



# CSIR-CIMAP

## FIVE DAYS SKILL DEVELOPMENT



CSIR Integrated Skill Initiative



### TRAINING ON

## PRACTICAL ASPECTS OF LIQUID CHROMATOGRAPHY TECHNIQUES

[PALCT-2022]

[07 November - 11 November 2022]

## CONTACT US

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### Course coordinator

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# Techniques and Topics to be Covered

## UPLC/HPLC

- ❖ Instrumentation
- ❖ HPLC/UPLC method development
- ❖ Transforming HPLC method to UPLC
- ❖ Column Chemistry
- ❖ Preparation of test solutions
- ❖ Directions for analysis
- ❖ Interpretation of quantitative analysis
- ❖ Documentation of Results

## HPTLC

- ❖ HPTLC method parameters
- ❖ Different stationary phase and uses thereof
- ❖ Instrumentation
- ❖ Directions for analysis
- ❖ Interpretation of quantitative analysis

## Preparative HPLC

- ❖ HPLC method parameters
- ❖ Method scale-up from analytical HPLC
- ❖ *p*HPLC
- ❖ Columns and stationary phases
- ❖ Mobile phase
- ❖ Instrumentation



## Flash Chromatography

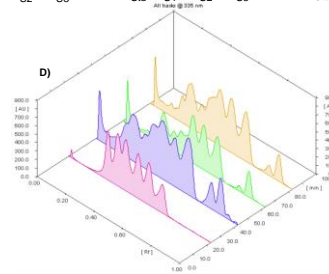
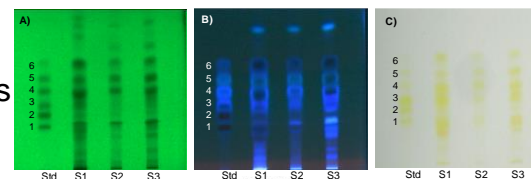
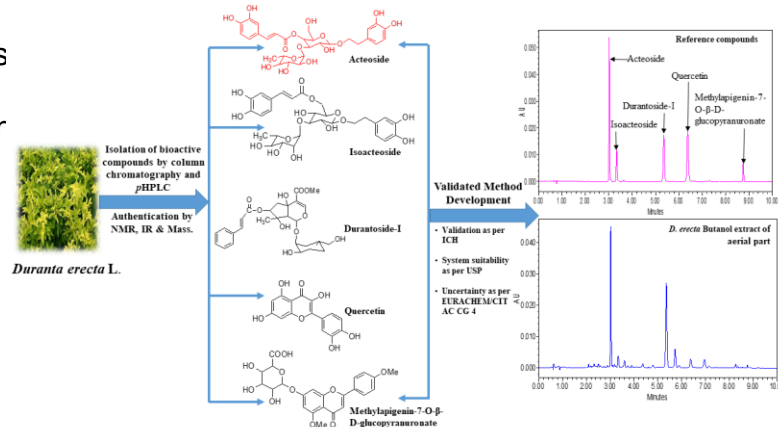
- ❖ Uses of the technique for upscaling/ purification
- ❖ Transformation of TLC method to FLASH
- ❖ Different stationary phase and uses thereof
- ❖ Directions for analysis

## Ion-Chromatography

- ❖ Principles, Mechanism & Instrumentation
- ❖ Applications in MAPs
- ❖ Carbohydrates, Organic acids
- ❖ Anions & Cations

## Size Exclusion Chromatography

- ❖ Principles & Mechanism
- ❖ Key points for Separation
- ❖ Column Selection
- ❖ Application in Natural Product





## TRAINING PROGRAM

An outstanding platform to get an exposure to UPLC, HPLC, HPTLC, SEC & Flash liquid chromatographic techniques and upscaling of the components by preparative HPLC will be offered pertinent to medicinal plants and prepared products thereof. A complete theoretical as well as practical knowledge on these techniques, maintenance of related instruments and method development can be extracted from this training.

## GET THE AUTHENTIC RESULTS

The present training is expected to intensify the knowledge on subject and allow person to apply modern liquid chromatographic techniques in different application. and the role of each module in multi component instrumentation. This course will enable candidates to develop HPLC methods and transferring the parameters adaptation of documented methods in their own application. Additionally, the training will enable you to updates with latest International guidelines (ICH & USFDA) of method developments:

## EXPECTED OUTCOME

- Better understanding of the parameters provided in any in a documented analytical method.
- Follow pertinent method to arrange a system for analysis/upscaling.
- Perform an analytical method and obtain results of chromatographic analysis.
- Interpret the acquired chromatograms from UPLC/HPLC/HPTLC analysis.
- Calculate results of analysis of the analytical results.
- Implement common measures to prevent malfunctioning of instruments.
- Do's and Don'ts of HPLC/HPTLC analysis.
- Application of HPLC and HPTLC method in herb QC/QA operations

## MORE ABOUT TRAINING

Duration	:	05 days (Residential).
Batch size	:	20 [First come first served basis]
Mode of Registration	:	Interested candidates have to submit the Registration Form along with course fee (available on CIMAP website).
Registration Fee	:	Students: INR 7,500/- Industries/Institution sponsored: INR 15,000/-
Payment mode	:	The <b>demand draft</b> in favour of " <b>Director, CSIR-CIMAP</b> , Lucknow " <b>payable at Lucknow</b> or through online transfer.

### Bank Detail for online transfer-

Account No.	:	30267691783
Account holder	:	Director, CIMAP, Lucknow
Bank Address	:	State Bank of India, Main Branch, Hazaratganj, Lucknow
Branch Code	:	000125
IFSC code	:	SBIN0000125
MICR code	:	226002002

**Note:** No Refund is permissible in any circumstances. The selected candidates will be informed on phone/email.

Accommodation	:	Accommodations will be provided in our guest house on twin sharing basis.
Dates	:	<b>07 November - 11 November, 2022</b>
Timings	:	<b>9:30 AM to 6:00 PM</b>

