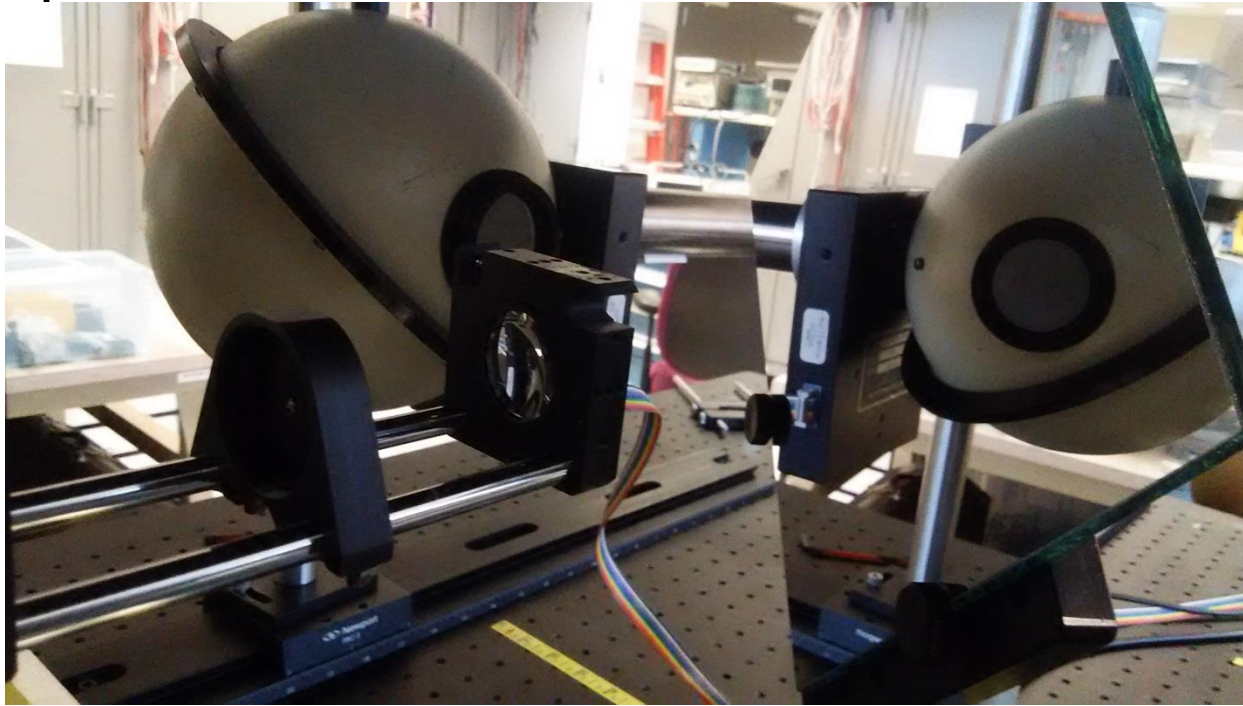
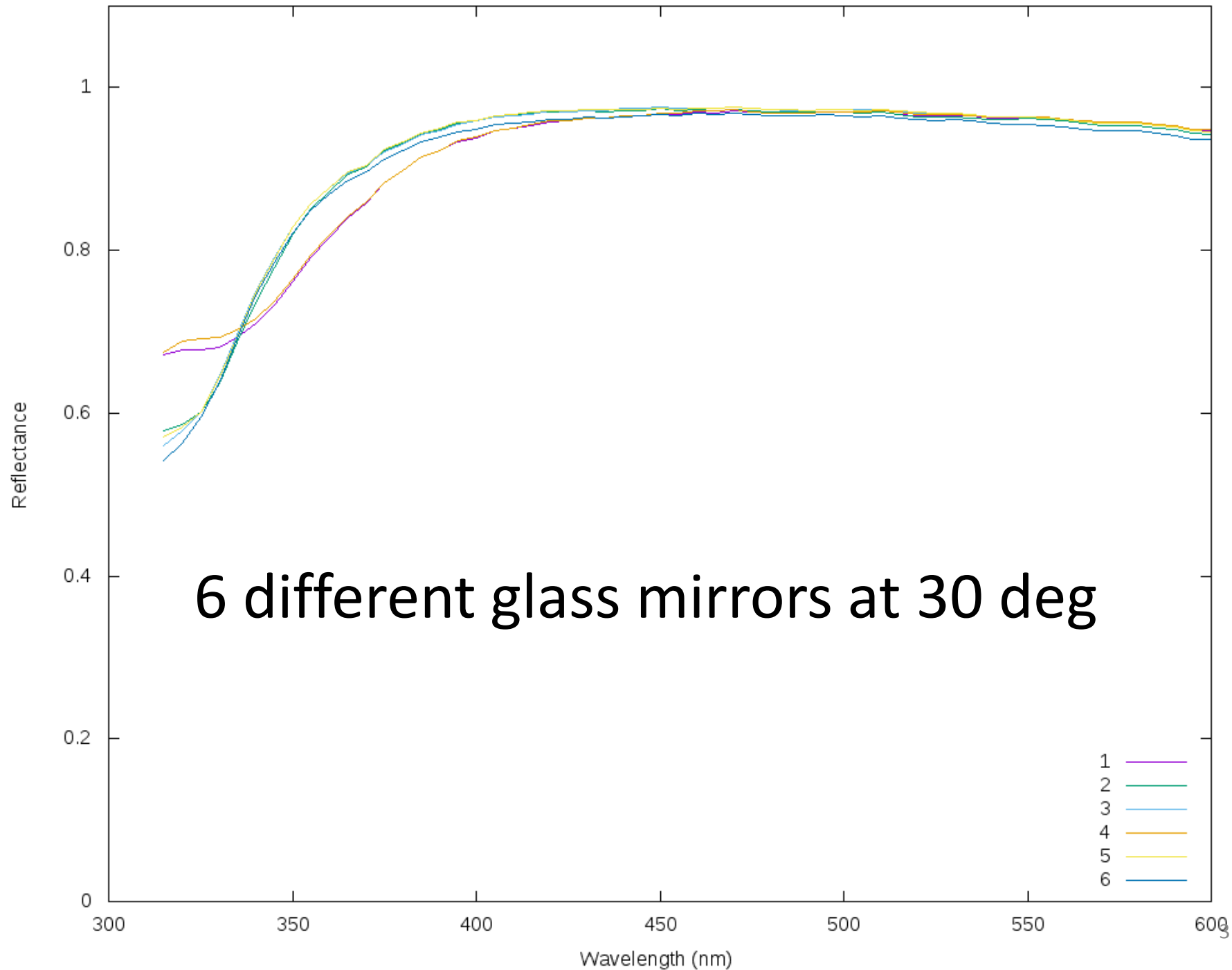


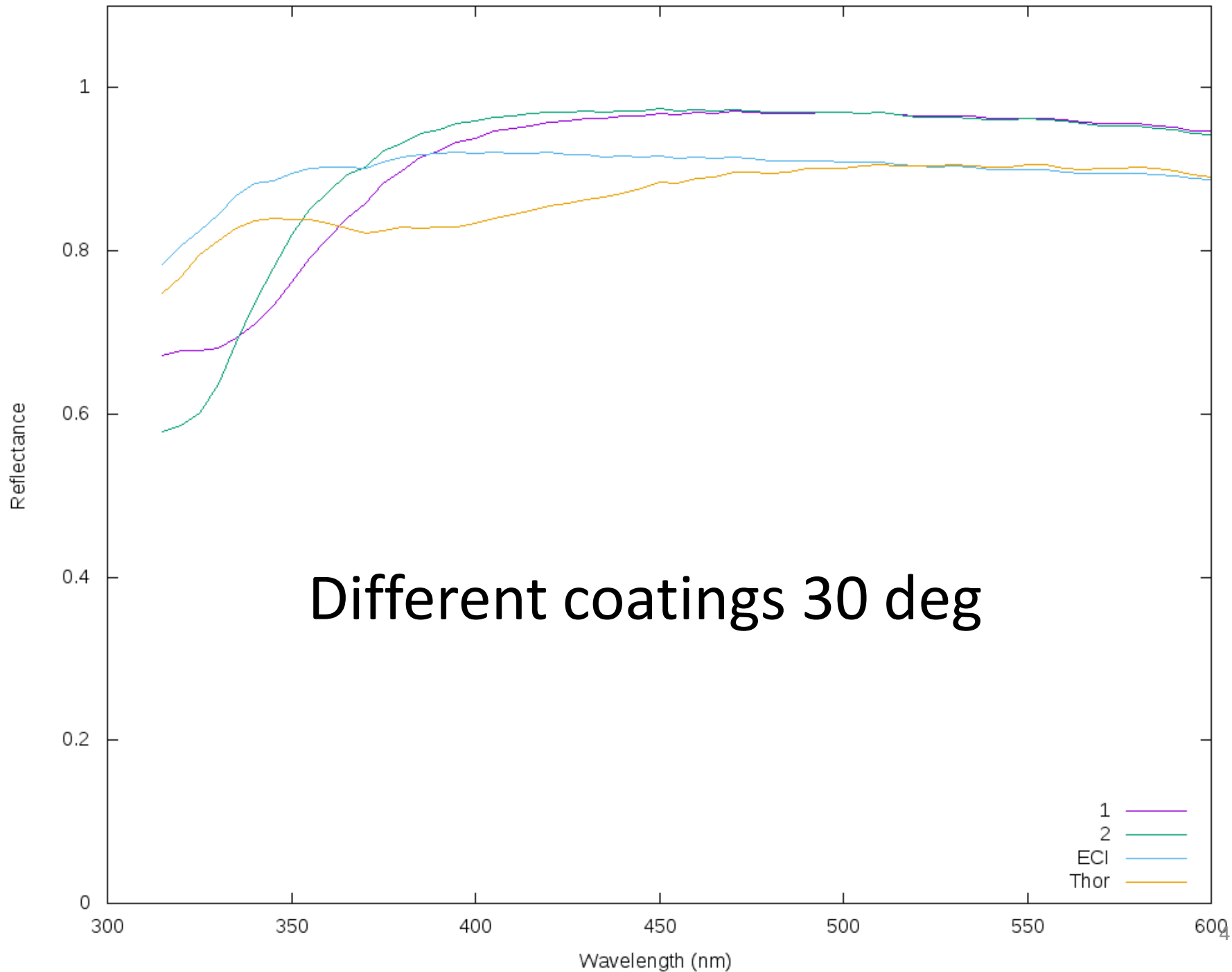
# Mirror Reflectivity Results

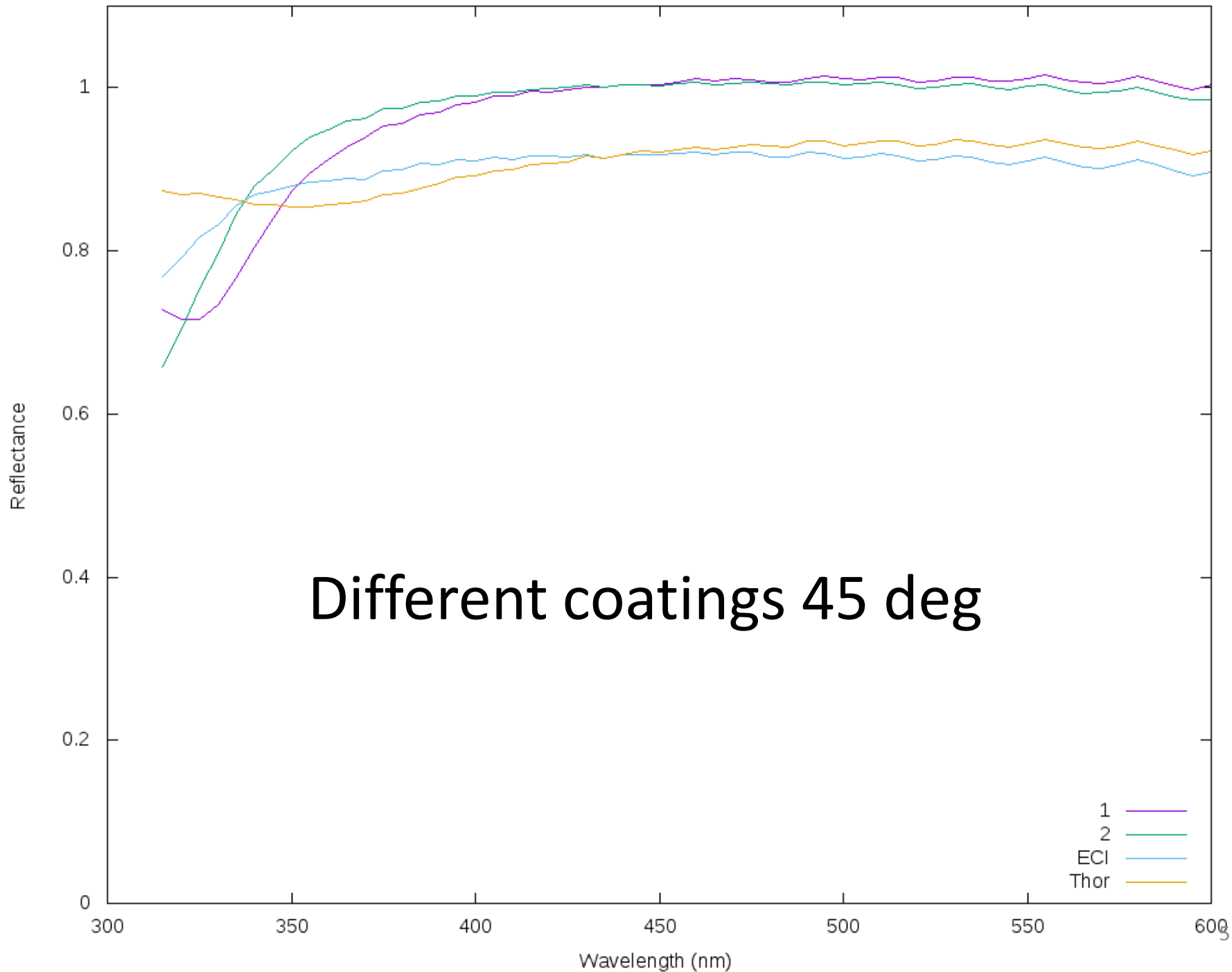
# Process

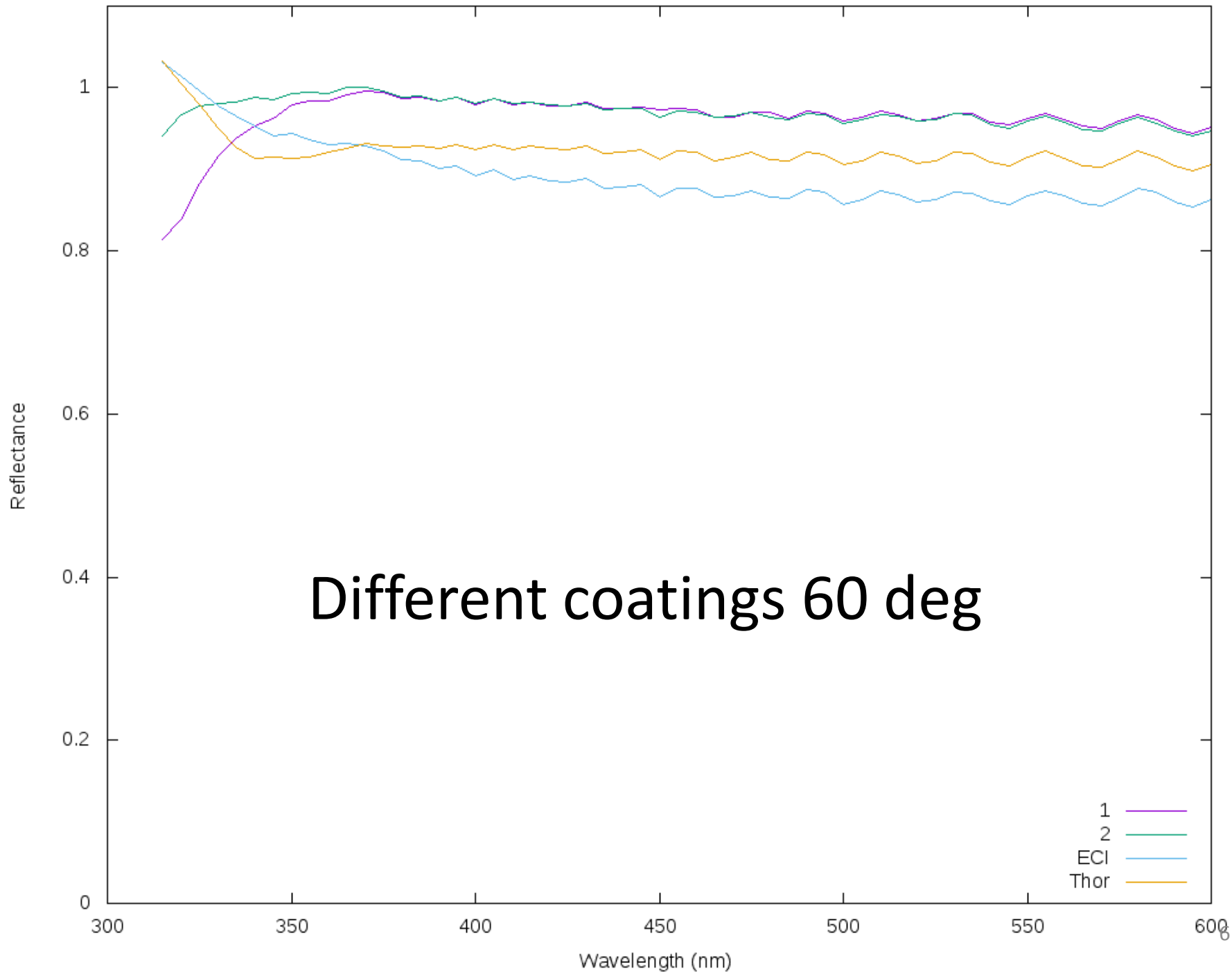
- Measure light directly into integrating sphere
  - Do this as a control for each angle
  - Day to day drift of the DAQ, coupling, etc
- Focus light on back of sphere at angles
- Compare DC current out of PMT

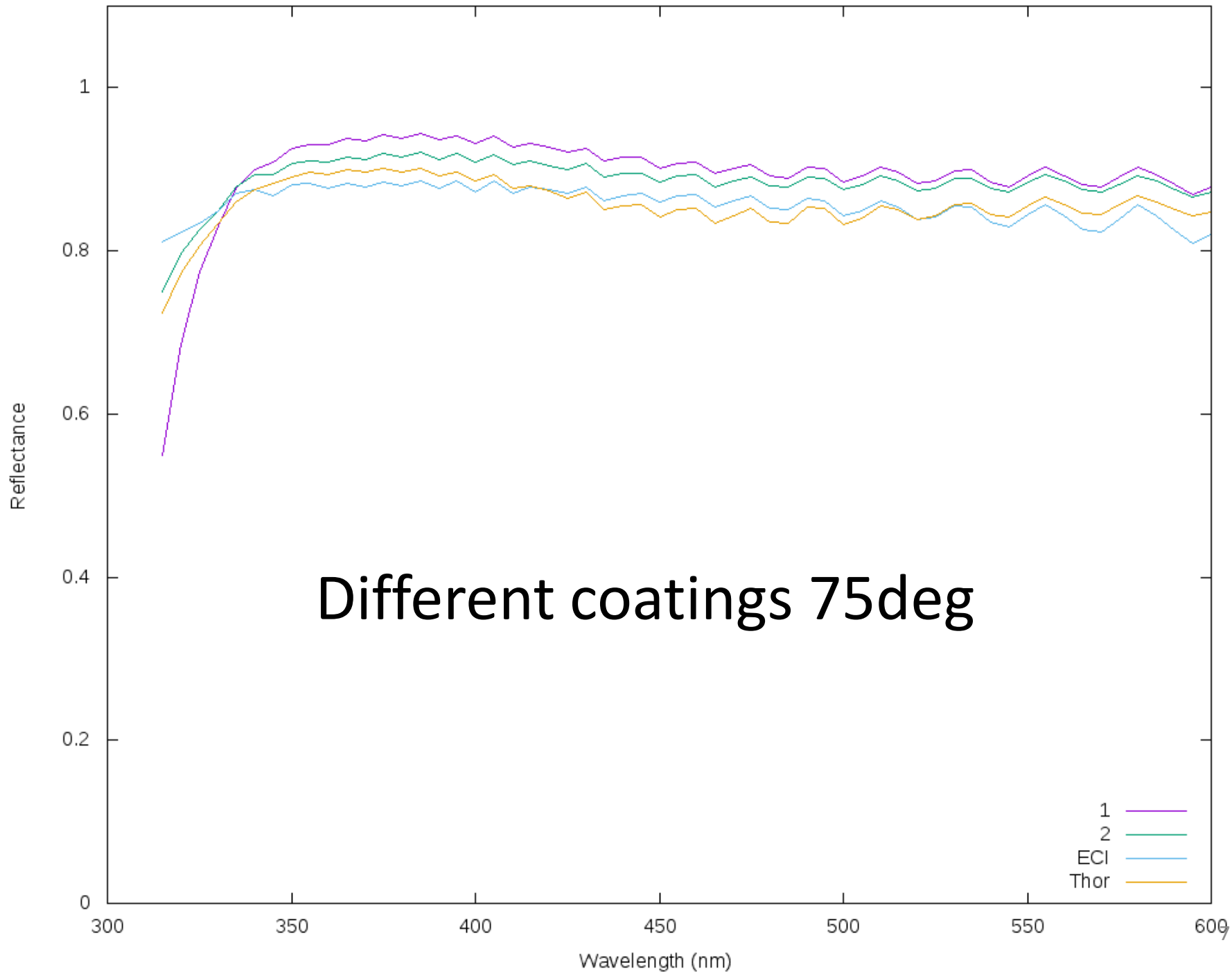










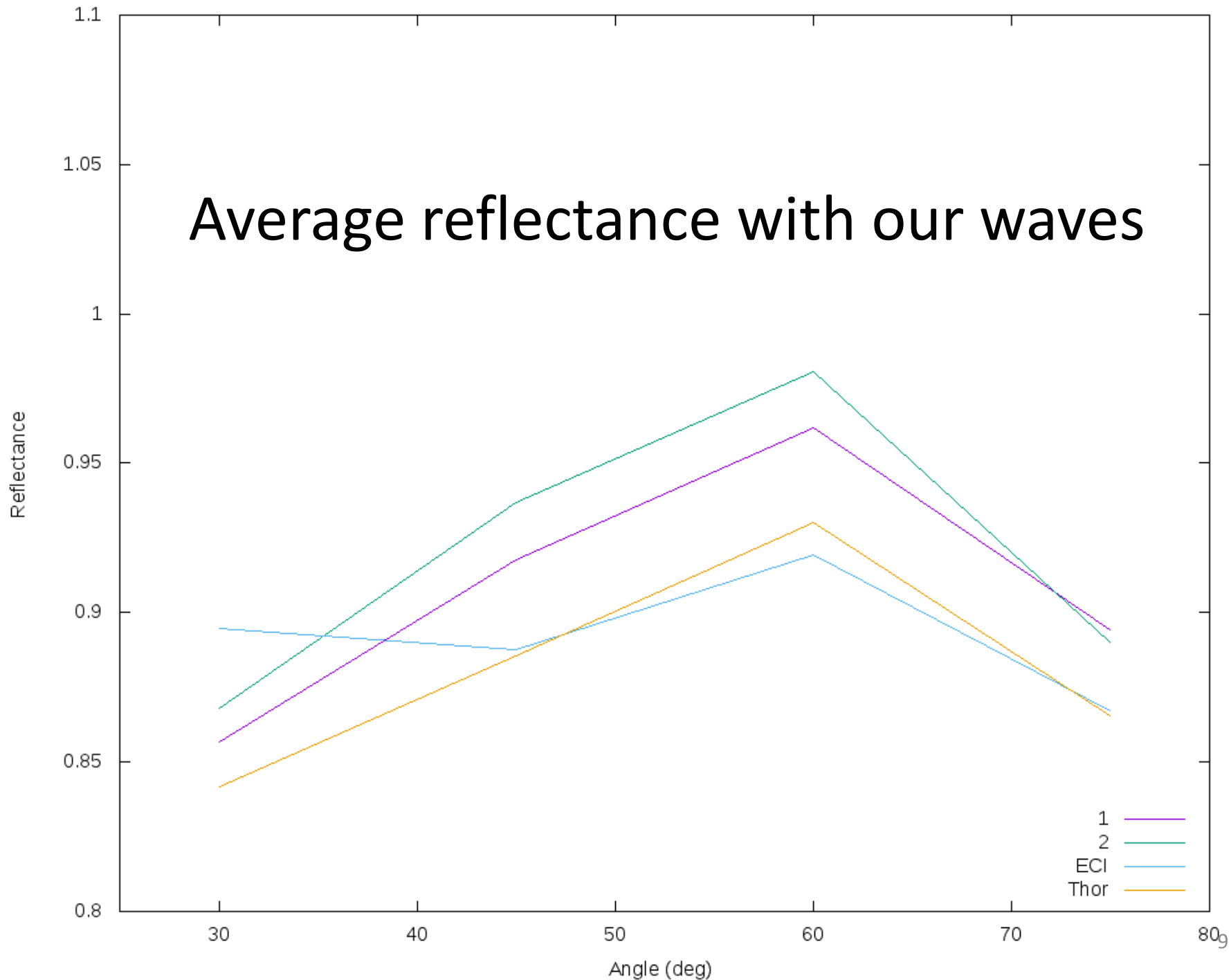


# Problems

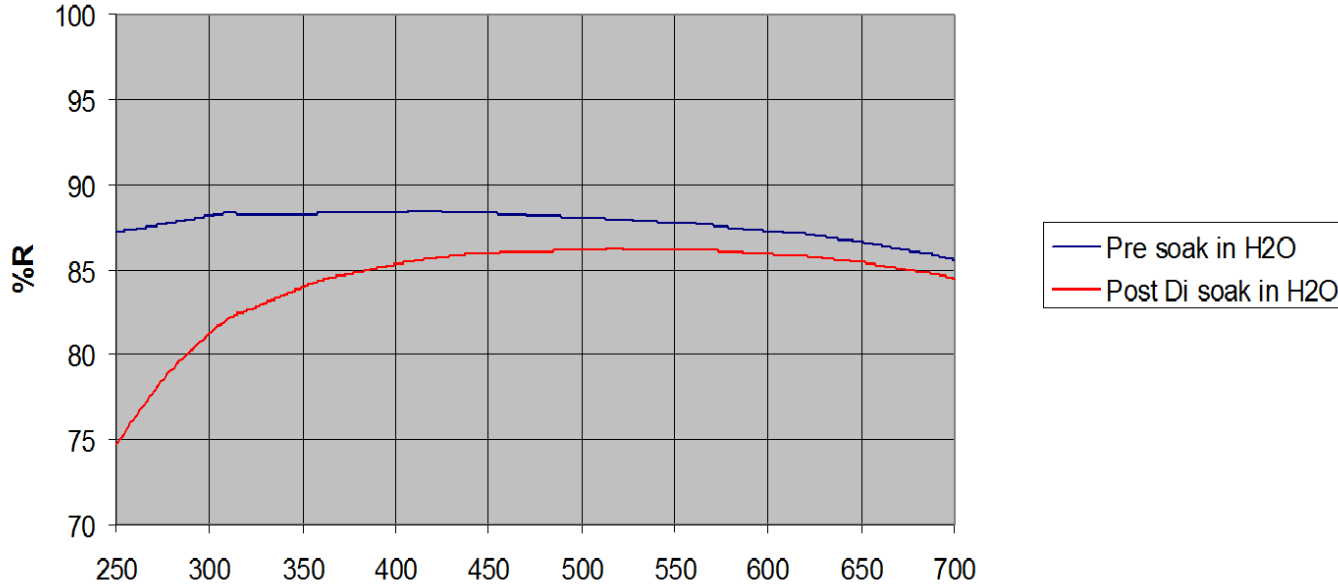
- Wiggles at high wavelengths for shallow reflections
- Over unity reflectance at 60 deg
- I suspect both of these are related to overtones from the monochromator that show up at strange angles, am still investigating this



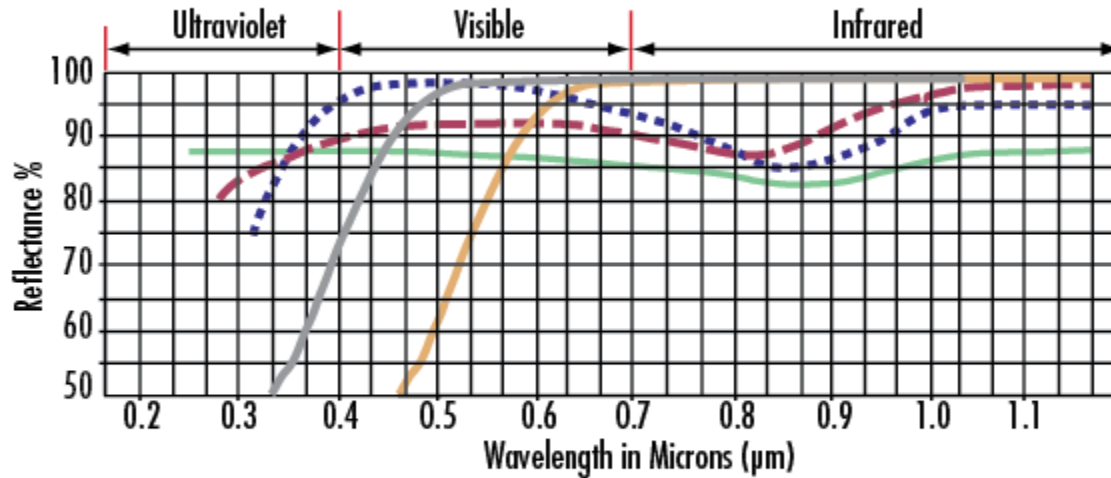
# Average reflectance with our waves



### MIT Before and after DI soak in H2O simulation



### Reflectance Curves for Metallic (Mirror) Coatings



- UV Enhanced Aluminum ( $R_{avg} > 85\%$  0.25 - 0.7 Microns)
- - - Protected Aluminum ( $R_{avg} > 85\%$  0.4 - 0.7 Microns)
- - - Enhanced Aluminum ( $R_{avg} > 95\%$  0.45 - 0.65 Microns)
- Protected Gold ( $R_{avg} > 97\%$  0.8 - 2 Microns,  $R_{avg} > 94\%$  0.7 - 0.8 Microns)
- Protected Silver ( $R_{avg} > 98\%$  0.5 - 0.8 microns,  $R_{avg} > 98\%$  2 - 10 microns)

## UV-Enhanced Aluminum Coating, 45° AOI (UV to Near-IR Wavelengths Shown)

