

UE Green chemistry



Niveau d'étude
Bac +5



ECTS
3 crédits



Composante
UFR de Chimie
et de biologie



Période de
l'année
Toute l'année

Diplômes intégrant cet élément

- Master Chimie

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

Présentation

Description

Green chemistry 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
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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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