

8-3 実践の化学・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
7/7-9	<p>(Special Lecture 2015 - I) Lectures: <u>Nanocarbon Materials: Synthesis, Characterization, and Applications</u> 1 “General Review of Nanoscience Concepts” 2 “Synthesis and Characterization of Zero-and One-Dimensional Nanocarbon Materials” 3 “Synthesis and Characterization of One- and Two-Demensional Nanocarbon Materials” 4 “Applications of Nanocarbon Materials (Pristine and Hybrid)” Seminar: <u>“Structural and Acid-Base Properties of Ion Beam Damaged Substrates and Implications for Growth of Carbon Nanotube Carpets”</u></p>	<p>Prof. Placidus B. Amama Kansas State University, the U.S.A.</p>
10/13-15	<p>(Special Lecture 2015 - II) Lectures: <u>Molecular aspects of electrochemistry and electrocatalysis</u> 1 “Introduction to electrochemistry” 2 “Molecular aspects of charge transferreactions in electrochemistry” 3 “Thermodynamic theory of electrocatalysis” 4 “Selected studies in electrocatalysis” Seminar: <u>“New views of the surface electrochemistry of platinum”</u></p>	<p>Prof. Marc Koper Universiteit Leiden, the Netherlands</p>
10/21-23	<p>(Special Lecture 2015 - III) Lectures: <u>Organic Electronics from introduction to applications, and Big Data</u> 1 “The basic of organic electronics” 2 “Organic Thin-Film Transistor overview” 3 “Overview of OLED and OPV” 4 “Organic memories” Seminar: <u>“Big Data, IoT, and Organic Electronics”</u></p>	<p>Prof. Jiro Kasahara Hokkaido University, Japan</p>
10/26-27	<p>(Special Lecture 2015 - IV) Lectures: <u>Electrochemical Characteristics of Composite Materials for Hybrid Capacitor</u> 1 “Hydrothermal Synthesis of Carbon Materials” 2 “Electrochemical Properties of Enhance Potential Stability of Organic Electrolyte in EDLC by Using Co-solvent” 3 “Electrochemistry of Expanded Graphite by Microwave Irradiation in Lithium Ion Battery” 4 “Aluminium Anodizing Techniques for Energy Materials” Seminar: <u>“Electrochemical Properties of Composite Materials for Hybrid Capacitor”</u></p>	<p>Prof. Soo-Gil Park Chungbuk National University, Korea</p>
1/13-15	<p>(Special Lecture 2015 - V) Lectures 1 “Catalysis of metal/metal oxide surfaces for environmental pollution control and production of chemicals” 2 “Electronic Structure Theory: from molecule to surface” 3 “Adsorption: Thermodynamics and Dynamics” 4 “Surface Characterization: Electron and Optical (IR) Spectroscopy” Seminar: <u>“Model Catalysts as the Atomic Level: from Structure (Geometric and Electronic) to Reactivity”</u></p>	<p>Prof. Hans-Joachim Freund Fritz-Haber Institut der Max-Planck Gesellschaft, Germany</p> <p>(Cooperative by Prof. Jun-ya Hasegawa and Prof. Ken-ichi Shimizu, Institute for Catalysis, Hokkaido University, Japan)</p>

Date	Course	Instructor
7/21-23	<p>(Bio-UdeM 2015) Lectures: <u>RNA structure, interaction and engineering</u> 1 “Primary and secondary structures of RNA” 2 “Tertiary structures of RNA” 3 “Ribozymes, riboswitches and RNA structure” 4 “RNA engineering for nanotechnology and biomedical applications” Seminar: <u>“Structure and RNA engineering of a small nucleolytic ribozyme”</u></p>	<p>Prof. Pascale Legault Université de Montréal, Canada</p>
7/22-24	<p>(Ma-NJU 2015) Lectures: <u>Electron transfer behavior – An investigation toward molecular electronics</u> 1 “Introduction to molecular electron transfer; Study on the electrode at a molecular level” 2 “Study on the electron transfer on electrode, Study on the electron transfer interface” 3 “Study on the electron transfer acceptor; Study on molecular wire” 4 “Molecular rectification and design of molecular diode, molecular switch” Seminar: <u>“Understanding of molecular electron transfer pathway”</u></p>	<p>Prof. Jianwei Zhao Nanjing University, China</p>
7/27-31	<p>(Bio-NTU 2015) Lectures: <u>Organic Spectroscopy and Photophysical and Photochemical Properties</u> 1&2 “Organic Electronic Spectroscopies” 3 “Excited-State Behavior of Donor-Acceptor Systems” 4 “Excited-State Torsional Relaxation of Organic Chromophores” Seminar: <u>“Penttiptycene-Containing Oligo(<i>p</i>-Phenyleneethynylene)s”</u></p>	<p>Prof. Jye-Shane Yang National Taiwan University, Taiwan</p>
8/19-21	<p>(Ma-UDS 2015) Lectures: 1 “Fullerene chemistry” 2 “Chemistry with fullerene building blocks” 3 “Fullerenes: photophysical properties and applications” 4 “Fullerenes: biological applications” Seminar: <u>“Clickable Fullerene Scaffolds: Select your Application and Click”</u></p>	<p>Prof. Jean-François Nierengarten Université de Strasbourg De CNRS (UMR 7509), France</p>