

 <p>BLDEA'S Shri Sanganabasava Mahaswamiji College of Pharmacy & Research Centre Vijayapur 586103</p>	DEPT: PHARMACEUTICAL CHEMISTRY	SOP NO.: BCP/PC/SOP/020
	INSTRUMENT: POLARIMETER	PAGE NO.: 01-02
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	SUBJECT: SOP FOR POLARIMETER	REVIEW PERIOD: 31/12/2022

Objective:

The following document describes the standard operating procedure for Polarimeter.

Scope:

The Polarimeter is a tool which helps in measuring the optical activity of sample by rotating the plane polarised light either in clock wise or anti-clockwise direction.

Procedure:

1. Ensure that equipment & tube is clean.
2. Set up the instrument on the bench with the analyzer head facing the operator, an illuminated sodium lamp is attached with equipment through a bracket.
3. **Switch ON** the mains.
4. **Switch ON** the Sodium vapour lamp by pushing the switch of transformer downward. The red indicator will glow on transformer and then wait for 5-minutes so that Sodium vapour lamp gets illuminated completely.
5. The position of Sodium vapour lamp is such that the field can be seen clearly while viewing through lower eyepiece.
6. Adjust the lower & upper eye piece & focus it by sliding it towards your eye or away from your eye to view the clearly.
7. After focusing the upper eye piece you will see the scale graduation & a vertical line called reference line.
8. Rinse the tube with the solvent used and fill the tube with the solvent in such a manner that there should not be any air bubble.
9. Place the tube in the cabinet and close it.
10. Now see through the lower eye piece and match the colour shade to similar in both section by rotating the knob placed on the opposite to eye piece.

11. Take the reading by viewing through upper eye piece.
12. If the reference line do not coincide with the scale then adjust with micrometer drum knob.
13. Take the reading in + or -.
14. Deduct the reading of solvent from reading of liquid/sample and calculate the specific optical rotation.
15. After completion of work open the cabinet, remove the tube and **CLEAN** it thoroughly.
16. **Switch OFF** the Sodium vapor lamp.

Precautions:

1. Fill the tube in such a manner that there should not be any air bubble.
2. The temperature of solvent / solution should be $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$.
3. Ensure that the solution is clear.

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