Optical Set-Up

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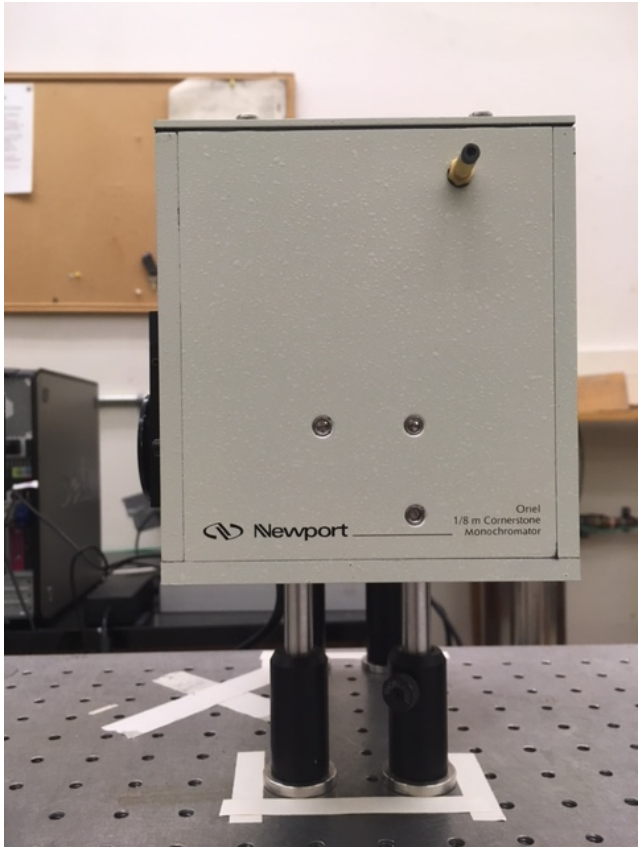
Table of Contents

Progress Update

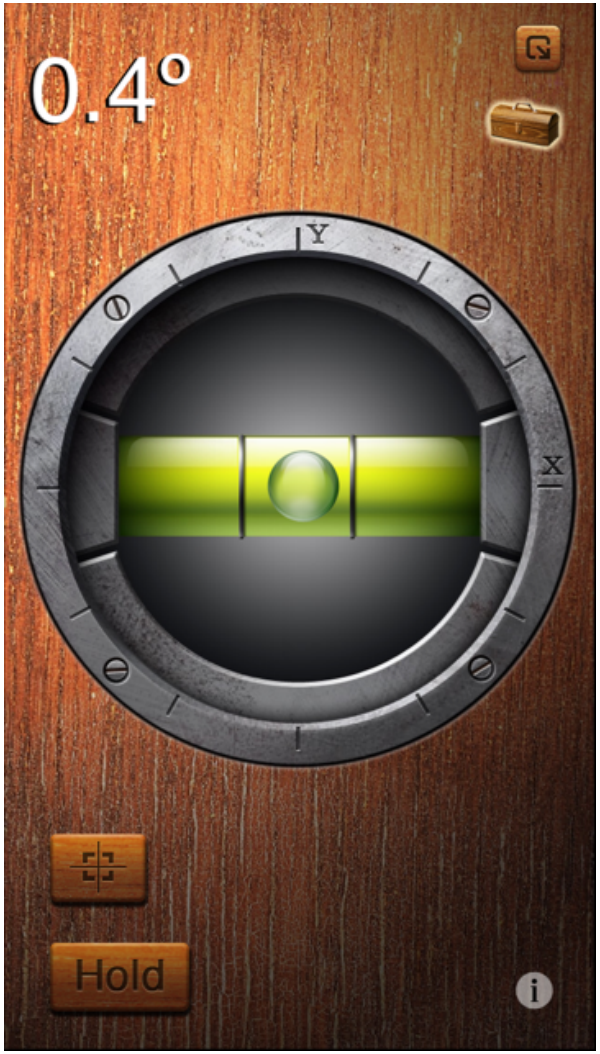
Mounting Monochromator - Revisited

- Initially wanted to machine a platform out of metal sheet
- Found tapped holes on the bottom of the monchromator
- Can screw optical posts directly to monochromator



Mounting Monochromator - Revisited

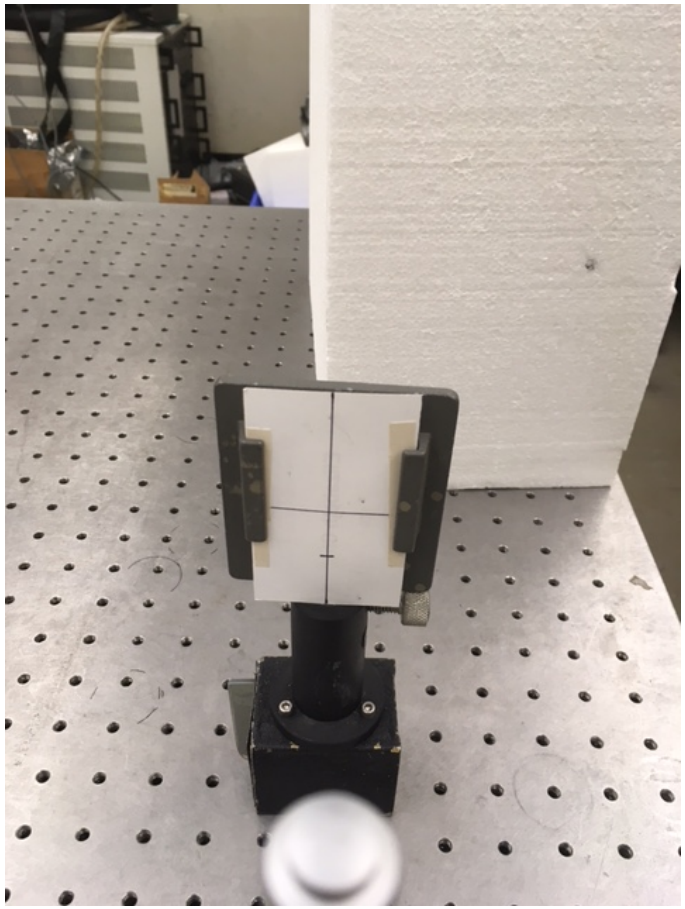
Levelling



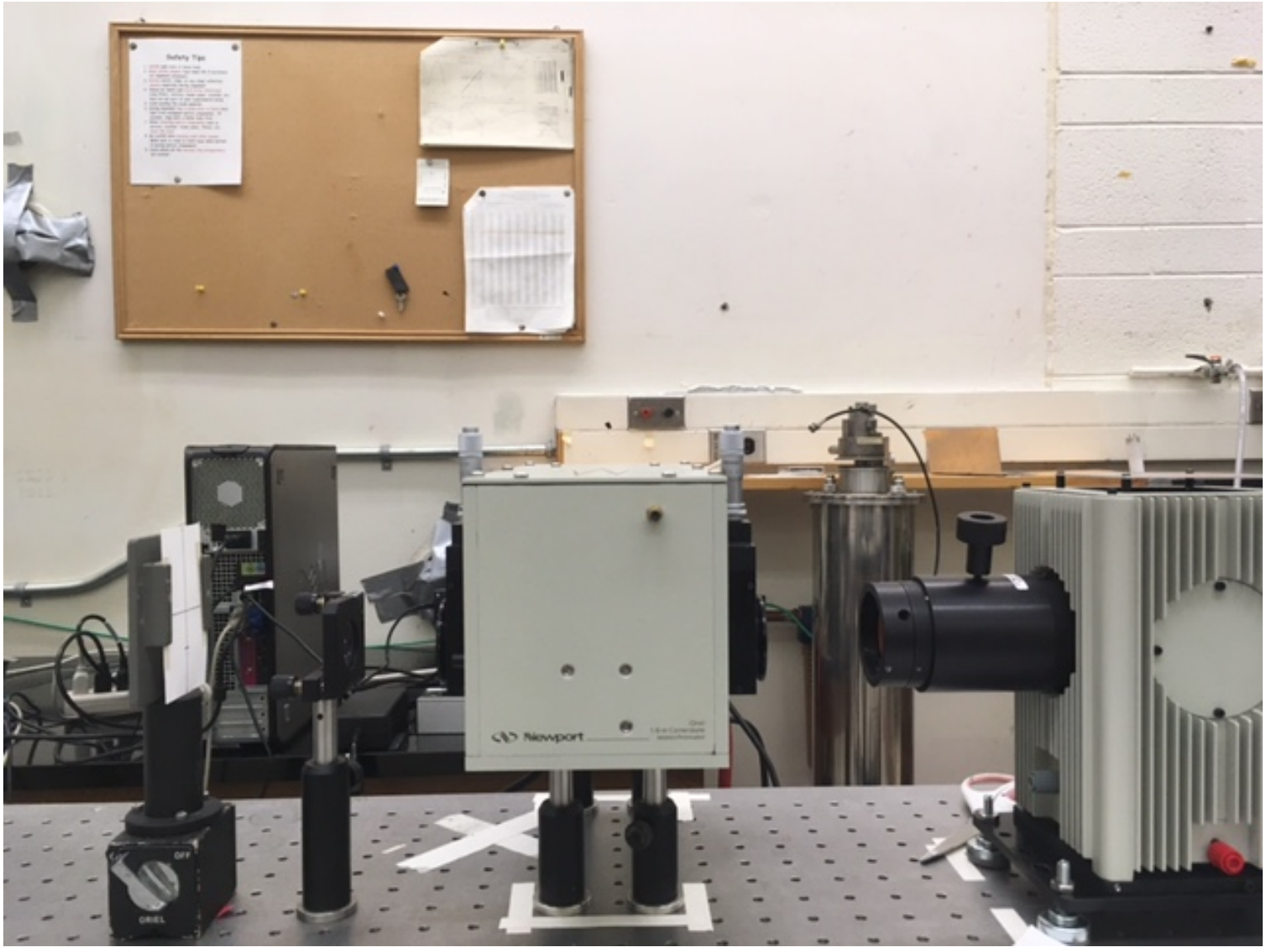
- Re-levelled monochromator and lamp
- Used levelling tool to make process slightly more precise

Light Beam Alignment

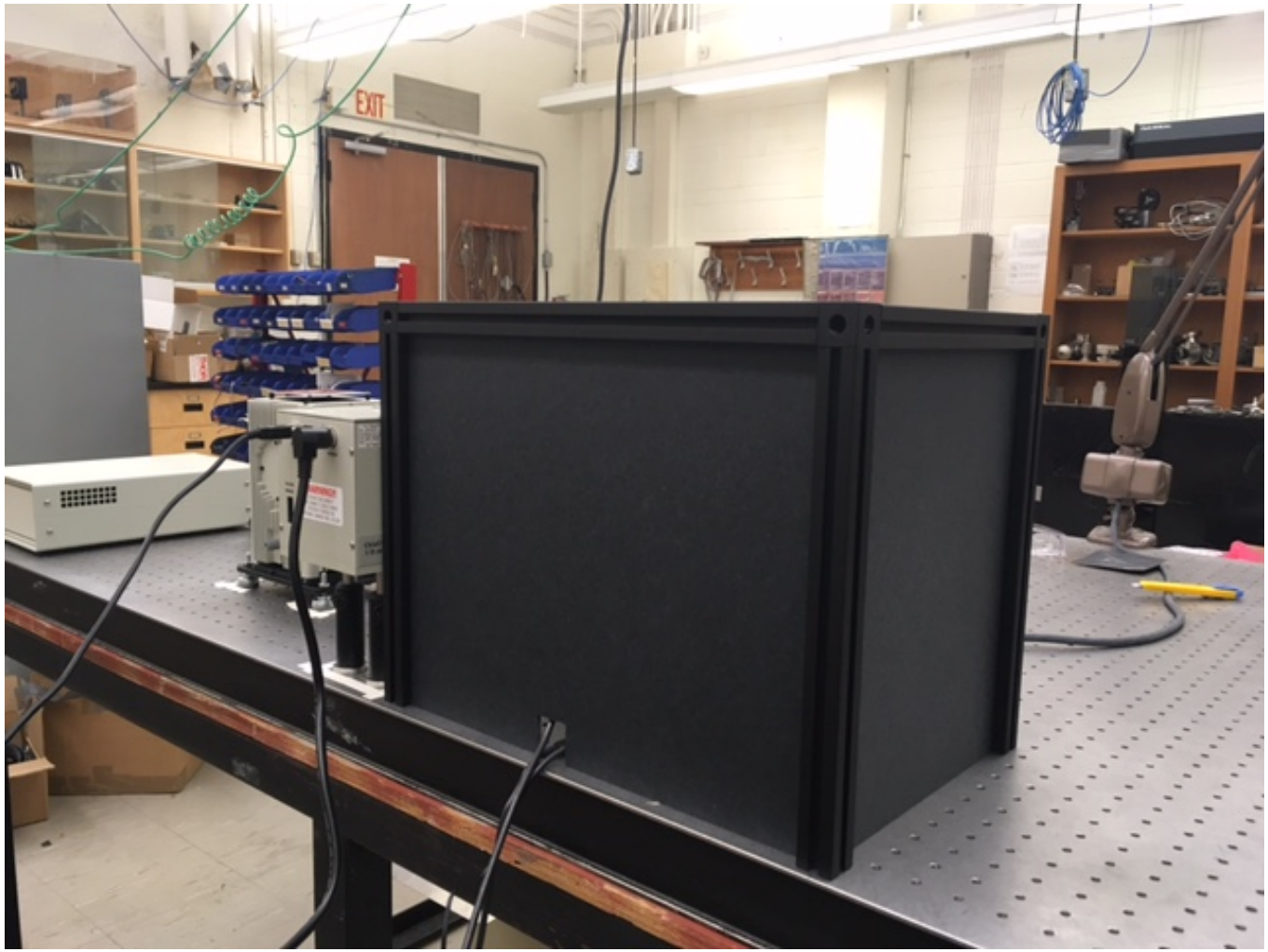
- Tried to align the light beam more carefully
- Made “target” for alignment process



Light Beam Alignment



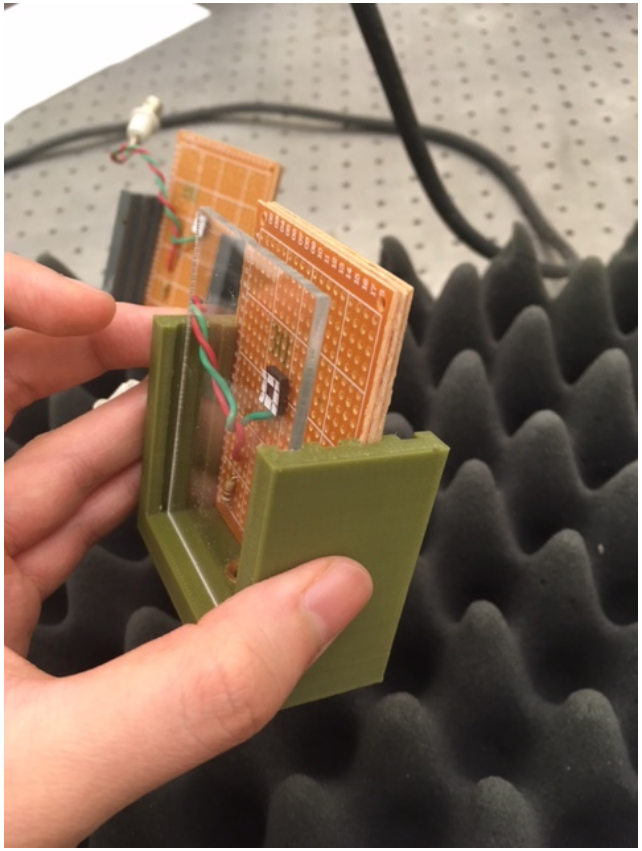
Black Box



Black Box

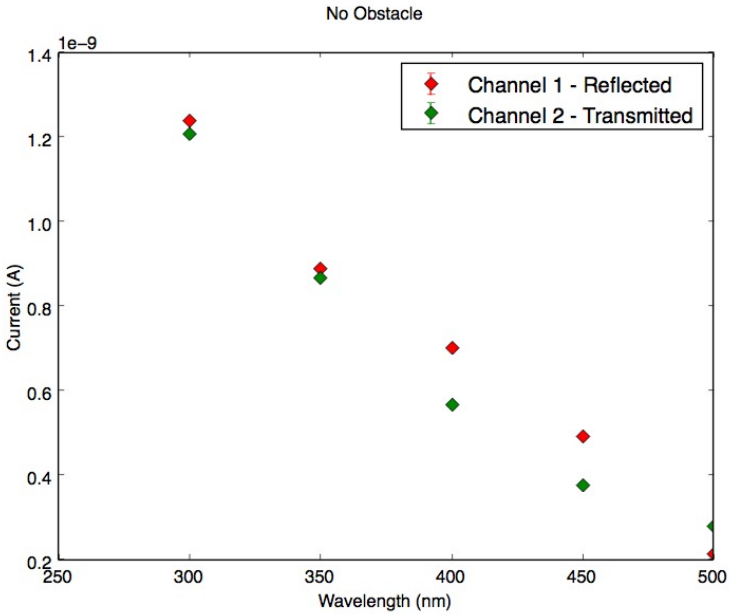
Experiments and Some Results

- Placed a piece acrylic in the path of one of the light beams
- Studied how acrylic affected the transmission of light to the photodiode

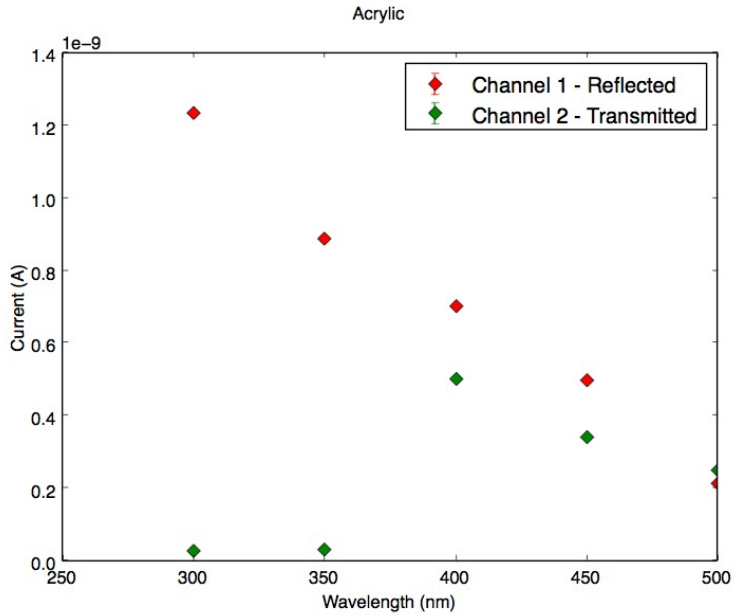


Experiments and Some Results

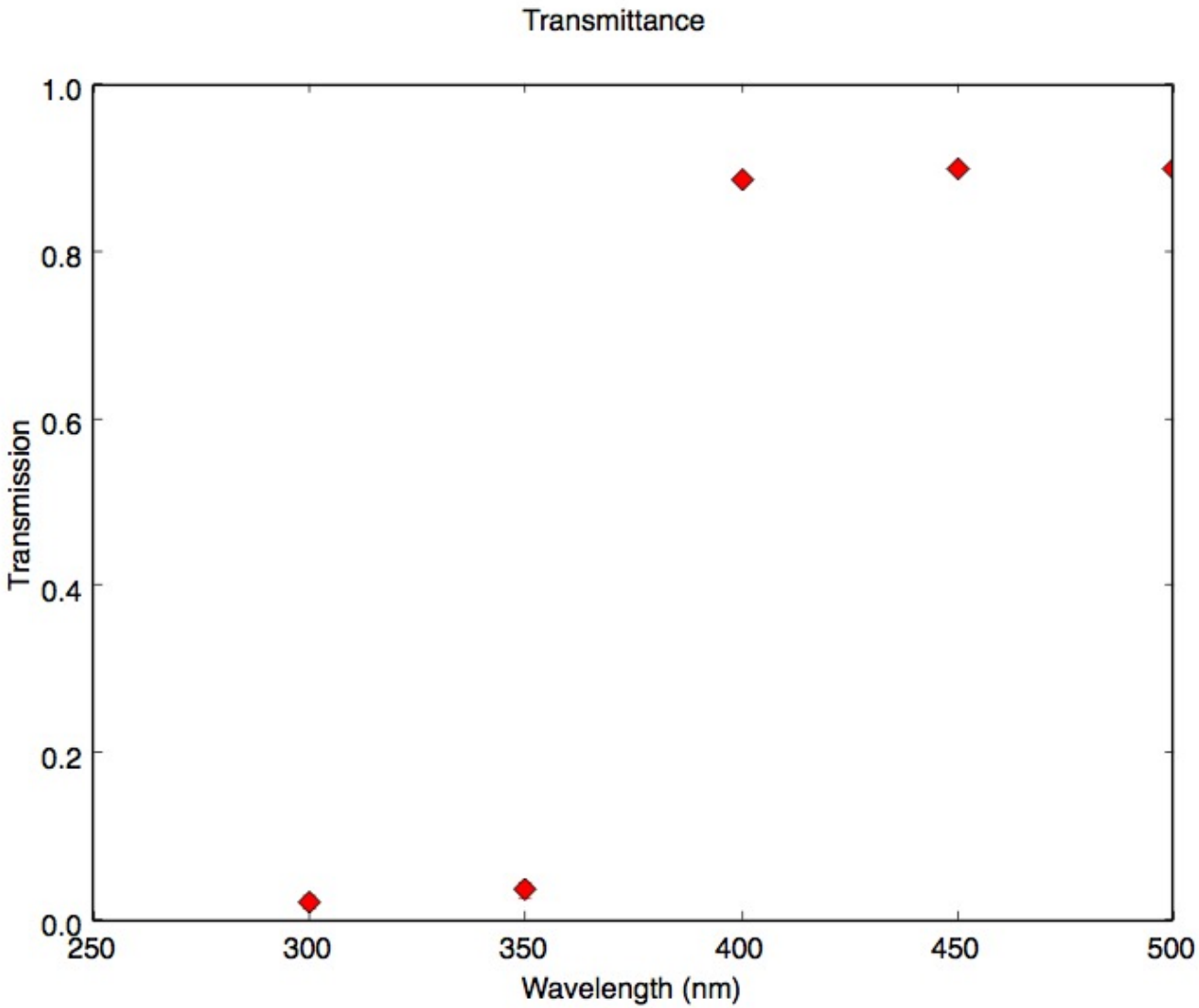
No Obstacle



Acrylic



Experiments and Some Results - Transmission Analysis



Experiments and Some Results

Wavelength (nm)	300	350	400	450	500
Transmission (%)	2.1	3.5	88	90	90

Theoretical Estimation of Transmission: $\sim 92\%$

Next Steps

Some Next Steps...

- Study transmission of silicon gel
- Study transmission of silicon gel and acrylic ensemble
- Organize and document results