

Chim/02

Academic year: 2016/2017

Faculty: Department of Chemistry

Study courses: Chemical Science

Study plans/Curricula: Properties and Characterization of Complex Systems

Type:

Total Credits: 6

Didactic Methods: lessons+laboratory

Didactic Period: I semester,

Exam type: Oral

Professor in charge: Pinalysa Cosma

Training objectives: The course provides an in-depth knowledge of the fundamental principles relative to absorption spectroscopy in polarized light, the electrochemical methods for complex chemical physical systems (from proteins to cultural heritage applications). It also wants to induce the students to critically evaluate their own knowledges and results, analysing the chemical-physical aspect and becoming able to suggest alternative technical solutions.

Prerequisites: Chemical-Physics I and II, Organica Chemistry I and II, Graphical data treatment, Mathematics, Physics

Didactic Methods: Power point Presentations

Course programme

PROGRAMME:

Lectures: (32 h)

1. Protein Electrochemistry
2. Scanning Electrochemical Microscopy (SECM)
3. Electrochemistry of materials
4. Electrokinetic Phenomena
5. Circular Dichroism
6. Fluorescence Resonant Energy Transfer (FRET)

Practical applications (30h/student)

Reference Texts

duplicated lecture notes, sitography