

Program for EMN Optoelectronics Meeting 2017

Monday April 17

14:00-18:00PM

Onsite registration & Sign up

Tuesday April 18, 2017

Room A

8:20-8:30AM

Opening Ceremony

Session: Lasers

Chair: Maxime Darnon

8:30-8:55AM

A01: Laser efficiency improvement by high intensity pumping

Sakae Kawato
University of Fukui, Japan

8:55-9:20AM

A02: Synchronization of two-color fiber lasers for pulse synthesis

Dai Yoshitomi
AIST, Japan

9:20-9:45AM

A03: Ti:sapphire crystal fibers- from laser and broadband device to applications

Sheng-Lung Huang
National Taiwan University, Taiwan

9:45-10:10AM

A04: Performances and robustness of IR seed Laser diodes under large overcurrent and short-pulse conditions for fiber Laser applications

Laurent Bechou
University of Bordeaux, France

10:10-10:30AM

Session Break

Session: Nanomaterials I

Chair: Jan J. Dubowski

10:30-10:55AM

A05: Micro/Nanotechnologies for high efficiency solar cells fabrication

Maxime Darnon
Université de Sherbrooke, Canada

10:55-11:20AM

A06: High-Responsivity Graphene Photodiode-Oxide-Semiconductor Field Effect Transistor for Wide-Dynamic Range Optical Detection

Klaus Y. J. Hsu
National Tsing Hua University, Taiwan

11:20-11:45AM

A07: Engineered Nanomaterials with Implications for Triggered Drug Release by Light Activated Pathways

Byron Gates
Simon Fraser University, Canada

11:45-12:10PM	A08: Dynamic Generation of Photothermal Patterns on Conjugated Polymer Films	Eunyoung Kim Yonsei University, Korea
12:10-13:30PM	Lunch Break	

Tuesday April 18, 2017		
Room A		
Session: Nanomaterials II		Chair: Maxime Darnon
13:30-13:55PM	A09: Toward a graphene photonic integrated circuit	Choon-Gi Choi Electronics and Telecommunications Research Institute (ETRI), Korea
13:55-14:20PM	A10: Fabrication of InGaN/GaN ultrafine nanostructures by hydrogen environment thermal etching	Akihiko Kikuchi Sophia University, Japan
14:20-14:45PM	A11: Controlling the chemistry of optical breakdown-induced microplasmas for metal nanoparticle synthesis	Katharine M. Tibbetts Virginia Commonwealth University, USA
14:45-15:10PM	A12: Controllable Nano-Structured Material Fabrication for Beyond Si Device	Hui-Lin Chang National Chiao Tung University, Taiwan/ National Chiao Tung University, Taiwan & Globalfoundries, Malta NY, USA
15:10-15:30PM	Session Break	
Session: Micro and Nano Photonics I		Chair: Sergey Ponomarenko
15:30-15:55PM	A13: Addressable Direct-Write Formation of Nanoplasmonic Architectures by Nanoparticle-Mediated Bipolar Electrochemistry	Paul Bohn University of Notre Dame, USA

15:55-16:20PM	A14: Multimode interference devices comprising dielectric-stripe-based integrated plasmonic circuits	Masashi Ota Toyohashi University of Technology, Japan
16:20-16:45PM	A15: Towards a chip-scale nanophotonics metrology platform for temperature, pressure, vacuum and humidity	Nikolai. N. Klimov National Institute of Standards and Technology, USA/ Joint Quantum Institute, University of Maryland, USA
16:45-17:10PM	A16: Nanoparticles in Magnetic Resonance Imaging	Renhua Wu Shantou University Medical College, China
17:30PM	Dinner Social	

Wednesday April 19, 2017		
Room B		
Session: Terahertz Technology		Chair: Sylvain Girard
8:30-8:55AM	B01: 0.7 Terahertz Silicon-Germanium Heterojunction Bipolar Technology: the European DOTSEVEN Project	Michael Schroter Technical University Dresden, Germany
8:55-9:20AM	B02: Plasmonic Anti-reflection Coating for Photoconductive Terahertz Generation	Faezeh Fesharaki University of Victoria, Canada
9:20-9:45AM	B03: Antenna-coupled microcavities for terahertz emission	Julien Madéo Okinawa Institute of Science and Technology, Japan
9:45-10:10AM	B04: Terahertz wave modulation in organic/inorganic hybrid structures	Joong Wook Lee Chonnam National University, Korea
10:10-10:30AM	Session Break	

Session: Fiber-optic Sensors and Devices		Chair: Michael Schroter
10:30-10:55AM	B05: Recent Progress in Fiber-based Sensors for Nuclear Environments	Sylvain Girard Université de Saint-Etienne, France
10:55-11:20AM	B06: Low loss jammed-array wideband sawtooth filter for fast interrogation of fiber grating sensors	Zhongwei Tan Beijing Jiaotong University, China
11:20-11:45AM	B07: Single mode confinement in a photonic crystal fiber using air hole geometry	Waqas Mahmood Beijing Institute of Technology, China
12:00-13:30PM	Lunch Break	

Wednesday April 19, 2017		
Room B		
Session: Luminescence Materials		Chair: Ivan Djordjevic
13:30-13:55PM	B08: Highly efficient deep ultraviolet light-emitting diodes using glass electrodes	Tae Geun Kim Korea University, Korea
13:55-14:20PM	B09: Material development for organic light-emitting field-effect transistors	Shih-Chun Lo The University of Queensland, Australia
14:20-14:45PM	B10: Small Molecule Two-Photon Probes for Biomedical Applications	Bong Rae Cho Daejin University, Korea
14:45-15:10PM	B11: Application of Emission Ellipsometry Technique for Characterization of Luminescent Materials	Paulo Alliprandini Filho University of São Paulo, Brazil
15:10-16:00PM	Poster Session&Break	

Session: Fiber-optic Communications I		Chair: Shuto Yamamoto
16:00-16:25PM	B12: Recent progress on demultiplexer for variable symbol rate optical OFDM communication	Koichi Takiguchi Ritsumeikan University, Japan
16:25-16:50PM	B13: Optically encrypted multidimensional coded modulation enabling ultra-high speed optical transmission	Ivan Djordjevic University of Arizona, USA
16:50-17:15PM	B14: Optical Transmission Systems for Data Center Interconnects	Werner Rosenkranz University of Kiel, Germany
17:30PM	Dinner Social	

Wednesday April 19, 2017		
Room C		
Session: Nanomaterials III		Chair: Byron Gates
8:30-8:55AM	C01: Photonic monitoring of bacterial growth and reaction to antibiotics with a photocorrosion-based biosensor	Jan J. Dubowski Université de Sherbrooke, Canada
8:55-9:20AM	C02: Design and density functional theory explorations on the luminescent mechanism of AuCu nanoclusters	Haizhu Yu Anhui University, China
9:20-9:45AM	C03: Silicides formation on Pt/SiO _x interface induced by synchrotron radiation excitation	Hidehiro Yasuda Osaka University, Japan
9:45-10:10AM	C04: Enhanced Optoelectronic Performance based on Metal-Semiconductor Hybrid Materials	Lin Jiang Soochow University, China
10:10-10:30AM	Session Break	

Session: Fiber-optic Communications II		Chair: Werner Rosenkranz
10:30-10:55AM	C05: Long-haul optical transmission systems enabled by LDPC coded non-uniform signaling	Ivan Djordjevic University of Arizona, USA
10:55-11:20AM	C06: Performance Improvement Using Coded-PAM Technique for Short-Reach Transmission	Shuto Yamamoto NTT Corporation, Japan
11:20-11:45AM	C07: Flat frequency comb and short pulse generation from a bismuth-based actively mode-locked fiber laser	Yutaka Fukuchi Tokyo University of Science, Japan
11:45-12:00AM	C08: Heavy Metal-free, Near-infrared Colloidal Quantum Dots for Efficient Photoelectrochemical Hydrogen Generation	Xin Tong Institute of Fundamental and Frontier Sciences, University of Electronic Science and Technology of China, China
12:00-13:30PM	Lunch Break	

Wednesday April 19, 2017		
Room C		
Session: Optical Control and Measurement of Properties of Materials I		Chair: Donald Snyder
13:30-13:55PM	C09: Photonic function based on longitudinal optical phonon modes of semiconductors: infrared absorption control of composite materials and destructive quantum interferences	Yoshihiro Ishitani Chiba University, Japan
13:55-14:20PM	C10: Ultrafast Carrier Dynamics in Photo-Excited Optoelectronic Semiconductors	Junichi Kanasaki Osaka University, Japan
14:20-14:45PM	C11: Optical Properties of Ultrathin Metal Oxide Films	Tupei Chen Nanyang Technological University, Singapore

14:45-15:10PM	C12: AFM INTERMODULATION TECHNIQUE FOR CHARACTERIZATION OF SOFT BIOMATERIALS AT THE NANOSCALE	Nisha Rani Agarwal Chalmers university of technology, Sweden
15:10-16:00PM	Poster Session&Break	
Session: Optical Control and Measurement of Properties of Materials II Chair: Junichi Kanasaki		
16:00-16:25PM	C13: Quantifying Shifts in Refractive Index of Transparent Materials by Wavefront Distortion Analysis - Applications of Single Beam Interferometry in Optical Sensors and Chemical Analysis	Donald Snyder Eastern Michigan University, USA
16:25-16:50PM	C14: 3D metamaterials: fabrication, optical control and application	Changzhi Gu Institute of Physics, Chinese Academy of Sciences, China
16:50-17:15PM	C15: Ultra-fast spintronics with optical magnetization switching	Kuntal Roy Purdue University, USA
17:30PM	Dinner Social	

Thursday April 20, 2017		
Room B		
Session: Micro and Nano Photonics II Chair: Masashi Ota		
8:30-8:55AM	B15: Nonlinear plasmonics paves the way to accurate sensing	Sergey Ponomarenko Dalhousie University, Canada
8:55-9:20AM	B16: Nanofluidics and Plasmonics for In-Line DNA Optical Mapping	Parisa Bayat University of Hamburg, Germany

9:20-9:45AM	B17: Dynamic measurements of pressure using photonic devices	Kevin Douglass National Institute of Standards and Technology, USA
9:45-10:10AM	B18: Core-level XPS spectra and elemental analysis on sputter deposited CuO and In:CuO thin films	Jayaram Peediyekkal MES Ponnani college, India
10:10-10:30AM	Session Break	
Session: Optical Control and Measurement of Properties of Materials III		Chair: Peng Jiang
10:30-10:55AM	B19: Oxygen partial pressure inside a running fuel cell measured with optical-fiber probes	Junji Inukai University of Yamanashi, Japan
10:55-11:20AM	B20: Optical Evaluation of Unconventional Nanoscopic Shape Memory Efforts Exhibited by Multi-Stimuli-Responsive Shape Memory Polymers	Peng Jiang University of Florida, USA
11:20-11:45AM	B21: Optical characterization of liquid crystalline materials	Usha Manchi Krishna Rao Saint Philomena's college, India
12:00-14:00PM	Lunch Break	

Thursday April 20, 2017		
Room B		
Session: Nanomaterials IV		Chair: Benoît Lessard
13:30-13:55PM	B22: IV-VI Semiconductors Grown on Silicon Substrates for Thermophotovoltaic (TPV) Power Generation	Patrick J. McCann University of Oklahoma, USA

13:55-14:20PM	B23: Au-Nanoparticle Embedded TiO ₂ Nanotube Arrays for Sensing, Photocatalysis and Nonlinear Optics	Karthik Shankar University of Alberta, Canada
14:20-14:45PM	B24: Metal Oxide Nanowire Growth and Application for UV Sensing and Dye sensitized Solar Cells	Simas Rackauskas University of Torino, Italy
14:45-15:10PM	B25: Microstructural and biocompatibility properties of biogenic-hydroxyapatite doped with nano-sized Y-Zirconia	Aliasghar Niakan SEGi University, Malaysia
15:10-15:30PM	Session Break	
Session: Nanomaterials V Chair: Simas Rackauskas		
15:30-15:55PM	B26: Performance Improvement of organic electronic devices through Interface Engineering: from surface initiated polymerization off the electrodes to crosslinking silicon phthalocyanine additives	Benoît Lessard University of Ottawa, Canada
15:55-16:20PM	B27: Chemical and electronic structure of graphene oxide and reduced/doped graphene oxide monolayers	D. S. Sutar Indian Institute of Technology Bombay, India
16:20-16:45PM	B28: Organic nanophotovoltaics: from the physical carrier transport to commercial aspects	Vaidotas Kažukauskas Vilnius University, Lithuania
17:30PM	Dinner Social	
April 21	One day excursion	

Wednesday April 19, 2017

15:10-16:00PM

Poster Session

P01	Graphene Oxide Supported Carbonate Doped Iron-Cerium Oxide for Rapid Visible-Light Driven Decomposition of Organic Dyes	Jin Suk Chung University of Ulsan, Korea
P02	Characterization of a photo-induced current in poly-Si solar cell by employing photoconductive AFM(PC-AFM)	Jinhee Heo Korea Institute of Materials Science, Korea
P03	Enhanced Photoresponse of Conductive Polymer Nanowires Embedded with Au Nanoparticles	Junchang Zhang Soochow University, China
P04	A Switchable Diffractive Grating Based on Metallic Reversible Electrochemical Mirror	Chihyun Park Yonsei University, Korea
P05	One-dimensional Solution-Processed TiO ₂ Nanostructures for Use in Photovoltaics, Gas Sensing, Photocatalysis, and Microwave Resonators	Ryan Kisslinger University of Alberta, Canada