

UE Asymmetric synthesis



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:** Français, Anglais
- › **Ouvert aux étudiants en échange:** Oui
- › **Code d'export Apogée:** YAOS9U48

Présentation

Description

Course outline:

The principle of asymmetric synthesis is presented and illustrated by examples of asymmetric reduction of carbonyl, imines, alkenes, asymmetric oxydations, stereoselective alkylations, aldol reactions and stereoselective allylations. This asymmetric reaction toolbox set the basic knowledge to generate enantioenriched compounds, crucial for organic chemists. This course is also illustrated by the study of natural products asymmetric synthesis.

Details:

- I. Principle of asymmetric synthesis, reminder on enantiomeric excess and absolute configuration, catalysis
- II. Enantioselective reduction of C=O, C=N and C=C bonds
- III. Asymmetric oxidation
- IV. Enantioselective (2+1) and (4+2) cycloadditions
- V. Enolates Formations; Stereoselective Alkylations, Stereoselective Aldol Reactions
- VI. Stereoselective Allylations

Heures d'enseignement

CM	CM	36h
TD	TD	4,5h

Pré-requis recommandés

Prerequisites:

Master 1 Organic chemistry 1 and 2

Période : Semestre 9

Compétences visées

Skills:

- Determining enantiomeric excesses and absolute configuration
- Knowledge of the principal asymmetric transformations
- Recognizing the interactions involved in the stereo-selection.

Infos pratiques

Contacts

Responsable pédagogique

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