KAPITAŁ LUDZKI
NARODOWA STRATEGIA SPÓJNOŚCI

UNIA EUROPEJSKA
EUROPEJSKI
FUNDUSZ SPOŁECZNY

From an accidental discovery to the industrial production of polyolefins

Visiting professor: Rob Duchateau (Eindhoven University of Technology, The Netherlands)

Course description:

The course will entail the whole chain of knowledge starting from fundamental chemistry, catalyst development, tuning of polymer properties by adjusting the polymer microstructure to process development and finally commercial scale production of polyolefins.

By the end of the course, the students will not only master the fundamental organometallic chemistry, catalysis, polymer chemistry and polymer reactor engineering that form the crucial ingredients of catalytic olefin polymerization, they will also have a clear picture what it takes to bring a discovery in the lab to the level of industrial production.

Syllabus of the lecture subjects (enlisted):

1. General overview: From the discovery of catalytic olefin polymerization to the world largest product sold to customers ever.
2. Catalysis I: Organometallic chemistry + first principles of catalytic olefin polymerization.
3. Catalysis II: Detailed insight into olefin polymerization catalysis – catalyst structure/polymer property relationship.
4. How the polymer microstructure determines the physical and mechanical properties of a polymer
5. Polymer reactor engineering – commercial polyolefin production

TERMINY ZAJĘĆ			
Data	**Dzień tyg.**	**Godz.**	**Sala**
2015-06-16	wtorek	12-15	Luwr (Chemia A)
2015-06-17	środa	12-15	Luwr (Chemia A)
2015-06-18	czwartek	12-15	119 (Chemia A)
2015-06-19	piątek	12-15	Luwr (Chemia A)
2015-06-22	poniedziałek	12-15	Luwr (Chemia A)

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