

**THE 10th INTERNATIONAL CONFERENCE
ON PHOTONICS & APPLICATIONS
(ICPA -10)**

Hall B

November 12, 2018 (Monday)

Chairperson:

Prof. Dr. Bernard Bourguignon (ISMO, CNRS. France),

B-01

13:30 - 13:55 SPECTROSCOPY OF GAN-BASED SUPERLATTICES

(invited talk)

Jens W. Tømm and Felix Mahler

Max-Born-Institut für Nichtlineare Optik und Kurzzeitspektroskopie, Max-Born-Str.2A,D-12489 Berlin

B-02

13:55 -14:20 QUANTUM LASER CONTROL OF π -ELECTRON RING CURRENT IN POLYCYCLIC AROMATIC HYDROCARBONS

(invited talk)

Hirobumi Mineo

Atomic, Molecular and Optical Physics Research group, Advanced Institute of Materials Science, Ton Duc Thang University, Ho Chi Minh City, Vietnam

B-03

14:20 - 14:45 THE INFLUENCE OF HIGH DENSITY LASER EXCITATION ON EMISSION SPECTRA OF Nd^{3+} AND Yb^{3+} DOPED $\text{Y}_2\text{Si}_2\text{O}_7$ NANOCRYSTALS

(invited talk)

W. Strek, R. Tomala, M. Lukaszewicz

Institute for Low Temperature and Structure Research, Polish Academy of Sciences, Wroclaw, Poland

B-04

14:45 - 15:00 COMPARISON OF X-RAY LUMINESCENCE OF NANO-MATERIALS: CdSeS , $\text{LaF}_3\text{:Ce}^{3+}/\text{CdSeS}$, AND PEROVSKITE CsPbI_3

Phan Van Cuong

Department of Physics, Nha Trang University, Nha Trang, Vietnam

B-05

15:00 - 15:15 CAVITY RING-DOWN ABSORPTION SPECTROSCOPY OF THE $d^3\Pi_g - a^3\Pi_u$ C_2 SWAN SYSTEM AND THE ELECTRONIC TRANSITION $B^2\Sigma_u^+ - X^2\Sigma_g^-$ OF THE C_2^- ANION

Phung Viet Tiep, Thomas Pino, Stéphane Douin

Institute of Physics, Vietnam Academy of Sciences and Technology,

Institut des Sciences Moléculaires d'Orsay, UMR8214, CNRS, Université Paris-Sud, Rue André Rivière, Bât. 520, F-91405 Orsay Cedex, France

15:15 - 15:30 Coffee break

Chairperson:

Prof. Dr. Natalie Del Fatti (Lyon 1 University, France)

B-06

15:30 - 15:55 EXPLORING NEW MATERIALS AND SURFACE FUNCTIONALIZATION FOR SURFACE-ENHANCED INFRARED ABSORPTION SPECTROSCOPY

(invited talk)

Tadaaki Nagao, Thang D. Dao, Kai Chen, Satoshi Ishii, and Robert P.H. Chang

International Center for Materials Nano architectonics, National Institute for Materials Science, 1-1 Namiki, Tsukuba City, Ibaraki 305-0044, Japan

Department of Condensed Matter Physics, Graduate School of Science, Hokkaido University, Sapporo, Japan

Department of Materials Science and Engineering, Northwestern University, 2220 Campus Dr., Evanston, Illinois 60208-3108, USA

B-07

15:55 - 16:20 OPTICAL CHARACTERIZATION OF FLUORIDE GLASS AS FAST-RESPONSE SCINTILLATOR

(invited talk)

Kohei Yamanoi*, Takahiro Murata, Yasunobu Arikawa, Lai You Wei, Melvin John F. Empizo, Keisuke Kawano, Yuki Minami, Toshihiko Shimizu, and Nobuhiko Sarukura

*Institute of Laser Engineering, Osaka University, Suita, Osaka, Japan
Kumamoto University, 2-40-1 Kurokami, Kumamoto 860-8555, Japan.*

B-08
16:20– 16:45 **Ce³⁺ DOPPED Na₂O-Gd₂O₃-P₂O₅ GLASS FOR RADIATION DETECTION MATERIAL**
(invited talk)

Jakrapong Kaewkhao

*Faculty of Science and Technology, Nakhon Pathom Rajabhat University;
Center of Excellence in Glass Technology and Materials Science, Nakhon
Pathom Rajabhat University, Thailand.*

B-09
16:45 – 17:00 **CRYSTAL GROWTH AND OPTICAL PROPERTIES EVALUATION OF STRONTIUM TETRABORATE SRB₄O₇**

Yasunori Tanaka*, Ryota Murai, Yoshinori Takahashi, Masayuki Imanishi, Yusuke Mori, Tsuyoshi Sugita, and Masashi Yoshimura

*Graduate School of Eng., Osaka Univ., Japan
ILE, Osaka Univ., 2-6 Yamadaoka, Suita, Osaka 565-0871, Japan
SOSHO CHOKO Inc., 2-1 Yamadaoka, Suita, Osaka 565-0871, Japan
Nikon Corp., 2-15-3, Konan, Minato-ku, Tokyo 108-6290, Japan*

B-10
17:00 – 17:15 **PROBING LIGHT INDUCED ACCUMULATION OF TWO CHARGES ON METHYLVIOLGEN USING A SEQUENTIAL NANOSECOND PUMP-PUMP PHOTOEXCITATION**

Thu-Trang Tran, * Minh-Huong Ha-Thi, Thomas Pino, Annamaria Quaranta, Christophe Lefumeux, Winfried Leibland Ally Aukauloo

*Institut des Sciences Moléculaire d'Orsay (ISMO), CNRS, Univ. Paris-Sud, Université Paris-Saclay, F-91405 Orsay, France.
Institute for integrative Biology of the Cell (I₂BC), CEA, CNRS, France.
Institut de Chimie Moléculaire et des Matériaux d'Orsay (ICMMO), Université Paris Sud, CNRS, F-91405 Orsay Cedex, France*

B-11
17:15 – 17:30 **HIGH-PRECISION MID-IR MOLECULAR SPECTROSCOPY WITH TRACEABILITY TO PRIMARY FREQUENCY STANDARDS USING SUB-HZ FREQUENCY COMB-STABILIZED QCLS**

Dang-Bao-An Tran*, Rosa Santagata, Mathieu Manceau, Bérengère Argence, Olivier Lopez, Sean Tokunaga, Michel Abgrall, Yann Le Coq, Rodolphe Le Targat, H. Alvarez Martinez, Won-Kyu Lee, Dan Xu, Paul-Eric Pottie, Benoit Darquie, Anne Amy-Klein

*Laboratoire de Physique des Lasers, CNRS, Université Paris 13, Sorbonne Paris Cité, France
Faculty of Physics, Ho Chi Minh City University of Education, Vietnam
LNE-SYRTE, Observatoire de Paris, PSL Research University, CNRS, Sorbonne Universités, UPMC Université Paris 06, France.*

**THE 10th INTERNATIONAL CONFERENCE
ON PHOTONICS & APPLICATIONS
(ICPA-10)**

Hall B

November 13, 2018 (Tuesday)

Chairperson:

Prof. Dr. Tadaaki Nagao (NIMS, Japan)

B-12

8:30 - 8:55 VIBRATION AND DAMPING OF NANO-SYSTEM

(invited talk)

F. Medeghini, N. Del Fatti, A. Crut, P. Maioli, and F. Vallee

*FemtoNanoOptics Group ILM, CNRS - Universite Lyon 1,
Bat. Kastler, 43 Bd. du 11 novembre, 69100 Villeurbanne, France*

B-13

**8:55 - 9:20 HOLLOW NANOPOROUS GOLD NANOSHELLS FABRICATED
BY PLASMA ETCHING OF COLLOID TEMPLATES AND THEIR
OPTICAL APPLICATIONS**

(invited talk)

Joon Heon Kim* and Sehee Jeong

*Advanced Photonics Research Institute, Gwangju Institute of Science and
Technology*

B-14

**9:20 - 9:45 COUPLING SINGLE CORE/SHELL CdSe/CdS NANOCRYSTALS
TO PLASMONIC STRUCTURES**

(invited talk)

**J.-P. Hermier, A. Coste, F. Eloi, X. Quélin, S. Buil, A. Kumar, A.
Bouhelier, J.C. Weeber, G. Colas des Francs, M. Nasilowski, B.
Dubertret**

*Groupe d'Etude de la Matière Condensée, Université de Versailles-Saint-
Quentin-en-Yvelines, CNRS UMR8635, 45 avenue des Etats-Unis, 78035
Versailles, France*

*Laboratoire Interdisciplinaire Carnot de Bourgogne (ICB), UMR 6303
CNRS, Université de Bourgogne, 9 Avenue Savary, BP 47870, 21078
Dijon Cedex, France*

*Laboratoire de Physique et d'Etude des Matériaux, CNRS UMR8213,
ESPCI, 10 rue Vauquelin, 75231 Paris, France*

- B-15
9:45 -10:00 **UP- CONVERSION LUMINESCENCE OF $\text{Gd}_2\text{O}_3\text{: Er}^{3+}$ AND $\text{Gd}_2\text{O}_3\text{: Er}^{3+}$ @ SILICA NANOSPHERES**
- Tran Kim Anh*, Pham Minh Chau, Nguyen ThiQuyHai, Vu Thi Thai Ha, Tran Thu Huong, Nguyen Duy Hung, Le Quoc Minh and Wieslaw Strek**
- Institute for Theoretical and Application Research. Duy Tan University, 73 HoangCau, Dong Da, Hanoi ,Vietnam.*
Institute of Materials Science, VAST, 18 HoàngQuoc Viet, CauGiay, Ha Noi, Vietnam.
Advanced Institute of Science and Technology, Hanoi University of Science and Technology, 40 Ta QuangBuu, Hanoi, Vietnam.
Institute of Low Temperature and Structure Research, Polish Academy of Science, 2 Okolna, Wroclaw, Poland.
- B-16
10:00 -10:15 **PLASMONIC PROPERTIES OF ORDERED NANO HOLE GRATINGS INVESTIGATED BY FAR-FIELD AND NEAR-FIELD MICROSCOPY**
- S. Buil, and, T.P.L. Ung, P. Maso, G. Colas des Francs, M. Nasilowski, B. Dubertret, J.P. Hermier, X. Quélin,**
- Grouped'Etude de la Matière Condensée (GEMaC), Université Paris-Saclay, Université de Versailles-Saint Quentin en Yvelines, CNRS UMR 8635, Versailles, France*
Laboratoire Interdisciplinaire Carnot de Bourgogne (ICB), UMR 6303 CNRS, Université Bourgogne Franche-Comté, Dijon, France
Laboratoire de Physique et d'Etude des Matériaux, CNRS UMR8213, ESPCI, Paris, France
- 10:15-10:30 **Coffee break**

Chairperson:

Prof. Dr. Ngoc Diep Lai (ENS Paris Saclay, France)

- B-17
10:30 - 10:55 **HIGH-PRESSURE EFFECT ON THE OPTICAL EXTINCTION OF A SINGLE GOLD NANOPARTICLE**
(invited talk)
- F. Medeghini, R. Rouxel, M. Hettich, P. Maioli, A. Crut, F. Vallée, A. San Miguel and N. Del Fatti**
- Université de Lyon, CNRS - Université Claude Bernard Lyon 1, Institut Lumière Matière, 69622 Villeurbanne, France*

- B-18*
**10:55 -11:20 APERTURE NANO-ANTENNA ARRAYS FOR UV/BLE
 FLUORESCENT SENSING APPLICATIONS**
(invited talk)
Quang Minh Ngo* and Martin J. Cryan
*Institute of Materials Science, Vietnam Academy of Science & Technology,
 18 Hoang Quoc Viet, Cau Giay, Hanoi, Vietnam*
*Department of Electrical and Electronic Engineering, University of
 Bristol, Bristol BS8 1UB, U.K.*
- B-19*
**11:20 -11:45 UPCONVERSION PHOTOLUMINESCENT NANOPARTICLES
 FOR BIO-CHEMISTRY**
(invited talk)
Bui The Huy*, Yong-Ill Lee
Department of Chemistry, Changwon National University, Republic of Korea
- B-20*
**11:45 -12:00 THE SUITABLE CONFIGURATION OF NONLINEAR OPTICAL
 TWEEZERS FOR STRETCHING OF DNA MOLECULES**
**Doan Quoc Tuan, Ho Quang Quy, Nguyen Thu Cam, Do Thanh Viet,
 Nguyen Mạnh Thang, Thai Doan Thanh**
*Academy of Military Science and Technology, 17 Hoang Sam, Cau Giay,
 Hanoi*
*Faculty of Electric Technology & Electronics, Food industry University of
 HCM City, 140 Le Trong Tan, Tan Phu, HCM City.*
- B-21*
**12:00 -12:15 DOPPLER PHASE-SHIFTING OPTICAL COHERENCE
 TOMOGRAPHY**
Quang Duc Pham* and Yoshio Hayasaki
*Laboratory for optical fiber laser research development and application,
 National Center for Technological Progress, 25 – Le Thanh Tong – Phan
 Chu Trinh – Hoan Kiem – Hanoi - Vietnam*
*Center for Optical Research and Education (CORE), Utsunomiya
 University, Japan*
- 12:30 -13:30 LUNCH**

13:30-17:30

POSTER SESSION II

Chairperson:

Dr. Tae Joong Eom (*APRI, GIST, R. Korea*)
Dr. Kohei Yamanoi (*Osaka University, Japan*)
Dr. Vu Duong (*IOP, VAST, VN*)

Chairperson:

Prof. Fabrice Vallee (*Lyon 1 University, France*)

B-22

13:30 - 13:55

**DIRECT LASER WRITING OF PLASMONIC NANOSTRUCTURES
FOR COLOR NANOPRINTERS, DATA STORAGE, AND TUNABLE
FILTERS**

(invited talk)

Ngoc Diep LAI

*Laboratoire de Photonique Quantique et Moléculaire, UMR 8537 CNRS,
Ecole Normale Supérieure Paris-Saclay, 61 avenue du Président Wilson,
94235 Cachan, France*

B-23

13:55 -14:20

**LIGHT SCATTERING IN HYDRATED VISCOELASTIC MEDIA:
INVERSE PROBLEM AND APPLICATION**

(invited talk)

**Eric Tinet*, Jean-Michel Tualle, Christelle Abou Nader, Dominique
Ettori**

*Laboratoire de Physique des Lasers, CNRS UMR 7538, Institut Galilée,
Université Paris 13, 99 Av. J. B. Clément, F-98430 Villetaneuse, France*

B-24

14:20 - 14:45

**PHOTONIC JACKIW-REBBI STATES IN INTERFACED
BINARY WAVEGUIDE ARRAYS**

(invited talk)

Tran Xuan Truong

*Department of Physics, Le Quy Don University, 236 Hoang Quoc Viet street,
Hanoi, Vietnam*

B-25

14:45 - 15:10 APPLYING FIBER BRAGG GRATING FOR ACOUSTIC SENSOR

(invited talk)

Paradorn Pakdeevanich, Nattapon Likittananan and Worrapass Promsen

*Department of Physics, Faculty of Science , Silpakorn University,
NakornPrathom, Thailand*

15:10-15:30 Coffee break

Chairperson:

Prof. Kenichi L. Ishikawa (*University of Tokyo, Japan*)

B-26

**15:30 - 15:55 SUPERCONTINUUM GENERATION IN PHOTONIC CRYSTAL
FIBERS INFILTRATED WITH LIQUIDS**

(invited talk)

Cao Long Van

*Institute of Physics, University of ZielonaGóra
Prof. Szafrana 4a, 65-516 Zielona Góra, Poland*

B-27

**15:55 - 16:20 QUANTUM DESIGN FOR PROBING OF MOLECULAR CHIRALITY
THROUGH ENANTIOMER-SPECIFIC COHERENT π -ELECTRON
DYNAMICS**

(invited talk)

Yuichi Fujimura

*Department of Chemistry, Tohoku University, Sendai, 980-8578 Japan
Department of Applied Chemistry, National Chiao-Tung University, Hsinchu,
30010 Taiwan.*

B-28

**16:20 - 16:45 SYMMETRY CONSERVATION PRINCIPLE IN PHOTOELECTRON
DYNAMIC IMAGING OF MOLECULES**

(invited talk)

T. Tung Nguyen-Dang, F. Dion, O. Atabek, E. Charron

*Département de Chimie and COPL, Université Laval, Québec, Canada
ISMO, Université Paris-Sud XI, Orsay, France.*

B-29

**16:45 - 17:10 NOVEL SCALAR APPROXIMATION OF FULL-VECTORIAL
DIELECTRIC WAVEGUIDE MODES**

(invited talk)

Hung-Wen Chang, Sin-Yuan Mu and Meng-Kai Hsu

*Department of Photonics, National Sun Yat-sen University, Kaohsiung,
Taiwan, 80424, ROC*

B-30

**17:10 – 17:35 SEVERAL GRAPHENE-BASED EFFICIENT LIGHT MODULATING
DEVICES**

(invited talk)

Tran Quyet Thang*, Sangin Kim

*Department of Electrical and Computer Engineering, Ajou University, 206
Worldcup-ro, Yeongtong-gu, Suwon 16499, Korea*

SESSION C

