UE Green chemistry

Niveau d'étude
Bac +5

ECTS
3 crédits

Composante
UFR Chimie-Biologie

Période de l'année
Toute l'année

- **Langue(s) d'enseignement:** Anglais
- **Ouvert aux étudiants en échange:** Oui
- **Code d'export Apogée:** YAX9CH37

Présentation

Description

Green chemsitry is a major evolution in organic chemistry for more efficient, sustainable transformations while minimizing by-products, 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, Ionic liquids,
III- Biocatalysis – Biomass
IV- Solids supported reaction/reagents, flow chemistry
V- Microwaves
VI- Multicomponent and cascade reactions
VII- Organocatalysis

Heures d'enseignement

CM	CM	36h

Pré-requis recommandés

Prerequisites: Organic chemistry

Période : Semestre 9

Compétences visées

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.

Infos pratiques

Contacts

Responsable pédagogique

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