

Half Day Short Course

M01. Supercritical Fluid Chromatography

Content

This course covers all major aspects of supercritical fluid chromatography. The basic theory of supercritical fluids and SFC is reviewed. Currently available commercial instrumentation is discussed in relation with kinetic performance.

The strategies to develop high-quality and robust SFC methods are examined, with a focus on the choice of stationary phase and mobile phase composition (nature and proportion of co-solvent introduced in CO₂, use of additives), depending on analyte type (acidic, basic, neutral, polar or non-polar). Secondary optimization parameters (temperature, pressure, flow-rate) are also covered. Practical aspects of the hyphenation of SFC with MS are reviewed.

In addition, applications for a wide range of samples and compounds are presented and discussed at different stages throughout the course.

Details

Instructors	Prof. Jean-Luc Veuthey and Dr. Davy Guillarme, University of Geneva
Date	27 August 2023
Time	09:00–12:00 h
Duration	3 h plus coffee break
Location	CICG Geneva
Fees	130 CHF (delegate) 80 CHF (student)
Included	Coffee break If booking 2 courses: lunch

Instructors



Prof. J.-L. Veuthey

Jean-Luc Veuthey is Full professor at the School of Pharmaceutical Sciences, University of Geneva. He is author of 375 scientific publications cited more than 15'000 times. His research domain is dedicated to the development of separation techniques, mainly liquid and supercritical chromatography as well as capillary electrophoresis hyphenated with different detectors. Applications are mainly dedicated to the analysis of drugs, drugs abuse and biopharmaceutics in different biological matrices. He is also interested in the doping control analysis and is active in different national and international scientific committees.



Dr. D. Guillarme

Davy Guillarme holds a Ph.D. degree in analytical chemistry from the University of Lyon, France. He is now senior lecturer and research associate at the University of Geneva in Switzerland. He authored more than 320 journal articles related to pharmaceutical analysis. His expertise includes HPLC, UHPLC, HILIC, LC-MS, SFC, SFC-MS, multidimensional LC, analysis of proteins, mAbs and ADCs. He is an associate editor of *Journal of chromatography B* and the recipient of the LC-GC emerging leader award in chromatography in 2013, the jubilee medal from the chromatographic society in 2018 and the international award of the Belgian society of pharmaceutical sciences in 2022.

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