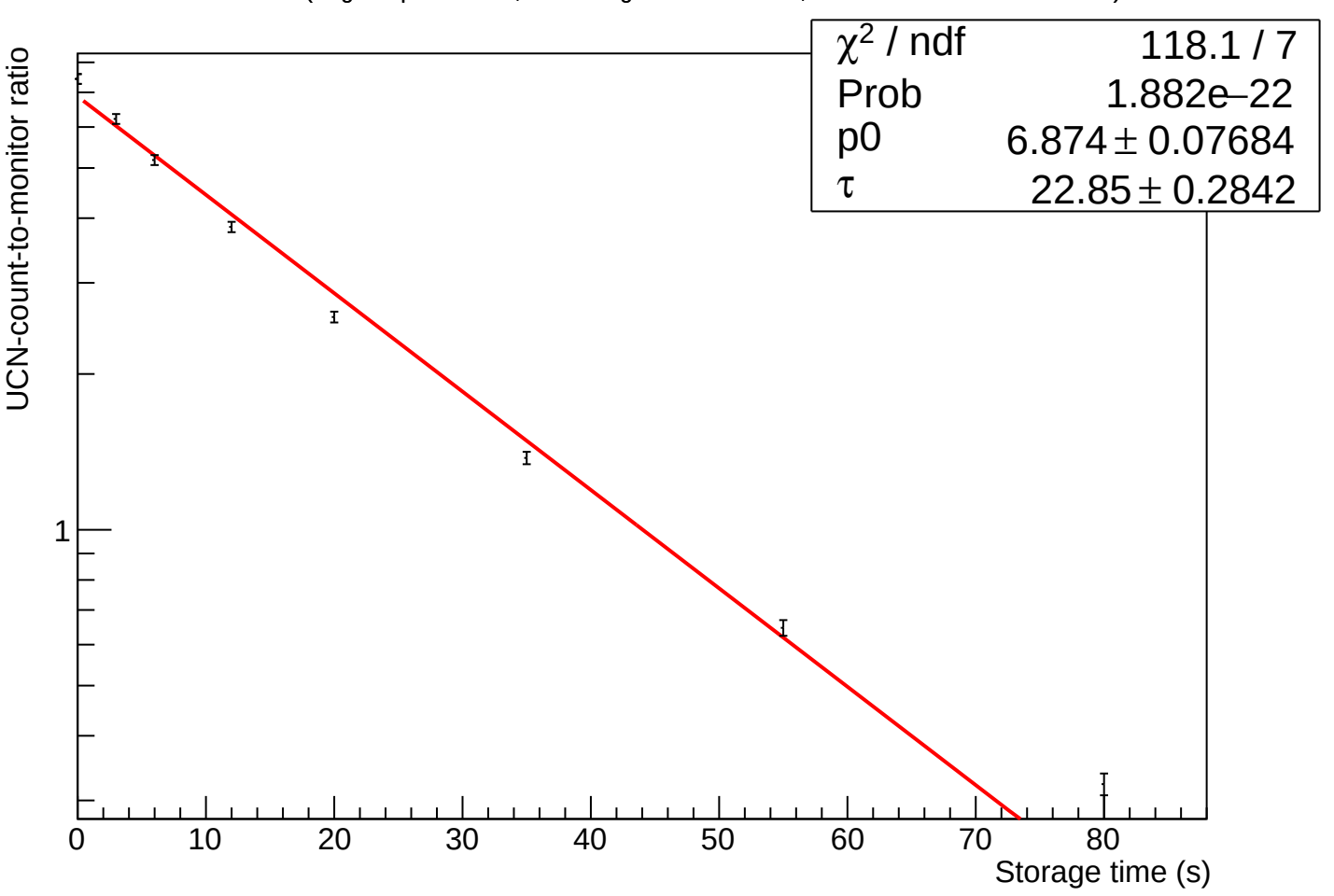
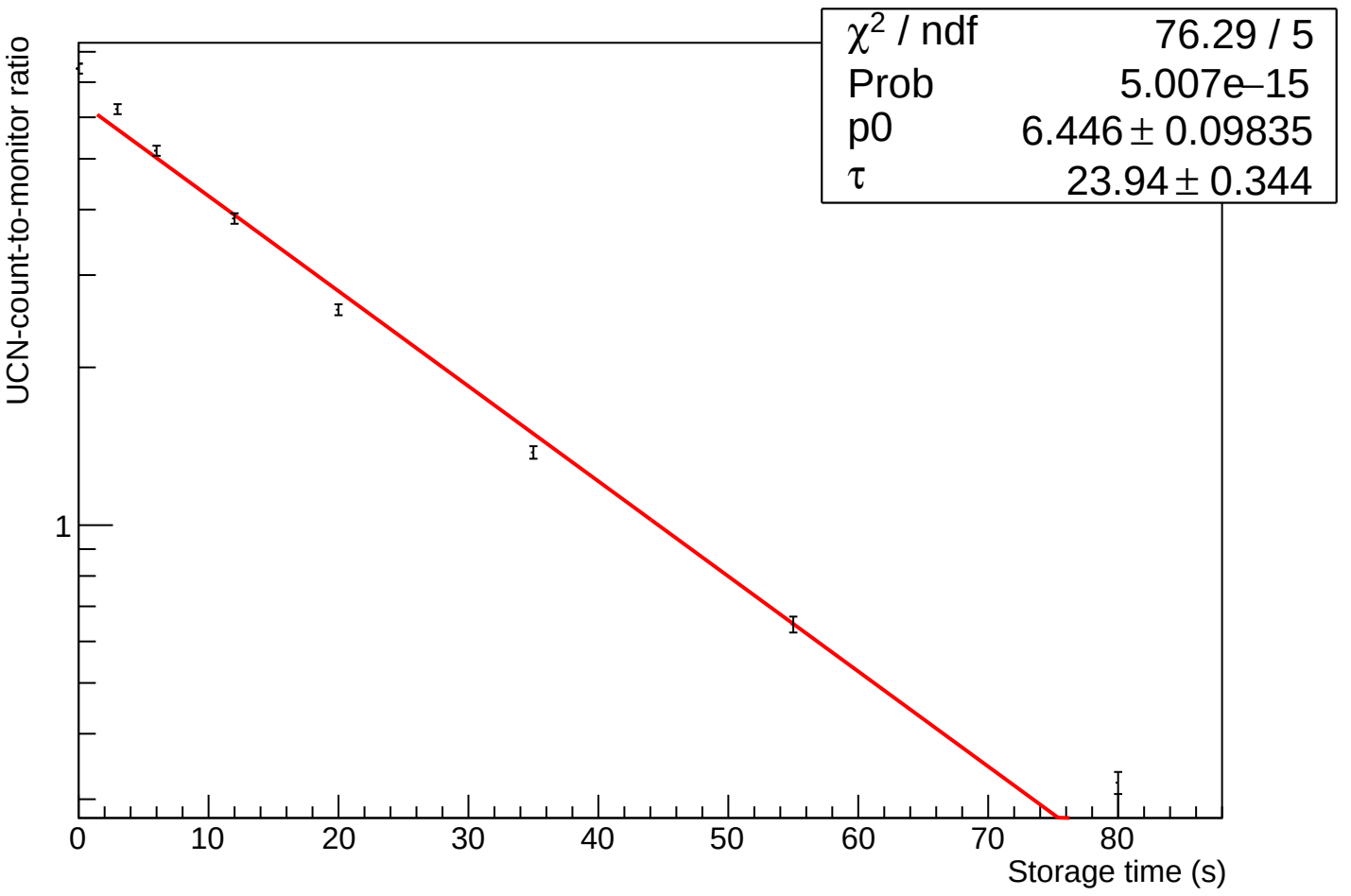
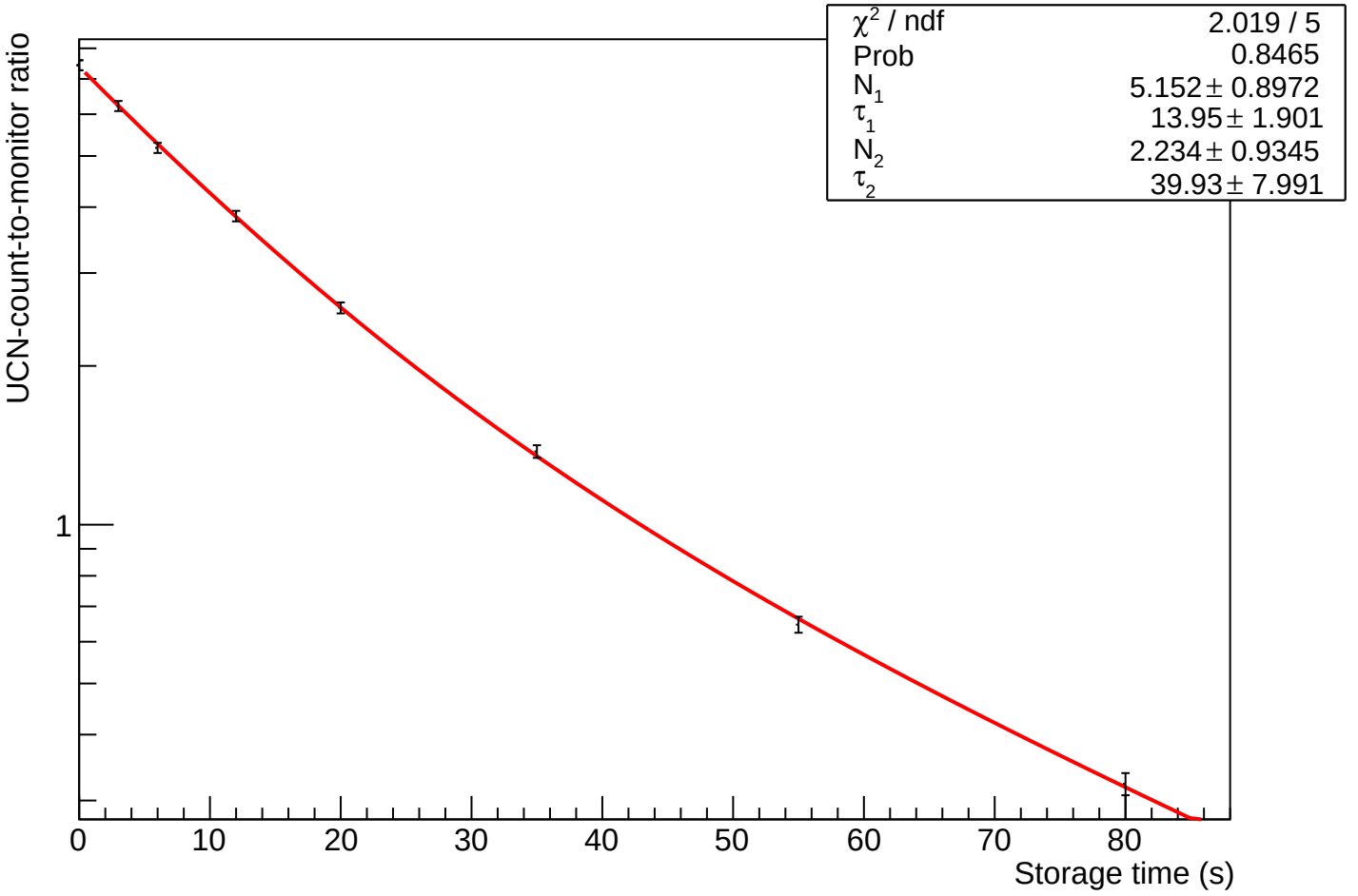
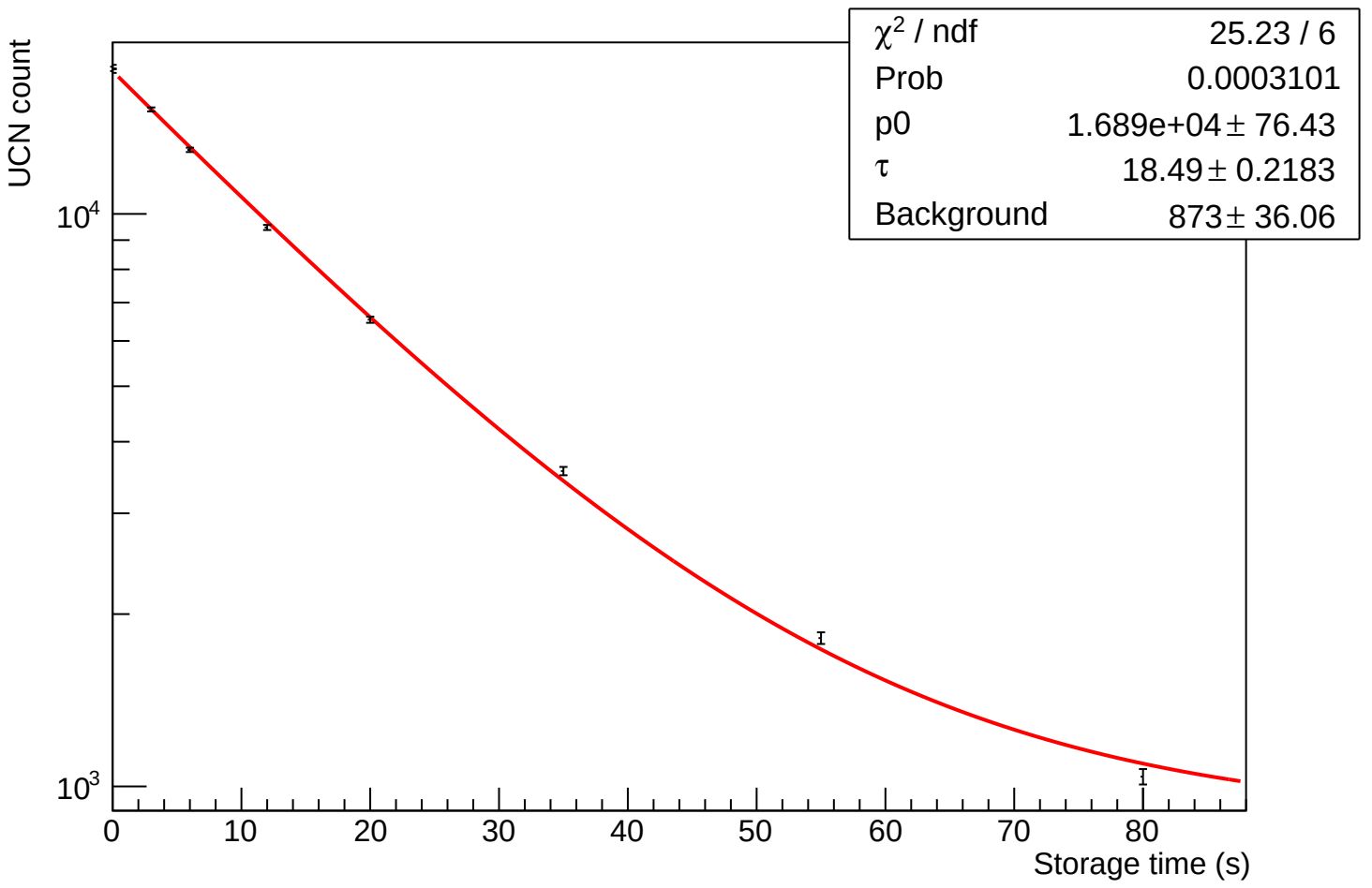
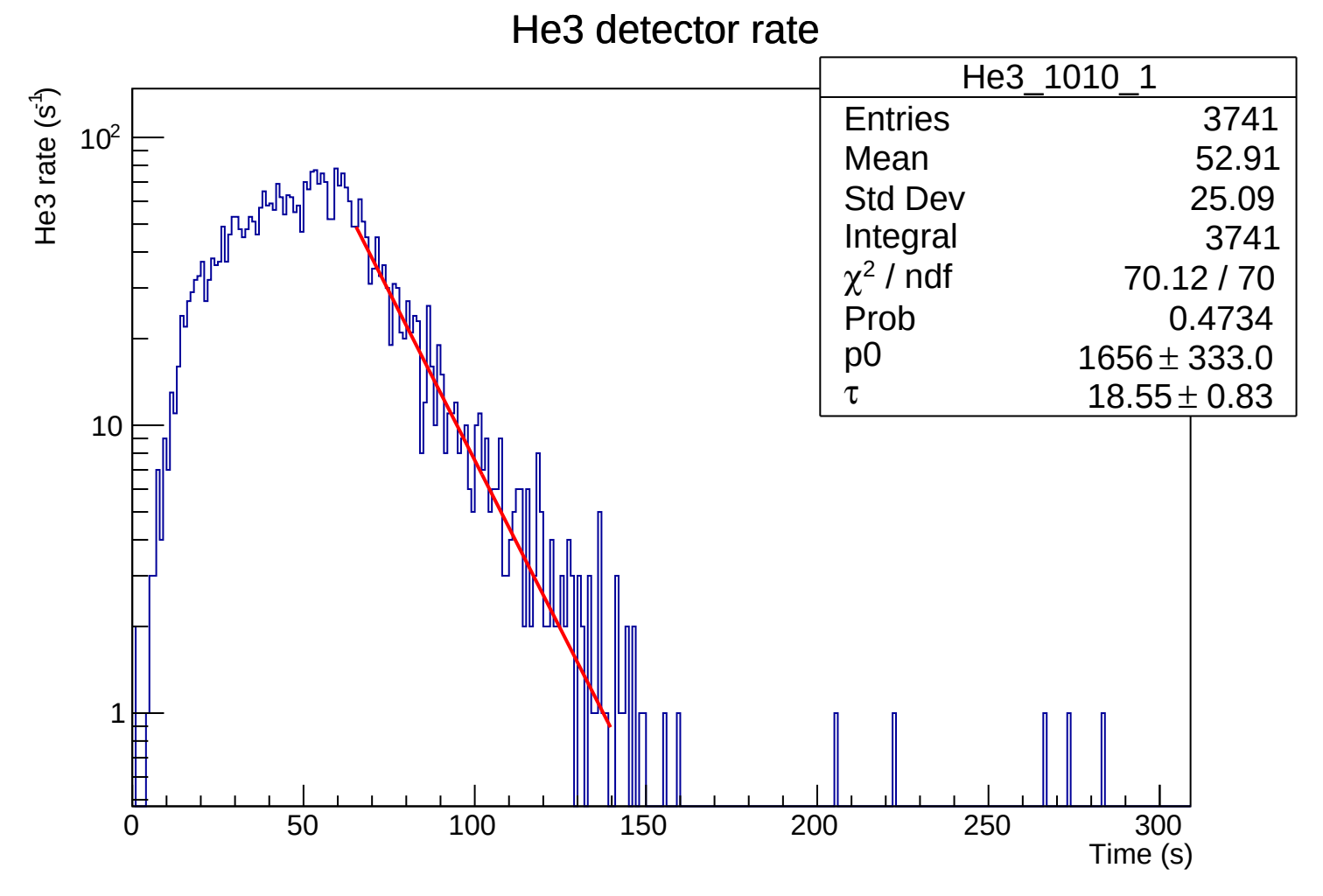
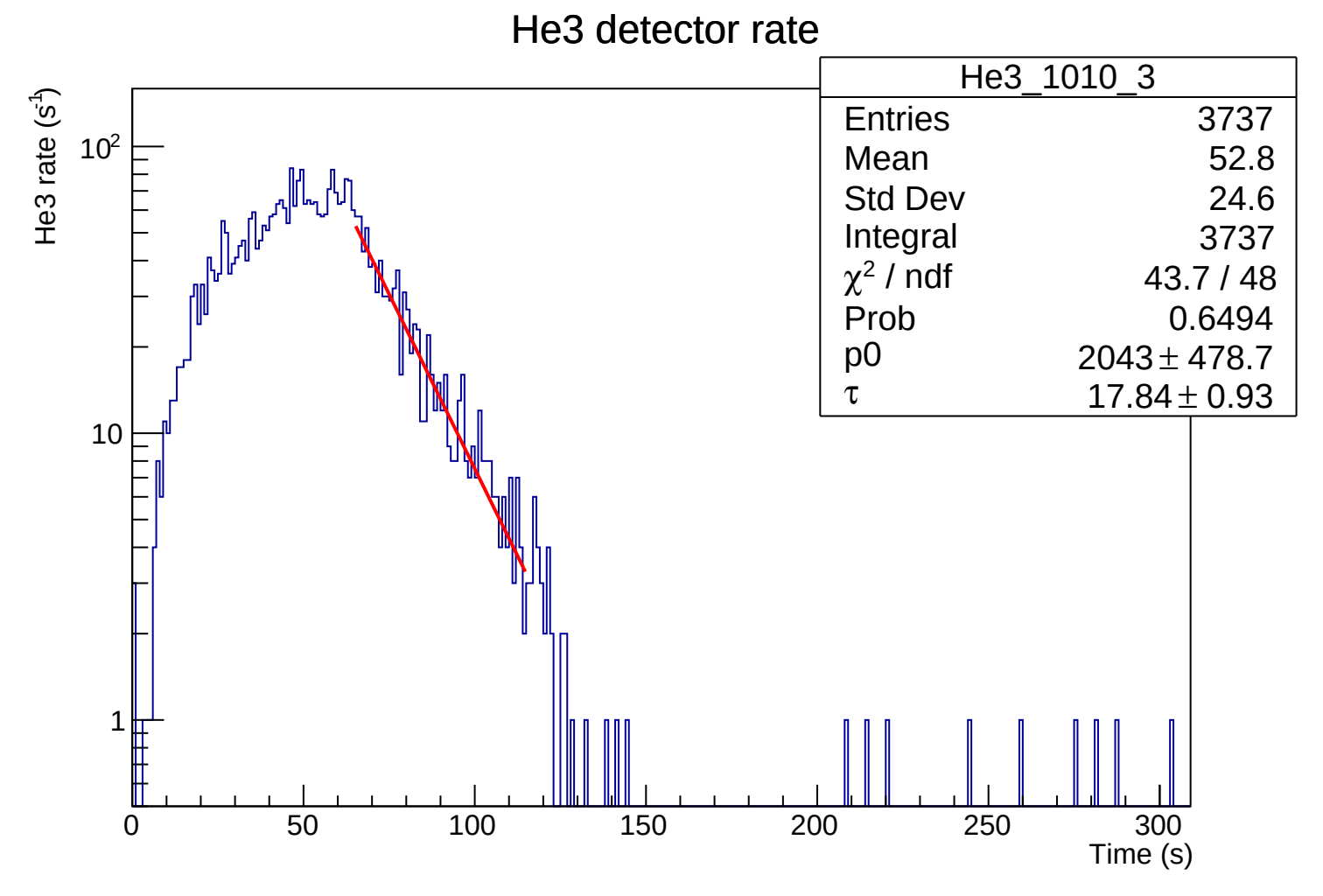

TCN18-292 (single exponential fit, with background subtracted, normalized to monitor detector)
χ² / ndf 118.1 / 7
Prob 1.882e–22
p0 6.874 ± 0.07684
τ 22.85 ± 0.2842
UCN-count-to-monitor ratio
1
0
10
20
30
40
50
60
70
80
Storage time (s)

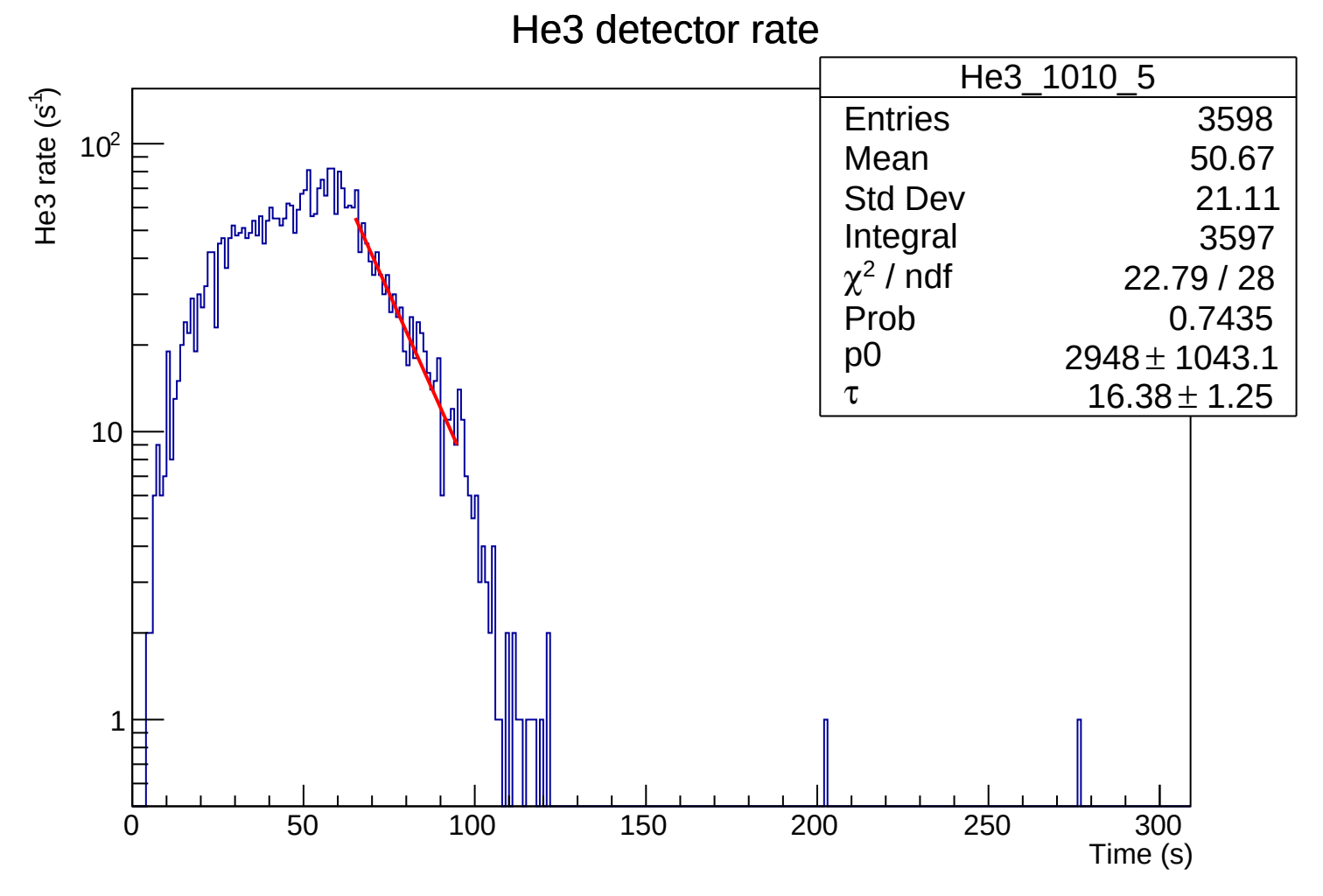

TCN18-292 (single exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ² / ndf 76.29 / 5
Prob 5.007e−15
p0 6.446 ± 0.09835
τ 23.94 ± 0.344
UCN-count-to-monitor ratio
1
0
10
20
30
40
50
60
70
80
Storage time (s)

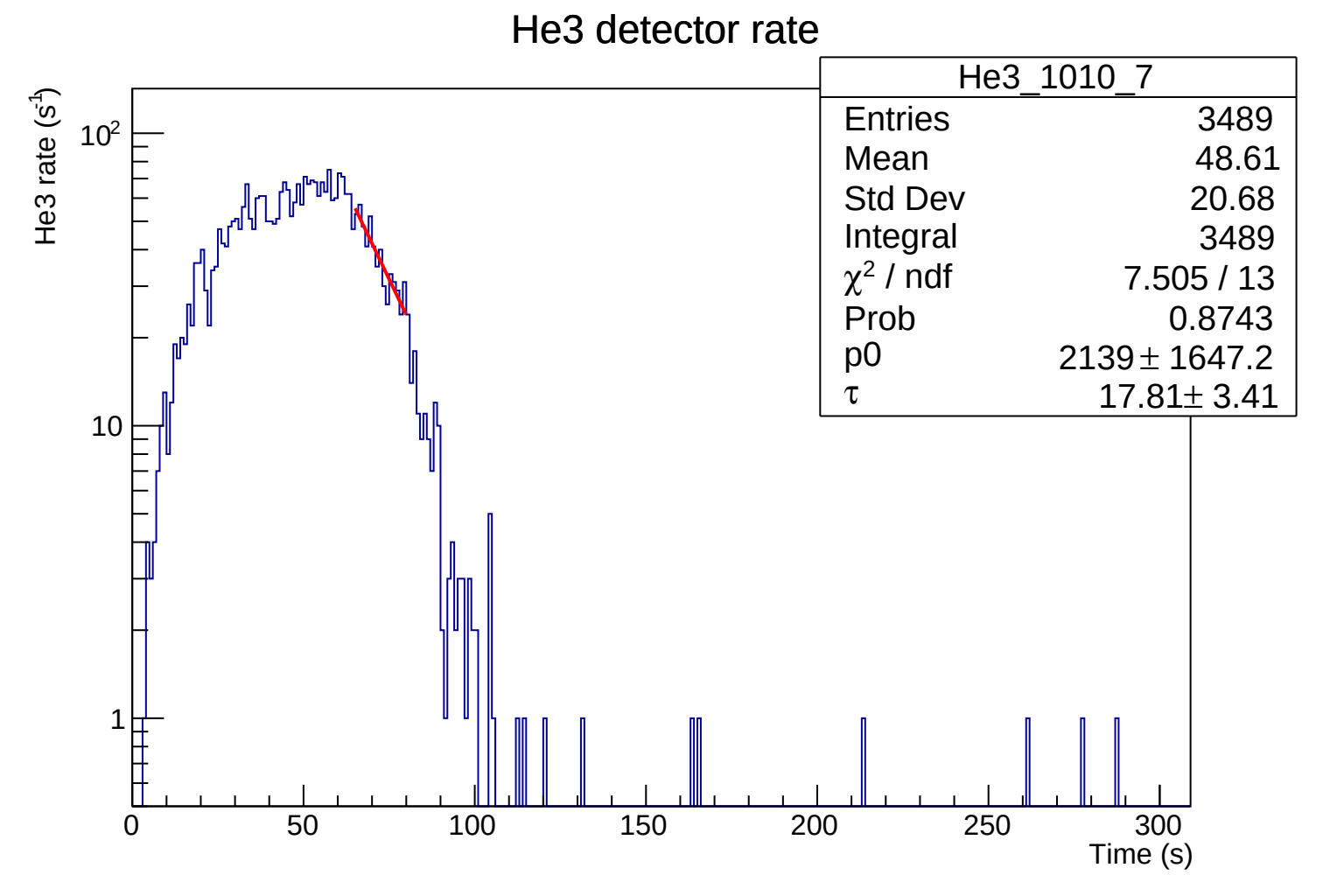

TCN18-292 (double exponential fit, with background subtracted, normalized to monitor detector)
χ² / ndf 2.019 / 5
Prob 0.8465
N1 5.152 ± 0.8972
τ1 13.95 ± 1.901
N2 2.234 ± 0.9345
τ2 39.93 ± 7.991
UCN-count-to-monitor ratio
1
0
10
20
30
40
50
60
70
80
Storage time (s)


TCN18-292 (single exponential fit + background, unnormalized)
χ² / ndf 25.23 / 6
Prob 0.0003101
p0 1.689e+04 ± 76.43
τ 18.49 ± 0.2183
Background 873 ± 36.06
UCN count
10⁴
10³
0
10
20
30
40
50
60
70
80
Storage time (s)


He3 detector rate
He3_1010_1
Entries 3741
Mean 52.91
Std Dev 25.09
Integral 3741
χ² / ndf 70.12 / 70
Prob 0.4734
p0 1656 ± 333.0
τ 18.55 ± 0.83
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


He3 detector rate
He3_1010_3
Entries 3737
Mean 52.8
Std Dev 24.6
Integral 3737
χ² / ndf 43.7 / 48
Prob 0.6494
p0 2043 ± 478.7
τ 17.84 ± 0.93
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


He3 detector rate
He3_1010_5
Entries 3598
Mean 50.67
Std Dev 21.11
Integral 3597
χ² / ndf 22.79 / 28
Prob 0.7435
p0 2948 ± 1043.1
τ 16.38 ± 1.25
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


He3 detector rate
He3_1010_7
Entries 3489
Mean 48.61
Std Dev 20.68
Integral 3489
χ² / ndf 7.505 / 13
Prob 0.8743
p0 2139 ± 1647.2
τ 17.81 ± 3.41
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

Average lifetime from He3 data:

τ = 17.8684454965 +/- 0.0898816879165 s