

UE Current trends in Nanosciences



Niveau d'étude
Bac +5



ECTS
3 crédits



Composante
UFR PhITEM
(physique,
ingénierie, terre,
environnement,
mécanique)

- > **Langue(s) d'enseignement:** Anglais
- > **Ouvert aux étudiants en échange:** Non
- > **Code d'export Apogée:** PAX9NAAD

Présentation

Description

This series of lectures might be offered by invited professors.

Accordingly its contents changes and it is not systematically opened.

Heures d'enseignement

UE Current trends in Nanosciences - CM

CM

16h

Syllabus

1. Surface functionalization for the fabrication of biosensors (12h)
 - Functionalization and electrofunctionalization (AS)
 - Applications to olfactory biosensors and biomimetic electronic noses (YHB)
 - Application to the conception of cell chips and detection of bacteria (YR)
 - Biomolecular assemblies and self-organization of biomolecules on surfaces (DG, PHE)
2. (Photo)electrocatalysis applications (12h)

- Introduction to (photo)electrocatalysis (VA)
- Molecular engineering of nanomaterials for (bio)electrocatalysis in energy-related systems (AL)
- Surface functionalization for photo(electro)catalysis: from photovoltaics to solar water splitting and CO2 conversion (BR, DA)
- Micro/nanostructure in electrocatalysis (PC)

Période : Semestre 9

Infos pratiques

Lieu(x) ville

› Grenoble

Campus

› Grenoble - Domaine universitaire