



CHIM2140 Organic chemistry

[45h] 4.5 credits

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

Aims

To widen the knowledge in organic chemistry. Appreciation of organic intermediates reactivity. Development of knowledge in organic chemistry synthesis. Initiation to organometallic reactants.

Main themes

Intermediates reactivity. Study and determination of reaction mechanisms. Nucleophilic substitution. Mechanisms. Nucleophiles and electrophiles, Pearson's theory. Ion pairs. Stereochemical aspects and neighbouring groups participation. Super acid solutions. Reactivity of carbocations, carbanions, radicals, anion and cation radicals, carbenes. Non classical carbocations. Cationic and radical polycyclisations. Metal carbenoid. Birch-type reactions. Hammond and Curtin-Hammett postulates. Primary isotopic effect. Synthetic applications of these diverse notions. Pericyclic reactions. Diels-Alder cycloadditions. Sigmatropic rearrangements.

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

Prerequisites:
 Evaluation: written and oral examination.
 Support: cfr. old document F.A. Carey...
 Supervision: 2 academics and assistants.

Other credits in programs

CHIM21	Première licence en sciences chimiques	Mandatory
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