

The 18th Takayanagi Kenjiro Memorial Symposium

Research Institute of Electronics, Shizuoka University

Toward Advanced Imaging Science Creation

– **Innovative Development of Nanomaterials and Nanodevices** –

Date: November 15 and 16, 2016, Registration Fee: Free

Location: S-PORT, Hamamatsu Campus, Shizuoka University

3-5-1 Johoku, Naka-ku, Hamamatsu 432-8011, Japan.

Tuesday, November 15

10:00 Opening (Chair: Prof. M. Nagatsu)

Yukihiro Ito (President of Shizuoka University)

Hidenori Mimura (Director of Research Institute of Electronics, Shizuoka University)

10:15 Plenary Talks 1 (Chair: Prof. Y. Ono)

Invited Talk **1. 10 nm-scale Nanotechnology: From Nanoarrays to 0D Nanotransistor Biosensors**

Nicolas Clemont (NTT basic research laboratories, Japan)

Invited Talk **2. Integrated microenergy conversion technologies for holographic sensors**

Suhana Mohd Said (University of Malaya, Malaysia)

Invited Talk **3. Optical CT: an old and new diagnostic optical imaging technique**

Yoko Hoshi (Hamamatsu University School of Medicine, Japan)

12:15 Lunch

13:30 Talks by New RIE Members (Chair: Prof. H. Suzuki)

1. Charge pumping EDMR for MOS interface analysis

Masahiro Hori (Research Institute of Electronics, Shizuoka University, Japan)

2. Coupled-Dopant-Atoms as Building Blocks for Practical Atomic-Level Tunneling Operation of Si Nanodevices

Daniel Moraru (Research Institute of Electronics, Shizuoka University, Japan)

3. Sn containing group-IV semiconductor thin films: Growth and Characterization

Yosuke Shimura (Research Institute of Electronics, Shizuoka University, Japan)

**4. Fabrication and Surface Functionalization of Nano-structured Materials with
Advanced Plasma Technology for Biomedical Application**

Masaaki Nagatsu (Research Institute of Electronics, Shizuoka University, Japan)

15:10 Poster Presentations by Young Researchers

To be determined by Aug.19

17:30 Reception (Chair: Prof. Kawata)

North Cafeteria, Hamamatsu Campus, Shizuoka University

Wednesday, November 16

9:00 Plenary Talks 2 (Chair: Prof. M. Nagatsu)

Invited Talk **1. Solution processed small molecules for organic photovoltaic**

Vinay Gupta (National Physical Laboratory, New Delhi, India.)

Invited Talk **2. Synthesis of carbon-based nanomaterials and their application in photocatalysis and sorption**

Xiangke Wang (North China Electric Power University, China)

Invited Talk **3. Solution Plasma Materials Processing**

Nagahiro Saito (Nagoya University)

11:00 Coffee Break

11:10 Special Talks on Network-Type Joint Research (Chair: Prof. H. Inokawa)

Invited Talk **1. Application of Zwitterionic Materials: From Infection Biomarker Sensing to Cell Therapy**

Tatsuro Goda (Tokyo Medical and Dental University, Japan)

Invited Talk **2. Surface plasmon resonance for living cell analysis and clinical diagnosis**

Yuhki Yanase (Hiroshima University, Japan)

Invited Talk **3. Piezoelectric Resonator-Based Fractional-N PLL Technology**

Hiroyuki Ito (Tokyo Institute of Technology, Japan)

12:40 Lunch

14:00 Lectures by Takayanagi Prize Winners 1 (Chair: Prof. Y. Hayakawa)

Invited Talk **1. Physics and applications of IV-VI semiconductor quantum structures**

Akihiro Ishida (Shizuoka University, Japan)

Invited Talk **2. Control of electron- and hole-spin state by polarized photon**

Tetsu Ito (Shizuoka University, Japan)

15:10 Coffee Break

15:20 Lectures by Takayanagi Prize Winners 2 (Chair: Prof. T. Sugiura)

Invited Talk **3. Clinical application of a computer aided diagnosis for dementia**
Kakimoto Akihiro (Hamamatsu Photonics K.K., Japan)

Invited Talk **4. Bio and chemical microsensors based on whispering gallery mode in nitride microdisks**
Tetsuya Kouno (Shizuoka University, Japan)

16:20 Closing
Masaaki Nagatsu (Symposium Chair)