IFETC 2022

Aug 21-24, 2022 Qingdao, China

4th IEEE International Flexible Electronics Technology Conference

CONFERENCE PROGRAM

2022/08/21 (Sunday) IFETC Tutorial

Chair: Kai Wang Sun Yat-sen University, China
Xiaojun Guo Shanghai Jiao Tong University, China

13:30 - 14:15	Connecting the Architected Solid Designs to 3D Printed Sensors and Wearables Woo Soo Kim, Simon Fraser University, Canada
14:15 – 15:00	Emerging Designs for Organic Infrared Photodetectors Tina Ng, University of California, San Diego, USA
15:00 – 15:45	Fundamentals of TFTs and Circuits for Advanced Signal Processing Arokia Nathan, Shandong University, China
15:45 – 16:00	Coffee break
16:00 – 16:45	Embroidered Electronics for Wearable Sensors and Smart Clothing Terry Ye, Southern University of Science and Technology (SUSTech), China
16:45 - 17:30	Thin Film Transistor Technologies for Foldable and Rollable AMOLED Displays Jin Jang, Kyung Hee University, South Korea
17:30 - 18:15	TFT-Based Active Sensors and Sensor Interfaces Kai Wang, Sun Yat-sen University, China

2022/08/22 (Monday)

8:00 - 8:40	OPENING		
	Plenary Session 1 Chair: Arokia Nathan, Shandong University		
8:40 – 9:20	Flexible Inorganic Substrates for Electronic Device Integration Cheng-Gang Zhuang, Corning, USA		
9:20 – 10:00	Future Oxide, Challenges and Applications Guangcai Yuan, BOE, China		
10:00 – 10:15	Coffee break		
	Session 1: Flexible Transistor and Integration	Session 2: Focus Session: Fiber Electronics and Wearables	Session 3: Perovskite Optoelectronics
	Chair: Mengwei Si, Shanghai Jiao Tong University	Chair: Zhiyuan Liu, Shenzhen Institutes of Advanced Technology, CAS	Chair: Yuan Li, Shandong University
10:15 - 10:35	Flexible, Scalable and Buckled Electronics Based on Oxide Thin-Film Transistors Giuseppe Cantarella, Federica Catania, Niko Münzenrieder, Luisa Petti, Free University of Bozen-Bolzano, Italy	Lighting Fibers and Displaying Textiles Huisheng Peng, Fudan University, China	Automatic Droplet Splitting and Routing Algorithm on Digital Microfluidics Chip ChunYu Chang, Ge Li, Yan Zheng, Chenxuan Hu, Hanbin Ma, ACXEL Tech Ltd., China
10:35 - 10:55	Organic and Carbon Nanotube Electronics for Flexible Nanoscale High-Frequency Circuits and Physical Unclonable Function Jonas Schroeder, James W Borchert, Patrick Schuster, Peter Eder, Stefan Heiserer, Josef Biba, Georg Duesberg, Ulrich Rührmair, Thomas Weitz, Georg-August-Universität Göttingen, Germany	TBC	Controlled Epitaxial Growth and Fabrication of Flexible Hybrid Halide Perovskites Sheng Xu, University of California San Diego, USA
10:55 – 11:15	Flexible and Printed Integrated Circuits and Biosensors Sungjune Jung, Pohang University of Science and Technology, South Korea	Fibre Transistor for Wearable Electrocardiography Sensor Hyung Woo Choi, University of Cambridge, UK	Probing the Fundamental Properties of Halide Perovskites for Highly Efficient Optoelectronic Devices Selina Olthof, University of Cologne, Germany
11:15 – 11:35	Flexible Active-Matrix Sensor Arrays Based on Solution-Processed Metal Oxide Semiconductors Thin-Film Transistors Bowen Zhu, Westlake University, China	Advancing Stretchable OECTs towards Medical Wearables Shiming Zhang, the University of Hong Kong	Doping of Sn-Based Two-Dimensional Perovskite Semiconductor for High-Performance Field-Effect Transistors Yu Liu, Yuanyuan Hu, Hunan University, China

11:35 – 11:55	Oxide Electronic Devices and Circuits for Printed and Flexible Electronics Jasmin Aghassi, Karlsruhe Institute of Technology, Germany	Fabric-Based, Garment-Integrated Pressure Sensor Arrays for Physiological Monitoring in Natural Environments Trisha L. Andrew, University of Massachusetts Amherst, USA	Ionic Defect Analysis in Flexible Hybrid Perovskite Memristor Using Deep Level Transient Spectroscopy Himangshu Jyoti Gogoi, Abdul Andrabi, Raja Muddam, Arun Mallajosyula, Indian Institute of Technology Guwahati, India
11:55 – 12:15	Printed Oxide-Based Unipolar Pseudo-CMOS Electronics Jyoti Ranjan Pradhan, Amrita Unnikrishnan, L.Xu, Subho Dasgupta, Indian Institute of Science (IISc), India	Femtosecond Laser Induced Supermetalphobicity for Design and Fabrication of Flexible Tactile Electronic Skin Sensor Chengjun Zhang, Haoyu Li, Qing Yang, Xun Hou, Feng Chen, Xi'an Jiaotong University, China	TBC
12:15 – 14:00	Lunch & WOMEN in EDS (WiEDS) NETWORKING SESSION		
	Session 4: Organic and Polymer Transistors and Sensors	Session 5: Human-Machine Interfaces	Session 6: Flexible/Stretchable Materials and Mechanics
	Chair: Wei Tang, Shanghai Jiao Tong University	Chair: Kai Wang, Sun Yat-sen University	Chair: Chen Jiang, Tsinghua University
14:00 – 14:20	Polymer Sensors and its Applications in Skin Inspired Electronics Lijia Pan, Nanjing University, China	Design Thinking for Human Interaction with Flexible Electronics Mitsuhiko Nagata, Azbil Corporation, Japan	Organic Solar Cells and Modules on Paper Substrates S. Sundar Kumar Iyer, National Centre for Flexible Electronics IIT Kanpur, India
14:20 – 14:40	Polymer FETs: Low Voltage Operation and Operational Stability Ulrike Kraft, Max Planck Institute for Polymer Research, Germany	Progress in Wearable Sensors and Human-Machine-Interfaces Chengkuo Lee, National University of Singapore	Mechanical Analysis of Thin-Film Encapsulation for Laminated-Based Flexible Organic Light Emitting Diodes Using a Semi-Analytical Method Sixin Huang, Haohui Long, Jianhui Li, Jiaying Gao, Jianping Fang, Huawei Technologies Co., Ltd, China
14:40 – 15:00	Interface and Doping Engineering for Polymer Thin-Film Transistors Wenwu Li, Fudan University, China	Intelligent System for Gesture and Item Recognition Enabled by Printable Strain Sensors Pei He, Central South University, China	Bio-Inspired Perspiration-Wicking Electronic Skins for Comfort and Reliable Multimodal Health Monitoring Zhuo Li, Yanting Xu, Shiqing Zhou, Guoqing Yang, Fudan University, China
15:00 – 15:20	Application and Fabrication of Monolayer Organic Field Effect Transistors Paddy Chan, University of Hong Kong	Stretchable Electrode Array for Electrophysiological Recording Zhiyuan Liu, Shenzhen Institutes of Advanced Technology, CAS, China	Printing Techniques for Integration of Inorganic Nanomaterials on Flexible and Biodegradable Substrates Abhishek S. Dahiya, Ravinder Dahiya, University of Glasgow, UK
15:20 – 15:40	Doping Organic Semiconductors for High-Performance Devices Xincan Qiu, Hunan University, China	Self-Powered Electro-Tactile System for Virtual Tactile Experiences Yuxiang Shi, Xiangyu Chen, Zhong Lin Wang, Beijing Institute of Nanoenergy and Nanosystems, CAS, China	Stretchable and Highly Conductive AgNPs/SBS Film with Wrinkled Ag Layer for Electromagnetic Interference Shielding Zeyu Zhao, Dingkun Tian, Zhiqiang Lin, Yadong Xu, Yougen Hu, Rong Sun, Shenzhen Institute of Advanced Technology, CAS, China

15:40 – 15:55	Coffee break		
	Session 7: Low Dimensional Material Transistors and Sensors	Session 8: Optical Sensing	Session 9: Integrated Circuits and Systems
	Chair: Pei He, Central South University	Chair: Hanbin Ma, Suzhou Institute of Biomedical Engineering and Technology, CAS	Chair: Jiezhi Chen, Shandong University
15:55 - 16:15	Three-Dimensional Transistors and Integrations Based on Low-Dimensional Semiconductors for the Post-Moore Era Dong-Ming Sun, Institute of Metal Research, CAS, China	Responsive Organometallic Semiconductors for Optoelectronic Applications Qiang Zhao, Nanjing University of Posts and Telecommunications, China	Inter-Supply-Chain Processes and Electronic Designs for Fully-Additive Printed Electronics Circuits Joseph Chang, Tong Ge, Nanyang Technological University, Singapore
16:15 - 16:35	Stretchable Carbon Nanotube Network Based Wearable Sensor for Throat Related Illnesses Muhammad Hussain, Purdue University, USA	Vertically Stacked Printable Organic Photodetectors for High-Performance Color Sensing Vincenzo Pecunia, Simon Fraser University, Canada	The Wave of OpenHW for Flexible Digital Electronic Circuits Jordi Carrabina Bordoll, Universitat Autonoma de Barcelona, Spain
16:35 - 16:55	Flexible Sensor Devices and Electronics Based on Two-Dimensional Materials Daniel Neumaier, Bergische Universität Wuppertal, Germany	Photonic Crystal Membrane Cavities for Optical Sensing and Gas Analysis Systems Weidong Zhou, University of Texas at Arlington, USA	Integrating Sensors, Logic Circuits, and Emerging Memories towards Flexible Smart Systems Jianshi Tang, Tsinghua University, China
16:55 - 17:15	Stretchable Synaptic Transistors Based on Carbon Nanotubes Min Zhang, Peking University Shenzhen Graduate School, China	Flexible Integrated Photonics: Materials, Devices, and Applications Ye Luo, Yuting Ye, Chunlei Sun, Zequn Chen, Jialing Jian, Yilin Shi, Yingchun Wu, Hongtao Lin, Lan Li, Westlake University, China	High-Density Energy-Efficient Charge-Domain Computing Based on CAA-IGZO TFT with BEOL-Compatible 3D Integration Wenjun Tang, Jialong Liu, Huazhong Yang, Chen Jiang, Xueqing Li, Tsinghua University, China
17:15 - 17:35	Flexible, Planar, and Stable Electrolyte-Gated Carbon Nanotube Field-Effect Transistor-Based Sensor for Ammonium Detection in Sweat Mattia Petrelli, Bajramshahe Shkodra, Martina Aurora Costa Angeli, Alessandra Scarton, Silvia Pogliaghi, Roberto Biasi, Paolo Lugli, Luisa Petti, Free University of Bozen-Bolzano, Italy	Plasmonic Biosensing of Kidney Wastes Using Carbon-Based Derivatives P S Menon, K Loganathan, N A Jamil, N R Mohamad, C F Dee, M F M R Wee, M A Mohamed, H Soleimani, B Y Majlis, A A Hamzah, Universiti Kebangsaan Malaysia	A Computing-In-Memory Cell Design Based on LTPO Hybrid Thin Film Transistor Integration Liankai Zheng, Yu Huang, Xiaojun Guo, Shanghai Jiao Tong University, China
18:00	RECEPTION		

2022/08/23 (Tuesday)

	Session 10: Focus Session: from Lab to Fab	Session 11: Focus Session: Brain-Computer Interface	Session 12: Device-Circuit Interaction and Compensation
	Chair: Linrun Feng, LinkZill	Chair: Jian Zhao, Shanghai Jiao Tong University	Chair: Di Geng, Institute of Microelectronics, CAS
9:00 – 9:20	Application of CNC Semiconductor Color Changing Technology in AR Smart Wearable Devices York Chen, Quickflash, USA	A Flexible fNIRs System Employing Super-Resolution Technique for Nature-Scenario High-Resolution Brain Functional Imaging Yuxiang Lin, Zhouchen Ma, Cheng Chen, Nabil Sabor, Assiut University, Egypt	Compensation Solutions for AMOLED Display Products on Flexible and Rigid Substrates Shuenn-Jiun J Tang, Junhu He, Tong Liu, Tristan Doodnauth, Johnny Ancich, Denis Striakhilev, Ignis Innovation, Canada
9:20 – 9:40	Universal TFTs for High-Throughput and Low-Cost Optical/Biosensors, from Lab to Fab Zhe Liu, Jun Li, Jiangwen Du, Junfeng He, Xiaoling Shi, Xiaojun Guo, Linrun Feng, LinkZill, China	An Active Neural Optrode with Metal Shielding Laser Diode and Electrochemical Modified Microelectrodes for Low Noise Optogenetics Minghao Wang, Minyi Jin, Ye Fan, Jiahui Xu, Bowen Ji, Ying Chen, Yuhua Cheng, Gaofeng Wang, Hangzhou Dianzi University, China	Design for EMI/ESD Immunity Zijin Pan, Weiquan Hao, Xunyu Li, Runyu Maio, Albert Wang, University of California Riverside, USA
9:40 – 10:00	Flexible Devices and Novel Fabrication Routes Taking Advantage of High Mobility OTFT Devices Processed at 80 ˚C Simon Ogier, Smartkem, UK	Flexible Micro-ECoG Electrodes Based on Bacterial Cellulose Substrate with Ultrasoftness and Long-Lasting Moisture Yuhao Zhou, Kai Zhang, Minghao Wang, Mengfei Xu, Xiaoli You, Honglong Chang, Jingquan Liu, Bowen Ji, Northwestern Polytechnical University, China	Chiplet backplane for large area electronics Reza Chaji, Vuereal, Canada
10:00 – 10:20	Organic Photovoltaics from Lab to Fab: Opportunity, Challenge and Status Xi Yang, Chasing Light, China	Implantable Bioelectronics for Probing Brain Chemistry Yi Zhang, University of Connecticut, USA	Strain Insensitive Circuit Design with Thin Film Transistors on Elastomers Sanjiv Sambandan, Indian Institute of Science, India
10:20 – 10:40	Development of OPD Innovative Application Fingerprint Behind Display or Standalone Biometry Solutions Jerome Joimel, ISORG, France	Amorphous Metal Thin Films for Flexible Electronics Sean Muir, Amorphyx Inc, USA	A Novel Pixel Circuit Compensating for Threshold Voltage Variation and OLED Degradation Yingtao Xie, Penglong Chen, Kunlin Cai, Huan Jian, Chongqing University of Posts and Telecommunications, China
10:40 - 12:30	Poster Session		
12:30 – 14:30	Lunch		

	Session 13: Memory and Synaptics	Session 14: Photo-Detectors from X-Ray to Infrared	Session 15: Young Professional Session
	Chair: Bowen Zhu, Westlake University	Chair: Hang Zhou, Peking University Shenzhen Graduate School	Chair: Chen Jiang, Tsinghua University
14:30 – 14:50	Artificial Synapse Based on Dual-Gate Organic Thin-Film Transistor Weihong Yang, Xiaokuan Yin, Lei Han, Simon Ogier, Xiaojun Guo, Shanghai Jiao Tong University, China	Flexible Photosensors with Low-Dimensional Semiconducting Nanostructures Guozhen Shen, Beijing Institute of Technology, China	Active-Matrix Digital Microfluidics Chip for Efficient Droplets Manipulation Dongping Wang, Qi Huang, Longqian Xu, Siyi Hu, Hanbin Ma, Suzhou Institute of Biomedical Engineering and Technology, CAS, China
14:50 – 15:10	Reliability Challenges of Flash Memory and Its Opportunities to Flexible Electronics Jiezhi Chen, Shandong University, China	Spectral X-Ray Detector Using a Flexible Multi-Layer TFT Karim S Karim, Steven Tilley, KA Imaging Inc, Canada	Patterning ITO using a Laser Cut Kapton® Tape Mask for Flexible PVDF Applications Kyle M Schvaneveldt, Annie Laughlin, Elias Guanuna, Keaton Shurilla, Luke Johnson, Jessica Staker, Quinn Hunsaker, Daniel Smalley, Brigham Young University, USA
15:10 – 15:30	Interactive Neuromorphic Synaptic Devices and Systems Qijun Sun, Beijing Institute of Nano Energy and Systems, CAS, China	High-Mobility Narrow-Bandgap III-V Nanowires for Infrared Detectors Zai-xing Yang, Dong Liu, Jiamin Sun, Shandong University, China	Low-Voltage High-Performance Intrinsically Stretchable Optoelectronic Transistors Kai Liu, Yunlong Guo, Yunqi Liu, Institute of Chemistry, CAS, China
15:30 – 15:50	Perovskite Light-Emitting Diodes for Displays Jianpu Wang, Nanjing Tech University, China	Yarn Based UV Photodetectors for E-Textiles Gaurav Khandelwal, Abhishek S. Dahiya, Ravinder Dahiya, University of Glasgow, UK	Strategy toward High-Mobility Oxide Semiconductor Thin-Film Transistors by Atomic Layer Deposition Mengwei Si, Shanghai Jiao Tong University, China
15:50 – 16:10	Vertical Ferroelectric OFETs for Non-Volatile Memory and Neuromorphic Applications Enlong Li, Huipeng Chen, Wenwu Li, Junhao Chu, Fudan University, China	Low Power Organic Phototransistor for Image Enhancement Under Weak Illumination Peijin Huang, Xiaokuan Yin, Xiaojun Guo, Shanghai Jiao Tong University, China	A Flexible Tactile Sensor Interfaced with a TFT Analog Front-End for Material Texture Recognition Jianle Lin, Huimin Li, Anqi Li, Bowei Jiang, Xinghui Liu, Kai Wang, Sun Yat-Sen University, China
16:10 – 16:15	Coffee break		
	Plenary Session 2	Chair: Arokia Nathan, Shandong University	
16:15 – 16:55	Flexible Electronic Skin for Robotics and Interactive Systems Ravinder Dahiya, University of Glasgow, UK		
16:55 – 17:35	The Energy Revolution Driven by Thin Film Processing Neil Morrison, Applied Materials, Germany		
18:30 - 21:00	BANQUET		

2022/08/24 (Wednesday)

	Plenary Session 3 Chair: Arokia Nathan, Shandong University		
8:40 – 9:20	Flexible Integrated Circuits: Design, Manufacture and Applications Xue Feng, Tsinghua University, Beijing, China		
9:20 – 10:00	Flexible OLED Displays with Ink-Jet Printing Technology Weiran Cao, CSOT, China		
10:00 – 10:15	Coffee Break		
	Session 16: Special Session: Circuits and Systems for Wearable Healthcare	Session 17: Focus Session: E-Skin for Smart Robotics	Session 18: Flexible Electronics Scalable Manufacturing
	Chair: Jun Yu, Shandong University	Chair: Zhengchun Peng, Shenzhen University	Chair: Zhe Liu, LinkZill
10:15 – 10:35	An Event-Driven System Architecture for Smart Flexible Sensors in Healthcare Applications Yang Zhao, Yongfu Li, Mingyi Chen, Jun Zhou, Guanghui He, Yu Liu, Jian Zhao, Bo Zhao, Min Lin, Xiaososng Wang, Zhengfang Qian, Sujie Chen, Yong Lian, Shanghai Jiao Tong University, China	Flexible Sensing Electronics for Prosthetic Hand Ting Zhang, Suzhou Institute of Nano-Tech and Nano-Bionics, CAS, China	R2R Manufacturing of Flexible to Stretchable Soft Electronics for Biosensing Paavola Juho, VTT, Finland
10:35 – 10:55	Embedded Low Power Heart Rate Estimation Processor for Flexible Applications Hui Qiu, Huajing Qin, Jiahao Liu, Liang Zhou, Liang Chang, Jun ZhouUniversity of Electronic Science and Technology of China, China	Magnetic Field Based Soft Tactile Sensor for Robotics Yajing Shen, City University of Hong Kong	Activegrid™ Transparent Conductive Materials Enabling Next Generation Flexible Electronics Designs Xiaofeng Chen, C3Nano Inc, USA
10:55 – 11:15	Energy-Efficient Body-Channel Communication for Distributed Flexible Sensors Xu Liang, Tao He, Gang Wang, Yabin Zheng, Jian Zhao, Shanghai Jiao Tong University, China	Printed Artificial Skins for Robots Enabling Proximity Sensing Eugenio Cantatore, Eindhoven University of Technology, Netherlands	Powering Flexible Electronics–Scaling Up Printed Batteries and their Use Cases Pritesh Hiralal, Dilek Ozgit Butler, Karolina Spalek, Zanxiang Nie, Shiqiang Luo, Shaobin Zhao, Hang Zhou, Gehan A.J. Amaratunga, Zinergy UK Ltd
11:15 – 11:35	Dry-Electrode Interface Circuit for Flexible ECG Sensors Yanxing Suo, Xinzi Xu, Peiyi Zhou, Xiao Han, Qiao Cai, Min Wang, Yang Zhao, Guoxing Wang, Shanghai Jiao Tong University, China	3D-Curved Iontronic Tactile Sensor and Hardware Denoising for Robotic Whole-Foot Tactile Perception Funing Hou, Jixiao Liu, Peng Wang, Kuo Liu, Dicai Chen, Shijie Guo, Jixiao Liu, Fudan University, China	Flexible MicroLED Display Technology and Applications Falcon Liu, Yun-Li Li, Playnitride

11:35 – 11:55	Flexible Bluetooth Antennas Integrated with Electrodes for Wearable ECG Sensors Ruihua Deng, Jijun Peng, Zhengfang Qian, Dongting Jiang, Xiangxu Dai, Hao Liang, Yiling Sun, Sujie Chen, Shenzhen University, China	Large-Area Flexible Tactile Sensors for Robotic Hands Kuo Liu, Jixiao Liu, Funing Hou, Dicai Chen, Shijie Guo, Hebei University, China	Fully Roll-To-Roll Processed Efficient Perovskite Solar Cells Via Precise Control on the Morphology of PbI2: CsI Layer Hengyue Li, Mei Gao, Junliang Yang, Central South University, China
11:55 – 14:00	Lunch		
	Session 19: Focus Session: Flexible Neuromorphic Devices and Systems	Session 20: Bio-Sensing and Bioelectronics	Session 21: Heterogeneous and Hybrid Integration
	Chair: Dashan Shang, Institute of Microelectronics, CAS	Chair: Dongping Wang, Suzhou Institute of Biomedical Engineering; Technology, CAS	Chair: Haohui Long, Huawei
14:00 – 14:20	Artificial Sensorimotor Nerves and Synaptic Devices Wentao Xu, Nankai University, China	Flexible Electronics and Their Applications in Bio-Sensing Yuan Lin, University of Electronic Science and Technology of China, China	Multiscale and Multiphysics Design in Advanced Packaging Sheng Liu, Wuhan University, China
14:20 – 14:40	Organic Flexible Memristor Synapse, Integration and Smart Applications Gang Liu, Shanghai Jiao Tong University, China	Portable Electrochemical Biosensors for Highly Sensitive Detection of Biomarkers Ying Fu, Feng Yan, University of Strathclyde, UK	High Performance Processor FC-SiP Development in AMQ Wenhui Zhu, Central South University/AMQ, China
14:40 – 15:00	Mode Switchable Organic Electrochemical Transistor for Flexible In-Sensor Computing Applications Wei Ma, Xi'an Jiao Tong University, China	Performance InSe FET and Its Applications in Biosensing Lin Han, Shandong University, China	Hybrid and 3D Integrated Carbon-Based Electronics Zheng Cui, Suzhou Institute of Nanotech and Nanobionics, CAS, China
15:00 – 15:20	Organic Electrochemical Memory for Flexible and Biohybrid Neuromorphic Systems Scott T. Keene, University of Cambridge, UK	Smart and Connected Nanomembrane Bioelectronics for Advancing Human Healthcare W. Hong Yeo, Georgia Institute of Technology, USA	Flexible Sensors, Circuits, and Systems for Bioelectronic Interfacing Le Xing, Zixin Wang, Aula Alwattar, Alexander J Casson, University of Manchester, UK
15:20 – 15:40	Soft Matter for Neuromorphic Electronics Paschalis Gkoupidenis, Max Planck Institute for Polymer Research, Germany	BioFETs and Impedance Biosensors for Medical and Environmental Applications Pedro Estrela, University of Bath, UK High	Flexible Electronic and Optoelectronic Device: Materials Design, Printing Process and Integrated Applications Jingjing Chang, Xidian University, China
	Plenary Session 4	Chair: Xiaojun Guo, Shanghai Jiao Tong University	
15:55 - 16:35	TFT Foundry MPG for Display and Sensor Development – Design, Prototype Material, Equipment Feng Qin, Tianma Microelectronics, China		
16:40	Awards and CLOSING		

POSTER SESSION

PS-01	Piezotronic Organic (P)-Inorganic(N) Diode-Based Heterojunction in Wearable Harvesters/Sensors	Zihao Liang; Weiwei Li; Ahmed Rasheed; Kai Wang; Hang Zhou; Emad Iranmanesh, Peking University, China
PS-02	Experimental and Simulation Studies of Strong Coupling Between Frenkel Excitons and Surface Plasmon	Clarence Augustine TH Tee; Muhammad Asif Ahmad Khushaini; Nur Hidayah Azeman; Tg; Hasnan Tg Abdul Aziz; Ahmad Ashrif A Bakar ; Burhanuddin Yeop Majlis; Ahmad Rifqi Md Zain; Yeo Wey Ping; Xu Zongwei, Zhejiang Normal University, China
PS-03	Flexible and Air-Stable Near-Infrared Sensors Based on Solution-Processed Inorganic-Organic Hybrid Phototransistors	Dingwei Li; Jiaqi Du; Yingjie Tang; Lei Meng; Bowen Zhu, Westlake University, China
PS-04	Self-Assembled Peptides-Modified Flexible Field Effect Transistors for Tyrosinase Detection	Huihui Ren; Tengyan Xu; Bowen Zhu, Westlake University, China
PS-05	Ultra-Sensitive Pyerene Based of Room Temperature (RT) Organic Small Molecule Ammonia Detecting Sensor	Muhammad Naeem Shah; Clarence Augustine TH Tee; Burhanuddin Yeop Majlis; Faheem Ullah Khan; Shahzad Afzal; Tariq Aziz; Yeo Wey Ping; Tg Hasnan Tg Abdul Aziz; Ahmad Rifqi Md Zain, Zhejiang Normal University, China
PS-06	Analysis of Bioparticles Chaining under Electrode-Isolated Dielectrophoresis towards Flexible BioMEMS Application	Clarence Augustine TH Tee; Burhanuddin Yeop Majlis; Mohd Anuar Md Ali; Aminuddin; Bin Ahmad Kayani; Yeo Wey Ping; Song Le; Zheng Yelong, Zhejiang Normal University, China
PS-07	Exploration of Promising Polymers and Polyelectrolyte in Inorganic-Organic Bi-Layer Gate Dielectrics for Flexible OFETs	Sachin Rahi; Vivek Raghuwanshi; Pulkit Saxena; Gargi Konwar; Shree Prakash Tiwari, Indian Institute of Technology Jodhpur, India
PS-08	Mitigating the Impact of Thermoplastic Polyurethane Films on the Performance of Electronic Textiles	Tiancheng Xu; Irene Goldthorpe, University of Waterloo, Canada
PS-09	Implementation of Binary Neural Network with Low Temperature Polycrystalline Silicon TFT SRAM Array	Mengqian Zou; Jun Li; Xiaojun Guo, Shanghai Jiao Tong University, China
PS-10	N-I-P Perovskite Solar Cells on Opaque Flexible Stainless-Steel Substrate	Sandeep Kumar; Nisheka Anadkat; Sushobhan Avasthi, NTPC School of Business, India
PS-11	A Switched-Capacitor Based Amplifier Using Organic Thin-Film Transistor	Li'ang Deng; Lei Han; Xiaojun Guo, Shanghai Jiao Tong University, China
PS-12	A Digital PCR Chip Based on Digital Microfludics	J. Ye; J. Cong; S. Shi; H. Ma, Guangdong ACXEL Micro & Nano Tech Co., Ltd., China
PS-13	A Deformable Fingertip Sensor Assists the Manipulator in Distinguishing the Hardness of the Object	Nengmin Liang ; Chao Shang; Qunhui Xu; Yinghong Li; Zhengchun Peng, Shenzhen University, China
PS-14	Double Doping of Conjugated Polymers with Diverse Molecules	Zean Guo; Jiawei Wang; Ling Li, Institute of Microelectronics, CAS, China
PS-15	All-Textile Sensor for Large Pressure Monitoring and Sitting Posture Management	Dongxing Lu; Yaochu; Shiqin Liao; Qingqing Wang, Jiangnan University, China
PS-16	Organic Ferroelectric Non-Volatile Memory Transistors	Jiangnan Xia; Yuanyuan Hu, Hunan University, China
PS-17	Trap Passivation by Reactive Oxygen for Reducing Hysteresis in Organic Field-Effect Transistors	Ping-An Chen; Yuanyuan Hu, Hunan University, China

PS-18	A Microneedle Array-Based Dry ECG Electrode with High Recording Performance for Healthcare Applications	Ye Fan; Minghao Wang; Jiahui Xu; Minyi Jin; Bowen Ji; Ying Chen; Yuhua Cheng; Gaofeng Wang, Hangzhou Dianzi University, China
PS-19	Ultra-High Temperature Tolerant Flexible Transparent Electrode with Embedded Silver Nanowires Bundle Micromesh for Electrical Heater	Bowen Sun; Kai Qian, Shandong University, China
PS-20	Energy Level Alignment at Metal-InGaZnO Interfaces by In-Device Hot-Electron Spectroscopy	Yuan. Kai; Jiawei. Wang; Chao. Jiang; Ling. Li, University of Chinese Academy of Sciences, China
PS-21	Flexible RRAM with Natural Gelatin Exhibiting High Current On/Off Ratio and Retention	Anurag Dwivedi; Anil Lodhi; Shalu Saini; Harshit Agarwal; Shree Prakash Tiwari, Indian Institute of Technology Jodhpur, India
PS-22	A Novel Bioelectrode Design with An OTFT Switch for Dynamic Discharging	Taoming Guo; Chen Jiang, Tsinghua University, China
PS-23	A Digital Image Processing Method for Glucose Concentration Detection on a Digital Microfluidic Chip	Q. Huang; K. Jin; L. Xu; S.Hu; D.Wang; H. Ma, Suzhou Institute of Biomedical Engineering; Technology, CAS, China
PS-24	A Stretchable Conductor Based on Shrinkable Fiber Mat for Wearable Joule Heating	Qingsong Li; Jing Sun; Guanglin Li; Zhiyuan Liu, Shenzhen Institutes of Advanced Technology, CAS, China
PS-25	Flexible and Anti-Freezing Quasi-Solid-State Magnesium-Ion Hybrid Supercapacitor Working at -40 °C	Gangrui Qu; Guoshen Yang; Chi Fang; Hang Zhou, Peking University Shenzhen Graduate School, China
PS-26	Long-Term Cell Culture on TFT-EWOD Chips	C. Yang; S. Hu; D. Wang; H. Ma, Guangdong ACXEL Micro & Nano Tech Co., Ltd., China
PS-27	Flexible Quasi-Solid-State Aqueous Magnesium-Ion Battery Working at -50 °C	Guoshen Yang; Gangrui Qu; Xianqi Xu; Hang Zhou, Peking University, China
PS-28	Liquid Metal for Soft-Hard Interface in Stretchable Electronics	Rui Su; Qingsong Li; Qiong Tian; Zhiyuan Liu, Shandong University, China
PS-29	Fully Printed Tin Oxide Thin Film Transistors for Flexible Logic Circuits and Artificial Optoelectronic Synapses	Kun Liang ; Bowen Zhu, Westlake University, China
PS-30	3D Bio-Printed Light-Sensitive Cell Scaffolds Based on Polymer Nanoparticles for Bio-Photonics Applications	M. Ciocca; C. Febo; F. Massoumi; A. Altana; G. Cantarella; P.Lugli; L.Petti, Free University of Bozen-Bolzano, Italy
PS-31	Anti-Freezing Flexible Supercapacitors Based on Conductive Polymers	Yonggang Zhao, Lanzhou University, China
PS-32	Transparent Conductive PEDOT: PSS Film Prepared for Self-Powered Smart Windows	Hao Liu; Qiong Li; Yonggang Zhao; Qiming Liu; Deyan He, Lanzhou University, China
PS-33	Fabrication of Flexible Li-Ion Battery Electrodes Using "Battlets" Approach with Ionic Liquid Electrolyte for Powering Wearable Devices	Subramanian Iyer; Guangqi Ouyang, University of California, Los Angeles, USA
PS-34	Embedded Low Power Heart Rate Estimation Processor for Flexible Applications	Hui Qiu; Huajing Qin; Jiahao Liu; Liang Zhou; Liang Chang; Jun Zhou, University of Electronic Science and Technology of China
PS-35	Ordered Mesoporous Carbon as Ion-To-Electron Transducers for Flexible Ion Sensitive Organic Field Effect Transistor	Yawen Song; Lei Han; Wei Tang; Xin Xi;Yukun Huang; Ruili Liu; Xiaojun Guo; Yuezeng Su, Shanghai Jiao Tong University, China
PS-36	Chemically-Mediated Artificial Neuron	Yuanyuan Tian; Kaiyu Cai; Xiao Zhao; TingWang, Nanjing University of Posts and Telecommunications, China
PS-37	Computational Design of Flexible Organic Porous Nanotubes	Guangzheng Yi; Ai Fu; Yuan Li, Shandong University, China
PS-38	Highly Sensitive, Flexible, Force Sensors Based on Short Channel Devices	A. Mascia; A. Spanu; A. Bonfiglio; P. Cosseddu, University of Cagliari, Italy

PS-39	A Cut-Off Frequency Measurement Platform for Subthreshold TFTs	Yangkun Hou; Dongping Wang; Hanbin Ma; Chen Jiang, University of Tsinghua, China
PS-40	A 10×10 TFT-Based Flexible Tactile Sensor Array for Haptics	Xinghui Liu; Jianle Lin; Anqi Li; Huimin Li; Kai Wang, Shenzhen Chipwey Innovation Technologies Co.; Ltd, China
PS-41	High-Voltage LTPS TFT Shift Register for Active Matrix Digital Microfluidics	S. Jiang; D. Wang; Y. Wei; H. Ma; J. Yu, Shandong University, China
PS-42	Ag-Catalyzed GaSb Nanowires for Flexible Near-Infrared Photodetectors	Zixu Sa ; Fengjing Liu; Xinming Zhuang; Zai-xing Yang, University of ShanDong, China
PS-43	Substrate-Free Chemical Vapor Deposition of Large-Scale Iii-V Nanowires for High-Performance Transistors and Broad-Spectrum Photodetectors	Mingxu Wang; Yanxue Yin; Fengjing Liu; Xinming Zhuang; Zai-xing Yang, Shandong University, China
PS-44	Microcup-array pattern electrode arrays for complexed continuous sensing	Changyuan Zhan; Baoming Liang; Shantao Zheng; Tiancheng Sun; Xi Xie; Hui-Jiuan Chen, Sun Yat-Sen University, China
PS-45	A Flexible Circuit Fabricated by Tuning the Wettability of Liquid Metal	Haoyu Li; Chengjun Zhang; Qing Yang; Xun Hou; Feng Chen, Xi'an Jiaotong University, China
PS-46	High-integrated quantum random number generator chip based on vacuum fluctuation	Yaqi Feng;Jifang Tao; Yan Li, Shandong University, China
PS-47	Multiple design strategies of flexible piezoresistive pressure sensors in radial artery pulse signals monitoring	Zhiran Shen;Tian Hang; Xi Xie; Hui-Jiuan Chen; Fanmao Liu, Sun Yat-Sen University, China
PS-48	A distributed flexible optical fiber F-P battery temperature detection system based on thermo-optic effect	Xiaoke Li; Jifang Tao; Yan Li, Shandong University, China
PS-49	Design and evaluation of a highly robust MEMS Pirani vacuum gauge based on porous silicon thermal insulation layer	Zichao Zhang; Jifang Tao; Yan Li, Shandong University, China
PS-50	Hetero-doped Silicon Modulator with Bandwidth Expansion	Huajiang Yuan; Jia Zhao; Chonglei Sun, Shandong University, China
PS-51	Flexible Thermoelectric Cooler with Flexible Heatsink of Phase-change Materials and Stretchable Interconnector of Semiliquid Metals	Wenxing Huo; Zhiqiang Xia; Yu Gao; Rui Guo; Xian Huang, Tianjin University, China
PS-52	Flex-Multi-functional organic shockproof sensors using carbon nanotubes composite through energy-free technology	Noshin Fatima; Khasan S. Karimov; Burhanuddin Yeop Majlis; P. Susthitha Menon; M. F. Mohd Razip Wee, IMEN, Malaysia
PS-53	Thermal Transfer Enabled Rapid Printing of Liquid Metal Circuits on Multiple Substrates	Rui Guo; Tianyu Li; Ziyue Wu; Chunxue Wan; Jing Niu; Wenxing Huo; Haixia Yu; Xian Huang, Tianjin University, China
PS-54	Printable Carbon-Based Electronic Textiles for Gestures Recognition and ECG Monitoring	Xianghui Zeng; Pei He; Minglu Hu; Zhao Weikai; Junliang Yang, Central South University, China
PS-55	Mechanism Study of Positive-Bias Stress Stability for Solution Processed Oxide Semiconductor TFT	Haoxin Li; Guangwei Xu; Shibing Long, University of Science and Technology of China
PS-56	Flexible Strain Sensors: From Orange Peel to Highly Ductile Conductive Hydrogels	Zhuo-Qing Ran; Fang-Chang Tsai; Ning Ma, Hubei University, China
PS-57	An Active Neural Optrode With Metal Shielding Laser Diode and Electrochemical Modified Microelectrodes for Low Noise Optogenetics	Minghao Wang; Minyi Jin; Ye Fan; Jiahui Xu; Bowen Ji; Ying Chen; Yuhua Cheng; Gaofeng Wang, Hangzhou Dianzi University, China

PS-58	A Microneedle Array-Based Dry ECG Electrode With High Recording Performance for Healthcare Applications	Ye Fan; Minghao Wang; Jiahui Xu; Minyi Jin; Bowen Ji; Ying Chen; Yuhua Cheng; Gaofeng Wang, Hangzhou Dianzi University, China