



## COURSE DATASHEET

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|--------------------------------|---|
| <b>Semester:</b>               | 2015/16/1                                     |
| <b>Course:</b>                 | Coordination Chemistry Laboratory Practices   |
| <b>Code:</b>                   | VEMKAKB134V                                   |
| <b>Responsible department:</b> | Department of General and Inorganic Chemistry |
| <b>Department code:</b>        | MKAK  |
| <b>Responsible instructor:</b> | Dr. Lajos Fodor                               |

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### Course objectives:

To make acquainted with the main methods for investigation of the systems containing coordination compounds.

### Course content:

1. Introduction 2. Determination of the stability constants of complexes by graphical method 3. Determination of the stability constants of metal complexes by Job's method 4. Determination of the rate constant of electron transfer reaction by laser flash photolysis 5. Spectrofluorometrical examination of Ce(III) compounds 6. Determination of the stepwise formation constants of complexes by potentiometric method 7. Absorption spectra and the stepwise formation constants of chloro-mercurate(II) complexes 8. Determination of dissociation constants of complexes by dilution method 9. Kinetics of the isomerization of chromium(III) complexes 10. Evaluation of electron-excitation spectra 11. Kinetic examination of the formation of Bi(III)-porphyrins 12. Determination of the rate constant of electron transfer reaction by luminescence quenching 13. Determination of the stability constants of complexes by the numerical analysis of the series of absorption spectra 14. Semestral test-paper

### Requirements, evaluation and grading:

The average of the rating of measurement should be at least 2. The ending test paper should be better than 50%.

### Required and recommended readings:

Papp Sándor: Szervetlen Kémia II. Tankönyvkiadó, Budapest 1983