



SUBJECT DATASHEET

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| Semester: | 2009/10/2 |
| Subject: | Structure elucidation methods lab practice |
| Code: | VEMKAV3334A |
| Responsible department: | Department of Analytical Chemistry |
| Responsible department code: | MKKA |
| Responsible lecturer: | dr. Tamás Pap |

Educational objectives:

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

Detailed content of the subject:

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:

The accomplishment of the allocated measurements.

Required and suggested references:

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