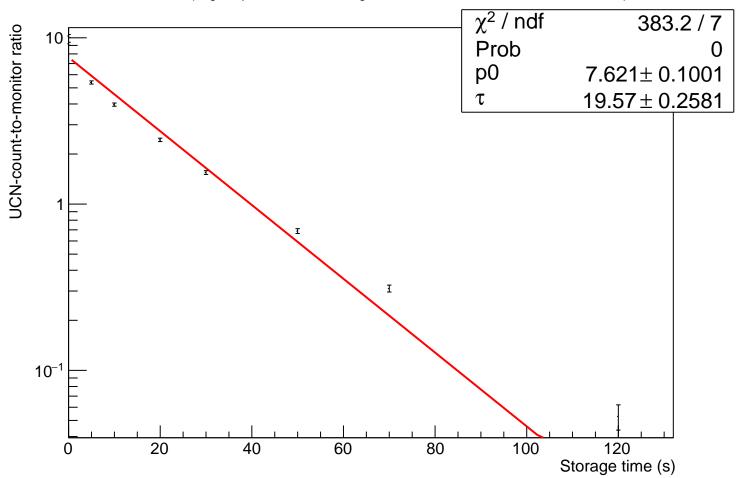
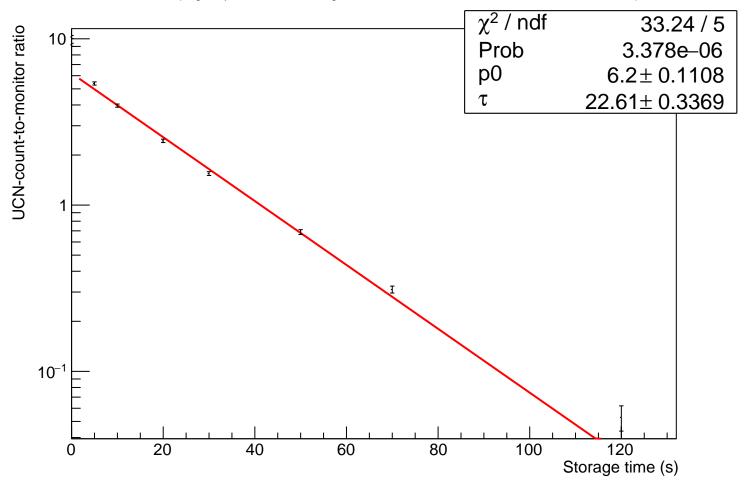
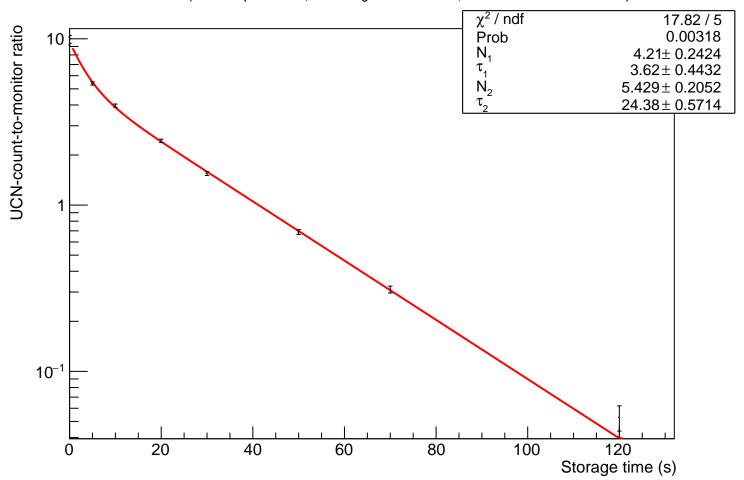
TCN18-082 (single exponential fit, with background subtracted, normalized to monitor detector)

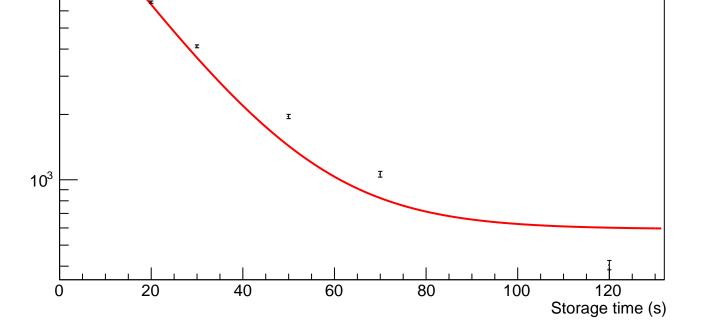




TCN18-082 (double exponential fit, with background subtracted, normalized to monitor detector)



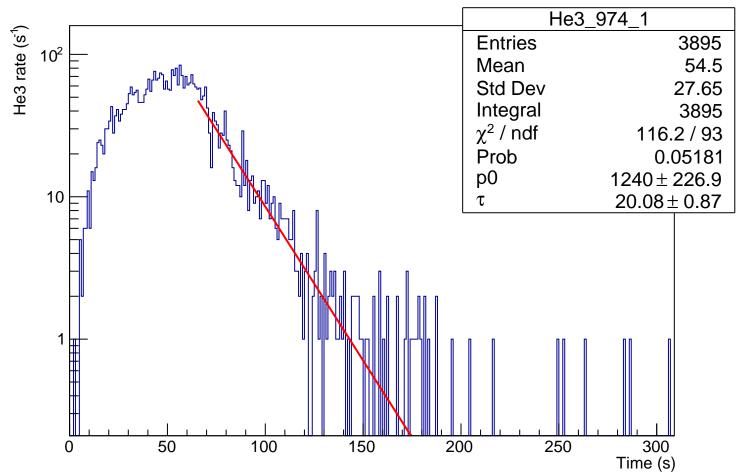
TCN18-082 (single exponential fit + background, unnormalized)  $\chi^2$  / ndf 1265 / 6 Prob 0 p0  $2.118e+04\pm96.28$  $15.49 \pm 0.1414$ Background  $592.4 \pm 18.16$ I



**UCN** count

 $10^{4}$ 

He3 detector rate



He3 detector rate He3\_974\_3 He3 rate  $(\bar{s}^1)$ **Entries** 3931  $10^{2}$ Mean 53.09 Std Dev 24.19 Integral 3931  $\chi^2$  / ndf 59.15 / 63 Prob 0.6145 p0  $2348 \pm 442.8$  $17.5 \pm 0.7$ 10

150

50

100

200

250

300

Time (s)

He3 detector rate He3\_974\_4 He3 rate  $(\bar{s}^1)$ **Entries** 3693  $10^{2}$ Mean 50.93 Std Dev 22.61 Integral 3693  $\chi^2$  / ndf 45.58 / 23 Prob 0.003371 p0  $2116 \pm 927.7$  $17.53 \pm 1.80$ 10

150

200

250

300

Time (s)

100

50

He3 detector rate He3\_974\_5 He3 rate  $(\bar{s}^1)$ **Entries** 3783  $10^{2}$ Mean 52.59 Std Dev 24.18 Integral 3783  $\chi^2$  / ndf 45.67 / 43 Prob 0.3619 p0  $1973 \pm 513.3$  $18.05 \pm 1.06$ 10 100 150 250 300 50 200

Time (s)

He3 detector rate He3\_974\_6 He3 rate (s¹) **Entries** 3733 Mean 49.14  $10^{2}$ Std Dev 21.22 Integral 3733  $\chi^2$  / ndf 8.32 / 13 Prob 0.8222 p0 1181± 915.2  $20.76 \pm 4.65$ 10 250 300 50 100 150 200

Time (s)

## $\tau$ = 18.3874120863 +/- 0.0474042471691 s

**Average lifetime from He3 data:**