Photochemistry

CHM 4932 / CHM 6938

Description: The course provides a theoretical background for understanding photophysical and photochemical phenomena. Main classes of artificial and natural photochemical reactions will be described. Optical spectroscopy techniques and data analysis techniques will be introduced. The course includes an introduction to Matlab as a powerful graphing and data analysis software.

Course prerequisites: Calculus II

Course objectives: This course aims to provide a comprehensive understanding of light-matter interactions, focusing on quantum properties, absorption and emission processes, and photophysical principles like the Franck-Condon and Jablonski diagrams. Students will explore energy transfer mechanisms, quenching, quantum yield analysis, photochemical reaction kinetics, electron and proton transfer, and organic and semiconductor photochemistry.

Instructor: Dr. Chavdar Slavov

Textbooks recommendations:

- Photochemistry of Organic Compounds by Klán and Wirz
- Physical Chemistry - McQuarrie or Atkins

Dates and times: MW, 03:00pm-04:15pm

Location:

CRN for registration:

Contact:

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