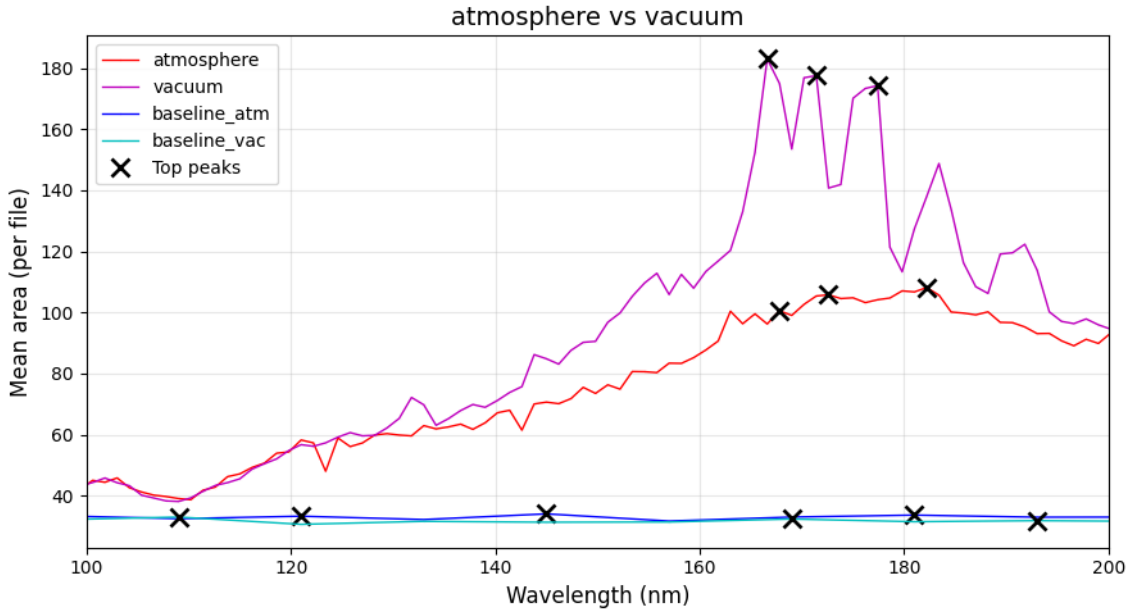
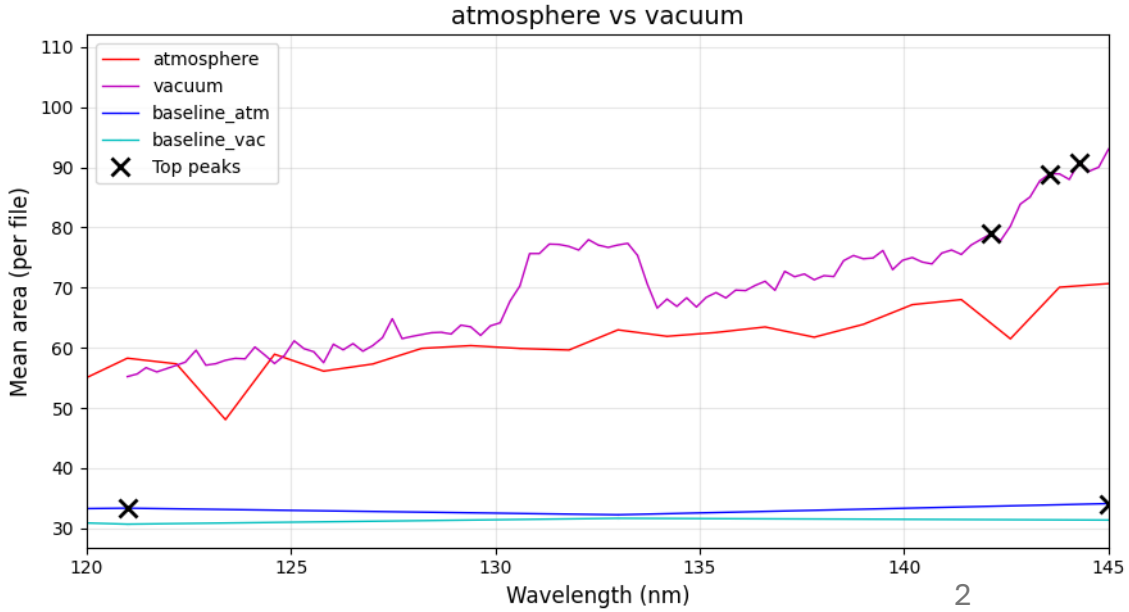
Project Update 02/09/26

Mathias Zurbriggen

FL spectrum w/out filter

- Goal: To understand how much of the light from the flashlamp is at 130nm
- After new calibration of monochromator with Lea
- Completed runs for flashlamp spectrum without bandpass filter
- For each vacuum spectrum, three runs averaged
- Uses peak-to-peak amplitude, so no integration

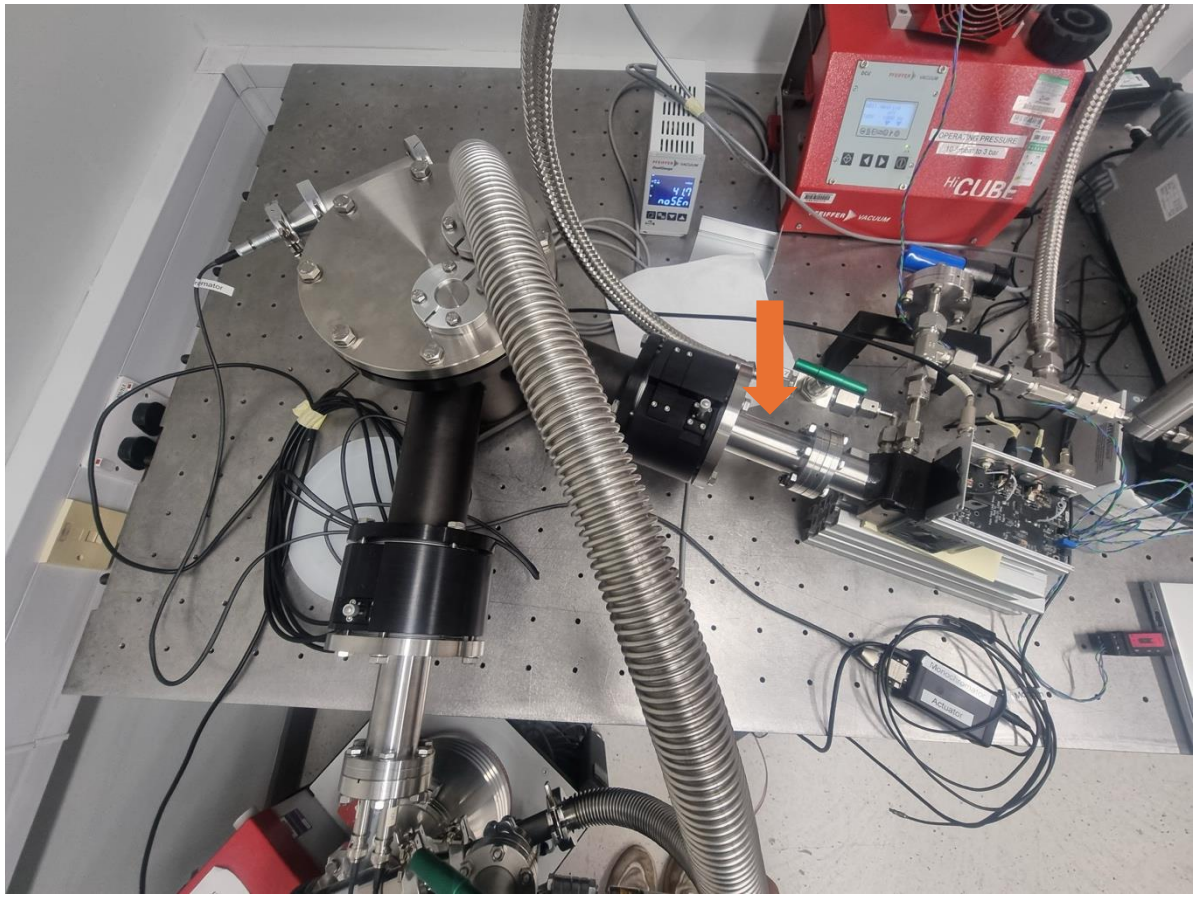




How the filter fits in the monochromator

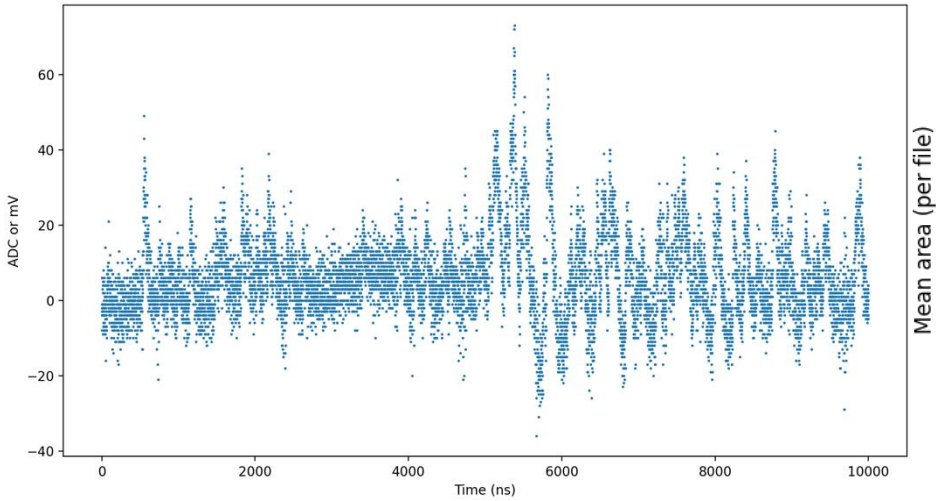
- Custom part machined and fitted
- Fits prior to the entrance slit to the monochromator
- Allows 130nm filter

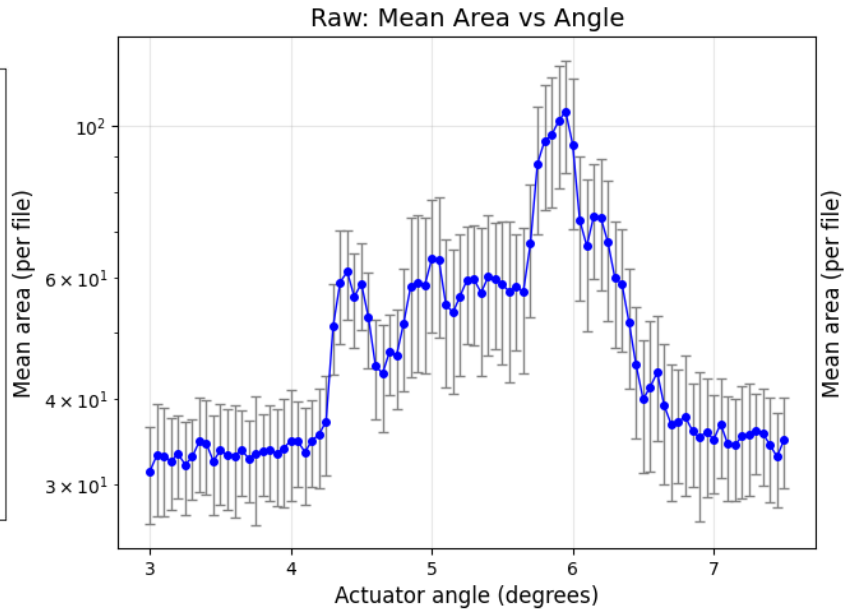


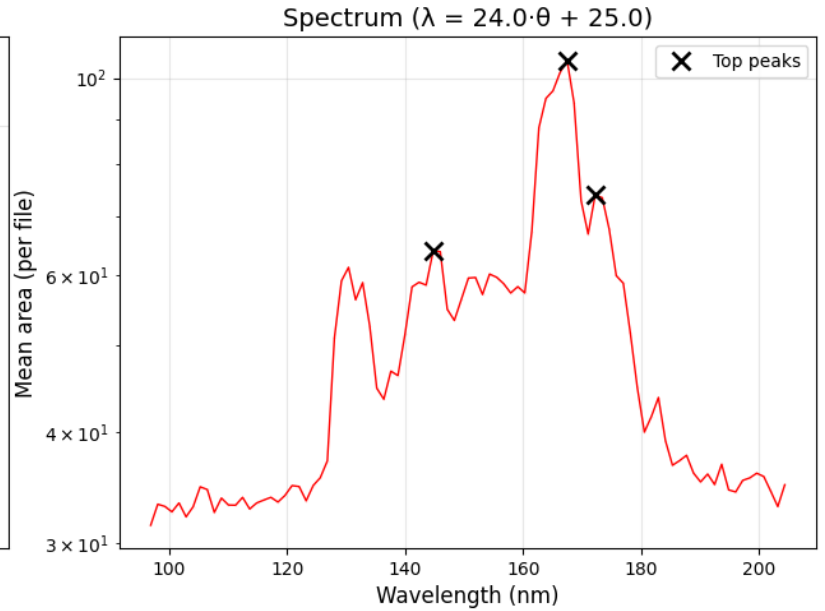


Latest spectra with filter

- Several days of data taken to optimise slit openings such to allow for signal at 130nm while minimising spectral artifacts
- Error bars are std from amplitude of each waveform

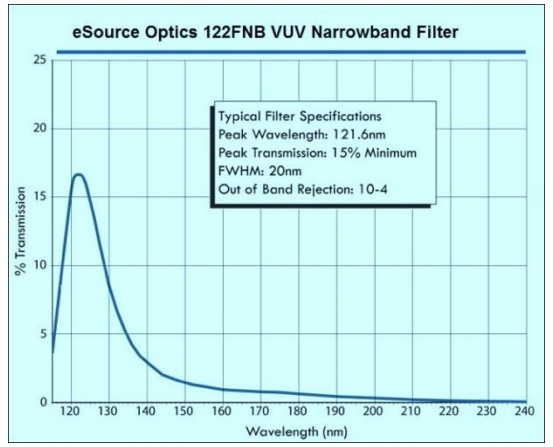






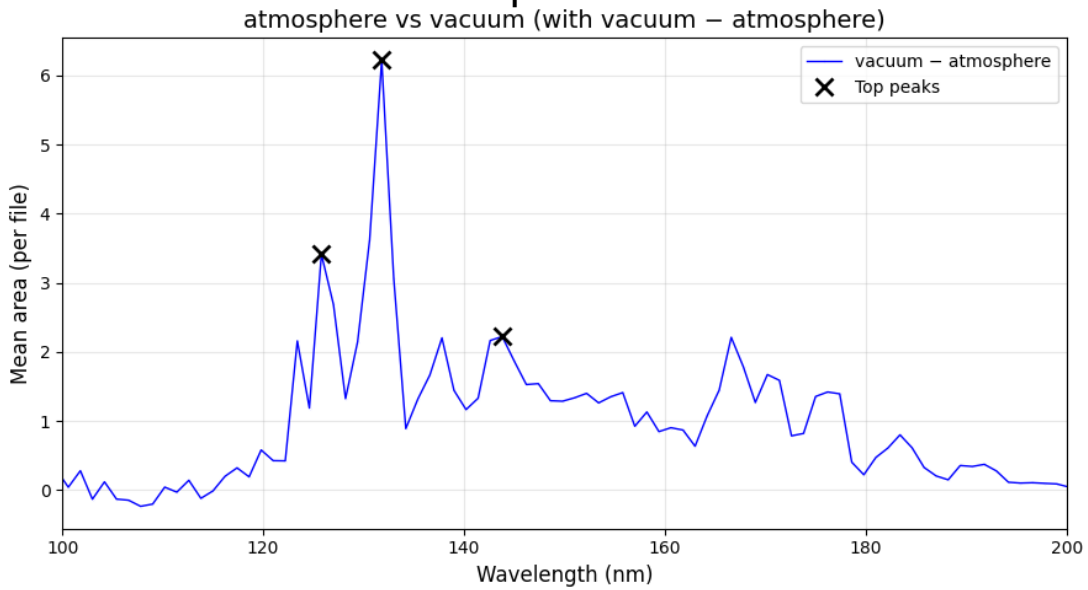
Flashlamp spectrum with filter

- Expecting better signal to noise at 130nm
- Still expecting some signal at 170nm
- (Vacuum - atm)*T_FBN
- 100-200nm runs in progress
- 120-140nm runs remain to be done this week

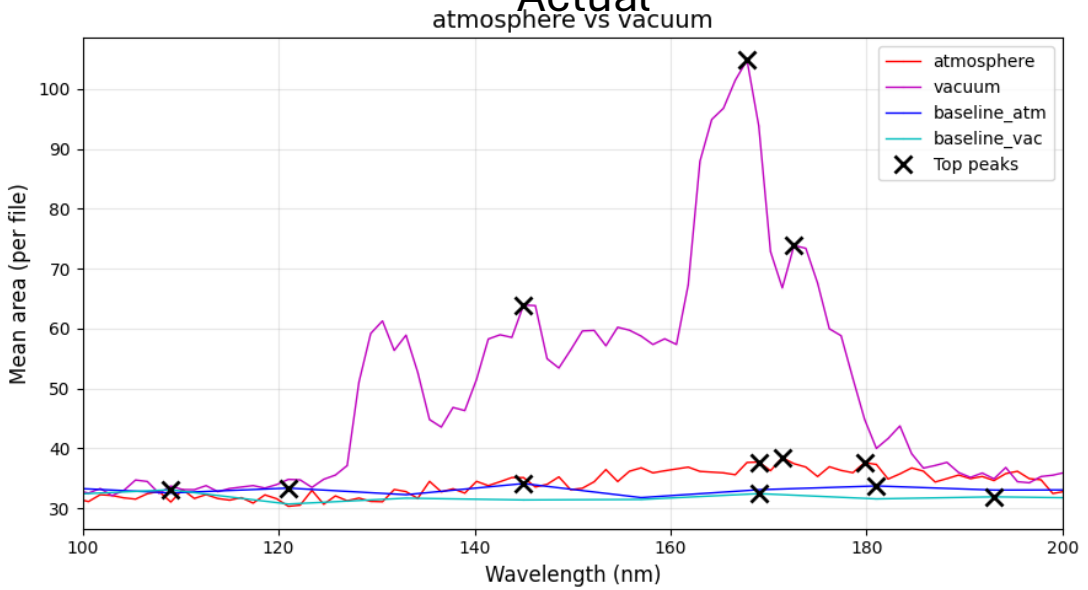


Shifted to peak at 130nm

Expected



Actual



Graphene transparency

- Vacuum box part-assembled ✅
- Arduino and driver for linear motor programmed ✅
- Linear motor tested ✅
- Mgf2 windows holder designed and printed ⚠️
- Last flanges to arrive and assembled ⚠️
- Mgf2 windows holder to be machined ❌
- Vacuum box to be vacuum tested ❌