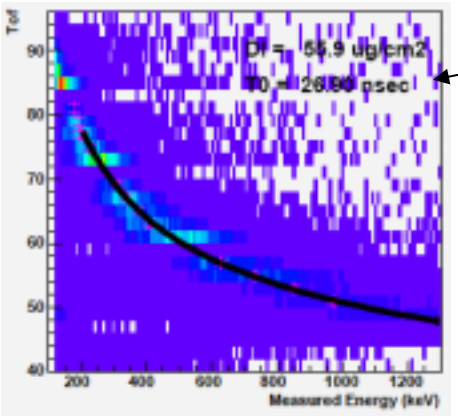
Update on Si dead layer estimation

Si dead layer is estimated by kinetic fit (2parameters) to carbon locus
The run with low bunch intensity (~0.1x10^{11}/bunch) were used (no intensity effect expected)

$$Tof(ns) = \sqrt{\frac{M_C}{2}}\frac{Distance}{\sqrt{E_{elastic}}} + t_0$$
$$E_{elastic} = f(E_{deposit}, D_{width})$$

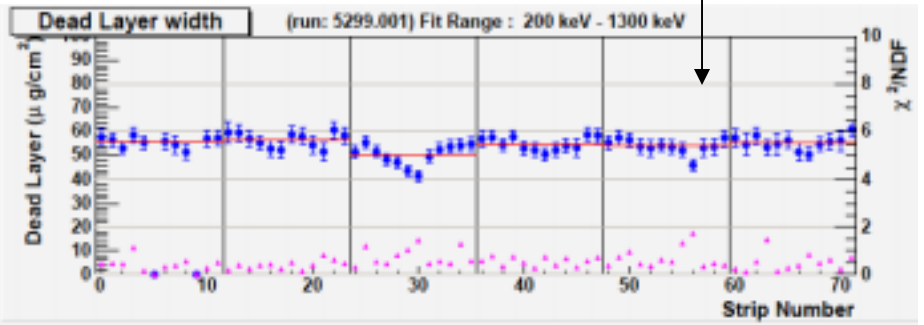
Carbon locus based on (Amplitude, TDC at max pulse height) is used for the fit

TDC bins at the periodical peaks (highest, and lowest of 6-point structure in WFD, expected to have wrong timings) are eliminated from the fit



fit example
for one strip

Fit result summary
strip by strip distribution
blue – estimated values
pink – χ^2 of the fit



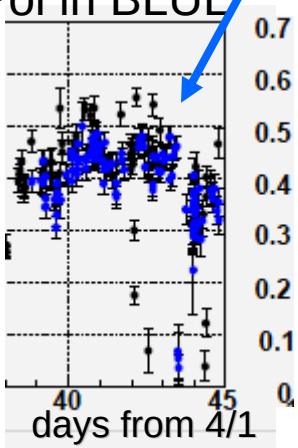
ISSUES

- Mean value (54μg/cm^2) is not consistent with the implantation energy (40keV→expected to be 33μg/cm^2)
- Other parameterizations (baseline shift, energy calibration) is other possibilities for the better fit results
- Comparison with Kyoto Tandem test (2003fall), and ^{241}Am source test in lab is necessary

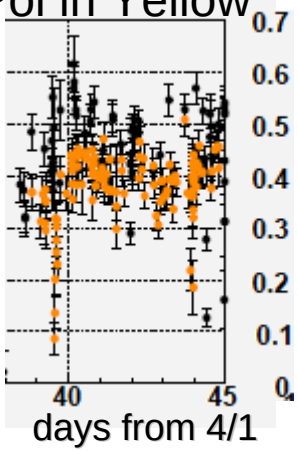
Low blue polarization at the last 1.5days

Polarization drop was observed, when the target was switched from vertical to horizontal (black:24GeV color:100GeV)

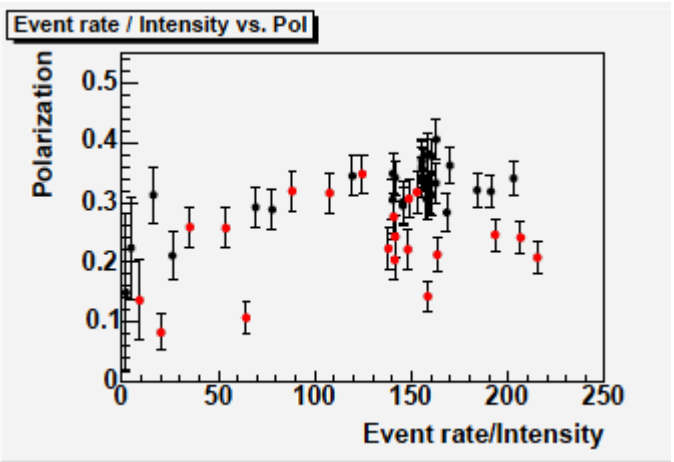
Pol in BLUE

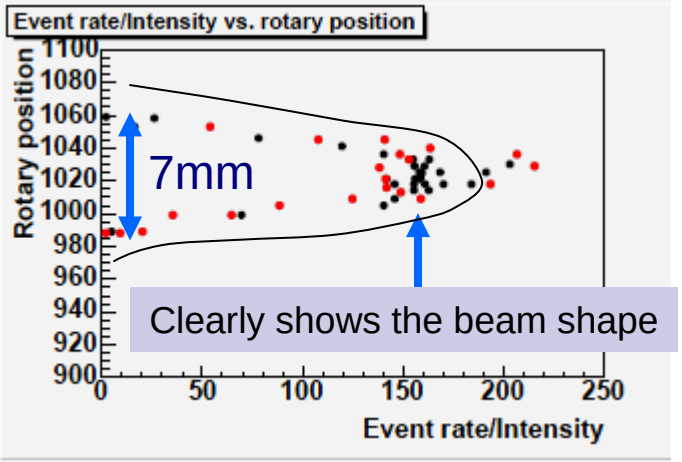


Pol in Yellow



Some correlations for this horizontal target





It is understood that the flattop (100GeV) runs in the last 1.5days (Black points) are mostly taken at the center of the beam

Red points are the data from other period of time when this target was used (in April)

Longitudinal target position was also confirmed to be correct with *–t* slope

False asymmetries (cross/radial) were normal