





Second NIMS-WUT-EMPA Workshop Materials for Sustainable Development November 12th – 13th, 2009

Venue:

National Institute for Materials Science, Namiki-site (Collaborative Research Building, Large Meeting Room 403)

PROGRAM

NIMS National Institute for Materials Science, Tsukuba, Japan

WUT Warsaw University of Technology, Poland

EMPA Swiss Federal Laboratories for Materials Testing and Research,

Switzerland

November 11th (Wednesday):

18:30 **Welcome Reception** at French Restaurant Angebrisa

November 12th (Thursday):

Opening	(Chair: Prof. Enrico TRAVERSA)
09:00 – 09:05	Welcome Address Prof. Sukekatsu USHIODA (NIMS President)
09:05 – 09:10	Welcome Address Prof. Krzysztof J. KURZYDLOWSKI (Head of Materials Design Division, WUT)
09:10 – 09:15	Welcome Address Prof. Andreas ZÜTTEL (Head of Hydrogen & Energy Section, Department of Energy, Environment and Mobility, EMPA)
09:15 – 09:35	Introduction to NIMS and MANA Prof. Masakazu AONO (MANA Director General, NIMS)
09:35 – 09:45	EMRS Activities Mr. John BLIZZARD (Warsaw University of Technology)
09:45 – 10:20	Coffee Break
10:20	Group Photo

Second NIMS-WUT-EMPA Workshop: Program

Session 1 : Nano-Ma	aterials 1	(Chair: Jolanta JANCZAK-RUSCH)
10:30 – 10:55	Modelling based engineering of gr Prof. Krzysztof J. KURZYDLOW: (Head of Materials Design Division	SKI
10:55 – 11:20	Hydrogen storage: a materials scientific Prof. Andreas ZÜTTEL (Head of Hydrogen & Energy Sect Department of Energy, Environment	ion,
11:20 – 11:45	Tailoring nanostructured oxide thir of solid oxide fuel cells Prof. Enrico TRAVERSA (MANA Principal Investigator, Nan-	
11:45 – 12:00	Nanostructured AgCu brazing filler Mr. Vinzenz BISSIG (Laboratory for Joining and Interfa	, .
12:00 – 12:15	Crystal growth of ZnO thin films or at room temperature by introducing Dr. Tatsuo SHIBATA (ICYS-MANA Researcher, NIMS)	• •
12:25	Lunch	(MANA Bldg, 532)

Poster:

Composites PLLA/MWCNTs produce by twin-screw microcompounder

Dr. Ewelina ZAWADZAK

(Faculty of Materials Science and Engineering, WUT)

Session 2: Bio-Mate	erials 1	(Chair: Andreas ZÜTTEL)
14:00 – 14:25	Detection of biomolecular recognitive Prof. Yuji MIYAHARA (Managing Director Biomaterials of MANA Principal Investigator, Nan	Center,
14:25 – 14:40	Boron nitride nanotubes as innoven. Mr. Gianni CIOFANI (Ph. D. student, CRIM Lab, Ponte	
14:40 – 14:55	Highly perfusive 3D scaffolds for a Dr. Corrado MANDOLI (MANA Research Associate, Nan	
14:55 – 15:20	Nanojoining techniques and interest Prof. Jolanta JANCZAK-RUSCH (Laboratory for Joining and Interfa	ı
15:20 – 15:50	Coffe Break	
Session 3: Nano-Ma	aterials 2	(Chair: Krzysztof J. KURZYDLOWSKI)
15:50 – 16:15	Microstructural non-homogeneit and its importance to their mech Dr. Malgorzata LEWANDOWSI (Faculty of Materials Science an	nanical properties
16:15 – 16:30	Development of ordered nanoper for electrochemical applications Dr. Pavuluri SRINIVASU (ICYS-MANA Researcher, NIMS	
16:30 – 16:45	Theoretical investigation of Au(from structure to function Mr. Roberto GASPARI (Ph. D. Student, Nanotech@sur	,
16:45 – 17:10	Supramolecular magic: hand-op Prof. Katsuhiko ARIGA (MANA Principal Investigator, N	Ç C
17:10 – 17:35	Surface and interface magnetis Dr. Miguel A. MARIONI (Laboratory for Nanoscale Mate	
18:30	Banquet at Japanese Restaura	nnt

November 13th (Friday):

Session 4: Nano-Ma	iterials 3	(Chair: Yoshio BANDO)
09:00 – 09:25	Internal and external nanostructuring of the Prof. Ralph SPOLENAK (Chair, Laboratory for Nanometallurgy, Director, Materials Research Center, ETH	
09:25 – 09:40	New applications of the acoustic emission to monitoring of industrial installations Dr. Krystian PARADOWSKI (Faculty of Materials Science and Engineer	
09:40 – 09:55	Sacrifical passivation for microelectrics as temporary diffusion barrier coatings Ms. Karolina K. SOSNOWSKA (Ph. D. Student, Joining and Interface Tec	
09:55 – 10:20	Development of new metallic membranes with a high hydrogen flux and the perfect of Dr. Chikashi NISHIMURA (Director of Fuel Cell Materials Center, NII	selectivity
10:20 – 10:50	Coffee Break	
Session 5: Bio-Mate	rials 2 (C	Chair: Chikashi NISHIMURA)
Session 5: Bio-Mate 10:50 – 11:15	Biomaterials for bone tissue engineering Dr. Wojciech SWIESZKOWSKI (Biomaterials Group, Faculty of Materials Science and Enginee	
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10:50 – 11:15	Biomaterials for bone tissue engineering Dr. Wojciech SWIESZKOWSKI (Biomaterials Group, Faculty of Materials Science and Enginee Development of stepwise biomimetic materials for regulation of stem cell functions Dr. Takashi HOSHIBA	ring, WUT) rices pup, NIMS) r scaffolds
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