



COURSE DATASHEET

Semester:	2014/15/2
Course:	Laboratory Practice for Structure Elucidation Methods
Code:	VEMKFTB336A
Responsible department:	Department of Analytical Chemistry
Department code:	MKKA
Responsible instructor:	Dr. János Kristóf

Course objectives:

Understanding of the fundamentals of the materials structure elucidation methods in the laboratory practice.

Course content:

1. Gas chromatography (GC), High Performance Liquid Chromatography (HPLC)
2. Ion-chromatography (IC), Capillary Electrophoresis (CE)
3. Infra-red spectroscopy (IR)
4. Raman-spectroscopy
5. UV-Visible Spectrophotometry
6. Inductive coupled plasma emission spectrometry (ICP-AES).
7. Atom Absorption spectrometry (AAS)
8. Radioanalytical methods I.
9. Radioanalytical methods II.
10. NMR spectrometry
11. Mass spectrometry (MS)
12. Thermal analysis (TG, DTG, DTA)
13. Electroanalysis: Amperometrie, Potentiometry, Conductometry.
14. Digital signal processing using MATLAB.

Requirements, evaluation and grading:

The accomplishment of the allocated measurements.

Required and recommended readings:

Dr. Kristóf János: Kémiai analízis II. (Nagyműszeres analízis), Veszprémi Egyetemi Kiadó, Veszprém, 2000.