



COURSE DATASHEET

Semester:	2014/15/1
Course:	Thermodynamics
Code:	VEMKKAM412T
Responsible department:	Department of Analytical Chemistry
Department code:	MKKA
Responsible instructor:	Dr. János Kristóf

Course objectives:

Getting acquainted with the thermal methods of investigation of materials.

Course content:

Thermal methods. Thermogravimetry, differential thermal analysis, simultaneous techniques. Evolved gas analysis methods, hyphenated techniques: TG-MS, TG-FTIR. Application of simultaneous thermoanalytical methods. Differential scanning calorimetry (DSC). Power compensation and heat-flow techniques. Applications: polymers, drugs, natural compounds. Purity investigations, polymorphism. Formal kinetic description of thermoanalytical curves. Reaction order, activation energy, pre-exponential constant. Kinetic compensation effect. New trends and developments.

Requirements, evaluation and grading:

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Required and recommended readings: