

HPTLC - Instrument Demonstration

Experiment 19 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To interpret the supplied hptlc - instrument demonstration.

Principle

Planar chromatographic separation with controlled application and scanning produces migration and response records.

Requirements

- Instructor-provided labelled diagrams, traces or data for this activity.
- Calculator, graph paper or spreadsheet, and the activity record.

Procedure

1. Identify equipment

Label application device, plate, chamber and scanner in the demonstration.

2. Read conditions

Record plate, mobile phase, development and detection settings.

3. Read tracks

Compare standard/test migration, peak pattern and scan response.

4. Assess

State identity or quantity evidence only when the assigned method and controls support it.

Pharmaceutical Analysis

Observations and Record

Record item	Entry
Activity / material identifier	_____
Measurement or visible feature	_____
Comparison / calculated outcome	_____
Interpretation and limitation	_____

Worked Example

The numbers below are illustrative; enter your own observations in the record.

- R_f = spot migration / solvent-front migration.
- Example: 30 mm / 60 mm = 0.50.

Result

The recorded finding is ____; the supporting observation or calculation is _____. The main limitation is _____.

Precautions

- Use the supplied teaching material; distinguish a measured observation from an assumed value.
- Keep units, axes, labels and measurement conditions consistent.
- Record limitations and seek instructor review before applying a conclusion to a live case.

Viva Questions and Answers**1. What is the main endpoint?**

Interpret the supplied hptlc - instrument demonstration.

2. Does one observed result prove a general conclusion?

No. Controls, repeatability and the limitations of the method must be considered.

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