

Instruction Sheet for Autopol III Polarimeter

Before first sample:

1. Zero the instrument by filling cell with ethanol and placing in the instrument, then hit "zero"
(See "Filling" below)

For each sample (get a new Pasteur pipette for each sample):

1. Flush the cell 2X with the sample

Filling the cell:

1. Fill the cell with the sample, being careful to exclude air by tipping at an angle and filling from the lower end until you see it come out higher end.
2. Place the cell in the instrument; slide over to the right side.
3. Using the Stylus:
 - a. Hit "Menu"
 - b. Hit "Scale"
 - c. Hit "Specific Rotation"
 - d. Enter path length by hitting "50"
 - e. Enter concentration in g/100ml
 - i. Example: If student gives you a concentration of 0.2564 g/10ml, enter as 2.5640 g/100ml
 - f. Hit "Continue"
 - g. Hit "Exit"
 - h. Hit "Measure"
4. There will be a spreadsheet to record group names/mass of each sample and specific rotation of each sample.
5. Students can enter their mass (actual mass in their 10 ml sample) as they are ready, then you can have this information to enter into the concentration window.
6. STUDENTS ARE EXPECTED TO STAY AND OBSERVE THE MEASUREMENT OF THEIR DATA. THEY ARE NOT TO LEAVE YOU A SAMPLE AND WALK AWAY.

****NOTE**:** For 50 ml S-(+)- sample, enter [] as 2.4986 g

For 50 ml racemic ibuprofen, enter [] as 2.5074 g