Teacher(s) : Riant Olivier ; Robiette Raphaël ;

Language : Français

Place of the course Louvain-la-Neuve

Main themes : This course is aimed to a synthesis of various notions related to physical organic chemistry and already introduced in the various courses from the preceding years. It also gives an introduction to some selected physico-chemical tools used in the elucidation of reaction mechanisms in organic chemistry. The main themes are:

- Structure-activity relationships in organic chemistry
- Electronic and steric effects
- Influence of the reaction media in organic chemistry
- Stereoelectronic effects in organic chemistry

Aims : The aim of this course is to introduce important notions and concepts selected in the field of physical organic chemistry. One of the goals of this course is to use those notions for a better understanding of reaction mechanisms in organic chemistry, the structure of reaction intermediates and transition states, and a deeper understanding of the molecular interactions which can influence chemical reactivity. The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled “Programmes/courses offering this Teaching Unit”.

Content :


2- Influence of the reaction media in organic chemistry: Influence of the solvent in organic chemistry. Classification of the solvents and solvents scales. Ion effects (anionic activation and electrophilic assistance). Medium effect on the reaction kinetics. Hughes-Ingold rule. Solvation effects on reactivity.


Other infos : Background: knowledge of organic chemistry from the previous years (Bachelor of Chemistry) and CHM2140 Evaluation: written exam Support: Books from the CHOM library, publications and databases.

The course could be partly or totally delivered by an invited lecturer.

Faculty or entity in charge: CHIM
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