

JSAP-OSA Joint Symposia 2013

(The 74th JSAP Autumn Meeting 2013)

Program



Venue: Doshisha University, Kyotanabe Campus

Program at a Glance

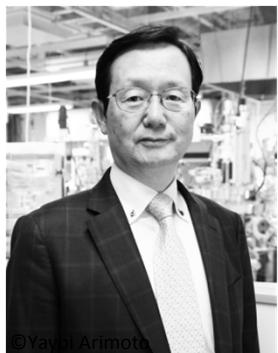
| Sept. 16 (Mon.) | | |
|-----------------|---|--|
| Room | D4 | D5 |
| AM | 9:30-12:00 Opto-Electronics | 10:30-11:30 Plasmonics: imaging and spectroscopy |
| Lunch | 12:00-13:30 | 11:30-14:00 |
| PM | 13:30-16:30 Opto-Electronics | 14:00-17:30 Plasmonics: imaging and spectroscopy |
| Evening | 19:30-21:00 JSAP Welcome Reception Kyoto Century Hotel, Banquet Room "Zuiho" | |
| Sept. 17 (Tue.) | | |
| Room | D4 | D5 |
| AM | 9:00-12:15 Medical Photonics | 9:30-12:15 Information Photonics |
| Lunch | 12:15-14:00 | 12:15-13:45 |
| PM | 14:00-17:00 Plasmonics: materials and devices | 13:45-17:45 Information Photonics |
| Sept. 18 (Wed.) | | |
| Room | D4 | D5 |
| AM | 9:00-11:45 Plasmonics: materials and devices | 9:30-12:00 Nonlinear Photonics |
| Lunch | 11:45-13:00 | 12:00-13:00 |
| 13:00-14:00 | OSA Preseident Special Lecture (Room D5) | |
| PM | 14:30-17:45 Plasmonics: materials and devices | 14:30-17:45 Nonlinear Photonics |
| Sept. 19 (Thu.) | | |
| Room | D4 | D5 |
| AM | 10:00-12:30 Biophotonics | 9:00-12:00 Optical Microsensing, Manipulation and Fabrications |
| Lunch | 12:30-14:00 | |
| PM | 14:00-17:00 Biophotonics | |

JSAP-OSA Joint Symposia 2013

(The 74th JSAP Autumn Meeting 2013)

September 16(Mon.)-19 (Thu.), 2013
Doshisha University, Kyotanabe Campus, Kyoto, Japan

Welcome to JSAP-OSA Joint Symposia 2013



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Message from JSAP President

The Japan Society of Applied Physics has been serving for more than eighty years for mostly Japanese members from Academia and Industry in Applied Physics fields, including in particular, Optics, Photonics, and Semiconductor. Due to the globalization of scientific collaboration and marketing, our society has naturally started to serve to our international colleagues. Following our great success on the first Optics/Photonics Joint Symposia in the last year in Matsuyama, co-organized with the Optical Society (OSA), we are delighted to have the second JSAP-OSA Symposia at 74th JSAP Autumn Meeting held in Doshisha University, Kyoto. In addition, at this meeting we have JSAP-MRS joint symposia with Materials Research Society as well, while this one will not be regularly organized as a series.

We are in particular happy to have Donna Strickland, the President of OSA to join and give a plenary lecture on Multi-frequency Raman generation in the second JSPA- OSA Joint Symposia. We would like to express our sincere appreciation to OSA for their strong support and efforts to continue this joint venture and encourage their brilliant members to participate in it.

We welcome all the members of JSAP and those of OSA from around the world, in particular, our colleagues from Asian countries. During these 4 days of this exciting event, various programs are planned focusing on plasmonics, biophotonics, nonlinear optics, optical sensing, manipulation and fabrication, opto-electronics, and information photonics. More than 131 papers will be presented including 26 invited talks. I wish the speakers and the audience to exchange the latest research progresses and the friendship, and also enjoy exploring the cities of Kyoto, Osaka and Nara all less than an hour to reach from the conference site.

The efforts for advertising these Symposia and making the program by the program committee lead by Satoshi Kawata as the General Chair and Prabhat Verma and Junichiro Kono as Co-chairs from JSAP and OSA respectively are highly appreciated.

The goals for the symposia are to strengthen our ties between OSA and JSAP, and to boost further exchanges and collaborations between our members. It is a great honor for JSAP to share the part of our overarching mission with OSA.

On JSAP's own behalf, I am wishing a great success to the joint symposia.
応用物理学会とOSAのさらなる挑戦にご期待下さい。

Makoto Konagai
President, The Japan Society of Applied Physics (JSAP)
Tokyo Institute of Technology, Japan



Message from OSA President

On behalf of the Optical Society (OSA), I welcome you to the second JSAP-OSA Joint Symposia at the 74th JSAP Autumn Meeting. OSA is delighted to repeat our successful collaboration with The Japan Society of Applied Physics. We have partnered with JSAP and its affiliate, the Optical Society of Japan, for many years through a joint agreement that encourages scientific contact between members of the societies. Last year, OSA and JSAP partnered for the first time on these important joint symposia for the benefit of the technical community.

I am proud to join the other invited speakers and presenters in these sessions covering the latest in plasmonics, biophotonics, medical photonics, nonlinear photonics, optical micro-sensing, opto-electronics, and information photonics. The approximately 130 joint presentations will represent research from 11 countries.

The purpose of the joint symposia was to bring together scientists from around the world to participate in the JSAP Autumn Meeting. In support of that goal, OSA and JSAP provided nearly 20 attendee travel awards to foster international collaboration.

As president of OSA, I am privileged to be able to travel to many parts of the world meeting OSA members and optical scientists and engineers of all backgrounds. The JSAP meeting is only my second trip to Japan and I am looking forward to visiting Tokyo and Kyoto and meeting so many colleagues.

Along with the US and China, Japan is consistently in the top three countries with the highest number of OSA members. The first OSA Student Chapter in Japan was established in 2008 at Osaka University. Since 2008, the number of OSA Student Chapters in Japan has grown significantly and we now have seven OSA Student Chapters across Japan. In July of 2014, the International Conference on Ultrafast Phenomena will be held in Okinawa, Japan.

I hope you enjoy the program that the committee has worked hard to put together over the last several months and the beautiful city of Kyoto. I look forward to meeting and speaking with many of you during the conference.

どうもありがとうございます。

Donna T. Strickland
President, The Optical Society (OSA)
University of Waterloo, Canada

General Information

Registration

Location: Multipurpose Hall (Hello Hall)

Hours: Sept. 16 (Mon.) – 19 (Thu.); 8:00 am - 5:30 pm

Sept. 20 (Fri.); 8:00 am - 1:00 pm

Registration Fee (Abstract DVD, Official Guidebook included)

| | Advanced | Onsite |
|----------------------|------------|---------------|
| JSAP/OSA Member * | 8,000 JPY | 12,000 JPY |
| JSAP Senior Member** | 4,000 JPY | Not available |
| Student | 3,000 JPY | 5,000 JPY |
| Nonmember | 15,000 JPY | 20,000 JPY |

* The members of the following JSAP's partner societies are eligible to register at the member registration fee; American Physical Society (APS), European Physical Society (EPS), Institute of Physics (IOP), Korean Physical Society (KPS), International Society for Optical Engineering (SPIE), Optical Society of Korea (OSK), Société Française de Physique (SFP), Physical Society of Republic of China (PSROC), Physics Education Society of Japan (PESJ).

Lost and Found

JSAP offers Lost and Found service. To inquire about lost items during the conference, please come to the Information Desk.

After the conference, please contact JSAP-OSA Joint Symposia Secretariat (joint-osa@jsap.or.jp).

Cloak Room Service

Location: Registration

Hours: Sept. 16 (Mon.) ; 8:00 am - 7:00 am

Sept. 17 (Tue.) -19 (Thu.) ; 8:00 am - 7:30 pm

Sept. 20 (Fri.); 8:00 am - 4:00 pm

Fee: 300 JPY per luggage

Notes: Please keep valuables with you. We may have to refuse your luggage due to the limited space of the room.

Travel Award Reimbursement

Location: "Travel Award" desk at the Registration

Hours: Sept. 16 (Mon.) – 18 (Wed.); 8:00 am – 4:00 pm

Sept. 19 (Thu.); 8:00 am - 12:00 pm

Wireless Internet Service

Wireless internet access are available for the participants.

Location: Venue P (Davis Memorial Auditorium)

Hours: Sept. 16 (Mon.) -19 (Thu.); 10:00 am -6:00 pm

Notes: No PC is available at the site. Please bring your own laptops.

Print-out Service

Conference abstracts included in the Abstract DVD-ROM can be printed out at Venue P.

Location: Venue P (Davis Memorial Auditorium)

Hours: Sept. 16 (Mon.) -19 (Thu.); 10:00 am -6:00 pm

Notes: Please note you cannot print out your personal documents.

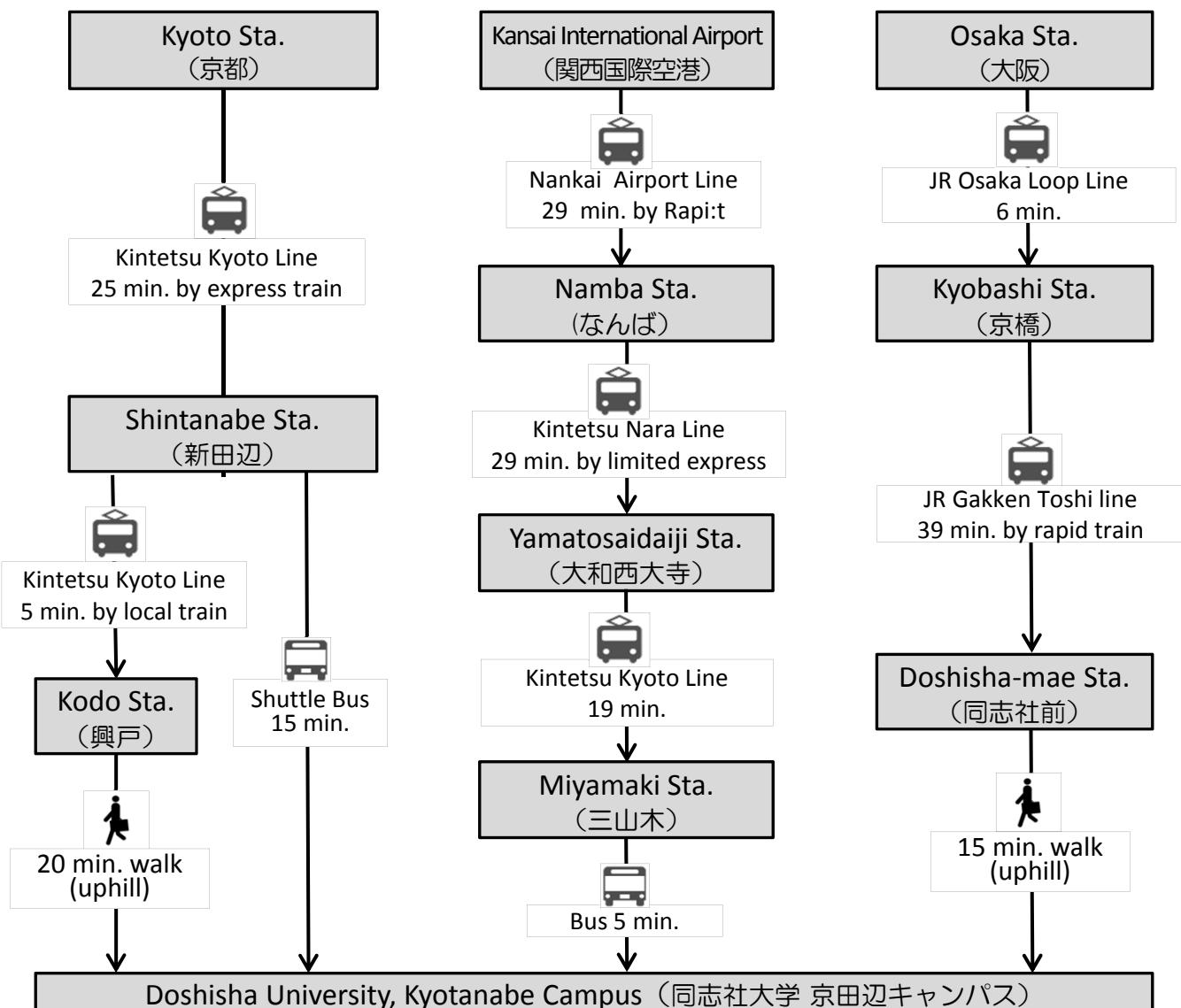
Exhibition (JSAP EXPO AUTUMN 2013)

Location: Venue P (Davis Memorial Auditorium)

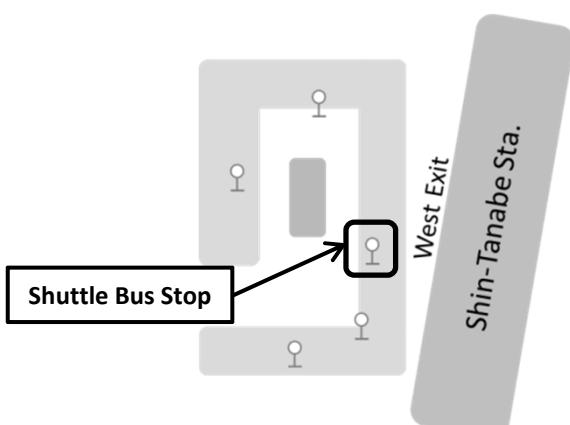
Hours: Sept. 16 (Mon.) -19 (Thu.); 10:00 am -6:00 pm

The exhibit is open to everyone. Please see page 7 for more details.

Access



Shuttle Bus Service from Shintanabe Station (Recommended)



It takes 15-20 minutes on foot from the nearest stations (Kodo Station or Doshisha-mae Station). We recommend you to take a shuttle bus from Shintanbe Station.

Operation Hours: 7:56 am ~ approx. 8:00 pm
Fare: 260 JPY (One way)

Taxi Fare

From Shintanabe Station: approx. 1,000 JPY
From Miyamaki Station: approx. 750 JPY
From Doshisha-mae Station: approx. 650 JPY

Social Events

JSAP Welcome Reception

Date: 7:30 pm -9:00 pm, Sept. 16 (Mon.), 2013

Location: Kyoto Century Hotel, Banquet Room "Zuiho"

(680 Higashi Shiokoji-cho, Shimogyo-ku, Kyoto-shi, Kyoto, 600-8216)

Fee: 3,500 JPY

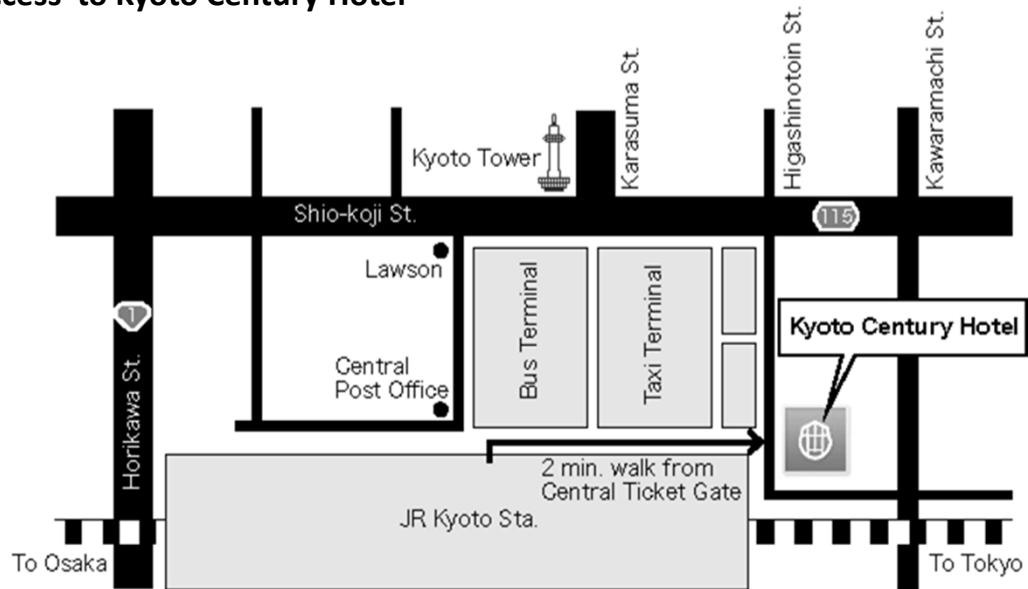
Limited 150 tickets available.

Please make a reservation at "Reception" desk at the Registration by 3:00 pm, Sept. 16 (Mon.).

Free shuttle bus to the reception venue will depart from the main gate (see the venue map on the back cover).

Departure time: 6:00 pm, 6:10 pm, 6:20 pm, 6:30 pm, 6:50 pm, 7:10 pm

Access to Kyoto Century Hotel



Student Organized Event (1st Annual Meeting of Physics Students)

Date: 4:30 pm -7:00 pm, Sept. 18 (Wed.), 2013

Location: Dining Hall "Libre", Lounge Bldg. 1F

Admission Free / No reservation necessary

Program: 4:30-5:30 pm; Presentation skills seminar (in Japanese)

5:40-7:00 pm; Banquet *Vegetarian foods available

JSAP EXPO AUTUMN 2013

Exhibit Hours: 10:00 am -6:00 pm, Sept. 16 (Mon.) – 19 (Thu), 2013

Location: Venue P (Davis Memorial Auditorium)

Number of exhibitors: 150 companies (expected)

Exhibitors' List as of August 9, 2013 (alphabetical)

AD Science Co., AdvanceSoft Corporation, Advantest Corp., Agilent Technologies, AIP Publishing, American Physical Society (APS), AOV Co., Ltd., APF, Inc., Apollowave Corporation, Argo Corporation, Asahi Spectra Co., Ltd., Axis Net Inc., Bronkhorst Japan K.K., Bruker AXS K.K., Bunkoukeiki Co., Ltd., Carrier Integration Inc., Chivac Co., Ltd., Cluster Technology Co., Ltd., Comet Inc., Cornes Technologies Ltd., Cosmotec Corporation, Craft Center Sawaki Inc., CreaTec Fischer & Co. GmbH / Japan Business Contact Group Inc., Crestec Corporation, Crev Inc., Crosslight Software Inc. Japan Branch, Crystal Base Co., Ltd., Cyber Laser Inc., Cybernet Systems Co., Ltd., Daisel Corporation, Digital Data Management Corporation, Eiko Corporation, Elionix Inc., Elminet Corporation, EpiQuest, Inc., EpiTech Inc., Foresight Techno Co., Ltd., Fujifilm Global Graphic Systems Co., Ltd., Fujikin Incorporated, Fujitsu Limited, Hakuto Co., Ltd., Hamamatsu Photonics K.K., Hightec Systems Corporation, HiSOL Inc., Hitachi High-Tech Science Corporation, Horiba, Ltd., Infovion Inc., Ion Technology Center Co., Ltd, IOP Publishing, IRC, Inc., J. A. Woollam Japan Corporation, Japan High Tech Co., Ltd., Japan laser Corp., Japan Synchrotron Radiation Research Institute(JASRI), JEOL Ltd., K- Science Corporation, Kenix Corp, Kimmon Koha Co., Ltd., Kitano Seiki Co., Ltd., Kitzsct Corporation, Kohzu Precision Co., Ltd., Konicaminolta, Inc., Kojundo Chemical Laboratory Co., Ltd., Kosaka Laboratory Ltd., KRI Inc. Materials Analysis Research Center, Kyodo International, Inc., Lasertec Corporation, Light Stone Corp., Lucir Inc., Meidensha Corporation, Melec Inc., Mesafy Corporation, Momentive Performance Materials Japan LLC, Musashi Engineering, INC., Mutumi Corporation, Nagase Techno-Engineering Co., Ltd., Nano Control Co., Ltd., Nanometrics Japan Ltd., Nanophoton Corporation, National Institute for Materials Science, National Institute for Materials Science (NIMS), Neoark Corporation, Netsch Japan, NF Corporation, Nidek Co., Ltd., Niki Glass Co., Ltd, Nippon Automatic Control Company, Nippon Roper K.K., NTT Advanced Technology Corporation, O.S.I Industry Co., Ltd., Ocean Photonics, Inc., Omegatron. Co., Ltd., Omicron NanoTechnology Japan, Inc., Opto Science, Inc., Optohub Co., Ltd., Optoquest Co., Ltd., OptoSirus Corporation, Opto-Works Co., Ltd., OS Tech Co., Ltd., Otsuka Electronics Co., Ltd., Oxford Instruments KK, Oxide Corporation, Pascal Co., Ltd., PhotonDesign Corporation, Phototechnica Corp., PMT Corporation, Quantum Design Japan, Inc., R-DEC Co., Ltd., Rigaku Corporation, RIKO International Co., Ltd/ Micro Tec Co., LTD, Rockgate Corporation, SAKIGAKE-Semiconductor Co., Ltd., SAMCO Inc., San-ei Electric Co., Ltd., Sanwa Vacuum Co., Ltd., Sanyu Electron Co., Ltd., Science Laboratories, Inc. / ATR Company, SDI Company Ltd., Semilab Japan KK, Sigma-Aldrich Japan GK, Spectra Co-op, Spectra-Physics K.K., SPLEAD Corporation, Springer, Suzuki Shokan Co., Ltd., SystemBrain, SYSTEMHOUSE SUNRISE Inc., Taiei Electric Co., Tanaka Kikinzoku Group, Tec Corporation, TEGA Science, Inc. / Mantis Deposition Ltd., Tektronix / Keithley Instruments, Thamway Co., Ltd., The Japan Society of Applied Physics, Thermo Riko Co.,Ltd., Thermocera Japan Ltd., TNS Systems LLC, Toshima Manufacturing Co., Ltd., Toyo Corporation, Toyo Precision Parts Mfg. Co., Ltd., TOYO Tanso Co., Ltd., UniTemp Japan Co., Ltd., Vector Semiconductor Co., Ltd., VG Scienta, WITec K.K., Zurich Instruments Ltd.

Other Featured Events at JSAP EXPO venue

Luncheon Session by Exhibitors

Date: 12:15 pm -1:00 pm, Sept. 17 (Tue.), 2013

Exhibitors will introduce their products and technology by posters.

Drinks and light meal will be served.

2nd JSAP Photo Contest (*Science as Art*)

Vote your favorite and win a prize!

Stamp Rally

Get 2 signatures from exhibitors and win a prize!

Monday, Sept. 16

D4

9:30-12:00 16a-D4-1~8

Opto-electronics

Organizers: Hiroshi Murata, Osaka Univ.,
Yongkun Lee, Hitachi, Ltd.
Session Chair: Yongkun Lee, Hitachi, Ltd.

9:30-9:45 16a-D4-1

Numerical Study of Heat Transfer during Sapphire Crystal Growth by Heat Exchanger Method

Lili Zhao¹, Wencheng Ma¹, Guoqiang Ding¹, Yang Yang¹, Tiezheng Lv¹, Lijun Liu²; ¹*Harbin Inst. of Technology, China*, ²*Xian Jiaotong Univ., China*

9:45-10:00 16a-D4-2

Pulsed Laser Deposition of Nd:YAG using Femtosecond Laser

Lean Lara Dasallas^{1,3}, Arriane Palomeras Lacaba¹, Jeffrey Centeno de Vero², Wilson Ong Garcia¹; ¹*Univ. of the Philippines, Philippines*, ²*Chungnam National Univ., Korea*, ³*RIKEN, Japan*

10:00-10:15 16a-D4-3

Propagation Modes through Circular DB waveguide Loaded with Uniaxial Chiral Metamaterial

Muhammad Abuzar Baqir, Masih Ghasemi, Pankaj Kumar Choudhury; *Univ. Kebangsaan Malaysia, Malaysia*

10:15-10:30 16a-D4-4

Study of Lower Order Propagation through Twisted Clad Optical Fiber

Masih Ghasemi, Muhammad Abuzar Baqir, Pankaj Kumar Chouhdury; *Univ. Kebangsaan, Malaysia*

Break 10:30-10:45

10:45-11:15 16a-D4-5 Invited

Enhanced infrared photoluminescence from Ge1-xSn_x alloys

Wen-Yao Hsieh¹, Yu-Hao You¹, Kun-Mao He¹, Yu-Hsiang Peng¹, Guo-En Chang¹, Henry H. Cheng²; ¹*National Chung Cheng Univ., Taiwan*, ²*National Taiwan Univ., Taiwan*

11:15-11:30 16a-D4-6

Comparing photoluminescence and structural properties of electrochemically deposited Cu₂Sn₁S₃ thin films

Hui-Ju Chen, Sheng-Wen Fu, Hsuan-Ta Wu, Shih-Hsiung Wu, Chuan-Feng Shih; *National Cheng Kung Univ., Taiwan*

11:30-11:45 16a-D4-7

Solar cell materials as THz emitters: the THz emission of CZTS

Stefan Funkner¹, Elmer S. Estacio², Gudrun Niehues¹, Kohji Yamamoto¹, Qixin Guo³, Zhenyu Zhao⁴, Masahiko Tani¹; ¹*Univ. of Fukui, Japan*, ²*Univ. of the Philippines Diliman, Philippines*, ³*Saga Univ., Japan*, ⁴*Shanghai Normal Univ., China*

11:45-12:00 16a-D4-8

Measurements using an OSREFM Fast-Scan Terahertz Time Domain Spectrometer

Gudrun Niehues¹, Takashi Furuya¹, Elmer S. Estacio², Kohji Yamamoto¹, Fumiaki Miyamaru³, Seiji Nishizawa¹, Masahiko Tani¹; ¹*Univ. of Fukui, Japan*, ²*Univ. of the Philippines, Philippines*, ³*Shinshu Univ., Japan*

Lunch 12:00-13:30

D5

10:30-11:30 16a-D5-1~2

Plasmonics: imaging and spectroscopy

Organizer: Prabhat Verma, Osaka Univ.
Session Chair: Prabhat Verma, Osaka Univ.

All the participants must wear their meeting badges at all times.

No photo-taking is allowed during the session.

10:30-11:00 16a-D5-1 Invited

Nonlinear Plasmonics in Metal-Insulator-Metal Structure

Kotaro Kajikawa; *Tokyo Inst. of Technology, Japan*

11:00-11:30 16a-D5-2 Invited

Design roadmap and physical nature of super-oscillation theory in super-resolution imaging system

Chengwei Qiu, Kun Huang; *National Univ. of Singapore, Singapore*

Lunch 11:30-14:00

Monday, Sept. 16 (continued)

| D4 | D5 |
|---|---|
| <p>13:30-16:30 16p-D4-1~9 Opto-electronics (continued) Organizer: Hiroshi Murata, Osaka Univ. Session Chairs: Hiroshi Murata, Osaka Univ. (13:30-15:00) Kenji Kintaka, AIST (15:15-16:30)</p> <p>13:30-14:00 16p-D4-1 Invited Polarization-reversed nonlinear optical waveguides in lithium niobate <i>Sunao Kurimura</i>^{1,2}; ¹National Inst. for Materials Science, Japan, ²Waseda Univ., Japan</p> <p>14:00-14:30 16p-D4-2 Invited Despeckling Light Sources by Linear and Nonlinear Photonics Crystals <i>Lung-Han Peng</i>: National Taiwan Univ., Taiwan</p> <p>14:30-14:45 16p-D4-3 Spectral Structures of 230 GHz-bandwidth 821 nm Seeder by a Broad-area LD for Muonium Lyman-alpha Generation <i>Kotaro Okamura</i>^{1,2}, Norihito Saito², Koji Miyazaki², Yu Oishi², Oleg Louchev², Masahiko Iwasaki², Satoshi Wada²; ¹Megaopto Co., Ltd., Japan, ²RIKEN, Japan</p> <p>14:45-15:00 16p-D4-4 Actively Mode-Locked Fiber Laser Using Impulse Modulation <i>Trang Dang Nguyen</i>, Akihiro Morimoto; Ritsumeikan Univ., Japan</p> <p style="text-align: center;">Break 15:00-15:15</p> <p>15:15-15:30 16p-D4-5 Millimeter-wave-Lightwave Converters Using X-Cut Ti:LiNbO₃ Waveguide Suspended to Patch Antennas Embedded with a Gap on Low-k Dielectric Substrate <i>Yusuf Nur Wijayanto</i>¹, Hiroshi Murata¹, Tetsuya Kawanishi², Yasuyuki Okamura¹; ¹Osaka Univ., Japan, ²NICT, Japan</p> <p>15:30-15:45 16p-D4-6 Organic electro-optical modulator with sol-gel SiO₂/carbon nanotube clad layer <i>Feng Yu</i>, Kazuhiro Yamamoto, Shiyoshi Yokoyama; Kyushu Univ., Japan</p> <p>15:45-16:00 16p-D4-7 Beyond 25GHz Directly Modulated 980nm VCSELwith Lateral Optical Feedback <i>Hamed Dalir</i>, Akihiro Matsutani, Fumio Koyama; Tokyo Inst. of Technology, Japan</p> | <p>14:00-17:30 16p-D5-1~11 Plasmonics: imaging and spectroscopy Organizer: Prabhat Verma, Osaka Univ. Session Chair: Kotaro Kajikawa, Tokyo Inst. of Technology (14:00-15:30)</p> <p>14:00-14:30 16p-D5-1 Invited Nanogap-Enhanced Raman Scattering (NERS) controlled by DNA <i>Yung Doug Suh</i>^{1,2}; ¹Korea Research Inst. of Chemical Technology (KRICT), Republic of Korea, ²SKKU, Republic of Korea</p> <p>14:30-14:45 16p-D5-2 Dense 2D arrays of Au@Ag and Au@Ag@Au as efficient SERS substrates <i>Yeji Song</i>^{1,3}, Francesca Pincella^{1,3}, Katsuhiro Isozaki², Kazushi Miki^{1,3}; ¹Univ. of Tsukuba, Japan, ²Kyoto Univ., Japan, ³National Inst. for Materials Science, Japan</p> <p>14:45-15:00 16p-D5-3 Detection of low concentration of Pesticide on Orange by Particle-enhanced Raman Spectroscopy <i>Bikas Ranjan</i>, Huang LiChuan, Kyoko Masui, Yuika Saito, Prabhat Verma; Osaka Univ., Japan</p> <p>15:00-15:15 16p-D5-4 Surface-Enhanced Raman Scattering of Free-standing Gold Ellipse Nanoantenna <i>Shih-Che Lin</i>¹, Nahla A. Hatab², Baohua Gu², Bo-Kai Chao¹, Jia-Han Li¹, Chun-Hway Hsueh¹; ¹National Taiwan Univ., Taiwan, ²Oak Ridge National Lab., USA</p> <p>15:15-15:30 16p-D5-5 Simulation of Free-Standing Geometrical Gold Nanoantenna with Variable Post Height for Enhanced Raman Spectroscopy <i>Bo-Kai Chao</i>, Shih-Che Lin, Jia-Han Li, Chun-Hway Hsueh; National Taiwan Univ., Taiwan</p> <p style="text-align: center;">Break 15:30-16:00</p> |

Monday, Sept. 16 (continued)

| D4 | D5 |
|--|--|
| 13:30-16:30 16p-D4-1~9 Opto-electronics (continued) Organizer: Hiroshi Murata, Osaka Univ. Session Chair: Kenji Kintaka, AIST (15:15-16:30) | 14:00-17:30 16p-D5-1~11 Plasmonics: imaging and spectroscopy Organizer: Prabhat Verma, Osaka Univ. Session Chair: Yung-Doug Suh, KRICT (16:00-17:30) |
| 16:00-16:15 16p-D4-8 Transverse Coupled Cavity VCSELs for Push-Pull Modulation <u>Hamed Dalir, Akihiro Matsutani, Fumio Koyama; Tokyo Inst. of Technology, Japan</u> | 16:00-16:15 16p-D5-6 Raman investigation of single-walled carbon nanotubes in liquid by tip-enhanced Raman spectroscopy <u>Yuya Nagata¹, Yuika Saito¹, Prabhat Verma^{1,2}; ¹Osaka Univ., Japan, ²Photonics Advanced Research Center, Japan</u> |
| 16:15-16:30 16p-D4-9 Free-Space Reconfigurable Interconnects via Dynamic Multipolar Couplings between Quantum Nano-Structures <u>Hideaki Matsueda; Teikyo Univ., Japan</u> | 16:15-16:30 16p-D5-7 Evaluation of localized semiconductor to metal transition of carbon nanotube by Tip-enhanced Raman investigation <u>Yoshito Okuno¹, Yuika Saito¹, Satoshi Kawata^{1,2}, Prabhat Verma¹; ¹Osaka Univ., Japan, ²Riken, Japan</u> |
| | 16:30-16:45 16p-D5-8 Clear Images of Neuron Cells Cultured on a Plasmonic Dish Observed with Inverted Fluorescence Microscope <u>Keiko Tawa^{1,2}, Tsuyoshi Fujita^{1,2}, Chie Hosokawa¹, Junji Nishii³; ¹HRI, AIST, Japan, ²Kwansei Gakuin Univ., Japan, ³RIES, Hokkaido Univ., Japan</u> |
| | 16:45-17:00 16p-D5-9 Sensitive detection of Interleukin-6 (IL-6) on the plasmonic chip by Grating Coupled-Surface Plasmon-field enhanced Fluorescence Imaging <u>Masahiro Tsuneyasu^{1,2}, Chisato Sasakawa¹, Nahoko Naruishi¹, Yoshihide Tanaka¹, Yasukazu Yoshida¹, Keiko Tawa^{1,2}; ¹AIST, Japan, ²Kwansei Gakuin Univ., Japan</u> |
| | 17:00-17:15 16p-D5-10 Cathodoluminescence Study of Surface Plasmon Polariton in Plasmonic Cavities <u>Naoki Yamamoto; Tokyo Inst. of Technology, Japan</u> |
| | 17:15-17:30 16p-D5-11 Modulating the Physical Properties of nanocrystals and supracrystals through atoms and nanocrystals assembling: New Challenges <u>Pileni Marie Paule; Univ. P & M Curie, France</u> |

Kyoto Century Hotel

19:30-21:00
JSAP Welcome Reception
Banquet Room "Zuiho", Kyoto Century Hotel

Tuesday, Sept. 17

| D4 | D5 |
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| <p>9:00-12:15 17a-D4-1~10 Medical Photonics Organizer: Yuji Matsuura, Tohoku Univ. Session Chair: Yuji Matsuura, Tohoku Univ.</p> <p>9:00-9:15 17a-D4-1 High resolution imaging by electron-beam excitation assisted optical microscope with emission layer for a brighter nanometric light source <i>Yuriko Masuda¹, Yasunori Nawa¹, Chiyo Morita¹, Masashi Kamiya¹, Wataru Inami¹, Aki Miyake¹, Atsushi Sugita¹, Yoshimasa Kawata^{1,2}, Yoichiro Nakanishi¹, ¹Shizuoka Univ., Japan, ²CREST, Japan Science and Technology Agency, Japan</i></p> <p>9:15-9:30 17a-D4-2 High-throughput image cytometry for rare cell detection <i>Keisuke Goda, Genshun Yu, Yoshifumi Wakisaka, Hirofumi Kobayashi; The Univ. of Tokyo, Japan</i></p> <p>9:30-10:00 17a-D4-3 Invited Time-Resolved Diffuse Optical Tomography and Its Preliminary Clinical Studies <i>Yukio Ueda; Hamamatsu Photonics K.K., Japan</i></p> <p>10:00-10:15 17a-D4-4 Direct remote Raman imaging using hollow fiber bundle <i>Takashi Katagiri, Satomi Inoue, Yuji Matsuura; Tohoku Univ., Japan</i></p> <p>10:15-10:30 17a-D4-5 Diffuse-reflectance imaging of peri-infarct depolarization in a rat middle cerebral artery occlusion model <i>Satoko Kawauchi¹, Izumi Nishidate², Hiroshi Nawashiro³, Shunichi Sato¹; ¹National Defense Medical College, Japan, ²Tokyo Univ. of Agriculture and Technology, Japan, ³Tokorozawa Central Hospital, Japan</i></p> <p style="text-align: center;">Break 10:30-10:45</p> <p>10:45-11:00 17a-D4-6 In vivo estimation of the optical properties of exposed rat brain using a digital red-green-blue camera <i>Izumi Nishidate¹, Keiichiro Yoshida¹, Chiharu Mizushima¹, Satoko Kawauchi², Shunichi Sato², Manabu Sato³; ¹Tokyo Univ. of Agriculture and Technology, Japan, ²National Defense Medical College, Japan, ³Yamagata Univ., Japan</i></p> | <p>9:30-12:15 17a-D5-1~9 Information Photonics Organizer: Hirotugu Yamamoto, The Univ. of Tokushima Session Chairs: Makoto Naruse, NICT (9:30-10:45)</p> <p>9:30-10:00 17a-D5-1 Invited Applied Acoustic Devices Using Ultrasound Radiation Force <i>Daisuke Koyama; Doshisha Univ., Japan</i></p> <p>10:00-10:15 17a-D5-2 Hand-waving decodable steganography by use of 960Hz LED panel <i>Kengo Sato, Shiro Suyama, Hirotugu Yamamoto; The Univ. of Tokushima, Japan</i></p> <p>10:15-10:30 17a-D5-3 Measurement of vibration distribution by use of a high-speed camera <i>Yukiko Yoshida¹, Shiro Suyama¹, Idaku Ishii², Hirotugu Yamamoto¹; ¹The Univ. of Tokushima, Japan, ²Hiroshima Univ., Japan</i></p> <p>10:30-10:45 17a-D5-4 Phase Error Measurement of Arrayed-waveguide Grating <i>Hideaki Asakura, Mirzad Farhan, Hiroyuki Tsuda; Keio Univ., Japan</i></p> <p style="text-align: center;">Break 10:45-11:00</p> |
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Tuesday, Sept. 17 (continued)

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| <p>9:00-12:15 17a-D4-1~10 Medical Photonics (continued) Organizer: Yuji Matsuura, Tohoku Univ. Session Chair: Yuji Matsuura, Tohoku Univ.</p> <p>11:00-11:15 17a-D4-7 Optical properties of tumor tissues grown on the chorioallantoic membrane of chicken eggs measured with a double integrating sphere and inverse Monte Carlo method <i>Yoichiro Kariyama¹, Norihiro Honda¹, Takuya Ishii², Chiaki Abe², Katsushi Inoue², Masahiro Ishizuka², Tohru Tanaka², Hisanao Hazama¹, Kunio Awazu¹; ¹Osaka Univ., Japan, ²SBI Pharmaceuticals Co., Ltd., Japan</i></p> <p>11:15-11:30 17a-D4-8 All-optical photoacoustic fiber probe for endoscopic imaging <i>Yusuke Miida, Yuji Matsuura; Tohoku Univ., Japan</i></p> <p>11:30-12:00 17a-D4-9 Invited Enhanced Delivery of AuNPs with Acoustic Cavitation for Photoacoustic Imaging and Photothermal Therapy <i>Yu-Hsin Wang, Pai-Chi Li; National Taiwan Univ., Taiwan</i></p> <p>12:00-12:15 17a-D4-10 Application of a Quantum Cascade Laser in the 5.7 μm Wavelength Range for Less-Invasive Laser Treatment of Atherosclerotic Plaque <i>Keisuke Hashimura¹, Katsunori Ishii¹, Naota Akikusa², Tadataka Edamura², Harumasa Yoshida², Kunio Awazu¹; ¹Osaka Univ., Japan, ²Hamamatsu Photonics K.K., Japan</i></p> <p>Lunch 12:15-14:00</p> | <p>9:30-12:15 17a-D5-1~9 Information Photonics (continued) Organizer: Hirotugu Yamamoto, The Univ. of Tokushima Session Chair: Kouichi Nitta, Kobe Univ. (11:00-12:15)</p> <p>11:00-11:15 17a-D5-5 Single-shot Active Stereo Imaging with Random Pattern Projection <i>Ryoichi Horisaki, Jun Tanida; Osaka Univ., Japan</i></p> <p>11:15-11:30 17a-D5-6 Color volumetric display based on image plane scanning by use of multi-projector <i>Yuki Maeda¹, Daisuke Miyazaki¹, Takaaki Mukai¹, Satoshi Maekawa²; ¹Osaka City Univ., Japan, ²Univ. of Hyogo, Japan</i></p> <p>11:30-11:45 17a-D5-7 Multi-layered aerial LED display with occlusions between layers <i>Hirotugu Yamamoto, Hiroki Bando, Ryousuke Kujime, Shiro Suyama; The Univ. of Tokushima, Japan</i></p> <p>11:45-12:00 17a-D5-8 Perceived depth by viewing distance change in LED DFD display <i>Junnosuke Kawakami, Atsuhiro Tsunakawa, Shiro Suyama, Hirotugu Yamamoto; The Univ. of Tokushima, Japan</i></p> <p>12:00-12:15 17a-D5-9 Perceived depth in Edge-based DFD (Depth-fused 3-D) display by changing edge width <i>Tomoki Soumiya¹, Hiroshi Sonobe¹, Atsuhiro Tsunakawa¹, Hirotugu Yamamoto¹, Shiro Suyama¹, Hidenori Kuribayashi²; ¹The Univ. of Tokushima, Japan, ²Nikon Corp., Japan</i></p> <p>Lunch 12:15-13:45</p> |

Tuesday, Sept. 17 (continued)

| D4 | D5 |
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| <p>14:00-17:00 17p-D4-1~8 Plasmonics: materials and devices Organizer: Prabhat Verma, Osaka Univ. Session Chairs: Prabhat Verma, Osaka Univ. (14:00-15:15)</p> | <p>13:45-17:45 17p-D5-1~12 Information Photonics (continued) Organizer: Hirotugu Yamamoto, The Univ. Of Tokushima Session Chairs: Yusuke Ogura, Osaka Univ. (13:45-15:00) Masayuki Yokota, Shimane Univ. (15:15-16:30)</p> |
| <p>14:00-14:30 17p-D4-1 Invited Enhancing Efficiency of Low-bandgap Polymer Solar Cells with Plasmonic Effect from Gold Nanoparticles of Different Sizes <i>Shao-Hsuan Kao, Ping-Yi Ho, Chia-Yu Kao, Ching-Fuh Lin; National Taiwan Univ., Taiwan</i></p> | <p>13:45-14:15 17p-D5-1 Invited Basics of optical processing system based on nanophotonic droplets <i>Naoya Tate¹, Makoto Naruse², Motoichi Ohtsu¹; ¹The Univ. of Tokyo, Japan, ²National Inst. of Information and Communications Technology, Japan</i></p> |
| <p>14:30-14:45 17p-D4-2 Plasmonic CuxO photocatalyst for Solar Water Splitting with Visible Light <i>Chih-Ming Wang; National Dong Hwa Univ., Taiwan</i></p> | <p>14:15-14:30 17p-D5-2 Super-resolution Complex Amplitude Reconstruction of Nanostructured Binary Data with Pattern Matching <i>Shinji Ishikawa, Yoshio Hayasaki; Utsunomiya Univ., Japan</i></p> |
| <p>14:45-15:00 17p-D4-3 Visible Light Photocatalyst Based on Plasmon-enhanced Two-photon Absorption <i>Francesca Pincella^{1,2}, Katsuhiro Isozaki³, Kazushi Miki^{1,2}; ¹Univ. of Tsukuba, Japan, ²National Inst. for Materials Science, Japan, ³Kyoto Univ., Japan</i></p> | <p>14:30-14:45 17p-D5-3 Photothermal Method for Single Nanoparticle Detection Using Single Element Interferometer <i>Yuki Nagata¹, Yasuhiro Mizutani¹, Tetsuo Iwata¹, Yukitoshi Otani²; ¹The Univ. of Tokushima, Japan, ²Utsunomiya Univ., Japan</i></p> |
| <p>15:00-15:15 17p-D4-4 PIN-all carbon solar cell by microwave surface wave plasma CVD <i>Dilip Chandra Ghimire, S. Adhikari, S. Ichimura, H. Uchida, K. Wakita, M. Umeno; Chubu Univ., Japan</i></p> | <p>14:45-15:00 17p-D5-4 Effective Extraction of Absorbers in Scattered Medium by using Intensity Ratio of Time-Resolved Signal <i>Toshihiko Yamaoki, Masaya Nonaka, Kouichi Nitta, Osamu Matoba; Kobe Univ., Japan</i></p> |
| <p>Break 15:15-15:45</p> | <p>Break 15:00-15:15</p> |
| | <p>15:15-15:30 17p-D5-5 Significance of Chain Transfer Agents in Holographic Photopolymers <i>Jinxin Guo¹, John T. Sheridan², Yasuo Tomita¹; ¹Univ. of Electro-Communications, Japan, ²Univ. College Dublin, Ireland</i></p> |
| | <p>15:30-15:45 17p-D5-6 Digital Holographic Imaging of Vector Wave from a Polarization Hologram with Spatial Phase Shifting <i>Daisuke Barada, Takuya Tanimoto, Kenta Yamashita, Shigeo Kawata, Toyohiko Yatagai; Utsunomiya Univ., Japan</i></p> |

Tuesday, Sept. 17 (continued)

| D4 | D5 |
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| 14:00-17:00 17p-D4-1~8 Plasmonics: materials and devices Organizer: Prabaht Verma, Osaka Univ. Session Chair: Ching-Fuh Lin, National Taiwan Univ. (15:45-17:00) | 13:45-17:45 17p-D5-1~12 Information Photonics (continued) Organizer: Hirotsugu Yamamoto, The Univ. Of Tokushima Session Chair: Masayuki Yokota, Shimane Univ. (15:15-16:30) |
| 15:45-16:15 17p-D4-5 Invited Controlling Surface Plasmon Propagation in Silver Nanowire Networks <i>Hong Wei, Hongxing Xu; Chinese Academy of Sciences, China</i> | 15:45-16:00 17p-D5-7 Space-bandwidth extension in single-shot off-axis digital holography using dual-wavelength phase unwrapping <i>Tatsuki Tahara, Yasuhiko Arai; Kansai Univ., Japan</i> |
| 16:15-16:30 17p-D4-6 Super Long-range Surface Plasmon Polaritons in a Silver Nano-slab Waveguide <i>Mai Higuchi, Masashi Miyata, Junichi Takahara; Osaka Univ., Japan</i> | 16:00-16:15 17p-D5-8 Fast Computation of Computer-Generated Hologram by Using Multi-Core Processor <i>Koki Murano, Takashi Kakue, Tomoyoshi Shimobaba, Tomoyoshi Ito; Chiba Univ., Japan</i> |
| 16:30-16:45 17p-D4-7 Ultra-compact Polarization Splitter Based on a Multimode Interference Coupler with a Silicon Hybrid Plasmonic Waveguide <i>Xiaowei Guan, Hao Wu, Yaocheng Shi, Daoxin Dai 1; Zhejiang Univ., China</i> | 16:15-16:30 17p-D5-9 Experimental Demonstration of Spectral Estimation in Digital Holography <i>Peng Xia¹, Yasunori Ito¹, Yuki Shimozato¹, Tatsuki Tahara¹, Takashi Kakue¹, Yasuhiro Awatsuji¹, Kenzo Nishio¹, Shogo Ura¹, Toshihiro Kubota², Osamu Matoba³; ¹Kyoto Inst. of Technology, Japan, ²Kubota Holography Lab. Corporation, Japan, ³Kobe Univ., Japan</i> |
| | Break 16:30-16:45 |
| 16:45-17:00 17p-D4-8 Concentric Corrugations Enhanced Optical Antenna for Raman Scattering <i>Yi-Han Huang, Bo-Kai Chao, Chun-Hway Hsueh, Jia-Han Li; National Taiwan Univ., Taiwan</i> | 16:45-17:15 17p-D5-10 Invited Computational Imaging Technology for Nanolithography <i>Edmund Lam; Univ. of Hong Kong, China</i> |
| | 17:15-17:30 17p-D5-11 Horizontal and vertical triple-view display by use of three-layered LCD panels <i>Keitaro Uchida, Shiro Suyama, Hirotsugu Yamamoto; The Univ. of Tokushima, Japan</i> |
| | 17:30-17:45 17p-D5-12 Optical frequency comb profilometer for a large depth object <i>Quang Duc Pham, Yoshio Hayasaki; Utsunomiya Univ., Japan</i> |

Wednesday, Sept. 18

| D4 | D5 |
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| <p>9:00-11:45 18a-D4-1~8 Plasmonics: materials and devices (continued) Organizer: Prabhat Verma, Osaka Univ. Session Chairs: Hong Wei, Chinese Academy of Science (9:00-10:15) Takuo Tanaka, RIKEN (10:30-11:45)</p> | <p>9:30-12:00 18a-D5-1~7 Nonlinear Photonics Organizers: Sunao Kurimura, NIMS Masashi Yoshimura, Osaka Univ. Session Chair: Sunao Kurimura, NIMS</p> |
| <p>9:00-9:30 18a-D4-1 Invited Plasmonics in organic light-emitting diodes <u>Takayuki Okamoto; RIKEN, Japan</u></p> | |
| <p>9:30-10:00 18a-D4-2 Invited Design of plasmon fields using nano-fabrication techniques and femtosecond light pulses <u>Atsushi Kubo; Univ. of Tsukuba, Japan</u></p> | <p>9:30-9:45 18a-D5-1 The correlation of point defects and UV induced degradation of CsLiB6O10 <u>Kazuki Masuda^{1,2}, Masashi Yoshimura^{1,2}, Kei Takachiho^{1,2}, Yoshinori Takahashi^{1,2}, Mamoru Imade¹, Takatomo Sasaki^{1,2}, Yusuke Mori^{1,2}; ¹Osaka Univ., Japan, ²CREST-JST, Japan</u></p> |
| <p>10:00 -10:15 18a-D4-3 Blur suppression of a holographic image with use of surface plasmons <u>Miyu Ozaki^{1,2}, Jun-ichi Kato², Satoshi Kawata^{2,3}; ¹Tokyo Denki Univ., Japan, ²RIKEN, Japan, ³Osaka Univ., Japan</u></p> | <p>9:45-10:00 18a-D5-2 The correlation between optical properties and electrical properties of CsLiB6O10 crystal <u>Zhiming Lu^{1,2}, Masashi Yoshimura^{1,2}, Yoshinori Takahashi^{1,2}, Mamoru Imade¹, Takatomo Sasaki^{1,2}, Yusuke Mori^{1,2}; ¹Osaka Univ., Japan, ²CREST-JST, Japan</u></p> |
| <p>Break 10:15-10:30</p> | <p>Break 10:15-10:30</p> |
| <p>10:30 -10:45 18a-D4-4 Efficient Optical Modulation of Terahertz Metamaterial Based on Charge Transfer at Organic/Inorganic Semiconductor Interface <u>Tatsunosuke Matsui^{1,2}, Ryosuke Takagi¹, Keisuke Takano³, Masanori Hangyo³; ¹Mie Univ., Japan, ²Mie CUTE, Japan, ³ILE, Osaka Univ., Japan</u></p> | <p>10:00-10:15 18a-D5-3 VUV Light Generation with CLB6O10 and LB3O5 <u>Chen Qu^{1,2}, Masashi Yoshimura^{1,2}, Jun Tsunoda^{1,2}, Yushi Kaneda^{1,2,3}, Mamoru Imade¹, Takatomo Sasaki^{1,2}, Yusuke Mori^{1,2}; ¹Osaka Univ., Japan, ²Core Research for Evolutional Science and Technology (CREST), Japan, ³The Univ. of Arizona, U.S.A.</u></p> |
| <p>10:45 -11:00 18a-D4-5 Plasmonic enhancement of electric and magnetic dipole emissions at telecommunication wavelengths on metasurfaces <u>Bongseok Choi, Masanobu Iwanaga, Hideki T. Miyazaki, Yoshimasa Sugimoto, Kazuaki Sakoda; National Inst. for Materials Science (NIMS), Japan</u></p> | <p>10:30-11:00 18a-D5-4 Invited Development of large-size LBO crystal growth <u>Zhangqui Hu; Technical Inst. of Physics and Chemistry, CAS, China</u></p> |
| <p>11:00 -11:15 18a-D4-6 Electromagnetically Induced Transparency by Tuning of Dark Mode Resonators for Active Terahertz Metamaterials <u>Jumpei Hirohata, Yosuke Ueba, Masashi Miyata, Junichi Takahara; Osaka Univ., Japan</u></p> | <p>11:00-11:15 18a-D5-5 Characterization of 8 mol% Mg-doped congruent LiTaO₃ crystal for high-energy quasi-phase matching device <u>Hideki Ishizuki, Takunori Taira; Inst. for Molecular Science, Japan</u></p> |

Wednesday, Sept. 18 (continued)

| D4 | D5 |
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| <p>9:00-11:45 18a-D4-1~8 Plasmonics: materials and devices (continued) Organizer: Prabhat Verma, Osaka Univ. Session Chairs: Takuo Tanaka, RIKEN (10:30-11:45)</p> | <p>9:30-12:00 18a-D5-1~7 Nonlinear Photonics (continued) Organizers: Sunao Kurimura, NIMS Masashi Yoshimura, Osaka Univ. Session Chair: Sunao Kurimura, NIMS</p> |
| <p>11:15 -11:30 18a-D4-7 Three-dimensional Split-Ring Resonators for Isotropic Magnetic Metamaterials <i>Che Chin Chen^{1,2}, Atsushi Ishikawa², Takuo Tanaka^{2,3}, Yu-Hsiang Tang¹, Ming-Hua Shiao¹, Din Pin Tasi⁴; ¹National Applied Research Labs., Taiwan, ²RIKEN, Japan, ³Hokkaido Univ., Japan, ⁴Academia Sinica, Taiwan</i></p> | <p>11:15-11:30 18a-D5-6 Photo-thermal Effects in High-Power QPM Wavelength Conversion <i>Hwan Hong Lim¹, Sunao Kurimura¹, Wataru Nagashima^{1,2}, Keisuke Noguchi^{1,2}, Ichiro Shoji²; ¹National Institute for Materials Science (NIMS), Japan, ²Chuo Univ., Japan</i></p> |
| <p>11:30 -11:45 18a-D4-8 Plasmon Coupling between Gold Curvilinear Nanorods and Straight Nanorods at Different Distances <i>Yukie Yokota¹, Takuo Tanaka^{1,2}; ¹RIKEN, Japan, ²Hokkaido Univ., Japan</i></p> | <p>11:30-12:00 18a-D5-7 Invited Monolithic PPLN Bragg Q-switch and Wavelength Converter <i>Shou-Tai Lin, Guey-Wu Chang, Yen-Chieh Huang; National Tsinghua Univ., Taiwan</i></p> |
| <p>Lunch 11:45-13:00</p> | <p>Lunch 12:00-13:00</p> |
| | <p>13:00-14:00 18p-D5-1 Invited OSA President Special Lecture Multi-frequency Raman Generation with Chirped Pumping <i>Donna Strickland; Univ. of Waterloo, Canada</i></p> |
| | <p>Break 14:00-14:30</p> |
| <p>14:30 -17:45 18p-D4-1~11 Plasmonics: materials and devices (continued) Organizer: Prabhat Verma, Osaka Univ. Session Chair: Takayuki Okamoto, RIKEN (14:30-15:45)</p> | <p>14:30-17:45 18p-D5-2~10 Nonlinear Photonics (continued) Organizers: Sunao Kurimura, NIMS Masashi Yoshimura, Osaka Univ. Session Chair: Masashi Yoshimura, Osaka Univ. (14:30-16:00)</p> |
| <p>14:30-14:45 18p-D4-1 Surface plasmon assisted IR transmission switching on Au nano-particles embedded VO₂ thin film <i>Takuo Tanaka^{1,2}; ¹RIKEN Metamaterials Lab., Japan, ²RIES Hokkaido Univ., Japan</i></p> | <p>14:30-15:00 18p-D5-2 Invited High-Speed Electro-Optic Modulators Utilizing Polarization Reversal Structures <i>Hiroshi Murata; Osaka Univ., Japan</i></p> |
| <p>14:45-15:00 18p-D4-2 Fabrication of Plasmonic Spectral Filter for Ubiquitous Photonics (2) <i>Kensuke Murai¹, Yasushi Oshikane², Fumihiko Yamamoto², Motohiro Nakano²; ¹National Inst. of Advanced Industrial Science and Technology, Japan, ²Osaka Univ., Japan</i></p> | |
| <p>15:00-15:15 18p-D4-3 Effects of Anions on Oxidation of Au-Ag Core-Shell Nanorods <i>Yuki Hamasaki¹, Naotoshi Nakashima^{1,2,3}, Yasuro Niidome¹; ¹Kyushu Univ., Japan, ²WPI-I2CNER, Japan, ³JST-CREST, Japan</i></p> | <p>15:00-15:15 18p-D5-3 A novel TiO₂/electro-optic polymer waveguide modulator <i>Feng Qiu¹, Isao Aoki², Akira Omoto², Shiyoshi Yokoyama¹; ¹Kyushu Univ., Japan, ²NICT, Japan</i></p> |

Wednesday, Sept. 18 (continued)

| D4 | D5 |
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| <p>14:30 -17:45 18p-D4-1~11 Plasmonics: materials and devices (continued) Organizer: Prabhat Verma, Osaka Univ. Session Chair: Atsushi Kubo, Univ. of Tsukuba (16:15-17:45)</p> <p>15:15-15:30 18p-D4-4 Fiber optic ammonia gas sensor utilizing surface plasmon resonance of reduced graphene oxide <u>Satyendra Kumar Mishra, Sandeep Tripathi, Veena Choudhary, Banshi Dhar Gupta; Indian Inst. of Technology, New Delhi, India</u></p> <p>15:30-15:45 18p-D4-5 Synthesis of Si/Ni composites as negative material of Li-ion battery using PS-PVD <u>Naren Gerile; The Univ. of Tokyo, Japan</u></p> <p style="text-align: center;">Break 15:45-16:15</p> <p>16:15-16:30 18p-D4-6 Plasmonic Gas Sensor <u>Yoshiaki Nishijima¹, Yuta Adachi¹, Lorenzo Rosa², Saulius Juodkazis^{2,3}; ¹Yokohama National Univ., Japan, ²Swinburne Univ. of Technology, Australia, ³The Australian National Fabrication Facility - ANFF, Australia</u></p> <p>16:30-16:45 18p-D4-7 Study on the Chemical Sensor Using Excitation of the Surface Plasmon Polariton with the GaP-Au Contact <u>Shohei Nakamura, Atsushi Motogaito, Hideto Miyake, Kazumasa Hiramatsu; Mie Univ., Japan</u></p> <p>16:45-17:00 18p-D4-8 Fiber optic hydrogen gas sensor utilizing surface plasmon resonance of nickel oxide doped indium-tin oxide (ITO) thin films <u>Satyendra Kumar Mishra, Samta Rani, Banshi Dhar Gupta; Indian Inst. of Technology, New Delhi, India</u></p> <p>17:00 -17:15 18p-D4-9 Saturable and Reverse Saturable Scattering of a Single Gold Nanoparticle <u>Yen-Ta Huang¹, Yasuo Yonemaru², Tung-Yu Su¹, Masahito Yamanaka², Hsueh-Yu Wu¹, Satoshi Kawata², Katsumasa Fujita², Shi-Wei Chu¹; ¹National Taiwan Univ., Taiwan, ²Osaka Univ., Japan</u></p> <p>17:15 -17:30 18p-D4-10 Strong coupling of defect levels in In₂S₃ nanoclusters due to plasmonic interactions <u>Anita R. Warrier, Jayachandra Bingi, Vidhya S., Vijayan C.; Indian Inst. of Technology Madras, India</u></p> <p>17:30 -17:45 18p-D4-11 Surface plasmon induced blue shift in the emission of Coumarin 153 <u>Jayachandra Bingi, Anita R. Warrier, Vidhya S., Vijayan C.; Indian Inst. of Technology Madras, India</u></p> | <p>14:30-17:45 18p-D5-2~10 Nonlinear Photonics (continued) Organizers: Sunao Kurimura, NIMS Masashi Yoshimura, Osaka Univ. Session Chair: Yuji Oki, Kyushu Univ. (16:15-17:45)</p> <p>15:15-15:30 18p-D5-4 Millimeter Wave Generation Using Spontaneous Four Wave Mixing <u>HanLung Kuo, WenPiao Lin; Chang Gung Univ., Taiwan</u></p> <p>15:30-16:00 18p-D5-5 Invited Highly functional ultrashort pulse fiber laser sources and application for ultrahigh resolution optical coherence tomography <u>Norihiko Nishizawa; Nagoya Univ., Japan</u></p> <p style="text-align: center;">Break 16:00-16:15</p> <p>16:15 -16:45 18p-D5-6 Invited Dispersion Engineering towards Ultra Broadband Supercontinuum generation in Soft glass based High-Index-Core Bragg Fiber <u>Sudip Kumar Chatterjee, Saba Nashreen Khan, Partha Roy Chaudhuri; Indian Inst. of Technology, Kharagpur, India</u></p> <p>16:45 -17:00 18p-D5-7 Dispersion of the third order nonlinear optical response of Ag nanoparticles with different sizes <u>Rodrigo Sato; Univ. of Tsukuba, Japan</u></p> <p>17:00 -17:15 18p-D5-8 Stimulated Raman Scattering Imager Using Lateral Electric Field Charge Modulator <u>Kamel Mars¹, Beak Guseul¹, Hang Sang Man¹, Taishi Takasawa¹, Keita Yasutomi¹, Keiichiro Kagawa¹, Mamoru Hashimoto², Shoji Kawahito¹; ¹Shizuoka Univ., Japan, ²Osaka Univ., Japan</u></p> <p>17:15 -17:30 18p-D5-9 Coherent Random lasing from CdSe/CdS/ZnS quantum dots <u>Yue Wang¹, Yuan Gao¹, Van Duong Ta¹, Hilmie Volkan Demir¹, Dong Han Sun¹; Nanyang Technological Univ., Singapore</u></p> <p>17:30 -17:45 18p-D5-10 Exact surface plasmon dispersion incorporating nonlinear effects due to ponderomotive potential in metal/dielectric structure <u>Ming Yip Li¹, Pak Ming Hui¹, Yu Hang Lai²; ¹The Chinese Univ. of Hong Kong, China, ²The Ohio State Univ., USA</u></p> |

Thursday, Sept. 19

| D4 | D5 |
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| <p>10:00-12:30 19a-D4-1~7 Biophotonics Organizer: Katsumasa Fujita, Osaka Univ. Session Chair: Katsumasa Fujita, Osaka Univ.</p> | <p>9:00-12:00 19a-D5-1~8 Optical Micro-sensing, Manipulation, and Fabrications Organizer: Tsutomu Shimura, The Univ. of Tokyo Session Chair: Yoshio Hayasaki, Utsunomiya Univ.</p> |
| <p>10:00-10:30 19a-D4-1 Invited Enhancing Stimulated Emission based Fluorescence Detection with Interferometric Setup <u>Fu-Jen Kao, Po-Lin Lin, Jia-Huei Deng; National Yang-Ming Univ., Taiwan</u></p> | <p>9:00-9:30 19a-D5-1 Invited Statistical Analysis of Transiently Trapped Multiple Nanoparticles in Optical Confinement <u>Jinxin Fu, H. Daniel Ou-Yang; Lehigh Univ., USA</u></p> |
| <p>10:30-10:45 19a-D4-2 Towards multicolor correlative light and cathodoluminescence imaging with using upconversion nanophosphors <u>Shoichiro Fukushima¹, Taichi Furukawa¹, Hirohiko Nioka¹, Masayoshi Ichimiya^{1,2}, Tomohiro Nagata³, Jun Miyake¹, Masaaki Ashida¹, Tsutomu Araki¹, Mamoru Hashimoto¹; ¹Osaka Univ., Japan, ²Osaka Dental Univ., Japan, ³ULVAC, Inc., Japan</u></p> | <p>9:30-9:45 19a-D5-2 Shaping of the trapping volume in optical tweezers using cylindrical vector beams <u>Susan E. Skelton¹, Marios Sergides², Rosalba Sajja^{3,4}, Maria Antonia Iati⁴, Onofrio M. Marago⁴, Philip H. Jones²; ¹Osaka Univ., Japan, ²Univ. College London, UK, ³Univ. di Messina, Italy, ⁴Istituto per i Processi Chimico-Fisici, Italy</u></p> |
| <p>10:45-11:00 19a-D4-3 Fluorescent Nano Diamonds for High Spatial Resolution Live Cell Imaging by Direct Electron Beam Excitation <u>Yasunori Nawa^{1,2}, Wataru Inami³, Aki Miyake¹, Atsushi Ono^{1,3}, Sheng Lin¹, Yoshimasa Kawata^{1,3}, Susumu Terakawa^{3,4}, Chia-Yi Fang⁵, Huan-Cheng Chang⁵; ¹Shizuoka Univ., Japan, ²JSPS Research Fellow, Japan, ³JST CREST, Japan, ⁴Hamamatsu Univ. Sch. Med., Japan, ⁵IAMS, Academia Sinica, Taiwan</u></p> | <p>9:45-10:00 19a-D5-3 Realization of structural color via direct laser writing in photoresists <u>Vygantas Mizeikis¹, Vytautas Purlys²; ¹Shizuoka Univ., Japan, ²Vilnius Univ., Lithuania</u></p> |
| <p>Break 11:00-11:15</p> | <p>10:00-10:15 19a-D5-4 Transformation Optics Based Lift for Large View-Angle, Phase-Undisturbed Optical Imaging <u>Chia-Wei Chu^{1,2}, Jui Chang Tsai¹, Zhi Chen^{3,4}, Yu-Bo Duan^{3,4}, Tiancheng Han⁵, Cheng Wei Qiu⁴, George Barbastathis^{3,6}, Baile Zhang⁷, Yuan Luo^{1,2}; ¹National Taiwan Univ. College of Medicine, Taiwan, ²National Taiwan Univ., Taiwan, ³Singapore-MIT Alliance for Research and Technology (SMART) Center, Singapore, ⁴National Univ. of Singapore, Singapore, ⁵Southwest Univ., China, ⁶Massachusetts Inst. of Technology, Cambridge, USA, ⁷Nanyang Technological Univ., Singapore</u></p> |
| | <p>10:15-10:30 19a-D5-5 Improvement of the 2D Single-shot Tomography and Profilometry for a Scattered Media <u>Tuan Quoc Banh¹, Tatsutoshi Shioda²; ¹Nagaoka Univ. of Technology, Japan, ²Saitama Univ., Japan</u></p> |
| | <p style="text-align: right;">Break 10:30-10:45</p> |
| | <p>10:45-11:15 19a-D5-6 Invited Analysis on Spatial-Nonstationary Brownian Dynamics by Low-Coherence Interferometric Dynamic Light Scattering <u>Toshiaki Iwai, Toshiharu Watarai; Tokyo Univ. of Agriculture and Technology, Japan</u></p> |

Thursday, Sept. 19 (continued)

| D4 | D5 |
|--|---|
| <p>10:00-12:30 19a-D4-1~7 Biophotonics (continued) Organizer: Katsumasa Fujita, Osaka Univ. Session Chair: Katsumasa Fujita, Osaka Univ.</p> | <p>9:00-12:00 19a-D5-1~8 Optical Micro-sensing, Manipulation, and Fabrications (continued) Organizer: Tsutomu Shimura, The Univ. of Tokyo Session Chair: Yoshio Hayasaki, Utsunomiya Univ.</p> |
| <p>11:15-11:45 19a-D4-4 Invited Superstrong luminescent protein for high speed imaging at single cell and whole body level <u>Takeharu Nagai</u>^{1,2}; ¹ISIR, Osaka Univ., Japan, ²PRESTO, JST, Japan</p> | <p>11:15-11:30 19a-D5-7 Optical metrology of an isolated crystalline zinc oxide microsphere on a gold substrate <u>Huai Yi Xie</u>, <u>Yia Chung Chang</u>; Academia Sinica, Taipei, Taiwan</p> |
| <p>11:45-12:00 19a-D4-5 Cellular metabolism reveal through NADH autofluorescence lifetime in response to laser engraved geometrical constrains <u>Gitanjal Deka</u>¹, <u>Kazunori Okano</u>², <u>Fu-Jen Kao</u>¹; ¹National Yang-Ming Univ., Taipei, Taiwan, ²National Chiao Tung Univ., Hsinchu, Taiwan</p> | <p>11:30-11:45 19a-D5-8 AFM-based optical force spectroscopy of plasmonic nanostructures <u>Taka-aki Yano</u>, <u>Tomohiro Hayashi</u>, <u>Masahiko Hara</u>; Tokyo Inst. of Technology, Japan</p> |
| <p>12:00-12:15 19a-D4-6 Nonlinear Deep-UV excitation microscopy for high-resolution multicolor imaging of fluorescent proteins <u>Masahito Yamanaka</u>, <u>Kenta Saito</u>, <u>Nicholas Isaac Smith</u>, <u>Satoshi Kawata</u>, <u>Takeharu Nagai</u>, <u>Katsumasa Fujita</u>; Osaka Univ., Japan</p> | <p>11:45-12:00 19a-D5-9 Precise and stable polarization control in a tightly focusing system for accurate characterization of strained Silicon nanostructures <u>Maria Vanessa Balois</u>^{1,2}, <u>Norihiko Hayazawa</u>^{1,2}, <u>Alvarado Tarun</u>¹, <u>Oussama Moutanabbir</u>^{1,3}, <u>Satoshi Kawata</u>^{1,4}; ¹RIKEN, Japan, ²Tokyo Inst. of Technology, Japan, ³Ecole Polytechnique de Montreal, Canada, ⁴Osaka Univ., Japan</p> |
| <p>12:15-12:30 19a-D4-7 Determining the diffusion coefficient of fluorescent beads through phasor-FLIM <u>Alireza Lajevardipour</u>, <u>Andrew Clayton</u>; Swinburne Univ. of Technology, Australia</p> | |
| <p>Lunch 12:30-14:00</p> | |

Thursday, Sept. 19 (continued)

| D4 | D5 |
|--|----|
| <p>14:00-17:00 19p-D4-1~10 Biophotonics (continued) Organizer: Katsumasa Fujita, Osaka Univ. Session Chairs: Hiroshi Kano, Muroran Inst. of Technology (14:00-15:30) Nicholas I. Smith, Osaka Univ. (15:45-17:00)</p> <p>14:00–14:30 19p-D4-1 Invited Multimodal nonlinear optical microscopy for label-free imaging of liver tissue <i>J. Lin, W. Zheng, Z. Wang, <u>Zhiwei Huang</u>; National Univ. of Singapore, Singapore</i></p> <p>14:30–14:45 19p-D4-2 Label-free Imaging of Mouse Cancer Tissues by High-speed Stimulated Raman Spectral Microscope <i>Yoichi Otsuka¹, Shuya Satoh¹, Masafumi Kyogaku¹, Hiroyuki Hashimoto¹, Yasuyuki Ozeki², Kazuyoshi Itoh³; Canon Inc., Japan¹, The Univ. of Tokyo, Japan², Osaka Univ., Japan³</i></p> <p>14:45–15:00 19p-D4-3 Multimodal Raman Imaging and Analysis for Label-free measurement of cellular structure and dynamics <i>Nicholas I. Smith, Alison J. Hobro, Nicolas Pavillon; Osaka Univ., Japan</i></p> <p>15:00–15:15 19p-D4-4 Revealing Molecular Structure and Orientation with Stokes Vector Resolved Second Harmonic Generation Microscopy <i>Nirmal Mazumder, Lu Yun Xiang, Jianjun Qiu, Fu Jen Kao; National Yang Ming Univ., Taiwan</i></p> <p>15:15–15:30 19p-D4-5 Watching bioactive small molecules in live cells by alkyne-tag Raman imaging <i>Almar Flotildes Palonpon^{1,3}, Hiroyuki Yamakoshi^{1,2}, Kosuke Dodo^{1,2}, Jun Ando^{1,2}, Satoshi Kawata^{2,3}, Katsumasa Fujita^{1,3}, Mikiko Sodeoka^{1,2}; ¹JST-ERATO, Japan, ²RIKEN, Japan, ³Osaka Univ., Japan</i></p> <p style="text-align: center;">Break 15:30–15:45</p> <p>15:45–16:00 19p-D4-6 Liposome-silver nanoparticles hybrids as SERS traceable drug carrier <i>Dan Zhu, Zhuyuan Wang, Shenfei Zong, Xin Wu, Yuwei Pei, Peng Chen, Xueqin Ma, Yiping Cui; Southeast Univ., China</i></p> <p>16:00–16:15 19p-D4-7 3D Dynamic SERS Imaging of Intracellular Transport Pathways <i>Kazuki Bando, Katsumasa Fujita, Nicholas Smith, Jun Ando, Satoshi Kawata; Osaka Univ., Japan</i></p> | |

Thursday, Sept. 19 (continued)

| D4 | D5 |
|---|----|
| <p>14:00-17:00 19p-D4-1~10 Biophotonics (continued) Organizer: Katsumasa Fujita, Osaka Univ. Session Chair:Nicholas I. Smith, Osaka Univ. (15:45-17:00)</p> <p>16:15–16:30 19p-D4-8 Gold Nanoparticles Assembled on Silver Nanoprisms: Its Application to SERS-based DNA Detection in Aqueous Solutions <i>Min Liu, Zhuyuan Wang, Shenfei Zong, Hui Chen, Dan Zhu, Yiping Cui; Southeast Univ., China</i></p> <p>16:30–16:45 19p-D4-9 Interfacial imaging between cell and substrate by localized surface plasmon microscopy toward live observation of cell adhesion sites <i>Jun Ning¹, Sho Ichihashi¹, Koji Matsuura², Hiroshi Kano¹; ¹Muroran Inst. of Technology, Japan, ²Okayama Univ., Japan</i></p> <p>16:45–17:00 19p-D4-10 Real-time observation of DNA conformational change using gold nanodimers <i>Hiroyuki Morimura¹, Hidekazu Ishitobi¹, Tomoyuki Mikami¹, Yusuke Kamachi¹, Hisato Kondoh¹, Yasushi Inouye¹; Osaka Univ., Japan</i></p> | |

NOTES

Other English Sessions

Monday, Sept. 16

- 9:00 am-6:00 pm, Room M1-M8; 2013 JSAP-MRS Joint Symposia (See the official guidebook for detailed program)
- 1:00 pm-2:40 pm, Room D2; Special Talks by JSAP Fellow International
- 1:00 pm- 5:30 pm, Room C15; Regular Session – 10.4 Semiconductors, organic, optical and quantum spintronics

Tuesday, Sept. 17

- 9:00 am-7:00 pm, Room M1-M8; 2013 JSAP-MRS Joint Symposia (See the official guidebook for detailed program)
- 1:00 pm-2:00 pm, M8; Fred Kavli Distinguished Lecture in Nanoscience
- 1:00 pm-3:30 pm, Room C15; 10.4 Semiconductors, organic, optical and quantum spintronics

Wednesday, Sept. 18

- 9:00 am-6:30 pm, Room M1-M8; 2013 JSAP-MRS Joint Symposia (See the official guidebook for detailed program)
- 9:00 am-12:30 pm, Room C7; Regular Session - 6.4 New thin-film materials
- 9:00 am-11:45 am, Room C15; Regular Session – 10.1 Creation of new materials
- 1:30 pm-5:30 pm; Room C7; International Symposium on the Ultra-functionalities of Oxide Heterostructures and Nanocomopsites

Thursday, Sept. 19

- 9:00 am-6:15 pm, Room M1-M8 ; 2013 JSAP-MRS Joint Symposia (See the official guidebook for detailed program)
- 9:00 am-3:00 pm, Room C15; Regular Session – 10.3 Giant magnetoresistance (GMR), tunnel magnetoresistance (TMR) and magnetic recording technologies

Friday, Sept. 20

- 9:00 am-3:00 pm, Room M1-M8; 2013 JSAP-MRS Joint Symposia (See the official guidebook for detailed program)
- 9:00 am-2:15 pm, Room C15; Regular Session – 10.2 Spin torque, spin current, circuits and measurement technologies
- 9:00 am-12:00 pm, Room C7; International Symposium on the Ultra-functionalities of Oxide Heterostructures and Nanocomopsites

NOTICE

The 75th JSAP Autumn Meeting 2014

Dates: Sept. 17(Wed.)–20(Sat.), 2014

Venue: Hokkaido University, Sapporo Campus

■ JSAP-OSA Joint Symposia 2014

Details to be announced in early April, 2014.

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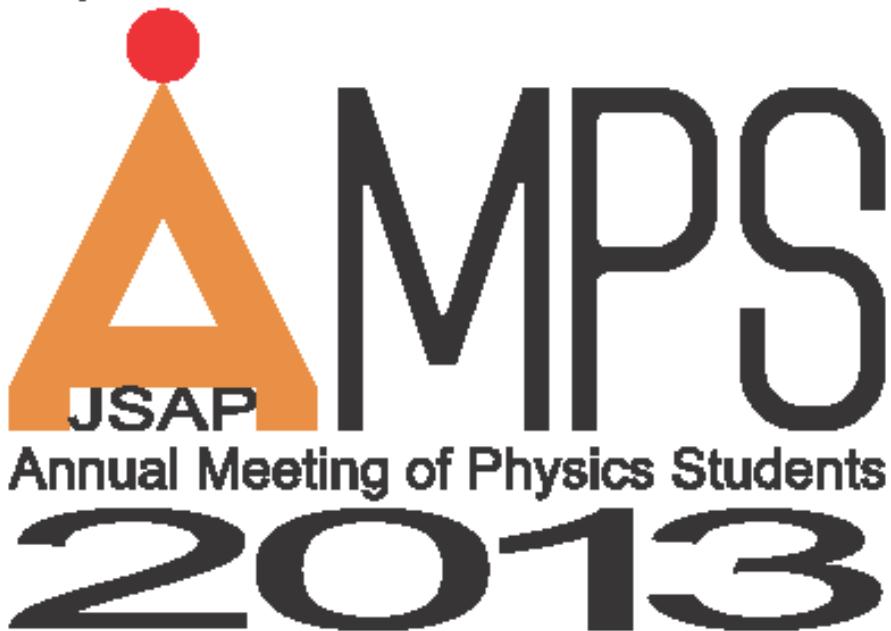
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JSAP

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18th Sept. 16:30~@Doshisha Univ.



16:30~17:30 **Upskilling presentation skill seminar**
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Vegetarian foods available

For students & Postdocs
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Pre-registration page



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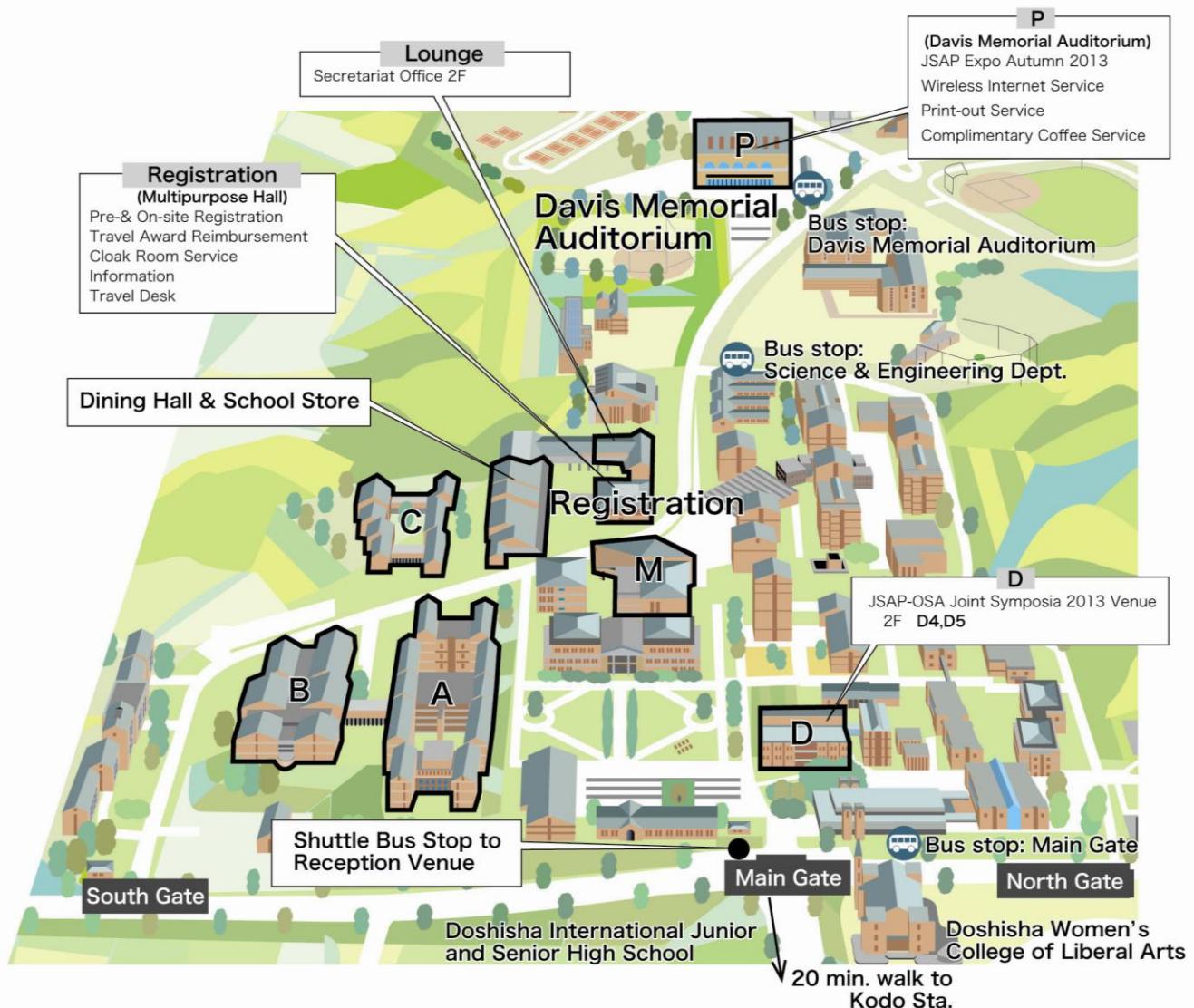


VENUE

Doshisha Univ.
Kyotanabe Campus
Lounge bldg. 1F,
RIBLE



Venue Map



JSAP-OSA Joint Symposia 2013 (The 74th JSAP Autumn Meeting 2013)

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