

60062 - Detection, characterization and determination techniques of nanomaterials II

Información del Plan Docente

Academic Year	2016/17
Academic center	100 - Facultad de Ciencias
Degree	544 - Master's in Environmental Nanotechnology
ECTS	6.0
Course	1
Period	Second semester
Subject Type	Compulsory
Module	---

1. Basic info

1.1. Recommendations to take this course

1.2. Activities and key dates for the course

2. Initiation

2.1. Learning outcomes that define the subject

2.2. Introduction

3. Context and competences

3.1. Goals

3.2. Context and meaning of the subject in the degree

3.3. Competences

3.4. Importance of learning outcomes

4. Evaluation

5. Activities and resources

5.1. General methodological presentation

5.2. Learning activities

5.3. Program

Program

1 . **Separation techniques** : Size Exclusion Chromatography (SEC); Hydrodynamic Chromatography (HDC); Field Flow

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Fractionation (FFF); Gel and Capillary Electrophoresis (GE and CE); Coupled Techniques (HPLC-ICP-MS, HDC-ICP-MS and FFF-ICP-MS).

2. Electroanalysis for detection and quantification of nanomaterials: Potentiometry, Voltammetry of Immobilized Particles (VIP), Voltammetry of Immobilized Particles (VIP), Imaging Electrochemical Techniques for characterization of nanomaterials

3. Analytical Sensors : Quantification of artificial nanomaterials, Nanotoxicity evaluation and nano-monitoring in environmental samples.

5.4.Planning and scheduling

5.5.Bibliography and recommended resources