UE Polymers for flexible electronics

ECTS
6 credits

Component
UFR Chimie-Biologie

- **Teaching language(s):** English
- **Open to exchange students:** Yes

Presentation

Description

This course will provide background on critical issues on the main pi-conjugated and conducting polymers used as the active materials for the electronics applications. The different methods of chemical, electrochemical synthesis and recent synthetic methodologies will be reviewed. We will discuss the underlying scientific principles that guide the study of structure-property relationships and the supramolecular effects on the modulation of electronic properties. Applications of these polymers in their undoped (organic light emitting diodes, organic solar cells, antistatic layers…) doped state (corrosion, actuators, electrochromic, sensors...) will be described.

Objectives

Skills:

Basic knowledge on preparation and characterization of polymer materials for renewable energy sources. Correlations between the polymer structure - material properties and applications. Electrochemistry, Organic synthesis.

Course parts

UE Polymers for flexible electronics - TD	Tutorials (TD)	9h
UE Polymers for flexible electronics - CM	Lectures (CM)	15h

Recommended prerequisites

Prerequisites: Polymers 1 & 2 (M1 Master Program)

Period : Semester 9

Useful info

Contacts

Program director

Said SADKI

said.sadki@univ-grenoble-alpes.fr

Place

Grenoble

Campus

Grenoble - University campus