# UNIVERSITY OF PANNONIA

## SUBJECT DATASHEET

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| **Semester:** | 2009/10/2 |
| **Subject:** | Laboratory Practice for Structure Elucidation Methods |
| **Code:** | VEMKFTB336A |
| **Responsible department:** | Department of Earth and Environmental Sciences |
| **Responsible department code:** | MKFT |
| **Responsible lecturer:** | Dr. János Kristóf |

**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.