

## Polarimeter Usage 1/28/16

There are 3 methods currently, you can certainly make your own.

1) Optical Rotation 589

This measures total rotation independent of cell length at a wavelength of 589

2) Specific Rotation 589-50

This measures a specific rotation at wavelength of 589nm for a 50mm cell length

3) Specific Rotation 589-100

Same thing for the 100mm cell

### Procedure

Make reservations and log into the instrument via nucore.

Instrument time is free. The instrument takes 20 minutes to fully warm up.

If you are using Imserc supplied cells, get the cell from Kevin or Andy.

Emails in advance will help to make this easy.

You must supply your own solvents and waste collection bottle.

Zero the rotation

Insert empty cell and verify that the rotation is still zero  
(checks for dirty windows)

Fill the cell with your desired solvent

Zero the rotation

Fill the cell with your sample, using the exact volume (1 or 2ml) and use the bubble checker to make sure there are no bubbles.

Take your measurement

Withdraw your sample from the cell (optional)

Flush the cell with solvent and verify that the rotation is still 0 (+/- .003)

Purge the cell

Take everything including your solvents and waste bottle with you.

Return the cell to kevin or andy