

Faculty of Biological, Agronomic and Environmental Engineering



BIR1318 Organic analysis I : separation techniques

[30h+60h exercises] 5.5 credits

This course is taught in the 2nd semester

Teacher(s): Sonia Collin, Jacqueline Marchand
Language: French
Level: First cycle

Aims

Acquiring knowledge, know-how and experimental practice of separation techniques and analytical methods (HSE, critical thinking, team work).

Main themes

Principles and practice of analytical chromatography
 - basics and beyond
 - contribution to organic analyses
 - gas chromatography
 - HPLC chromatography

Content and teaching methods

1. Introduction to extraction and separation techniques & qualitative and quantitative analysis.
 2. Theoretical aspects : - Extraction : solubility, miscibility, lipophilicity, extraction procedures (6h) - Derivatisation techniques to improve extraction and analysis (4h30) - Main concepts in chromatography (2h) - Gas chromatography (GC, GC²) and high pressure liquid chromatography (HPLC) (8h) - Separation techniques of chiral compounds

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

- background : CHIM 1170
 - appraisal : exam
 - individual homework including preparation and oral presentation of an analytical protocol
 - optionalities : single course attendance or combined with seminars

Other credits in programs

BIR13BA/C	Troisième année de bachelier en sciences de l'ingénieur, orientation bioingénieur (option : chimie)	(5.5 credits)	Mandatory
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