



SUBJECT DATASHEET

Semester:	2009/10/2
Subject:	Hydrocarbon Processing II
Code:	VEMKOL4214A
Responsible department:	Department of Hydrocarbon and Coal Processing
Responsible department code:	MKOL
Responsible lecturer:	Dr. Jenő Hancsók

Educational objectives:

Providing an overview on hydrocarbon processing.

Detailed content of the subject:

1. Refinery and petrochemical integration. 2. Separation processes in the hydrocarbon industry. 3. Conversion processes. Alkylation. Oligomerization. Isomerization 4. Fluid catalytic cracking 5. Hydrocracking 6. Dearomatization by catalytic hydrogenation. 7. Processing of residues 8. Base oils 9-10. Petrochemicals 11-13. Polymers. Polymerization 14. Case study of a selected homo or copolymer. 15. The characteristics of the Hungarian hydrocarbon industry.

Requirements:

Examination paper. Examples of Examination Questions are in annex. (85%?)

Required and suggested references:

Gary, J.H.: Petroleum Refining Technology and Economics 3rd, Marcel Dekker, N.Y. 1999. Speight, J.G.: The chemistry and technology of petroleum 3rd. Marcel Dekker, 1998. Speight, J.G.: Petroleum Chemistry and Refining, Taylor and Francis 1998. Sequeira, A.: Lubricant base oil and wax processing, Marcel Dekker, 1994. Weissermel, K., Arpe, H.-J.: Ipari szerves kémia, Nemzeti Tankönyvkiadó, Budapest, 1993. Mc Ketta, J.: Petroleum Processing Handbook, Marcel Dekker, 1992. Hobson, G.D.: Modern Petroleum Technology, J. Wiley, 1986. Chauvel, A., Lefebvre, G.: Petrochemical processes I-II., 1989. Fahey, D.R.: Industrial Chemicals via C1 Processes, A.C.S., 1986. Wiseman, P.: Petrochemicals, John Wiley, N.Y., 1986. Meyers, R.A.: Handbook of petroleum Refining Processes, McGraw-Hill Inc., N.Y., Toronto, 1996. Chauvel, A., Lefebvre, G.: Petrochemical processes I-II. Gulf. 1989. Krevelen, D.W. Van.: Properties of polymers, Elsevier, Amsterdam, ..., Tokyo, 1990. Fourné, F.: Synthetic Fibers, Hanser Publishers, Munich 1999. Gunardson, H.: Industrial Gases in Petrochemical processing, Marcel Dekker Inc., 1998. Scheirs, J., Kaminsky, W.: Metallocen based Polyolefins, preparation, properties and technology Vol.1, John Wiley and Sons, Ltd., 2000. Olah, G.A., Molnár, Á.: Hydrocarbon chemistry, John Wiley and Sons, Inc., 1995.