



IPEROP-25

Perovskite and Organic
Photovoltaics and Optoelectronics
20th - 21st January, 2025
KYOTO · Japan



Asia-Pacific Conference on Perovskite, Organic Photovoltaics&Optoelectronics (IPEROP25)

Kyoto, Japan, 2025 January 20th - 21st

Conference organizers: Atsushi Wakamiya, Hideo Ohkita, Seigo Ito and Anita Ho-Baillie

Conference Program

January 20th - Day 1 (Monday) 1	
09:00 - 09:50	Registration
09:50 - 10:00	Opening
Session 1A - Kihada Hall	
10:00 - 10:45	<u>Maksym Kovalenko</u> (<i>Empa, Swiss Federal Laboratories of Materials Science and Technology, Switzerland</i>) The first decade of perovskite quantum dots (in our lab)
10:45 - 11:15	<u>Chu-Chen Chueh</u> (<i>National Taiwan University, Taiwan</i>) Exploration of Two-Dimensional Perovskites for Optoelectronic Applications
11:15 - 11:45	Coffee Break
Session 1B -Kihada Hall	
11:45 - 12:15	<u>Qing Shen</u> (<i>The University of Electro-Communications</i>) Interface Engineering and Charge Carrier Management of Quantum Dot Solar Cells
12:15 - 12:45	<u>Antonio Abate</u> (<i>Helmholtz-Zentrum Berlin</i>) Lead-free perovskite solar cells
12:45 - 12:50	<u>Taro Tanabe</u> (<i>Tokyo Chemical Industry</i>) Tokyo Chemical Industry - Industry Talk
12:50 - 13:20	<u>Henk Bolink</u> (<i>Instituto de Ciencia Molecular, ICMol, Universidad de Valencia</i>) Vacuum deposited single junction and tandem perovskite solar cells
13:20 - 14:20	Lunch Break
Session 1C - Kihada Hall	
14:20 - 14:50	<u>Zhijun Ning</u> (<i>School of Physical Science and Technology, ShanghaiTech University</i>) Precise manipulation of perovskite film growth kinetic
14:50 - 14:55	<u>Jeffrey Lee</u> (<i>KOREA KIYON</i>) Perovskite and Battery R&D Solutions
14:55 - 15:25	<u>Vytautas Getautis</u> (<i>Department of Organic Chemistry, Kaunas University of Technology, Kaunas LT-50254, Lithuania.</i>) Advanced Organic Molecules for Perovskite Solar Cells
15:25 - 15:30	Break
Session 1D1 - Kihada Hall	
15:30 - 16:00	<u>Kyohei Nakano</u> (<i>RIKEN CEMS</i>) Efficiency-Limiting Factors of Charge Generation Process in Organic Photovoltaics
16:00 - 16:15	<u>Muhammad Jahandar</u> (<i>Energy & Environment Materials Research Division, Korea Institute of Materials Science (KIMS), Republic of Korea</i>), Soyeon Kim, Dong Chan Lim Highly efficient flexible organic photovoltaic modules for sustainable energy harvesting under low-light condition via suppressing voltage-drop by metal-mediated cross-linkable polymer interfacial layer
16:15 - 16:30	<u>Krishnapressad Vijayan</u> (<i>Crystal Growth and Thin Film Laboratory, Bharathidasan University, Tiruchirapalli 620024, Tamil Nadu, India</i>), Ramesh Babu Low-cost Fabrication of Lead-free CsSnBr ₃ Based All-inorganic Perovskite Solar Cells; Numerical and experimental approach.
16:45 - 17:00	<u>Mayank Kedia</u> (<i>Institute of Energy Materials and Devices, Photovoltaics (IMD - 3), Forschungszentrum Jülich, Germany</i>), Michael Saliba Mitigating the amorphization of perovskite solar cells using alumina via atomic layer deposition
Session 1D2 - Room 1+2	
15:30 - 16:00 1+2-IS1	<u>Kazuhiro Marumoto</u> (<i>Department of Materials Science, Institute of Pure and Applied Sciences, University of Tsukuba, Tsukuba, Ibaraki, 305-8573, Japan</i>) Operando Electron Spin Resonance to Elucidate the Factors Governing Device Performance of Perovskite Solar Cells
16:00 - 16:15 1+2-O1	<u>Minh Anh Truong</u> (<i>Institute for Chemical Research, Kyoto University</i>), Yuta Adachi, Shota Hira, Hiroshi Matsuda, Nobutaka Shioya, Tomoya Nakamura, Richard Murdey, Takeshi Hasegawa, Atsushi Wakamiya Development of Iso-Triazatruxene-based Hole-Collecting Monolayer Materials for Inverted Perovskite Solar Cells
16:15 - 16:30 1+2-O2	<u>Mehrdad Najafi</u> (<i>TNO, High Tech Campus 21, 5656 AE Eindhoven, The Netherlands.</i>), Ryley Ratnasingham, Klaas Bakker, Anne Biezemans, Dorrit Roosen, Johannes Lambooi, Marcel Simor, Josue Hernandezjuarez, Wiljan Verhees, Remi Aninat, Casper Vankessel, Ilker Dogan, Hindrik Devries, Rene Janssen, Sjoerd Veenstra Towards the Commercialization of All-Perovskite Tandem Solar Modules
16:30 - 16:45 1+2-O3	<u>Vitalii Bartosh</u> (<i>Laboratory of Inorganic Chemistry, Department of Chemistry and Applied Biosciences, ETH Zürich, Switzerland; Laboratory for Thin Films and Photovoltaics, Empa - Swiss Federal Laboratories for Materials Science and Technology, Switzerland</i>), Gebhard J. Matt, Kostiantyn Sakhatkyi, Andrii Kanak, Yuliia Kominko, Lorenzo J. A Ferraresi, Sergii Yakunin, Maksym V. Kovalenko High-spatial-resolution X-ray imaging with directly integrated, melt-cast CsPbBr ₃ detectors
16:45 - 17:00 1+2-O4	<u>Chia Hsun Nieh</u> (<i>National Taiwan University, Taiwan</i>), Chu Chen Chueh High Performance 2D Tin-based Perovskite Field-Effect Transistor with Porphyrin Like Additive Engineering
Session 1D3 - Room 4+5	



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15:30 - 16:00 4+5-IS1	<u>Akinori Saeki</u> (<i>Osaka University</i>) Automated Experimental Approach to Lead-Free Solar Cells and Lead Halide Perovskite Solar Cells
16:00 - 16:15 4+5-O1	<u>Mantas Marčinskas</u> (<i>Department of Organic Chemistry, Kaunas University of Technology, Radvilenu pl. 19, Kaunas 50254, Lithuania</i>), Gabija Linkaitė, Skirmantas Musteikis, Tadas Malinauskas, Vytautas Getautis 2PACz SAM Alternatives: Synthesis, Application and Challenges
16:15 - 16:30 4+5-O2	<u>Deimante Krisiune</u> (<i>Department of Organic Chemistry, Kaunas University of Technology, Kaunas, Lithuania</i>), Yi Yang, Cheng Liu, Kasparas Rakstys, Mercuri Kanatzidis, Edward Sargent, Vytautas Getautis Enamine-based Self-assembling Hole Transporting Monolayers for Perovskite Solar Cells
16:30 - 16:45 4+5-O3	<u>Shengnan Zuo</u> (<i>Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Germany</i>) Tailored Colloidal Dynamics for High-Performance and Stable DMSO-Free Tin Perovskite Solar Cells
16:45 - 17:00 4+5-O4	<u>Zijing Dong</u> (<i>Department of Chemical and Biomolecular Engineering, National University of Singapore</i>), Xiao Guo, Yi Hou Thermostable Perovskite Solar Cells Enabling Operational Lifetime over 25 Years
17:15 - 18:30	Poster session
19:30 - 22:00	Social dinner



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January 21st - Day 2 (Tuesday) 2	
09:50 - 10:00	Announcement of the day
Session 2A - Kihada Hall	
10:00 - 10:45 Hall-K1	<u>Itaru Osaka</u> (<i>Graduate School of Advanced Science and Engineering, Hiroshima University</i>) Design and synthetic strategy of polymer donors for efficient organic photovoltaics
10:45 - 11:15 Hall-I1	<u>Bumjoon Kim</u> (<i>Korea Advanced Institute of Science and Technology (KAIST)</i>) Design of Electroactive Polymers with High Mechanical Properties for Intrinsically-Stretchable Polymer Solar Cells
11:15 - 11:45	Coffee Break
Session 2B - Kihada Hall	
11:45 - 12:15 Hall-I1	<u>Kenjiro Fukuda</u> (<i>RIKEN CEMS</i>), Takao Someya Ultrathin and Stretchable Organic Photovoltaics for Emerging Applications
12:15 - 12:45 Hall-I2	<u>Xiaozhang Zhu</u> (<i>Beijing National Laboratory for Molecular Sciences, Key Laboratory of Organic Solids, Institute of Chemistry, Chinese Academy of Sciences, 100190 Beijing, P. R. China.</i>) Near-Infrared Organic Photovoltaic Materials and Devices
12:45 - 12:50	Industry talk
12:50 - 13:20 Hall-I3	<u>Michael Saliba</u> (<i>Institute for Photovoltaics (ipv), University of Stuttgart</i>) Wide Bandgap Perovskites and Solvent Systems
13:20 - 14:20	Lunch Break
Session 2C - Kihada Hall	
14:20 - 14:50 Hall-I1	<u>Hongxia Wang</u> (<i>School of Chemistry and Physics, Queensland University of Technology, Brisbane ,Australia</i>) Green Processing of Metal Halide Perovskite Materials for Applications in Solar Cells
14:50 - 15:20 Hall-I2	<u>Yi Hou</u> (<i>Solar Energy Research Institute of Singapore (SERIS), National University of Singapore</i>) Unlocking the Potential of Perovskite Solar Cells: From Single-Junction to Tandem
15:20 - 15:30	Break
Session 2D1 - Kihada Hall	
15:30 - 16:00 Hall-IS1	<u>Satoshi Uchida</u> (<i>The University of Tokyo</i>), Hiroshi Segawa Visualization of capacitance inside the perovskite solar cells
16:00 - 16:15 Hall-O1	<u>Robert Westbrook</u> (<i>Department of Chemistry, University of Washington, Seattle, WA, 98195-1700, USA</i>) Local Background Hole Density Drives Non-Radiative Recombination in Tin Halide Perovskites
16:15 - 16:30	
16:30 - 16:45 Hall-O2	<u>Xiao Guo</u> (<i>Department of Chemical and Biomolecular Engineering, National University of Singapore</i>), Zhenrong Jia, Zijing Dong, Yi Hou Suppressing Halide Phase Segregation in Wide-Bandgap Perovskite for Perovskite-Organic Tandem Solar Cells
16:45 - 17:00 Hall-O3	<u>Ioannis Kouroudis</u> (<i>Department of Electrical and Computer Engineering, Technical University of Munich, 85748 Garching bei Munich, Germany</i>), Kenedy Tabah Tanko, Masoud Karimipour, Aziz Ben Ali, D. Kishore Kumar, VEDIAPPAN Sudhakar, Ritesh Kant Gupta, Iris Visoly-Fisher,, Monica Lira-Cantu, Alessio Gagliardi AI predicted device degradation paves the way for further industrialization of PV technologies
Session 2D2 - Room 1+2	
15:30 - 16:00 1+2-IS1	<u>Manabu Sugimoto</u> (<i>Faculty of Advanced Science and Technology, Kumamoto University</i>) A Hybrid Computational Approach toward Optimization of Perovskite Solar Cells
16:00 - 16:15 1+2-O1	<u>Zhen Wang</u> (<i>Key Laboratory of Flexible Electronics (KLOFE), Institute of Advanced Materials (IAM) & School of Flexible Electronics (Future Technologies), Nanjing Tech University (NanjingTech), 30 South Puzhu Road, Nanjing 211816, China</i>) Nucleophilic Substitution Reactions-regulated Lead Polyhalides Transformation to Suppress Defects in Perovskite Solar Cells
16:15 - 16:30 1+2-O2	<u>Huan Bi</u> (<i>i-Powered Energy System Research Center (i-PERC), The University of Electro-Communications</i>), Qing Shen, Shuzi Hayase The next direction of high-efficiency perovskite solar cells: all-non-toxic Sn-perovskite tandem solar cells
16:30 - 16:45 1+2-O3	<u>Hao-Wei Yu</u> (<i>National Taiwan University, Taiwan</i>), Ming-Hsuan Yu, Chu-Chen Chueh Diketopyrrolopyrrole-Dioxo-Benzodithiophene-Based Multi-Functional Conjugated Polymers for Perovskite Solar Cells
16:45 - 17:00 1+2-O4	<u>Amit Kessel</u> (<i>Department of Materials Science and Engineering, Monash University, Clayton, Victoria, 3800 Australia</i>), Juan Benitez Rodriguez, Jacek Jasieniak Semi-Opaque Perovskite Solar Cells for Color-Neutral See-Through Photovoltaics
Session 2D3 - Room 4+5	
15:30 - 16:00 4+5-IS1	<u>Jakapan Chantana</u> (<i>EneCoat Technologies Co.,Ltd, Kyoto, 613-0031, Japan</i>), Ryuji Kaneko, Shuhei Yamamoto, Tomonari Kogure, Tamotsu Horiuchi Over 30%-Efficient 4-Terminal Tandem Solar Cell Composed Of Flexible Perovskite Top Cell And Si Bottom Cell
16:00 - 16:15 4+5-O1	<u>Anastasiiia Sakahtska</u> (<i>Laboratory of Inorganic Chemistry, Department of Chemistry and Applied Biosciences, ETH Zürich, Switzerland; Laboratory for Transport at Nanoscale Interfaces, Empa - Swiss Federal Laboratories for Materials Science and Technology, CH-8600 Dübendorf, Switzerland</i>), Kostiantyn Sakhatskyi, Andrii Kanak, Gebhard Matt, Sergii Yakunin, Maksym Kovalenko High charge carrier mobility in CsPbBr ₃ single crystals investigated by Time of Flight technique
16:15 - 16:30 4+5-O2	<u>Soumya Sundar Parui</u> (<i>Department of Physics, Sardar Vallabhbhai National Institute of Technology, Ichchhanath, Surat, Gujarat 395007, India</i>), Krishnapressad Vijayan, Nithin Xavier, R Ramesh Babu, Vipul Kheraj Enhanced Crystallinity and Performance of CsPbBr ₃ Perovskite Solar Cells Via Thiourea-Assisted One-Step Spin Deposition Technique
16:30 - 16:45 4+5-O3	<u>Kostiantyn Sakhatskyi</u> (<i>ETH Zurich, Laboratory of Inorganic Chemistry, Department of Chemistry & Applied Biosciences, Vladimir-Prelog-Weg, 1, Zürich, CH</i>), Anastasiia Sakhatska, Bekir Turedi, Gebhard Matt, Vitalii Bartosh, Frank Krumeich, Federico Geser, Alberto Stabiliini, Malgorzata Kasprzak, Charlie Mc Monagle, Dmitry Chernyshov, Sergii Yakunin, Maksym Kovalenko Solution-grown perovskite single crystalline radiovoltaic cells with 10% power conversion efficiency



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16:45 - 17:00 4+5-O4	<u>JINXI CHEN</u> (<i>National University of Singapore, Singapore</i>), YI HOU Elucidating and Resolving the Bonding-Degradation Trade-off at Heterointerfaces for Increased Efficiency and Durability of Perovskite Solar Cells
17:00 - 17:10	Break
Session 2D	
17:10 - 17:40 2D-I1	<u>Tsutomu Miyasaka</u> (<i>Toin University of Yokohama</i>) Interface engineering for high voltage lead-based and lead-free perovskite solar cells
17:40 - 18:25 2D-K1	<u>Shuzi Hayase</u> (<i>i-Powered Energy System Research Center (i-PERC), The University of Electro-Communications</i>) Tin-based Perovskite Solar Cells and All-perovskite Tandem Solar Cells
18:25 - 18:35	Closing ceremony and awards



Poster Contribution

047	<u>Guan-Lin Wu</u> (<i>National Taiwan University, Taiwan</i>), Pin-Hsiang Chueh, Chu-Chen Chueh Modulation of the Conformation, Segment Compatibility, and Coplanarity Conjugated Polymers by Aldol Condensation for Efficient Ambipolar Organic Field-Effect Transistors
048	<u>Sheng-Chan Wu</u> (<i>Department of Photonics, National Cheng Kung University, No.1, University Rd., Tainan 701, Taiwan (R.O.C.)</i>), Shao-Zhi Wu, Jia-Kai Hu, Chia-Kai Lin, Hsin-Ming Cheng, Pai-Chun Wei, Hsu-Cheng Hsu Optical cooling in quasi-2D perovskite (PEA)2PbI4
050	<u>Erfu Wu</u> (<i>Transport at Nanoscale Interfaces Laboratory, Empa – Swiss Federal Laboratories for Materials Science and Technology, CH-8600 Dübendorf, Switzerland</i>), Ivan Shorubalko, Maksym Kovalenko, Sergey Tsarev, Daria Proniakova, Xuqi Liu, Dominik Bachmann, Sergii Yakunin A CMOS-Compatible Fabrication Approach for High-performance Perovskite Photodetector Arrays
051	<u>Ivan Turkevych</u> (<i>National Institute of Advanced Industrial Science and Technology (AIST)</i>) Synthesis Approaches for TiNX-ZrNX (X = Cl, Br, I) Semiconductors with Tunable Bandgaps for Pb-Free Optoelectronic Applications
052	<u>Jhen-Dong Lin</u> (<i>Department of Electrophysics, National Yang Ming Chiao Tung University, Hsinchu, 300093, Taiwan</i>), Ping-Yuan Lo, Guan-Hao Peng, Wei-Hua Li, Shun-Jen Cheng Dominant Role of Momentum-Forbidden Dark Excitons in the Energy Transfer between Quantum Dots and Monolayer Transition-Metal Dichalcogenides
054	<u>Aditya Wahyu Anugrah</u> (<i>Nara Institute of Science and Technology</i>), Itaru Raifuku, Hidenori Kawanishi, Yukiharu Uraoka Fabrication Process of Lead-free Double Perovskite Cs2AgBiBr6 Solar Cell by Low Temperature Annealing
055	Joaquim Puigdollers, <u>Gustavo Alvarez</u> (<i>Institut Recerca Energia Catalunya</i>), Pau Estarlich, Pablo Rafael Ortega, Gerard Masmitjà, Cristobal Voz, Alex J. López-Garcia, Alejandro Perez-Rodriguez Hydrogenated amorphous silicon for transparent solar cells: a new approach to efficiency and stability, compatible with other technologies.
056	<u>Ryota Takabe</u> (<i>EneCoat Technologies Co., Ltd, Kyoto, 613-0031, Japan</i>), Shuhei Yamamoto, Akihiro Nohara, Fumitake Kikuchi, Tamotsu Horiuchi Fullerene-free inverted perovskite solar cells using SnO2 nanoparticles for the electron transport layer
057	<u>Naoyuki Nishimura</u> (<i>National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan</i>), Hiroyuki Kanda, Ryuzi Katoh, Atsushi Kogo, Takuro N. Murakami Phenylethylammonium Bis(trifluoromethylsulfonyl)imide as a Spontaneous Perovskite Passivator Effectively Combined with PTAA Hole Transport Material in Perovskite Solar Cells
058	<u>Yi Sheng Lin</u> (<i>National Chung Hsing University, Department of Chemical engineering, Taiwan</i>), Wei Jia Qiu, Yun Shan Li, Chieh Ting Lin Scalable Surface Treatment for Boosting Efficiency and Reproducibility in Perovskite Solar Cells
059	<u>Daiki Tomita</u> (<i>Saitama Univ.</i>), Ryo Ishikawa Enhancing PSC Performance via Doping of Multi-Anchored Self-Assembled Hole Transport Materials into Perovskite Precursor Solutions
060	<u>Jiahao Zhang</u> (<i>Okinawa Institute of Science and Technology Graduate University (OIST)</i>), Guoqing Tong, Luis K. Ono, Yabing Qi Understanding Efficiency Losses in Hybrid Chemical Vapor Deposition Based Perovskite Solar Cells and Modules
061	<u>Ryo ishikawa</u> (<i>Saitama University</i>) Fabrication of Perovskite Thin Films Using DMF-free solvent without antisolvent method and Application to Perovskite Solar Cells
062	Xiaomin Huo, <u>Silvia Mariotti</u> (<i>Energy Materials and Surface Sciences Unit (EMSSU), Okinawa Institute of Science and Technology Graduate University (OIST), 1919-1 Tancha, Onna-son, Kunigami-gun, Okinawa 904-0495, Japan.</i>), Yaoyao Li, Ting Guo, Chenfeng Ding, Penghui Ji, Shuai Yuan, Tongtong Li, Ning Meng, Xiaomin Liu, Jiahao Zhang, Ilhem Nadia Rabehi, Yu Zhang, Suling Zhao, Hengyuan Wang, Dandan Song, Luis K. Ono, Zheng Xu, Yabing Qi Phenethylammonium-induced 2D phase on perovskite surface: understanding the effects on inverted perovskite solar cell performance
063	<u>Ilhem Nadia RABEHI</u> (<i>Energy Materials and Surface Sciences Unit (EMSSU), Okinawa Institute of Science and Technology Graduate University (OIST), 1919-1 Tancha, Onna-son, Kunigami-gun, Okinawa 904-0495, Japan</i>), Silvia Mariotti, Luis Katsuya Ono, Congyang Zhang, Xiaomin Huo, Jiahao Zhang, Tianhao Wu, Tongtong Li, Shuai Yuan, Ting Guo, Chenfeng Ding, Hengyuan Wang, Annalisa Bruno, Yabing Qi Morphological and Energetic Properties of 2PACz Self-Assembled Monolayers Deposited with Upscaling Deposition Methods and Effect on Device Performance
064	<u>DHRUBA KHADKA</u> (<i>Photovoltaic Materials Group, Center for GREEN Research on Energy and Environmental Materials, National Institute for Materials Science (NIMS), 1-1 Namiki, Tsukuba, Ibaraki 305-0044, Japan</i>), Masatoshi YANAGIDA, Yasuhiro SHIRAI Exploration of Degradation in Perovskite Solar Cells via Thermal Hysteresis of Photocurrent and Capacitance
065	<u>Nobuko Onozawa-Komatsuzaki</u> (<i>National Institute of Advanced Industrial Science and Technology (AIST)</i>), Daisuke Tsuchiya, Shinichi Inoue, Atsushi Kogo, Takuro N. Murakami Facile Synthesized Dopant-Free Spiro-Type Hole-transporting materials for Efficient and Stable Perovskite Solar Cells
066	<u>Chi Jing Huang</u> (<i>National Chung Hsing University, Department of Chemical engineering, Taiwan</i>), Shi Chun Liu, Chieh Ting Lin Enhancing Reproducibility of Self-Assembled Monolayer-Based Perovskite Solar Cells with Amphiphilic Polyelectrolytes
067	<u>Motoshi Nakamura</u> (<i>PXP Corporation</i>), Ching Chang Lin, Hiroki Sugimoto A novel method to predict the lifetime of perovskite solar cells in a day using the Arrhenius plot obtained from J-V measurements after light irradiation at elevated temperatures up to 105 °C
068	<u>Xiaoming Chang</u> (<i>Materials Science and Engineering, King Abdullah University of Science and Technology (KAUST), Thuwal 23955-6900, Saudi Arabia</i>), Thomas Anthopoulos Surface Cleaning and Passivation Engineering for Optimized 3D/2D Heterostructures in High-Performance Perovskite Solar Cells
069	<u>Nada Mrkyvkova</u> (<i>Center for Advanced Materials Application, Slovak Academy of Sciences, Dúbravská cesta 9, 845 11 Bratislava, Slovakia</i>), Vladimír Held, Peter Nádaždy, Karol Vegso, Quentin Guesnay, Daming Zheng, Peter Siffalovic Real-Time Study of Perovskite Thin Film Crystallization
070	<u>JiYOUN KIM</u> (<i>Nano and Information Materials Lab. (NIMs Lab.), Department of Chemical Engineering, Konkuk University</i>), DALHO LEE, DOOKYUNG MOON Development of Ternary Organic Solar Cells by Controlling charge dynamics
071	<u>Vladimir Held</u> (<i>Instituto de Ciencia Molecular (ICMol), Universidad de Valencia, C/Catedrático J. Beltrán 2, Paterna 46980, Spain</i>), Matthieu Pascal, Nathan Rodkey, Henk Bolink Revealing the Defects Formation and Passivation During Perovskite Vacuum Co-deposition by In situ Photoluminescence



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073	Muh Fadhil Albab (<i>Energy & Environment Materials Research Division, Korea Institute of Materials Science (KIMS), Republic of Korea</i>), Muhammad Jahandar, Soyeon Kim, Dong Chan Lim High-performance semi-transparent organic solar cells driven by the dipole-controlled optoelectrical response of bilateral self-assembled monolayer strategy
074	Ajay Kumar Baranwal (<i>i-PERC, The University of Electro-Communications, Tokyo</i>), Qing Shen, Shuzi Hayase Interfacial Passivation for Improved Crystallinity in Wide Bandgap Tin Perovskite Solar Cells
075	Chien-Yu Chen (<i>Institute for Chemical Research, Kyoto University, Gokasho, Uji, Kyoto 611-0011, Japan.</i>), Fuyuki Harata, Richard Murdey, Atsushi Wakamiya Reducing Carrier Recombination Loss in Tin Halide Perovskite Solar Cells with Vacuum-Deposited Metal Halides
076	Lauryna Monika Svirskaitė (<i>Department of Organic Chemistry, Kaunas University of Technology, Kaunas, Lithuania</i>), Maryte Daskeviciene, Tadas Malinauskas Smart semiconductor PANDI
077	Fuyuki Harata (<i>Institute for Chemical Research, Kyoto University</i>), Tomoya Nakamura, Minh Anh Truong, Richard Murdey, Atsushi Wakamiya Development of a tin perovskite deposition method independent of the substrate size and wettability by using imidazole derivatives
078	Saho Kobayashi (Kajikawa) (<i>Graduate School of Science, Japan Women's University, Japan</i>), Masanori Kaneko, Takahito Nakajima, Koichi Yamashita, Azusa Muraoka Machine Learning analysis of double perovskite B-site composition and band gap energy
079	Emi Kino (<i>Graduate School of Nanobioscience, Yokohama City University, Japan</i>), Makito Takagi, Takumi Naito, Masanori Tachikawa, Koichi Yamashita, Tomomi Shimazaki Theoretical Study of Lewis Base/Acid Passivation Effects for Surface Defects in SnGe-Mixed Perovskite
080	Tomoyuki Tobe (<i>Kanagawa Institute of Industrial Science and Technology (KISTEC), KSP EAST 1F, 3-2-1 Sakado, Takatsu-ku, Kawasaki-shi, Kanagawa 213-0012, Japan</i>), Daisuke Aoki, Hidenori Saito, Masahide Kawaraya, Shinichi Magaino Proposal on a MPPT algorithm using least squares method for the maximum power of perovskite PVmodule
081	Yuki Miyake (<i>Institute for Chemical Research, Kyoto University</i>), Shota Hira, Tomoya Nakamura, Minh Anh Truong, Richard Murdey, Atsushi Wakamiya Development of monolayer electron-collecting materials based on viologen structure for perovskite solar cells
082	Alex Lopez-Garcia (<i>Catalonia Institute for Energy Research, Jardins de les Dones de Negre 1, 2^a p., 08930, Barcelona, Spain</i>), Gustavo Alvarez, Pablo Ortega, Cristobal Voz, Joaquim Puigdollers, Alejandro Perez Rodriguez Ultrathin a-Si:H/oxide Transparent solar cells exceeding 1.2% Light Utilization Efficiency for BIPV and indoor PV applications
083	Richard Murdey (<i>Institute for Chemical Research, Kyoto University</i>), Ai Shimazaki, Megumi Haramatsu, Limbo Wan, Aly Aly, Minh Anh Truong, Tomoya Nakamura, Atsushi Wakamiya Exploring Stability Issues in Wide Bandgap Perovskite Solar Cells
084	Mai Otake (<i>Japan Women's University</i>), Suzune Omori, Masanori Kaneko, Giacomo Giorgi, Koichi Yamashita, Azusa Muraoka Theoretical Study on Deep Levels Induced by Defect Structures in Sn/Ge Double Perovskite Solar Cell Materials Using First-Principles Calculations
085	Chitsanucha Chattakoonpaisarn (<i>Department of Materials Science and Engineering, School of Molecular Science and Engineering, Vidyasirimedhi Institute of Science and Technology (VISTEC), Rayong, 21210 Thailand</i>), Patipan Sukpoonprom, Pichaya Pattanasattayavong Interfacial modification of CuSCN for Efficient Hole Transport Layer in Organic Photovoltaics by KSCN Doping
086	Patipan Sukpoonprom (<i>Department of Materials Science and Engineering, School of Molecular Science and Engineering, Vidyasirimedhi Institute of Science and Technology (VISTEC), Rayong, 21210, Thailand</i>), Zhuoran Qiao, Pinit Kidkhunthod, Chitsanucha Chattakoonpaisarn, Somlak Ittisanronnachai, Taweesak Sudyoasuk, Vinich Promarak, Nicola Gasparini, Pichaya Pattanasattayavong Universal Performance Improvements in CuSCN-based Devices Enabled by CuBr ₂ -doping
087	Koichi Yamashita (<i>Graduate School of Nanobioscience, Yokohama City University, Japan</i>), Masanori Kaneko First-Principles Study on Carrier Dynamics in Ge-Doped Sn Perovskites
088	Azusa Muraoka (<i>Graduate School of Science, Japan Women's University, Japan</i>), Yuzuka Minami, Sumire Ikeyama The Role and Impact of Vibronic Interactions on Charge Transfer Excitons in BTA-Based Nonfullerene Organic Solar Cells
089	Hanseul Lee (<i>Advanced Photovoltaics Research Center, Korea Institute of Science and Technology (KIST)</i>), Hye Ri Jung, Sooyeon Pak, Namhee Kwon, Sang Hoon Kim, Junhong Na, Seoyeon Ko, Seokhyun Yoon, Won Mok Kim, Jeung-hyun Jeong, Donghwan Kim, Soohyung Park, Gee Yeong Kim Elucidation of Interfacial Effects and Charge Transport in NiOx/Perovskite Systems for Perovskite Solar Cells
090	Hochan Hyun (<i>Advanced Photovoltaics Research Center, Korea Institute of Science and Technology</i>), Jihyun Kim, William Jo, Gee Yeong Kim Unveiling the Importance of Lead Halide Perovskite Precursor Purity and Its Impact on Stability
091	Hithesh Rai Purushothama (<i>Arizona State University</i>), Nicholas Rolston Blade-Coated Cesium Lead Halide Perovskite Thin Films for Alphavoltaic and Optoelectronic Applications
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