

UE Polymers for flexible electronics



Niveau d'étude
Bac +5



ECTS
3 crédits



Composante
UFR de Chimie
et de biologie



Période de
l'année
Automne (sept.
à dec./janv.)

Diplômes intégrant cet élément

- Master Chimie

- › Langue(s) d'enseignement: Anglais
- › Ouvert aux étudiants en échange: Oui
- › Code d'export Apogée: YAPO9U00

Présentation

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.

Objectifs

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

Heures d'enseignement

CM	CM	15h
TD	TD	9h

Pré-requis recommandés

Prerequisites:

Polymers 1 & 2 (M1 Master Program)

Période : Semestre 9

Infos pratiques

Contacts

Responsable pédagogique

Said SADKI

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Lieu(x) ville

➤ Grenoble

Campus

➤ Grenoble - Domaine universitaire