

SESSION A: PHOTONICS AND APPLICATIONS
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<i>November 27, 2012 (Tuesday)</i>

Chairperson: Dr. Tadaaki Nagao (NIMS, Japan)

Dr. Hoang Dung (VNU HoChiMinh)

- (A-01)
13:30 - 13:55 **SPIN-POLARIZED ORGANIC LIGHT EMITTING DIODE BASED ON A NOVEL BIPOLAR SPIN-VALVE**
(Invited talk)
Tho D. Nguyen
University of Georgia, Athens, Georgia, USA
- (A-02)
13:55 - 14:20 **OD HYBRID ORGANIC-INORGANIC POLARITONS AT ROOM TEMPERATURE**
(Invited talk)
Hai-Son NGUYEN*, Zheng HAN, Fabien BOITIER, Yi WEI, Jean-Sébastien LAURET, Sophie BOUCHOULE, Jacqueline BLOCH and Emmanuelle DELEPORTE
Laboratoire de Photonique et de Nanostructures, Marcoussis. France
- (A-03)
14:20 - 14:45 **PLANAR DEFECT EMBEDDED IN ARTIFICIAL OPALS: SYNTHESIS AND OPTICAL PROPERTIES**
(Invited talk)
Phan Ngoc Hong, Z. Guennouni-Assimi, R. Farha, M-C. Fauré, M. Goldmann, P. Benalloul, L. Coolen, A. Maître, Catherine Schwob
Institut des NanoScience de Paris, Uni. Pierre et Marie Curie, Paris. France.
- (A-04)
14:45 - 15:00 **UNPOLARIZATION OF ALL-OPTICAL SWITCHES BASED ON GIUSED-MODE RESONANCES IN PHOTONIC CRYSTAL SLABS**
Hoang Thu Trang, Ngo Quang Minh and Vu Dinh Lam
Institute of Materials Science, VAST. VN
- (A-05)
15:00 – 15:15 **INVESTIGATION OF ENHANCED LIGHT EXTRACTION IN HEXAGONAL PHOTONIC CRYSTAL LIGHT-EMITTING DIODE BY USING FDTD SIMULATION**
Vu Ngoc Hai
NTT Institute of Hi-Technology, Nguyen Tat Thanh College, HCM city. VN
- 15:15 – 15:30 **Coffee break**

Chairperson: Dr. Nobuhiko Sarukura (ILE, Osaka Uni., Japan)

Dr. Le Vu Tuan Hung (VNU HoChiMinh)

- (A-06)
15: 30 – 15: 55 **THE LIMITS OF HIGH-POWER DIODE LASERS IN TERMS OF RELIABILITY**
(Invited talk)
Jens W. Tomm, Martin Hempel, and Thomas Elsaesser
Max-Born-Institute for nonlinear Optics and Short Pulse, Berlin. Germany
- (A-07)
15: 55 – 16: 20 **LASER INDUCED PLASMA IN NOBLE GASES TO SHAPE THE TEMPORAL PROFILE OF TRANSVERSELY EXCITED ATMOSPHERIC CO₂ LASER-BASED LIDAR**
(Invited talk)
Taieb Gasmî
Engineering & Nursing Saint Louis University, Madrid Campus. Spain
- (A-08)
16: 20- 16: 45 **FEATURES OF LASER DRIVEN ION ACCELERATION USING DIFFERENT TARGET TYPES**
(Invited talk)
Peter V. Nickles
Max-Born Institute, Berlin, Germany
Gwangju Institute of Science and Technology. Korea
- (A-09)
16: 45- 17: 00 **VACUUM ULTRAVIOLET OPTICAL CHARACTERISTICS INVESTIGATED USING EXTREME ULTRAVIOLET FREE ELECTRON LASER**
Yuki Shinzato, Kohei Yamanoi, Rtosuke nishi, Kohei Takeda, Tomoharu Nakazato, Toshihiko Shimizu, Nobuhiko Sarukura, Marilou Cadatal Raduban, Takayuki Yanagida, Yuui Yoshikawa, Mitsuru Nagasono, Tstsuya Ishikawa
Institute of Laser Engineering, Osaka University. Osaka, Japan
- (A-10)
17: 00- 17: 15 **DEPENDENCE OF DFB LASER WIDTH ON OPTICAL OUTPUT POWER: STUDY CASE OF 780 NM HIGH POWER RW-DFB DIODE LASERS**
Thanh phuong Nguyen and Tran Quoc Tien
IMS, VAST
- (A-11)
17: 15- 17: 30 **MULTIWAVELENGTH FIBER LASER BASED ON NONLINEAR POLARIZATION ROTATION**
Nurul Shahrizan Shahabuddin and Sulaiman Wadi Harun
University of Malaya, Kuala Lumpur. Malaysia
- 18:00 CONFERENCE PARTY**

SESSION A: PHOTONICS AND APPLICATIONS
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<i>November 28, 2012 (Wednesday)</i>

Chairperson: Prof. Dr. Carole Diederichs (ENS Paris. France)

Dr. Nguyen Hai Son (IOP, VietNam)

- (A-12)
08:30 – 08: 55 **SHAPING LIGHT WITH PLASMONIC STRUCTURES AND METAMATERIALS**
(Invited talk)
Yuri Kivshar
Nonlinear Physics Centre Research School of Physics and Engineering, The Australian National University. Australia
- (A-13)
08:55 – 09: 20 **PLASMONS IN ATONOMIC-SCALE/NANOSCALE OBJECTS AND THEIR APPLICATIONS**
(Invited talk)
Tadaaki NAGAO
International Center for Materials Nanoarchitectonics (MANA), National Institute for Materials Science (NIMS), Tsukuba. JAPAN
- (A-14)
09: 20 – 09: 45 **SCATTERING CROSS SECTION FOR METAMATERIALS**
(Invited talk)
Chia-Chu Chen
National Cheng-Kung University. Tainan, Taiwan.
- (A-15)
09: 45 – 10: 00 **PREPARATION AND CHARATERIZATION OF SILICA-GOLD CORE-SHELL (SiO₂@Au) NANOPARTICLES**
T. Ha Lien Nghiem, Tuyet Ngan Le, T. Hue Do, Hong Nhung Tran
Institute of Physics, VAST. VN
- (A-16)
10: 00 – 10: 15 **SURFACE ENHANCED RAMAN SCATTERING ON AU-AG ALLOY NANOPARTICLES**
Quang Dong Nguyen, Duc Dung Nguyen and The Binh Nguyen
Department of Physics, University of Science, VNU Hanoi, Vietnam
- (A-17)
10: 15 – 10: 30 **ACCURATE POTENTIAL ENERGY FOR THE 21II STATE OF NALI BY THE INVERTED PERTURBATION APPROACH**
N. Tien Dung, Le Canh Trung, Dinh Xuan Khoa, Nguyen Huy Bang*, Szczepkowski, W. Jastrzebski and P. Kowalczyk,
* Vinh University, Vinh, Vietnam
IOP, Polish Academy of Science, Poland.
- 10:30 – 10: 45** **Coffee Break**

Chairperson: Dr. Philippe Zeitoun (ENSTA, EPT France)

Dr. Nghiem Thi Ha Lien (IOP, VAST)

- (A- 18)
10: 45 – 11: 10 **CORRELATIVE DYNAMIC FLUORESCENCE MICROSCOPY TO ASSESS ANTIBIOTIC ACTIVITY IN BIOFILMS**
(Invited talk)
S. Daddi Oubekka, R. Briandet, K. Steenkeste and M.-P. Fontaine-Aupart
Institut des Sciences Moléculaires d'Orsay, Univ. Paris-Sud, Orsay. France
- (A-19)
11: 10 – 11: 35 **NANOSCALE ONE-SHOT MICROSCOPIC SURFACE PROFILOMETRY EMPLOYING DOUBLE-WAVELENGTH STIMULTANEOUS PHASE SHIFTING INTERFEROMETRY**
(Invited talk)
Liang Chia Chen, Phan Van Tiep, Abraham Mario Tapilouw, Shyh-Tsong Lin, Sheng-Lih Yeh, Pham Hong Tuan
National Taiwan University, Taipei. Taiwan
- (A- 20)
11: 35 – 11: 50 **ULTRAFAST OPTICAL AND X-RAY ABSORPTION STUDIES OF AQUEOUS IODIDE**
Van-Thai Pham*, Thomas J. Penfold, Renske M. van der Veen, Frederico Lima, Amal El Nahhas, Steve L. Johnson, Paul Beaud, Rafael Abela, Christian Bressler, Ivano Tavernelli, Christopher J. Milne and Majed Chergui
* Institute of Physics, VAST, Hanoi, Vietnam
Ecole Polytechnique de Lausanne. Switzerland
- (A-21)
11: 50 – 12: 05 **THE SENSITIVE DETECTION OF NITRIC OXIDE ADDRESSING ITS STRONG ELECTRONIC BAND BY FARADAY MODULATION SPECTROSCOPY**
Lemthong Lathdavong*, Jie Shao, Jonas Westberg, and O.Axnex
* Faculty of Science, Department of Physics, National University of Laos
Department of Physics, Umeå University, Sweden
- (A-22)
12: 05 – 12: 20 **VACUUM-ULTRAVIOLET FLUORESCENCE OF Nd³⁺:LuLiF₄ ARISING FROM THE 290-nm EXCITATION IS DUE TO TWO-PHOTON ABSORPTION**
Pham Hong Minh*, Kohei Yamanoi, Yuki Minami, Ryosuke Nishi, Yuki Shinzato, Mizuki Tsuboi, Luong Viet Mui, Tomoharu Nakazato, Toshihiko Shimizu, Nobuhiko Sarukura, Marilou Cadatal-Raduban, Yuui Yokota, Akira Yoshikawa
* Institute of Physics, VAST, Hanoi. Vietnam
Institute of Laser Engineering, Osaka University, Osaka. Japan
- (A-23)
12: 20 – 12: 35 **LUMINESCENCE CHARACTERISTICS OF TRIVALENT PRASEODYMINUM ION IN APLF GLASS**

Kohei Takeda, M. Tsuboi, M. Kouno, T. Nakazato, T. Shimizu, M. Cadatal-Raduban, K. Yamanoi, K. Sakai, R. Nishi, Y. Minami, Y. Arikawa, N. Sarukura, et al.

Institute of Laser Engineering, Osaka University, Suita, Osaka. Japan.

12: 35 – 13:30

Buffet Lunch

SESSION A: PHOTONICS AND APPLICATIONS

Chairperson: Prof. Dr. Sylvia Turrell (Lille Uni., France)

Dr. Lam Quang Vinh (VNU HoChiMinh)

(A-24)
13: 30 – 13: 55

COHERENT ULTRA-FAST X-RAY IMAGING, APPLICATION TO THE STUDY OF MAGNETIC NANO-SYSTEMS

(Invited talk)

Ph. Zeitoun, B. Vodungbo, G. Lambert, J. Luning

Laboratoire d'Optique Appliquée, ENSTA, Ecole Polytechnique, Palaiseau. France

(A-25)
13: 55 – 14: 20

IN SITU STUDY BY VIBRATIONAL SFG AND FLUORESCENCE CONFOCAL MICROSCOPY OF THE COMPETITION BETWEEN PROTEIN ADSORPTION AND BACTERIAL ADHESION ONTO SURFACE-GRAFTED ODT BRUSHES

(Invited talk)

E. Bulard, M-P. Fontaine-Aupart, H. Dubost, W. Zheng, M-N. Bellon-Fontaine, J-M. Herry and B. Bourquignon

Institut des Sciences Moléculaires d'Orsay, Univ Paris-Sud, Orsay. France.

(A-26)
14: 20 – 14: 35

LOW-COHERENT LIGHT SOURCE SAVART SHEARING INTERFEROMETER FOR SLOPE CONTOUR MEASUREMENTS

Memq-Chi Wei and Shyh-Tsong Lin

National Taipei University of Technology, Taipei. Taiwan

(A-27)
14: 35 - 14: 50

MEASURING THE TEMPERATURE IN THE ENVELOPE OF RED SUPERGIANT USING HIGH RESOLUTION SPECTROSCOPY OF MOLECULAR EMISSION BANDS

Dinh Van Trung

IOP, VAST

(A-28)
14: 50 - 15: 05

INVESTIGATION ON BANDWIDTH OF TUNABLE BANDPASS FILTER IN LINEAR MULTIWAVELENGTH BEFL

Amilia Mansoor, Marinah Othman, Hairul A. Abdul Rashid, Zulfadzli Yusoff

Multimedia University Jalan Multimedia, Cyberjaya, Selangor. Malaysia.

(A- 29) 15: 05 – 15: 20	SCANNING WHITE LIGHT NEWTON INTERFEROMETER FOR PLANE OPTICAL SURFACE MEASUREMENTS <u>Chung-HengLin and Shyh-Tsong Lin</u> National Taipei University of Technology (NTUT), Taipei. Taiwan
15:20 – 15- 35	Coffee Break
	<u>Chairperson: Dr. Doseok Kim (Sogan Uni., Korea)</u> <u>Dr. Thomas Pino (Paris 11 Uni., France)</u>
(A- 30) 15: 35 – 15: 50	MODELIZATION OF PLASMA-BASED SEEDED SOFT-X-RAY LASERS <u>Eduardo Oliva and Philippe Zeitoun</u> Laboratoire d'Optique Appliquée, ENSTA Paristech, Ecole Polytechnique Paristech, CNRS, Palaiseau. France
(A- 31) 15: 50 – 16: 05	COMPREHENSIVE LITERATURE REVIEW IN NANO-SCALE SUPER-RESOLUTION USING OPTICAL METHODS <u>Liang-Chia Chen*</u>, Minh-Quan Le, Shih-Tsong Lin, Sheng-Lih Yeh, Pham Hong Tuan, Hsiao-Hui Wu, Chia-Cheng Kuo National Taipei University of Technology (NTUT), Taipei. Taiwan
(A- 32) 16: 05 – 16: 20	IMPACT OF EXTINCTION RATIO IN LINEAR OPTICAL SAMPLING <u>Trung-Hien Nguyen</u>, Fausto Gomez-Agis, Mathilde Gay, Laurent Bramerie, Jean-Claude Simon and Olivier Sentieys CNRS Foton (UMR 6082), ENSSAT, Lannion Cedex. France
(A- 33) 16: 20 – 16: 35	INVESTIGATION OF SPECTRAL CHARACTERISTICS IN BROADBAND AND NARROWBAND LASER EMISSIONS FROM DIODE-PUMPED Cr:LiSAF LASERS USING MULTI-WAVELENGTH RATE EQUATIONS <u>Nguyen Van Hao, Pham Hong Minh, Do Q. Khanh et al.</u> IOP, VAST
16: 35 – 17: 30	POSTER I

SESSION A: PHOTONICS AND APPLICATIONS	
November 29, 2012 (Thursday)	

Chairperson: Prof. Dr. Taieb Gasmi (Saint- Louis Uni., Spain)

Dr. Thibault Sylvestre (Uni. Franche-Comte, France)

- (A-34)
08:30 – 08:55 **EFFECT OF ELABORATION PARAMETERS ON THE LOCALIZATION OF RARE-EARTH EMITTER SITES IN TIN SILICA SOLGEL DERIVED GLASS CERAMICS**
(Invited talk)
T.T. Van Tran, C. Kinowski, O. Cristini, B. Capoen, R. Almada, L. Santos, M. Ferrari, F. D’Acapito and Sylvia Turrell
LASIR, Lille University1. France
- (A-35)
08:55 – 09:20 **INFRARED EMISSION SPECTROSCOPY OF HIGHLY EXCITED AROMATIC MOLECULES**
(Invited talk)
Thomas Pino, G. Féraud, C. Falvo, P. Parneix and Ph. Bréchnignac
Institut des Sciences Moléculaires d’Orsay, Univ. Paris-Sud. France
- (A-36)
09:20 – 09:45 **CORRELATION ANALYSIS IN THE SINGLE MOLECULE FRET EXPERIMENT: REC A NUCLEOPROTEIN FILAMENT DYNAMICS**
(Invited talk)
Doseok Kim and SungHyun Kim
Sogan University, Seoul Korea.
- (A-37)
09:45 – 10:00 **SYNTHESIS AND OPTICAL CHARACTERIZATION OF ZnO MICRORIBBON WITH ULTRA WIDE (10 0) PARALLEL SURFACES GROWN BY CARBOTHERMAL REDUCTION METHOD**
Ray Vargas, Roland Sarmago, Kohei Yamanoi, Marilou Cadatal-Raduban, Toshihiko Shimizu and Nobuhiko Sarukura.
* National Institute of Physics University of the Philippines Diliman
Institute of Laser Engineering, Osaka University. Japan
- (A-38)
10:00 – 10:15 **A MWCNT/POLYISOPRENE COMPOSITE REINFORCED AN EFFECTIVE LOAD TRANSFER REFLECTED IN THE EXTENT OF POLYMER COATING**
Tonpheng Bounphanh^{1,2}, Junchun Yu, Gerhard Grobner, Ove Andersson
1)National University of Laos; 2)Umeå University, Sweden
- (A-39)
10:15 – 10:30 **FLUORESCENCE PROPERTIES OF Nd³⁺ DOPED GLASSES IN THE VUV REGION**
Kohei Yamanoi, Takahiro Murata, Yasunobu Arikawa, Tomoharu Nakazato, Marilou Cadatal-Raduban, Toshihiko Shimizu, Nobuhiko

Sarakura, Mitsuo Nakai, Hiroaki Nishimura, Hiroshi Azechi, Shigeru Fujino, Hideki Yoshida, Akira Yoshikawa, Nakahiro Satoh, Hirofumi Kan

Institute of Laser Engineering, Osaka University, Osaka 565-0871. Japan

(A-40)
10: 30 – 10: 45

SINGLE MOLECULE FOERSTER RESONANCE ENERGY TRANSFER (SMFRET) EXPERIMENTS WITH LABELED RECA PROTEINS

Duong Vu^{1,2}, *Sung Hyun Kim and Doseok Kim*

¹Center for Quantum and Electronics, Institute of Physics, VAST

²Department of Physics, Sogang University, South Korea

10: 45 – 11: 00

Coffee Break

11: 00 – 12:30

POSTER II

12: 30 - 13: 30

Buffet Lunch

Chairperson: Prof. Dr. Kohz Hakuta (Uni., Electro-Comm,Tokyo, Japan)

Prof. Dr. Duong Ai Phuong (VNU HoChiMinh)

(A- 41)
13: 30 – 13: 55

FIBRE-BASED BROADBAND BLACK LIGHT SOURCE

(Invited talk)

T. Sylvestre, M. W. Lee, A. R. Ragueh , B. Stiller, G. Fanjoux, B. Barviau, A. Mussot and A. Kudlinski

Institute Femto-st, Université de Franche-Comté, Besançon. France.

(A-42)
13: 55 – 14: 20

HIGH POWER LASING SINGLE-MODES OF ERBIUM-DOPED SILICA MICROCAVITY LASERS

(Invited talk)

Pham Van Hoi, Bui Huy, Pham Thanh Son, Nguyen The Anh, Le Huu Thang, Bui Trung Ninh, Roberto Coisson, and Nguyen Thuy Van

IMS, VAST

(A-43)
14: 20 – 14: 35

SENSITIVITY ENHANCEMENT IN LONG-RANGE DISTRIBUTED BRILLOUIN FIBER SENSOR USING ANTI-STOKES SINGLE-SIDEBAND SUPPRESSED-CARRIER MODULATION AND BIDIRECTIONAL EDFA

Duc Minh Nguyen, B. Stiller, J. C. Beugnot, H. Maillotte, T. Sylvestre, A. Mottet and J. Hauden

Institute Femto-st, Université de Franche-Comté. Besançon cedex, France.

(A-44) 14: 35 – 14: 50	TWO-COLOR HOLOGRAPHIC RECORDING IN Tm AND Pr - DOPED LiNbO3 <i>Van-Thai Pham, SunKyun Lee, Minh-Tuan Trinh, Ki-Soo Lim, K. Polgár</i> IOP, VAST Chungbuk National University. Korea
(A- 45) 14: 50 – 15: 05	SUPPRESSION METHOD OF CLADDING MODES IN BEND- INSENSITIVE FIBER USING FOR FTTH TECHNOLOGY <i>Vu Ngoc Hai</i> NTT Institute of Hi-Technology, Nguyen Tat Thanh College, VN.
(A- 46) 15: 05 – 15: 20	THE EFFECTS OF ASE NOISE ON THE PERFORMANCE OF MULTI-WAVELENGTH OCDMA SYSTEMS USING APD RECEIVER <i>Bui Trung Ninh, Pham Van Hoi</i> University of Engineering and Technology, VNU Hanoi
(A- 47) 15: 20 – 15: 35	POLARIZATION PHASE - SHIFTING NEWTON INTERFEROMETER WITHOUT POLARIZATION CROSSTALK <i>Hung-Xuân Trinh, Shyh-Tsong Lin, Liang-Chia Chen, Sheng-Lih Yeh</i> National Taipei University of Technology, Taiwan
15: 35 – 16: 00	Coffee Break
16: 00 – 16: 30	PLENARY SESSION CLOSING CONFERENCE <i>(Prof. Acad. Nguyen Van Hieu, Prof. Nguyen Dai Hung, Prof. Huynh Thanh Dat, Prof. Duong Ai Phuong, Prof. Tran Linh Thuoc, Prof. Hoang Dung, Prof. Nguyen The Binh, Prof. Pham Van Hoi, Prof. Dinh Xuan Khoa, Prof. Vu Thi Bich)</i>
18: 00 – 20: 00	CONFERENCE PARTY