



“2016 International Symposium toward the Future of Advanced Researches in Shizuoka University”

~Joint International Workshops on Advanced Nanovision Science /
Advanced Green Science / Promotion of Global Young Researchers
in Shizuoka University~

9:30 - 17:30, 3rd March, 2016

**Sanaru Hall, Hamamatsu Campus,
Shizuoka University**

Invited speakers

**Prof. Lain-Jong Li (King Abdullah University of Science and
Technology, Kingdom of Saudi Arabia)**

Dr. Liwen Sang (National Institute for Materials Science, Japan)

Prof. Valdas Sirutkaitis (Vilnius University, Lithuania)

**Dr. Makoto Wada (Research Institute of National Rehabilitation
Center for Persons with Disabilities, Japan)**

17 papers will also be presented by professors, young researchers
and students in Shizuoka University.

Symposium Organizers:

Graduate School of Science and Technology , Shizuoka University
Research Institute of Electronics, Shizuoka University

Cosponsored by

Hamamatsu Foundation for the Promotion of Electronic Science

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International Symposium toward the Future of Advanced Researches
in Shizuoka University 2016
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Promotion of Global Young Researchers in Shizuoka University~

9:30 - 17:30, March 3rd, 2016

Sanaru Hall, Hamamatsu Campus, Shizuoka University

PROGRAM

9:00 Registration

Opening Chair: Kazuhiko Hara

9:30 Opening remarks Masakazu Kimura (Vice-President of Shizuoka University)
Naoharu Watanabe (Dean, GSST, Shizuoka University)

Session 1: Nanophotonics Chair: Wataru Inami

9:40 [Invited Talk]

Micromachining of transparent, semiconducting and metallic substrates immersed in water by femtosecond laser pulses

Valdas Sirutkaitis (Vilnius University, Lithuania)

10:10 Metallic Nanolens for Subwavelength Optical Imaging

Atsushi Ono (RIE and GSST, Shizuoka University, Japan)

10:30 ~ 10:50 Coffee Break

Session 2: Material Science I Chair: Desheng Fu

10:50 [Invited Talk]

Heterostructures of two-dimensional materials and their potential applications

Lain-Jong Li (King Abdullah University of Science and Technology,
Kingdom of Saudi Arabia)

11:20 Self-assembling of heteroaromatic molecules templating with Si(111)-7×7 reconstruction

Masaru Shimomura (GSST, Shizuoka University, Japan)

11:40 Group photo

12:00 ~ 13:20 Lunch

Session 3: Informatics for Imaging Chair: Tsuyoshi Kuroda

13:20 [Invited Talk]

Multisensory processing and body image in human and animals

Makoto Wada (Research Institute of National Rehabilitation Center for Persons
with Disabilities, Japan)

Session 4: Students and Young Researchers Session I

Chair: Akihisa Ogino

13:50 7 Presentations listed in the following pages (10 minutes for each presentation)

15:00 ~ 15:20 Coffee Break

Session 5: Students and Young Researchers Session II

Chair: Yoichiro Neo

15:20 7 Presentations listed in the following pages (10 minutes for each presentation)

Session 6: Material Science II

Chair: Daniel Moraru

16:30 [Invited Talk]

Photoelectricity energy conversion devices based on III-V nitride semiconductors

Liwen Sang (National Institute for Materials Science, Japan)

17:00 Material properties of aligned carbon nanotube/ polymer composites and its application

Yoku Inoue (GSST, Shizuoka University, Japan)

Closing

Chair: Kazuhiko Hara

17:20 Closing remarks Hidenori Mimura (Director of RIE, Shizuoka University, Japan)

17:30 Reception & Award Ceremony of Presentations

(until 19:00)

PRESENTATIONS PROGRAM for STUDENTS and YOUNG RESEARCHERS SESSION

March 3rd, 2016, Sanaru Hall, Hamamatsu Campus, Shizuoka University

13:50 ~ 15:00 Students and Young Researchers Session I

(10 minutes for each presentation including rotation time)

- P-1 Evaluation of a graphical user interface for retrieval of mathematical expressions
Takayuki Watabe and Yoshinori Miyazaki
- P-2 An overview of user plane congestion in LTE network
Chinchu Viswan and Hiroshi Mineno
- P-3 Ultra-high-speed computational CMOS image sensor
Futa Mochizuki, Keiichiro Kagawa, Shin-ichiro Okihara, Min-Woong Seo, Bo Zhang, Taishi Takasawa,
Keita Yasutomi and Shoji Kawahito
- P-4 Plasmonic imaging of organelles in label-free cells by deep-ultraviolet excitation
Masakazu Kikawada, Atsushi Ono, Wataru Inami and Yoshimasa Kawata
- P-5 Basic research of photosensitized oxidative damage of biomolecules by phosphorus (V) porphyrin
derivatives
Dongyan Ouyang and Kazutaka Hirakawa
- P-6 Controlled synthesis of copper induced hollow carbon nanospheres by arc discharge method and their
formation mechanism
Rui Hu, Xiangke Wang and Masaaki Nagatsu
- P-7 Electrochemical investigations on Li//LFP coin type battery with solid-liquid route derived LLZO
electrolyte
Padarti Jeevan Kumar, K. Nishimura, M. Senna, H. Sakamoto, N. Wakiya and H. Suzuki

15:20 ~ 16:30 Students and Young Researchers Session II

(10 minutes for each presentation including rotation time)

- P-8 Monodispersed oxide nanostructures for energy and environmental applications
Mani Navaneethan, J. Archana, S. Harish, T. Koyama and Y. Hayakawa
- P-9 One-pot synthesis of ZnS:Mn/NaGdF₄:Yb:Er luminescent nanocomposites for multi-modal bio-imaging
application
Dheivasigamani Thangaraju, Yuriko Masuda, Mohamed Mathar Sahib, Natarajan Prakash, Wataru Inami,
Yoshimasa Kawata and Yasuhiro Hayawaka

- P-10 Facile control of silica layer thickness of MgFe₂O₄/SiO₂ core-shell nano-sphere via sol-gel approach

- Harinarayan Das, Nipa Debnath, Takashi Arai, Naonori Sakamoto, Kazuo Shinozaki, Hisao Suzuki and Naoki Wakiya
- P-11 One-pot synthesis of β-NaGdF₃:Yb:Er/Ag/TiO₂ near IR active photo catalyst for environmental remediation
- Natarajan Prakash, Dheivasigamani Thangaraju, Rajan Karthikeyan and Yasuhiro Hayakawa
- P-12 Effect of residual stress on piezoelectric property of PMN-PT thin films on Si
- Takashi Arai, Tomoya Ohno, Naonori Sakamoto, Takeshi Matsuda, Naoki Wakiya and Hisao Suzuki
- P-13 Low pressure chemical vapor deposition of hexagonal boron nitride thin films grown on c-plane sapphire substrates
- Naoki Umehara, Atsushi Masuda, Takaki Shimizu, Tetsuya Kouno, Hiroko Kominami and Kazuhiko Hara
- P-14 Laser modification of TiO₂ thin films
- Edvins Dauksta, Vygantas Mizeikis, Arturs Medvids and Kenji Murakami