

Analytical methods II

Introducing

Description

1. formulate a scientific problem related to analysis methods in order to illustrate it by manipulations.
2. Make a bibliography with the aim of proposing, adapting or creating experiments which will illustrate the chosen issue.
3. Gather its theoretical and practical knowledge of the previous years and implement them to solve the chosen problem.
4. Plan the experimental work of the group and organize the interactions with the other groups.
5. Explain the principle and learn how to implement the experimental techniques for the analysis.
6. teach yourself on the new analysis techniques necessary to undertake the project when this methods haven't been taught previously.
7. carry out an experiment at the laboratory
8. Analyze the experimental results.
9. Share and debate the results in the scientific point of view with both your teachers and inside your students group. Suggest improvements or work lead.
10. Verbally explain the objectives desired, the chosen scientific approach, and the results of the debate during an oral presentation.
11. Give explanation on the scientific approach followed and the results reached in a written scientific report.

Objectives

Learning by experimental project: illustrate a scientific problem using various experiments involving analytical techniques.

Forcing students to use all of their scientific knowledge in order to analyze the experimental results of their experiments and if necessary modify the protocols

Necessary prerequisites

- Molecular structure and reactivity.
- Thermodynamics, chemistry, electrochemistry.
- Techniques of separation, extraction.
- Analytical methods: chromatographic, UV-visible, electrochemical.

Évaluation

L'évaluation des acquis d'apprentissage est réalisée en continu tout le long du semestre. En fonction des enseignements, elle peut prendre différentes formes : examen écrit, oral, compte-rendu, rapport écrit, évaluation par les pairs...

Practical info

Location(s)

 Toulouse