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

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]