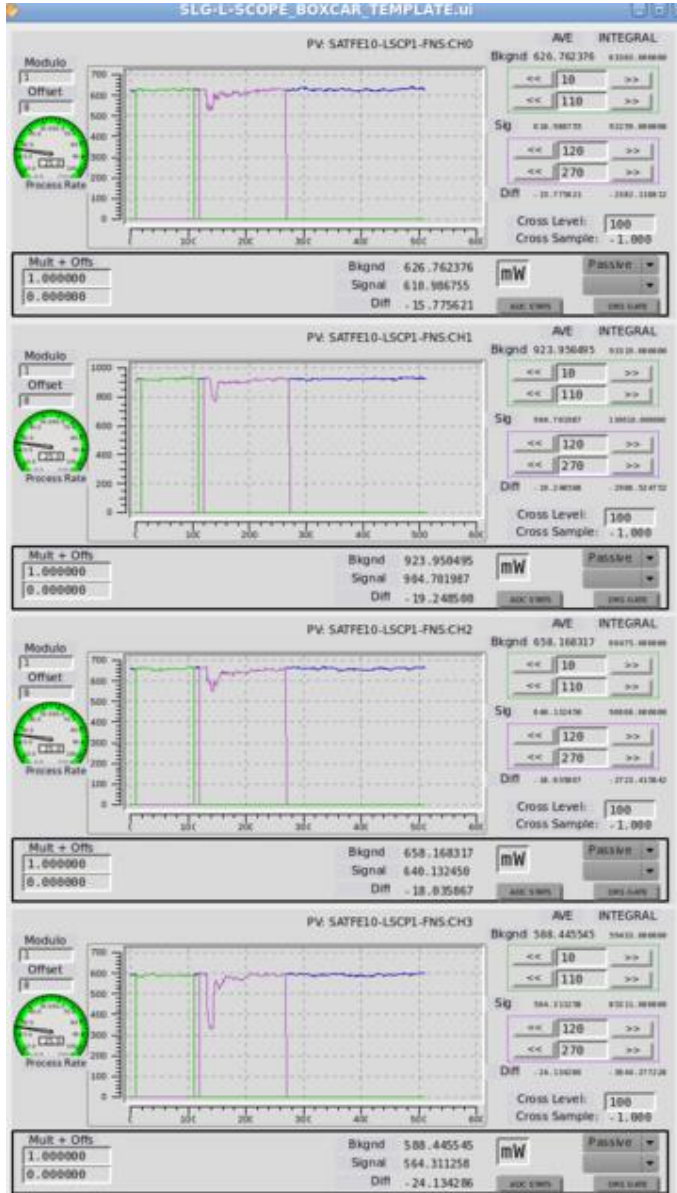


New pre-amps installed and the fast signal on PEPG is working OK again



SATUN11 FEL SCOPING CALCULATIONS

Photon Energy from User [eV] **995.00** FEL Photon Energy[keV] SATUN11-UIND030:FELPHOTENE CPP NMS **0.995** keV

Energy Source Selection **USER** **MACHINE** Energy in use **995.04 eV**

Ion Currents Upstream **MACHINE** Beam rate **0.00** Hz

$2.1278031e-13 + 2.4040809e-13$

Ion Currents Downstream **0.862** $3.3479620e-16 + -1.7904320e-15$ Temperature **273 + 27.20** Mb to cm² **1.00e+18**

Cross Section **0.4122600** Effective length **22.89** SRG Pressure $6.6629262e-05$ Mean Charge **3.0990100** **Keithley Offsets**

Number of Photons/s DS Keithleys **-1.9331507e+08** Number of Photons/s US Keithleys **6.0185485e+10**

Number of Photons/pulse DS Keithleys **0.0000000e+00** Number of Photons/pulse US Keithleys **0.0000000e+00** Gas Selection for Calculations **KR**

Energy Photons/pulse DS Keithleys **0.00** μ J Energy Photons/pulse US Keithleys **0.00** μ J

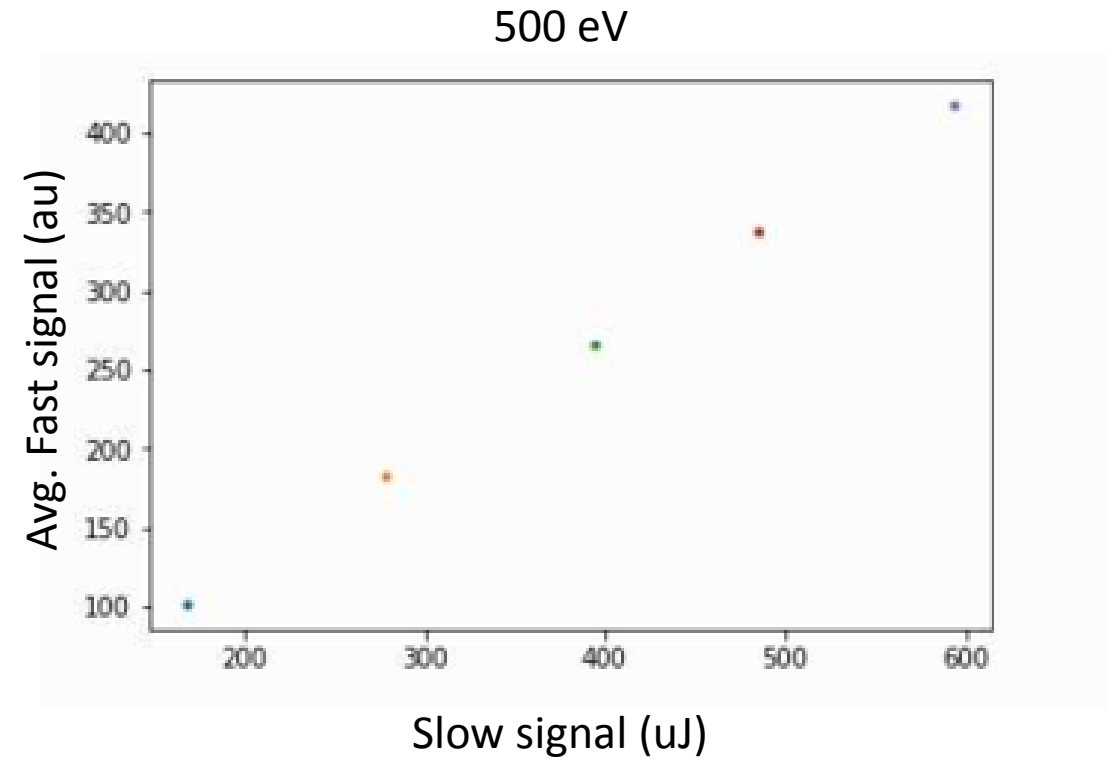
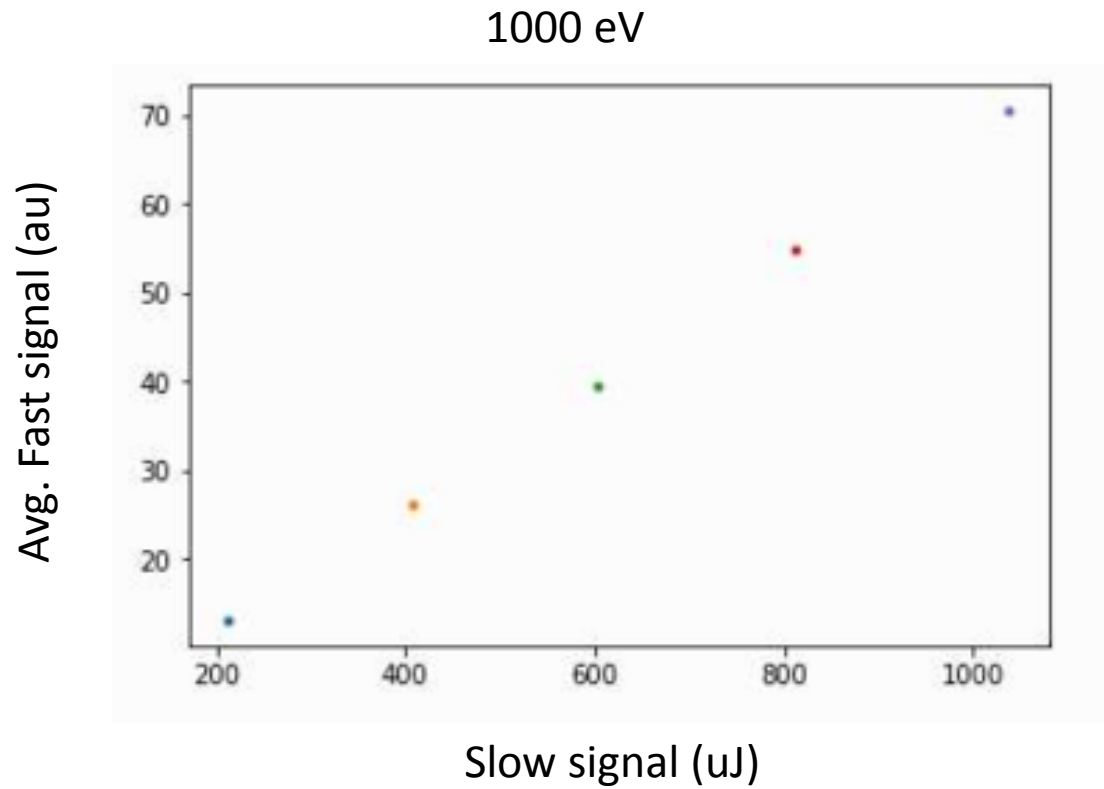
Energy Photons/pulse average **0.00** μ J

Slow Positions

	Intensity	Intensity Running Avg	Calibrated Intensity	X	Y
HAMP	-2.07	-0.30 V	0.00 μ J	-15.88 mm	-1.11 mm

We also fixed a bug with the slow positron measurements.
Fast position measurement not possible with current configuration.

Pulse Energy Linearity studies



Looks nice and linear now for the ranges we could reach. We re-wired to mitigate issues with non-linearity at high intensities

We are also doing more work to use PEPG as a spectrometer—analysis ongoing.