



CSIR-CIMAP

FIVE DAYS SKILL DEVELOPMENT



CSIR Integrated Skill Initiative



TRAINING ON

PRACTICAL ASPECTS OF LIQUID CHROMATOGRAPHY TECHNIQUES

[PALCT-2023]

[20 November - 24 November 2023]

CONTACT US

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Techniques and Topics to be Covered

UPLC/HPLC

- ❖ Instrumentation
- ❖ HPLC/UPLC method development & validation
- ❖ Transforming the 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 phases and uses thereof
- ❖ Instrumentation
- ❖ Directions for analysis
- ❖ Interpretation of quantitative analysis
- ❖ Method validation

Preparative HPLC

- ❖ HPLC method parameters
- ❖ Method scale-up from analytical HPLC to semi- μ HPLC
- ❖ Columns and stationary phase
- ❖ Mobile phase
- ❖ Instrumentation



Flash Chromatography

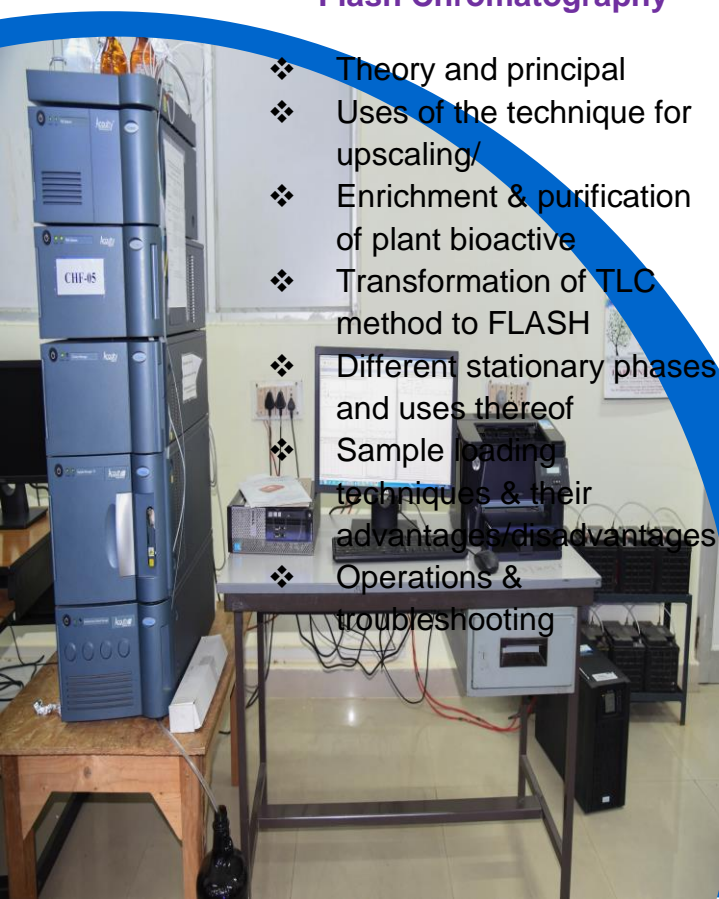
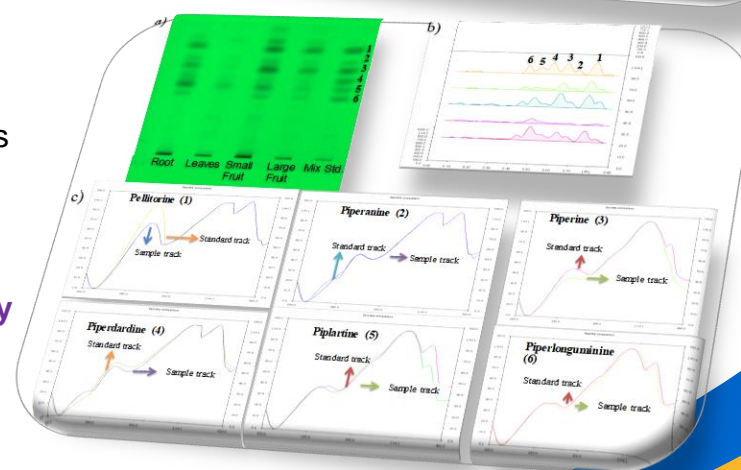
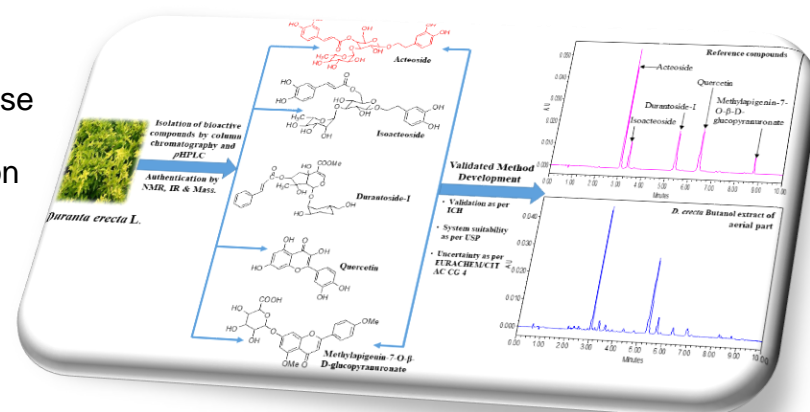
- ❖ Theory and principal
- ❖ Uses of the technique for upscaling/
- ❖ Enrichment & purification of plant bioactive
- ❖ Transformation of TLC method to FLASH
- ❖ Different stationary phases and uses thereof
- ❖ Sample loading techniques & their advantages/disadvantages
- ❖ Operations & troubleshooting

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 Products



TRAINING PROGRAM

An outstanding platform for exposure to UPLC, HPLC, HPTLC, SEC & Flash liquid chromatographic techniques, and upscaling components by semi-preparative HPLC will be offered using medicinal plants and derived products. A complete theoretical and practical knowledge of these techniques, troubleshooting and routine maintenance of related instruments, method development, and validation can be extracted from this training.

GET THE AUTHENTIC RESULTS

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

EXPECTED OUTCOME

- ❖ Better understanding of the parameters provided in any documented analytical method.
- ❖ Follow the 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 must submit the Registration Form and the course fee (Download from the CIMAP website).
Registration Fee : Students: INR 7,500/-;
Industries/Institution sponsored: INR 15,000/-
Payment mode : The **demand draft** in favour of "**Director, CSIR-CIMAP**, Lucknow, "**payable at Lucknow** or through online transfer.

Bank Detail for the 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 by phone/email.

- Accommodation** : Accommodations will be provided in our guest house on twin sharing basis.
Dates Timings : **20 November - 24 November 2023**
Timings : **9:30 AM to 6:00 PM**

