ICPM Healthcare 2026

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Workshop

Transferring Classical HPLC and UHPLC Methods into Green, Blue, and White Sustainable Analytical Methods

Trainer:
Prof. Dr. Sami Eldeeb
Professor of Pharmaceutical Instrumental Analysis

About the Trainer:
Prof. Sami Eldeeb is a Professor of Pharmaceutical Instrumental Analysis at Braunschweig University, Germany, and an Alexander von Humboldt Fellow at the Institute of Pharmacy, Free University of Berlin. He brings extensive experience in pharmaceutical analysis, specializing in sustainable analytical chemistry. Prof. Eldeeb has made significant contributions to the development of greener chromatographic methods, advancing eco-friendly practices in the field.

Why Sustainable Analytical Chemistry?

In today's world, the shift towards sustainability is crucial across all scientific disciplines. Analytical chemistry plays a vital role in environmental and health sustainability while reducing the environmental impact of chemical analyses. This course equips participants with the knowledge and skills to transition from conventional high-performance liquid chromatography (HPLC) and ultra-high-pressure liquid chromatography (UHPLC) methods to greener, more sustainable alternatives, promoting faster, resource-efficient, low-carbon footprint and bio-based chromatographic methods.

Course Highlights:

- Principles of Green, Blue, and White Analytical Chemistry
- Sustainable HPLC and UHPLC Methods: Transitioning conventional methods into eco-friendly alternatives
- Solvent Selection: Choosing greener practices in liquid chromatography
- Carbon Footprint Calculation: Evaluating the environmental impact of analytical methods
- Waste & Energy Reduction: Techniques to minimize resource consumption in analytical processes
- Bio-based Low-Carbon Methods: Developing faster, more sustainable approaches

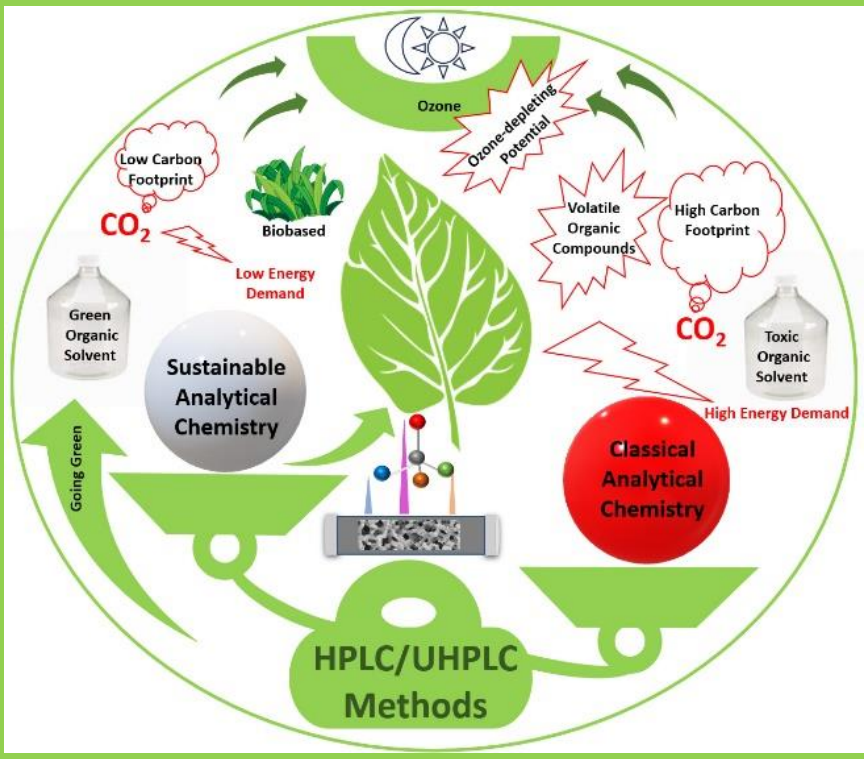


Figure by Prof. Dr. Sami Eldeeb

Course Content

1. Introduction to Sustainable Analytical Chemistry

- Overview of Green, Blue, and White Chemistry principles.
- The role of analytical chemistry in achieving Sustainable Development Goals (SDGs).

2. Transitioning to Sustainable Chromatographic Methods

- Guidelines for replacing toxic solvents with greener alternatives.
- Case studies on successful method transfers in HPLC and UHPLC.

3. Practical Applications

- Hands-on sessions on selecting green solvents.
- Implementing high-efficiency columns to reduce analysis time and carbon footprint.

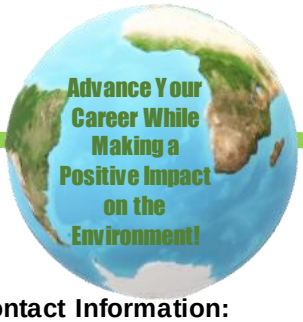
4. Advanced Topics

- Latest trends in sustainable analytical chemistry.
- Evaluating and validating the sustainability of analytical methods using software and assessment tools such as AGREE, GAPI, BAGI, and RGB12.

Target Group:

This course is designed for analytical chemists who use chromatographic methods in pharmaceutical, clinical, and biomedical analysis, as well as environmental, food, agricultural, forensic, and material analysis. It is especially relevant for professionals aiming to incorporate sustainable practices into their analytical workflows.

Participants will gain valuable insights into the use of sustainable chromatography in industrial, research, and educational sectors. The course also prepares chemists to navigate upcoming global regulatory changes in chromatographic practices, focusing on sustainable, energy-efficient quality **control with minimal environmental impact, particula**rly in routine pharmaceutical quality control.



Contact Information:
For registration and further details, contact ICPM Healthcare 2026

Location:
Sharjah Research Technology and Innovation Park UAE

Course Dates:
20-22 January 2026, 3 days duration

Course Fees
- In-person (individual): €300 + 5% tax.

- In-person (group): €275 + 5% tax (per participant, minimum 3 participants).

- Online (individual): €250 + 5% tax.

- Online (group): €200 + 5% tax (per participant, minimum 3 participants).

Sustainable Analytical Chemistry is vital for advancing sustainable development. This course empowers participants to enhance the *greenness* and *whiteness* of analytical methods in research, industry, and education. It emphasizes integrating energy use and carbon footprint assessments into method validation to ensure future-ready practices. Global progress requires Pharmacopeias to adopt greener technologies and modernize traditional chromatographic approaches.

Prof. Dr. Sami Eldeeb

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A Certificate of Participation will be issued by the German company **German Chemburg** in collaboration with **ICPM**.

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