



COURSE DATASHEET

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| Semester: | 2015/16/1 |
| Course: | Chemical analysis lab practice |
| Code: | VEMKKAB234A |
| Responsible department: | Department of Analytical Chemistry |
| Department code: | MKKA |
| Responsible instructor: | dr. Tamás Pap |

Course objectives:

Understanding of the fundamentals of the analytical chemistry practice.

Course content:

1-2. Determination of basicity of water sample. Acid-base titrations. 3-4. Determination of sulfate-ions by gravimetric method. 5. Determination of chloride-ion by argentometric method (Mohr method). 6-7. Determination of oxygen consumption of water sample. Permanganometric titration. 8. Determination of hardness of water sample using complexometric titration. 9. Instrumental methods: Atom emission spectroscopy (AES) 10. Atom absorption spectrometry (AAS). 11. UV-Vis and Infra-red spectrophotometry. 12. Electroanalytical methods: Potentiometry. Coulometry. 13. Electroanalytical methods: Conductometry. Amperometry. 14. Gaschromatography (GC). Calculation of Kováts-index.

Requirements, evaluation and grading:

The accomplishment of the allocated measurements.

Required and recommended readings:

Dr. Kristóf János - Dr. Horváth Erzsébet: Kémiai analízis I. (Klasszikus és kisműszeres analízis). Veszprémi Egyetemi Kiadó, Veszprém, 2002. (Tankönyv). Dr. Kristóf János: Kémiai analízis II. (Nagyműszeres analízis). Veszprémi Egyetemi Kiadó, Veszprém, 2000. (Tankönyv).