



BRIC National Agri-Food and Biomanufacturing Institute (BRIC NABI)

Hands-on-Training on “Supercritical Fluid Extraction (SCFE)”

9th -11th April 2025

Subject: Hands-on-Training on Supercritical Fluid Extraction

Schedule: 3 Days (9th-11th April 2025) from 9.00 am to 5.30 pm.

Proposed Program: This training program provides comprehensive hands-on experience in **Supercritical Fluid Extraction (SFE)**, a cutting-edge technique used for the efficient and selective extraction of valuable compounds. SFE is widely applied across various scientific fields, including **pharmaceuticals, food and beverages, natural products, cosmetics, and environmental sciences**, due to its eco-friendly nature and ability to produce high-purity extracts.

This course is designed to equip participants with in-depth knowledge of the **principles, hardware, and software** of SFE systems. Attendees will gain practical expertise in operating the equipment, optimising extraction parameters, and interpreting analytical data. Through this training, users will develop the skills necessary to apply SFE techniques effectively in research and industrial applications.

Brief Details of Central Instrumentation Facility: Central Instrumentation Facility (CIF) at NABI, Mohali, has been extending its services to researchers for 12 years, and it was established by the Department of Biotechnology (DBT), Ministry of Science and Technology in 2012. This facility helps develop the analytical skills of scientists, research personnel, and students engaged in R&D activities. CIF also offers training programs on science and technology advancements to wide users across India and is offering time to time training in advance equipment's. CIF facility is also available to outside professionals for sample testing at very nominal rates.

Scope of Training: Training Includes: **Supercritical Fluid Extraction (SFE)**

- **Fundamental Knowledge:** Understanding the principles of SFE, the role of supercritical fluids, and the operation of extraction systems.

- **Experimental Design:** Developing well-structured extraction experiments to optimize yield, selectivity, and efficiency.
- **Sample Handling:** Proper sample preparation, selection of supercritical fluid and co-solvents, and utilization of software for process control and data analysis.
- **Data Analysis and Troubleshooting:** Interpreting extraction results, optimizing process parameters, and resolving operational challenges.
- **Hands-on Training:** Practical operation of SFE systems, parameter optimization, and method development.
- **Practical Experience:** Laboratory sessions, interactive discussions, and a certificate of completion.

Brief note on the technique:

Supercritical Fluid Extraction is an advanced separation technique that utilizes supercritical fluids, typically carbon dioxide (CO₂), to extract target compounds from various matrices. SFE is widely used in pharmaceuticals, food, natural products, cosmetics, and environmental sciences due to its ability to provide high-purity extracts without the need for harsh solvents. This technique is efficient, selective, and eco-friendly, making it ideal for extracting bioactive compounds, essential oils, caffeine, pesticides, and other valuable substances from complex samples.

Fee details: Rs 7500/- + GST

Note:

- The training fee excludes the accommodation charges. Limited seats are available in Guest House which can be provided at nominal rates to participants on first come first serve basis.
- The training Program includes provision of morning and evening tea along with lunch to all the participants of the Program.

Criteria and Eligibility of Training Program: The details are as follows:

- **Educational Qualification:** BSc/B.Tech/MSc/M.Tech/PhD degree holders and perusing candidates may participate in the training program.
- Since seats are limited, the selection criteria of the participants will be purely on **First come, First Service Basis** with the fulfilment of the above eligibility conditions.

General Conditions:

- Interested candidates must fill out the registration form latest by 01-04-2025 and send a request to Email ID: suvosree.m@ciab.res.in (Suvosree Mukherjee – 0172-5221-446).
- The Google link for the form is as follows: <https://forms.gle/poTpVvmsjND7sbLn8>
- In addition, the STUDENT RESEARCH SCHOLAR may need to submit the **NO OBJECTION CERTIFICATE and DECLARATION (formats available in the same document at the end)** by 01-04-2025 via email.
- All candidates whose candidature is accepted by competent authority for the training program shall be informed by 03-04-2025. Post confirmation of candidature acceptance from NABI, Mohali, Candidates must deposit the fees and share proof of payment with suvosree.m@ciab.res.in by 04-04-2025, 5.00 PM. **Late payments or confirmation will lead to cancellation of candidature and no separate intimation will be sent in this regard.**
- Training will be held from **09-04-2025 to 11-04-2025**
- Fees once paid, will not be returned even if the candidate wishes to withdraw his/her application for the training program.
- BRIC NABI also provides guest house accommodation on a paid basis at ₹ 900/- per day (Taxes and food charges extra), subject to the availability of rooms.
- All participants during their presence in the campus must adhere to the conduct & discipline rules applicable inside the campus.

Payment details: By online payment as per bank details provided below:

Beneficiary Name: Center of Innovative and Applied Bioprocessing

A/c No: 32618124859

Bank Name: State Bank of India

Branch Code: 1828

IFSC Code: SBIN0001828

MICR Code: 160002023

GST No. in r/o CIAB is 03AABAB8297N1ZC



BRIC National Agri-Food and Biomanufacturing Institute (BRIC NABI)
(Formerly Center of Innovative and Applied Bioprocessing, Mohali)

NO OBJECTION CERTIFICATE

The applicant Prof. /Dr. /Mr. /Ms. _____
from our institution will be permitted to attend the “Hands-on Training on Supercritical
Fluid Extraction” to be held from 09-04-2025 to 11-04-2025 at the BRIC National Agri-
Food and Bio-manufacturing Institute (BRIC NABI), if selected for the same.

Place:

Signature

Date:

(Head of the Institution with seal)

DECLARATION BY THE CANDIDATE

I agree to abide by the rules of the **BRIC National Agri-Food and Biomanufacturing
Institute (BRIC NABI)**, Mohali. If selected, I shall participate in the course for the entire
duration.

Date:

Place:

Signature by the Candidate

(Scanned copy should be submitted in advance through email to suvosree.m@ciab.res.in)

How to Reach BRIC NABI:



<https://maps.app.goo.gl/jLq9Kwqck6vy15vm6>

[CIAB & NABI Sector 81 - Google Maps](#)



NABI & CIAB: [Sector-81 \(Knowledge City\), PO Manauli, S.A.S. Nagar, Sahibzada Ajit Singh Nagar \(Mohali\), Punjab 140306](#)

Link: <http://www.ciab.res.in/page.aspx?id=32>

Campus Tour: <https://www.youtube.com/watch?v=FakjOcrckOw>



<https://www.facebook.com/CIAB.India/>
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