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Registration & Accommodation
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Course Content

There will be theory lectures on basic instrumentation principles, applications and hands-on practical exposure to sophisticated instruments and data analysis during the course.

Module 1: Introduction to Medicinal and Aromatic Plants (MAPs) Analysis
Module 2: Isolation and purification of natural products
Module 3: HPTLC-Basics, Instrumentation and its Application MAPs
Module 4: HPLC-Basics, Instrumentation and its Scope in natural products
Module 5: GC & GC-MS-Basics, Instrumentation, and its scope
Module 6: LC-MS-Basics, Instrumentation and its scope
Module 7: FT-NIR & DSC Basics, Instrumentation and its Scope
Module 8: NMR-Basics, Instrumentation and its Application in small organic molecule structure elucidation

ADVANCED INSTRUMENTATION & ANALYTICAL TECHNIQUES FOR NATURAL PRODUCTS [AIAT-2026]

CSIR-CIMAP

RESIDENTIAL TRAINING PROGRAM

"19-23 JANUARY 2026"

CSIR-Central Institute of Medicinal and Aromatic Plants,
PO- CIMAP, Lucknow-226015

About CSIR-CIMAP

CSIR-CIMAP is a national R&D Laboratory of CSIR, having a unique mandate on medicinal and aromatic plants for their production and exploitation as a value-added product for the industry and society. The research and development program of the institute is greatly supported by modern, sophisticated instrumentation to provide a base for the development of technologies through plant sciences, Lucknow "The Historical City of Nawabs" has developed as an advanced city of science education and research with a good number of prestigious R & D and academic institutions like CDRI, NBRI, IITR, IISR, IET, BSIP, KGMU, SGPGI, IIM and many more including Lucknow University.

Training objective

The course will provide sound knowledge in natural product extraction, separation, purification, and identification practices of phytochemicals. The focus of the training program was to enhance the experience and practical knowledge of chromatographic and spectroscopic research in natural product development and develop human resource capacities by offering training to personnel from industry, academic institutions, and government laboratories.

Who should participate?

- The type of training/exposure has been planned to be equally useful for scientists, academicians, industry, and research scholars.
- No doubt students/ scholars related to the fields will benefit greatly as they will be exposed to modern R&D tools. This course is designed to keep the requirements of both beginners and intermediate-level users.
- The lectures, supplemented by problem sets, PowerPoint slides, and hands-on training, will provide the fundamentals to understand the techniques and instrumentation. No prior experience in advanced computation, theoretical chemistry, or physics is required for this course.
- Some experience in chromatography or introductory knowledge of chemistry is desirable but not necessary

BACKGROUND

Photochemical, particularly small molecules, have several applications. The harnessing of herbs for human health management is centuries-old science practiced in our country. Natural products serve as a basic skeleton and are crucial in modern drug discovery programs. The number of drugs and supplements used today are derived from natural products. The process of drug development and quality control requires multi-skill. Identifying lead molecules and quality assurance control of herbs/products require skill and knowledge of analytical instrumentation. The requirement for consistently high standards of competence in chromatography-spectroscopy and analytical science is now, more than ever, a matter of priority for industries of pharmaceutical, chemical, and biotechnological research organizations mandated for applied research. Over the years, the development of these tools has become increasingly sophisticated to make their use simpler, and now these have become indispensable tools for R & D work. To keep pace with the sophistication of these tools, it is necessary to simultaneously upgrade the skills of all concerned in this field as a human resource development venture. To fulfill this important objective, CSIR-CIMAP is organizing five days of summer training on applications and principles of working sophisticated instrumentation from 19-23 January 2026.

TRAINING OBJECTIVE

The course will provide sound knowledge in natural product extraction, separation, purification, and identification practices of phytochemicals. The focus of the training program was to enhance the experience and practical knowledge of chromatographic and spectroscopic research in natural product development and develop human resource capacities by offering training to personnel from industry, academic institutions, and government laboratories.

COURCE STRUCTURE

There will be lectures and practical demonstrations by the faculty of leading scientists and experts in different fields. The training school will be of five days' duration with long working hours from early morning to late evening. The participants will be exposed to different aspects. of natural product chemistry like Isolation, chromatographic purification, and characterization of molecules with the help of modern, sophisticated instruments. The participants are expected to fully involve themselves in training without leave. The hostel stay will be compulsory for residential trainees due to their late working hours.

Fee structure

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/-
Accommodation	Accommodations will be provided in our guest house on twin sharing basis.
Dates	19 January - 23 January 2026
Timings	9:30 AM to 6:00 PM
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 :	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.