

CI updates

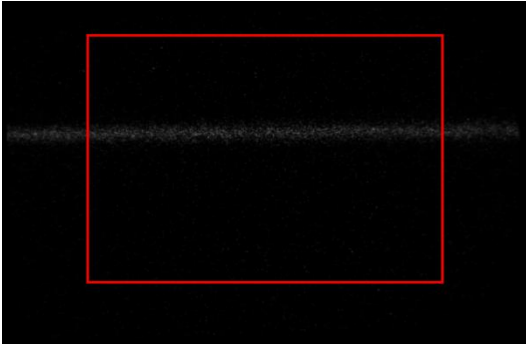
Hao

Faraday cup & Inner scintillator

- Connected to another Pico ampere meter, the reading is still low (\sim nA).
- Later found out it is connection fault. The collector pin is connected elsewhere.
- Keithley always measures the current which is roughly twice than the other Pico ampere meter.
- Scintillator was changed, the old one is damaged.



Neon test

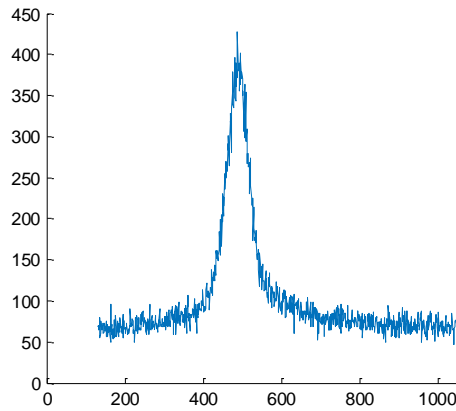


E-gun:

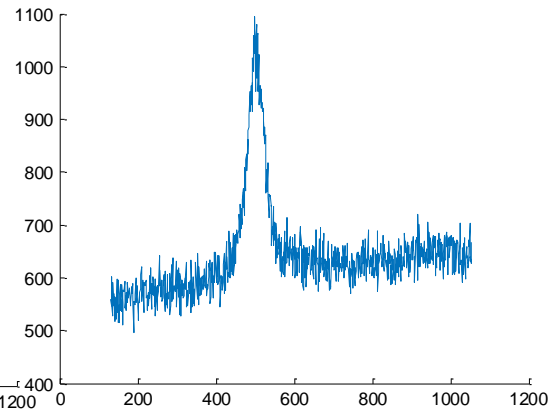
7keV

3.2A filament current

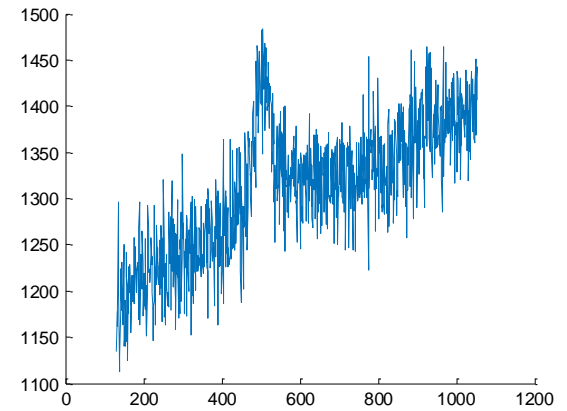
600 Anode current indicator, $\sim 80\mu\text{A}$



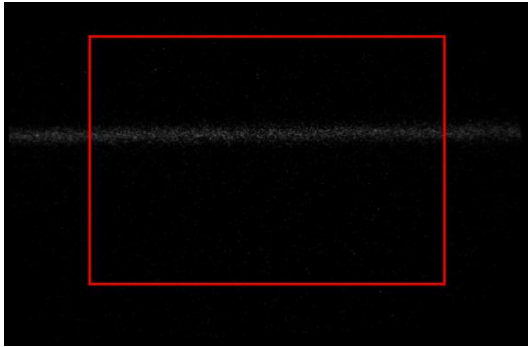
$9.8\text{e-}6\text{mbar} \sim 1.0\text{e-}5 \text{ mbar}$
100 s integration time



$9.8\text{e-}6\text{mbar} \sim 1.0\text{e-}5 \text{ mbar}$
1000 s integration time

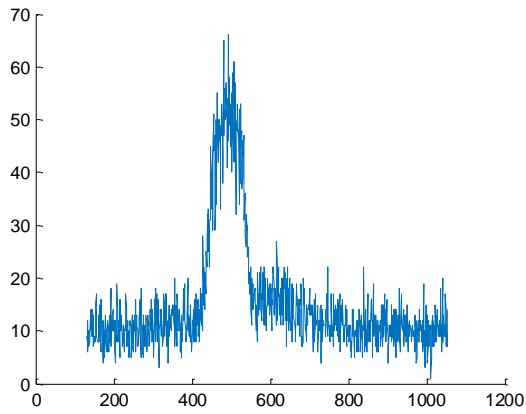


$2.1\text{e-}7\text{mbar}$
2000 s integration time

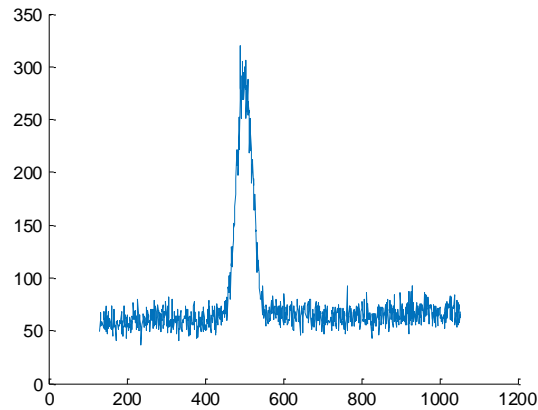


Nitrogen test

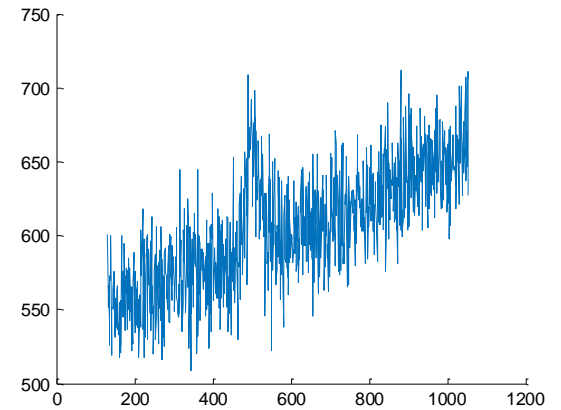
E-gun: the same with Neon



1.0e-5 mbar
10 s integration time



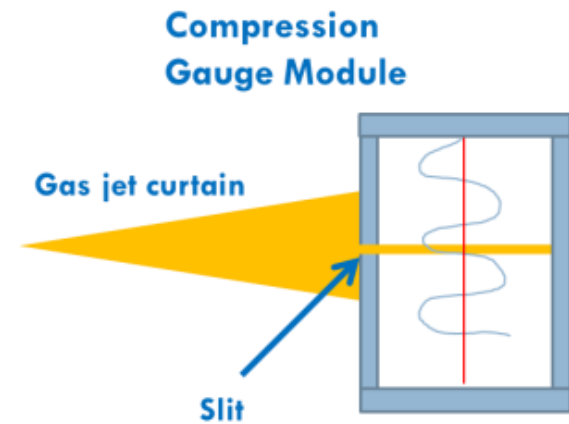
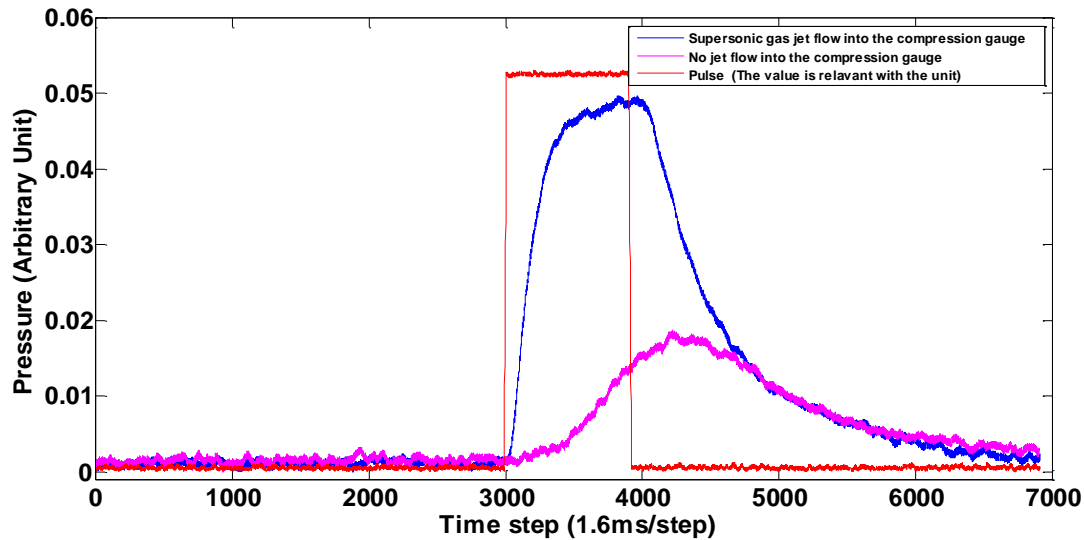
9.8e-6 mbar
100 s integration time



1.4e-7 mbar
1000 s integration time

Jet scan

- Starting from this week.
 - Data collected, but need more analysis



E-gun

		Angebot (German distributor)		Scanwel (UK distributor)		Kimball physics (US)
Total without options (Local currency)	Euro	43494.88	GBP	35593	USD	38385
Currency exchange rate 19/12/2017 google		0.89		1		0.75
	GBP	38710.44	GBP	35593	GBP	28788.75
Custom duty rate		0		0		0-1.3%
Final before VAT (GBP)		38710.44		35593		29163

*Price include Electron gun, power supply and cables

*harmonized code is 9027.80.8000-6, Estimated custom duty based on UK Gov.

<https://www.trade-tariff.service.gov.uk/trade-tariff/headings/9027>

Electrostatic Deflection capability					1300
Port Aligner ±2 degrees					1295
Pulsing, Dual-Grid					2200
Spare Field Replaceable Assembly, 10mA					3480
Service at Factory, 10mA					1420

Pump repair

- Leybold SL300
 - Maintenance: £1911.20
- Leybold SL700
 - Repair: £4939.05
- Other option:
 - Scrap two old pumps, get two new hybrid pump 1x350 (300L/s), 1x 450 (450 L/s, lower speed than the SL700) for £4000, under negotiations.

2nd setup status

- Rest of Flanges
 - Ready, will be shipped out after Jan. 3.
- Nozzle and skimmer holders
 - Ready, will be shipped out after Jan. 3.
- Two linear bellow drive, one for retractable mirror, one for target, received.
- Waiting for nozzles(?), turbo pumps (CERN, Jan), scintillator and target (GSI, ready and wait to be sent)

