

The 6th WUT-HHT-NIMS

Joint Seminar, 2015

*“Enhanced functionality and reliability of materials
inspired by advanced characterization”*

A Satellite Meeting of NIMS Conference 2015

Program 16th July, 2015, Thursday @ NIMS Sengen-Main Building
1st Conference Room

Chair: Dr. Yoko YAMABE-MITARAI (NIMS)

13:30-13:40 **Opening Remarks**

NIMS President Dr. Sukekatsu USHIODA (NIMS)

First Secretary, Mr. Tomasz JAMROZ (Embassy of the Republic of Poland)

Sem-1: 13:40-14:05 Dr. Seiji KURODA (NIMS)

Title: Issues related to characterization of new-generation thermal barrier coatings

Sem-2: 14:05-14:30 Prof. Malgorzata LEWANDOWSKA (WUT)

Title: Enhancement in mechanical properties of a biomedical β -titanium alloy by severe plastic deformation

Sem-3: 14:30-14:55 Mr. Takahiro SATO (HHT)

Title: Application to the Material Science of EDX Analysis using High Sensitivity Dual Silicon Drift Detector

Sem-4: 14:55-15:15 Ms. Karolina STATKIEWICZ (WUT)

Title: WUT-NIMS-HHT Collaboration and Joint Graduate Program

15:15-15:35 **Coffee Break**

Chair: Dr. Takashi NAKANISHI (NIMS)

Sem-5: 15:35-16:00 Dr. Pawel KOZIKOWSKI (Hokkaido Univ., Former WUT-NIMS PhD Student)

Title: Temperature dependence of structural anisotropy in amorphous alloys induced by creep annealing

Sem-6: 16:00-16:25 Mr. Ulrich DIESTELHORST (HHT)

Title: Novel SPM Applications for Environment Control & Technical Innovation Utilising the Air Protection Holder as an SEM-Milling-SPM Interface

Sem-7: 16:25-16:50 Prof. Wojciech SWIESZKOWSKI (WUT)

Title: Numerical and empirical investigations of degradation of tissue engineering constructs

Sem-8: 16:50-17:15 Dr. Akiko YAMAMOTO (NIMS)

Title: The effects of biological environment on the biocorrosion of Mg alloys

17:15-17:25 **Closing Remarks**

Prof. Malgorzata LEWANDOWSKA (WUT)

[Time Frame: 20 min Presentation and 5 min Discussion, except Ms. STATKIEWICZ (15+5 min)]

WUT-NIMS Joint Symposium, 2015

Program 17th July, 2015, Friday @ NIMS Sengen-Advanced Structure
Materials Building 5F Seminar Room

Chair: Dr. Seiji KURODA (NIMS)

9:00-9:05 **A short introduction of Research Center for Structural Materials
(RCSM)**

Dr. Yoko YAMABE-MITARAI (NIMS)

Sym-1: 9:05-9:25 Dr. Yoko YAMABE-MITARAI (NIMS)

Title: Phase equilibrium and oxidation behavior of Ti alloys

Sym-2: 9:25-9:45 Prof. Zbigniew PAKIELA (WUT)

Title: Low Temperature Fracture of Severely Deformed UFG Iron

Sym-3: 9:45-10:05 Dr. Hideaki KITAZAWA (NIMS)

Title: Visualization of the stable Cs absorption state in clay mineral by TOF-SIMS

10:05-10:25 **Coffee Break**

Chair: Dr. Hideaki KITAZAWA (NIMS)

Sym-4: 10:25-10:45 Dr. Tomasz PLOCINSKI (WUT)

Title: Multilayer material manufacturing and their structural characterization by STEM

Sym-5: 10:45-11:05 Dr. Katsuhiko ARIGA (NIMS)

Title: Two-Dimensional Mechano-Supramolecular Chemistry: Hand-Operating
Nanotechnology & Manipulation of Molecular Machines

Sym-6: 11:05-11:25 Prof. Marcin LEONOWICZ (WUT)

Title: Application of hydrogenation methods for recycling of sintered Nd-Fe-B magnets

Sym-7: 11:25-11:45 Dr. Takashi NAKANISHI (NIMS)

Title: Development of Solvent-free Functional Molecular Liquid Materials by Alkyl- π Engineering Strategy

11:45-13:00 **Lunch**

Chair: Dr. Katsuhiko ARIGA (NIMS)

Sym-8: 13:00-13:20 Dr. Michal WOŹNIAK (WUT)

Title: Electrospun fibers for tissue engineering – characterization by Quantitative NanoMechanics Atomic Force Microscopy

Sym-9: 13:20-13:40 Prof. Masato OHNUMA (Hokkaido Univ., Former NIMS)

Title: Embedded nanosize heterogeneity in steels characterized by non-destructive techniques

Sym-10: 13:40-14:00 Dr. Piotr ŚPIEWAK (WUT)

Title: Ab initio study of the semiconductors materials within hybrid functional approach

14:00-14:05 **Closing Remarks**

Dr. Akiko YAMAMOTO (NIMS)

[Time Frame: 15 min Presentation and 5 min Discussion]