



Kaon LT Status Update

January 6th, 2021

Richard Trotta

10.6 GeV



$$P_{\text{HMS}} = -4.204$$
$$\theta_{\text{HMS}} = 14.93$$

- 55, 45, 30, 15, 5 μA
 - 5175, 5176, 5178, 5179, 5181

$$P_{\text{SHMS}} = 6.053$$
$$\theta_{\text{SHMS}} = 6.495$$

- 55, 45, 30, 15, 5 μA
 - 5175, 5176, 5178, 5179, 5181

Cuts

Electron
Cer > 0.5
2.0 > Cal > 0.6

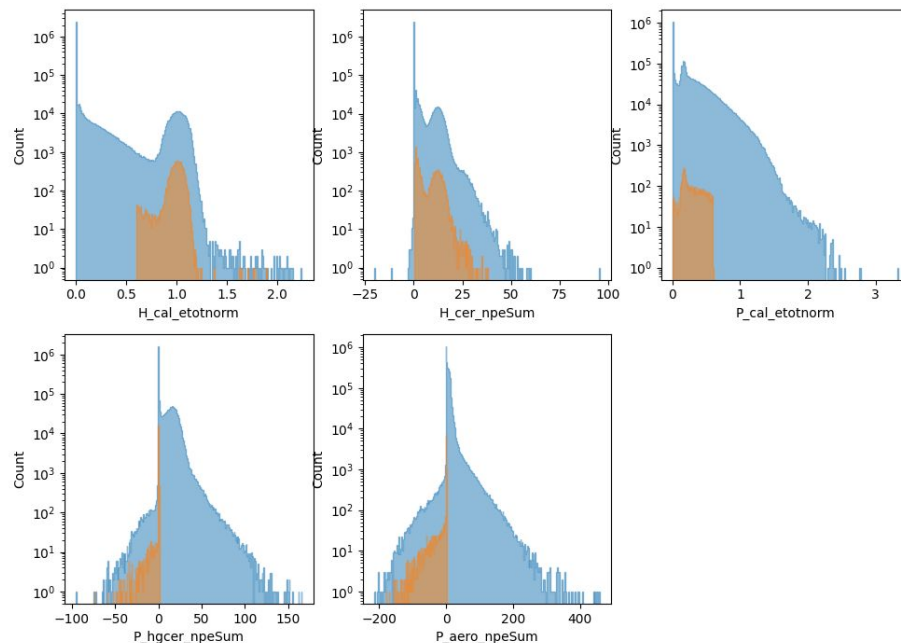
Proton
Hgger < 1.5
Aero < 1.5
0 < Cal <= 0.6

- $\text{abs}(|\text{SetCurrent}) < (|2.5|, |10|) \mu\text{A}$
- Delta
 - HMS, $(-8 < \text{delta} < 8)$
 - SHMS, $(-10 < \text{delta} < 20)$
- start time
 - $\text{H(P).hod.goodstarttime} == 1$

$$Y_{scaler} = \frac{N_{scaler}}{Q_{tot}}$$

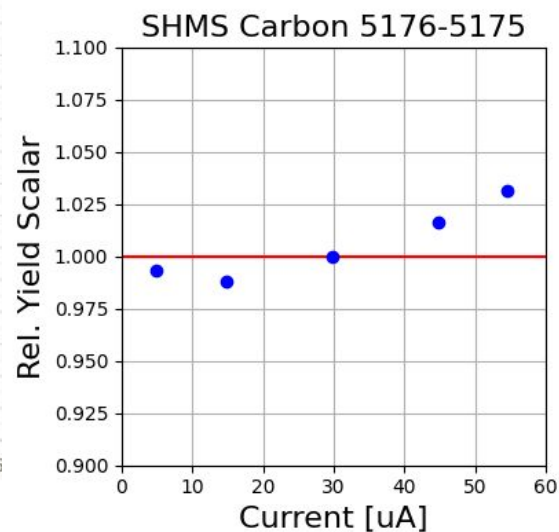
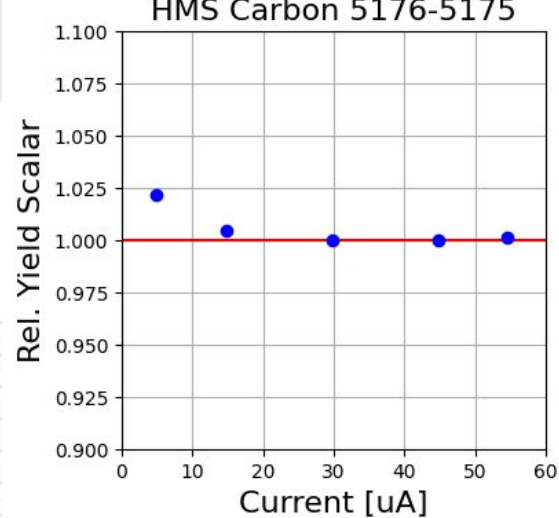
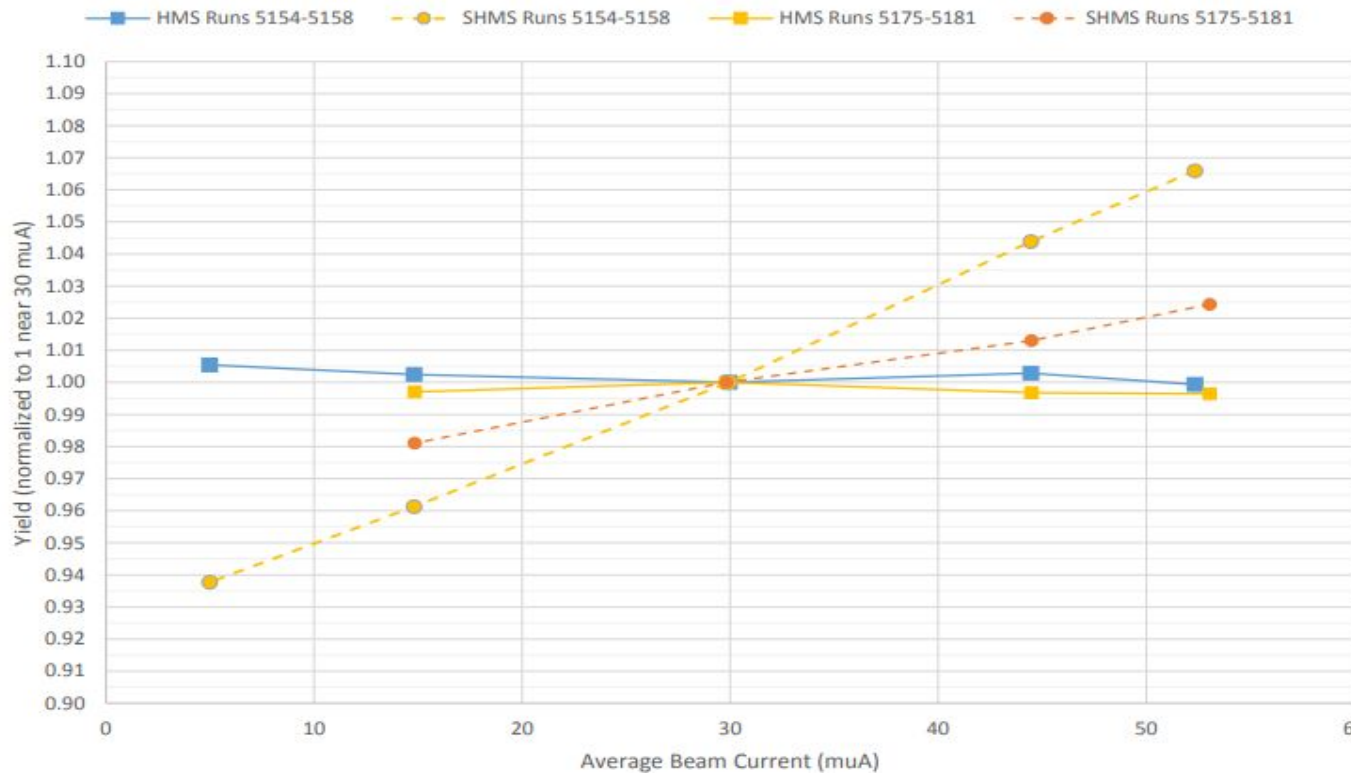
$$N_{scaler} = \Sigma(\text{trigscaler})$$

$$N_{scaler} = \Sigma(\text{trigscaler}) - EDTM_{scaler}$$



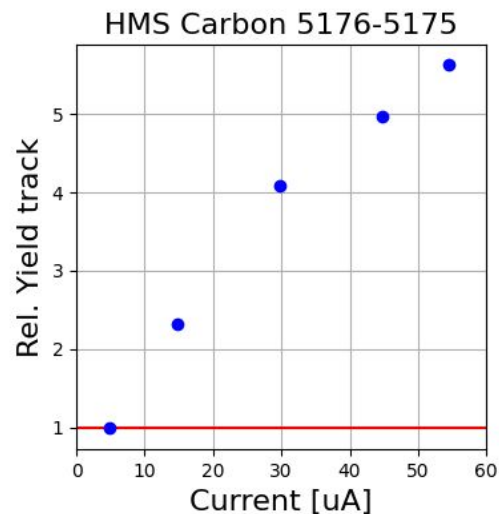
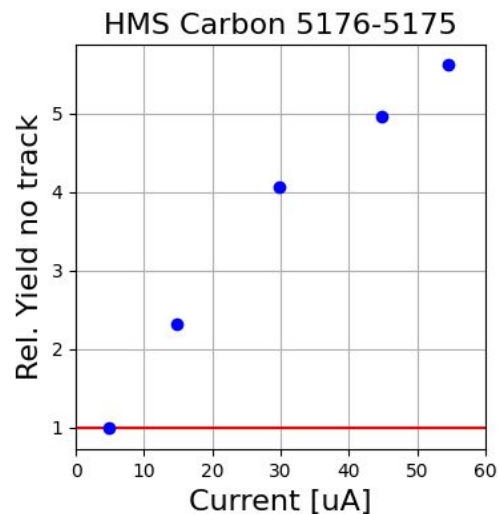
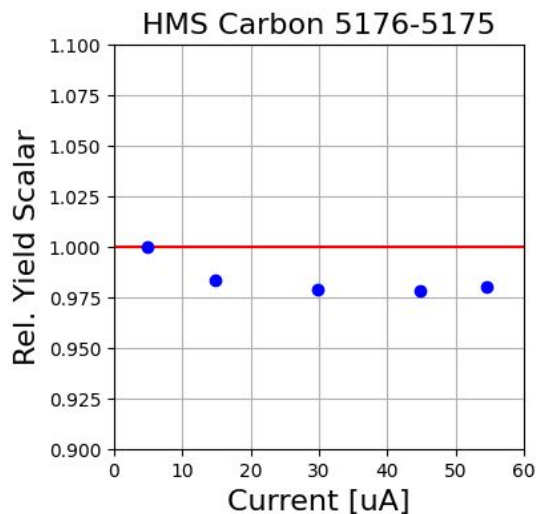
***Normalized to 30 uA

Carbon 1.5%
Normalized 3of4 Scaler Yield vs Current



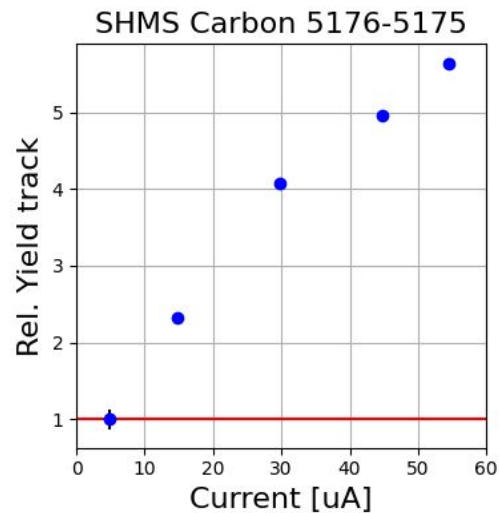
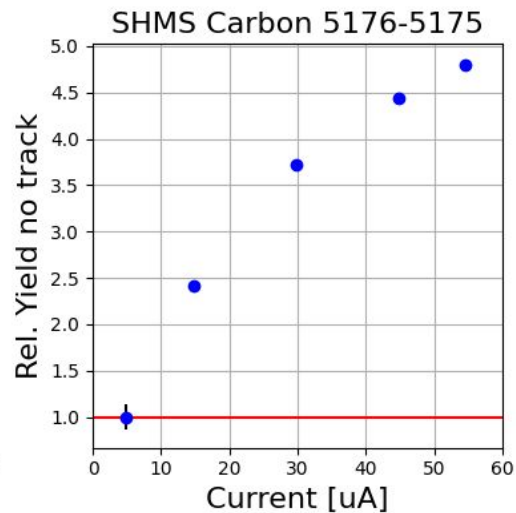
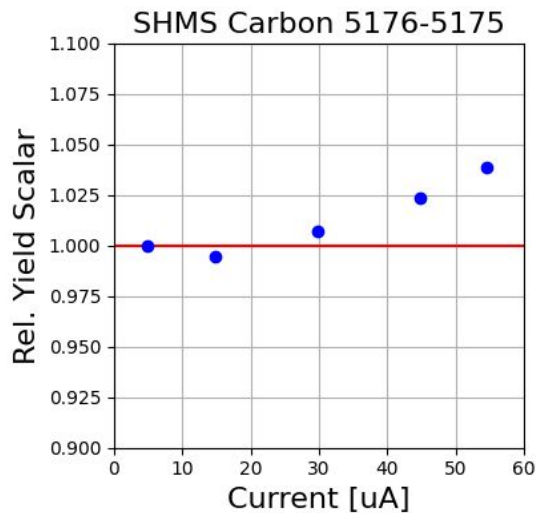
$$P_{HMS} = -4.204$$

Electron
Cer > 0.5
2.0 > Cal > 0.6



$$P_{SHMS} = 6.053$$

Proton
Hgcer < 1.5
Aero < 1.5
0 < Cal <= 0.6



8.2 GeV

$$P_{\text{HMS}} = 5.745$$
$$\theta_{\text{HMS}} = 12.97$$

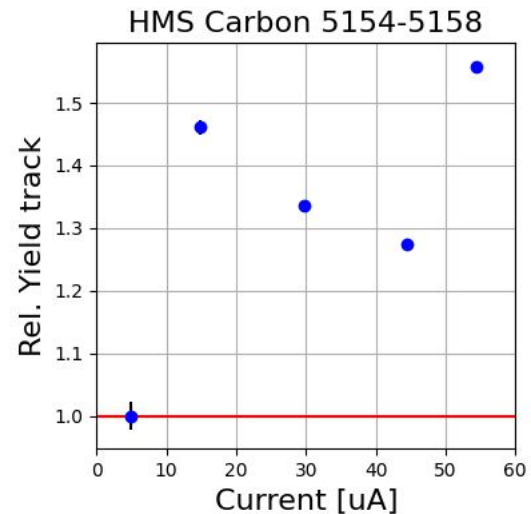
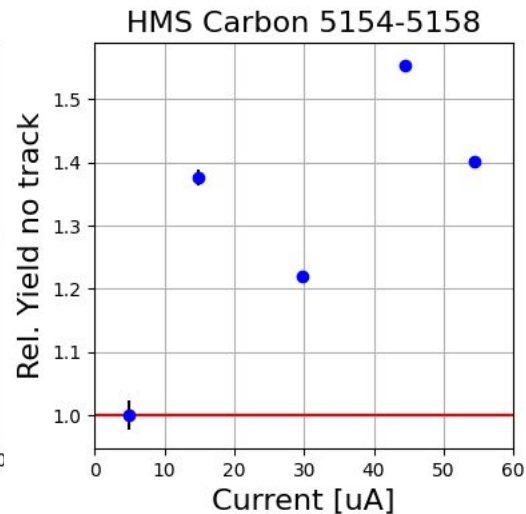
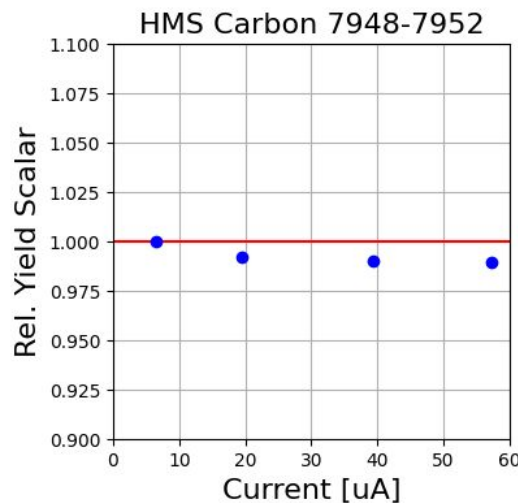
- 55, 45, 30, 15, 5 μA
 - 7948, 7949, 7950, 7951, 7952

$$P_{\text{SHMS}} = 5.745$$
$$\theta_{\text{SHMS}} = 9.51$$

- 55, 45, 30, 15, 5 μA
 - 7948, 7949, 7950, 7951, 7952

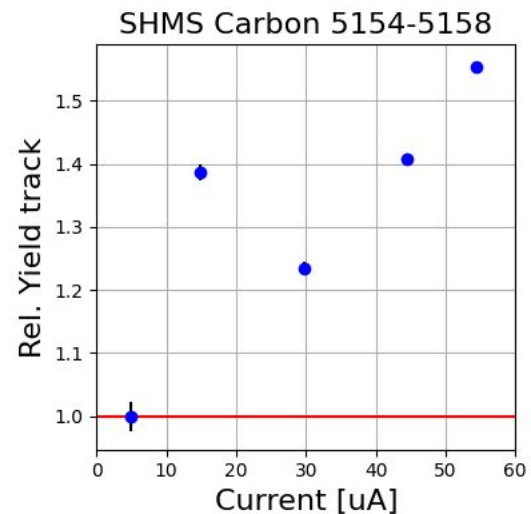
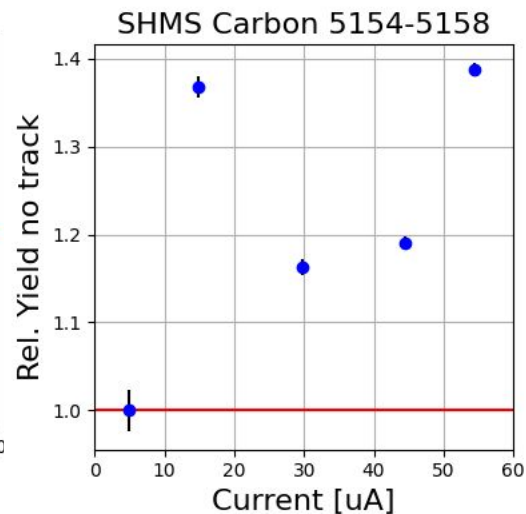
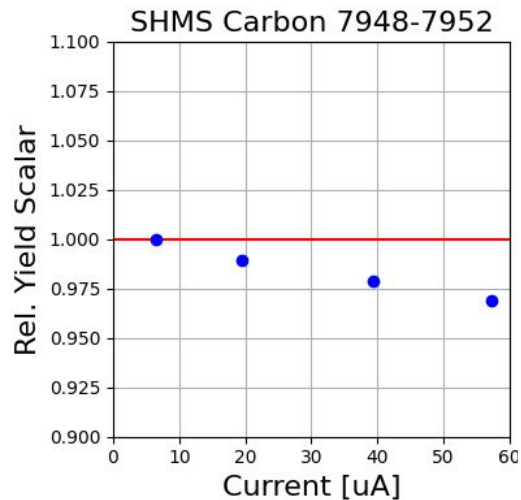
$P_{HMS} = 5.745$

Hadron
Cer < 0.5
 $0.0 < Cal \leq 0.6$



$P_{SHMS} = 5.745$

Proton
Hgcer < 1.5
Aero < 1.5
 $0 < Cal \leq 0.6$





Extra