

Level: PhD				
Course title: Selected Topics in Chemical Kinetics and Photochemistry (DSH-714)				
Status: Elective				
ECTS: 15				
Requirements: None				
Learning objectives To enable students to acquire detailed information of these two scientific fields with a stress on recent theoretical and practical development in the field of catalysis (in industry) and environment.				
Learning outcomes Developing skills in solving theoretical and practical problems in these fields, especially in applying to the environmental protection.				
Syllabus <i>Theoretical instruction.</i> Theories of chemical reaction rates. Types and mechanisms of complex chemical reactions. Reactions in solutions. Catalysis. Homogeneous and heterogeneous catalysis. Kinetics of catalytic reactions. Applications in industrial processes. Primary and secondary photochemical processes. Mechanisms in photochemical transformations. Photocatalysis. Experimental methods in photochemistry. <i>Practical instruction or written project on the selected subject.</i>				
Weekly teaching load				Other:
Lectures: 5	Exercises:	Other forms of teaching:	Student research: 5	