

## **LIST OF POSTER PRESENTATIONS**

---

### ***Nanofabrication***

<b>P-A01</b>	A Roller manufacturing Machine for Fabricating Sub-micron Structures on the Roller for Nano-Imprint Lithography <u>Yen-Ting Kuo, Lien-Sheng Chen, Chin-Te Lin, Pei-Chun Chen, Jia-Yush Yen and Tien-Tung Chung</u> <i>National Taiwan University, Taiwan</i>	101
<b>P-A02</b>	Fabrication of Roller Mold with Spherical Microlens Structure Array based on Particles Self-assembly for Roll-to-Roll Process <u>Cheng-Hsin Chuang and Yu-Liang Chen</u> <i>Southern Taiwan University, Tainan</i>	102
<b>P-A03</b>	Low-Tg bismuth phosphate glasses for glass-imprinting and fabrication of 2D sub-wavelength structure <u>N. Kitamura, J. Nakamura, K. Fukumi, T. Hidaka, T. Ikeda, H. Hashima and J. Nishii</u> <i>National Institute of Advanced Industrial Science and Technology, Japan</i>	103
<b>P-A04</b>	Large-area near-infrared metamaterials fabricated via angle-resolved nanosphere lithography <u>Z. Chen, Z. S. Cao, J. Pan, P. Zhan and Z. L. Wang</u> <i>Nanjing University, China</i>	104
<b>P-A05</b>	Surface plasmon coupling enhanced dielectric environment sensitivity in a quasi-three-dimensional metallic nanohole array <u>P. Zhan, Y. Y. Li, J. Pan, N. B. Ming, and Z. L. Wang</u> <i>Nanjing University, China</i>	105
<b>P-A06</b>	Silicon nanostructures with quantum confinement by electron beam induced deposition lithography <u>I. Sychugov, Y. Nakayama and K. Mitsuishi</u> <i>National Institute for Materials Science, Japan</i>	106
<b>P-A07</b>	Line edge roughness reduction by photo resist trimming <u>Jingnan Cai, Peng Huei Lim, Yasuhiko Ishikawa and Kazumi Wada</u> <i>The University of Tokyo, Japan</i>	107
<b>P-A08</b>	Nanofabrication with Pulsed Lasers <u>A. V. Kabashin, Ph. Delaporte, D. Grojo, A. Pereira, P. Blandin, Th. Sarnet and M. Sentis</u> <i>Université de Méditerranée, France</i>	108
<b>P-A09</b>	Three-dimensional molding process based on two-photon microstereo-lithography using ceramic slurry <u>M. Inada, D. Hiratsuka, J. Tatami and S. Maruo</u> <i>Yokohama National University, Japan</i>	109
<b>P-A10</b>	Gold pattern formation by femto-second laser-induced technique <u>B. H. Chen, M. L. Tzeng, C. M. Chang, C. H. Chu, W. T. Chen, C. H. Lu, P. C. Wu, C. J. Chen, S. C. Yen and D. P. Tsai</u> <i>National Taiwan University, Taiwan</i>	110
<b>P-A11</b>	Polymer Nanowires Produced by Pulsed Laser Light <u>M. Goto, A. Kasahara and M. Tosa</u> <i>National Institute for Materials Science, Japan</i>	111
<b>P-A12</b>	Exciton Polariton Photonic Circuits from Organic Dye Nanofibers <u>K. Takazawa, J. Inoue, K. Mitsuishi and T. Takamatsu</u> <i>National Institute for Materials Science, Japan</i>	112
<b>P-A13</b>	Optical waveguiding of organic nanowires <u>Jeongyong Kim, Dae-Chul Kim, Jinwoo Lee and Jinsoo Joo</u> <i>University of Incheon, Korea</i>	113
<b>P-A14</b>	Surface plasmon-assisted photopolymerization on various gold nanostructures <u>T. Yokoyama, A. Masuhara, T. Onodera, H. Kasai and H. Oikawa</u> <i>Tohoku University, Japan</i>	114
<b>P-A15</b>	Laser Light Control of Self-organization Process <u>Y. Matsumura, W. Inami and Y. Kawata</u> <i>Shizuoka University, Shizuoka, Japan</i>	115
<b>P-A16</b>	Micron size polymer sphere arrays for photonic applications <u>Y. Kiyono and O. Karthaus</u> <i>Chitose Institute of Science and Technology, Japan</i>	116
<b>P-A17</b>	In-situ passivation of porous silicon by LaF <sub>3</sub> using a simple single-source chemical bath technique. <u>Abu Bakar Md. Ismail, Abdul Al Mortuza, Khondakar Shamsul Arefin and A. K. M. Badrul Alam</u> <i>Rajshahi University, Bangladesh</i>	117

### ***Nanoparticle Plasmonics/ Plasmonic Enhancement***

<b>P-A18</b>	Surface plasmon resonance and interband transitions of metal nanoparticles: What are the “interband transitions”? <u>H. Amekura</u> , M. Tanaka, H. Yoshikawa, H. Shinotsuka, S. Tanuma, N. Ishikawa, M. Ohnuma, Y. Matsushita, K. Kobayashi and N. Kishimoto <i>National Institute for Materials Science, Japan</i>	118
<b>P-A19</b>	Radiation photonics: A case of metal-nanoparticle composites <u>O.A. Plaksin</u> , Y. Takeda, K. Kono, H. Amekura and N. Kishimoto <i>SSC RF - Institute for Physics and Power Engineering, Russia</i>	119
<b>P-A20</b>	Spectral and power dependence of optical nonlinearity of metal nanoparticle materials <u>Y. Takeda</u> , H. Momida, R. Sato, M. Ohnuma, T. Ohno and N. Kishimoto <i>National Institute for Materials Science, Japan</i>	120
<b>P-A21</b>	Size dependence of nonlinear optical properties of Ag nanoparticles <u>R. Sato</u> , H. Momida, M. Ohnuma, T. Ohno and Y. Takeda <i>University of Tsukuba, Japan</i>	121
<b>P-A22</b>	Surface Enhanced Second Harmonic Generation of Dye-adsorbed Silver Nanoparticles <u>Zhuyuan Wang</u> , Wang Li, Zhiqiang Zhou, Binfeng Yun, Guohua Hu, Yuan Zhong and Yiping Cui <i>Southeast University, China</i>	122
<b>P-A23</b>	Dielectric analysis on optical properties of $ZrO_2$ thin films dispersed with silver nanoparticles <u>M. Wakaki</u> and E. Yokoyama <i>Tokai University, Hiratsuka, Japan</i>	123
<b>P-A24</b>	Solid Immersion Lens with Gold Nanoparticles for Localized Surface Plasmon Microscopy T. Kishi, <u>S. Furusawa</u> , A. Yasumori, T. Yano and S. Shibata <i>Tokyo Institute of Technology, Japan</i>	124
<b>P-A25</b>	Photoproperties of Gold Nanorods on Substrates in the Presence of Magnetic Processing <u>H. Yonemura</u> , N. Sakai, J. Suyama and S. Yamada <i>Kyushu University, Japan</i>	125
<b>P-A26</b>	Optical phonons in ZnS nanowires, nanocombs, and nanosheets <u>Heesuk Rho</u> , Jin Heung Kim, Young-Jin Choi and Jae-Gwan Park <i>Chonbuk National University, Korea</i>	126
<b>P-A27</b>	Formation of In/Ag Compound Nano Clusters studied by UHV-TEM/STM <u>M. Tanaka</u> and M. Shimojo <i>National Institute for Materials Science, Japan</i>	127
<b>P-A28</b>	Novel Metal-Polymer Composite Particles for Nanophotonic Materials <u>H. Yabu</u> , A. Endo, T. Nakanishi, K. Koike, K. Motoyoshi, T. Higuchi and M. Shimomura <i>Tohoku University, Sendai, Japan</i>	128
<b>P-A29</b>	Optical Limiting Characteristics of Core-Shell Nanoparticles <u>G. Vinitha</u> and A. Ramalingam <i>B S Abdur Rahman University, India</i>	129
<b>P-A30</b>	Optical rectification in self-assembled monolayers probed at surface plasmon resonance condition <u>D. Tanaka</u> , R. Uzawa, H. Okawa, K. Hashimoto, and K. Kajikawa <i>Tokyo Institute of Technology, Japan</i>	130
<b>P-A31</b>	Modeling of surface plasmon-based ultrafast photoelectron source <u>A. Arsenin</u> , D. Fedyanin, A. Gladun, V. Leiman, V. Semenenko and V. Tarakanov <i>Moscow Institute of Physics and Technology (State University), Russia</i>	131
<b>P-A32</b>	The Study of External Emission Co-plane Schottky Diode Based Detector in Surface Plasmon Resonance Sensing <u>Chien-Sheng Liu</u> , Tsun-Yu Wen, Da-Shin Wang and Chii-Wann Lin <i>National Taiwan University, Taiwan</i>	132
<b>P-A33</b>	Enhancement of optical birefringence by the presence of localized surface plasmon resonance <u>S. Murai</u> , R. Hattori, K. Fujita and K. Tanaka <i>Kyoto University, Japan</i>	133
<b>P-A34</b>	The Giant Birefringence in Plasmonic Nanostructures <u>Shen-Yu Hsu</u> , Kuang-Li Lee and Pei-Kuen Wei <i>Research Center for Applied Sciences, Academia Sinica, Taiwan</i>	134
<b>P-A35</b>	Spatio-temporal control of local plasmon on Au nano-rods generated by chirped femtosecond laser pulse <u>T. Harada</u> , K. Matsuishi, N. Sugiura, J. Ohi, Y. Oishi, and F. Kannari <i>Keio University, Japan</i>	135
<b>P-A36</b>	Negative Refraction in Planar Plasmonic Waveguides <u>J. Takahara</u> , K. Kamada and T. Nagatsuma <i>Osaka University, Japan</i>	136

<b>P-A37</b>	Surface plasmon interference formed by tightly focused higher polarization order axially-symmetric polarized beams <i>Zhehai Zhou, Qiaofeng Tan and Guofan Jin</i> <i>Tsinghua University, China</i>	137
<b>P-A38</b>	Localised plasmon resonances on 1-D arrays of V-shaped gold and silver nanostructures <i>N Stokes, A. McDonagh and M.B. Cortie</i> <i>University of Technology Sydney, Australia</i>	138
<b>P-A39</b>	Full Three-Dimensional Subwavelength High-Q Surface-Plasmon-Polariton Cavity <i>Soon-Hong Kwon, Min-Kyo Seo, Ho-Seok Ee and Hong-Gyu Park</i> <i>Korea University, Korea</i>	139
<b>P-A40</b>	Controlled thermal emission of infrared waves based on engineered metallic nanostructures <i>H. T. Miyazaki, K. Ikeda, T. Kawaya, K. Yamamoto, Y. Inoue, K. Fujimura, T. Kanakugi, M. Okada, K. Hatade and S. Kitagawa</i> <i>National Institute for Materials Science, Japan</i>	140
<b>Nanocharacterization</b>		
<b>P-A41</b>	Optical Nanofibers for Probing Few-Atom Fluorescence <i>M. Das, K. P. Nayak, M. Morinaga, F. L. Kien and K. Hakuta</i> <i>University of Electro-Communications, Japan</i>	141
<b>P-A42</b>	Oxidizing rate restriction by voltage rise velocity on SPM-based nano lithography <i>T. Onuki and T. Tokizaki</i> <i>Tohoku University, Japan</i>	142
<b>P-A43</b>	Stability improvement of SPM-based anodic oxidation process by thin cap layer of valve metals <i>T. Onuki and T. Tokizaki</i> <i>Tohoku University, Japan</i>	143
<b>P-A44</b>	Micro Demultiplexer Fabricated by Convective-Assembly of Microspheres on a Patterned Substrate <i>T. Onodera, T. Hayashi, H. Oikawa, T. Mitsui, Y. Wakayama, N. Ikeda, Y. Sugimoto and T. Takamasu</i> <i>Tohoku University, Japan</i>	144
<b>P-A45</b>	Near-Field Mapping of the Huang-Rhys Parameter <i>A. Llopis and A. Neogi</i> <i>University of North Texas, USA</i>	145
<b>P-A46</b>	Imaging of Self-Organized Gold Nanoparticles by Apertureless SNOM <i>W. Chen, A. Kirilyuk, A. Stupakiewicz, A. Kimel, A. Maziewski and Th. Rasing</i> <i>Radboud University Nijmegen, The Netherlands</i>	146
<b>P-A47</b>	Passive near-field microscopy in long-wavelength infrared region <i>Y. Kajihara, K. Kosaka and S. Komiyama</i> <i>The University of Tokyo, Japan</i>	147
<b>P-A48</b>	Near-Field Photoluminescence Spectroscopy with an Optical Mask using Phase Change Material <i>N. Tsumori and T. Saiki</i> <i>Keio University, Japan</i>	148
<b>P-A49</b>	Carrier dynamics around localized gap states investigated by laser-combined scanning tunneling microscopy <i>Munenori Yokota, Yasuhiko Terada, Shoji Yoshida, Atsushi Okubo, Osamu Takeuchi and Hidemi Shigekawa</i> <i>University of Tsukuba, Japan</i>	149
<b>Radiation Control / Plasmon Control</b>		
<b>P-A50</b>	Deep-ultraviolet detector using submicron thick diamond epilayer: principle, device design, and application <i>M. Y. Liao, J. Alvarez, Y. Koide, M. Imura and J.-P Kleider</i> <i>National Institute for Materials Science, Japan</i>	150
<b>P-A51</b>	Far UV emitter based on hexagonal boron nitride <i>Kenji Watanabe, Takashi Taniguchi, Kenta Miya, Yoshitaka Sato, Kazuhito Nakamura, Takahiro Niyyama and Masateru Taniguchi</i> <i>National Institute for Materials Science, Japan</i>	151
<b>P-A52</b>	Growth of GaN-based blue light-emitting diodes by MOCVD using nanoscale SiO <sub>2</sub> as epitaxial lateral overgrowth mask <i>W. K. Fong, K. K. Leung and C. Surya</i> <i>The Hong Kong Polytechnic University, China</i>	152
<b>P-A53</b>	Size-Tunable UV-Blue Luminescent Silicon Nanoparticles <i>N. Shirahata, T. Tsuruoka and Y. Sakka</i> <i>National Institute for Materials Science, Japan</i>	153
<b>P-A54</b>	UV-Visible emission from low energy ion implanted Si nanoparticles <i>K. G. Gryczynski, A. K. Singh and A. Neogi</i> <i>University of North Texas, USA</i>	154

<b>P-A55</b>	Long-range surface plasmons on anisotropic dielectric substrates <u>L. N. Gumen</u> , Nagaraj, A. Neogi and A. A. Krokhin <i>Universidad Popular Autónoma del Estado de Puebla, Mexico</i>	155
<b>P-A56</b>	Modification of Photoemission from GaAs/AlGaAs quantum wells due to self-assembled Ga droplets <u>J. Lin</u> , K. Gryczynski, J. Lee, Z. Wang, A. Krokhin, G. Salamo and A. Neogi <i>University of North Texas, USA</i>	156
<b>P-A57</b>	Generation of single green or red upconversion in 11 nm Yb <sub>3+</sub> /Ho <sub>3+</sub> codoped NaYF <sub>4</sub> small nanocrystals by tridoping with Ce <sub>3+</sub> ions <u>Huijuan Liang</u> , Li Wu, Yangdong Zheng, Guanying Chen, Long Li, Yuan Liu, Wenwu Cao and Zhiguo Zhang <i>Harbin Institute of Technology, China</i>	157
<b>P-A58</b>	Photoluminescence Properties of a Series of Eu and Ce Co-doped (Ba, Sr) <sub>2</sub> ZnS <sub>3</sub> Solid Solutions Prepared by Polymerizable Complex Method <u>C.W Lee</u> , S. Tezuka V. Petrykin and M. Kakihana <i>Tohoku University, Japan</i>	158
<b>P-A59</b>	Surface plasmon polariton assisted light emitters <u>S. X. Lin</u> , C.-Y. Wong and E. Y. B. Pun <i>City University of Hong Kong, China</i>	159
<b>P-A60</b>	Emission color tuning by utilizing exciplex formation of organic light-emitting devices <u>S. L. Lai</u> , M. Y. Chan, Q. X. Tong, C. S. Lee and S. T. Lee <i>City University of Hong Kong, China</i>	160
<b>P-A61</b>	Host engineering for triplet exciton confinement in blue phosphorescent organic light emitting devices <u>M. Y. Chan</u> , P. K. Tsang and V. W. W. Yam <i>The University of Hong Kong, China</i>	161
<b>P-A62</b>	Photonic Property study of Organic Salt Doped Polymer Film in Microcavity <u>Lihua Ye</u> , Xi Chen, Deng Xu, Yiping Cui, Binfeng Yun, Jun Xi and Qiong Wang <i>Southeast University, China</i>	162
<b>P-A63</b>	Electrical tuning of Surface Plasmon Polaritons using Twisted Nematic Liquid Crystal on Metallic Grating Structure <u>Y. Ogawa</u> , M. Ojima, K. Murata, Y. Fujiwara, H. Kubo, H. Yoshida, A. Fujii and M. Ozaki <i>Osaka University, Japan</i>	163
<b>P-A64</b>	Polarization-independent refractive index modulation using photoresponsive nematic liquid crystals <u>K. Tagashira</u> , H. Yoshida, A. Fujii and M. Ozaki <i>Osaka University, Japan</i>	164
<b>P-A65</b>	Metal nanoparticle-dispersed liquid crystals fabricated by sputter-doping and its plasmonic properties <u>H. Yoshida</u> , K. Kawamoto, Y. Tanaka, T. Kumagai, H. Kubo, A. Fujii and M. Ozaki <i>Osaka University, Japan</i>	165
<b>P-A66</b>	Non-iridescent Structural Colors Generated by Self-assembled Amorphous Microstructures <u>M. H. Rashid</u> , M. N. Huda, A. B. Imran, T. Seki, Y. Takeoka, M. Ishii and H. Nakamura <i>Nagoya University, Japan</i>	166
<b>P-A67</b>	Coherent thermal emission in 1-D photonic crystals containing absorbing defect layer <u>Xiaoyuan Liu</u> , Zhongxiang Zhou and Yongyuan Jiang <i>Harbin Institute of Technology, China</i>	167
<b>P-A68</b>	Black-body radiation from one-dimensional optical materials <u>Takashi Tokizaki</u> <i>National Institute of Advanced Industrial Science and Technology, Japan</i>	168
<b>P-A69</b>	Enhancing emission properties of rare earth ions embedded in chalcogenide glass via minute compositional adjustments <u>Yong Gyu Choi</u> <i>Korea Aerospace University, Korea</i>	169
<b>P-A70</b>	Study of transient thermal lensing effect in C <sub>60</sub> -toluene solution <u>Che-Kai Chang</u> , Chang-Chi Leu, Tai-Huei Wei and Tzer-Hsiang Huang <i>National Chung Cheng University, Taiwan</i>	170
<b>P-A71</b>	The study of nonlinear optical properties in the semimetal Sb thin film <u>Yi-Ci Li</u> , Huei-Ling Lin and Tai-Heui Wei <i>National Chung Cheng University, Taiwan</i>	171
<b>P-A72</b>	Photorefractive Polymer with High Optical Gain under Non-Electric Field <u>J. Nishide</u> , H. Kimura, H. Sasabe and Y. Kawabe <i>Chitose Institute of Science &amp; Technology, Japan</i>	172
<b>P-A73</b>	Evolution and self-deflection of separate spatial soliton pairs in series two-photon photorefractive media circuit <u>Baoyu Li</u> , Bo Guan and Chunfeng Hou <i>Harbin Institute of Technology, China</i>	173

### ***Photocatalysis / Bionanosensing***

<b>P-A74</b>	Selective Synthesis of Brookite, Anatase, Rutile by Hydrothermal Method using Titanium Peroxy Oxalate Complex and Their Photocatalytic Activity <u>Q. D. Truong</u> , M. Kobayashi, H. Kato, M. Kakihana, S. Yin and T. Sato <i>Tohoku University, Japan</i>	174
<b>P-A75</b>	The seeding effect on the microstructure and photocatalytic properties of ZnO nano powders <u>Shahab Khameneh Asl</u> , S.K. Sadrnezhaad and M. Kianpour rad <i>University of Tabriz, Iran</i>	175
<b>P-A76</b>	Metal-Decorated Cds Nanowires Prepared by Self-Reduction of Metal Ions and Their Photocatalytic Properties <u>Yung-Jung Hsu</u> , Yuan-Wei Chang and Wei-Ta Chen <i>National Chiao Tung University, China</i>	176
<b>P-A77</b>	Formation of photocatalytic TiO <sub>2</sub> mesoporous honeycomb films <u>K. Kon</u> , T. Meiling and O. Karthaus <i>Chitose Institute of Science and Technology, Japan</i>	177
<b>P-A78</b>	Templating of metal complexes by mesoporous honeycomb films for photonic applications <u>K. Hidaka</u> , C. N. Brauer and O. Karthaus <i>Chitose Institute of Science and Technology, Japan</i>	178
<b>P-A79</b>	Microfluidic devices driven by light-induced dielectrophoresis <u>N. Yoshimura</u> and S. Maruo <i>Yokohama National University, Japan</i>	179
<b>P-A80</b>	Rapid Label-free Detection for Genetic Disease using Microbeads with QD-DNA conjugate on Microfluidic Chip <u>J. H. Yoo</u> and J. S. Kim <i>Kyungwon University, Korea</i>	180
<b>P-A81</b>	Sensitive Fluorescence Microscopic Imaging with Plasmonic Substrate <u>K. Tawa</u> , XQ. Cui, K. Kintaka and J. Nishii <i>AIST, Japan</i>	181
<b>P-A82</b>	Flexible two-dimensional photonic crystal film using nanoimprint lithography for biosensing application <u>T. Endo</u> , S. Ozawa, N. Okuda, Y. Yanagida, S. Tanaka and T. Hatsuzawa <i>Tokyo Institute of Technology, Japan</i>	182
<b>P-A83</b>	Structural and Optical Characterization of Plasmonic Nanostructures for Enhanced IR Spectroscopy <u>D. Enders</u> , O. Saito, T. Nagao, G. Han and A. Pucci <i>National Institute for Materials Science, Japan</i>	183
<b>P-A84</b>	SERS-based pH sensor using folic acid functionalized silver nanoparticles <u>Jing Yang</u> , Zhuyuan Wang, Chunyuan Song, Ruohu Zhang and Yiping Cui <i>Southeast University, China</i>	184
*		
<b>P-A86</b>	Au Double Nanopillars with Nanogap for Plasmonic Sensor <u>W. Kubo</u> and S. Fujikawa <i>RIKEN, Japan</i>	185
<b>P-A87</b>	Detection of Catecholamines on Electropolymerized Polyamino-benzylamine Thin Films by Electrochemical-Surface Plasmon Resonance Spectroscopy <u>A. Baba</u> , T. Mannen, H. Sato, Y. Ohdaira, K. Shinbo, K. Kato, F. Kaneko, N. Fukuda and H. Ushijima <i>Niigata University, Japan</i>	186
<b>P-A88</b>	Intracellular Dual-mode Imaging Target Based on Polyelectrolyte Coated Gold Nanorods <u>Shenfei Zong</u> , Zhuyuan Wang, Hui Wu, Songhu Jin and Yiping Cui <i>Southeast University, China</i>	187
<b>P-A89</b>	Mechanochromic gas pressure sensor made of elastic colloidal photonic crystal <u>Hiroshi Fudouzi</u> and Tsutomu Sawada <i>National Institute for Materials Science, Japan</i>	188
<b>P-A90</b>	Silicon photonic wire Bragg reflectors for wavelength-multiplexed interferometric sensor arrays <u>R. Hainberger</u> , R. Bruck and P. Muellner <i>AIT Austrian Institute of Technology GmbH, Austria</i>	189

### ***Quantum Nanophotonics***

<b>P-B01</b>	Shape control of GaAs quantum dots grown by droplet epitaxy <u>M. Jo</u> , T. Mano and K. Sakoda <i>National Institute for Materials Science, Japan</i>	190
--------------	---	-----

<b>P-B02</b>	Stark Effect of GaAs/AlGaAs Quantum Double Rings <u>Yuanzhao Yao</u> and Kazuaki Sakoda <i>National Institute for Materials Science, Japan</i>	191
<b>P-B03</b>	Multimodal resonance in photonic crystal defect cavities incorporating GaAs quantum dots <u>T. Kuroda</u> , T. Mano, N. Ikeda, T. Ochiai, Y. Sugimoto, K. Sakoda and K. Asakawa <i>National Institute for Materials Science, Japan</i>	192
<b>P-B04</b>	Spin properties of excitonic complexes in GaAs quantum dots <u>M. Abbarchi</u> , T. Kuroda, T. Mano and K. Sakoda <i>National Institute for Materials Science, Japan</i>	193
<b>P-B05</b>	Fabrication and characterization of a stacked GaAs quantum dot structure for application to solar cells <u>T. Noda</u> , T. Mano, E. Martin, K. Mitsuishi and K. Sakoda <i>National Institute for Materials Science, Japan</i>	194
<b>P-B06</b>	Effects of antimony flux on morphology and photoluminescence spectra of GaSb quantum dots formed on GaAs by droplet epitaxy <u>T. Kawazu</u> , T. Noda, T. Mano, M. Jo and H. Sakaki <i>National Institute for Materials Science, Japan</i>	195
<b>P-B07</b>	Enhanced photoluminescence from 1.3 μm InAs/GaAs quantum dots by growing the initial part of capping layer at low temperature <u>T. Yang</u> , H. M. Ji, P. F. Xu, Y. X. Gu, X. G. Yang and Z. G. Wang <i>Institute of Semiconductors, CAS, China</i>	196
<b>P-B08</b>	1.3 μm InAs/GaAs quantum dots on silicon wafer fabricated with DVS-BCB bonding <u>M. Okano</u> , T. Amano, T. Sugaya, K. Goshima, N. Yamamoto, K. Komori and M. Mori <i>National Institute of Advanced Industrial Science and Technology, Japan</i>	197
<b>P-B09</b>	InAs-based high-power quantum-dot lasers with a double-bend ridge-waveguide structure <u>K. C. Kim</u> , I. K. Han, J. I. Lee, H. M. An and T. G. Kim <i>Korea Institute of Science and Technology, Korea</i>	198
<b>P-B10</b>	Super-fluorescence from an Ensemble of CuCl Quantum Dots under Two-Photon Excitation of Bi-excitons <u>K. Miyajima</u> , S. Saito, M. Ashida and T. Itoh <i>Osaka University, Japan</i>	199
<b>P-B11</b>	Single Quantum Dots on an Optical Nanofiber <u>R. R. Yalla</u> , K. P. Nayak, and K. Hakuta <i>University of Electro-Communications, Japan</i>	200
<b>P-B12</b>	Spontaneous Emission Spectrum of Multi-level Atom Coupled by Micro-wave Field in Photonic Crystals <u>Xiangqian Jiang</u> and Xiudong Sun <i>Harbin Institute of Technology, China</i>	201
<b>P-B13</b>	Simultaneous electromagnetic interaction observations between neighbouring excited molecules <u>H. Nejo</u> , K. Funaba, Y. Isozaki, H. Iwai, N.S. Venkataraman and Y. Kawazoe <i>National Institute for Materials Science, Japan</i>	202
<b>P-B14</b>	Photon Statistics in Enhanced Fluorescence from a Single Quantum Dot in the Vicinity of Metal Nanostructures <u>T. Tanaka</u> , S. Masuo, H. Naiki, S. Machida and A. Itaya <i>Kyoto Institute of Technology, Japan</i>	203
<b>P-B15</b>	Charge-sensitive tunneling diode towards single-photon detection <u>P. Vitushinskiy</u> , M. Ohmori and H. Sakaki <i>Toyota Technological Institute, Japan</i>	204
<b>P-B16</b>	Iso-electronic nitrogen δ-doping in GaP and single-photon emission from individual nitrogen pairs <u>Yoshiki Sakuma</u> , Michio Ikezawa, Makoto Watanabe and Yasuaki Masumoto <i>National Institute for Materials Science, Japan</i>	205
<b>P-B17</b>	Atomic configurations of NN centers and new infrared luminescence centers in GaP:N <u>Michio Ikezawa</u> , Masato Watanabe, Yoshiki Sakuma and Yasuaki Masumoto <i>University of Tsukuba, Japan</i>	206
<b>P-B18</b>	Plasmonic periodic structures for enhancement of the excitation and recombination processes in semiconductor quantum wells <u>V. I. Belotelov</u> , A. A. Toropov, I. A. Akimov, D. R. Yakovlev, M. Bayer and A. K. Zvezdin <i>M.V. Lomonosov Moscow State University, Russia</i>	207
<b>P-B19</b>	Reduction of electric-field-dependent broadening of photoluminescence linewidth with electron density <u>M. Yamaguchi</u> , S. Nomura, H. Tamura and T. Akazaki <i>NTT Basic Research Laboratories, Japan</i>	208

<b>P-B20</b>	Shortening of carrier lifetime and its effect on electron spin relaxation time in GaAs/AlGaAs (110) multiple quantum wells <i>K. Ikeda, Y. Nishizaki, N. Yokota, K. Ohnishi, S. Koh and H. Kawaguchi Nara Institute of Science and Technology, Japan</i>	209
<b>P-B21</b>	Kinetic Monte Carlo simulation of the flux dependence of semiconductor quantum dot growth <i>Chang Zhao, Man Zhao, Yi Wang, Ai Jun Lv and Guang Ming Wu Beijing Institute of Petrochemical and Technology, China</i>	210
<b>P-B22</b>	Modelling of dual-color quantum cascade detector with two independent output current paths <i>A. Rostami, R. Oliaee, H. Rasooli Saghai and H. Baghban University of Tabriz, Iran</i>	211
<b>P-B23</b>	Quantum-Dot doped microring resonators for nonlinear all-optical switching <i>A. Rostami, A. Khalafi, H. Baghban and H. Rasooli Saghai University of Tabriz, Iran</i>	212
<b>P-B24</b>	Ultra-high Quality Factor Microcavity Based on Quasicrystals <i>Ali Rostami, Samiye Matloub and Ali Haddadpour University of Tabriz, Iran</i>	213

#### **Nanofiber / Photonic Crystal / Nanowire Waveguide**

<b>P-B25</b>	Simultaneous bend insensitivity and high current sensitivity in the specialty single mode optical fiber at 633 nm <i>Pramod R. Watekar, Seongmin Ju, Su-Ah Kim, Seongmook Jeong, Youngwoong Kim and Won –Taek Han Gwangju Institute of Science and Technology, Korea</i>	214
<b>P-B26</b>	Photonic properties of Ti doped optical fiber <i>Youngwoong Kim, Seongmin Ju, Seongmook Jeong and Won-Taek Han Gwangju Institute of Science and Technology, Korea</i>	215
<b>P-B27</b>	Generation of cylindrical polarization with concentric metallic rings fabricated on optical fiber end <i>Wei Han, Weibin Chen, Don C. Abeysinghe, Robert L. Nelson and Qiwen Zhan University of Dayton, USA</i>	216
<b>P-B28</b>	Finite-difference analysis of Chiral Photonic Crystal Fibers <i>Junjing Li, Qiyao Su and Lei Jin Harbin Institute of Technology, China</i>	217
<b>P-B29</b>	Broadband coherent anti-Stokes Raman scattering microspectroscopy using the soliton pulses from a photonic crystal fiber - observation of Raman line in diamond powders - <i>K. Tada, A. Yamanaka and N. Karasawa Chitose Institute of Science and Technology, Japan</i>	218
<b>P-B30</b>	Slow light enhanced absorption in hollow core fibre <i>J. Grgić, S. Xiao, J. Mørk, A. P. Jauho and N. A. Mortensen Technical University of Denmark, Denmark</i>	219
<b>P-B31</b>	Comparison of numerical methods for computing light transmission and reflection of 2D photonic crystal <i>Gongjian Zhang and Akio Yamanaka Chitose institute of science and technology, Japan</i>	220
<b>P-B32</b>	Bulk-edge correspondence in photonic analog of graphene <i>T. Ochiai and M. Onoda National Institute for Materials Science, Japan</i>	221
<b>P-B33</b>	Electrical induced ultra-narrow quantum well filter in midway 180° phase shifted periodically poled lithium niobate with nano-scale domains <i>Jianhong Shi, Xianfeng Chen Shanghai Jiao Tong University, China</i>	222
<b>P-B34</b>	Nonlinear optical effects in photonic crystal slab line defect waveguide for ultrafast all-optical switch <i>H. Oda, A. Yamanaka, N. Ikeda, Y. Sugimoto and K. Asakawa Chitose Institute of Science and Technology, Japan</i>	223
<b>P-B35</b>	Three-dimensional Analysis of Photonic-crystal Optical Circuit by Using Eigenmode-expanded Boundary Element Method <i>J. Sugisaka, N. Yamamoto, M. Okano, K. Komori and M. Itoh University of Tsukuba, Japan</i>	224
<b>P-B36</b>	Design rules for two-dimensional photonic crystal nanocavities with low-refractive-index material cladding <i>T. Yamada, M. Okano, J. Sugisaka, N. Yamamoto, M. Itoh, T. Sugaya, K. Komori and M. Mori University of Tsukuba, Japan</i>	225
<b>P-B37</b>	Polarization-Dependent Character of 1x3 Beam Splitter Using Self-Imaging Phenomena in Air-Slab PhCW <i>M. Zhang, M. Kristensen, R. Malureanu and A. C. Krüger Aarhus University, Denmark</i>	226

<b>P-B38</b>	Optimizing Two-dimensional Photonic Crystal Waveguide Branches <i>Zhen Hu and Ya Yan Lu Hohai University, China</i>	227
<b>P-B39</b>	Wideband operation of 2D photonic crystal directional coupler with topology optimized waveguide bends <i>Y. Watanabe, N. Ikeda, Y. Takata, Y. Kitagawa, N. Ozaki, Y. Sugimoto, and K. Asakawa National Institute for Materials Science, Japan</i>	228
<b>P-B40</b>	Fabrication and characterization of an all-optical flip-flop based on photonic crystal waveguides and two-color quantum dots <i>N. Ozaki, Y. Takata, Y. Kitagawa, N. Ikeda, S. Nakamura, S. Ohkouchi, A. Watanabe, Y. Watanabe, Y. Sugimoto and K. Asakawa Wakayama University, Japan</i>	229
<b>P-B41</b>	Thermo-optic tunable silicon photonic crystal light modulator <i>Y. Cui, K. Liu, D. MacFarlane and J. Lee University of Texas at Dallas, USA</i>	230
<b>P-B42</b>	Two-dimensional polarization-independent photonic crystal self-collimation sensor <i>Yufei Wang, Xiyao Chen, Guozhong Lai and Wanhu Zheng Institute of Semiconductors, CAS, China</i>	231
<b>P-B43</b>	Design and Fabrication of sinusoidal-shaped PBS grating <i>Jijun Feng, Changhe Zhou, Hongchao Cao, and Peng Lv Shanghai Institute of Optics and Fine Mechanics, CAS, China</i>	232
<b>P-B44</b>	A novel method of ray-tracing based on the zero-order eigenmode wave for subwavelength structured surface <i>A. Mizutani, S. Hamataka and H. Kikuta Osaka Prefecture University, Japan</i>	233
<b>P-B45</b>	LCAO analysis of vertically stacked directional couplers based on amorphous silicon wire waveguides <i>M. Okano, Y. Sakakibara, T. Kamei, Y. Shoji, K. Kintaka, H. Kawashima and M. Mori National Institute of Advanced Industrial Science and Technology, Japan</i>	234
<b>P-B46</b>	Nonreciprocal Phase Shift of Magneto-optical Waveguide with Nano-scale Air Gap <i>R. Chen, G. Jiang, Y. Sun, X. Jiang Zhejiang University, China</i>	235

#### ***Plasmonic Nanowaveguide / THz-optical Metamaterial***

<b>P-B47</b>	Simple coupler for the gap plasmon waveguide <i>Y. Koyama, T. Okuno, T. Okamoto and M. Haraguchi The University of Tokushima, Japan</i>	236
<b>P-B48</b>	Gap plasmon modes in finite and infinite gaps excited and characterized with ATR method <i>M. Flockert, Y. Nakagawa, T. Okamoto and M. Haraguchi The University of Tokushima, Japan</i>	237
<b>P-B49</b>	A nano surface plasmon waveguide resonator with a rectangle cavity <i>Yun Binfeng, Hu Guohua and Cui Yiping Southeast University, China</i>	238
<b>P-B50</b>	Characteristics of plasmonic racetrack resonators <i>H. Okamoto, K. Yamaguchi, M. Haraguchi and T. Okamoto Anan National College of Technology, Japan</i>	239
<b>P-B51</b>	Plasmonic leak-free focusing lens with multiple rings under radially polarized illumination <i>Xiaowei Li, Qiaofeng Tan and Guofan Jin Tsinghua University, China</i>	240
<b>P-B52</b>	Concentration of two-dimensional optical waves using fan-shape nanoholes with azimuthal polarization excitation <i>K. Yamamoto, K. Ichishiba, J. Takahara, A. Otomo and T. Nagatsuma National Institute of Information and Communications Technology, Japan</i>	241
<b>P-B53</b>	Large field enhancement through permittivity-contrast in a planar MIM waveguide <i>Luojia Wang, Ying Gu, Xiaoyong Hu, and Qihuang Gong Peking University, China</i>	242
<b>P-B54</b>	Nanoporous Silicon Metal-Semiconductor-Metal Photodetector <i>N. Atiwongsangthong, S. Niemcharoen and W. Titiroongruang King Mongkut's Institute of Technology Ladkrabang, Thailand</i>	243
<b>P-B55</b>	Surface Plasmon Dispersion in Dielectric-Metal-Dielectric structures with a Pattern on Top <i>P. Mandal, Amandev Singh, A. S. Vengurlekar and Achanta Venu Gopal Tata Institute of Fundamental Research, India</i>	244

<b>P-B56</b>	Anisotropic Propagation of Surface Plasmon Polaritons Caused by Organic Nanowire Layers <u>Y. Takeichi</u> , M. Fujii and S. Hayashi <i>Kobe University, Japan</i>	245
<b>P-B57</b>	Design of Structure for Coupling Whispering Gallery Mode with Surface Plasmon <u>K. Yamaguchi</u> , M. Fujii and M. Fukuda <i>Toyohashi University of Technology, Japan</i>	246
<b>P-B58</b>	Experimental research on a micron-focusing plasmonic device <u>Fenghuan Hao</u> , Rui Wang, Jia Wang <i>Tsinghua University, China</i>	247
**		
<b>P-B60</b>	Beam interactions with subwavelength apertures and arrays <u>A. Roberts</u> , M. Milicevic, L. Lin and X.-M. Goh <i>The University of Melbourne, Australia</i>	248
<b>P-B61</b>	Optical Properties of RGB Color Filter Comprising Aluminum Film with Surface Plasmon Enhanced Transmission through Sub-Wavelength Hole-Arrays <u>D. Inoue</u> , T. Nomura, A. Miura, H. Fujikawa, K. Sato, N. Ikeda, D. Tsuya, Y. Sugimoto, Y. Koide, and K. Asakawa <i>Toyota Central R&amp;D Labs. Inc., Japan</i>	249
<b>P-B62</b>	Blazed metallic gratings for unidirectional excitation of surface plasmon polaritons at normal incidence <u>Benfeng Bai</u> <i>Tsinghua University, China</i>	250
<b>P-B63</b>	Light and dark resonances in stacked complementary plasmonic crystal slabs <u>Masanobu Iwanaga</u> <i>National Institute for Materials Science, Japan</i>	251
<b>P-B64</b>	Electromagnetic Energy Vortex of Sub-wavelength Plasmonic Taiji Mark <u>Wei Ting Chen</u> , Pin Chieh Wu, Chen Jung Chen, Yuan-Fong Chau, Chieh-Hsiung Kuan and Din Ping Tsai <i>National Taiwan University, Taiwan</i>	252
<b>P-B65</b>	Design of planar prism with graded negative index material for SWIR range using metal-dielectric composite structure <u>T. Nomura</u> , D. Inoue, A. Miura, H. Fujikawa, K. Sato, N. Ikeda, D. Tsuya, Y. Sugimoto, Y. Koide and K. Asakawa <i>Toyota Central R&amp;D Labs. Inc., Japan</i>	253
<b>P-B66</b>	Wavelength division multiplexing based on metallic nanoparticle arrays <u>Jia Li</u> , Xiaoyong Hu, Ying Gu, and Qihuang Gong <i>Peking University, China</i>	254
<b>P-B67</b>	Diffraction Characteristic of Different Surrounding based One-dimensional Metallic Subwavelength Gratings <u>H. Z. Xu</u> , J. Wu and J. T. Lin <i>Beijing University of Posts and Telecommunications, China</i>	255
<b>P-B68</b>	Surface Plasmon Enhanced Photoluminescence on Biharmonic Gratings Structure <u>Y. Fujiwara</u> , M. Ojima, K. Murata, Y. Ogawa, H. Kubo, H. Yoshida, A. Fujii and M. Ozaki <i>Osaka University, Japan</i>	256
<b>P-B69</b>	High-performance terahertz polarizer in 0.1–3.5 THz Range <u>Z.C. Chen</u> , M.H. Hong, C.S. Lim, L.P. Shi and T.C. Chong <i>National University of Singapore, Singapore</i>	257
<b>P-B70</b>	Planar and three-dimensional metamaterials in the terahertz region <u>K. Takano</u> , T. Kawabata, M. Miyamaru, S. Kuboda, M. W. Takeda and M. Hangyo <i>Osaka University, Japan</i>	258
<b>P-B71</b>	Tunable response of terahertz metamaterials at superconducting temperatures <u>Ranjan Singh</u> , Zhen Tian, Jiaguang Han, Carsten Rockstuhl, Jianqiang Gu and Weili Zhang <i>Oklahoma State University, USA</i>	259

### Solar Cell

<b>P-B72</b>	Metal nanoparticles in an amorphous Si solar cell for surface plasmon-induced scattering and hence absorption enhancement <u>Jyh-Yang Wang</u> , Fu-Ji Tsai, Jeng-Jie Huang, Yean-Woei Kiang and C. C. Yang <i>National Taiwan University, Taiwan</i>	260
<b>P-B73</b>	Quantitative phase analysis of Cu(In,Ga)Se <sub>2</sub> thin film by Rietveld analysis <u>T. Shimizu</u> , T. Sakurai, M.M. Islam, A. Yamada, S. Ishizuka, K. Matsubara, S. Niki and K. Akimoto <i>University of Tsukuba, Japan</i>	261
<b>P-B74</b>	Structural and electrical properties of lead phthalocyanine based solar cells formed on organic buffer layer <u>Daiki Kishida</u> , Takeaki Sakurai, Tatsuya Ohashi, Hikaru Kitazume and Katsuhiro Akimoto <i>University of Tsukuba, Japan</i>	262

<b>P-B75</b>	Effect of nitrogen doping on amorphous-carbon films prepared by sputtering method <u>N. Abe</u> , Y. Isomura, T. Sakurai and K. Akimoto <i>University of Tsukuba, Japan</i>	263
<b>P-B76</b>	Deep levels in Cu(In,Ga)Se <sub>2</sub> thin film studied by photo-capacitance spectroscopy <u>N. Hiraoka</u> , T. Sakurai, M. M. Islam, H. Uehigashi, K. Taguchi, S. Ishizuka, A. Yamada, K. Matsubara, S. Niki and K. Akimoto <i>University of Tsukuba, Japan</i>	264
<b>P-B77</b>	Hetero-interface Properties of Novel Hybrid Solar Cells consisting of Transparent Conductive Polymers and III-Nitride Semiconductor <u>N. Matsuki</u> , Y. Nakano, Y. Irokawa and M. Sumiya <i>Pohang University of Science and Technology, Korea</i>	265
<b>P-B78</b>	Synthesis and Characterization of Chalcopyrite Thin Films Grown by a Non-vacuum Precursor Coating <u>D. Lee</u> , and K. Yong <i>University of Tsukuba, Japan</i>	266
<b>P-B79</b>	Dependence of Device Characteristics of Bulk-Heterojunction Organic Thin-Film Solar Cells on Concentration of Glycerol and Sorbitol in PEDOT:PSS Solutions for Fabricating Buffer Layers <u>Y. Yamaki</u> , K. Marumoto, T. Fujimori and T. Mori <i>University of Tsukuba, Japan</i>	267
<b>P-B80</b>	Light-Induced Electron Spin Resonance of Bulk-Heterojunction Organic Thin-Film Solar Cells <u>T. Hori</u> , K. Marumoto, M. Kijima, A. Kosuga and T. Mori <i>University of Tsukuba, Japan</i>	268
<b>P-B81</b>	Mechanism for enhanced efficiency of bulk-heterojunction organic thin-film solar cells by inserting metal-nanoparticles layers <u>A. Kosuga</u> , K. Marumoto, M. Kijima and T. Mori <i>University of Tsukuba, Japan</i>	269
<b>P-B82</b>	Reduction of residual carrier concentrations in undoped β-FeSi <sub>2</sub> films by atomic hydrogen-assisted molecular beam epitaxy <u>M. Suzuno</u> , K. Akutsu, H. Kawakami and T. Suemasu <i>University of Tsukuba, Japan</i>	270
<b>P-B83</b>	Rutile-anatase TiO <sub>2</sub> Photoanodes for Dye-sensitized Solar Cells <u>W. Q. Peng</u> , M. Yanagida and L. Y. Han <i>National Institute for Materials Science, Japan</i>	271
<b>P-B84</b>	I-V curve analysis based on the equivalent circuit model in dye-sensitized solar cell <u>Norifusa Satoh</u> , Jinhua Cai, Masatoshi Yanagida and Liyuan Han <i>National Institute for Materials Science, Japan</i>	272
<b>P-B85</b>	Material properties controlling photo-electrochemical reaction rate on dye-sensitized solar cells <u>J. Kawakita</u> <i>National Institute for Materials Science, Japan</i>	273
<b>P-B86</b>	Electrospinning naturally pigments for application of dye-sensitized solar cell <u>Po Te Lee</u> , Wei Tang Chiang, Yao Nan Lin, Ray Quen Hsu and Kai Ming Chang <i>National Chiao Tung University, Taiwan</i>	274
<b>P-B87</b>	Temperature-dependent rapid electrochemical synthesis of debris free TiO <sub>2</sub> nanotubes and their application in DSSCs <u>Jia Lin</u> and Xianfeng Chen <i>Shanghai Jiao Tong University, China</i>	275
<b>P-B88</b>	Light Trapping Technique for Dye Sensitized Solar Cell <u>L.Chen</u> , M. Alkaisi and M. Liao <i>University of Canterbury, New Zealand</i>	276
<b>P-B89</b>	Study on the effect of using electrospinning on flexible dye-sensitized solar cells on conversion efficiency <u>Wei Tang Chiang</u> , Po Te Lee, Li Chun Chen, Chien-Huang Tsai, Chih Ming Lin and Ray Quen Hsu <i>National Chiao Tung University, Taiwan</i>	277
<b>P-B90</b>	Photoelectrochemical response of p- and n-type polymer semiconductor electrodes <u>K. Saito</u> , J. Kuwabara and T. Kanbara <i>University of Tsukuba, Japan</i>	278

\*,\*\* Changed