The Fifth International Conference on Nanophotonics

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
c   chemical sensing in living cells
6、B. Bai, X. Li, J. Laukkane, 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 Dinping 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 Ge2Sb2Te5 by femto-seond laser-induced forward transfer
ICNP Secretariat:

*Dr. Qiong He*

*Address:* Room 2316, East Guanghua Tower, 220 Han-Dan Road, Fudan University, Shanghai 200433, China

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*Fax:* +86-21-55665239

*E-mail:* icnp2011@fudan.edu.cn

Sponsors:
Conference Topics

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

<table>
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<tr>
<th>Speaker</th>
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<tr>
<td><strong>Yuen-Ron Shen</strong></td>
<td>Professor Emeritus, University of California at Berkeley, US</td>
</tr>
<tr>
<td></td>
<td>Title: Linear and Nonlinear Properties of Surface Plasmons.</td>
</tr>
<tr>
<td><strong>Martin Wegener</strong></td>
<td>Professor, Karlsruhe Institute of Technology (KIT), Germany</td>
</tr>
<tr>
<td></td>
<td>Title: 3D Photonic Metamaterials and Transformation Optics.</td>
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<tr>
<td><strong>Min Gu</strong></td>
<td>Director of Centre for Micro-Photonics, Swinburne University of Technology, Australia</td>
</tr>
<tr>
<td></td>
<td>Title: Nanophotonics under an optical microscope.</td>
</tr>
<tr>
<td><strong>Masaya Notomi</strong></td>
<td>Dr. Distinguished Technical Member, NTT Basic Research Laboratories, Japan</td>
</tr>
<tr>
<td></td>
<td>Title: fJ/bit integrated nanophotonics for future ICT.</td>
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<tr>
<td><strong>Sergey I. Bozhevolnyi</strong></td>
<td>Professor, Institute of Sensors, Signals and Electrotechnics, University of Southern Denmark, Odense, Denmark</td>
</tr>
<tr>
<td></td>
<td>Title: Plasmonic interconnects and circuitry: Fundamental issues and practical perspectives.</td>
</tr>
<tr>
<td><strong>Younan Xia</strong></td>
<td>James M. McKelvey Professor for Advanced Materials in Department of Biomedical Engineering, Washington University, US</td>
</tr>
<tr>
<td></td>
<td>Title: Engineering the Plasmonic Properties of Gold Nanostructures for Biomedical pplications.</td>
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## Invited Speakers
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<tr>
<th>Name</th>
<th>Position</th>
<th>Institution</th>
<th>Title</th>
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<tbody>
<tr>
<td>Din Ping Tsai</td>
<td>Professor, Department of Physics</td>
<td>National Taiwan University, Taiwan</td>
<td>Plasmonic hot spots for photo-catalytic chemical reactors.</td>
</tr>
<tr>
<td>Shanhui Fan</td>
<td>Associate Professor of Electrical Engineering</td>
<td>Stanford University, US</td>
<td>Nanophotonics in energy applications: near-field thermal transfer and solar cell light trapping.</td>
</tr>
<tr>
<td>Edo Waks</td>
<td>Professor, Department of Electrical and Computer Engineering</td>
<td>Maryland University, US</td>
<td>Manipulation of quantum dots to nanometer precision by control of flow.</td>
</tr>
<tr>
<td>Hong-Bo Sun</td>
<td>Changjiang Professor, College of Electronic Science and Engineering</td>
<td>Jilin University, China</td>
<td>Biomimetic laser nanofabrication, from the lotus leaf to the compound eye.</td>
</tr>
<tr>
<td>Qiwen Zhan</td>
<td>Associate Professor, Electro-Optics Program and Department of Electrical</td>
<td>University of Dayton, US</td>
<td>New perspective of nanofocusing with plasmonic antenna.</td>
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<td></td>
<td>and Computer Engineering, University of Dayton, US</td>
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<tr>
<td>Limin Tong</td>
<td>Professor, Department of Optical Engineering</td>
<td>Zhejiang University, China</td>
<td>Semiconductor nanowires for active photonic devices.</td>
</tr>
<tr>
<td>Name</td>
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<tr>
<td>Sasha Grigorenko</td>
<td>Negative index metamaterials - time to think positively?</td>
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<tr>
<td>Thomas Haertling</td>
<td>Photochemical metal deposition - a scalable fabrication tool for nanophotonics.</td>
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<td>Asger Mortensen</td>
<td>Photonic waveguides: how slow light can go?</td>
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<tr>
<td>Katsuhiro Akimoto</td>
<td>Defect characterization of Cu(In,Ga)Se2 solar cell material grown by three step method</td>
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<tr>
<td>Francisco J. Garcia Vidal</td>
<td>Entanglement of two qubits mediated by one-dimensional plasmonic waveguides.</td>
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<tr>
<td>Zhanghai Chen</td>
<td>Nonlinearity of excitonic polariton in ZnO.</td>
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<tr>
<td>Benjamin Eggleton</td>
<td>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.</td>
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<tr>
<td>Cun-Zheng Ning</td>
<td>Professor of Electrical Engineering, Arizona State University, US Title: Plasmonic Nanolasers with Subwavelength-Size Cavities: Progress and Prospectus</td>
<td></td>
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<tr>
<td>Lars Thylen</td>
<td>Professor, Photonics and Microwave Engineering, Royal Institute of Technology, Sweden Title: Densely integrated photonics circuits beyond silicon: Prospects, applications and power dissipation issues.</td>
<td></td>
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<tr>
<td>Martin Kristensen</td>
<td>Professor, Department of Physics and Astronomy and Interdisciplinary Nanoscience Center (iNANO), University of Aarhus Ny Munkegade, Denmark Title: Integrated Optics for Quantum Cryptography.</td>
<td></td>
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<tr>
<td>Namkyoo Park</td>
<td>Professor, Photonic Systems Laboratory, Dept of EECS, Seoul National University, Korea Title: Mode Junction Photonics for digital signal processing.</td>
<td></td>
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<tr>
<td>Franky So</td>
<td>Professor, Department of Materials Science and Engineering, University of Florida, US Title: Effect of Nanophase Morphology on Polymer Solar Cells.</td>
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<tr>
<td>Philippe Lalanne</td>
<td>Professor, Groupe Nanophotonique et Electromagnétisme</td>
<td>Institut d’Optique France, France</td>
<td>Title: Bloch Mode Engineering.</td>
</tr>
<tr>
<td>Natalia Litchinitser</td>
<td>Assistant Professor, Department of Electrical Engineering</td>
<td>University at Buffalo, US</td>
<td>Title: Metamaterials: A gateway to new science and applications of light.</td>
</tr>
<tr>
<td>Chunlei Guo</td>
<td>Associate Professor, Institute of Optics</td>
<td>University of Rochester, US</td>
<td>Title: Black and colored metals and applications.</td>
</tr>
<tr>
<td>Andrei Lavrinenko</td>
<td>Associate Professor, Department of Photonics Engineering</td>
<td>Technical University of Denmark, Denmark</td>
<td>Title: Wave propagation in metamaterials and effective parameters retrieving.</td>
</tr>
<tr>
<td>Qihuang Gong</td>
<td>Professor, Department of Physics</td>
<td>Peking University, China</td>
<td>Title: Ultracompact plasmonic devices and ultrafast modulation based on SPPs.</td>
</tr>
<tr>
<td>Xiaocong Yuan</td>
<td>Professor, School of Information Technical Science</td>
<td>Nankai University, China</td>
<td>Title: Microlens enabled applications in optical imaging and 3D display.</td>
</tr>
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<tr>
<td>Howard Jackson</td>
<td>Professor, Department of Physics, University of Cincinnati, US</td>
<td>Photomodulated reflectance spectroscopy of single semiconductor nanowires.</td>
<td></td>
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<tr>
<td>Minghui Hong</td>
<td>Professor, National University of Singapore, Singapore</td>
<td>Large area 2D and 3D THz meta-materials design and fabrication by laser means.</td>
<td></td>
</tr>
<tr>
<td>Jinsong Huang</td>
<td>Assistant Professor, Department of Mechanical Engineering, Nebraska University-Lincoln, US</td>
<td>Introduce an Electric Field into Polymer Solar Cell for Increased Efficiency.</td>
<td></td>
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<tr>
<td>Ai-Qun Liu</td>
<td>Professor, School of Electrical &amp; Electronic Engineering, College of Engineering, Nanyang Technological University, Singapore</td>
<td>Optofluidic Dye Laser via Two-Flow-Stream Dean Flow.</td>
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<tr>
<td>Zhenchao Dong</td>
<td>Professor, Hefei National Laboratory for Physical Sciences at the Microscale, China</td>
<td>“Forbidden Light”: Irregular Molecular Electroluminescence by Resonant Nanocavity Plasmons.</td>
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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.
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
Yeshaiahu Fainman, UC San Diego, USA
Yunlong Sheng, University Laval, Canada

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Joseph Haus, University of Dayton, US
Min Qiu, KTH, Sweden
General Co-chairs

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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Qiwen Zhan (Univ. of Dayton, USA)
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Lars Thylen (Royal Institute of Technology (KTH), Sweden)
J. T. Shen (Washington Univ. in St. Louis, US)
C. T. Chan (Hong Kong Unive. of Science and Technology, Hong Kong)
Marko Loncar (Harvard University, US)
Javier García de Abajo (Instituto de Óptica – CSIC, Spain)
Xiangang Luo (Institute of Optics and Electronics, CAS, China)
Dai Sik Kim (Seoul National Univ., Korea)
Kiyoshi Asakawa (Tsukuba Univ., Japan)
Minghui Hong (National Univ. of Singapore, Singapore)
John T. Fourkas (Univ. of Maryland, USA)
Chennupati Jagadish (Australian National Univ., Australia)
Limin Tong (Zhejiang Univ., China)
Zhiyuan Li (Institute of Physics, CAS, China)
Nickolas Fang (Univ. of Illinois / Massachusetts Institute of Technology, USA)
Takuo TANAKA (The Institute of Physical and Chemical Research, Japan)
Harald Giessen (University of Stuttgart, Germany)
Changhe Zhou (SIOM, Chinese Academy of Science, China)

Local Organizing Committee

Lei Xu (Co-chair)(School of Information Science and Technology, Fudan University)
Zhanghai Chen (Co-chair)(Department of Physics, Fudan University)
Zhenghua An (Department of Physics, Fudan University)
Yongkang Le (Department of Physics, Fudan University)
Qiong He (Conference secretariat)
Xiaoyan Zhu (Department of Physics, Fudan University)
Leijuan Song (Department of Physics, Fudan University)
Fanmei Liu
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 Guanghua Building in Fudan University

Monday 23 May 2011

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<th>Time</th>
<th>Room 202 Allowed Activity</th>
<th>Room 102 Allowed Activity</th>
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<tbody>
<tr>
<td>8:05-8:15</td>
<td>Openin Remark</td>
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</table>
| 8:15-9:00 | Plenary Talk 1  
Martin Wegener                  |                                         |
| 9:00-9:45 | Plenary Talk 2  
Sergey I. Bozhevolsnyi                 |                                         |
| 9:45-10:10 | Coffee Break                            | Coffee Break                            |
| 10:10-12:10 | Oral Session  
Photonic Crystal - 1  
Energy / Environment - 1 | Oral Session  
Light-Matter Interactions - 1  
Solar Cell |
| 12:10-13:30 | Lunch Break                            | Lunch Break                            |
| 13:30-15:00 | Oral Session  
Light-Matter Interactions - 1  
Solar Cell | Oral Session  
Photonic Crystal - 2  
Nonlinear Optics - 1 |
| 15:00-15:20 | Coffee Break                            | Coffee Break                            |
| 15:20-16:35 | Oral Session  
Photonic Crystal - 2  
Nonlinear Optics - 1 | Oral Session  
Light-Matter Interactions - 2  
Fabrications and Applications - 1 |
| 16:35-16:50 | Coffee Break                            | Coffee Break                            |
| 16:50-18:10 | Poste Session A                         | Tutorial 1                              |

Tuesday 24 May 2011

<table>
<thead>
<tr>
<th>Time</th>
<th>Room 202 Allowed Activity</th>
<th>Room 102 Allowed Activity</th>
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</thead>
</table>
| 8:15-9:00 | Plenary Talk 3  
Min Gu                   |                                         |
| 9:05-10:20 | Oral Session  
Photonic Crystal - 3  
Energy / Environment – 2 | Oral Session  
Light-Matter Interactions - 2  
Fabrications and Applications - 1 |
| 10:20-10:40 | Coffee Break                            | Coffee Break                            |
| 10:40-12:10 | Oral Session  
Energy / Environment - 1  
Light-Matter Interactions - 2 | Oral Session  
Fabrications and Applications - 1  
Nonlinear Optics |
| 12:10-13:30 | Lunch Break                            | Lunch Break                            |
| 13:30-14:30 | Oral Session  
THz Metamaterials  
Nanoparticle-based Photonics | Oral Session  
Solar Cell  
Central Hall |
<p>| 14:30-14:45 | Coffee Break                            | Coffee Break                            |
| 14:45-15:45 | Poster session B                      |                                         |
| 15:45-19:30 | Guided City Tour (Optional)          |                                         |</p>
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<tr>
<td>8:15-9:00</td>
<td>Plenary Talk 4</td>
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<td><strong>Younan Xia</strong></td>
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<tr>
<td>9:00-9:45</td>
<td>Plenary Talk 5</td>
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<td></td>
<td><strong>Masaya Notomi</strong></td>
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<tr>
<td>9:45-10:10</td>
<td>Coffee Break</td>
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<tr>
<td>10:10-12:10</td>
<td>Oral Session Metamaterials - 1</td>
<td>Oral Session Fabrications and Applications - 2</td>
</tr>
<tr>
<td>12:10-13:30</td>
<td>Lunch Break</td>
<td>Lunch Break</td>
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<tr>
<td>13:30-15:00</td>
<td>Oral Session Plasmonics - 1</td>
<td>Oral Session Optical Force</td>
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<tr>
<td>15:00-15:20</td>
<td>Coffee Break</td>
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<tr>
<td>15:20-16:35</td>
<td>Oral Session Near-field Optics</td>
<td>Oral Session Fabrications and Applications - 3</td>
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<tr>
<td>16:35-16:50</td>
<td>Coffee Break</td>
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<tr>
<td>16:50-18:10</td>
<td>Central Hall</td>
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<td>Poster Session C</td>
<td>Tutorial 2</td>
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<tr>
<td>8:15-9:00</td>
<td>Plenary Talk 6</td>
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<td><strong>Yuen-Ron Shen</strong></td>
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<tr>
<td>9:05-10:20</td>
<td>Oral Session Plasmonics - 2</td>
<td>Oral Session Semiconductor-based Nanophotonics</td>
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<tr>
<td>10:20-10:40</td>
<td>Coffee Break</td>
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<tr>
<td>10:40-12:10</td>
<td>Oral Session Plasmonics - 3</td>
<td>Oral Session Fabrications and Applications - 4</td>
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<tr>
<td>12:10-13:30</td>
<td>Lunch Break</td>
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<tr>
<td>13:30-14:45</td>
<td>Oral Session Plasmonics - 4</td>
<td>Oral Session Nanowire-based Photonics</td>
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<tr>
<td>14:45-15:05</td>
<td>Coffee Break</td>
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<tr>
<td>16:25-16:35</td>
<td>Closing Remark</td>
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<tr>
<td>Time</td>
<td>Session</td>
<td>Room: 202</td>
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<tr>
<td>8:05-8:15</td>
<td><strong>Opening Remarks</strong></td>
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<tr>
<td>8:15-9:45</td>
<td><strong>Plenary Session I</strong></td>
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<tr>
<td>8:15-9:45</td>
<td><strong>PL-1 3D Photonic metamaterials and transformation optics</strong></td>
<td>Martin Wegener</td>
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<td>9:00-9:45</td>
<td><strong>PL-2 Plasmonic interconnects and circuitry: Fundamental issues and practical perspectives</strong></td>
<td>Sergey I. Bozhevolnyi</td>
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<td><strong>Coffee Break</strong></td>
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<td>10:10-12:10</td>
<td><strong>Photonic Crystal - I</strong></td>
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<tr>
<td>10:10-10:40</td>
<td><strong>IN-01 Densely integrated photonics circuits beyond silicon: Prospects, applications and power dissipation issues</strong></td>
<td>Lars Thylen</td>
</tr>
<tr>
<td>10:55-11:10</td>
<td><strong>O-02 Dirac-cones induced by accidental degeneracy in photonic crystals and zero refractive index materials</strong></td>
<td>Xueqin Huang, Yun Lai, Zhihong Hang, Huibao Zheng, and C. T. Chan</td>
</tr>
<tr>
<td>11:10-11:40</td>
<td><strong>O-04 High-Q nanocavity in 2D silicon photonic crystal slab</strong></td>
<td>Changzhu Zhou, Chen Wang and Zhiyuan Li</td>
</tr>
<tr>
<td>11:40-11:55</td>
<td><strong>O-05 Nanophotonics in energy applications: Near-field thermal transfer and solar cell light trapping</strong></td>
<td>Shanhui Fan</td>
</tr>
<tr>
<td>11:55-12:10</td>
<td><strong>O-06 Plasmonic Mach-Zehnder interferometer on a microfluidic chip for sensitive optical sensing</strong></td>
<td>Qiaoqiang Gan, Yongkang Gao, Xuanhong Cheng and Filbert J. Bartoli</td>
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<td>12:10-13:30</td>
<td><strong>Lunch Break</strong></td>
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<tr>
<td>13:30-15:00</td>
<td><strong>Light-Matter Interactions - 1</strong> Chair: Sergey I. Bozhevolnyi</td>
<td><strong>Solar Cell</strong> Chair: Martin Kristensen</td>
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</table>
| 13:30-14:00 | **IN-05** Plasmonic nanolasers with subwavelength-size cavities: Progress and prospectus  
Cunzheng Ning  
Arizona State University, United States of America | **IN-07** Introduce an electric field into polymer solar cell for increased efficiency  
Jinsong Huang  
Nebraska University-Lincoln, United States of America |
| 14:00-14:30 | **IN-08** Entanglement of two qubits mediated by one-dimensional plasmonic waveguides  
Francisco J. Garcia Vidal  
Universidad Autonoma de Madrid, Spain | **O-11** Effect of nanophase morphology on polymer solar cells  
Song Chen and Franky So  
University of Florida, United States of America |
| 14:30-14:45 | **IN-06** Entanglement of two qubits mediated by one-dimensional plasmonic waveguides  
Francisco J. Garcia Vidal  
Universidad Autonoma de Madrid, Spain | **O-12** Nearly total absorption of light and heat generation by plasmonic nanostructures  
Juming Hao, Min Qu, Lei Zhou, Chengwei Qiu, and Said Zouhdi  
LGEP, Supélec, Gif-sur-Yvette, France |
| 14:45-15:00 | **IN-10** Ultra-broadband light harvesting absorbers based on slow light using anisotropic metamaaterials  
Yiqiao Tang, Adam E. Cohen  
Harvard University, United States of America | **O-13** Fabrication and characterization of silicon nanohole solar cells  
Hong Kong Polytechnic University, Hong Kong |
| 15:00-15:20 | Coffee Break | Coffee Break |
| 15:20-16:35 | **Photonic Crystal - 2** Chair: Philippe Lalanne | **Nonlinear Optics - 1** Chair: Weitao Liu |
| 15:20-15:50 | **IN-08** Photonic waveguides: How slow light can go?  
Asger Mortensen  
Technical University of Denmark, Denmark | **IN-09** Nonlinearity of excitonic polariton in ZnO  
Zhanghai Chen  
Fudan University, China |
| 15:50-16:05 | **O-15** Parallel-coupled dual racetrack silicon microring resonators for quadrature amplitude modulation  
Ryan A. Integlia, Lianghong Yin, and Wei Jiang  
Rutgers University, United States of America | **O-18** Optical parametric amplification of SPP in nonlinear hybrid waveguide  
Tao Li, Feifei Lu, in Li and Shining Zhu  
Nanjing University, China |
| 16:05-16:20 | **O-16** Ultra-compact 1xN and NxN TE-polarized beam splitters based on every-second-line-defect photonic crystal waveguides  
M. Zhang, A. C. Krüger, N. Groothoff, P. X. Shi and M. Kristensen  
Aarhus University, Denmark | **O-19** Four wave mixing and optical hysteresis in colloidal solution of Er-Yb doped LaF3 nanocrystals  
Pobegolov, P. Agruzov, P. Gaenko, I. Lichev, A. Shamray  
Ioffe Physical-Technical Institute, Russia |
| 16:20-16:35 | **O-17** Concentrically curved silicon waveguide WDM couplers  
H. Renner, M. Krause and E. Brinkmeyer  
Technische Universität Hamburg-Harburg, Germany | **O-20** Efficient third harmonic generation from gold hole-array nanostructures  
G. X. Li, T. Li, H. Lu, K. F. Li, S. M. Wang, S. N. Zhu, and K. W. Cheah  
Hong Kong Baptist University, Hong Kong |
| 16:35-16:50 | Coffee Break | Coffee Break |
| 16:50-17:30 | **Central Hall** | **Tutorial 1 Chair: Hui Liu**  
*Nanophotonic Materials Creating Novel Physical Phenomena*  
Joseph Haas  
University of Dayton, United States of America |
<p>| 17:30-18:10 | <strong>Poster Session A</strong> | <strong>Poster Session A</strong> |</p>
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<tr>
<td>8:15-9:00</td>
<td>Plenary Session II: Nanophotonics under an optical microscope</td>
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<td>Min Gu, Swinburne University of Technology, Australia</td>
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<td>Energy / Environment – 2</td>
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<td>Chair: Qiaoqiang Gan</td>
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<td>9:05-9:35</td>
<td>EC10 Chalcogenide nanophotonics</td>
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<td>Benjamin Eggleton, University of Sydney, Australia</td>
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<td>9:35-9:50</td>
<td>O-21 Low threshold current and single mode photonic crystal vertical cavity surface emitting laser</td>
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<td>Y. Y. Xie, Q. Kan, C. X. Wang, C. Xu and H. D. Chen, Institute of Semiconductor, Chinese Academy of Sciences, China</td>
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<td>9:50-10:05</td>
<td>O-22 Nonclassical photon correlation of nanoparticle in photonic crystal</td>
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<td>C. H. Raymond Ooi, University of Malaysia, Malaysia</td>
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<td>10:05-10:20</td>
<td>O-23 Improved coupled-wave theory for 2D photonic-crystal surface emitting lasers</td>
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<td>C. Peng, Y. Liang, K. Sakai, Iwahashi, M. Miyai, S. Noda, Kyoto University, Japan</td>
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<td>10:20-10:40</td>
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<td>10:40-12:10</td>
<td>Light-Matter Interactions - 2</td>
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<td>Chair: Sasha Grigorenko</td>
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<td>10:40-12:10</td>
<td>Fabrications and Applications - 1</td>
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<td>Chair: Namkyoo Park</td>
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<td>10:40-11:10</td>
<td>EC11 Metamaterials: A gateway to new science and applications of light</td>
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<td>Natalia Litchinitser, University at Buffalo, United States of America</td>
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<td>11:10-11:25</td>
<td>O-27 Second harmonic generation and nonlinear Smith-Purcell effect in 3D metamatials</td>
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<td>Xiangdong Zhang and Jinying Xu, Beijing Normal University, China</td>
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<td>11:25-11:40</td>
<td>O-28 Resonant plasmon-induced enhancement of magnoeto-optical Kerr effect in 1D and 2D magnetophotonic crystals</td>
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<td>A. A. Grunin, A. V. Chetvertikhin, T. V. Dolgova, A. V. Baryshev, H. Uchida, M. Inoue, and A. A. Fedyanin, Lomonosov Moscow State University, Russia</td>
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<td>11:40-11:55</td>
<td>O-29 Nonlinear plasmonic frequency conversion through quasiphase matching</td>
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<td>Zitian Wu, Xikui Hu, Ziyang Yu, Wei Hu, Fei Xu, and Yanqing Lu, Nanjing University, China</td>
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<td>11:55-12:10</td>
<td>O-30 Slow-wave meta-surfaces to enhance light-matter interactions</td>
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<td>Shivi Xiao, Qiong He, Xueqin Huang, Shiwei Tang, and Lei Zhou, Fudan University, China</td>
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<td>13:00-14:00</td>
<td><strong>THz Metamaterials</strong>&lt;br&gt;Chair: Shuang Zhang</td>
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<td><strong>Nanoparticle-based Photonics</strong>&lt;br&gt;Chair: Daniel Ou-Yang</td>
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<td>13:30-14:00</td>
<td><strong>IN-14</strong> Large area 2D and 3D THz meta-materials design and fabrication by laser means&lt;br&gt;Minghui Hong&lt;br&gt;National University of Singapore, Singapore</td>
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<td><strong>IN-15</strong> Manipulation of quantum dots to nanometer precision by control of flow&lt;br&gt;Edo Waks&lt;br&gt;Maryland University, United States of America</td>
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<td>14:00-14:15</td>
<td><strong>O-35</strong> Tunneling of photons mediated by surface plasmon polaritons in a terahertz photonic crystal&lt;br&gt;Hai-Ying Li, Sen Liang, Qiao-Feng Dai, Li-Jun Wu, and Sheng Lan&lt;br&gt;South China Normal University, China</td>
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<td><strong>O-37</strong> InGaN/GaN dot-in-a-wire nanoscale heterostructures and high-efficiency light emitting diodes on Si&lt;br&gt;H. P. T. Nguyen, K. Cui, S. Zhang, X. Han, and Z. Mi&lt;br&gt;McGill University, Canada</td>
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<td>14:15-14:30</td>
<td><strong>O-36</strong> Modelling, fabrication and characterisation of THz fractal meta-materials&lt;br&gt;S. Xiao, L. Zhou, R. Malureanu, D. Cooke, P. Uhd Jepsen, A. Lavrenenko&lt;br&gt;Technical University of Denmark, Denmark</td>
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<td><strong>O-38</strong> Enhancement of optical nonlinearity of metal nanoparticles with control of local field&lt;br&gt;Y. Takeda, R. Sato, H. Momida, M. Ohnuma, T. Ohno and N. Kishimoto&lt;br&gt;National Institute for Materials Science, Japan</td>
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<td>14:30-14:45</td>
<td>Coffee Break</td>
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<td>14:45-15:45</td>
<td><strong>Poster Session B</strong></td>
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<td>15:45-19:30</td>
<td><strong>Guided City Tour (Optional)</strong></td>
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<td>8:15-9:45</td>
<td><strong>Plenary Session III</strong></td>
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<td>8:15-9:00</td>
<td><strong>PL-4 Engineering the plasmonic properties of gold nanostructures for biomedical applications</strong></td>
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<td>9:00-9:45</td>
<td><strong>PL-5 FJ/bit integrated nanophotonics for future ICT</strong></td>
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<td><strong>Coffee Break</strong></td>
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<td>10:10-12:10</td>
<td><strong>Metamaterials - 1</strong></td>
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<td>10:10-10:40</td>
<td><strong>IN-16 Negative index metamaterials - time to think positively?</strong></td>
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<td><strong>IN-18 Recent developments of droplet epitaxy of GaAs quantum dots and their spectroscopic studies</strong></td>
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<td>10:40-10:55</td>
<td><strong>O-39 Magnetically controllable unidirectional electromagnetic waveguiding devices designed with metamaterials</strong></td>
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<td><strong>O-43 Nanoplasmonic waveguide filters with disk-shaped nanocavities</strong></td>
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<td>10:55-11:10</td>
<td><strong>O-40 Switching electric and magnetic responses in metamaterials</strong></td>
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<td><strong>O-44 Highly efficient asymmetrical silicon-based plasmonic add-drop filter for integrated nanophotonic circuits</strong></td>
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<td>11:10-11:40</td>
<td><strong>IN-17 Super-imaging and invisibility cloak using natural materials</strong></td>
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<td><strong>IN-19 Mode junction photonics for photonic digital signal processing</strong></td>
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<td>11:40-11:55</td>
<td><strong>O-41 Experimental study of coherent magnetic plasmon modes in a one-dimensional meta-chain</strong></td>
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<td><strong>O-45 Phase-shifting interferometry based on the high density transmissive grating</strong></td>
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<td><strong>O-42 Linear and circular dichroism in a truly three dimensional gold gyroid metamaterial</strong></td>
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<td><strong>O-46 Ring resonator on silicon nanowire optical waveguide (SNOW)</strong></td>
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### Wednesday Afternoon, May 25, 2011

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<td>13:30-15:00</td>
<td><strong>Plasmonics - 1</strong> Chair: Minghui Hong</td>
<td><strong>Optical Force</strong> Chair: Edo Waks</td>
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<td>13:30-14:00</td>
<td><strong>IN-20</strong> Plasmonic hot spots for photo-catalytic chemical reactors</td>
<td><strong>IN-21</strong> Ultracompact plasmonic devices and ultrafast modulation based on SPPs</td>
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<td>Dinping Tsai National Taiwan University, Taiwan</td>
<td><strong>IN-22</strong> Optical bottle: colloidal nanoparticles in optical confinement</td>
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<td>Daniel Ou-Yang Lehigh University, United States of America</td>
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<td>14:00-14:30</td>
<td><strong>IN-23</strong> Broadband beam collimating with a plasmonic structures of a metal-dielectric-metal multilayered substrate</td>
<td><strong>IN-24</strong> Optical dye laser via two-flow-stream dean flow</td>
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<td>F. Zhang, Y. R. He, Y. Jin and S. He Zhejiang University, China</td>
<td>At-Qun Liu Nanyang Technological University, Singapore</td>
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<td>14:30-14:45</td>
<td><strong>IN-25</strong> Microlens enabled applications in optical imaging and 3D display</td>
<td><strong>IN-26</strong> Theory of couplings in plasmonics and metamaterials</td>
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<td>Xiaocong Yuan Nankai University, China</td>
<td>Bin Xi, Shi-yi Xiao, Hao Xu and Lei Zhou Fudan University, China</td>
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<td>14:45-15:00</td>
<td><strong>IN-27</strong> Slow-light enhanced force between shifted periodic waveguides</td>
<td><strong>IN-28</strong> Effects of spatial dispersion in the optical response of plasmonic nanostructures</td>
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<td>Yue Sun, Thomas P. White, and Andrey A. Sukhorukov Australian National University, Australia</td>
<td>C. David, F. Javier García de Abajo Instituto de Optica - CSIC, Spain</td>
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<td><strong>IN-29</strong> Circular Fibonacci grating N. Gao, Y. Zhang and C. Xie Institute of Microelectronics, Chinese Academy of Sciences, China</td>
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<td>16:05-16:20</td>
<td><strong>IN-30</strong> Discrimination of individual molecular aggregate from other molecular aggregates by one by restricting the light emitting space</td>
<td><strong>IN-31</strong> Far-field and near-field polarization control with anisotropic optical metamaterials</td>
<td><strong>O-54</strong> Spiral phase elements based on segmented space-variant subwavelength metallic wire gratings Zhehai Zhou, Qiaofeng Tan and Guifan Jin Beijing Information Science and Technology University, China</td>
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<td>K. Funaba, E. Watanabe, H. Nejo, N. S. Venkataramanan, H. Mizuseki and Y. Kawazoe National Institute for Materials Science, Japan</td>
<td>M. R. Shcherbakov, B. B. Tsema, M. I. Doblynde, T. V. Dolgova, A. A. Ezhov, D. P. Tsai, A. A. Fedyanin Lomonosov Moscow State University, Russia</td>
<td><strong>O-55</strong> Feature-size reduction of photopolymerized three dimensional micro/nanostructures taking use of shrinkage Q. Sun, N. Murazawa, K. Ueno, and H. Misawa Hokkaido University, Japan</td>
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<td>16:35-16:50</td>
<td><strong>IN-32</strong> Microlens enabled applications in optical imaging and 3D display</td>
<td><strong>IN-33</strong> Photochemical metal deposition - a scalable fabrication tool for nanophotonics</td>
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<td>Xiaocong Yuan Nankai University, China</td>
<td>Thomas Haertling Fraunhofer Institute for Non-Destructive Testing, German</td>
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<td>17:00-18:10</td>
<td><strong>IN-34</strong> Far-field and near-field polarization control with anisotropic optical metamaterials</td>
<td><strong>IN-35</strong> Far-field and near-field polarization control with anisotropic optical metamaterials</td>
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<td>Q. Sun, N. Murazawa, K. Ueno, and H. Misawa Hokkaido University, Japan</td>
<td><strong>O-56</strong> Feature-size reduction of photopolymerized three dimensional micro/nanostructures taking use of shrinkage Q. Sun, N. Murazawa, K. Ueno, and H. Misawa Hokkaido University, Japan</td>
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<td>18:10-19:00</td>
<td><strong>IN-37</strong> Thermal effects in plasmonic and metamaterial nanostructures</td>
<td><strong>IN-38</strong> Tutorial 2 Chair: Yijun Feng</td>
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<td>Min Qiu Royal Institute of Technology (KTH), Sweden</td>
<td><strong>IN-39</strong> Tutorial 2 Chair: Yijun Feng</td>
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<td><strong>IN-40</strong> Far-field and near-field polarization control with anisotropic optical metamaterials</td>
<td><strong>IN-41</strong> Far-field and near-field polarization control with anisotropic optical metamaterials</td>
<td><strong>IN-42</strong> Far-field and near-field polarization control with anisotropic optical metamaterials</td>
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<td>8:15-9:00</td>
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<td>8:15-9:00</td>
<td>Plenary Session IV</td>
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<td>8:15-9:00</td>
<td>Linear and nonlinear properties of surface plasmons</td>
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<td>Room: 202 Plasmonics - 2</td>
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<td>9:05-9:35</td>
<td>IN-26 New perspective of nanofocusing with plasmonic antenna</td>
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<td>Qiwen Zhan</td>
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<td>University of Dayton, United States of America</td>
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<td>9:35-9:50</td>
<td>O-57 Symmetry breaking surface plasmon-polariton excitation and its functional applications</td>
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<td>Xiaowei Li, Qiaofeng Tan, Benfeng Bai, and Guofan Jin</td>
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<td>Tsinghua University, China</td>
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<td>O-58 Dominant effect of magnetic polarization in the absorption of common metallic nanoparticles</td>
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<td>A. Asenjo-García, A. Manjavacas, V. Myroshnychenko and F. J. García de Abajo</td>
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<td>Instituto de Óptica – CSIC, Spain</td>
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<td>10:05-10:20</td>
<td>O-59 Modified decay rates and quantum interferences through plasmonic-induced anisotropic vacuum</td>
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<td>L. J. Wang, P. Ren, Y. Gu, and Q. H. Gong</td>
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<td>Peking University, China</td>
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<td>Room: 202 Plasmonics - 3</td>
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<td>IN-28 Probing plasmonic hybridization using cathodoluminescence</td>
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<td>Nicholas X. Fang</td>
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<td>Massachusetts Institute of Technology, United States of America</td>
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<td>11:10-11:25</td>
<td>O-63 Femtosecond dynamics of surface plasmons in planar plasmonic nanostructures</td>
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<td>P. P. Vabishchevich, M. R. Sheherbakov, V. V. Komarova, V. O. Bessonov, T. V. Dolgova and A. A. Fedyanin</td>
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<td>Lomonosov Moscow State University, Russia</td>
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<td>11:25-11:40</td>
<td>O-64 Characteristics of plasmonic racetrack resonator in a trench structure</td>
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<td>H. Okamoto, K. Yamaguchi, M. Haraguchi, and T. Okamoto</td>
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<td>Anan National College of Technology, Japan</td>
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<td>11:40-11:55</td>
<td>O-65 Probing localized surface plasmon modes in metal nanostructures</td>
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<td>Instituto de Óptica—CSIC, Spain</td>
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<td>11:55-12:10</td>
<td>O-66 Optical transmission and propagation dynamics of femto-second pulse through double-layer, laterally shifted metallic subwavelength hole arrays</td>
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<td>Hong Kong University of Science and Technology, Hong Kong</td>
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<td>12:10-13:30</td>
<td>Lunch Break</td>
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<td>13:30-14:45</td>
<td><strong>Plasmonics - 4</strong></td>
<td><strong>Nanowire-based Photonics</strong></td>
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<tr>
<td>13:30-14:00</td>
<td>“Forbidden light”: Irregular molecular electroluminescence by resonant nanocavity plasmons</td>
<td>Zhenchao Dong, Hefei National Laboratory for Physical Sciences at the Microscale, China</td>
<td>Semiconductor nanowires for active photonic devices</td>
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<td>Limin Tong, Zhejiang University, China</td>
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<td>O-71 Electromagnetically induced transparency based on plasmonic slot waveguide and resonator</td>
<td>Qiang Li and Min Qiu, Royal Institute of Technology (KTH), Sweden</td>
<td>O-74 Plasmon enhancement in Ag nanowire-nanoantenna circuit</td>
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<td>Zheyu Fang, and Xing Zhu, Peking University, China</td>
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<td>14:15-14:30</td>
<td>O-72 Achievements of large tunability of geometric resonances and wavelength-division multiplexing in metallic nanoparticle array</td>
<td>Y. Gu, J. Li, X. Y. Hu, and Q. H. Gong, Peking University, China</td>
<td>O-75 Absorptive nanowire filters by particle plasma and guided-mode resonance</td>
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<td>A. Lehmuskero, I. Vartiainen, T. Saastamoinen, T. Alasaarela, and M. Kuitinnen, University of Eastern Finland, Finland</td>
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<td>14:30-14:45</td>
<td>O-73 Efficient fluorescence enhancement assisted by the double plasmon modes of gold nanorods</td>
<td>S. Y. Liu, J. P. Li, Y. H. Chen and Z. Y. Li, Institute of Physics, Chinese Academy of Science, China</td>
<td>O-76 Characterization of the propagation loss in metal nanowires</td>
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<td>Y. G. Ma, X. Guo, X. Y. Li and L. M. Tong, Zhejiang University, China</td>
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<td>14:45-15:05</td>
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<td>15:05-16:20</td>
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<td><strong>Nonlinear Optics - 2</strong></td>
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<td>15:05-15:35</td>
<td>IN-32 Wave propagation in metamaterials and effective parameters retrieving</td>
<td>Andrei Lavrinenko, Technical University of Denmark, Denmark</td>
<td>Ultra-low-power nonlinear optical devices:</td>
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<td>Single-photon frequency convertor and single-photon diode</td>
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<td>Jung-Tsung Shen, Washington University in St. Louis, United States of America</td>
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<td>15:35-15:50</td>
<td>O-77 Obtaining effective medium parameters directly from the eigen-fields: a boundary effective medium theory</td>
<td>Y. Lai, Y. Wu, C.T. Chan, P. Sheng, and Z.Q. Zhang, Hong Kong University of Science and Technology, Hong Kong</td>
<td>O-80 Study on the optical physics properties of carbon-based nanomaterials</td>
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<td>X. Chen, X. Zhang and Z. Liu, Nankai University, China</td>
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<td>15:50-16:05</td>
<td>O-78 Transition from 2D to 3D effective optical properties in gold nanoparticle-polymer composite films</td>
<td>J. Vieux, O. Merchiers, A. Aradian and V. Ponsinet, University of Bordeaux, France</td>
<td>O-81 Spectrally resolved nonlinear optical response of upconversion Lanthanide-doped NaYF4 nanoparticles</td>
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<td>M. Nyyk, D. Wawrzynczyk, K. Parjaszewski and M. Samoc, Wroclaw University of Technology, Poland</td>
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<td>16:05-16:20</td>
<td>O-79 Reflectionless ultra-thin wave-plate based on metamaterials</td>
<td>Wujiong Sun, Qiong He, Jianming Hao and Lei Zhou, Fudan University, China</td>
<td>O-82 High conversion efficiency of second harmonic generation in photonic band gap structures with distributed Bragg reflector mirrors</td>
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<td>Mingliang Ren and Zhiyuan Li, Institute of Physics, Chinese Academy of Sciences, China</td>
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<td>16:25-16:35</td>
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| 8:15-9:45| **Plenary Session I**  
Chair: Joseph Haus | **Energy / Environment – 1**  
Chairs: Min Gu and Jinsong Huang |
| 8:15-9:00| 3D Photonic metamaterials and transformation optics  
Martin Wegener  
Karlsruhe Institute of Technology (KIT), Germany |  
Nonphotonic in energy applications: Near-field thermal transfer and solar cell light trapping  
Shanhui Fan  
Stanford University, United States of America |
| 9:00-9:45| Plasmonic interconnects and circuitry: fundamental issues and practical perspectives  
Sergey I. Bozhevolnyi  
University of Southern Denmark, Denmark |  
Integrated optics for quantum cryptography  
Martin Kristensen  
University of Aarhus Ny Munkegade, Denmark |
| 10:10-12:10| **Photonic Crystal - 1**  
Chairs: Benjamin Eggleton and Zhiyuan Li | **Solar Cell**  
Chair: Martin Kristensen |
| 10:10-10:40| Densely integrated photonics circuits beyond silicon: Prospects, applications and power dissipation issues  
Lars Thylen  
Royal Institute of Technology, Sweden | Nanophotonic in energy applications: Near-field thermal transfer and solar cell light trapping  
Shanhui Fan  
Stanford University, United States of America |
| 11:10-11:40| Bloch mode engineering  
Philippe Lalanne  
Institut d’Optique, France | Integrated optics for quantum cryptography  
Martin Kristensen  
University of Aarhus Ny Munkegade, Denmark |
| 13:30-15:00| **Light-Matter Interactions – 1**  
Chair: Sergey I. Bozhevolnyi | **Solar Cell**  
Chair: Martin Kristensen |
| 13:30-14:00| Plasmonic nanolasers with subwavelength-size cavities: Progress and prospectus  
Cunzheng Ning  
Arizona State University, United States of America | Introduce an electric field into polymer solar cell for increased efficiency  
Jinsong Huang  
Nebraska University-Lincoln, United States of America |
| 14:00-14:30| Entanglement of two qubits mediated by one-dimensional plasmonic waveguides  
Francisco J. Garcia Vidal  
Universidad Autonoma de Madrid, Spain |  
Nonlinearity of excitonic polariton in ZnO  
Zhanhai Chen  
Fudan University, China |
| 15:20-16:35| **Photonic Crystal - 2**  
Chair: Philippe Lalanne | **Nonlinear Optics - 1**  
Chair: Weitao Liu |
| 15:20-15:50| Photonic waveguides: How slow light can go  
Asger Mortensen  
Technical University of Denmark, Denmark | Nonlinearity of excitonic polariton in ZnO  
Zhanhai Chen  
Fudan University, China |
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<td><strong>Plenary Session II</strong>&lt;br&gt;Chair: Martin Wegener</td>
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<td>8:15-9:00</td>
<td>Nanophotonics under an optical microscope&lt;br&gt;Min Gu&lt;br&gt;Swinburne University of Technology, Australia</td>
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<td>9:05-10:20</td>
<td><strong>Photonic Crystal – 3</strong>&lt;br&gt;Chair: Lars Thylen</td>
<td><strong>Energy /Environment – 2</strong>&lt;br&gt;Chair: Qiaoqiong Gan</td>
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<td>9:05-9:35</td>
<td>Chalcogenide nanophotonics&lt;br&gt;Benjamin Eggleton&lt;br&gt;University of Sydney, Australia</td>
<td>Defect characterization of Cu(In,Ga)Se2 solar cell material grown by three step method&lt;br&gt;Katsuhiro Akimoto&lt;br&gt;University of Tsukuba, Japan</td>
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<td>10:40-12:10</td>
<td><strong>Light-Matter Interactions – 2</strong>&lt;br&gt;Chair: Sasha Grigorenko</td>
<td><strong>Fabrications and Applications – 1</strong>&lt;br&gt;Chair: Namkyoo Park</td>
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<td>10:40-11:10</td>
<td>Metamaterials: A gateway to new science and applications of light&lt;br&gt;Natalia Litchinitser&lt;br&gt;University at Buffalo, United States of America</td>
<td>Black and colored metals and applications.&lt;br&gt;Chunlei Guo&lt;br&gt;University of Rochester, United States of America</td>
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<td>13:30-14:30</td>
<td><strong>THz Metamaterials</strong>&lt;br&gt;Chair: Shuang Zhang</td>
<td><strong>Nanoparticle-based Photonics</strong>&lt;br&gt;Chair: Daniel Ou-Yang</td>
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<td>13:30-14:00</td>
<td>Large area 2D and 3D THz meta-materials design and fabrication by laser means&lt;br&gt;Minghui Hong&lt;br&gt;National University of Singapore</td>
<td>Manipulation of quantum dots to nanometer precision by control of flow&lt;br&gt;Edo Waks&lt;br&gt;Maryland University, United States of America</td>
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<td>Chairs: Thomas Haertling and Hongbo Sun</td>
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<td>13:30-15:00</td>
<td>Plasmonics – 1</td>
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<td>Chair: Minghui Hong</td>
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<td>15:20-16:35</td>
<td>Near-field Optics</td>
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<td>Chair: Qihuang Gong</td>
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| 8:15-9:00    | **Plenary Session IV**  
**Chair**: Lei Zhou
Linear and nonlinear properties of surface plasmons  
Yuen-Ron Shen  
University of California at Berkeley, United States of America |
| 9:05-10:20   | **Plasmonics – 2**  
**Chair**: Nicholas X. Fang
New perspective of nanofocusing with plasmonic antenna  
Qiwen Zhan  
University of Dayton, United States of America  
Photomodulated reflectance spectroscopy of single semiconductor nanowires  
Howard Jackson  
University of Cincinnati, United States of America |
| 10:40-12:10  | **Plasmonics – 3**  
**Chair**: Qiwen Zhan
Probing plasmonic hybridization using cathodoluminescence  
Nicholas X. Fang  
Massachusetts Institute of Technology, United States of America  
Biomimetic laser nanofabrication, from the lotus leaf to the compound eye  
Hongbo Sun  
Jilin University, China |
| 13:30-14:45  | **Plasmonics – 4**  
**Chair**: Xiaocong Yuan
“Forbidden light”: Irregular molecular electroluminescence by resonant nanocavity plasmons  
Zhenchao Dong  
Hefei National Laboratory for Physical Sciences at the Microscale, China  
Semiconductor nanowires for active photonic devices  
Limin Tong  
Zhejiang University, China |
| 15:05-16:20  | **Metamaterials – 2**  
**Chair**: Asger Mortensen
Wave propagation in metamaterials and effective parameters retrieving  
Andrei Lavrinenko  
Technical University of Denmark, Denmark  
Ultra-low-power nonlinear optical devices: single photon frequency convertor and single-photon diode  
Jung-Tsung Shen  
Washington University in St. Louis, United States of America |
| 13:00-14:00  | **Nonlinear Optics – 2**  
**Chair**: Lei Xu
Semiconductor nanowires for active photonic devices  
Limin Tong  
Zhejiang University, China |
| 15:05-16:20  | **Metamaterials – 2**  
**Chair**: Asger Mortensen
Wave propagation in metamaterials and effective parameters retrieving  
Andrei Lavrinenko  
Technical University of Denmark, Denmark  
Ultra-low-power nonlinear optical devices: single photon frequency convertor and single-photon diode  
Jung-Tsung Shen  
Washington University in St. Louis, United States of America |
Poster Program

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P-A01 Theoretical and numerical investigation of periodic hole arrays for plasmonic Raman sensor  
K. Yamaguchi, M. Fujii, and D. K. Gramotnev  
*Toyoashi 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 SiO2 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  
*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 nanoatstructures 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
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
   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
   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 BaTiO3 film with Au doped grown by laser molecule beam epitaxy
Yulan Fu, Xiaoyong Hu, Hong Yang, and Qiuhuang 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 Kiyono, Olaf Karthaus
  Graduate School of Photonics Science, Japan

P-A60 The characterization of alloyed Zn$_{x}$Cd$_{1-x}$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
  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
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-sensitised 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-SiO2-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$_2$
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-Iv Han, and Zhen-Lin Wang
Nanjing University, China

P-B16 Directional surface plasmon-coupled emission based on multiple scattering
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 Jaksić
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
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, Wujiong 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- A-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 University, China

P-B37 A nano-opto-mechanical systems (NPMS) pressure sensor  
Nanyang Technological University, Singapore

P-B38 Nonlinear coupling in triple-core phontonic 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
   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 Chihlon 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
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
Shiyi 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
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 TiO2 / 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$_2$-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$_3$ 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 charity 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
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
*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 NaYF₄:Er³⁺, Yb³⁺ 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. Karthaus
Chitose Institute of Science and Technology, Japan

P-C57 Self-organization of polymer patterns on curved substrates
Hiroyuki Mori, Olaf Karthaus
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$_2$Sb$_2$Te$_5$ 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
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, Hongliang 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, Chinth 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
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