



COURSE DATASHEET

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| Semester: | 2014/15/1 |
| Course: | Laboratory practice on organic chemistry |
| Code: | VEMKOKB238V |
| Responsible department: | Department of Organic Chemistry |
| Department code: | MKOK |
| Responsible instructor: | József Sándor Pap |

Course objectives:

Educational Objectives: Improvement of the lecture material. Improvement of laboratory practice and preparation of some compounds of different kinds.

Course content:

Contents: Week:1. Introducing, safety, requirements, introducing to literature (books, journals), talking over laboratory devices, discussion of tasks. 2.-15. Safety report Preparation of 11-12 compounds covering the main reaction mechanisms in organic chemistry using advanced technical methods and equipments. The students have to make a short design of the preparations, literature, equipment, risk and safety problems. During the above course short report on laboratory practice will be done on theoretical basis of laboratory methods and practical applications (atm., and vacuum distillation, water-steam distillation, recrystallization, filtration, extraction, measurements of melting point and refractive index, etc. In technical report the leader of practice controls the main theoretical and technical solutions in the preparative organic chemistry. Types of Practical Exercises(Assignments) for Students: – Substitution reactions (SE, SN) – Oxidation reactions – Halogenation – Preparation of azo dyestuffs – Condensation reactions – TLC (ident. of carbonyl comp.) – Esterifications and saponification etc.

Requirements, evaluation and grading:

Examination Requirements and Questions: Controlling the connected chemical and safety problems on starting each preparation. At the closing the course, controlling the complex knowledge of theoretical-, practical- and safety problems. Leader of practice controls not more than 8-10 students it is possible. Calculations of the qualification: 1 part of preparation + 1 part of the reports.

Required and recommended readings:

Organikum, Budapest, 1967, Vogel: Practical Organic Chemistry, Organic Synthesis I-VII. Vol., Vanino: Handbuch der Preparative Chemie, Bognár: Szerveskémiiai Praktikum, L.F.Fieser: Szerveskémiiai laboratóriumi praktikum, stb