



CHIM2322 Applied organic chemistry

[22.5h+0h exercises] 2.5 credits

This course is taught in the 1st semester

Teacher(s): Istvan Marko
Language: French
Level: Second cycle

Aims

Enlarging the knowledge in organic chemistry synthesis. Developing strategy notions in total synthesis. Study of the main classes of natural products. Retrosynthetic analysis.

Main themes

Study of the major families of natural products (terpenes, steroids, alkaloids, macrolides, prostaglandins, etc.) from the biosynthesis point of view as well as the total synthesis one. Illustration by selected examples of total synthesis. Development and refining of synthesis strategy notions and retrosynthetic analysis. Introduction to new methodologies, reactions and concepts. In-depth use of chiral synthesis. Study of asymmetric induction. Multi-stage synthesis.

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

Prerequisites: knowledge of organic chemistry (CHIM22 level). Basics in biochemistry.

Evaluation: written and oral examination.

Support: Classics in Total Synthesis (K.C. Nicolaou); the Logic of Chemical Synthesis (E.J. Corey); Retrosynthetic Analysis (S. Warren).

Supervision: professor

Other credits in programs

CHIM22 Deuxième licence en sciences chimiques