Tuesday, January 27th, 2015

9:00 Registration

Chair; Masaaki Nagatsu

9:45 Opening Remarks

Yukihiro Ito (President of Shizuoka University)

9:50 Global innovative collaboration based on research capability of Shizuoka University

Taichi Usui (Trustee of Shizuoka University)

Plenary Session: Chair; Hidenori Mimura

10:10 PL-1. (Invited) New Materials Frontier Opened through Research of Transparent Oxides

Hideo Hosono (Tokyo Institute of Technology, Japan)

Graduate School of Science and Technology Session 2: Chair; Kazuhiko Hara

11:10 GSST-1. (Invited) Exploring Photonics

Tsutomu Hara (Hamamatsu Photonics Co. Ltd., Japan)

11:35 GSST-2. (Invited) Use of genetically engineered stem cells for glioma therapy

Hiroki Namba (Hamamatsu University School of Medicine, Japan)

12:00 Lunch

Keynote Session: Chair; Takayuki Saito

13:00 KN-1. (Invited) Present Status and Future Prospects of Silicon Imaging Devices

Shoji Kawahito (RIE, Shizuoka University, Japan)


Hirokazu Kawagishi (RIGST, Shizuoka University, Japan)

14:00 KN-3. (Invited) Fostering global young students and researchers in interdisciplinary research and education program

Naoharu Watanabe (GSST, Shizuoka University, Japan)
14:30 Coffee break

14:50 Graduate School of Science and Technology Session 1: Chair; Norihisa Hiromoto

GSST-3. *Invited* Temperature and Hydration Dependence of Complex Dielectric Spectra of Lysozyme in the THz Frequency Region

Keisuke Tominaga (Kobe University, Japan)

15:15 GSST-4. *Invited* Orientation Controlled VO₂ Thin Films Deposited on Glass Substrates via ZnO Buffer by Pulsed Laser Deposition

Tewei Chiu (National Taipei University of Technology, Taiwan)

15:40 Short Poster Presentations by Students and Young Researchers Session: Chair; Kiyoshi Yamauchi

(51 posters, each 2 min)

17:22 Poster Session (until 18:20)

18:30 Social Gathering & at Awarding Ceremony of Poster Session

(Coop Northern Restaurant (until 20:00))
15:40-17:22  Short Poster Presentations using PowerPoint at the Meeting Room of Sanaru Hall
(2 minutes each including rotation time)
17:22-18:20  Poster Presentation using A0 sized Poster at the Lobby of Sanaru Hall

PS-1  A High-Sensitivity 2x2 Multi-Aperture Color Camera Based on Selective Averaging
       B. Zhang, K. Kagawa, T. Takasawa, M. W. Seo, K. Yasutomi, S. Kawahito

PS-2  Ultrathin Absorber Based on Bifilar Helices for NIR
       I. A. Faniayeu, V. Mizeikis

PS-3  Measurement of 3-Tap 1MS/s CMOS Image Sensor for Multi-Point Fluorescence correlation spectroscopy
       P. S. Sivakumar, K. Kagawa, M. W. Seo, B. Zhang, T. Takasawa, K. Yasutomi, S. Kawahito

PS-4  Cell Culturing on Hydrophilicity Controlled Silicon Nitride Surface for Cell Imaging
       Y. Masuda, Y. Nawa, L. Sheng, W. Inami, Y. Kawata

PS-5  Fabrication of Bright Cathodoluminescent Thin Films for Nanometric Light Source of High Resolution Optical Microscope
       S. Kanamori, M. Fukuta, T. Furukawa, W. Inami, H. Kominami, Y. Kawata, Y. Nakanishi

PS-6  Interface-Assisted Merging of Two Donor Potential Wells in Ultrathin Si-Transistors
       A. Samanta, D. Moraru, T. Mizuno, M. Tabe

PS-7  Atomic and Molecular Behavior in Tunneling Transport via Dopants in Nano-Transistors
       D. Moraru, A. Samanta, Y. Takasu, T. Mizuno, and M. Tabe

PS-8  KPFM Observation of Donors in T transistor Channels Doped with Different Concentrations
       K. Tyszka, D. Moraru, T. Mizuno, R. Jablonski, M. Tabe

PS-9  Contribution of Phonon and Carrier Transport to Seebeck Coefficient in Ultrathin SOI Layer
       F. Salleh, T. Oda, Y. Suzuki, Y. Kamakura, H. Ikeda

PS-10 Growth of Compositionally Homogeneous P-Type SiGe Bulk and Thermoelectric Properties
      M. Omprakash, M. Arivanandhan, T. Koyama, Y. Momose, H. Ikeda, H. Tatsuoka,
      D.K. Aswal, S. Bhattacharya, Y. Okano, T. Ozawa, Y. Inatomi, S. Moorthy babu, Y. Hayakawa

PS-11 Phonon-Drag Contribution to Seebeck Coefficient in P-Type Si, Ge and SiGe
      V. Manimuthu, M. Omprakash, Y. Suzuki, F. Salleh, M. Arivanandhan, Y. Kamakura,
      Y. Hayakawa, H. Ikeda

      J. Archana, M. Anzai, M. Navaneethan, Y. Hayakawa

PS-13 Preparation of Silver and Erbium Modified TiO₂ Nanostructures and Their Enhanced Photocatalytic Degradation of Dye
      N. Prakash, R. Karthikeyan, D. Thangaraju, M. Navaneethan, M. Arivanandhan, T. Koyama,
      Y. Hayakawa
PS-14 Morphology Dependent Functional Properties and Dye-Sensitized Solar Cell Performance of ZnO Nanostructures

M. Navaneethan, J. Archana, T. Koyama, Y. Hayakawa

PS-15 Phase Changes of Nickel Sulfide Hierarchical Structures

R. Karthikeyan, M. Navaneethan, D. Thangaraju, N. Prakash, M. Arivanandhan, Y. Hayakawa

PS-16 Effects of Hybrid-Type Oxide Electrode on Electrical Properties of CSD-Derived PMN-PT Thin Films on Si Wafer


PS-17 Growth Process of InGaSb under Microgravity and Normal Gravity Conditions


PS-18 A novel Foam Measurement Technique via Single-Tip Optical Fiber Probe based on 3D Ray Tracing Simulation

A. Nihei, T. Saito

PS-19 Influences of Bubble-Interface Contamination on Bubble Motion and the Surrounding Liquid Motion, and These Influences on the Bubble Instantaneous Mass Transfer

J. Huang, T. Saito

PS-20 Visualization of Bubble Formation Induced by Femtosecond Laser Pulses in Water/Acetone on a Time Scale from Sub-Picosecond to Microseconds

Y. Mizushima, Takayuki Saito

PS-21 Fundamental Study of Photomedicine: Photosensitized Amino Acid Damage by Porphyrin Phosphorus(V) Complex

D. Ouyang, K. Hirakawa

PS-22 Novel Multi Type Molecular Targeted Antitumor Agents: Preparation and Preclinical Research on Branched Phospha Sugar Derivatives


PS-23 Reduction of Odorous Compounds using Bacterial Probiotic Supplementation in Swine Manure Slurry in vitro and in Confinement Houses

M. J. Alam, Z. Ferdaushi, S. S. Lee

PS-24 Entry of Cell-Penetrating Peptide Transportan 10 into a Single Vesicle by Translocating Across Lipid Membrane before Pore Formation

M. Z. Islam, H. Ariyama, M. J. Alam, M. Yamazaki

PS-25 Screening Protein Phosphatase(s) Involved in Starvation Induced PAS Organization in Budding Yeast

M. W. Talukdar, M. Y. Akter, T. Ushimaru

PS-26 In vitro Analysis of Multipotency of Mouse Visceral Yolk Sac Cells using Novel Genetic Markers

S. Yagi, T. Koike, N. Shiojiri

PS-27 Elucidation of the Mechanism of Pore formation of the Antimicrobial peptide, Magainin 2 using Single GUVs

J. M. Alam, M. A. S. Karal, T. Takahashi, V. Levadny, M. Yamazaki
PS-28 Development of an Improved Recombinant Baculovirus Insecticide Containing an Insect-Specific Toxin Gene

MPAli, Tatsuya Kato, Enoch Y. Park

PS-29 Synthesis of Self-Assembling GNP-Supported Organocatalysts: Application for Asymmetric Synthesis

P. L. Sótì, T. Narumi, N. Watanabe, N. Mase

PS-30 Studies on Flower-Inducing Compounds in *Lemna paucicostata* Exposed to Drought Stress

R. Tsuchiya, T. Narumi, N. Mase, N. Watanabe

PS-31 Development of High-quality Polylactide Synthesis via Organocatalytic Ring-Opening Polymerization in Supercritical Carbon Dioxide

S. Yamamoto, T. Narumi, N. Watanabe, N. Mase

PS-32 Orchestrated Action of PP2A Antagonizes Atg13 Phosphorylation and Promotes Autophagy after TORC1 Inactivation

A. M. Yeasmin, T. M. Waliullah, A. Kondo, T. Ushimaru

PS-33 Gold Nanoparticles (Au NPs): On the way of different Synthetic Routes

S. R. Ahmed, J. Lee, Enoch Y. Park

PS-34 CdSeTeS/ZnS Quantum Dot-Graphene Oxide Nanocomposite as Fluorescent “Switch-on” Probe For Polyaromatic Hydrocarbon

O. Adegoke, P. B. C. Forbes

PS-35 Fluid Intakes Recognition for Long-Term Care Support by Analyzing Swallowing Sound

Y. Kobayashi, M. Nishimura, H. Mineno

PS-36 Versatile Synthesis of Fluoride-doped Tin (IV) oxide Nano-architectures on Glass

A. Bandara, K. Murakami, R. M. G. Rajapakse, P. V. V. Jayaweera, D. Liyanage

PS-37 Application of Plasma Functionalized Graphite Encapsulated Magnetic Nanoparticles in Biomolecule Sensing

A. Viswan, H. Chou, A. Sakudo M. Nagatsu

PS-38 Plasma-Assisted Functionalization of Zinc Oxide for Biosensing Application

M. A. Ciolan, D. Luca, M. Nagatsu

PS-39 Size Dependent Properties of Magnesium Ferrite Nanoparticles Synthesized by Ultrasonic Spray Pyrolysis Technique for Magnetic Hyperthermia Applications

H. Das, N. Sakamoto, H. Aono, K. Shinozaki, H. Suzuki, N. Wakiya

PS-40 The Paradox of Enrichment in Phytoplankton by Induced Competitive Interactions


PS-41 Molecular and Biological Study of the Thyroid Transcription Factors using Teleosts


PS-42 Synthesis of Chitosan-Coated Magnetic Bentonite by Plasma-Induced Graft Chitosan and Its Application in Cs⁺ Capture

S. Yang, N. Okada, X. Wang, M. Nagatsu

PS-43 Effect of Gelatin into the Water Dispersion and Centrifugal Purification of the Single Walled Carbon Nanotubes

K. H. Maria, T. Mieno
PS-44  Application of Functionalized Carbon Nanotubes to Obtain Conductive Cotton Textile for Advanced Nanotechnology
        M. J. Rahman, T. Mieno

PS-45  Graphene Oxide/Polypyrrole Composites for Highly Selective Enrichment of U(VI) from Aqueous Solutions
        R. Hu, X. K. Wang, M. Nagatsu

PS-46  Biomolecules Immobilization of CNTs Dot-Array Functionalized by Atmospheric Pressure Plasma Jet for Biochip Sensor Application
        T. Abuzairi, M. Okada, N. R. Poespawati, R. Wigajatri, M. Nagatsu

PS-47  Development as a cAMP-Synthetic Red/Far-Red Light Switches
        K. Fushimi, G. Enomoto, M. Ikeuchi, R. Narikawa

PS-48  Mechanoluminescence Properties of SrAl₂O₄: Eu⁺², Dy⁺³ Phosphors
        R. A. D. M. Ranasinghe, K. Murakami

PS-49  Electrostatic Effects on Tension-Induced Pore Formation in Lipid Membranes
        M. A. S. Karal, V. Levadny, T. Tsuboi, M. Belaya, M. Yamazaki

PS-50  Radiation Tolerance of Optically Reconfigurable Gate Arrays
        R. Moriwaki, H. Ito, M. Watanabe, A. Ogiwara, H. Maekawa

PS-51  Measurement of Oxygen Atomic Density with Dual-Wavelength Self-Absorption-Calibrated VUVAS Method
        X. Yang, R. Tei, M. Nagatsu
Wednesday, January 28th, 2015

Research Institute of Electronics Session 1: Chair; Hiroya Ikeda

9:20 RIE-1. (Invited) Development of Zinc Oxide and Allied Material Composites for Display Devices and White Light Emitting Diodes
   Muniasamy Kottaisamy (Thiagarajar College of Engineering, India)

9:45 RIE-2. (Invited) Bioimaging and Quantum Sensing with Fluorescent Nanodiamonds
   Huan-Cheng Chang (Academia Sinica, Taiwan)

10:10 RIE-3. (Invited) Formation of WO₃, MoO₃ Thin Film Nanostructures for Gas Sensing Applications
   Ganesan Ravi (Alagappa University, India)

Research Institute of Green Science and Technology Session 1: Chair; Masakazu Hara

10:35 RIGST-1. (Invited) Antioxidant Study of Phenylpropanoids in Herbs and Spices
   Shin-Kyo Chung (Kyungpook National University, Korea)

11:00 RIGST-2. (Invited) Cooperative genomes of the planthopper and its endosymbionts
   Chuan-Xi Zhang (Zhejiang University, China)

Research Institute of Electronics Session 2: Chair; Michiharu Tabe

11:25 RIE-4. (Invited) Living with Intelligent Machines
   Annamaria R. Varkonyi-Koczy (Obuda University, Hungary)

11:50 RIE-5. (Invited) Benefits of Combining Neural Networks and Robust Fixed Point Transformations
   Terez A. Varkonyi (Obuda University, Hungary)

12:15 Lunch

Special invited talk session: Chair; Enoch Y. Park

13:20 SI-1. (Invited)
   Rimi Nakano (MEXT)

Research Institute of Green Science and Technology Session 2: Chair; Michiru Kondo

13:50 RIGST-3. (Invited) Multifunctional Magnetoplasmonic Nanomaterials and Their Biomedical Applications
   Jae-Beom Lee (Pusan National University, Korea)

14:15 Coffee break

Research Institute of Electronics Session 3: Chair; Yasuhiro Hayakawa

15:00 RIE-6. (Invited) Highly Uniform Resistive Switching Properties of Amorphous Oxide Thin Films Prepared by Low Temperature Photochemical Solution Deposition
   Dinghua Bao (Sun Yat-Sen University, China)

15:25 RIE-7. (Invited) Advancement of Graphene Oxide Conducting layer in Surface Plasmon Resonance Fiber Optic Sensors
   Ahmad Shukri bin Muhammad Noor (Universiti Putra Malaysia,
Malaysia)

15:50  RIE-8. (Invited) Active Layer in Organic-Based Memory Devices: Incorporation of Gold Nanoparticles in Aloe Vera Gel
       Kuan Yew Cheong (Universiti Sains Malaysia, Malaysia)

Research Institute of Green Science and Technology Session 3: Chair; Motonori Tomita

16:15  RIGST-4. (Invited) Developing Herbal Formulation of Anthocyanins and Anthocyanidins-enriched Extracts from *Eugenia jambolana* ‘Jamun’
       Inder Pal Singh (NIPER, India)

16:40  RIGST-5. (Invited) piggyBac transposon-derived targeting shRNA interference against the *Bombyx mori* nucleopolyhedrovirus (*BmNPV*)
       Yun-Gen Miao (Zhejiang University, China)

17:05  Closing:
       Closing Remarks
       Naoki Wakiya (Shizuoka University)

18:10  Banquet
       (Hotel Crown Palace (until 20:00))