

Highlights of “Nanomaterials Initiative course” in 2008

1. Outline

The following classes, the same as the last year, are hold in this year. 11 students took these classes.

Courses	Instructors	Course available	Remarks
Nanomaterial I (Design Criteria for Nanomaterials)	Prof. Hiroyuki HIRAYAMA Prof. Takaaki TSURUMI Prof. Martin Vacha Prof. Tomoyasu TANIYAMA	Spring Semester	Conducted in English
Nanomaterial II (Structure of Nanomaterials)	Prof. Junji WATANABE Prof. Yoshio NAKAMURA Prof. Hideo HOSONO Prof. Hideo TAKEZOE Prof. Wataru MIZUTANI	Fall Semester	Conducted in English
Nanomaterial III (Characterization of Nanomaterials)	Prof. Masaaki KAKIMOTO	Fall Semester	Conducted in English Class is available in 2009
Global Communication Skills I	Prof. TAKAGI Prof. Yoshinao MISHIMA	Spring Semester	
Global Communication Skills II	Prof. TAKAGI Prof. Yoshinao MISHIMA	Fall Semester	
Global Communication Skills III	Not Available	Not Available	

Nanomaterials III is going to found from the Fall semester, 2009, for learning the characterization of Nanomaterials. Moreover, we are also planning to publish the text this course, in 2009. It calls “Nanoscale Physics for Materials Science” We have just finished submitting the first draft to Talyer & Francis in the end of the fiscal year 2008.

2. Presentation of annual research report

PM (Project Managing) and NI (Nanomaterials Initiative) course students made a presentation about their research in the end of February, 2009. List of presentation is followings;

Date: February 27th, 2009 Place: O-okayama campus

Name	Course	Title
Nam-Ho YOU (Dept. of Organic and Polymer Materials)	NI	Synthesis and Properties of High Refractive Index Polyimides Derived from 3,6-bis(4-aminophenylsulfanyl)pyridazine
Kautaka ISHIKAWA (Dept. of Organic and Polymer Materials)	NI	Formation of a Catenane via the cyclization of a telechelic polymer in the presence of a cyclic polymer through Hydrogen-bonding
Tomoyasu HIRAI (Dept. of Organic and Polymer Materials)	NI	One-Step Direct Patterning Template Using Self-assembly of POSS Containing Block Copolymer
Yukimasa NISHIO (Dept. of Materials Science & Engineering)	NI	Cement based electron devices

Chiharu KANNO (Dept of Innovative Engineered Materials)	NI	EFFECTS OF MAGNETIC FIELD ON SHAPE EVOLUTION OF IRON-COBALT PARTICLES IN A COPPER MATRIX
Le Van KHOA (Dept. of Organic and Polymer Materials)	NI	ELECTRO-OPTIC TECHNIQUE TO STUDY BIAXIALITY OF LIQUID CRYSTALS WITH POSITIVE DIELECTRIC ANISOTROPY: THE CASE OF A BENT-CORE MATERIAL
Takashi TERANISHI (Dept.of Metallurgy & Ceramics Science)	NI	ULTRAWIDE BAND DIELECTRIC SPECTROSCOPY OF BaTiO ₃ -BASED FERROELECTRIC
Yu YOUXING (Dept.of Metallurgy & Ceramics Science)	NI	Study on perpendicular magnetic anisotropic CoPt/AlN layered structure---An exploitation for new perpendicular magnetic tunneling junctions
Shintaro YASUI (Dept of Innovative Engineered Materials)	PM	Crystal structure analysis of {100}-oriented epitaxial BiFeO ₃ -BiCoO ₃ films grown by MOCVD
Yasuyuki AKITA (Dept of Innovative Engineered Materials)	PM	CRYSTAL GROWTH CONTROL OF FUNCTIONAL OXIDE THIN FILMS ON NANOIMPRINTED GLASS SUBSTRATES
Takahiro KUNIMINE (Dept. of Materials Science & Engineering)	PM	TEMPERATURE AND STRAIN RATE DEPENDENCE OF FLOW STRESS IN SEVERELY DEFORMED COPPER BY ACCUMULATIVE ROLL BONDING

3. Overseas Study Programm for NI Course Students

Name	University / Conference	Country
Kazuhiro NAKABAYASHI	MARRO 2008	Taiwan
Yoshimasa BANDO	The 8th International Symposium on Functional π -Electron Systems	Australia
Sayaka YANAGIDA	XX II nd IUPACS SYMPOSIUM	Sweden
Le Van KHOA	Kent State Univ.	USA
Kosuke MATSUZAKI	2008 E-MRS Fall meeting	Poland
Masanao GOTO	Università di Bologna	Italy
Hirokazu ODA	ISME2008 Symposium	China
Hidehiro KOTAKA	Koln University / XX II nd IUPACS SYMPOSIUM	Germany / Sweden
Tomoyasu HIRAI	237th American Chemical Society National Meeting & Exposition	USA
Kazuhiro NAKABAYASHI	Washington University	USA (Back to Japan in August, 2009)
Takashi TERANISHI	University of Pennsylvania	USA (Back to Japan in October, 2009)

The Report of Overseas Study Program is on the website. Please refer to the following URL;

http://mat-gcoe-titech.jp/eng/new_graduate/overseas/2008/