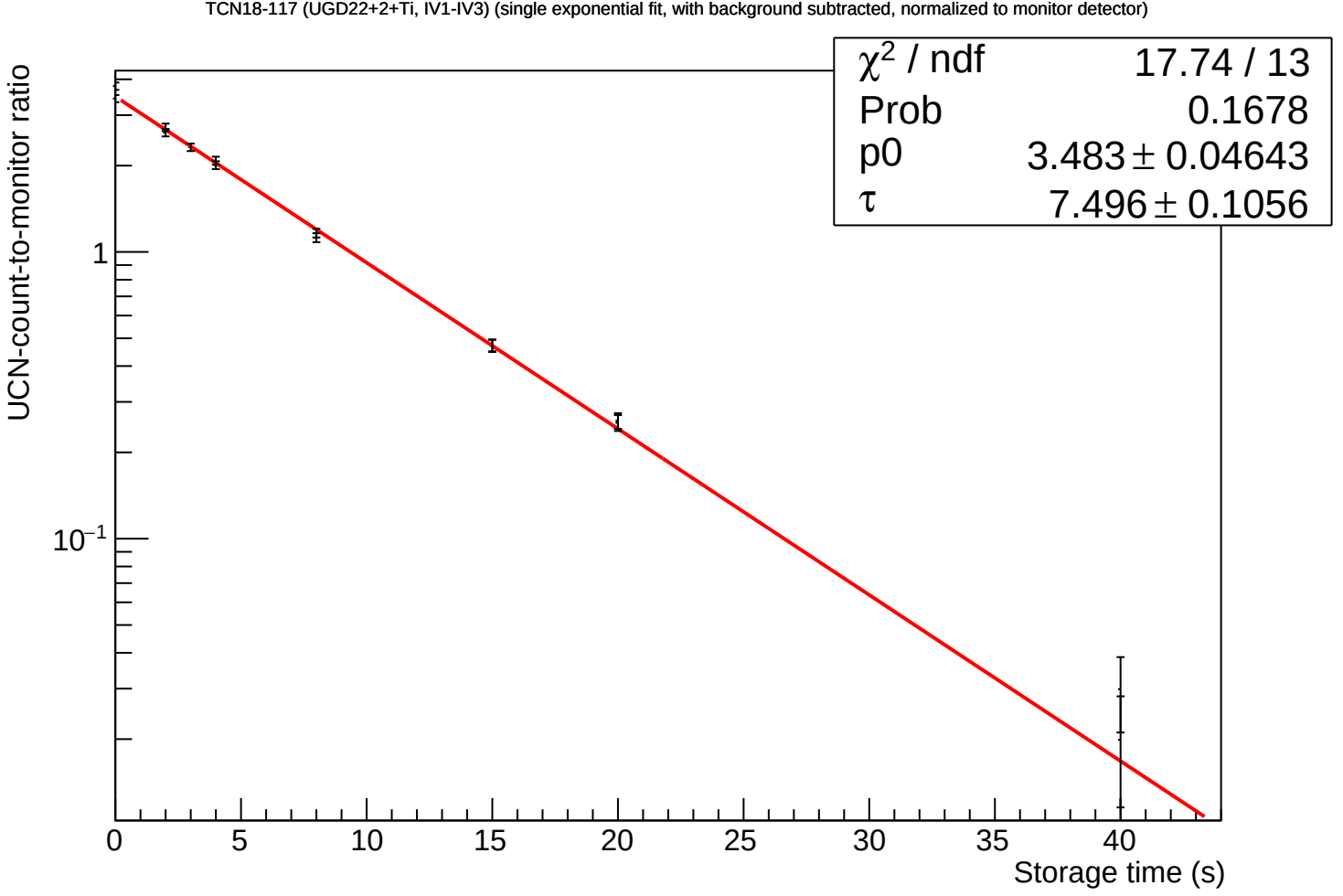
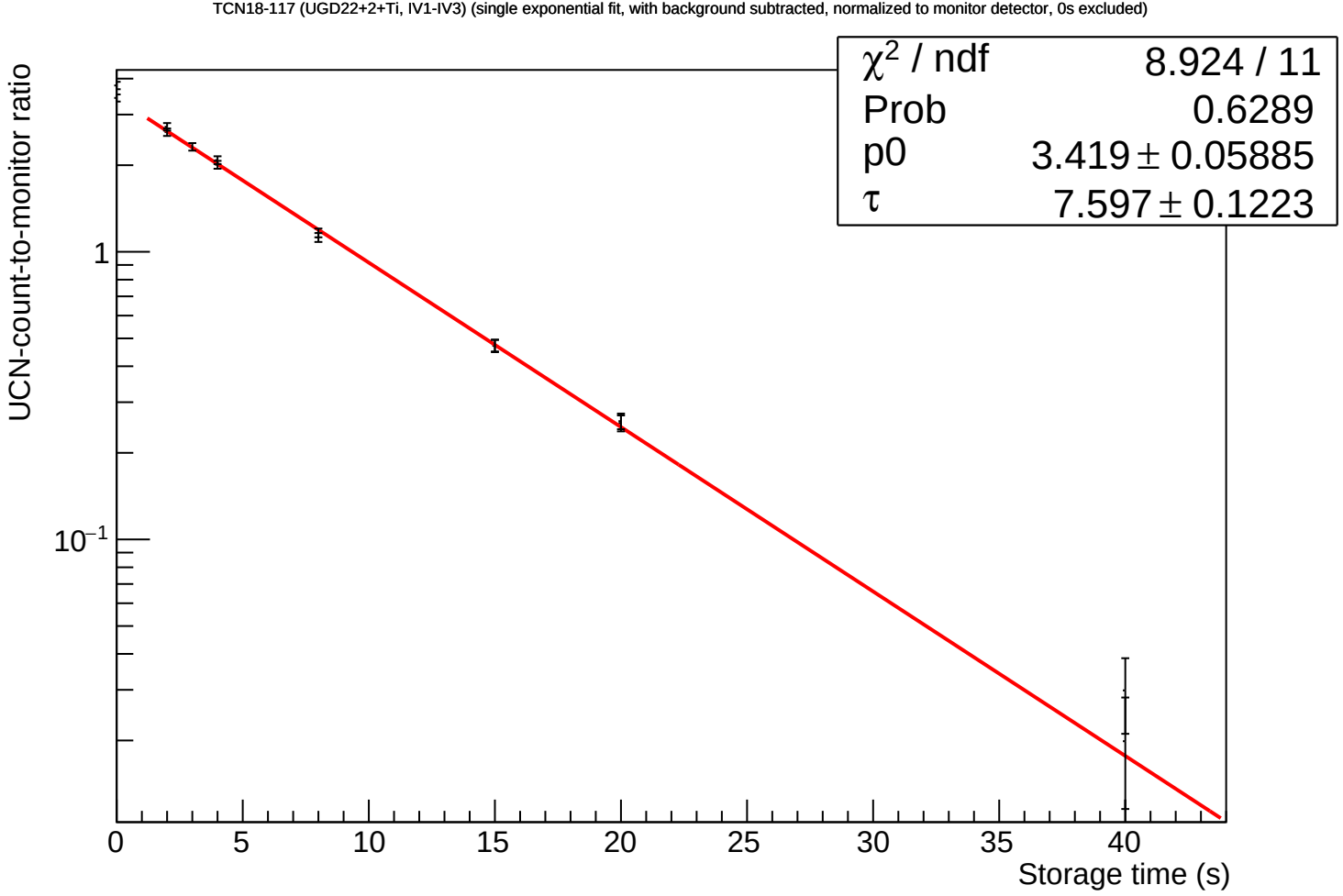
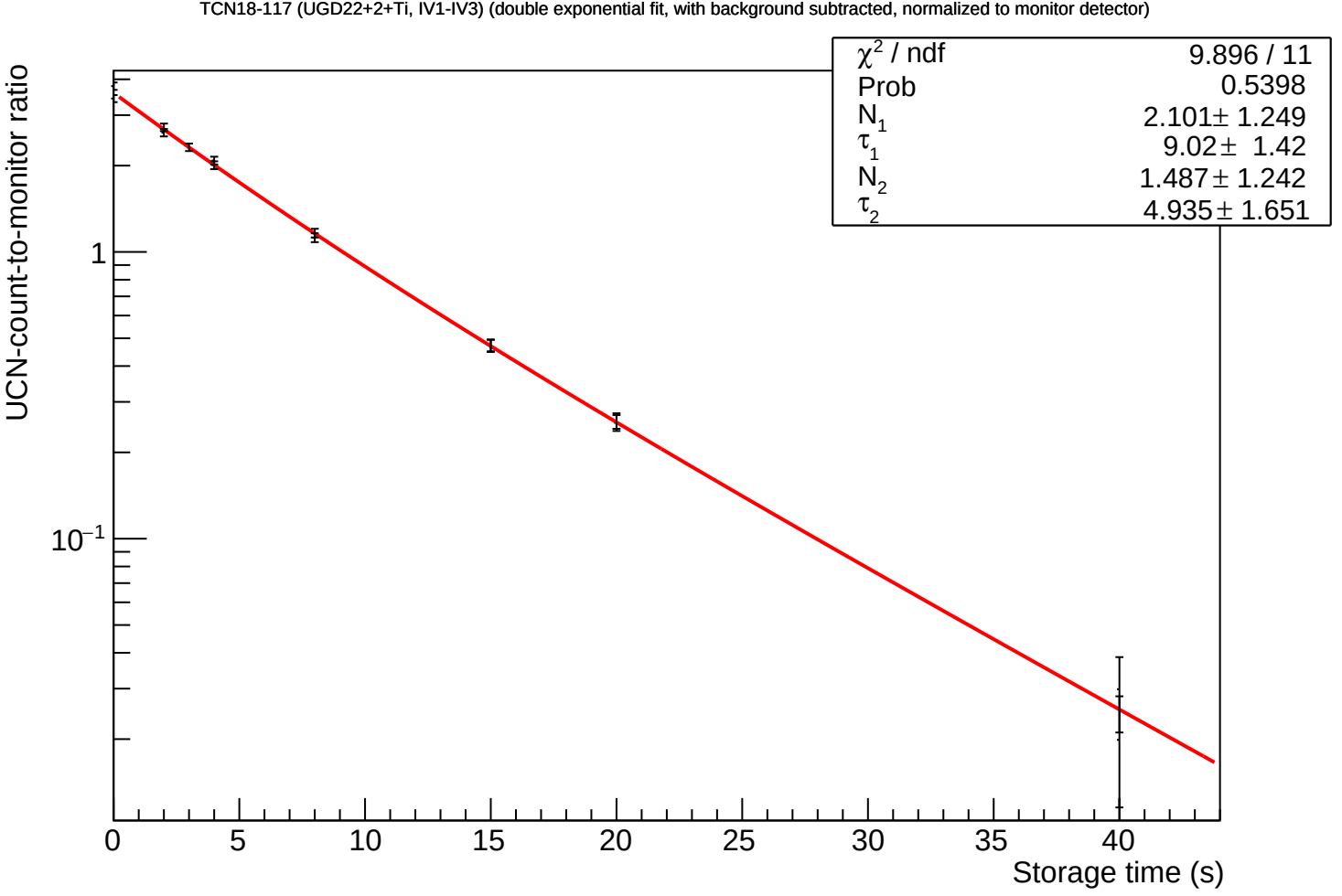
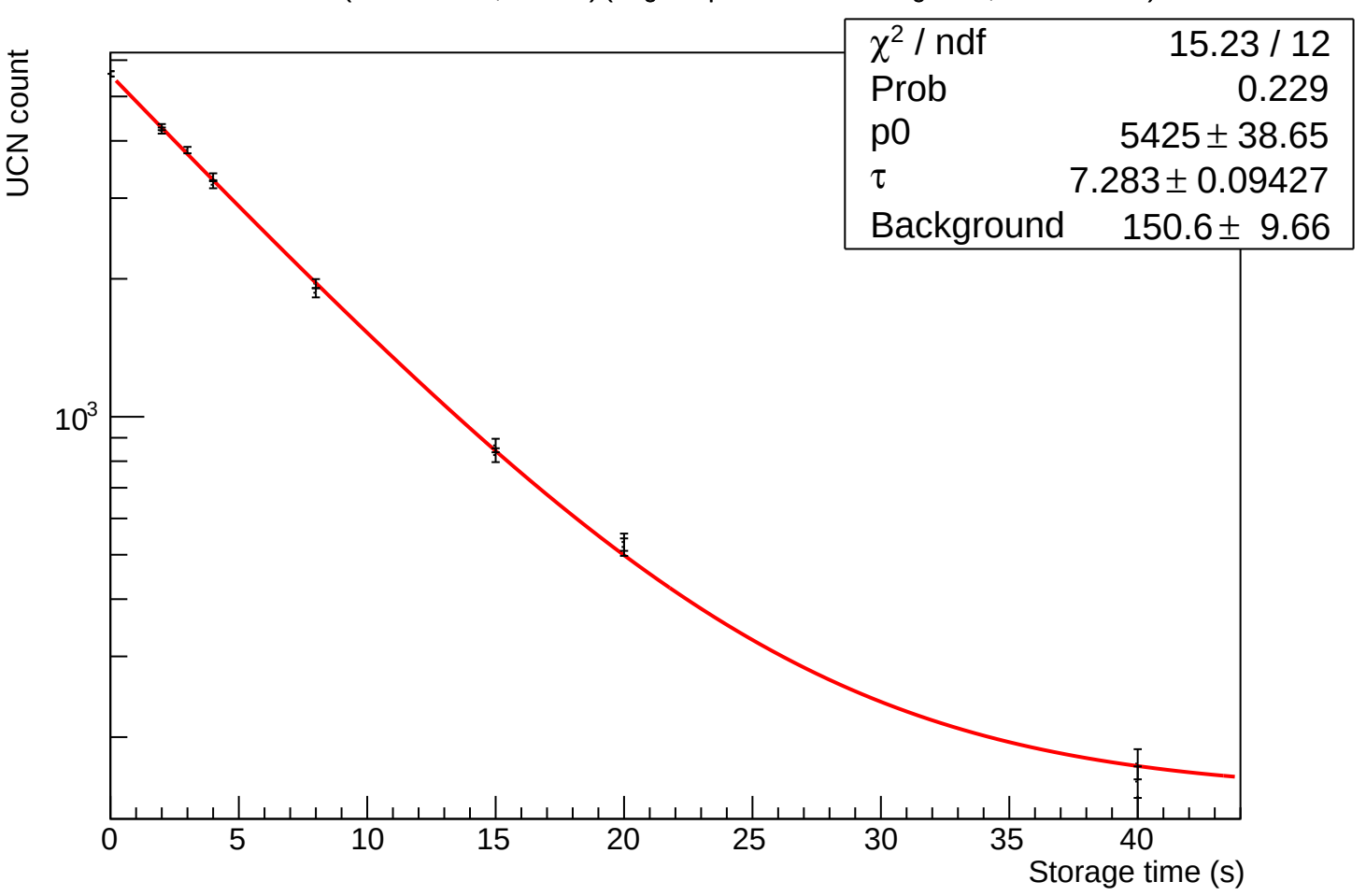
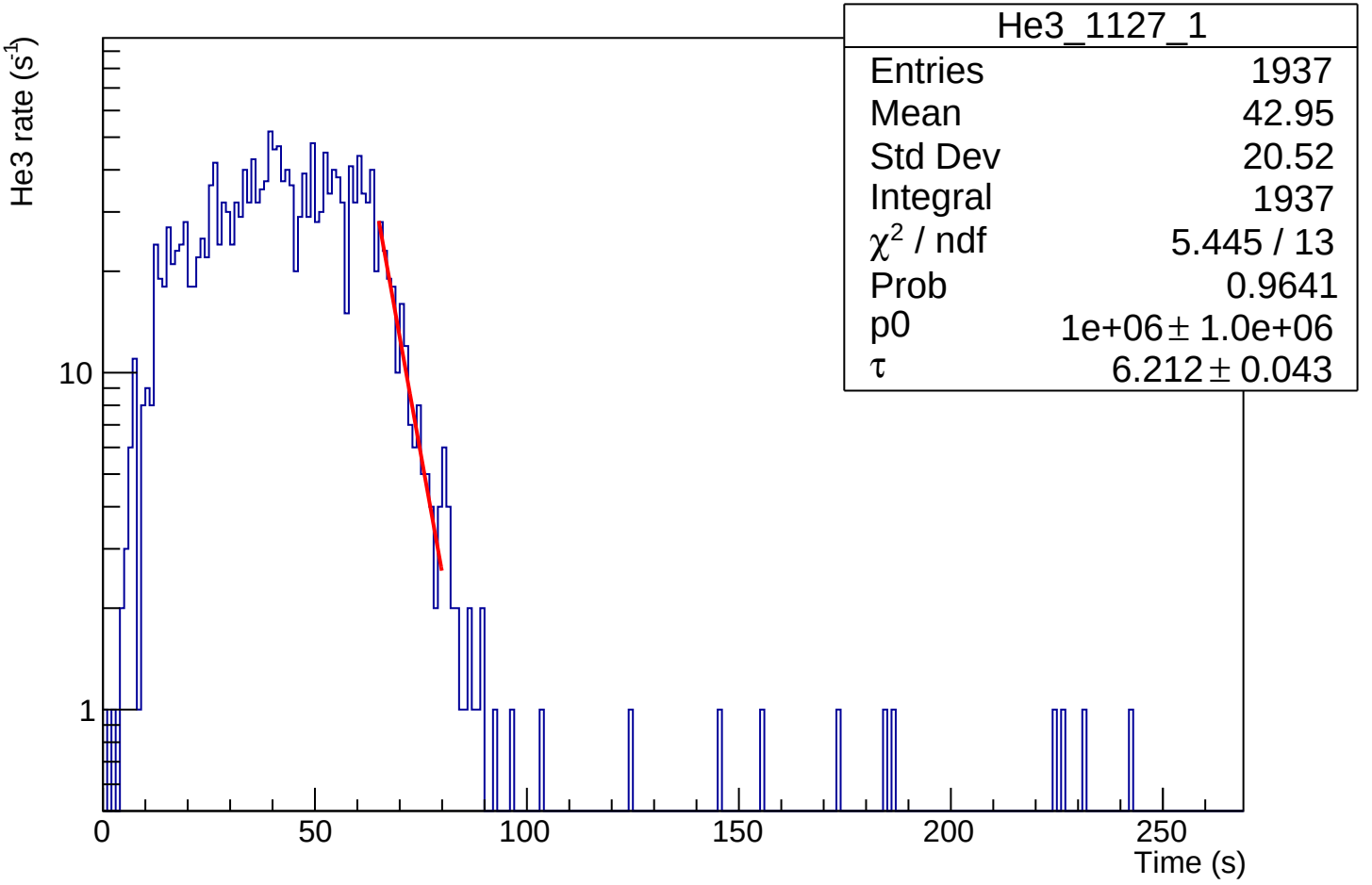
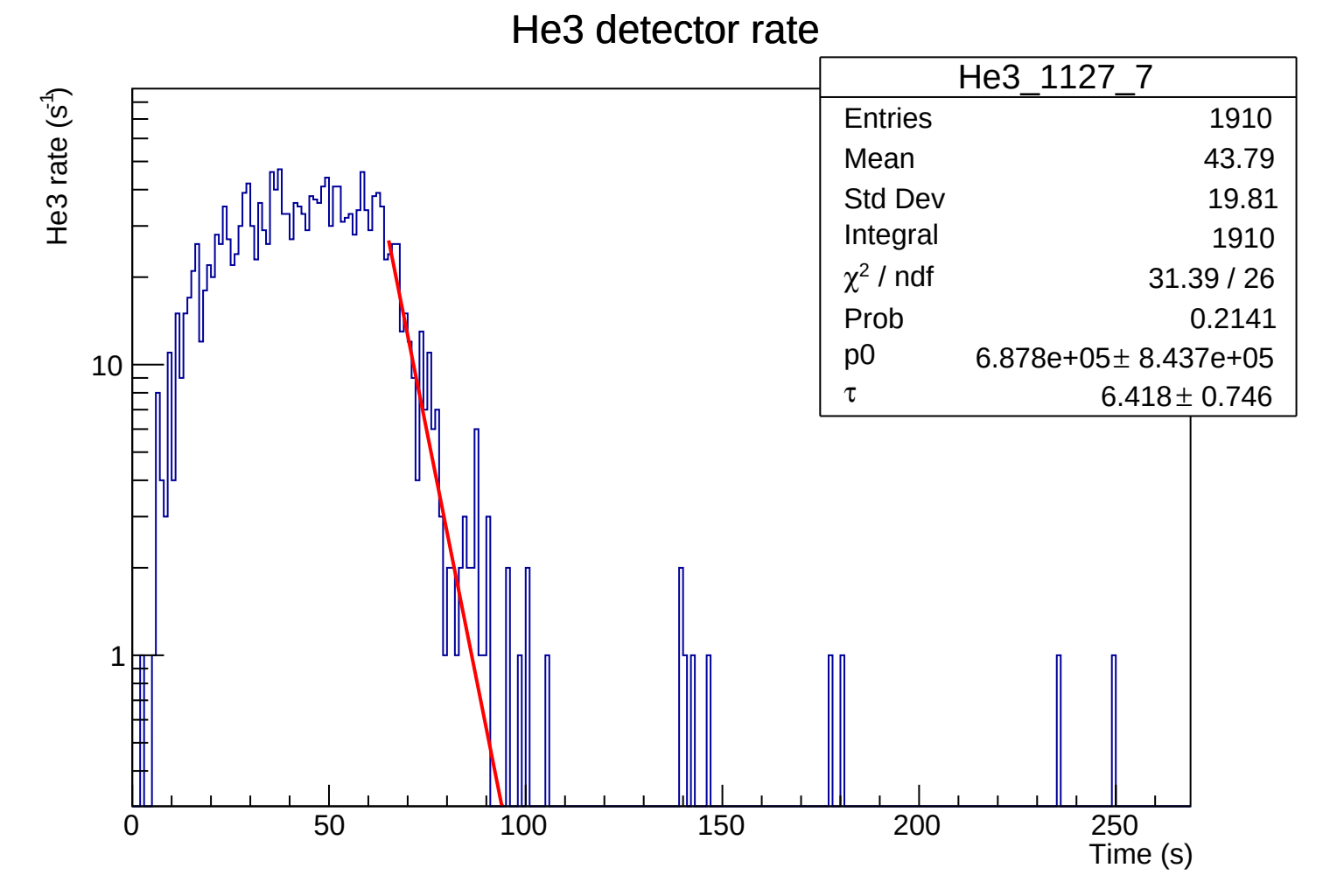

TCN18-117 (UGD22+2+Ti, IV1-IV3) (single exponential fit, with background subtracted, normalized to monitor detector)
χ² / ndf 17.74 / 13
Prob 0.1678
p0 3.483 ± 0.04643
τ 7.496 ± 0.1056
UCN-count-to-monitor ratio
1
10⁻¹
0
5
10
15
20
25
30
35
40
Storage time (s)

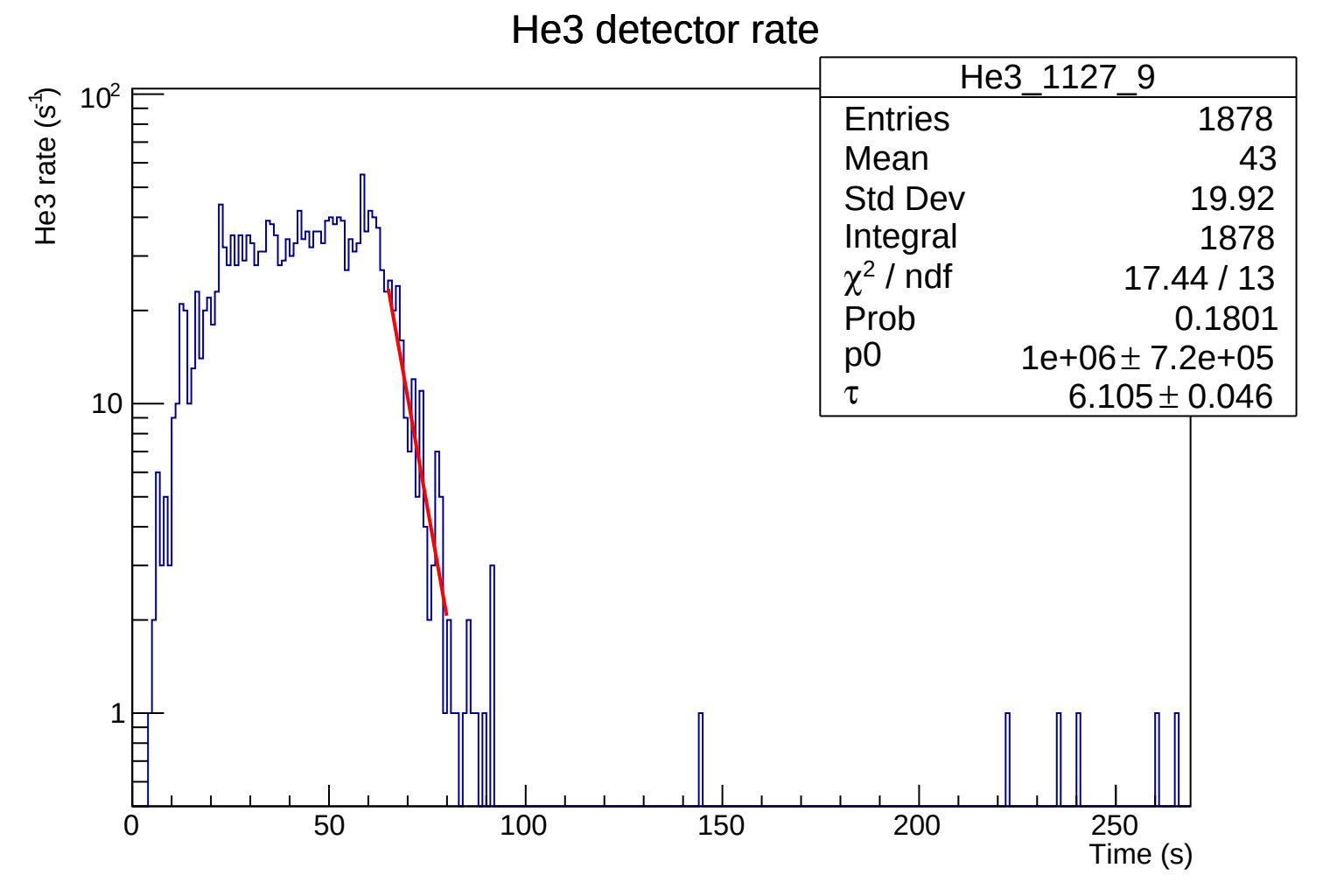

TCN18-117 (UGD22+2+Ti, IV1-IV3) (single exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ² / ndf 8.924 / 11
Prob 0.6289
p0 3.419 ± 0.05885
τ 7.597 ± 0.1223
UCN-count-to-monitor ratio
1
10⁻¹
0
5
10
15
20
25
30
35
40
Storage time (s)

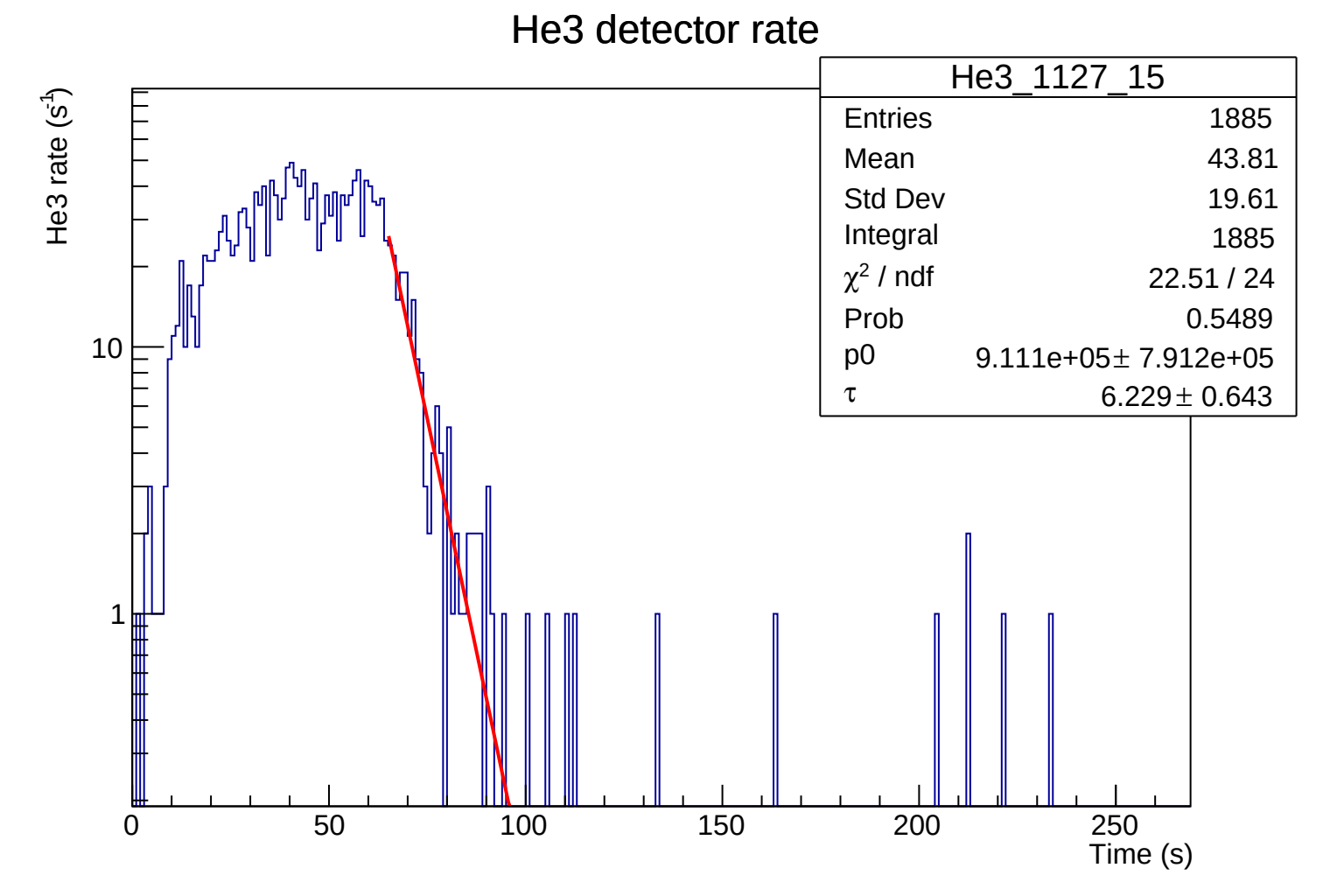

TCN18-117 (UGD22+2+Ti, IV1-IV3) (double exponential fit, with background subtracted, normalized to monitor detector)
χ² / ndf 9.896 / 11
Prob 0.5398
N1 2.101± 1.249
τ1 9.02± 1.42
N2 1.487± 1.242
τ2 4.935± 1.651
UCN-count-to-monitor ratio
1
10⁻¹
0
5
10
15
20
25
30
35
40
Storage time (s)


TCN18-117 (UGD22+2+Ti, IV1-IV3) (single exponential fit + background, unnormalized)
χ^2 / ndf 15.23 / 12
Prob 0.229
p0 5425 ± 38.65
τ 7.283 ± 0.09427
Background 150.6 ± 9.66
UCN count
10^3
0
5
10
15
20
25
30
35
40
Storage time (s)


He3 detector rate
He3_1127_1
Entries 1937
Mean 42.95
Std Dev 20.52
Integral 1937
χ² / ndf 5.445 / 13
Prob 0.9641
p0 1e+06 ± 1.0e+06
τ 6.212 ± 0.043
He3 rate (s⁻¹)
10
1
0
50
100
150
200
250
Time (s)


He3 detector rate
He3_1127_7
Entries 1910
Mean 43.79
Std Dev 19.81
Integral 1910
χ² / ndf 31.39 / 26
Prob 0.2141
p0 6.878e+05 ± 8.437e+05
τ 6.418 ± 0.746
He3 rate (s⁻¹)
10
1
0
50
100
150
200
250
Time (s)


He3 detector rate
He3_1127_9
Entries 1878
Mean 43
Std Dev 19.92
Integral 1878
χ² / ndf 17.44 / 13
Prob 0.1801
p0 1e+06 ± 7.2e+05
τ 6.105 ± 0.046
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


He3 detector rate
He3_1127_15
Entries 1885
Mean 43.81
Std Dev 19.61
Integral 1885
χ² / ndf 22.51 / 24
Prob 0.5489
p0 9.111e+05 ± 7.912e+05
τ 6.229 ± 0.643
He3 rate (s⁻¹)
10
1
0
50
100
150
200
250
Time (s)

Average lifetime from He3 data:

τ = 6.16230875859 +/- 9.88486731292e-07 s