## Topic 5: Bioinspired Materials and Applications
(TuP-091~TuP-111)

**TuP-091**

**Stretchable and Highly Conductive Polymer Gels**

YingJun An, Kana Iwashita, and Hidenori Okuzaki
*Univ. of Yamanashi, Japan*

**TuP-092**

**Riboflavin-Based Novel Conjugated Bio-Organic Semiconductors**

Jozef Krajcovic[1], Jan Richtar[1], Alexander Kovalenko[1], Dogukan Hazar Apaydin[2], Cigdem Yumusak[2], Martin Weiter[1], and Niyazi Serdar Sariciftci[2]
*[1]BUT Faculty of Chemistry, Czech, [2]Linz Inst. for Organic Solar Cells, Austria*

**TuP-093**

**NIR-Emissive Polymer Dot as a Fluorescent Imaging Platform**

Ji-Eun Jeong and Woo Han Young
*Korea Univ., Korea*

**TuP-094**

**Self-Assembly of M-13 Bacteriophage Using Meniscus Phenomenon**

Jiye Han, Kyounga Lim, Jongmin Lee, Jin-Woo Oh, and Jong-Sik Moon
*Pusan Nat'l Univ., Korea*

**TuP-095**

**Transmission of Neurotransmitter Using Two-Conducting-Polymers System**

Masaharu Fujii, Shinichi Hamasaki, Daichi Toyofuku, Haruo Ihori, and Hyeon-gu Jeon
*Ehime Univ., Japan*

**TuP-096**

**Carbon Nanotube Based Bio-Electrodes for Surface Electromyogramsensors**

Byeong-Cheol Kang[1], Jae-Ho Han[2], and Tae-Jun Ha[1]
*[1]Kwangwoon Univ., Korea, [2]Korea Univ., Korea*

**TuP-097**

**Biomimetic Self-Assmelbled Structures for Surface Plasmon Resonance Sensors**

Kim Won-Geun, Kim Chuntae, Moon Jong-Sik, Lee Jong-Min, and Oh Jin-Woo
*Pusan Nat'l Univ., Korea*

**TuP-098**

**Biosensor to Detect miRNA based on Nanostructured DNA-Recombinant Azurin Hybrid**

Joungpyo Lim, Chanyong Yi, Mohsen Mohammadniaei, and Jeong-Woo Choi
*Sogang Univ., Korea*

**TuP-099**

**Electrochemical Biosensor Composed of Nanostructured $MoS_2$/Graphene Oxide/Protein Hybrid for $H_2O_2$ Detection**

Chanyong Yi, Joungpyo Lim, Jinho Yoon, and Jeong-Woo Choi
*Sogang Univ., Korea*

**TuP-100**

**Anionic Surfactant-Mediated Mesoporous Silica for Ocular Delivery of Brimonidine**

Se-Na Kim and Young Bin Choy
*Seoul Nat'l Univ., Korea*

**TuP-101**

**WITHDRAWAL**

**TuP-102**

**Sustained Release of Bioactive Moleculesfrom Leaf-Stacked Structure for Bone Regeneration**

Ho Yong Kim[1], June-Ho Byun[2], Jin Ho Lee[3], and Se Heang Oh[1]
*[1]Dankook Univ., Korea, [2]Gyeongsang Nat'l Univ., Korea, [3]Hannam Univ., Korea*

**TuP-103**

**BMP-2-Loaded Porous Membrane with Leaf-Stacked Structure as A Guided Bone Regeneration**

Min Ji Kim[1], Jin Hyun Park[1], Ho Yong Kim[1], June-Ho Byun[2], Jin Ho Lee[3], and Se Heang Oh[1]
*[1]Dankook Univ., Korea, [2]Gyeongsang Nat'l Univ., Korea, [3]Hannam Univ., Korea*

**TuP-104**

**WITHDRAWAL**

**TuP-105**

**Engineered Functional Peptide M 13 Nanofiber Accelerates Directional Growth and Proliferation of Fiberblasts**

Ye Ji Kim, Soojin Jo, Eun Jung Choi, and Jin-Woo Oh
*Pusan Nat'l Univ., Korea*

**TuP-106**

**Conformal Metal Oxide Electrochemical Transistors for Glucose Sensing**

Tae In Kwon, Se Rin Lim, and You Seung Rim
*Sejong Univ., Korea*

**TuP-107**

**Electrochemical Synthesis of Gold Nanoparticles on ITO/Graphene Nanoparticles to Control Osteogenesis of Human Mesenchymal Stem Cells**

Ee-Seul Kang, Da-Seul Kim, Yoojoong Han, Hyungbin Son, and Tae-Hyung Kim
*Chung-Ang Univ., Korea*

**TuP-108**

**Wearable Carbon Nanotube Based Biosensors for Healthcaremonitoring Systems**

Byeong-Cheol Kang[1], Jun-Young Jeon[1], Jae-Ho Han[2], and Tae-Jun Ha[1]
*[1]Kwangwoon Univ., Korea, [2]Korea Univ., Korea*

**TuP-109**

**Oral Delivery of Lactoferrin-Conjugated Macromolecules for Curing Brain Tumor**

Dong Yun Lee
*Hanyang Univ., Korea*

**TuP-110**

**Green Synthesis of Zinc Oxide Nano Particles, its Characterization and Application in Agriculture as well as in Healthcare**

R Sahu and Kamal Kishor
*OSDD, India*

**TuP-111**

**Development of An Amyloid βNano-Biosensor Using Gold Nano Particle**

Sung-Woong Han and Hoon-Kyu Shin
*POSTECH, Korea*

**TuP-112**

**A New Donor–Acceptor Copolymers for High-Efficiency Organic Solar Cells**

Jeonghun Park[1], Yu Jin Kim[2], Yeon Hee Ha[1], Cheol Ho Kang[1], Chan Eon Park[2], Dae Sung Chung[3], Yun-Hi Kim[1], and Soon-Ki Kwon[1]
*[1]Gyeongsang Nat'l Univ., Korea, [2]POSTECH, Korea, [3]DIGIST, Korea*

**TuP-113**

**Organic Nanowire Barcode Recognized with Raman Scattering**

Jungwoon Park[1], Jinho Choi[1], Seokho Kim[1], Dohyung Kim[1], Donghyuk Park[1], and Yungki Hong[2]
*[1]Inha Univ., Korea, [2]Sungkyunkwan Univ., Korea*

**TuP-114**

**A Novel Approach to Copolymer based on Main Donor and Side Chain Acceptor for Bulk Heterojunction Solar Cells**

Shakeel Khan[1], Xianqing Liu[1], Yu Jin Kim[2], Myeong-Jong Kim[1], Chan Eon Park[2], and Shakeel Khan[1]
*[1]Gyeongsang Nat'l Univ., Korea, [2]POSTECH, Korea*

**TuP-115**

**Efficient Emission Color Control in Organic Nanocomposites Employing Surfactant**

Jinho Choi, Seokho Kim, Jungwoon Park, Dohyung Kim, and Donghyuk Park
*Inha Univ., Korea*

| [ThP] Poster Session Ⅲ | |
|---|---|
| **Date / Time** | July 5 (Thu.), 2018 / 19:00-21:00 |
| **Place** | 2F, Lobby |

**Topic 3: Organic Electronics and Optoelectronics**
(ThP-001~ThP-134)

**ThP-001**

**Design and Photophysical Characterization of Novel NIR Dyes for DSSCs Using Cobalt Electrolytes**

Anusha Pradhan, Gaurav Kapil, Shuzi Hayase, and Shyam Sudhir Pandey
*Kyushu Inst. of Tech., Japan*

**ThP-002**

**Enhanced Field-Effect Mobility of Dioctylbenzothienobenzothiophene-Based Top-Gate Organic Transistors with Channel Length of 5 μm Using Solution-Processed $MoO_3$ Hole Injection Layers**

Tomoya Aiba[1], Takashi Nagase[1], Takashi Kobayashi[1], Yuichi Sadamitsu[2], and Hiroyoshi Naito[1]
*[1]Osaka Prefecture Univ., Japan, [2]Nippon Kayaku Co.,Ltd., Japan*

**ThP-003**

**Optical Memory Characteristics of Solution-Processed Top-Gate Organic Transistors with Molecular Floating Gates**

Hayato Abe, Fumiya Shiono, Takashi Nagase, Takashi Kobayashi, and Hiroyoshi Naito
*Osaka Pref. Univ., Japan*

**ThP-004**

**Design, Synthesis and Characterization of Narrow Bandgap Small Molecules based on Naphthalenediimide Core for Ambipolar Charge Transport Properties**

Teng Teng[1], Piotr Sleczkowski[2], David Kreher[1], Lydia Sosa-Vargas[1], Jean-Charles Ribierre[3], and Fabrice Mathevet[1]
*[1]Sorbonne Univ., France, [2]Ewha Womans Univ., Korea, [3]Kyushu Univ., Japan*

**ThP-005**

**A-D-A Type Semiconducting Small Molecules for Ambipolar Organic Thin-Film Transistors**

Yujeong Lee[1], Young Woong Lee[1], Min Je Kim[2], Jeong Ho Cho[2], and Han Young Woo[1]
*[1]Korea Univ., Korea, [2]Sungkyunkwan Univ., Korea*

**ThP-006**

**2D Molecular Crystals for Fast Response Phototransistors**

Jin Hong Kim and Soo Young Park
*Seoul Nat'l Univ., Korea*

**ThP-007**

**Thermal Gradient Assisted Directional Crystallization of Hybrid Perovskites Effected on Alkylammonium Formate**

Juho Kim[1], Namchul Cho[2], and Tae-dong Kim[1]
*[1]Hannam Univ., Korea, [2]Soonchunhyang Univ., Korea*

**ThP-008**

**Modulation Charge Transport in Diketopyrrolopyrrole Based Polymers from Hole to Electron by Incorporation of Cyano Group**

Hee Su Kim[1], Huseynova Gunel[2], Yong-Young Noh[2], and Do-Hoon Hwang[1]
*[1]Pusan Nat'l Univ., Korea, [2]Dongguk Univ., Korea*

**ThP-009**

**Synthesis, Molecular, and Photovoltaic/Transistor Properties of Acenedithiophene Derivatives**

Shao-Ling Chang[1], Chih-Wen Lu[1], Fong-Yi Cao[1], Yu-Ying Lai[2], and Yen-Ju Cheng[1]
*[1]Nat'l Chiao Tung Univ., Taiwan, [2]Nat'l Taiwan Univ., Taiwan*

**ThP-010**

**Photo-Crosslinkable and Low-Temperature Processable Polyimide Gate Insulators for Thin-Film Transistors**

Gyeongmin Ki and Taek Ahn
*Kyungsung Univ., Korea*

**ThP-011**

**Synthesis and Thin Film Properties of A Thermally Curable Trifluorovinyl Substituted Polyimide for Gate Insulator in Thin Film Transistor**

Gyeongmin Ki and Taek Ahn
*Kyungsung Univ., Korea*

**ThP-012**

**Enhanced Charge Injection Properties of Organic Field Effect Transistors by Doping Through Solid State Diffusion**

Youngrok Kim[1], Wang-Taek Hwang[1], Kyoungjune Cho[1], Younggul Song[1], Woocheol Lee[1], Daekyoung Yoo[1], Heebeom Ahn[1], Henning Sirringhaus[2], Keehoon Kang[1], and Takhee Lee[1]
*[1]Seoul Nat'l Univ., Korea, [2]Univ. of Cambridge, UK*

**ThP-013**

**Alkyl Chain Length Dependence of Negative Differential Resistance in Tricyanovinyl-Substituted Carbazole-Based Thin Film Transistors**

Marta Reig[1], Joaquim Puigdollers[2], Cristobal Voz[2], and Dolores Velasco[1]
*[1]Univ. Barcelona, Spain, [2]Univ. Politècnica Catalunya, Spain*

**ThP-014**

**The Effect of The Substitution Patterns of The Triindole Core on The Thin Film Crystallinity for High Performance Organic Thin-Film Transistors**

Marta Reig[1], Alba Cuadrado[1], Roger Bujaldón[1], Joaquim Puigdollers[2], and Dolores Velasco[1]
*[1]Univ. Barcelona, Spain, [2]Univ. Politècnica Catalunya, Spain*

**ThP-015**

**Photo-Generated Field-Effect Transistors Using Two-Dimensional $MoS_2$/Rubrene Hybrid**

Cheol-Joon Park[1], Hyeon Jung Park[1], Jae Yoon Lee[1], Chul-Ho Lee[1], Jeongyong Kim[2], Kwang-Sup Lee[3], and Jinsoo Joo[1]
*[1]Korea Univ., Korea, [2]Sungkyunkwan Univ., Korea, [3]Hannam Univ., Korea*

**ThP-016**

**Organic Field-Effect Transistors based on α-Substituted Thienoisoindigo Derivatives**

Dongho Yoo, Tsukasa Hasegawa, Minoru Ashizawa, Tadashi Kawamoto, Hidetoshi Matsumoto, and Takehiko Mori
*Tokyo Inst. of Tech., Japan*

**ThP-017**

**Fabrication of 2D Molecular Layer Mott FET toward Room Temperature Operation**

Masayuki Suda and Hiroshi M. Yamamoto
*Inst. for Molecular Science, Japan*

**ThP-018**

**WITHDRAWL**

**ThP-019**

**Effects of Solvent Mixtures on The Performance of Polymer Field-Effect Transistors**

Min Soo Park and Felix Sunjoo Kim
*Chung-Ang Univ., Korea*

**ThP-020**

**Nanoscale Optical Characteristics and Field-Effecttransistors Using Two-Dimensional Inorganic/Organic n-p Hetero-Structure**

Hyeon Jung Park[1], Cheol-Joon Park[1], Jeongyong Kim[2], and Jinsoo Joo[1]
*[1]Korea Univ., Korea, [2]Sungkyunkwan Univ., Korea*

**ThP-021**

**Development of High-Performance Polymer Field-Effect Transistors with Environmentally Benign Solution Processing**

Hae Rang Lee[1], Sang Myeon Lee[2], A-Reum Han[1], Junghoon Lee[2], Changduk Yang[2], and Joon Hak Oh[1]
*[1]POSTECH, Korea, [2]UNIST, Korea*

**ThP-022**

**High Mobility Diphenylethenyl-Substituted Triphenylamines as Efective Organic Semiconductors**

Jurate Simokaitiene[1], Monika Cekaviciute[1], Gjergji Sini[2], Joaquim Puigdollers[3], Dmytro Volyniuk[1], and Juozas V. Gražulevičius[1]
*[1]Kaunas Univ. of Tech., Lithuania, [2]Univ. de Cergy-Pontoise, France, [3]Univ. Politècnica de Catalunya, Saipan*

**ThP-023**

**Flexible Organic Field Effect Transistors, Produced by Direct Multi - Printing Process**

Olga Solomeshch, Nir Tessler, Yacov Shneider, Tatiana Beker, Svetlana Yofis, and Arkady Gavrilov
*Technion, Israel*

**ThP-024**

**High Mobility and Green-Solvent Processable Plastic Transistors Enabled by Irregular Structure in Terpolymers**

So-Huei Kang[1], A Young Jeong[2], Hae Rang Lee[2], Joon Hak Oh[2], and Changduk Yang[1]
*[1]UNIST, Korea, [2]POSTECH, Korea*

**ThP-025**

**WITHDRAWL**

**ThP-026**

**Iridium(III) Cyclometalates Containing Different Number of o-Carboranyl Ligands for High-Efficiency Phosphorescent OLEDs**

Sujith Surendran, Nghia Nguyen Van, Heechai Lee, Ajay Kumar, and Min Hyung Lee
*Univ. of Ulsan, Korea*

**ThP-027**

**Deep-Red Amplified Spontaneous Emission from Cis-Configured Squaraine**

Hao Ye, Linsong Cui, Toshinori Matsushima, Chuanjiang Qin, and Chihaya Adachi
*Kyushu Univ., Japan*

**ThP-028**

**High-Performance Blue Thermally Activated Delayed Fluorescent OLEDs based on Ortho-Carbazole-Appended Triarylboron Emitters**

Young Hoon Lee, Heechai Lee, Juhee Kim, and Min Hyung Lee
*Univ. of Ulsan & EHSRC, Korea*

**ThP-029**

**Thermal Annealing Dependent Emission Colour and Efficiency of Isophtalonitrile-Based TADF Emitters with Different Donors**

Dmytro Volyniuk, Eigirdas Skuodis, Ausra Tomkeviciene, Karolis Leitonas, Oleksandr Bezvikonnyi, Viktorija Mimaite, and Juozas V. Gražulevičius
*Kaunas Univ. of Tech., Lithuania*

**ThP-030**

**Highly-Efficient Down-Conversion White OLEDs with Color-Conversion Light Outcoupling Structures**

Joo Won Han[1], Chul Woong Joo[2], Jonghee Lee[2], and Yong Hyun Kim[1]
*[1]Pukyong Nat'l Univ., Korea, [2]ETRI, Korea*

**ThP-031**

**TADF and RTP Properties of Simple D-A and D-A-D Systems**

Piotr Pander[1], Radoslaw Motyka[2], Joanna Oleksa[2], Heather Higginbotham[1], Fernando Dias[1], Andrew Monkman[1], and Przemyslaw Data[2]
*[1]Durham Univ., UK, [2]Silesian Univ. of Tech., Poland*

**ThP-032**

**Wavelength-Selective and Photo-Switchable $\pi$-Electronic Microlasers**

Daichi Okada[1], Stefano Azzini[2], Hiroki Nishioka[3], Hayato Tsuji[4], Fumio Sasaki[5], Eiichi Nakamura[3], Cyriaque Genet[2], Thomas Ebbesen[2], Zhang-hong Lin[6], Masakazu Morimoto[7], Jer-shing Huang[6], Takeo Minari[8], Tadaaki Nagao[8], Masahiro Irie[7], and Yohei Yamamoto[1]
*[1]Univ. of Tsukuba, Japan, [2]Univ. of Strasbourg, ISIS, France, [3]Univ. of Tokyo, Japan, [4]Kanagawa Univ., Japan, [5]AIST, Japan, [6]Leibniz Inst. of Photonic Tech., Germany, [7]Rikkyo Univ., Japan, [8]NIMS, Japan*

**ThP-033**

**Spin-Dependent Energy Transfer to A Dendritic Fluorophore in Solution-Processed Organic Light-Emitting Diodes Using Thermally Activated Delayed Fluorescence**

So Shikita, Naoya Aizawa, and Takuma Yasuda
*Kyushu Univ., Japan*

**ThP-034**

**Highly Efficient Blue Organic Light-Emitting Diodes from Pyrimidine-Based Thermally Activated Delayed Fluorescence Emitters**

Bowen Li[1], Zhiyi Li[2], Yong Zhang[1], and Ying Wang[2]
*[1]Harbin Inst. of Tech., China, [2]Technical Inst. of Physics and Chemistry, Chinese Academy of Sciences, China*

**ThP-035**

**Blocking Energy-Loss Pathways for Ideal Fluorescent Organic Light-Emitting Diodes with Thermally Activated Delayed Fluorescent Sensitizers**

Xiaozeng Song, Dongdong Zhang, Minghan Cai, and Lian Duan
*Tsinghua Univ., China*

**ThP-036**

**Hydrogen Bonded Thermally Activated Delayed Fluorescent Materials with Narrow Spectra: From Design to Manipulation**

Minghan Cai, Yong Qiu, and Lian Duan
*Tsinghua Univ., China*

**ThP-037**

**Achieving High-Performance Solution-Processed Orange OLEDs with The Phosphorescent Cyclometallated Trinuclear Pt(II) Complex**

Xiaolong Yang[1], Bo Jiao[1], Jing-Shuang Dang[1], Yuanhui Sun[1], Yong Wu[1], Guijiang Zhou[1], and Wai-Yueng Wong[2]
*[1]Xi'an Jiaotong Univ., China, [2]The Hong Kong Polytechnic Univ., China*

**ThP-038**

**Introducing Ir complexes as Donor Materials: Investigation on Triplet State in Organic Solar Cells**

Yingzhi Jin[1], Jie Xue[2], Juan Qiao[2], and Fengling Zhang[1]
*[1]Linköping Univ., Sweden, [2]Tsinghua Univ., China*

**ThP-039**

**Design and Synthesis of Hole-Blocking Materials with Hightriplet Energy and Glass Transition Temperature for Blue Phosphorescent Organiclight-Emitting Diodes**

Seokhoon Jang and Youngu Lee
*DGIST, Korea*

**ThP-040**

**Electronic Transport in Organic Light-Emitting Diodes Studied by Impedance Spectroscopy**

Makoto Takada, Takashi Nagase, Takashi Kobayashi, and Hiroyoshi Naito
*Osaka Prefecture Univ., Japan*

**ThP-041**

**The Importance of Vibronic Coupling and Solid State Solvation on Thermally Activated Delayed Fluorescence Molecules**

Beth Alexandra Laidlaw, Jamie Gibson, Jessica Stacey, Thomas Northey, and Thomas Penfold
*Newcastle Univ., UK*

**ThP-042**

**Electrochemical Polymerized Ultrahigh-Resolution PMOLED Display**

Rong Wang, Linlin Liu, and Yuguang Ma
*South China Univ. of Tech., China*

**ThP-043**

**Synthesis and Characterization of Donor-Acceptor OLED Emitters with New Electron Donating Units**

Xiaofeng Tan, Dmytro Volyniuk, and Juozas V. Gražulevičius
*Kaunas Univ. of Tech., Lithuania*

**ThP-044**

**Pyridal[2,1,3]thiadiazoleas Strong Electron-Withdrawing and Less Steric Hindrance Acceptor For Highly Efficient Donor-Acceptor Type NIR Materials**

Dehua Hu and Yuguang Ma
*South China Univ. of Tech., China*

**ThP-045**

**Efficient Blue Light-Emitting Polymers Containing Fluorene[2,3-b]Benzo[d]Thiophene-S,S-Dioxide Unit**

Wei Yang, Feng Peng, Lei Ying, and Yong Cao
*South China Univ. of Tech., China*

**ThP-046**

**Semi-Orthogonal Solution-Processed Polyfluorene Derivative for Multilayer Polymer Light-Emitting Diodes**

Zhiming Zhong and Lei Ying
*South China Univ. of Tech., China*

**ThP-047**

**Synthesis of New Heteroleptic Iridium(III) Complexe Consisting of Bipyridine for Vacuum-Deposited Organic Light-Emitting Diodes**

Jae-Ho Jang, Do-Hoon Hwang, Jeong Yong Park, and Hea Jung Park
*Pusan Nat'l Univ., Korea*

**ThP-048**

**Theoretical Simulations of Molecular Packing and Electronic Processes in Organic Solar Cells**

Guangchao Han and Yuanping Yi
*Inst. of Chemistry, Chinese Academy of Sciences, China*

**ThP-049**

**Diblock Copolymer PF-b-PDMAEMA as Effective Cathode Interfacial Material in Polymer Solar Cells**

Ligang Yuan, Yi Zhou, and Yongfang Li
*Soochow Univ., China*

**ThP-050**

**Optimal Light Absorption in Polymer Solar Cells Using Tunable Plasmonic Ag Quantum Dot Arrays**

Seyeong Song, Sang Kyu Kwak, and Jin Young Kim
*UNIST, Korea*

**ThP-051**

**High Performance Oxide Buffer Free Organic Bulk-Heterojunction Solar Cells**

DoHui Kim and Shinuk Cho
*Univ. of Ulsan, Korea*

**ThP-052**

**Bulk Heterojunction Organic Solar Cells Including Donor-Accepter Type Small Molecules**

Wataru Genno, Kana Nakamura, Takashi Okubo, Yoshihiro Yamaguchi, Masahiko Maekawa, and Takayoshi Kuroda-Sowa
*Kindai Univ., Japan*

**ThP-053**

**Semitransparent Polymer Solar Cells with Solution Processible Oxide/Metal/Exide Electrodes**

Jeonghoon Seo and Shinuk Cho
*Univ. of Ulsan, Korea*

**ThP-054**

**Polymer Solar Cells with Enhanced Efficiency by Modifying PEDOT:PSS Surface**

Sujung Park and Shinuk Cho
*Univ. of Ulsan, Korea*

**ThP-055**

**Tunable Dual Wavelength Organic Near-Infrared Photodetectors**

Yazhong Wang[1], Zheng Tang[2], Bernhard Siegumund[1], Zaifei Ma[2], Johannes Benduhn[1], Donato Spoltore[1], Karl Leo[1], and Koen Vandewal[3]
*[1]TU-Dresden, Germany, [2]Donghua Univ., China, [3]Hasselt Univ., Belgium*

**ThP-056**

**Two-Dimensional Mo1.33C MXene-Assisted Hole Transport Layer for High Performance Organic Solar Cells**

Yanfeng Liu, Yingzhi Jin, Quanzheng Tao, Johanna Rosen, Zaifang Li, and Fengling Zhang
*Linköping Univ., Sweden*

**ThP-057**

**Porphyrin Based Materials for Organic Photovoltaics**

Mariza Mone and Ergang Wang
*Chalmers Univ. of Tech., Sweden*

**ThP-058**

**Highly Soluble Donor-Acceptor Polymers based on Carbazole Units with Alkoxy Substituents at The 4-Position for Photovoltaic Cells**

Takeshi Yasuda[1], Kosuke Shibasaki[2], and Masashi Kijima[2]
*[1]NIMS, Japan, [2]Univ. of Tsukuba, Japan*

**ThP-059**

**Electronic Structure and Exciton Dynamics of Organic Donor/Acceptor Interface Depending on Molecular Orientation Controlled by Templating Layer**

Heeseon Lim[1] and JeongWon Kim[2]
*[1]KAIST, Korea, [2]KRISS, Korea*

**ThP-060**

**A Twisted Thieno[3,4-b]thiophene-Based Electron Acceptor Featuring A 14-Pi-Electron Indenoindene Core for High-Performance Organic Photovoltaics**

Shengjie Xu and Xiaozhang Zhu
*Inst. of Chemistry Chinese Academy of Sciences, China*

**ThP-061**

**An Electron-Rich 2-Alkylthieno[3,4-b]thiophene Building Block with Excellent Electronic and Morphological Tunability toward Efficient Small-Molecule Solar Cells**

Zichun Zhou and Xiaozhang Zhu
*Inst. of Chemistry, Chinese Academy of Sciences, China*

**ThP-062**

**All-in-One Small Molecular Solar Cells based on Oligothiophene-Fullerene Conjugate**

Thanh Luan Nguyen[1], Tack Ho Lee[2], Bhoj Gautam[3], Song Yi Park[2], Kenan Gundogdu[3], Jin Young Kim[2], and Han Young Woo[1]
*[1]Korea Univ., Korea, [2]UNIST, Korea, [3]North Carolina State Univ., USA*

**ThP-063**

**Influence of The Crystalline Nature of Small Molecules on The Efficiency and Stability of Organic Optoelectronics**

Na Gyeong An, Kyu Cheol Lee, Jungwoo Heo, Changduk Yang, and Jin Young Kim
*UNIST, Korea*

**ThP-064**

**Comparison Study of Polymer Solar Cells with Alkoxybenzothiadiazole-Based Semi-Crystalline Polymers for Indoor Photovoltaic Applications**

Song Yi Park[1], Yuxiang Li[2], Jaewon Kim[1], Tack Ho Lee[1], Bright Walker[1], Han Young Woo[2], and Jin Young Kim[1]
*[1]UNIST, Korea, [2]Korea Univ., Korea*

**ThP-065**

**Design, Synthesis and Optoelectronic Properties of Novel Unsymmetric Diketopyrrolopyrrole Conjugated Copolymers**

Kenta Aoshima, Marina Ide, and Akinori Saeki
*Osaka Univ., Japan*

**ThP-066**

**Physical Effects of Ultra-Thin Hafnium Oxide Tunneling Layer on The Dark Current of Organic Photodiode**

Kee Tae Kim, Chan Hyuk Ji, Da Hee Song, and Se Young Oh
*Sogang Univ., Korea*

**ThP-067**

**Non-Fullerne Polymer Solar Cells Using a High-Molecular-Weight Thieno[3,4-c]pyrrole-4,6-(5H)-Dione Based Conjugated Polymer with over 11% Efficiency.**

Jong Baek Park, Jong-Woon Ha, and Do-Hoon Hwang
*Pusan Nat'l Univ., Korea*

**ThP-068**

**Structure-Property Relationships in Fullerene and Nonfullerene Solar Cells Incorporating DTBDT-Based Small Molecule Donors**

Jisu Hong[1], Hyojung Cha[2], James R. Durrant[2], Tae Kyu An[3], Soon-Ki Kwon[4], Yun-Hi Kim[4], and Chan Eon Park[1]
*[1]POSTECH, Korea, [2]Imperial College London, UK, [3]Korea Nat'l Univ. of Transportation, Korea, [4]Gyeongsang Nat'l Univ., Korea*

**ThP-069**

**Construction of Layered Structure of Anion-Cations to Tune the Work Function of AZO for Inverted Polymer Solar Cells**

Weitao Ma
*South China Univ. of Tech., China*

**ThP-070**

**Side Chain Heteroatom Effecton Morphology and Photovoltaic Performance of The ATT-Based Non-Fullerene Solarcells**

Jianyun Zhang and Xiaozhang Zhu
*Chinese Academy of Sciences, China*

**ThP-071**

**Regioregular Conjugated Polymers Comprising Two-Dimensional Benzodithiophene for High-Efficiency Organic Photovoltaics**

Honggi Kim[1], Bogyu Lim[2], Hyojung Heo[1], Geonik Nam[1], Hyungjin Lee[2], Ji Young Lee[2], Jaechol Lee[2], and Honggi Kim[1]
*[1]DGIST, Korea, [2]LG Chem, Korea*

**ThP-072**

**Crosslinkable Non-Conjugated Polyelectrolytes as Polymer Interlayers for Optoelectronic Applications**

Yoon Kim, Hee Yeon Jeong, and Tae Dong Kim
*Hannam Univ., Korea*

**ThP-073**

**Optimizing The Charge Mobility and Phase Separation of Thick PTB7:$PC_{71}BM$ Films by Modified Graphene Oxide**

Chengkun Lv, Fei Zheng, and Xiaotao Hao
*Shandong Univ., China*

**ThP-074**

**Improving The Compatibility of Donor Polymers in Efficient Ternary Organic Solar Cells via Post-Additive Soaking Treatment**

Xiaoyu Yang, Jianqiang Liu, and Xiaotao Hao
*Shandong Univ., China*

**ThP-075**

**Improving Stability and Performance in Organic Photovoltaics Device with Thick Activelayers Incorporating Insulating Polymer Frames**

Zhenchuan Wen, Peng-Qing Bi, Xiaoyu Yang, and Xiaotao Hao
*Shandong Univ., China*

**ThP-076**

**Improving Performance of Ternary Organic Solar Cells by Incorporating Non-Fullerene Acceptors with Different Crystallinity**

Kangning Zhang, Peng-Qing Bi, Zhenchuan Wen, and Xiaotao Hao
*Shandong Univ., China*

**ThP-077**

**Regulating The Vertical Phase Distribution by Fullerene-Derivative in High Performance Ternary Organic Solar Cells**

Peng-Qing Bi and Xiao-Tao Hao
*Shandong Univ., China*

**ThP-078**

**Charge Transfer Induced Open-Circuit Voltage Losses in Non-Fullerene Organic Solar Cells**

Zhihao Chen, Peng-Qing Bi, Kangning Zhang, and Xiaotao Hao
*Shandong Univ., China*

**ThP-079**

**Molecular Packing and Electron Transport of Perylenediimide Derivatives: Theoretical Insight into The Impact of Alkyl Functionalization and Covalent Dimerization**

Yuan Guo, Guangchao Han, Ruihong Duan, and Yuanping Yi
*Inst. of Chemistry Chinese Academy of Sciences, China*

**ThP-080**

**Interfacial Engineering via Inserting Functionalized Water-Soluble Fullerene Derivative Interlayers for Enhancing Performance of Perovskite Solar Cells**

Tiantian Cao, Peng Huang, Kaicheng Zhang, Ziqi Sun, Ning Chen, and Yongfang Li
*Chemical Engineering and Mate, China*

**ThP-081**

**Efficiency Enhancement of Perovskite Solar Cells via Water-Soluble Fullerenol $C_{60}(OH)_{16}$ Interlayers**

Kang Chen, Tiantian Cao, Ziqi Sun, Ning Chen, and Yongfang Li
*Chemical Engineering and Mate, China*

**ThP-082**

**Improvement in Performance of p-i-n Perovskite Based Solar Cells Using Zr Doped $TiO_x$ as An Electron Transport Layer**

Chan Hyuk Ji, Hae Seong Kim, and Se Young Oh
*Sogang Univ., Korea*

**ThP-083**

**Perovskite Based Light Emitting Solar Cells**

Hak-Beom Kim[1], Young Jin Yoon[1], Jaeki Jeong[1], Jungwoo Heo[1], Hyungsu Jang[1], Jung Hwa Seo[2], Bright Walker[1], and Jin Young Kim[1]
*[1]UNIST, Korea, [2]Dong-A Univ., Korea*

**ThP-084**

**The Effect of Interaction between CuSCNdopant and Dimethylsulfoxide Mediated Intermediate Phase on the Methylammonium Leadiodide Perovskite Solar Cells**

Donghee Kang[1], Dongguen Shin[1], Junkyeong Jeong[1], Jisu Yoo[1], Kiwoong Kim[1], Hyunbok Lee[2], and Yeonjin Yi[1]
*[1]Yonsei Univ., Korea, [2]Kangwon Nat'l Univ., Korea*

**ThP-085**

**Interfacial Energy Level Alignment between Mixed Perovskite and Organic Materials**

Dongguen Shin[1], Wanjung Kim[1], Junkyeong Jeong[1], Do Hyung Chun[1], Jong Hyeok Park[1], Hyunbok Lee[2], and Yeonjin Yi[1]
*[1]Yonsei Univ., Korea, [2]Kangwon Nat'l Univ., Korea*

**ThP-086**

**Photoemission Studies of Buried Interface $TiO_2$/$MAPbI_3$: Chemical Change and Energy Level Alignment**

Junkyeong Jeong[1], Dongguen Shin[1], Do Hyung Chun[1], Wanjung Kim[1], Jong Hyeok Park[1], Hyunbok Lee[2], and Yeonjin Yi[1]
*[1]Yonsei Univ., Korea, [2]Kangwon Nat'l Univ., Korea*

**ThP-087**

**Ligand Exchange Inquaternary Alloyed Nanocrystals Ag-In-Zn-S**

Kamil Kotwica[1], Piotr Bujak[1], Zbigniew Wrobel[2], and Adam Pron[1]
*[1]Warsaw Univ. of Tech., Poland, [2]Inst. of Organic Chemistry PAS, Poland*

**ThP-088**

**Solvent-Induced Crystallization of $Cs_4PbBr_6$ for Light Conversion**

Van Quyet Le and Soo Young Kim
*Chung-Ang Univ., Korea*

**ThP-089**

**Origin of Shape-Dependent Fluorescence Polarization from CdSe Nanoplatelets**

Da-Eun Yoon[1], Whi Dong Kim[1], Dahin Kim[1], Dongkyu Lee[1], Sungjun Koh[1], Wan Ki Bae[2], and Doh Chang Lee[1]
*[1]KAIST, Korea, [2]KIST, Korea*

**ThP-090**

**Colloidal Quantum Dots with Near-Unity Quantum Yield and Suppressed Blinking**

Byeong Guk Jeong[1], Jun Hyuk Chang[2], Wan Ki Bae[3], and Doh Chang Lee[1]
*[1]KAIST, Korea, [2]Seoul Nat'l Univ., Korea, [3]SungKyunKwan Univ., Korea*

**ThP-091**

**Highly Efficient Top Emitting Quantum Dot Light Emitting Diodes**

Changhee Lee and Taesoo Lee
*Seoul Nat'l Univ., Korea*

**ThP-092**

**Two-Step Annealing Effect on Highly Efficient PbS-Colloidal Quantum Dot Solar Cells**

Changjo Kim, Se-Woong Baek, and Jung-Yong Lee
*KAIST, Korea*

**ThP-093**

**Energy Levels Alignment of P3HT-PbS and P3HT-CdS Hybrid Interface for Photovoltaic Applications**

Phuong Thao Nguyen and Ji Hoon Shim
*POSTECH, Korea*

**ThP-094**

**A Doped Organic Layer for Efficient and Stable Quantum Dot Solar Cells**

Sang-Hoon Lee[1], Se-Woong Baek[1], Jung Hoon Song[2], Changjo Kim[1], Ye-Seol Ha[1], Hyeyoung Shin[1], Hyungjun Kim[1], Sohee Jeong[2], and Jung-Yong Lee[1]
*[1]KAIST, Korea, [2]KIMM, Korea*

**ThP-095**

**Role of Polymeric Nucleation Layers in Fabricating Large-Area, Flexible, and Transparent Electrodes for Printable Electronics**

Soyeong Jeong, Suhyun Jung, Hongkyu Kang, Dasol Lee, Sang-Bae Choi, Seok Kim, Byoungwook Park, Kilho Yu, Jinho Lee, and Kwanghee Lee
*GIST, Korea*

**ThP-096**

**Donor-Antimony(V) Lewis Acid for OFF-ON Fluorescence Sensing of Fluoride**

Ajay Kumar, Juhee Kim, Sujith Surendran, and Min Hyung Lee
*Univ. of Ulsan, Korea*

**ThP-097**

**WITHDRAWL**

**ThP-098**

**Comparative Investigation on Electrical Transport Properties of Self-Assembled Monolayers Formed by Benzenethiol, Cyclohexanethiol, and Adamantanethiol**

Jun Woo Kim, Hyunhak Jeong, Wang-Taek Hwang, Yeonsik Jang, Jeongmin Koo, and Takhee Lee
*Seoul Nat'l Univ., Korea*

**ThP-099**

**PFN and $Ba(OH)_2$ Dipole Materials as Electron Transport Layers on n-Type Crystalline Silicon Semiconductor**

Zaira Barquera, Pablo Ortega, Gerard Masmitjà, Isidro Martín, Luis Guillermo Gerling, Joaquim Puigdollers, Cristobal Voz, and Ramon Alcubilla
*Univ. Politècnica Catalunya, Spain*

**ThP-100**

**Cycloalkyl Modified Ionic Liquids for Electrochromic Polymer Windows**

Jinbo Kim, Chihyun Park, Younghoon Kim, Woojae Lee, Minsu Han, and Eunkyoung Kim
*Yonsei Univ., Korea*

**ThP-101**

**Near Infrared Whispering Gallery Mode Photoluminescence from Conjugated Polymer Blend Microsphere Resonators**

Osamu Oki[1], Soh Kushida[1], Annabel Mikosch[2], Kota Hatanaka[3], Youhei Takeda[3], Satoshi Minakata[3], Junpei Kuwabara[1], Takaki Kanbara[1], Thang Dao[4], Satoshi Ishii[4], Tadaaki Nagao[4], Alexander Kuehne[2], Felix Deschler[5], Richard Friend[5], and Yohei Yamamoto[1]
*[1]Univ. of Tsukuba, Japan, [2]RWTH Aachen Univ., Germany, [3]Osaka Univ., Japan, [4]NIMS, Japan, [5]Univ. of Cambridge, UK*

**ThP-102**

**Crystal Structure and Physical Properties of [Ni(dmit)2] Salts with Pyridazinium or Pyrazinium-Dibenzo[24]Crown-8 Supramolecular Cations**

Yuki Shirakawa[1], Kiyonori Takahashi[1], Shin-ichiro Noro[1], Tomoyuki Akutagawa[2], and Takayoshi Nakamura[1]
*[1]Hokkaido Univ., Japan, [2]Tohoku Univ., Japan*

**ThP-103**

**Ferromagnetic $[Mn^{II}Cr^{III}(oxalate)_3]$ Salts with Supramolecular Cations based on Benzo[18]crown-6**

Jiabing Wu[1], Toru Endo[1], Kiyonori Takahashi[1], Kazuya Kubo[2], Yasutaka Suzuki[3], Shin-ichiro Noro[1], Jun Kawamata[3], and Takayoshi Nakamura[1]
*[1]Hokkaido Univ., Japan, [2]Hyogo Univ., Japan, [3]Yamaguchi Univ., Japan*

**ThP-104**

**Molecular Rotation in Semiconducting (3-Fluoro Adamantane Ammonium) (Trans-Syn-Trans-Dicyclohexano [18]crown-6)$[Ni(dmit)_2]\cdot CH_3CN$**

Kiyonori Takahashi[1], Yu Ohshima[1], Kazuya Kubo[2], Shin-ichiro Noro[1], Sadamu Takeda[1], Tomoyuki Akutagawa[3], and Takayoshi Nakamura[1]
*[1]Hokkaido Univ., Japan, [2]Univ. of Hyogo, Japan, [3]Tohoku Univ., Japan*

**ThP-105**

**Electrochemical and Spectroelectrochemical Investigation of Differently Substituted Pyridine by Phenoxazine or Phenothiazine Units**

Vasylieva Marharyta, Czichy Malgorzata, Motyka Radoslaw, Data Przemyslaw, and Lapkowski Mieczyslaw
*Silesian Univ. of Tech., Poland*

**ThP-106**

**Study on The Charge Transfer Process between Silver Nanoparticles and Organic Semiconductors in Non-Volatile Memories by Surface Enhanced Raman Scatting**

Cong Wang, Linlin Liu, and Yuguang Ma
*South China Univ. of Tech., China*

**ThP-107**

**D-A-D BODIPY Dye with Restricted Intramolecular Charge Transfer State: Highly Emissive in Solution and Crystal**

Hongcheng Gao, Zengqi Xie, and Yuguang Ma
*South China Univ. of Tech., China*

**ThP-108**

**Approaches for Enhancing Light Upconversion Efficiency in Diphenylanthracene Compounds**

Karolis Kazlauskas, Steponas Raisys, Povilas Adomenas, and Saulius Jursenas
*Vilnius Univ., Lithuania*

**ThP-109**

**High Voltage Organic Cathode Materials for Lithium-Ion Batteries**

Kyu Nam Lee, Ji Eon Kwon, and Soo Young Park
*Seoul Nat'l Univ., Korea*

**ThP-110**

**Fabrication of Flexible Electrodes Using Electrospun PVDF-HFP Nanofiber Web and Application to $MnO_2$ Supercapacitor.**

Soojung Lee, Sung Hee Kim, and Jun Young Lee
*Sungkyunkwan Univ., Korea*

**ThP-111**

**All Organic Nano-Templates for Visible Light Driven Hydrogen Evolution from Water**

Hyun-Jun Lee, Jae-Kwan Kim, and Soo Young Park
*Seoul Nat'l Univ., Korea*

**ThP-112**

**Coral-Like Mesoporous Polyaniline with High Surface Area: Self-Assembly, Characterization and Improved Electrochemical Capacitance Performance**

Wei Lyu, Mengting Yu, Jiangtao Feng, and Wei Yan
*Xi'an Jiaotong Univ., China*

**ThP-113**

**Phosphorescence of New Benzophenone and Diphenylsulfone Compounds in Amorphous Polymer Matrice at Room Temperature**

Ausra Tomkeviciene, Asta Dabuliene, Ramunas Lygaitis, and Juozas V. Gražulevičius
*Kaunas Univ. of Tech., Lithuania*

**ThP-114**

**Zinc-Phosphorus Complex Working as an Atomic Valve for Colloidal Growth of Monodisperse Indium Phosphide Quantum Dots**

Sungjun Koh and Doh Chang Lee
*KAIST, Korea*

**ThP-115**

**High-Performance Pressure Sensors Based on Three-Dimensional Electrospun Core/Shell Nanofiber Structures**

O Young Kweon, Sang Jin Lee, and Joon Hak Oh
*POSTECH, Korea*

**ThP-116**

**Chiral Functionalized Graphene-Based Sensor for Enantioselective Chemical Sensing**

Cheol-Hee Park[1], Xiaobo Shang[1], Gwan Yeong Jung[2], Sang Kyu Kwak[2], and Joon Hak Oh[1]
*[1]POSTECH, Korea, [2]UNIST, Korea*

**ThP-117**

**Direct Cd-to-Pb Cation Exchange into CdSe/PbSe Axial Heterojunction Nanorods**

Dongkyu Lee, Whi Dong Kim, Seokwon Lee, and Doh Chang Lee
*KAIST, Korea*

**ThP-118**

**Synthesis and Charge-Transport Properties of Thiophene-Fused Nanographene for Organic Field-Effect Transistors**

Yuka Kojiguchi, Kyohei Matsuo, and Takuma Yasuda
*Kyushu Univ., Japan*

**ThP-119**

**Optimizing the Nano and Electronic Structures in the Active Layer of Polymer Solar Cells**

Han Yan
*Xi'an Jiaotong Univ., China*

**ThP-120**

**Morphology Stabilization Using Stamping Transferprocess via Controlled PUA Mold for Perovskite and Organic Optoelectric Devices**

Woongsik Jang and Dong Hwan Wang
*Chung-Ang Univ., Korea*

**ThP-121**

**Unravelling The Ideal Morphology of Small Molecules-Based Bulk Heterojunction for OPV**

Julien Gorenflot[1], Obaid Alqahtani[2], Maxime Babics[1], Victoria Savikhin[3], Thomas Ferron[2], Ahmed H. Balawi[1], Andreas Paulke[4], Zhipeng Kan[1], Michael Pope[2], Dieter Neher[4], Mike F. Toney[3], Frédéric Laquai[1], Pierre M. Beaujuge[1], and Brian A. Collins[2]
*[1]KAUST, Saudi Arabia, [2]Washington State Univ., USA, [3]SLAC Nat'l Accelerator Lab., USA, [4]Univ. of Potsdam, Germany*

**ThP-122**

**Flexible PANI Electrodes for NFC-pH Sensor**

Yushin Kim[1], Bijendra Maskey[1], Kiran Shrestha[1], Grishmi Rajbhandari[2], and Gyoujin Cho[1]
*[1]Sunchon Nat'l Univ., Korea, [2]Wollongong Univ., Australia*

**ThP-123**

**Quantifying Generation and Losses Yields and Dynamics in Bulk Heterojunction Solar Cells with Fluorine-Substituted Polymer Donors: What Happens? How Fast? How Much?**

Julien Gorenflot[1], Andreas Paulke[2], Fortunato Piersimoni[2], Jannic Wolf[1], Zhipeng Kan[1], Federico Cruciani[1], Abdulrahman El Labban[1], Dieter Neher[2], Pierre M. Beaujuge[1], and Frédéric Laquai[1]
*[1]KAUST, Saudi Arabi, [2]Univ. of Potsdam, Germany*

**ThP-124**

**A Triphenylamine-Based Push-Pull – σ – C60 Dyad as Photoactive Molecular Material for Single-Component Organic Solar Cells: Characterizations and Photophysical Properties**

Antoine Labrunie[1], Julien Gorenflot[2], Maxime Babics[2], Ahmed H. Balawi[2], Olivier Alévêque[1], Sylvie Dabos-Seignon[1], Eric Levillain[1], Piétrick Hudhomme[1], Frédéric Laquai[2], Clément Cabanetos[1], Pierre Beaujuge[2], and Philippe Blanchard[1]
*[1]Univ. of Angers, France, [2]KAUST, Saudi Arabia*

**ThP-125**

**Synthesis of Ag/Mn Co-Doped CdS/ZnS (Core/Shell) Nanocrystals with Controlled Dopant Concentration and Spatial Distribution, and Dynamics of Excitons and of Energy Transfer between Co-Dopants**

Wonseok Lee[1], Juwon Oh[2], Woosung Kwon[3], Sanghyeon Lee[2], Dongho Kim[2], and Sungjee Kim[1]
*[1]POSTECH, Korea, [2]Yonsei Univ., Korea, [3]Sookmyung Women's Univ., Korea*

**ThP-126**

**Systematic Study of Doped OFETs with Selectively Sorted Single-Walled Carbon Nanotubes Using Conjugated Polymers**

DongSeong Yang[1], Jihong Kim[2], Min-hye Lee[3], and Dong-Yu Kim[1]
*[1]GIST, Korea, [2]KISTEP, Korea, [3]KRICT, Korea*

**ThP-127**

**Molecular Energy Control of Poly(Triarylamine) for Improved Efficiency of Perovskite Solar Cells Based on Enhanced Open-Circuit Voltage**

Eui Hyuk Jung[1], Youngwoong Kim[2], Bumjoon J. Kim[2], and Jangwon Seo[1]
*[1]KRICT, Korea, [2]KAIST, Korea*

**ThP-128**

**A Fast and Simple Preparation of Perovskite Solar Cells via Scalable and Roll-to-Roll Compatible Processes**

Young Yun Kim, Tae-Youl Yang, Eun Young Park, Eui Hyuk Jung, and Jangwon Seo
*KRICT, Korea*

**ThP-129**

**Dual-Modal Photodetector based on Organic Crystals**

Seokho Kim[1], Jinho Choi[2], Bo-hyun Kim[1], Dong Hyuk Park[2], and Sunjong Lee[1]
*[1]KITECH, Korea, [2]Inha Univ., Korea*

**ThP-130**

**Ultrafast Processes in Polymer: ITICBulk Heterojunction Solar Cells Investigated by Time Resolved Spectroscopy**

Jafar Iqbal Khan, Yuliar Firdaus, Pierre Beaujuge, and Frederic Laquai
*KAUST, Saudi Arabia*

**ThP-131**

**Hlighly Efficient Solar Cells Based on Donor Polymers with Temperature - Dependent Aggregation Properties**

Han Yu and He Yan
*Hong Kong Univ. of Science and Tech., Hong Kong*

**ThP-132**

**Study of Multilayer Dielectric Mirror-Integrated Colored Perovskite Solar Cells**

Sung Kyun Lim and Kyu-Tae Lee
*Inha Univ., Korea*

**ThP-133**

**PEDOT:PSS – Tungsten Oxide Composite Holeextraction Layer for Efficient Planar Perovskite Solar Cells**

Ali Asgher Syed
*Hong Kong Baptist Univ., Hong Kong*

**ThP-134**

**Highly Efficient Blue Light-Emitting Polymers for Single-Layer PLEDs**

Feng Peng, Lei Ying, Wei Yang, and Yong Cao
*South China Univ. of Tech., China*

**ThP-135**

**Non-Fullerene-Based Organic Solar Cells with Self-Assembled Interfacial Layer**

Ahyeong Lee, Juhyeon Kim, Eunhak Lee, and Kwanghee Lee
*GIST, Korea*