

UE Green chemistry

ECTS 3 credits Component UFR Chimie-Biologie

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Semester Tous les ans

> Teaching language(s): English

> Open to exchange students: No

Presentation

Description

Green chemsitry is a major evolution in organic chemistry for more efficient, sustainable transformations while minimizing byproducts, solvents and waste. In this course, the 12 principle of green chemistry will be presented and illustrated through dedicated chapters to: solvents, catalysis, biotransformation, flow chemistry, organocatalysis and multicomponent and cascade reactions.

Details:

- I Introduction: History, E-factor, 12 principles
- II- Solvents: greener solvent, no solvent, water, supercritical CO2, lonic liquids,
- III- Biocatalysis Biomass
- IV- Solids supported reaction/reagents, flow chemistry
- V- Microwaves
- VI- Multicomponent and cascade reactions
- VII- Organocatalysis

Course parts

СМ	Lectures (CM)	36h
TD	Tutorials (TD)	4,5h





Recommended prerequisites

Prerequisites: Organic chemistry

Skills

Skills: Knowledge of the principles and challenges of green chemistry, with solutions and evolution of the methods and technics for better sustainability of chemical processes.

Useful info

Contacts

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Campus

> Grenoble - University campus