

### 8-3 実践的化学・物質科学英語講義等

#### 8-3-1 英語集中講義：総合化学特論II

#### Modern Trends in Chemical Sciences and Engineering II

Date	Course	Instructor
10/1-3	Modern Trends in Chemical Sciences and Engineering II (Special Lecture 2013 – I) “Kinetic Resolution: Concepts and Applications” “Asymmetric Catalysis: the Role of Symmetry” “N-Heterocyclic Carbenes: Selected Applications and Synthesis of the Precursors” “Biodegradable Polymers: the case of poly(lactic acid)” “Catalytic performance and recycling of oxazoline-based catalysts”	Prof. Stéphane Bellemin-Lapponnaz Université de Strasbourg, France
10/9-10	Modern Trends in Chemical Sciences and Engineering II (Special Lecture 2013 – II) “Need for Catalyst Characterization” “Introduction to Surface Analysis Techniques” “Catalyst Characterization by Electron Microscopy” “Introduction to XAFS” “Characterization of Catalysis by XAFS”	Prof. Bruce C. Gates University of California, Davis, USA and Prof. Kiyotaka Asakura Hokkaido University, Japan
11/20-22	Modern Trends in Chemical Sciences and Engineering II (Special Lecture 2013 – III) “Fluoromonomers and Fluoropolymers” “Organofluorine Chemistry and Crop Protection” “Catalytic Asymmetric Construction of Trifluoromethyl-Substituted Tertiary Carbon Center” “Palladium-Catalyzed Coupling of Polyfluorinated Arenes with Heteroarenes via C-F/C-H Activation” “From Trifluoromethylation to Trifluoromethylthiolation: Development of New Trifluoromethylthiolated Hypervalent Iodine Reagent”	Prof. Long Lu Shanghai Institute of Organic Chemistry, China
10/29-31	Modern Trends in Chemical Sciences and Engineering II (Special Lecture 2013 – IV) “Synthesis of conducting polymerization by cross coupling reaction” “Living anionic polymerization of isocyanates” “Synthesis of amphiphilic block copolymers and their morphology” “Condensation polymerization of poly(arylene ether)s for waveguide and electrolytes” “Chiral and morphology studies on polyisocyanates”	Prof. Jae-Suk Lee GIST, Korea
12/2-4	Modern Trends in Chemical Sciences and Engineering II (Special Lecture 2013 – V) “Molecular beam epitaxy of fluoride heterostructures: CaF <sub>2</sub> on Si and Co on CaF <sub>2</sub> systems” “Epitaxial growth of other fluorides. Unusual properties of CdF <sub>2</sub> heterostructures” “Luminescence studies of CaF <sub>2</sub> :RE layers and CdF <sub>2</sub> superlattices” “Magnetic properties of MBE-grown ferromagnet (Co, Ni)-antiferromagnet (MnF <sub>2</sub> , NiF <sub>2</sub> ) heterostructures” “Growth process and properties of Co(Ni)/fluoride nanoheterostructures”	Prof. Nikolai Sokolov Ioffe Physical-Technical Institute of Russian Academy of Sciences, Russia
12/9-12	Modern Trends in Chemical Sciences and Engineering II (Special Lecture 2013 – VI) “New Perovskite-type and Heusler based semiconductors” “Thermoelectric power generators: devices and materials” “Photoelectrochemical cells PEC’s: devices and materials” “Battery Materials” “Perovskite-Type Materials for Renewable Energy technologies”	Prof. Dr. Anke Weidenkaff EMPA, Switzerland