

# The Fifth International Conference on Nanophotonics

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May 22-26, 2011  
Fudan University  
Shanghai, China

The Fifth International Conference on Nanophotonics has been held successfully in Shanghai, from May 22 - 26, 2011.

Congratulations to the students who won the Best Poster Award of ICNP'2011

1、 Jing Yang, Zhuyuan Wang, Shenfei Zong, Chunyuan Song, Ruohu Zhang, Yiping Cui

Distinguishing breast cancer cells using surface enhanced Raman scattering (SERS)

2、 Shiwei Tang, David J. Cho , Hao Xu , Wei Wu, Y. Ron Shen, and Lei Zhou

Nonlinear responses in optical metamaterials: Theory and experiment

3、 Z. Y. Yang, M. Zhao and P. X. Lu

High signal-to-noise ratio circular polarizers with multi-helical metamaterials

4、 S. Guldin, M. Kolle, S. Vignolini, J. J. Baumberg, U. Wiesner and U. Steiner

Tunable mesoporous Bragg reflectors based on block-copolymer self-assembly

5、 Nathaniel K. Grady, Xiaorui Tian, Yingzhou Huang, and Hongxing Xu

Remote-excitation surface enhanced Raman scattering (SERS) using propagating Ag nanowire plasmons for chemical sensing in living cells

6、 B. Bai, X. Li , J. Laukkanen , A. Lehmuskero, and J. Turunen

Polarization-selective window-mirror effect in inductive and capacitive metal nanogrids

7、 C. M. Chang, C. H. Chu, M. L. Tseng, B. H. Chen, and Dingping Tsai

Light manipulation by gold nanobumps

8、 Shiyi Xiao, Qiong He, Xueqing Huang, Lei Zhou

Super imaging with a plasmonic metamaterial: Role of aperture shape

9、 Di Qu, Fang Liu, Xiangdong Li, Xujie Pan, Jiafan Yu, Wanlu Xie, Qi Xu, and Yidong Huang

Plasmonic core-shell gold nanoparticle for increasing optical absorption in silicon solar cells

10 M. L. Tseng, B. H. Chen, C. H. Chu, C. M. Chang, and Din Ping Tsai

Nanofabrication for Ge<sub>2</sub>Sb<sub>2</sub>Te<sub>5</sub> by femto-second laser-induced forward transfer

## ICNP Secretariat:

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## Conference Topics

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### Nanophotonic material for bio/energy/environment

Bio-molecular architectures  
Organic/inorganic solar cells  
Green nano-particles/composites  
Photo-catalysis physics/chemistry  
Nano-particle-assisted imaging  
Lab-on-a-chip photonics  
Nano-imaging/sensing  
Nano-materials and transformation optics for lighting/display

### Nanophotonic structure for information technology

Plasmonics, optical nano-antennas  
Metamaterials  
Photonic crystals, silicon photonics  
Near-field optics  
Quantum confined structures: nano-dots, nano-whisker  
Non-linear optics in nano-structures  
Integrated nano-devices/circuits  
THz nano-photonics

### Fabrication/characterization for nanophotonics

Self-assembled growth/deposition  
Photo/chemical synthesis/deposition  
Nano-imprint, etching, deposition  
Laser/ion-beam writing/processing  
Scanning optical microscope-assisted process  
Nano-probe-assisted process/characterization  
Optical nano-manipulation/tool  
Modeling/diagnostics for nano-photonics

## Plenary Speakers



### Yuen-Ron Shen

Professor Emeritus, University of California at Berkeley, US

**Title: Linear and Nonlinear Properties of Surface Plasmons.**



### Martin Wegener

Professor, Karlsruhe Institute of Technology (KIT), Germany

**Title: 3D Photonic Metamaterials and Transformation Optics.**



### Min Gu

Director of Centre for Micro-Photonics, Swinburne  
University of Technology, Australia

**Title: Nanophotonics under an optical microscope.**



### Masaya Notomi

Dr. Distinguished Technical Member, NTT Basic Research  
Laboratories, Japan

**Title: fJ/bit integrated nanophotonics for future ICT.**



### Sergey I. Bozhevolnyi

Professor, Institute of Sensors, Signals and Electrotechnics,  
University of Southern Denmark, Odense, Denmark

**Title: Plasmonic interconnects and circuitry: Fundamental  
issues and practical perspectives .**



### Younan Xia

James M. McKelvey Professor for Advanced Materials in  
Department of Biomedical Engineering, Washington University, US

**Title: Engineering the Plasmonic Properties of Gold  
Nanostructures for Biomedical applications.**

## Invited Speakers

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## Din Ping Tsai

Professor, Department of Physics, National Taiwan University, Taiwan

**Title: Plasmonic hot spots for photo-catalytic chemical reactors.**



## Shanhui Fan

Associate Professor of Electrical Engineering, Stanford University, US

**Title: Nanophotonics in energy applications: near-field thermal transfer and solar cell light trapping.**



## Edo Waks

Professor, Department of Electrical and Computer Engineering, Maryland University, US

**Title: Manipulation of quantum dots to nanometer precision by control of flow.**



## Hong-Bo Sun

Changjiang Professor, College of Electronic Science and Engineering, Jilin University, China

**Title: Biomimetic laser nanofabrication, from the lotus leaf to the compound eye.**



## Qiwen Zhan

Associate Professor, Electro-Optics Program and Department of Electrical & Computer Engineering, University of Dayton, US

**Title: New perspective of nanofocusing with plasmonic antenna.**



## Limin Tong

Professor, Department of Optical Engineering, Zhejiang University, China

**Title: Semiconductor nanowires for active photonic devices.**



## Sasha Grigorenko

Director, Condensed Matter Physics Group, The University of Manchester, UK

**Title: Negative index metamaterials - time to think positively?**



## Thomas Haertling

Director, Fraunhofer Institute for Non-Destructive Testing IZFP, Dresden, German

**Title: Photochemical metal deposition - a scalable fabrication tool for nanophotonics.**



## Asger Mortensen

Associate Professor, Department of Photonics Engineering, Technical University of Denmark

**Title: Photonic waveguides: how slow light can go?**



## Katsuhiro Akimoto

Professor, Katsuhiro Akimoto, Institute of Applied Physics, University of Tsukuba, Japan

**Title: Defect characterization of Cu(In,Ga)Se<sub>2</sub> solar cell material grown by three step method**



## Francisco J. Garcia Vidal

Professor, Department of Theoretical Physics, Universidad Autonoma de Madrid

**Title: Entanglement of two qubits mediated by one-dimensional plasmonic waveguides.**



## Zhanghai Chen

Professor, Department of Physics, Fudan University, China

**Title: Nonlinearity of excitonic polariton in ZnO.**



## Benjamin Eggleton

Professor of Physics and the Director of the ARC Centre of Excellence for Ultrahigh-bandwidth Devices for Optical Systems (CUDOS), University of Sydney, Australia

**Title: Chalcogenide nanophotonics.**



## Cun-Zheng Ning

Professor of Electrical Engineering, Arizona State University, US

**Title: Plasmonic Nanolasers with Subwavelength-Size Cavities: Progress and Prospectus**



## Lars Thylen

Professor, Photonics and Microwave Engineering, Royal Institute of Technology, Sweden

**Title: Densely integrated photonics circuits beyond silicon: Prospects, applications and power dissipation issues.**



## Martin Kristensen

Professor, Department of Physics and Astronomy and Interdisciplinary Nanoscience Center (iNANO), University of Aarhus Ny Munkegade, Denmark

**Title: Integrated Optics for Quantum Cryptography.**



## Namkyoo Park

Professor, Photonic Systems Laboratory, Dept of EECS, Seoul National University, Korea

**Title: Mode Junction Photonics for digital signal processing.**



## Franky So

Professor, Department of Materials Science and Engineering, University of Florida, US

**Title: Effect of Nanophase Morphology on Polymer Solar Cells.**





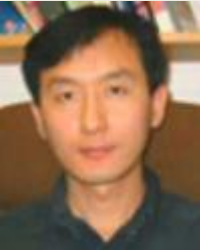
## Philippe Lalanne

Professor, Groupe Nanophotonique et Electromagnétisme,  
Institut d'Optique France, France  
**Title: Bloch Mode Engineering.**



## Natalia Litchinitser

Assistant Professor, Department of Electrical Engineering, University  
at Buffalo, US  
**Title: Metamaterials: A gateway to new science and applications  
of light.**



## Chunlei Guo

Associate Professor, Institute of Optics, University of  
Rochester, US  
**Title: Black and colored metals and applications.**



## Andrei Lavrinenko

Associate Professor, Department of Photonics Engineering,  
Technical University of Denmark, Denmark  
**Title: Wave propagation in metamaterials and effective  
parameters retrieving.**



## Qihuang Gong

Professor, Department of Physics, Peking University, China  
**Title: Ultracompact plasmonic devices and ultrafast  
modulation based on SPPs.**



## Xiaocong Yuan

Professor, School of Information Technical Science,  
Nankai University, China  
**Title: Microlens enabled applications in optical imaging  
and 3D display.**



## Howard Jackson

Professor, Department of Physics, University of Cincinnati,  
US

**Title: Photomodulated reflectance spectroscopy  
of single semiconductor nanowires.**



## Jung-Tsung Shen

Assistant professor, ESE, Washington University in St. Louis,  
US

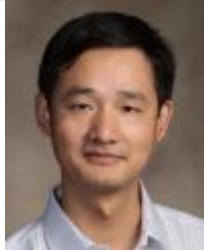
**Title: Ultra-low-power nonlinear optical devices: single-photon  
frequency convertor and single-photon diode.**



## Minghui Hong

Professor, National University of Singapore, Singapore

**Title: Large area 2D and 3D THz meta-materials design and  
fabrication by laser means.**



## Jinsong Huang

Assistant Professor, Department of Mechanical Engineering,  
Nebraska University-Lincoln, US

**Title: Introduce an Electric Field into Polymer Solar Cell for  
Increased Efficiency.**



## Ai-Qun Liu

Professor, School of Electrical & Electronic Engineering, College of  
Engineering, Nanyang Technological University, Singapore

**Title: Optofluidic Dye Laser via Two-Flow-Stream Dean Flow.**



## Zhenchao Dong

Professor, Hefei National Laboratory for  
Physical Sciences at the Microscale,  
China

**Title: "Forbidden Light": Irregular Molecular  
Electroluminescence by Resonant Nanocavity Plasmons.**



## Daniel Ou-Yang

Professor, Physics Department, Lehigh University, US

**Title: Optical Bottle: Colloidal Nanoparticles in Optical Confinement.**



## Nicholas X Fang

Associate Professor, Department of Mechanical & Engineering, MIT, US

**Title: Probing Plasmonic Hybridization Using Cathodoluminescence.**



## Kazuaki Sakoda

Managing Director, Quantum Dot Research Center, National Institute for Materials Science, Japan

**Title: Recent developments of droplet epitaxy of GaAs quantum dots and their spectroscopic studies.**



## Shuang Zhang

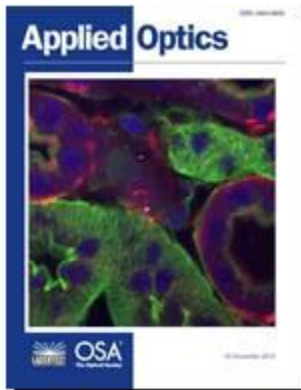
Reader, School of Physics and Astronomy University of Birmingham, UK

**Title: Super-imaging and invisibility cloak using natural materials.**

# Applied Optics Special Issue

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## Applied Optics Special Issue: Application of Nano-optics



The Guest Editors of the **Applied Optics** Special Issue (***Application of Nano-optics***) and the conference organizers invite the participants of ICNP'2011 to submit a paper version of their talk, or a related paper falling within the Conference's scope, for possible publication in this special issue. The deadline for the submission is **July, 1, 2011**. The detailed information for this special issue can be found in the Feature Announcement opening ([link for pdf files](#)). All the submitted contributed papers will undergo peer review under the guidelines of *Applied Optics*.

Please submit all papers to the Information Processing Division and specify that the manuscript is for the Applications of Nano-optics feature (choose from the feature issue drop-down menu, opening from March 1, 2011). Do not hesitate to contact us if you have any question about this special issue and we are looking forward to your contributions.

Guest Editors	Changhe Zhou, SIOM, Chinese Academy of Science, China
	Yessaiahu Fainman, UC San Diego, USA
	Yunlong Sheng, University Laval, Canada
Conference Co-Chairs	Lei Zhou, Fudan University, China
	Joseph Haus, University of Dayton, US
	Min Qiu, KTH, Sweden

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### Lei Zhou

Physics Department, Fudan University, China

### Joseph Haus

Director, Electro-Optics Graduate Program, University of Dayton, US

### Min Qiu

Lab of Photonics and Microwave Engineering, School of ICT, KTH Royal Institute of Technology, Sweden

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Yongkang Le (Department of Physics, Fudan University)

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Leijuan Song (Department of Physics, Fudan University)

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Meng Qiu (Website administrator)

## Schedule at a Glance

**Sunday 22 May 2011**

**Conference registration: 13:00-18:00**

**Conference reception: 18:30-21:00 at 13th floor of Guanghai Building in Fudan University**

**Monday 23 May 2011**

	Room 202	Room 102
8:05-8:15	Openin Remark	
8:15-9:00	Plenary Talk 1 <b>Martin Wegener</b>	
9:00-9:45	Plenary Talk 2 <b>Sergey I. Bozhevolnyi</b>	
9:45-10:10	Coffee Break	Coffee Break
10:10-12:10	Oral Session Photonic Crystal - 1	Oral Session Energy / Environment - 1
12:10-13:30	Lunch Break	Lunch Break
13:30-15:00	Oral Session Light-Matter Interactions - 1	Oral Session Solar Cell
15:00-15:20	Coffee Break	Coffee Break
15:20-16:35	Oral Session Photonic Crystal - 2	Oral Session Nonlinear Optics - 1
16:35-16:50	Coffee Break	Coffee Break
	Central Hall	Room 102
16:50-18:10	Poste Session A	Tutorial 1

**Tuesday 24 May 2011**

	Room 202	Room 102
8:15-9:00	Plenary Talk 3 <b>Min Gu</b>	
9:05-10:20	Oral Session Photonic Crystal - 3	Oral Session Energy / Environment - 2
10:20-10:40	Coffee Break	Coffee Break
10:40-12:10	Oral Session Light-Matter Interactions - 2	Oral Session Fabrications and Applications - 1
12:10-13:30	Lunch Break	Lunch Break
13:30-14:30	Oral Session THz Metamaterials	Oral Session Nanoparticle-based Photonics
14:30-14:45	Coffee Break	Coffee Break
	Central Hall	
14:45-15:45	Poster session B	
15:45-19:30	Guided City Tour (Optional)	

### Wednesday 25 May 2011

	Room 202	Room 102
8:15-9:00	Plenary Talk 4 <b>Younan Xia</b>	
9:00-9:45	Plenary Talk 5 <b>Masaya Notomi</b>	
9:45-10:10	Coffee Break	Coffee Break
10:10-12:10	Oral Session Metamaterials - 1	Oral Session Fabrications and Applications - 2
12:10-13:30	Lunch Break	Lunch Break
13:30-15:00	Oral Session Plasmonics - 1	Oral Session Optical Force
15:00-15:20	Coffee Break	Coffee Break
15:20-16:35	Oral Session Near-field Optics	Oral Session Fabrications and Applications - 3
16:35-16:50	Coffee Break	Coffee Break
	Central Hall	Room 102
16:50-18:10	Poster Session C	Tutorial 2

### Thursday 26 May 2011

	Room 202	Room 102
8:15-9:00	Plenary Talk 6 <b>Yuen-Ron Shen</b>	
9:05-10:20	Oral Session Plasmonics - 2	Oral Session Semiconductor-based Nanophotonics
10:20-10:40	Coffee Break	Coffee Break
10:40-12:10	Oral Session Plasmonics - 3	Oral Session Fabrications and Applications - 4
12:10-13:30	Lunch Break	Lunch Break
13:30-14:45	Oral Session Plasmonics - 4	Oral Session Nanowire-based Photonics
14:45-15:05	Coffee Break	Coffee Break
15:05-16:20	Oral Session Metamaterials - 2	Oral Session Nonlinear Optics - 2
16:25-16:35	Closing Remark	



<b>Monday Morning, May 23, 2011</b>	
	<i>Room: 202</i>
<b>8:05-8:15</b>	<i>Opening Remarks Chair: Lei Zhou</i>
<b>8:15-9:45</b>	<i>Plenary Session I Chair: Joseph Haus</i>
8:15-9:00	<b>PL-1</b> 3D Photonic metamaterials and transformation optics <u>Martin Wegener</u> <i>Karlsruhe Institute of Technology (KIT), Germany</i>
9:00-9:45	<b>PL-2</b> Plasmonic interconnects and circuitry: Fundamental issues and practical perspectives <u>Sergey I. Bozhevolnyi</u> <i>University of Southern Denmark, Denmark</i>
<b>9:45-10:10</b>	<b>Coffee Break</b>
	<i>Room: 202</i>
	<i>Room: 102</i>
<b>10:10-12:10</b>	<i>Photonic Crystal - 1 Chairs: Benjamin Eggleton and Zhiyuan Li</i>
	<i>Energy / Environment - 1 Chairs: Min Gu and Jinsong Huang</i>
10:10-10:40	<b>IN-01</b> Densely integrated photonics circuits beyond silicon: Prospects, applications and power dissipation issues <u>Lars Thylen</u> <i>Royal Institute of Technology, Sweden</i>
	<b>IN-03</b> Nanophotonics in energy applications: Near-field thermal transfer and solar cell light trapping <u>Shanhui Fan</u> <i>Stanford University, United States of America</i>
10:40-10:55	<b>O-01</b> Symmetry breaking and optical anisotropy in photonic crystals <u>A. Kontogeorgos</u> , S. Vignolini, D. R. E. Snoswell, C. E. Finlayson, J. J. Baumberg, P. Spahn and G. P. Hellmann <i>University of Cambridge, United Kingdom</i>
	<b>O-05</b> Non-blinking and photostable upconverted luminescence from single lanthanide-doped nanocrystals <u>Shiwei Wu</u> , G. Han, Delia J. Milliron, Shaul Aloni, V. Altoe, D. V. Talapin, B. E. Cohen, and P. James Schuck <i>Fudan University, China</i>
10:55-11:10	<b>O-02</b> Dirac-cones induced by accidental degeneracy in photonic crystals and zero refractive index materials <u>Xueqin Huang</u> , Yun Lai, Zhihong Hang, Huihuo Zheng, and C. T. Chan <i>Hong Kong University of Science and Technology, Hong Kong</i>
	<b>O-06</b> Plasmonic Mach-Zehnder interferometer on a microfluidic chip for sensitive optical sensing <u>Qiaoqiang Gan</u> , Yongkang Gao, Xuanhong Cheng and Filbert J. Bartoli <i>University at Buffalo, United States of America</i>
11:10-11:40	<b>IN-02</b> Bloch mode engineering <u>Philippe Lalanne</u> <i>Institut d'Optique, France</i>
	<b>IN-04</b> Integrated optics for quantum cryptography <u>Martin Kristensen</u> <i>University of Aarhus Ny Munkegade, Denmark</i>
11:40-11:55	<b>O-03</b> Observation of backscattering -immune tunnelling states without external magnetic fields <u>Jianwen Dong</u> , Wenjie Chen, Zhihong Hang, C. T. Chan, Hezhou Wang <i>Sun Yat-Sen (Zhongshan) University, China</i>
	<b>O-07</b> Extraordinary optical absorption in a silicon slab with metallic nanowires on its top surface <u>Liu Yang</u> and Yi Jin <i>Zhejiang University, China</i>
11:55-12:10	<b>O-04</b> High-Q nanocavity in 2D silicon photonic crystal slab Changzhu Zhou, <u>Chen Wang</u> and Zhiyuan Li <i>Institute of Physics, Chinese Academy of Sciences, China</i>
	<b>O-08</b> Nanoscale geometric diodes for improved rectenna solar cells <u>Zixu Zhu</u> , Sachit Grover, Kendra Krueger and Garret Moddel <i>University of Colorado, United States of America</i>
<b>12:10-13:30</b>	<b>Lunch Break</b>

<b>Monday Afternoon, May 23, 2011</b>		
	Room 202	Room 102
<b>13:30-15:00</b>	<b>Light-Matter Interactions - 1</b> <i>Chair: Sergey I. Bozhevolnyi</i>	<b>Solar Cell</b> <i>Chair: Martin Kristensen</i>
13:30-14:00	<b>IN-05 Plasmonic nanolasers with subwavelength-size cavities: Progress and prospectus</b> Cunzheng Ning <i>Arizona State University, United States of America</i>	<b>IN-07 Introduce an electric field into polymer solar cell for increased efficiency</b> Jinsong Huang <i>Nebraska University-Lincoln, United States of America</i>
14:00-14:30	<b>IN-06 Entanglement of two qubits mediated by one-dimensional plasmonic waveguides</b> Francisco J. Garcia Vidal <i>Universidad Autonoma de Madrid, Spain</i>	<b>O-11 Effect of nanophase morphology on polymer solar cells</b> Song Chen and Franky So <i>University of Florida, United States of America</i>
		<b>O-12 Nearly total absorption of light and heat generation by plasmonic nanostructures</b> Jiaming Hao, Min Qiu, Lei Zhou, Chengwei Qiu, and Said Zouhdi <i>LGEP, Supélec, Gif-sur-Yvette, France</i>
14:30-14:45	<b>O-09 Enhanced enantioselectivity in excitation of chiral molecules by superchiral light</b> Yiqiao Tang, Adam E. Cohen <i>Harvard University, United States of America</i>	<b>O-13 Fabrication and characterization of silicon nanohole solar cells</b> Y. Q. Zhao, K. K. Leung, C. Surya, C. K. Feng, Y. F. Chen, D. M. Chen, H. Shen, and B. J. Zhang <i>Hong Kong Polytechnic University, Hong Kong</i>
14:45-15:00	<b>O-10 Ultra-broadband light harvesting absorbers based on slow light using anisotropic metamaterials</b> Y. Cui, K. H. Fung, H. Ma, J. Xu, Y. Jin, S. He, and N. X. Fang <i>Zhejiang University, China</i>	<b>O-14 Optical absorption enhancement using the combined silicon wire arrays for flexible photovoltaic applications</b> Minjoon Park, Kwangtae Park., Zhongyi Guo, Jinyoung Jung, Handon Um, Yoonho Nam, SunmiShin, and Jungho Lee <i>Hanyang University, Korea</i>
<b>15:00-15:20</b>	<b>Coffee Break</b>	
<b>15:20-16:35</b>	<b>Photonic Crystal - 2</b> <i>Chair: Philippe Lalanne</i>	<b>Nonlinear Optics - 1</b> <i>Chair: Weitao Liu</i>
15:20-15:50	<b>IN-08 Photonic waveguides: How slow light can go?</b> Asger Mortensen <i>Technical University of Denmark, Denmark</i>	<b>IN-09 Nonlinearity of excitonic polariton in ZnO</b> Zhanghai Chen <i>Fudan University, China</i>
15:50-16:05	<b>O-15 Parallel-coupled dual racetrack silicon micro-resonators for quadrature amplitude modulation</b> Ryan A. Integlia, Lianghong Yin, and Wei Jiang <i>Rutgers University, United States of America</i>	<b>O-18 Optical parametric amplification of SPP in nonlinear hybrid waveguide</b> Tao Li, Feifei Lu, Lin Li and Shining Zhu <i>Nanjing University, China</i>
16:05-16:20	<b>O-16 Ultra-compact 1xN and NxN TE-polarized beam splitters based on every-second-line-defect photonic crystal waveguides</b> M. Zhang, A. C. Krüger, N. Grothoff, P. X. Shi and M. Kristensen <i>Aarhus University, Denmark</i>	<b>O-19 Four wave mixing and optical hysteresis in colloidal solution of Er-Yb doped LaF<sub>3</sub> nanocrystals</b> G. Pobegalov, P. Agruzov, P. Gaenko, I. Ilichev, A. Shamray <i>Ioffe Physical-Technical Institute, Russia</i>
16:20-16:35	<b>O-17 Concentrically curved silicon waveguide WDM couplers</b> H. Renner, M. Krause and E. Brinkmeyer <i>Technische Universität Hamburg-Harburg, Germany</i>	<b>O-20 Efficient third harmonic generation from gold hole-array nanostructures</b> G. X. Li, T. Li, H. Liu, K. F. Li, S. M. Wang, S. N. Zhu, and K. W. Cheah <i>Hong Kong Baptist University, Hong Kong</i>
<b>16:35-16:50</b>	<b>Coffee Break</b>	
	Central Hall	Room 102
<b>16:50-17:30</b>	<b>Poster Session A</b>	<b>Tutorial 1 Chair: Hui Liu</b>
		<b>Nanophotonic Materials Creating Novel Physical Phenomena</b> Joseph Haus <i>University of Dayton, United States of America</i>
<b>17:30-18:10</b>		

<b>Tuesday Morning, May 24, 2011</b>	
	<b>Room: 202</b>
<b>8:15-9:00</b>	<b>Plenary Session II</b> <b>Chair: Martin Wegener</b>
8:15-9:00	<b>PL-3 Nanophotonics under an optical microscope</b> <u>Min Gu</u> <i>Swinburne University of Technology, Australia</i>
	<b>Room: 202</b> <span style="margin-left: 150px;"><b>Room: 102</b></span>
<b>9:05-10:20</b>	<b>Photonic Crystal - 3</b> <b>Chair: Lars Thylen</b> <span style="margin-left: 150px;"><b>Energy / Environment – 2</b></span> <span style="margin-left: 300px;"><b>Chair: Qiaoqiang Gan</b></span>
9:05-9:35	<b>IN-10 Chalcogenide nanophotonics</b> <u>Benjamin Eggleton</u> <i>University of Sydney, Australia</i> <span style="margin-left: 150px;"><b>IN-11 Defect characterization of Cu(In,Ga)Se<sub>2</sub> solar cell material grown by three step method</b></span> <span style="margin-left: 150px;"><u>Katsuhiro Akimoto</u></span> <span style="margin-left: 150px;"><i>University of Tsukuba, Japan</i></span>
9:35-9:50	<b>O-21 Low threshold current and single mode photonic crystal vertical cavity surface emitting laser</b> <u>Y. Y. Xie</u> , Q. Kan, C. X. Wang, C. Xu and H. D. Chen <i>Institute of Semiconductor, Chinese Academy of Sciences, China</i> <span style="margin-left: 150px;"><b>O-24 Quantum-dot-doped polymer nanofibers for optical sensing</b></span> <span style="margin-left: 150px;"><u>C. Meng</u>, Y. Xiao, P. Wang, L. Zhang, F. X. Gu and L. M. Tong</span> <span style="margin-left: 150px;"><i>Zhejiang University, China</i></span>
9:50-10:05	<b>O-22 Nonclassical photon correlation of nanoparticle in photonic crystal</b> <u>C. H. Raymond Ooi</u> <i>University of Malaya, Malaysia</i> <span style="margin-left: 150px;"><b>O-25 Single-nanoparticle scattering: applications in cavity quantum electrodynamics and highly sensitive biosensing</b></span> <span style="margin-left: 150px;">Yong-Chun Liu, Bei-Bei Li, Xu Yi, Qihuang Gong, and Yun-Feng Xiao</span> <span style="margin-left: 150px;"><i>Peking University, China</i></span>
10:05-10:20	<b>O-23 Improved coupled-wave theory for 2D photonic-crystal surface emitting lasers</b> C. Peng, Y. Liang, K. Sakai, S. Iwahashi, E. Miyai and S. Noda <i>Kyoto University, Japan</i> <span style="margin-left: 150px;"><b>O-26 Enhanced absorptive characteristics of metal nanoparticle-embedded silicon nanowires for solar cell application</b></span> <span style="margin-left: 150px;"><u>Ke-Ya Zhou</u>, Sang-Won Jee, Zhong-Yi Guo, Shu-tian Liu and Jung-Ho Lee</span> <span style="margin-left: 150px;"><i>Hanyang University, Korea</i></span>
<b>10:20-10:40</b>	<b>Coffee Break</b>
<b>10:40-12:10</b>	<b>Light-Matter Interactions - 2</b> <b>Chair: Sasha Grigorenko</b> <span style="margin-left: 150px;"><b>Fabrications and Applications - 1</b></span> <span style="margin-left: 300px;"><b>Chair: Namkyoo Park</b></span>
10:40-11:10	<b>IN-12 Metamaterials: A gateway to new science and applications of light</b> <u>Natalia Litchinitser</u> <i>University at Buffalo, United States of America</i> <span style="margin-left: 150px;"><b>IN-13 Black and colored metals and applications.</b></span> <span style="margin-left: 150px;"><u>Chunlei Guo</u></span> <span style="margin-left: 150px;"><i>University of Rochester, United States of America</i></span>
11:10-11:25	<b>O-27 Second harmonic generation and nonlinear Smith-Purcell effect in 3D metamaterials</b> <u>Xiangdong Zhang</u> and Jinying Xu <i>Beijing Normal University, China</i> <span style="margin-left: 150px;"><b>O-31 Ultra-compact plasmonic electro-optical modulator design</b></span> <span style="margin-left: 150px;">J. Xu, H. Ma and Nicholas X. Fang</span> <span style="margin-left: 150px;"><i>Massachusetts Institute of Technology, United States of America</i></span>
11:25-11:40	<b>O-28 Resonant plasmon-induced enhancement of magneto-optical Kerr effect in 1D and 2D magnetophotonic crystals</b> A. A. Grunin, A. V. Chetvertukhin, T. V. Dolgova, A. V. Baryshev, H. Uchida, M. Inoue, and A. A. Fedyanin <i>Lomonosov Moscow State University, Russia</i> <span style="margin-left: 150px;"><b>O-32 Direct patterning on reduced graphene oxide nanosheets using femtosecond laser pulses</b></span> <span style="margin-left: 150px;"><u>L. Li</u>, Z. B. Liu, Y. F. Xu, Y. S. Chen, J. G. Tian</span> <span style="margin-left: 150px;"><i>Nankai University, China</i></span>
11:40-11:55	<b>O-29 Nonlinear plasmonic frequency conversion through quasiphase matching</b> <u>Zijian Wu</u> , Xikui Hu, Ziyang Yu, Wei Hu, Fei Xu and Yanqing Lu <i>Nanjing University, China</i> <span style="margin-left: 150px;"><b>O-33 Interaction between fs laser pulses and a thin Au film</b></span> <span style="margin-left: 150px;"><u>Zhongyi Guo</u>, Keya Zhou, Yanjun Xiao, S. A. Moiz, Shiliang Qu, Shutian Liu, and Jung-Ho Leeh</span> <span style="margin-left: 150px;"><i>Hanyang University, Korea</i></span>
11:55-12:10	<b>O-30 Slow-wave meta-surfaces to enhance light-matter interactions</b> <u>Shiyi Xiao</u> , Qiong He, Xueqin Huang, Shiwei Tang and Lei Zhou <i>Fudan University, China</i> <span style="margin-left: 150px;"><b>O-34 Polychromatic nanofocusing of surface plasmons</b></span> <span style="margin-left: 150px;">Wei Liu, Dragomir N. Neshev, Andrey E. Miroshnichenko, Ilya V. Shadrivov, and Yuri S. Kivshar</span> <span style="margin-left: 150px;"><i>Australian National University, Australia</i></span>
<b>12:10-13:30</b>	<b>Lunch Break</b>

<b>Tuesday Afternoon, May 24, 2011</b>		
	<b>Room: 202</b>	<b>Room: 102</b>
<b>13:30-14:30</b>	<b>THz Metamaterials</b> <b>Chair: Shuang Zhang</b>	<b>Nanoparticle-based Photonics</b> <b>Chair: Daniel Ou-Yang</b>
13:30-14:00	<b>IN-14</b> Large area 2D and 3D THz meta-materials design and fabrication by laser means Minghui Hong <i>National University of Singapore, Singapore</i>	<b>IN-15</b> Manipulation of quantum dots to nanometer precision by control of flow Edo Waks <i>Maryland University, United States of America</i>
14:00-14:15	<b>O-35</b> Tunneling of photons mediated by surface plasmon polaritons in a terahertz photonic crystal Hai-Ying Liu, Sen Liang, Qiao-Feng Dai, Li-Jun Wu, and Sheng Lan <i>South China Normal University, China</i>	<b>O-37</b> InGaN/GaN dot-in-a-wire nanoscale heterostructures and high-efficiency light emitting diodes on Si H. P. T. Nguyen, K. Cui, S. Zhang, X. Han, and <u>Z. Mi</u> <i>McGill University, Canada</i>
14:15-14:30	<b>O-36</b> Modelling, fabrication and characterisation of THz fractal meta-materials S. Xiao, L. Zhou, <u>R. Malureanu</u> , D. Cooke, P. Uhd Jepsen, A. Lavrinenko <i>Technical University of Denmark, Denmark</i>	<b>O-38</b> Enhancement of optical nonlinearity of metal nanoparticles with control of local field <u>Y. Takeda</u> , R. Sato, H. Momida, M. Ohnuma, T. Ohno and N. Kishimoto <i>National Institute for Materials Science, Japan</i>
<b>14:30-14:45</b>	<b>Coffee Break</b>	
	<b>Central Hall</b>	
<b>14:45-15:45</b>	<b>Poster Session B</b>	
<b>15:45-19:30</b>	<b>Guided City Tour (Optional)</b>	

Wednesday Morning, May 25, 2011		
	<i>Room: 202</i>	
<b>8:15-9:45</b>	<b>Plenary Session III</b> <b>Chair: Min Qiu</b>	
8:15-9:00	<p><b>PL-4</b> Engineering the plasmonic properties of gold nanostructures for biomedical applications  <u>Younan Xia</u>  Washington University, United States of America</p>	
9:00-9:45	<p><b>PL-5</b> FJ/bit integrated nanophotonics for future ICT  <u>Masaya Notomi</u>  NTT Basic Research Laboratories, Japan</p>	
<b>9:45-10:10</b>	<b>Coffee Break</b>	
	<i>Room: 202</i>	<i>Room: 102</i>
<b>10:10-12:10</b>	<b>Metamaterials - 1</b> <b>Chairs: Dingping Tsai and Andrei Lavrinenko</b>	<b>Fabrications and Applications - 2</b> <b>Chairs: Thomas Haertling and Hongbo Sun</b>
10:10-10:40	<p><b>IN-16</b> Negative index metamaterials - time to think positively?  <u>Sasha Grigorenko</u>  University of Manchester, United Kingdom</p>	<p><b>IN-18</b> Recent developments of droplet epitaxy of GaAs quantum dots and their spectroscopic studies  <u>Kazuaki Sakoda</u>  National Institute for Materials Science, Japan</p>
10:40-10:55	<p><b>O-39</b> Magnetically controllable unidirectional electromagnetic waveguiding devices designed with metamaterials  <u>S. Y. Liu, W. L. Lu, Z. F. Lin, and S. T. Chui</u>  Zhejiang Normal University, China</p>	<p><b>O-43</b> Nanoplasmonic waveguide filters with disk-shaped nanocavities  <u>Hua Lu, Xueming Liu, Yongkang Gong, Leiran Wang, and Dong Mao</u>  Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences, China</p>
10:55-11:10	<p><b>O-40</b> Switching electric and magnetic responses in metamaterials  <u>Xiang Xiong, Weihua Sun, Ling Qin, Ruwen Peng and Mu Wang</u>  Nanjing University, China</p>	<p><b>O-44</b> Highly efficient asymmetrical silicon-based plasmonic add-drop filter for integrated nanophotonic circuits  <u>H.-S. Chu, R. Mote, P. Bai and E.-P. Li</u>  Institute of High Performance Computing, A*STAR, Singapore</p>
11:10-11:40	<p><b>IN-17</b> Super-imaging and invisibility cloak using natural materials  <u>Shuang Zhang</u>  University of Birmingham, United Kingdom</p>	<p><b>IN-19</b> Mode junction photonics for photonic digital signal processing  <u>Namkyoo Park</u>  Seoul National University, Korea</p>
11:40-11:55	<p><b>O-41</b> Experimental study of coherent magnetic plasmon modes in a one-dimensional meta-chain  <u>H. Liu, and S. N. Zhu</u>  Nanjing University, China</p>	<p><b>O-45</b> Phase-shifting interferometry based on the high density transmissive grating  <u>Tengfei Wu, Changhe Zhou, Zhiguo Liang, Zhenyu Zhu and Xinliang Li</u>  Beijing Changcheng Institute of Metrology and Measurement, China</p>
11:55-12:10	<p><b>O-42</b> Linear and circular dichroism in a truly three dimensional gold gyroid metamaterial  <u>S. Vignolini, N. Yufa1, P. M. Salgard-Cunha, I. Rushkin, J. J. Baumberg, M. Stefik and U. Wiesner and U. Steiner</u>  University of Cambridge, United Kingdom</p>	<p><b>O-46</b> Ring resonator on silicon nanowire optical waveguide (SNOW)  <u>M. Khorasaninejad and S. S. Saini</u>  University of Waterloo, Canada</p>
<b>12:10-13:30</b>	<b>Lunch Break</b>	

<b>Wednesday Afternoon, May 25, 2011</b>		
	<b>Room: 202</b>	<b>Room: 102</b>
<b>13:30-15:00</b>	<b>Plasmonics - 1 Chair: Minghui Hong</b>	<b>Optical Force Chair: Edo Waks</b>
13:30-14:00	<b>IN-20 Plasmonic hot spots for photo-catalytic chemical reactors</b> <u>Dinping Tsai</u> <i>National Taiwan University, Taiwan</i>	<b>IN-22 Optical bottle: colloidal nanoparticles in optical confinement</b> <u>Daniel Ou-Yang</u> <i>Lehigh University, United States of America</i>
14:00-14:30	<b>IN-21 Ultracompact plasmonic devices and ultrafast modulation based on SPPs</b> <u>Qihuang Gong</u> <i>Peking University, China</i>	<b>IN-23 Optofluidic dye laser via two-flow-stream dean flow</b> <u>Ai-Qun Liu</u> <i>Nanyang Technological University, Singapore</i>
14:30-14:45	<b>O-47 Broadband beam collimating with a plasmonic structures of a metal-dielectric-metal multilayered substrate</b> F. Zhang, Y. R. He, Y. Jin and S. He <i>Zhejiang University, China</i>	<b>O-49 Slow-light enhanced force between shifted periodic waveguides</b> <u>Yue Sun</u> , Thomas P. White, and Andrey A. Sukhorukov <i>Australian National University, Australia</i>
14:45-15:00	<b>O-48 Theory of couplings in plasmonics and metamaterials</b> <u>Bin Xi</u> , Shiyi Xiao, Hao Xu and Lei Zhou <i>Fudan University, China</i>	<b>O-50 A nano-photon-mechanical (NPMS) actuator using radiation force</b> <u>X. Zhao</u> , H. Cai, M. L. J. Tsai, X. M. Ji, J. Zhou, Y. P. Huang, M. H. Bao and A.Q. Liu <i>Nanyang Technological University, Singapore</i>
15:00-15:20	<b>Coffee Break</b>	
<b>15:20-16:35</b>	<b>Near-field Optics Chair: Qihuang Gong</b>	<b>Fabrications and Applications - 3 Chair: Chunlei Guo</b>
15:20-15:50	<b>IN-24 Microlens enabled applications in optical imaging and 3D display</b> <u>Xiaocong Yuan</u> <i>Nankai University, China</i>	<b>IN-25 Photochemical metal deposition - a scalable fabrication tool for nanophotonics</b> <u>Thomas Haertling</u> <i>Fraunhofer Institute for Non-Destructive Testing, German</i>
15:50-16:05	<b>O-51 Effects of spatial dispersion in the optical response of plasmonic nanostructures</b> <u>C. David</u> , F. Javier García de Abajo <i>Instituto de Óptica - CSIC, Spain</i>	<b>O-54 Circular Fibonacci grating</b> <u>N. Gao</u> , Y. Zhang and C. Xie <i>Institute of Microelectronics, Chinese Academy of Sciences, China</i>
16:05-16:20	<b>O-52 Discrimination of individual molecular aggregate from other molecular aggregates one by one by restricting the light emitting space</b> K. Funaba, E. Watanabe, <u>H. Nejo</u> , N. S. Venkataramanan, H. Mizuseki and Y. Kawazoe <i>National Institute for Materials Science, Japan</i>	<b>O-55 Spiral phase elements based on segmented space-variant subwavelength metallic wire gratings</b> Zhehai Zhou, Qiaofeng Tan and Guofan Jin <i>Beijing Information Science and Technology University, China</i>
16:20-16:35	<b>O-53 Far-field and near-field polarization control with anisotropic optical metamaterials</b> <u>M. R. Shcherbakov</u> , B. B. Tsema, M. I. Dobynde, T. V. Dolgova, A. A. Ezhov, D. P. Tsai, A. A. Fedyanin <i>Lomonosov Moscow State University, Russia</i>	<b>O-56 Feature-size reduction of photopolymerized three dimensional micro/nanostructures taking use of shrinkage</b> <u>Q. Sun</u> , N. Murazawa, K. Ueno, and H. Misawa <i>Hokkaido University, Japan</i>
16:35-16:50	<b>Coffee Break</b>	
	<b>Central Hall</b>	<b>Room 102</b>
<b>16:50-17:30</b>	<b>Poster Session C</b>	<b>Tutorial 2 Chair: Yijun Feng</b>
<b>17:30-18:10</b>		<b>Thermal effects in plasmonic and metamaterial nanostructures</b> <u>Min Qiu</u> <i>Royal Institute of Technology (KTH), Sweden</i>
<b>19:00-21:30</b>	<b>Banquet</b>	

Thursday Morning, May 26, 2011	
	<b>Room: 202</b>
<b>8:15-9:00</b>	<b>Plenary Session IV</b> <b>Chair: Lei Zhou</b>
8:15-9:00	<b>PL-6 Linear and nonlinear properties of surface plasmons</b> <u>Yuen-Ron Shen</u> <i>University of California at Berkeley, United States of America</i>
	<b>Room: 202</b>
<b>9:05-10:20</b>	<b>Plasmonics - 2</b> <b>Chair: Nicholas X. Fang</b>
9:05-9:35	<b>IN-26 New perspective of nanofocusing with plasmonic antenna</b> <u>Qiwen Zhan</u> <i>University of Dayton, United States of America</i>
9:35-9:50	<b>O-57 Symmetry breaking surface plasmon-polariton excitation and its functional applications</b> <u>Xiaowei Li</u> , Qiaofeng Tan, Benfeng Bai, and Guofan Jin <i>Tsinghua University, China</i>
9:50-10:05	<b>O-58 Dominant effect of magnetic polarization in the absorption of common metallic nanoparticles</b> <u>A. Asenjo-García</u> , A. Manjavacas, V. Myroshnychenko and F. J. García de Abajo <i>Instituto de Óptica – CSIC, Spain</i>
10:05-10:20	<b>O-59 Modified decay rates and quantum interferences through plasmonic-induced anisotropic vacuum</b> <u>L. J. Wang</u> , P. Ren, Y. Gu, and Q. H. Gong <i>Peking University, China</i>
<b>10:20-10:40</b>	<b>Coffee Break</b>
<b>10:40-12:10</b>	<b>Plasmonics - 3</b> <b>Chair: Qiwen Zhan</b>
10:40-11:10	<b>IN-28 Probing plasmonic hybridization using cathodoluminescence</b> <u>Nicholas X. Fang</u> <i>Massachusetts Institute of Technology, United States of America</i>
11:10-11:25	<b>O-63 Femtosecond dynamics of surface plasmons in planar plasmonic nanostructures</b> <u>P. P. Vabishchevich</u> , M. R. Shcherbakov, V. V. Komarova, V. O. Bessonov, T. V. Dolgova and A. A. Fedyanin <i>Lomonosov Moscow State University, Russia</i>
11:25-11:40	<b>O-64 Characteristics of plasmonic racetrack resonator in a trench structure</b> <u>H. Okamoto</u> , K. Yamaguchi, M. Haraguchi, and T. Okamoto <i>Anan National College of Technology, Japan</i>
11:40-11:55	<b>O-65 Probing localized surface plasmon modes in metal nanostructures</b> <u>V. Myroshnychenko</u> , F. J. García de Abajo, G. Boudarham, J. Nelayah, O. Stéphan, M. Kociak, C. Colliex, A. I. Denisuk, G. Adamo, K. MacDonald, N. I. Zheludev, J. Rodríguez-Fernandez, E. Carbó-Argibay, L. M. Liz-Marzán <i>Instituto de Óptica—CSIC, Spain</i>
11:55-12:10	<b>O-66 Optical transmission and propagation dynamics of femto-second pulse through double-layer, laterally shifted metallic subwavelength hole arrays</b> <u>Z. H. Hang</u> , Z. Marcet, H. M. Su, K. S. Wong, H. B. Chan and C. T. Chan <i>Hong Kong University of Science and Technology, Hong Kong</i>
<b>12:10-13:30</b>	<b>Lunch Break</b>
	<b>Room: 102</b>
<b>9:05-10:20</b>	<b>Semiconductor-based Nanophotonics</b> <b>Chair: Limin Tong</b>
9:05-9:35	<b>IN-27 Photomodulated reflectance spectroscopy of single semiconductor nanowires</b> <u>Howard Jackson</u> <i>University of Cincinnati, United States of America</i>
9:35-9:50	<b>O-60 Intrinsic optical properties of vanadium dioxide near the insulator-metal-transition</b> <u>Weitao Liu</u> , J. Cao, W. Fan, Zhao Hao, Michael C. Martin, Y. R. Shen, J. Wu, and F. Wang <i>Fudan University, China</i>
9:50-10:05	<b>O-61 UV to Red emission in single ZnCdSse nanowires</b> <u>Zongyin Yang</u> , Fuxing Gu, Pan Wang, Qing Yang, Bing Guo, Huakang Yu, Anlian Pan and Limin Tong <i>Zhejiang University, China</i>
10:05-10:20	<b>O-62 Surface/trap state whispering-gallery mode lasing of semiconductor whiskers</b> <u>Anlian Pan</u> , Xiujuan Zhuang, Ruibin Liu, Debin Li, Cunzheng Ning <i>Hunan University, China</i>
10:40-11:10	<b>IN-29 Biomimetic laser nanofabrication, from the lotus leaf to the compound eye</b> <u>Hongbo Sun</u> <i>Jilin University, China</i>
11:10-11:25	<b>O-67 Enhancement of broadband and quasi-omnidirectional antireflection of biomimetic nanopillar arrays</b> <u>Z. F. Huang</u> <i>Hong Kong Baptist University, Hong Kong</i>
11:25-11:40	<b>O-68 Photonic structures in plants</b> <u>S. Vignolini</u> , M. M. Thomas, M. Kolle, P. Rudall, J. J. Baumberg, B. Glover and U. Steiner <i>University of Cambridge, United Kingdom</i>
11:40-11:55	<b>O-69 Self-organized anti-reflecting nano-cone arrays on Si (100) induced by ion bombardment</b> <u>J. Zhou</u> , M. Hildebrandt and M. Lu <i>Fudan University, China</i>
11:55-12:10	<b>O-70 Experimental verification of the “rainbow” trapping effect in graded plasmonic gratings</b> <u>Qiaoqiang Gan</u> and Filbert J. Bartoli <i>University at Buffalo, United States of America</i>

**Thursday Afternoon, May 26, 2011**

<b>Thursday Afternoon, May 26, 2011</b>		
	<b>Room: 202</b>	<b>Room: 102</b>
<b>13:30-14:45</b>	<b>Plasmonics - 4</b> <b>Chair: Xiacong Yuan</b>	<b>Nanowire-based Photonics</b> <b>Chair: Howard Jackson</b>
13:30-14:00	<b>IN-30</b> “Forbidden light”: Irregular molecular electroluminescence by resonant nanocavity plasmons <u>Zhenchao Dong</u> <i>Hefei National Laboratory for Physical Sciences at the Microscale, China</i>	<b>IN-31</b> Semiconductor nanowires for active photonic devices <u>Limin Tong</u> <i>Zhejiang University, China</i>
14:00-14:15	<b>O-71</b> Electromagnetically induced transparency based on plasmonic slot waveguide and resonator <u>Qiang Li</u> and Min Qiu <i>Royal Institute of Technology (KTH), Sweden</i>	<b>O-74</b> Plasmon enhancement in Ag nanowire-nanoantenna circuit <u>Zheyu Fang</u> , and Xing Zhu <i>Peking University, China</i>
14:15-14:30	<b>O-72</b> Achievements of large tunability of geometric resonances and wavelength-division multiplexing in metallic nanoparticle array <u>Y. Gu</u> , J. Li, X. Y. Hu, and Q. H. Gong <i>Peking University, China</i>	<b>O-75</b> Absorptive nanowire filters by particle plasma and guided-mode resonance <u>A. Lehmuskero</u> , I. Vartiainen, T. Saastamoinen, T. Alasaarela, and M. Kuittinen <i>University of Eastern Finland, Finland</i>
14:30-14:45	<b>O-73</b> Efficient fluorescence enhancement assisted by the double plasmon modes of gold nanorods <u>S. Y. Liu</u> , J. F. Li, Y. H. Chen and Z. Y. Li <i>Institute of Physics, Chinese Academy of Science, China</i>	<b>O-76</b> Characterization of the propagation loss in metal nanowires <u>Y. G. Ma</u> , X. Guo, X. Y. Li and L. M. Tong <i>Zhejiang University, China</i>
<b>14:45-15:05 Coffee Break</b>		
<b>15:05-16:20</b>	<b>Metamaterials - 2</b> <b>Chair: Asger Mortensen</b>	<b>Nonlinear Optics - 2</b> <b>Chair: Lei Xu</b>
15:05-15:35	<b>IN-32</b> Wave propagation in metamaterials and effective parameters retrieving <u>Andrei Lavrinenko</u> <i>Technical University of Denmark, Denmark</i>	<b>IN-33</b> Ultra-low-power nonlinear optical devices: Single-photon frequency convertor and single-photon diode <u>Jung-Tsung Shen</u> <i>Washington University in St. Louis, United States of America</i>
15:35-15:50	<b>O-77</b> Obtaining effective medium parameters directly from the eigen-fields: a boundary effective medium theory <u>Y. Lai</u> , Y. Wu, C.T. Chan, P. Sheng and Z.Q. Zhang <i>Hong Kong University of Science and Technology, Hong Kong</i>	<b>O-80</b> Study on the optical physics properties of carbon-based nanomaterials <u>X. Chen</u> , X. Zhang and Z. Liu <i>Nankai University, China</i>
15:50-16:05	<b>O-78</b> Transition from 2D to 3D effective optical properties in gold nanoparticle-polymer composite films <u>J. Vieaud</u> , O. Merchiers, A. Aradian and V. Ponsinet <i>University of Bordeaux, France</i>	<b>O-81</b> Spectrally resolved nonlinear optical response of upconversion Lanthanide-doped NaYF <sub>4</sub> nanoparticles <u>M. Nyk</u> , D. Wawrzynczyk, K. Parjaszewski and M. Samoc <i>Wroclaw University of Technology, Poland</i>
16:05-16:20	<b>O-79</b> Reflectionless ultra-thin wave-plate based on metamaterials <u>Wujiong Sun</u> , Qiong He, Jiaming Hao and Lei Zhou <i>Fudan University, China</i>	<b>O-82</b> High conversion efficiency of second harmonic generation in photonic band gap structures with distributed Bragg reflector mirrors <u>Mingliang Ren</u> and Zhiyuan Li <i>Institute of Physics, Chinese Academy of Sciences, China</i>
<b>16:25-16:35</b>	<b>Closing Remarks</b>	



**Monday, May 23, 2011**

	<i>Room: 202</i>	<i>Room: 102</i>
<b>8:15-9:45</b>	<b>Plenary Session I</b> <b>Chair: Joseph Haus</b>	
8:15-9:00	<b>3D Photonic metamaterials and transformation optics</b> <u>Martin Wegener</u> <i>Karlsruhe Institute of Technology (KIT), Germany</i>	
9:00-9:45	<b>Plasmonic interconnects and circuitry: fundamental issues and practical perspectives</b> <u>Sergey I. Bozhevolnyi</u> <i>University of Southern Denmark, Denmark</i>	
<b>10:10-12:10</b>	<b>Photonic Crystal - 1</b> <b>Chairs: Benjamin Eggleton and Zhiyuan Li</b>	<b>Energy / Environment – 1</b> <b>Chairs: Min Gu and Jinsong Huang</b>
10:10-10:40	<b>Densely integrated photonics circuits beyond silicon: Prospects, applications and power dissipation issues</b> <u>Lars Thylen</u> <i>Royal Institute of Technology, Sweden</i>	<b>Nanophotonics in energy applications: Near-field thermal transfer and solar cell light trapping</b> <u>Shanhui Fan</u> <i>Stanford University, United States of America</i>
11:10-11:40	<b>Bloch mode engineering</b> <u>Philippe Lalanne</u> <i>Institut d'Optique, France</i>	<b>Integrated optics for quantum cryptography</b> <u>Martin Kristensen</u> <i>University of Aarhus Ny Munkegade, Denmark</i>
<b>13:30-15:00</b>	<b>Light-Matter Interactions – 1</b> <b>Chair: Sergey I. Bozhevolnyi</b>	<b>Solar Cell</b> <b>Chair: Martin Kristensen</b>
13:30-14:00	<b>Plasmonic nanolasers with subwavelength-size cavities: Progress and prospectus</b> <u>Cunzheng Ning</u> <i>Arizona State University, United States of America</i>	<b>Introduce an electric field into polymer solar cell for increased efficiency</b> <u>Jinsong Huang</u> <i>Nebraska University-Lincoln, United States of America</i>
14:00-14:30	<b>Entanglement of two qubits mediated by one-dimensional plasmonic waveguides</b> <u>Francisco J. Garcia Vidal</u> <i>Universidad Autonoma de Madrid, Spain</i>	
<b>15:20-16:35</b>	<b>Photonic Crystal - 2</b> <b>Chair: Philippe Lalanne</b>	<b>Nonlinear Optics - 1</b> <b>Chair: Weitao Liu</b>
15:20-15:50	<b>Photonic waveguides: How slow light can go</b> <u>Asger Mortensen</u> <i>Technical University of Denmark, Denmark</i>	<b>Nonlinearity of excitonic polariton in ZnO</b> <u>Zhanghai Chen</u> <i>Fudan University, China</i>

**Tuesday, May 24, 2011**

	<i>Room: 202</i>	<i>Room: 102</i>
<b>8:15-9:00</b>	<b>Plenary Session II</b> <b>Chair: Martin Wegener</b>	
8:15-9:00	<b>Nanophotonics under an optical microscope</b> <u>Min Gu</u> <i>Swinburne University of Technology, Australia</i>	
<b>9:05-10:20</b>	<b>Photonic Crystal – 3</b> <b>Chair: Lars Thylen</b>	<b>Energy / Environment – 2</b> <b>Chair: Qiaoqiong Gan</b>
9:05-9:35	<b>Chalcogenide nanophotonics</b> <u>Benjamin Eggleton</u> <i>University of Sydney, Australia</i>	<b>Defect characterization of Cu(In,Ga)Se<sub>2</sub> solar cell material grown by three step method</b> <u>Katsuhiko Akimoto</u> <i>University of Tsukuba, Japan</i>
<b>10:40-12:10</b>	<b>Light-Matter Interactions – 2</b> <b>Chair: Sasha Grigorenko</b>	<b>Fabrications and Applications – 1</b> <b>Chair: Namkyoo Park</b>
10:40-11:10	<b>Metamaterials: A gateway to new science and applications of light</b> <u>Natalia Litchinitser</u> <i>University at Buffalo, United States of America</i>	<b>Black and colored metals and applications.</b> <u>Chunlei Guo</u> <i>University of Rochester, United States of America</i>
<b>13:30-14:30</b>	<b>THz Metamaterials</b> <b>Chair: Shuang Zhang</b>	<b>Nanoparticle-based Photonics</b> <b>Chair: Daniel Ou-Yang</b>
13:30-14:00	<b>Large area 2D and 3D THz meta-materials design and fabrication by laser means</b> <u>Minghui Hong</u> <i>National University of Singapore</i>	<b>Manipulation of quantum dots to nanometer precision by control of flow</b> <u>Edo Waks</u> <i>Maryland University, United States of America</i>

Wednesday, May 25, 2011		
	Room: 202	Room: 102
<b>8:15-9:45</b>	<b>Plenary Session III</b> <b>Chair: Min Qiu</b>	
8:15-9:00	<b>Engineering the plasmonic properties of gold nanostructures for biomedical applications</b> <u>Younan Xia</u> Washington University, United States of America	
9:00-9:45	<b>fJ/bit integrated nanophotonics for future ICT</b> <u>Masaya Notomi</u> NTT Basic Research Laboratories, Japan	
<b>10:10-12:10</b>	<b>Metamaterials – 1</b> <b>Chairs: Dingping Tsai and Andrei Lavrinenko</b>	<b>Fabrications and Applications – 2</b> <b>Chairs: Thomas Haertling and Hongbo Sun</b>
10:10-10:40	<b>Negative index metamaterials - time to think positively?</b> <u>Sasha Grigorenko</u> The University of Manchester, United Kingdom	<b>Recent developments of droplet epitaxy of GaAs quantum dots and their spectroscopic studies</b> <u>Kazuaki Sakoda</u> National Institute for Materials Science, Japan
11:10-11:40	<b>Super-imaging and invisibility cloak using natural materials</b> <u>Shuang Zhang</u> University of Birmingham, United Kingdom	<b>Mode junction photonics for digital signal processing</b> <u>Namkyoo Park</u> Seoul National University, Korea
<b>13:30-15:00</b>	<b>Plasmonics – 1</b> <b>Chair: Minghui Hong</b>	<b>Optical Force</b> <b>Chair: Edo Waks</b>
13:30-14:00	<b>Plasmonic hot spots for photo-catalytic chemical reactors</b> <u>Dinping Tsai</u> National Taiwan University, Taiwan	<b>Colloidal nanoparticles in optical confinement</b> <u>Daniel Ou-Yang</u> Lehigh University, United States of America
14:00-14:30	<b>Ultracompact plasmonic devices and ultrafast modulation based on SPPs</b> <u>Qihuang Gong</u> Peking University, China	<b>Optofluidic dye laser via two-flow-stream dean flow</b> <u>Ai-Qun Liu</u> Nanyang Technological University, Singapore
<b>15:20-16:35</b>	<b>Near-field Optics</b> <b>Chair: Qihuang Gong</b>	<b>Fabrications and Applications – 3</b> <b>Chair: Chunlei Guo</b>
15:20-15:50	<b>Microlens enabled applications in optical imaging and 3D display</b> <u>Xiaocong Yuan</u> Nankai University, China	<b>Photochemical metal deposition - a scalable fabrication tool for nanophotonics</b> <u>Thomas Haertling</u> Fraunhofer Institute for Non-Destructive Testing, German

**Thursday, May 26, 2011**

<b>Thursday, May 26, 2011</b>		
	<b>Room: 202</b>	<b>Room: 102</b>
<b>8:15-9:00</b>	<b>Plenary Session IV</b> <b>Chair: Lei Zhou</b>	
8:15-9:00	<b>Linear and nonlinear properties of surface plasmons</b> <u>Yuen-Ron Shen</u> <i>University of California at Berkeley, United States of America</i>	
<b>9:05-10:20</b>	<b>Plasmonics – 2</b> <b>Chair: Nicholas X. Fang</b>	<b>Semiconductor-based Nanophotonics</b> <b>Chair: Limin Tong</b>
9:05-9:35	<b>New perspective of nanofocusing with plasmonic antenna</b> <u>Qiwen Zhan</u> <i>University of Dayton, United States of America</i>	<b>Photomodulated reflectance spectroscopy of single semiconductor nanowires</b> <u>Howard Jackson</u> <i>University of Cincinnati, United States of America</i>
<b>10:40-12:10</b>	<b>Plasmonics – 3</b> <b>Chair: Qiwen Zhan</b>	<b>Fabrications and Applications – 4</b> <b>Chair: Kazuaki Sakoda</b>
10:40-11:10	<b>Probing plasmonic hybridization using cathodoluminescence</b> <u>Nicholas X. Fang</u> <i>Massachusetts Institute of Technology, United States of America</i>	<b>Biomimetic laser nanofabrication, from the lotus leaf to the compound eye</b> <u>Hongbo Sun</u> <i>Jilin University, China</i>
<b>13:30-14:45</b>	<b>Plasmonics – 4</b> <b>Chair: Xiaocong Yuan</b>	<b>Nanowire-based Photonics</b> <b>Chair: Howard Jackson</b>
13:30-14:00	<b>“Forbidden light”: Irregular molecular electroluminescence by resonant nanocavity plasmons</b> <u>Zhenchao Dong</u> <i>Hefei National Laboratory for Physical Sciences at the Microscale, China</i>	<b>Semiconductor nanowires for active photonic devices</b> <u>Limin Tong</u> <i>Zhejiang University, China</i>
<b>15:05-16:20</b>	<b>Metamaterials – 2</b> <b>Chair: Asger Mortensen</b>	<b>Nonlinear Optics – 2</b> <b>Chair: Lei Xu</b>
15:05-15:35	<b>Wave propagation in metamaterials and effective parameters retrieving</b> <u>Andrei Lavrinenko</u> <i>Technical University of Denmark, Denmark</i>	<b>Ultra-low-power nonlinear optical devices: single photon frequency convertor and single-photon diode</b> <u>Jung-Tsung Shen</u> <i>Washington University in St. Louis, United States of America</i>

## Poster Program

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### I Poster Session A (Monday)

#### *Nanophotonic material for bio/energy/environment*

- P-A01 Theoretical and numerical investigation of periodic hole arrays for plasmonic Raman sensor**  
**K. Yamaguchi, M. Fujii, and D. K. Gramotnev**  
*Toyohashi University of Technology, Japan*
- P-A02 Optical properties of a free-standing macroporous Si thin film as an absorber layer for photovoltaic applications**  
**Jong-Wook Baek, Han-Don Um, Zhongyi Guo, Keya Zhou, Jin-Young Jung, Kwang-Tae Park, Sang-Won Jee, Yanjun Xiao and Jung-Ho Lee**  
*Hanyang University, Korea*
- P-A03 Coating the multi-layered SiO<sub>2</sub> nanoparticles for broadband optical absorption in Si solar cells**  
**Yoon-Ho Nam, Jin-Young Jung, Zhongyi Guo, Keya Zhou, Han-Don Um, Kwang-Tae Park, Min-Joon Park, Sun-Mi Shin and Jung-Ho Lee**  
*Hanyang University, Korea*
- P-A04 Organic photoelectronic devices with mesoscopic structures**  
**Fei Wang, Bo Qu, Shiyong Zhang, Dan Yuan, Zhijian Chen, Lixin Xiao, Qihuang Gong**  
*Peking University, China*
- P-A05 Absorption enhanced Si subwavelength structure for crystalline Si solar cells**  
**R. Zhang, B. Shao, J. Dong and H. Yang**  
*Chinese Academy of Sciences, China*
- P-A06 Efficient plasmonic nanostructures for absorption enhancement in organic photovoltaics**  
**J. Xiao, J.S.Liu, M. Yi and G. J. Wang**  
*Beihang University, China*
- P-A07 Enhanced absorptive characteristics of metal nanoparticle-embedded silicon nanowires for solar cell application**  
**Ke-Ya Zhou, Sang-Won Jee, Zhong-Yi Guo, Shu-tian Liu and Jung-Ho Lee**  
*Hanyang University, Korea*
- P-A08 Plasmon assisted two-photon photochromic reactions on arrayed gold nanoantennas**  
**B. Wu, K. Ueno, H. Misawa and H. Zeng**  
*East China Normal University, China*
- P-A09 Synthesis of ZnO nanoparticles with tunable emission colors and their cell labeling applications**  
**Xiaosheng Tang, Junmin Xue**  
*National University of Singapore, Singapore*
- P-A10 A periodic nanostructured Fabry-Perot interferometer for sensing application**  
**Wang Zhenzhen, Wang Chunxia, Kan Qiang and Chen Hongda**  
*Chinese Academy of Sciences, China*

- P-A11 Characterization of metallic coatings using hyperspectral imaging  
José M. Medina and José A. Díaz  
*University of Minho, Portugal*
- P-A12 Quantum-dot-doped polymer nanofibers for optical sensing  
C. Meng, Y. Xiao, P. Wang, L. Zhang, F. X. Gu and L. M. Tong  
*Zhejiang University, China*
- P-A13 Distinguishing breast cancer cells using surface enhanced Raman scattering (SERS)  
Jing Yang, Zhuyuan Wang, Shenfei Zong, Chunyuan Song, Ruohu Zhang, Yiping Cui  
*Southeast University, China*
- P-A14 Nonmagnetic invisible cloak with minimized scattering  
L. J. Huang, D. M. Zhou, G. H. Li, J. Wang, Z. F. Li, X. S. Chen and W. Lu  
*Chinese Academy of Sciences, China*
- P-A15 Hyperbranched CdTe nanostructures via a self-assembly route: Synthesis and their optical properties  
Ling-Yun Pan, Gen-cai Pan and Hong-Bo Sun  
*Jilin University, China.*
- P-A16 Fourier optics for invisibility cloaks and optical illusions  
Guo Ping Wang  
*Wuhan University, China*
- P-A17 Omnidirectional light concentrator composed of aligned silicon wedges  
Xiaofei Xu, and Yijun Feng  
*Nanjing University, China*

*Plasmonics, Optical nano-antennas*

- P-A18 Influence of film thickness on the optical transmission through subwavelength slits in Ag thin films  
F. A. Ferri, V. A. G. Rivera, O. B. Silva, A. R. Zanatta, B.-H. V. Borges, E. Marega Jr. and J. Weiner  
*Instituto de Física de São Carlos-USP, Brazil*
- P-A19 Electromagnetically induced transparency in dielectric waveguide  
Yingran He and Yi Jin  
*Zhejiang University, China*
- P-A20 PH-dependent fluorescent enhancement in the aqueous mixture of CdTe@PAA nanospheres and Au nanoparticles  
Rongqing Li, Shuhong Xu, Chunlei Wang, Haibao Shao and Yiping Cui  
*Southeast University, China*
- P-A21 Single molecular fluorescence emission in the vicinity of individual gold nanorod  
Guowei Lu, Tianyue Zhang, Wenqiang Li, Lei Hou, Jie Liu, Qihuang Gong  
*Peking University, China*
- P-A22 Coupling of plasmonic and Fabry-Perot modes in metal/insulator/metal optical cavities  
F. L. Mao, H. L. Wang, Z. H. An  
*Fudan University, China*

- P-A23 Unusual spectral response of loss-compensated plasmons in active gain media  
A. Veltri, A. Aradian  
*University of Bordeaux, France*
- P-A24 Subwavelength cross-shaped metal hole arrays as efficient photocoupler for optoelectronic device applications  
H. L. Wang, F. L. Mao, Z. H. An  
*Fudan University, China*
- P-A25 Coupling between semiconductor quantum dots and surface plasmon polaritons  
J. J. Xie, Z. H. An  
*Fudan University, China*
- P-A26 The optimization of Holographic Polymer Dispersed Liquid Crystals (H-PDLCs) grating to effectively couple light into Surface Plasmon Polaritons (SPPs)  
Y. Yang, H. T. Dai and X. W. Sun  
*School of Science, Tianjin University, China*
- P-A27 Experimental study of indirect phase tuning-based plasmonic structures for finely focusing  
Yu Liu, Yongqi Fu  
*University of Electronic Science and Technology of China, China*
- P-A28 The nonlinear fano effect in the hybrid metal-semiconductor nanostructures  
Wei Zhang  
*Institute of Applied Physics and Computational Mathematics, China*
- P-A29 Laser-launched evanescent surface plasmon polariton field utilized as a direct coherent pumping source in four-wave mixing  
Q. Zhang, K. Lin and Y. Luo  
*University of Science and Technology of China, China*
- P-A30 Surface plasmon mode of silver nanowire and nanoring on sub-strate  
C.-L. Zou, F.-W. Sun, Y.-F. Xiao, C.-H. Dong, X.-D. Chen, J.-M. Cui, Z.-F. Han, G.-C. Guo  
*University of Science and Technology of China, China*

#### *Metamaterials*

- P-A31 Modeling of a wide angle double negative metamaterial at optical domain  
T. Cao and R. Y. Zhang  
*Dalian University of Technology, China*
- P-A32 Characterization of a wide-angle metamaterial absorber at near-infrared regime  
Yiting Chen, Jing Wang, Jiaming Hao, Min Yan, Min Qiu  
*Royal Institute of Technology, Sweden*
- P-A33 Heat transfer in laser-induced photothermal effect in a metamaterial with gold nanoparticles  
X. Chen, M. Yan, J. Wang, Y. Chen, J. Hao and M. Qiu  
*Royal Institute of Technology, Sweden*
- P-A34 Nonlinear subwavelength imaging with an opaque left-handed metamaterial  
Z. B. Wang, Y. J. Feng, J. M. Zhao, Z. Z. Yu and J. Tian  
*Nanjing University, China*

- P-A35 Plasmon-enhanced transparency at microwave frequencies  
J. F. Wang, S. B. Qu, D.L. Zhang, Z. Xu, H. Ma, S. Xia, X. H. Wang, H. Zhou, L. Lu  
*Air Force Engineering University, China*
- P-A36 2D subwavelength focusing analysis of metamaterial lens for tumour detection in the near field  
Yihong Xie, Yi Jin and Sailing He  
*Zhejiang University, China*
- P-A37 Theoretical investigations on all-dielectric frequency selective surfaces  
F. Yu, Sh. B. Qu, Zh. Xu, J. F. Wang, Y. M. Yang, X. H. Wang, H. Zhou, Ch. Gu  
*Air Force Engineering University, China*
- P-A38 Left-handed materials based on dielectric sphere of the same size and permittivity  
K. Zhang, Q. Wu, F. Y. Meng and L. W. Li  
*Harbin Institute of Technology, China*
- P-A39 Two-dimensional sub-wavelength imaging with a hemispherical hyperlens  
 DongDong LI, D. H. Zhang and C.C. Yan  
*Nanyang Technological University, Singapore*
- P-A40 Experimental demonstration of a thin THz metamaterial absorber  
H. Zhou, Y. Cui, Y. Ye, Y. Jin, and S. He  
*Zhejiang University, China*
- P-A41 A transmission-line type metamaterial leaky-wave antenna composed of split-ring microstrip patches  
H. F. Zhou and K. Sakoda  
*National Institute for Materials Science, Japan*
- P-A42 Directional emissions achieved with anomalous reflection phases of metamaterials  
Kun Ding, Tao Jiang, Jiaming Hao, Lixin Ran and Lei Zhou  
*Fudan University, China*

*Photonic crystals, Silicon photonics*

- P-A43 Influence of evanescent wave on the imaging features of photonic crystal slab lens  
Chen-Yu Chiang, Pi-Gang Luan  
*National Central University, Taiwan*
- P-A44 Localization of light by optically manipulating magnetic nanoparticles  
Qiao-Feng Dai, Hai-Dong Deng, Li-Jun Wu and Sheng Lan  
*South China Normal University, China*
- P-A45 Effective medium theory for chiral photonic crystals  
Junqing. Li, Fei Lian and Yusheng. Cao  
*Harbin Institute of Technology, China*
- P-A46 Achieving ultrasmall-V in high-Q photonic crystal nanobeam microcavities  
P. Yu, B. Qi, X. Jiang, M. Wang and J. Yang  
*Zhejiang University, China*
- P-A47 Slow light in periodic dielectric waveguides  
Wenfu Zhang, Jihong Liu, Wei-Ping Huang, and Wei Zhao  
*Chinese Academy of Science, China*



**P-A48 Design and analysis on novel slow light waveguides based on two dimensional photonic crystals**

**Shuyuan Lü and Jianlin Zhao**

*Northwestern Polytechnical University, China*

*Near-field optics, Quantum confined structures, Non-linear optics and Integrated nano-devices/circuits*

**P-A49 Beam splitting of double-groove fused-silica grating under normal incidence**

**Jun Wu, Changhe Zhou, Hongchao Cao, Anduo Hu, Junjie Yu, Wenting Sun, Wei Jia**

*Chinese Academy of Sciences, China*

**P-A50 Influence of solvent on aqueous CdTe nanocrystals: Theoretical and experimental investigation**

**Shuhong Xu, Chunlei Wang, Yiping Cui**

*Southeast University, China*

**P-A51 Nonlinear responses in optical metamaterials: Theory and experiment**

**Shiwei Tang, David J. Cho , Hao Xu , Wei Wu, Y. Ron Shen, and Lei Zhou**

*Fudan University, China*

**P-A52 BaTiO<sub>3</sub> film with Au doped grown by laser molecule beam epitaxy**

**Yulan Fu, Xiaoyong Hu, Hong Yang, and Qihuang Gong**

*Peking University, China*

**P-A53 Soret effect study in thermal lens induced by a Gaussian laser beam in colloidal nanoparticles solution using moire deflectometry**

**Saifollah Rasouli and M. A. Charsooghi**

*Physics Department, Institute for Advanced Studies in Basic Sciences, Iran*

**P-A54 Hybrid-integrated widely tunable laser composed of double-ring resonator and reflective semiconductor optical amplifier**

**O. Kwon and Y. Chung**

*Kwangwoon University, Korea*

**P-A55 High signal-to-noise ratio circular polarizers with multi-helical metamaterials**

**Z. Y. Yang, M. Zhao and P. X. Lu**

*Huazhong University of Science and Technology, China*

**P-A56 The Study of the light propagation in the fiber mode converter**

**W. M. Sun, H. J. Yu, Y. Jiang, X. Q. Liu, F. R. Wang**

*Harbin Engineering University, China*

*Fabrication/characterization for nanophotonics*

**P-A57 Tunable mesoporous Bragg reflectors based on block-copolymer self-assembly**

**S. Guldin, M. Kolle, S. Vignolini, J. J. Baumberg, U. Wiesner and U. Steiner**

*University of Cambridge, United Kingdom*

**P-A58 Si sheet doping inside the InAs/GaAs quantum dots with different levels**

**Ke-Fan Wang, Xiaoguang Yang, Yongxian Gu, Haiming Ji, and Tao Yang**

*Chinese Academy of Sciences, China*

- P-A59 Control the nano phase separation of fluorescent polystyrene thin films by chitosan**  
**Yuji Kivono, Olaf Karthaus**  
*Graduate School of Photonics Science, Japan*
- P-A60 The characterization of alloyed  $Zn_xCd_{1-x}S$  semiconductor nanowires by Raman spectroscopy**  
**Feng Lin, Wei Zheng and Xing Zhu**  
*School of Physics, Peking University, China*
- P-A61 Fusion spliced micro/nanofiber closed-loop ring lasers**  
**Wei Li and Limin Tong**  
*Zhejiang University, China*
- P-A62 Fabrication and efficiency investigation of large-area 2000l/mm gold transmission gratings for**  
**H. L. Li, L. N. Shi, X. L. Zhu, J. B. Niu and C. Q. Xie**  
*Lab of Nano Fabrication and Novel Device Integration, China*
- P-A63 Focused ion beam fabricated fiber Bragg grating in microfiber**  
**Y. X. Liu, C. Meng and L. M. Tong**  
*Zhejiang University, China*
- P-A64 Single-nanowire single-mode laser**  
**Xiao Yao, Chao Meng, Pan Wang, Yu Ye, Lun Dai, Limin Tong**  
*Zhejiang University, China*
- P-A65 Tuning of localized surface plasmon resonance of well-ordered Ag/Au bimetallic nanodots array by laser interference lithography and thermal annealing**  
**L. Xu, L. S. Tan, and M. H. Hong**  
*Data Storage Institute, Agency for Science, Technology and Research, Singapore*
- P-A66 FDTD calculation of electric field distribution produced by localized surface plasmons under annular pupil illumination**  
**Shinichiro Yamazaki and Hiroshi Kano**  
*Muroran Institute of Technology, Japan*

## I Poster Session B (Tuesday)

### *Nanophotonic material for bio/energy/environment*

- P-B01 Three dimensional gold nanostructures using tobacco mosaic viruses for optical metamaterials  
M. Kobayashi, I. Yamashita, Y. Uraoka, K. Shiba and S. Tomita  
*Cancer Institute of the Japanese Foundation for Cancer Research, Japan*
- P-B02 Study on the effect of the bendability of DSSC semiconductor electrode prepared by electrospinning  
Wei Tang Chiang, Chi Sheng Hsien and Ray Quen Hsu  
*National Chiao Tung University, Taiwan*
- P-B03 Semi-solid (Agar/PEO or Agar/PVAC) electronically conducting polymer as electrolyte layer for Dye-sensitized solar cell  
Yao Nan Lin, Po Te Lee, Kai Ming Chang, Shiang Cheng Jeng and Ray Quen Hsu  
*National Chiao Tung University, Taiwan*
- P-B04 Hybrid nanostructures for enhanced light absorption in organic solar cell  
J. Xiao, J. S. Liu  
*Beihang University, China*
- P-B05 Replication of nanoporous gyroid polymer films using atomic layer deposition for use in dye-sensitized solar cells  
P. M. Salgard Cunha, M. Scherer and U. Steiner  
*University of Cambridge, UK*
- P-B06 Remote-excitation surface enhanced Raman scattering (SERS) using propagating Ag nanowire plasmons for chemical sensing in living cells  
Nathaniel K. Grady, Xiaorui Tian, Yingzhou Huang, and Hongxing Xu  
*Chinese Academy of Sciences, China*
- P-B07 Ultra-sensitive nanoporous leaky waveguide sensors with induced blue shift of resonance wavelength  
Zhi-mei Qi, Zhe Zhang, Qian Liu  
*Chinese Academy of Sciences, China*
- P-B08 Integrated microfiber-microchip devices for high sensitivity evanescent field absorbance detection  
L. Zhang, P. Wang, Y. Xiao, H. K. Yu, Q. Zhao and L. M. Tong  
*Zhejiang University, China*
- P-B09 The contribution to color difference from lightness difference of flame fusion method synthetic spinel's blue color  
GuoYing, LiuFei, ZhangJiajing and DuHongmei  
*China University of Geosciences, China*
- P-B10 Bipolar-resistance effect in metal-oxide-semiconductor structure of Au-SiO<sub>2</sub>-Si  
Pengfei Zhu, Chaomin Zhang, Fuxin Wang, Qi Lin, Liang Bai, Yuhang Chen, Xin Ji  
*Shanghai University of Engineering Science, China*

- P-B11 Developing quantum dot-light emitting diodes for aviation lighting applications  
Fengbing Wu, Baocai Zhai, Wenjun Zhang, Shuzhen Shang, Yiming Zhu, Dawei Zhang,  
 Songlin Zhuang and Jian Xu  
*School of Optical-Electrical and Computer Engineering, China*
- P-B12 White light-emitting diode coating with Mn-doped nanocrystals films and molded by SiO<sub>2</sub>  
B. P. Yang, J. Y. Zhang, Y. P. Cui, and K. Wang  
*Southeast University, China*
- Plasmonics, Optical nano-antennas*
- P-B13 Polarization-selective window-mirror effect in inductive and capacitive metal nanogrids  
B. Bai , X. Li , J. Laukkanen , A. Lehmuskero, and J. Turunen  
*Tsinghua University, China*
- P-B14 Surface enhanced fluorescence with complex structured topography  
J. Dong, X. Q. Li, X. Q. Yan, Y. Sun, H. R. Zheng  
*Shaanxi Normal University, China*
- P-B15 Ultra-short plasmonic splitters and waveguide cross-over based on coupled surface plasmon slot waveguides  
Yi-Jiao Fang, Zhuo Chen, Ling Chen, Kai-Ting He, Zhen-lv Han, and Zhen-Lin Wang  
*Nanjing University, China*
- P-B16 Directional surface plasmon-coupled emission based on multiple scattering  
K. Lin, Q. Zhang, H. J. Zheng, X. X. Yu, S. L. Jiang, X. P. Wang and Y. Luo  
*University of Science and Technology of China, China*
- P-B17 Plasmonic airy beam manipulation by linear potentials  
Wei Liu, Dragomir N. Neshev, Ilya V. Shadrivov, Andrey E. Miroshnichenko and Yuri S. Kivshar  
*Australian National University, Australia*
- P-B18 Sharp resonances in gold nanoparticle arrays embedded in the transparent thin film  
L. Shi, H. Li, Y. Du, X. Zhu and C. Xie  
*Chinese Academy of Sciences, China*
- P-B19 Hybrid surface waves at plasmonic crystal interface  
Slobodan M. Vuković and Zoran Jaksic  
*University of Belgrade, Serbia*
- P-B20 Quadrupole plasmon resonance mode in nanocrescent/nanodisk structure: Local field enhancement and tunability in the visible light region  
Y. Zhang and T. Q. Jia  
*East China Normal University, China*
- P-B21 Surface plasmon whispering-gallery resonances in Au micro wires  
X. N. Zhang, Z. Ma, H. K. Yu, X. Guo, Y. G. Ma and L. M. Tong  
*Zhejiang University, China*
- P-B22 FANO-type asymmetry in MIM plasmonic stubs  
Xianji Piao, Sunkyu Yu, Kwanghee Lee and Namkyoo Park  
*Seoul National University, Republic of Korea*

*Metamaterials*

- P-B23 Effective parameters of a random set of dielectric cylinders**  
C. Bourel, G. Bouchitté, L. Manca, B. Guizal and D. Felbacq  
*University of Toulon, France*
- P-B24 Giant Raman fields in nanocomposites**  
S. Boyarintsev, A. Sarychev  
*Moscow Institute of Physics and Technology, Russian*
- P-B25 Coupling of surface plasmons and optical transmission through metamaterial stacks**  
RenHao Fan, Ling Qin, LiuYang Sun, Feng Gao, RuWen Peng, and Mu Wang  
*Nanjing University, China*
- P-B26 Electromagnetic energy density in a dispersive and absorptive single-resonance chiral metamaterial**  
Pi-Gang Luan, Yao-Ting Wang, Shuang Zhang and Xiang Zhang  
*National Central University, Taiwan*
- P-B27 Arbitrarily N-sided regular polygonal cloaks with homogeneous multilayered structures**  
Xin-Hua Wang, Shao-Bo Qu, Zhuo Xu, Hua Ma, Jia-Fu Wang, Lei Lu, Hang Zhou, Fei Yu, Yuqing Li  
*Air Force Engineering University, China*
- P-B28 Active control of plasmon-induced transparency in metamaterials**  
Hua Xu, and Byoung S. Ham  
*Inha University, Republic of Korea*
- P-B29 Dispersion of surface plasmon polaritons in metallic nanostructures: Eigenmode analysis method**  
Shulin Sun, Guang-Yu Guo  
*National Taiwan University, Taiwan*
- P-B30 A chirality switching device designed with transformation optics**  
Yuan Shen, Kun Ding, Wujiang Sun and Lei Zhou  
*Fudan University, China*
- P-B31 Tight-binding analysis to coupling effects in metamaterials**  
Hao Xu, Qiong He, Shiyi Xiao, Bin Xi, Jiaming Hao, Lei Zhou  
*Fudan University, China*
- P-B32 Electromagnetically induced negative magnetic permeability in a wide frequency range in a quasi- $\Lambda$ -four-level atoms**  
X. Yang and Y. Jiang  
*Harbin Institute of Technology, China*

*Photonic crystals, Silicon photonics*

- P-B33 Dispersion free slow light in one-dimensional grating waveguide**  
Changjing Bao, Jin Hou, Huaming Wu and Dingshan Gao  
*Huazhong University of Science and Technology, China*

- P-B34 Tunable “rainbow” in a coaxial nanophotonic waveguide**  
**Qing Hu, Dongxiang Qi, Delin Wang, Jia Li, Ruili Zhang, Ruwen Peng, and Mu Wang**  
*Nanjing University, China*
- P-B35 Pressure-tuneable resonant optical devices inspired by structural colour of butterfly wing scales**  
**G. Kamita, M. Kolle J. J. Baumberg and U. Steiner**  
*University of Cambridge, UK*
- P-B36 A multilayer-based high performance polarization insensitive reflector**  
**H. Wu, S. Li, X. He, N. Luo, and Y. Gao**  
*Nanchang Hangkong Universit, China*
- P-B37 A nano-opto-mechanical systems (NPMS) pressure sensor**  
**X. Zhao, H. Cai, M. L. J. Tsai, X. M. Ji, J. Zhou, Y. P. Huang, M. H. Bao and A. Q. Liu**  
*Nanyang Technological University, Singapore*
- P-B38 Nonlinear coupling in triple-core photonic crystal fibers**  
**Peng Li and Jianlin Zhao**  
*Northwestern Polytechnical University, China*
- P-B39 Localized modes in defect-free circular photonic crystals**  
**Wei Zhong and Xiangdong Zhang**  
*Beijing Normal University, China*
- Near-field optics, Quantum confined structures, Non-linear optics and Integrated nano-devices/circuits*
- P-B40 Nonlinear dielectric response of two silver nanoparticles**  
**Chang Ying, Li Weiqi and Jiang Yongyuan**  
*Harbin Institute of Technology, China*
- P-B41 Nonlinear refractive index measurement using moiré deflectometry in pump-probe configuration**  
**Saifollah Rasouli, H. Ghasemi, and H. R. Khalesifard**  
*Institute for Advanced Studies in Basic Sciences , Iran*
- P-B42 Slow light induced by XPM nonlinearity in quantum well structure**  
**X. M. Su and Z. C. Zhuo**  
*Jilin University, China*
- P-B43 Flat-plateau supercontinuum generation in liquid absorptive medium by femtosecond filamentation**  
**L. Wang, Y. X. Fan, Z. D. Yan, H. T. Wang and Z. L. Wang**  
*Nanjing University, China*
- P-B44 Effect of shell thickness on two-photon absorption and nonlinear refraction of colloidal CdSe/CdS core/shell nanocrystals**  
**B. H. Zhu, H. C. Zhang, J. Y. Zhang, Y. P. Cui and Z. Q. Zhou**  
*Southeast University, China*

**P-B45 Implementation of optical signal delay module using polymer coupled ring resonator optical waveguide**

**O. Kwon and Y. Chung**

*Kwangwoon University, Korea*

**P-B46 Collapse and revival phenomenon in an opto-mechanical system**

**Xuefeng Jiang, Beibei Li, Qihuang Gong, and Yunfeng Xiao**

*Peking University, China*

**P-B47 Realization of subwavelength guiding utilizing splitted groove waveguides**

**Jian Pan, Zhuo Chen and Zhenlin Wang**

*Nanjing University, China*

**P-B48 S-shaped resonators metamaterial for THz polarimetric devices**

**P. Ding, G. W. Cai, W. Q. Hu and E. J. Liang**

*Zhengzhou Institute of Aeronautical Industry Management, China*

*Fabrication/characterization for nanophotonics*

**P-B49 In-plane anisotropy of magneto-optical Kerr effect in cobalt films deposited on two-dimensional colloidal crystals**

**Z. L. Han, J. H. Ai, P. Zhan, J. Du, H. F. Ding and Z. L. Wang**

*Nanjing University, China*

**P-B50 Interaction between fs laser pulses and a thin Au film**

**Zhongyi Guo, Keya Zhou, Yanjun Xiao, S. A. Moiz, Shiliang Qu, Shutian Liu, and Jungho Lee**

*Hanyang University, Korea*

**P-B51 Influence of color-causing atoms on color parameters of green nephrite from Manasi**

**Hongmei Du, Ying Guo and Xiang Li**

*China University of Geoscience, China*

**P-B52 Enhancement effect of golden AFM tip illuminated with radially polarized beam**

**M. Zhang, J. Wang , Q. Tian**

*Tsinghua University, China*

**P-B53 Light manipulation by gold nanobumps**

**C. M. Chang, C. H. Chu, M. L. Tseng, B. H. Chen, and Dingping Tsai**

*National Taiwan University, Taiwan*

**P-B54 Novel long period fiber grating based on resonant coupling in twisted silica nanowires**

**Zhizheng Feng, Nankuang Chen, Limin Tong, and Chinlon Lin**

*National United University, Taiwan*

**P-B55 Fabrication and lasing characteristics of GaN nanopillars**

**M.-H. LO, Y.-J. Cheng, H.-C. Kuo, and S.-C. Wang**

*National Chiao Tung University, Taiwan*

## I Poster Session C (Wednesday)

### *Nanophotonic material for bio/energy/environment*

- P-C01 DNA biomimetic liquid crystalline organization studied by polarization resolved two-photon fluorescence microscopy  
Katarzyna Matczyszyn, Joanna Olesiak-Banska, Marek Samoc, Dominique Chauvat, Marcin Zielinski and Joseph Zyss  
*Wroclaw University of Technology, Poland*
- P-C02 Super imaging with a plasmonic metamaterial: Role of aperture shape  
Shivi Xiao, Qiong He, Xueqing Huang, Lei Zhou  
*Fudan University, China*
- P-C03 Silver nanoparticle plasmon resonance for enhancing broad-band antireflection of silicon surfaces  
Lanying Yang, Xianguo Tuo, Xiangang Luo and Minghui Hong  
*Chengdu University of Technology, China*
- P-C04 Degradation of PEDOT: PSS-silicon nanowire bulk hybrid solar cell  
S. A. Moiz, H. -D. Um, J. -Y. Jung, K. -T. Park, S. -W. Jee, K. Y. Zhou, Z. Guo, J.-H. Lee  
*Hanyang University, Republic of Korea*
- P-C05 Optical properties of tapered silicon nanowires  
Zhongyi Guo, Keya Zhou, Jin-Young Jung, Yanjun Xiao, S. A. Moiz, Shutian Liu, and Jung-Ho Lee  
*Hanyang University, Republic of Korea*
- P-C06 Optical absorption enhancement using the combined silicon wire arrays for flexible photovoltaic applications  
Min-Joon Park, Kwang-Tae Park, Zhongyi Guo, Jin-Young Jung, Han-Don Um, Yoon-Ho Nam, Sun-MiShin and Jung-Ho Lee  
*Hanyang University, Republic of Korea*
- P-C07 Fabrication of flexibility optical sensing nanofibers via Nature Dye and TiO<sub>2</sub> / ZnO coaxial electrospinning as Dye-sensitized solar cell applications  
Po Te Lee, Yao Nan Lin, Kai Ming Chang, Shiang Cheng Jeng and Ray Quen Hsu  
*National Chiao Tung University, Taiwan*
- P-C08 Plasmonic core-shell gold nanoparticle for increasing optical absorption in silicon solar cells  
Di Qu, Fang Liu, Xiangdong Li, Xujie Pan, Jiafan Yu, Wanlu Xie, Qi Xu, and Yidong Huang  
*Tsinghua University, China*
- P-C09 Transport properties of light in a disordered medium composed of nanometer-size hollow spheres  
Yuchen Xu, Hao Zhang, Heyuan Zhu and Min Xu  
*Fudan University, China*



- P-C10 SERS from molecules adsorbed on the surface of a coated nanoparticle with radial anisotropy**  
**L. Gao, Y. D. Yin, and C. W. Qiu**  
*Soochow University, China*
- P-C11 A novel nano-grating surface plasmon biosensor for bio-detection**  
**Zhencheng Xu, Biqin Dong, Bingrui Lu, Yifang Chen and Ran Liu**  
*Fudan University, China*
- P-C12 Visible laser power dependence of the lateral photovoltaic effect in Au-SiO<sub>2</sub>-Si metal-oxide semiconductor structure**  
**Chaomin Zhang, Pengfei Zhu, Fuxin Wang, Qi Lin, Liang Bai, Yuhang Chen, Xin Ji**  
*Shanghai University of Engineering Science, China*
- P-C13 Preparation of wide range refractive index DLC films by means of PECVD**  
**A. Gharibyan, Zh. Panosyan, Ye. Yengibaryan**  
*State Engineering University of Armenia, Armenia*
- P-C14 Characterization of Zn: LiNbO<sub>3</sub> optical waveguides fabricated by diffusion from oxide films**  
**D. O. Anisimov, M.V. Borodin, L. Ya. Serebrennikov, S. M. Shandarov, V. V. Shcherbina, S. A. Kuznetsova, and V. V. Kozik**  
*Tomsk State University of Control Systems and Radioelectronics, Russia*
- P-C15 Refractive index modulation enhancements by nanoparticles for PQ-PMMA photopolymer**  
**Chengmingyue Li, Shiman Zhang, Liangcai Cao, Fushi Zhang, Qingsheng He and Guofan Jin**  
*Tsinghua University, China*
- P-C16 Optical characteristics of porous anodic aluminium oxide films with varied pore sizes with embedded silver nanoparticles**  
**Chien-Hsiang Fan, and Hsiang-Chen Chui**  
*National Cheng Kung University, Taiwan*
- P-C17 Diamond like carbon antireflective coating based Si schottky photodiode**  
**Zh. Panosyan, Ye. Yengibaryan, A. Arakelyan, K. Avjyan, A. Khachatryan and L. Matevosyan**  
*State Engineering University of Armenia, Armenia*

*Plasmonics, Optical nano-antennas*

- P-C18 One-way electromagnetic waveguide formed in the metallic sandwiched layers under a static magnetic field**  
**Jinxin Fu, Jiafang Li, and Zhiyuan Li**  
*Chinese Academy of Science, China*
- P-C19 Analytical single-mode model for subwavelength metallic Bragg waveguides**  
**Xiaolan Zhong and Zhiyuan Li**  
*Chinese Academy of Science, China*

**P-C20 Gain induced bandwidth narrowing of surface plasmon polaritons in fourier spectrum**  
Yuhui Chen, Mingliang Ren, Bengli Wang, Siyun Liu, Jiafang Li, and Zhiyuan Li  
*Chinese Academy of Science, China*

**P-C21 A plasmonic beaming structure applicable to Edge-Emitting Laser**  
Jinghua Jiang, Fenghuan Hao, Jia Wang and Changxi Yang  
*Tsinghua University, China*

**P-C22 The generation Airy-type surface plasmon polaritons**  
H. T. Dai and X. W. Sun  
*Tianjin University, China*

**P-C23 Plasmon-induced transparency with detuned ultracompact Fabry-Perot resonators in MIM waveguides**  
Zhanghua Han and Sergey I. Bozhevolnyi  
*University of Southern Denmark, Denmark*

**P-C24 Mechanisms of ultrafast laser-induced subwavelength structures: The role of plasmonic effects**  
M. Huang, F. L. Zhao, Y. Chen, N. S. Xu and Z. Z. Xu  
*Chinese Academy of Sciences, China*

**P-C25 Surface-enhanced Raman scattering on silver microparticles modified by nanostructures**  
Shuo Yang  
*Capital Normal University, China*

#### *Metamaterials*

**P-C26 Electromagnetic concentrators based on nonlinear transformations**  
D. M. Zhou, L. J. Huang, N. Li, B. Zhang, X. S. Chen, W. Lu  
*Chinese Academy of Science, China*

**P-C27 Enhanced electromagnetic radiation at optical frequencies**  
Zhaoyun Duan, Chen Guo, Zewei Wu, Jucheng Lu, and Min Chen  
*University of Electronic Science and Technology of China, China*

**P-C28 Optical activities in complementary double layers of six-armed metallic gammadion structures**  
Wensheng Gao and Wing Yim Tam  
*Hong Kong University of Science and Technology, Hong Kong*

**P-C29 Competition of surface plasmon and magnetism of dodecanethiol capped Au nanoparticles with different diameters**  
Li Wang and Peijie Wang  
*Capital Normal University, China*

**P-C30 Extraordinary enhancement of chirality in deep dielectric nano chiral structures**  
Bingrui Lu, Yifang Chen, Xin-Ping Qu, Yuanyuan Wang, and Ran Liu  
*Fudan University, China*

**P-C31 A three dimensional multi rings meta-lens for far-field deep sub-wavelength resolution**  
Z. J. Xu, D. H. Zhang, C. C. Yan and D. D. Li, Y. K. Wang and H. J. Bian  
*Nanyang Technological University, Singapore*

P-C32 Polarization-insensitive and multiband metamaterials absorber in the microwave regime  
Xiaopeng Shen, Tie Jun Cui, Hui Feng Ma, Wei Xiang Jiang, Ben Geng Cai  
*Southeast University, China*

P-C33 Making a solid metallic film perfectly transparent  
Zhengyong Song, Qiong He and Lei Zhou  
*Fudan University, China*

*Photonic crystals, Silicon photonics*

P-C34 Single channel side-coupled photonic crystals waveguide with parallel high quality factor resonators  
Cui Naidi, Jingqiu Liang, Zhongzhu Liang, Jianwei Zhou, Bo Yang, Yongqiang Ning and Weibiao Wang  
*Chinese Academy of Science, China*

P-C35 Optical activities of micro-spiral photonic crystals fabricated by multi-beam holographic lithography  
Jenny Hung and Wing Yim Tam  
*Hong Kong University of Science and Technology, Hong Kong*

P-C36 Generation of broadband cascaded FWM products in SOI waveguide  
Hongjun Liu, Jin Wen, Nan Huang, and Qibing Sun  
*Chinese Academy of Science, China*

P-C37 Y-type circular-polarized wave-divider based on chiral PC slab  
Junqing Li, Rong Li and Yusheng. Cao  
*Harbin Institute of Technology, China,*

P-C38 Donuts make confinement of electromagnetic waves  
Ya-Lun Tsai, Chii-Chang Chen, Ching-Yi Chen, and Jenq-Yang Chang  
*National Central University, Taiwan*

P-C39 Highly efficient generation of entangled photon states by nonlinear photonic crystal  
Shaozhi Wei, Yunxia Dong, Haibo Wang and Xiangdong Zhang  
*Beijing Normal University, China*

P-C40 Optical properties in the soft photonic crystals based on colloidal ferrofluids  
C. Z. Fan, E. J. Liang and J. P. Huang  
*Zhengzhou University, China*

P-C41 Design and fabrication of compound nonlinear photonic crystal  
F. Qin, Z. M. Meng and Z. Y. Li  
*Chinese Academy of Sciences, China*

P-C42 Flexible photonic crystal fabricated by two-dimensional free-standing ZnO nanomesh arrays  
M. Fu, J. Zhou and J. H. Yu  
*Beijing Jiaotong University, China*

P-C43 Controllable switching behavior of optical Tamm state based on nematic liquid crystal  
J. Luo, P. Xu, and L. Gao  
*Soochow University, China*

- P-C44 Novel surface mode T-junction waveguide in photonic crystals**  
B. Jiang, W. J. Zhou, A. J. Liu, W. Chen and W. H. Zheng  
*Chinese Academy of Sciences, China*
- P-C45 Fano resonance of 3D spiral photonic crystals: Paradoxical transmission and polarization gap**  
Wen-Jie Chen, Jian-Wen Dong, Cheng-Wei Qiu, and He-Zhou Wang  
*Sun Yat-Sen University, China*
- P-C46 Large group-index slow light with wide band and low dispersion in a W1 photonic crystal waveguide**  
L. Y. Ren, J. Liang, M. J. Yun, X. J. Wang  
*Chinese Academy of Sciences, China*
- P-C47 The ring cladding photonic crystal fibers**  
 Weimin Sun, Xiaoqi Liu  
*Harbin Engineering University, China*
- Near-field optics, Quantum confined structures, Non-linear optics and Integrated nano-devices/circuits*
- P-C48 Ultrafast all-optical modulation based on surface-plasmon-polariton focusing**  
S. Yue, Z. Li, J. J. Chen and Q. H. Gong  
*Peking University, China*
- P-C49 Superconductor photonic crystal in terahertz domain**  
C. H. Raymond Ooi and C. H. Kam  
*University of Malaya, Malaysia*
- P-C50 Photoluminescence properties of the CdSe quantum dots accompanied with rotation of the defocused wide-field fluorescence images**  
 Qiang Li, Xiao-Jun Chen, Yi Xu, Sheng Lan, Hai-Ying Liu, Qiao-Feng Dai and Li-Jun Wu  
*South China Normal University, China*
- P-C51 Nonlinear optical property of Ag nanoparticles**  
R. Sato, Y. Takeda, M. Ohnuma, T. Ohno and H. Momida  
*University of Tsukuba, Japan*
- P-C52 The anomalous power dependence of the upconversion emission in NaYF<sub>4</sub>:Er<sup>3+</sup>, Yb<sup>3+</sup> induced by 976 nm excitation**  
R. Zhang, F. L. Zhao  
*Sun Yat-sen University, China*
- P-C53 Packaged silica microsphere-taper coupling system for robust sensing application**  
Y. Z. Yan, C. L. Zou, Y. G. Zhang, S. B. Yan, F. W. Sun, Z. F. Han, and J. J. Xiong  
*North University of China, China*
- P-C54 Loss analysis of bent horizontal slot waveguides**  
Zhe Xiao, Feng Luan and Jing Zhang  
*Nanyang Technological University, Singapore*

*Fabrication/characterization for nanophotonics*

- P-C55 Effect of antimony irradiation on single-layer and multilayer InAs/Sb:GaAs quantum dots grown by Molecular Beam Epitaxy  
Xiaoguang Yang, Tao Yang, Kefan Wang, Haiming Ji, Zhanguo Wang  
*Chinese Academy of Sciences, China*
- P-C56 Mesoporous Film of Polyaniline  
T.Okamoto, O.Karthus  
*Chitose Institute of Science and Technology, Japan*
- P-C57 Self-organization of polymer patterns on curved substrates  
Hirovuki Morj, Olaf Karthus  
*Chitose Institute of Science and Technology, Japan*
- P-C58 Generation of ZnO nanocomposites by picosecond laser Ablation of zinc in tetrahydrofuran solution of thermoplastic polyurethane  
S. Faramarzi  
*Islamic Azad University, Iran*
- P-C59 Nanofabrication for Ge<sub>2</sub>Sb<sub>2</sub>Te<sub>5</sub> by femto-second laser-induced forward transfer  
M. L. Tseng, B. H. Chen, C. H. Chu, C. M. Chang, and Din Ping Tsai  
*National Taiwan University, Taiwan*
- P-C60 Fabrication method and efficiency of large-area gold transmission gratings for applications in plasma diagnostics and astrophysics  
H. L. Li, L. N. Shi, X. L. Zhu, J. B. Niu and C. Q. Xie  
*Chinese Academy of Sciences, China*
- P-C61 Modification of local and overall environment in rare earth doped luminescent nanomaterials  
Hairong Zheng, Dangli Gao, Jun Dong, Wei Gao, Xiaoqing Yan, Jiao Li, Yu Sun  
*Shaanxi Normal University, China*
- P-C62 Perturbation between two traps in dual-trap optical tweezers  
Lin Ling, Fei Zhou, Lu Huang, Honglian Guo, Zhaolin Li and Zhi-Yuan Li  
*Chinese Academy of Sciences, China*
- P-C63 Whispering gallery resonator using tapered-fiber-coupled hollow core micro-fiber  
Nan-Kuang Chen, Yu-Hsin Hsieh, Chinlon Lin and Sien Chi  
*National United University, Taiwan*
- P-C64 Optical and electrical pumped whispering-gallery mode lasing from ZnO microcavities  
C. X. Xu, J. Dai and X. W. Sun  
*Southeast University, China*
- P-C65 Fabrication of micro-valves by two-photon polymerization for microfluidics applications  
C.-L. Lin, C. Huang, C.-L. Tseng, P. L. Baldeck and T.-T. Chung  
*Central Taiwan University of Science and Technology, Taiwan*
- P-C66 An efficient numerical method for lasing eigenvalue problems  
Yuexia Huang and Ya Yan Lu  
*Hangzhou Normal University, China*