

2019 IEEE 19th International Conference on Nanotechnology (IEEE-NANO 2019)

**Macao
22 – 26 July 2019**



**IEEE Catalog Number: CFP19NAN-POD
ISBN: 978-1-7281-2893-1**

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IEEE Catalog Number:	CFP19NAN-POD
ISBN (Print-On-Demand):	978-1-7281-2893-1
ISBN (Online):	978-1-7281-2892-4
ISSN:	1944-9399

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Wednesday July 24, 2019

WePLPL	Room 7201
Plenary Session I (Plenary Session)	
Chair: Li, Wen Jung	City University of Hong Kong
Co-Chair: Zhang, Haixia	National Key Laboratory of Science and Technology on Micro/Nano Fabrication, Peking University and Shanghai Jiaotong University
09:00-09:40	WePLPL.1
<i>From Molecular Photovoltaics to the Harness of Sun Power (I)*.</i>	
Jen, Alex K-Y.	City University of Hong Kong
09:40-10:20	WePLPL.2
<i>Nano Electronics in "Beyond Moore's Law" Era (I)*.</i>	
Meyyappan, M.	NASA Ames Research Center
10:20-11:00	WePLPL.3
<i>Maxwell's Displacement Current Governed Triboelectric Nanogenerator for Self-Powered Systems and Blue Energy (I)*.</i>	
Wang, Zhong lin	Georgia Institute of Technology
WeKNKN	Room 7201
Keynote Session I (Plenary Session)	
Chair: Zhang, Ting	Suzhou Institute of Nanotech and Nanobionics, Chinese Academy of Sciences,
Co-Chair: Yu, Haibo	Chinese Academy of Sciences
11:15-11:45	WeKNKN.1
<i>Nanomechanics of 1-D Semiconductors and Elastic Strain Engineering (I)*.</i>	
Lu, Yang	City University of Hong Kong
11:45-12:15	WeKNKN.2
<i>Reconfigurable Magnetic Microrobot Swarm: Multi-Mode Transformation, Locomotion and Manipulation (I)*.</i>	
Xie, Hui	Harbin Institute of Technology
12:15-12:45	WeKNKN.3
<i>All-In-One Self-Powered Smart System (I)*.</i>	
Zhang, Haixia	National Key Laboratory of Science and Technology on Micro/Nano Fabrication, Peking University and Shanghai Jiaotong University
WeOAO1	Room 7201
Award Session I (Oral Session)	
Chair: Jiang, Xiaoning	North Carolina State University
Co-Chair: Wu, Wei	University of Southern California
14:00-14:15	WeOAO1.1
<i>Flexible Carbon Nanotube Sensors with Screen Printed and Interdigitated Electrodes, pp. 1-4.</i>	
Loghin, Florin	Technical University of Munich
Bobinger, Marco Rudolf	Technical University of Munich
Rivadeneira, Almudena	Technical University of Munich
Becherer, Markus	Technische Universität München
Lugli, Paolo	Free University of Bozen-Bolzano
14:15-14:30	WeOAO1.2
<i>Acoustic Characterization of Laser-Induced Graphene Film Thermoacoustic Loudspeakers, pp. 5-8.</i>	
La Torraca, Paolo	University of Modena and Reggio Emilia
Bobinger, Marco Rudolf	Technical University of Munich
Romero, Francisco	University of Granada
Rivadeneira, Almudena	Technical University of Munich
Ricci, Yuri	University of Modena and Reggio Emilia
Cattani, Luca	ASK Industries S.p.A
Morales, Diego	University of Granada
Rodriguez, Noel	University of Granada
Salinas-Castillo, Alfonso	University of Granada
Larcher, Luca	University of Modena and Reggio Emilia

Lugli, Paolo	Free University of Bozen-Bolzano
14:30-14:45	WeOAO1.3
<i>Exploiting Lithography Limits for Hardware Security Applications</i> , pp. 9-12.	
Khan, Raihan Sayeed	University of Connecticut
Noor, Nafisa	University of Connecticut
Jin, Chenglu	University of Connecticut
Muneer, Sadid	University of Connecticut
Dirisaglik, Faruk	Eskisehir Osmangazi University
Cywar, Adam	Analog Devices
Nguyen, Phuong Ha	University of Connecticut
Dijk, Marten van	University of Connecticut
Gokirmak, Ali	University of Connecticut
Silva, Helena	University of Connecticut
14:45-15:00	WeOAO1.4
<i>Investigation on Nickel-Based Nano-Scaffold Getter with Induction Heating and Rapid Activation</i> , pp. 13-18.	
Lin, Siying	Xiamen University
Huang, Xiang	Xiamen University
Gu, Dandan	Xiamen University
Lv, Wenlong	Xiamen University
Wang, Lingyun	Xiamen University
15:00-15:15	WeOAO1.5
<i>Effect of Thin SiO₂ Layer on Silicon-On-Glass Anodic Bonding</i> , pp. 19-22.	
Chen, Zikun	Fuzhou University
Gao, Chengwu	Institute of Microelectronics, Peking University
Guan, Taotao	Peking University
Yang, Fang	Peking University
Shi, Longzhao	Fuzhou University
Zhang, Dacheng	Peking University
15:15-15:30	WeOAO1.6
<i>An Efficient Method to Reduce Crosstalk for Multi-Layered GNR Interconnects at 32 Nm Technology</i> , pp. 23-27.	
Kumbhare, Vijay Rao	DSPM IIIT Naya Raipur
Paltani, Punya Prasanna	DSPM IIIT Naya Raipur
MAJUMDER, MANOJ KUMAR	IIIT Naya Raipur

WeOAO2 Room 7204

Invited Session: Flexible and Stretchable Electronics (Invited Session)

Chair: Zhang, Ting	Suzhou Institute of Nanotech and Nanobionics, Chinese Academy of Sciences,
Co-Chair: Lee, Chengkuo	National University of Singapore

14:00-14:15 WeOAO2.1

Graphene E-Skin for Physiological Signal Detection (I), ~~P&OE~~

Ren, Tianling	Tsinghua Univ
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14:15-14:30 WeOAO2.2

Flexible Wearable Triboelectric Patches Using Minimalist Design As Novel Human Machine Interfaces (HMI) (I), ~~P&OE~~

Lee, Chengkuo	National University of Singapore
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14:30-14:45 WeOAO2.3

Wearable Nanodevices for Single-Cell Sensing and Transfection (I), ~~P&OE~~

Chang, Lingqian	Beihang University
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14:45-15:00 WeOAO2.4

Micro/nano-Devices for Biomedical Applications (I), ~~P&OE~~

Xie, Xi	Sun Yat-Sen University
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WeOAO3 Room 7205

Invited Session: Quantum Information Processing (Invited Session)

Chair: Zhou, Nanrun	Nanchang University
Co-Chair: Xiao, Xiaoqi	Shanghai Dianji University

14:00-14:15	WeOAO3.1
<i>Joint Remote State Preparation of Single Qubit State Based on Cavity QED (I)</i> , P&OE	
Xiao, Xiaoqi	Shanghai Dianji University
14:15-14:30	WeOAO3.2
<i>Multi-Party Semi-QKD Protocol Based on Four-Particle Cluster States (I)</i> , P&OE	
Zhou, Nanrun	Nanchang University
14:30-14:45	WeOAO3.3
<i>Quantum Network Dialogue Protocol with Continuous Variable Single-Mode Squeezed States (I)</i> , P&OE	
Gong, Li-Hua	Nanchang University
14:45-15:00	WeOAO3.4
<i>A Generalized Information Theoretical Model for Quantum Secret Sharing (I)</i> , P&OE	
Li, Zhihui	Shaanxi Normal University
15:00-15:15	WeOAO3.5
<i>Entanglement Dynamics in an Atom-Cavity-Optomechanical System (I)</i> , P&OE	
Liao, Qinghong	Department of Electronic Information Engineering, Nanchang Unive
WeOAO4	Room 7304
Nanomaterials for Energy (Oral Session)	
Co-Chair: Du, Xiaoqing	Institute of Materials, China Academy of Engineering Physics
14:00-14:15	WeOAO4.1
<i>Thermal Conductivity of Rough Silicon Nanowires with Silicide Layer</i> , pp. 37-41.	
Lee, Seungho	Pohang University of Science and Technology (POSTECH)
Kim, Kihyun	Pohang University of Science and Technology
Meyyappan, M.	NASA Ames Research Center
Baek, Chang-Ki	POSTECH / CITES
14:15-14:30	WeOAO4.2
<i>A Frequency Up-Converted Piezoelectric Energy Harvesting System with Broad Bandwidth Based on MEMS PZT Thick Film Technology</i> , pp. 42-45.	
Huang, Manjuan	Soochow University
Liu, Huicong	Soochow University
Chen, Tao	Soochow University
Yang, Zhan	Soochow University
Sun, Lining	Soochow University
14:30-14:45	WeOAO4.3
<i>Hydrogen Isotope Effects of Nanoporous Palladium</i> , P&OE	
Du, Xiaoqing	Institute of Materials, China Academy of Engineering Physics
14:45-15:00	WeOAO4.4
<i>Activating Inert Basal Plane of MoS₂ for H₂O Dissociation and HER Via Formation of Vacancy Defects: A DFT Study*</i> , pp. 48-53.	
Ye, Kongqiang	Fuzhou University
Li, Minglin	Fuzhou University
Luo, Jing	Xiamen Tungsten Co., Ltd
Bo, Wu	Fuzhou University
Lai, Lianfeng	Ningde Normal University
15:00-15:15	WeOAO4.5
<i>Development of Heterocyclic-C61-Butyric Acid Methyl Ester/ Pyrazine (HCBM-Pyrazine) Acceptor Material for Organic Solar Cells Applications</i> , pp. 54-58.	
Bani Salim, Muath	Texas A&M University–Kingsville
Nekovei, Reza	Texas A&M University–Kingsville
elwaie, Tamer A	Irma Lerma Rangel College of Pharmacy, Texas A&M University
Jeyakumar, R.	Materials and Devices Division, National Physical Laboratory, Ne
15:15-15:30	WeOAO4.6
<i>In Situ Observations of Interfacial Evolutions in Solid-State Lithium Battery with Sulfide-Based Solid Electrolyte</i> , pp. 59-62.	
Fan, Zheng	University of Houston

WeOAO5		Room 7305
Invited Session: Micro/nano Energy Harvesting Technology for Soft Electronics (Invited Session)		
Chair: Zhang, Haixia	National Key Laboratory of Science and Technology on Micro/Nano Fabrication, Peking University and Shanghai Jiaotong University	
Co-Chair: Wang, Fei	South University of Science and Technology of China	
14:00-14:15	WeOAO5.1	
<i>Vibration Energy Harvesters for Self-Powered Wireless Sensing (I)</i> , PDE		
Wang, Fei	South University of Science and Technology of China	
14:15-14:30	WeOAO5.2	
<i>Self-Powered Sensing Based on Triboelectric Nanogenerator and Impedance Matching Effect (I)</i> , PDE		
Sun, Xuhui	Soochow University	
14:30-14:45	WeOAO5.3	
<i>Tribotronics for Active Mechanosensation and Self-Powered Systems (I)</i> , PDE		
Zhang, Chi	Beijing Institute of Nanoenergy and Nanosystems, CAS	
14:45-15:00	WeOAO5.4	
<i>Carbon Based Wearable Devices for Soft Electronics (I)</i> , PDE		
Zhang, Min	Peking University	
15:00-15:15	WeOAO5.5	
<i>Triboelectrification Based Active Sensor and Its Hybrid Sensors for Multiple-Functional Tactile Sensing (I)</i> , PDE		
Meng, Bo	Shenzhen University	
WePSPP		Hallway
Poster Session I (Poster Session)		
Chair: Li, Meng	Shenyang University of Technology	
15:30-16:30	WePSPP.1	
<i>Molecular Dynamics Simulation of Self-Assembly and Electroporation of Lipid Bilayer Membrane in Martini Force Field</i> , pp. 68-71.		
Liu, Min	Xidian University	
Gan, Jinrui	Xidian University	
Gao, Libo	Xidian University	
Wang, Weidong	Xidian University	
15:30-16:30	WePSPP.2	
<i>Simulations of Methane and Acetone Detector Based on Pristine Graphene Nano-Sheet Over Intrinsic 4H-SiC Substrate</i> , pp. 72-75.		
Rashid, Muhammad Haroon	Tallinn University of Technology	
koel, Ants	Tallinn University of Technology	
Rang, Toomas	Tallinn University of Technology	
Ziko, Mehadi Hasan	Tallinn University of Technology	
15:30-16:30	WePSPP.3	
<i>Scanning Electron Microscope Calibration with SE2 and Inlens Detectors</i> , pp. 76-79.		
Bian, Weiguo	Jiangsu Provincial Key Laboratory of Advanced Robotics & Collabo	
Wang, Mingyu	Jiangsu Provincial Key Laboratory of Advanced Robotics & Collabo	
Yang, Zhan	Soochow University	
15:30-16:30	WePSPP.4	
<i>Rapid Quantitative Detection of Salmonella Spp. Via Magnetic Beads-Based Fluorescent Lateral Flow Immunoassay</i> , pp. 80-85.		
Zhuang, Linlin	Southeast University	
Gong, Jiansen	Poultry Institute, Chinese Academy of Agricultural Sciences, Jia	
Ji, Yongxin	Nanjing Nanoeast Biotech Co., Ltd	
Gu, Ning	Southeast University	
Zhang, Yu	Southeast University	
15:30-16:30	WePSPP.5	
<i>Fabrication of Microlens Arrays on Flexible Films Using Electrohydrodynamic Jet Printing</i> , pp. 86-89.		
Zhong, Ya	Chinese Academy of Sciences	
Yu, Haibo	Chinese Academy of Sciences	
Zhou, Peilin	Shenyang Institute of Automation, Chinese Academy of Sciences	

Zou, Wuhao Wang, Yuechao Liu, Lianqing	University of Chinese Academy of Sciences, Shenyang Institute Of State Key Laboratory of Robotics, Shenyang Institute of Automation Shenyang Institute of Automation, Chinese Academy of Sciences
15:30-16:30	WePSPP.6
<i>Pulsed Laser Deposited MoS₂ for the Fabrication of MoS₂/Graphene Photodetector</i> , pp. 90-93.	
Zhang, Shuye Zhang, Yanxin Lin, Tiesong He, Peng	State Key Laboratory of Advanced Welding and Joining, Harbin Ins Harbin Institute of Technology Harbin Institute of Technology Harbin Institute of Technology
15:30-16:30	WePSPP.7
<i>5-Bit Spiral Distributed RF MEMS Phase Shifter</i> , pp. 94-98.	
Tian, Wenchao Zhang, Yuting Li, Mengjuan Xie, Zhongliang Li, Wenhua	Xidian University Xidian University Xidian University Xidian University Xidian University
15:30-16:30	WePSPP.8
<i>Wide-Field Planar Magnetic Imaging Using Spins in Diamond</i> , pp. 99-102.	
Chen, Yulei Tang, Jun Guo, Hao Li, Zhonghao Gao, Yanjie Liu, Yusong Shi, zhenrong Liu, Jun	North University of China North University of China North University of China The North University of China North University of China North University of China The North University of China North University of China
15:30-16:30	WePSPP.9
<i>Ultrasonic-Responsive Pluronic P105/F127 Micelles for Overcoming Multidrug Resistance in Cancer</i> , BoE	
Sun, Min Sun, Yu Zhang, Mingjun Fan, Zhen	Tongji University Tongji University The Ohio State University Tongji University
15:30-16:30	WePSPP.10
<i>Design of a Test Structure Based on Chevron-Shaped Thermal Actuator for In-Situ Measurement of the Fracture Strength of MEMS Thin Films</i> , pp. 106-109.	
Li, Meng-Jie Zhou, Zai-Fa Yi, Li-Yan Wang, Xi-Jie Adnan, Saeed	Southeast University Southeast University Southeast University Southeast University Southeast University
15:30-16:30	WePSPP.11
<i>Development of Immunoassay Bio-Chip Based on Stacked Nanoparticles</i> , BoE	
Deng, Zu-Yin Chen, Kuen-Lin Wu, Chiu-Hsien	National Chung Hsing University National Chung Hsing University National Chung Hsing University, Taichung 402, Taiwan
15:30-16:30	WePSPP.12
<i>Copper Oxide Nanorods Pesticide Sensor for Methyl Parathion Detection</i> , pp. 113-116.	
Sakdarat, Phichamon Chongsuebsirikul, Jidapa Phongphut, Angkana Klinthingchai, Yoottapong Prichanont, Seeroong Thanachayanont, Chanchana Pungetmongkol, Porpin	International School of Engineering (ISE), Faculty of Engineerin International School of Engineering (ISE), Faculty of Engineerin Department of Chemical Engineering, Faculty of Engineering, Chul Department of Chemical Engineering, Faculty of Engineering, Chul Department of Chemical Engineering, Faculty of Engineering, Chul National Metal and Materials Technology Center (MTEC), National International School of Engineering (ISE), Faculty of Engineerin
15:30-16:30	WePSPP.13
<i>Highly Flexible and Stretchable Structure Based on Au/Graphene Film and Polyurethane Yarn</i> , pp. 117-120.	
Li, Xiaoting Lai, King Wai Chiu	City University of Hong Kong City University of Hong Kong

15:30-16:30	WePSPP.14
<i>Computational Properties of Ising Spin Model on Spin Connection Parameters</i> , pp. 121-124.	
Miki, Tsukasa	Tokyo University of Agriculture and Technology
Ito, Mitsuki	National Institute of Technology, Kushiro College
Hirata, Yosuke	Tokyo University of Agriculture and Technology
Kushitani, Yuki	Tokyo University of Agriculture and Technology
Shimada, Moe	Tokyo University of Agriculture and Technology
Shirakashi, Jun-ichi	Tokyo University of Agriculture and Technology
15:30-16:30	WePSPP.15
<i>Investigation on Visible Emission of ZnO Films Deposited on Copper Nitride Substrates</i> , pp. 125-128.	
Ding, Jijun	Xi'an Shiyou University
Chen, Haixia	Xi'an Shiyou University
Li, Huidong	Xi'an Shiyou University
Fu, Haiwei	Xi'an Shiyou University
15:30-16:30	WePSPP.16
<i>Development of Micro-Needle Array for Tumor Vaccine Patch Applications</i> , pp. 129-132.	
Yu-Hsiang, Tang	Taiwan Instrument Research Institute, National Applied Research
Huang, Tsung-Tao	Taiwan Instrument Research Institute, National Applied Research
15:30-16:30	WePSPP.17
<i>Plasmonic Sensing of Spherical Analytes Accumulated on a Double-Bent Gold Nanostrip Array</i> , pp. 133-134.	
Wi, Jung-Sub	Korea Research Institute of Standards and Science
Lee, Jinhyung	Korea Research Institute of Standards and Science
15:30-16:30	WePSPP.18
<i>Modeling of CNTFET MVL Comparator Using 14nm Node Technology*</i> .	
Farhana, Soheli	Universiti Kuala Lumpur
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Award Session II (Oral Session)	
Chair: Wu, Wei	University of Southern California
Co-Chair: Jiang, Xiaoning	North Carolina State University
16:30-16:45	WeOBO1.1
<i>A Reconfigurable Interconnect Technology Based on Spoof Plasmon</i> , pp. 135-140.	
Joy, Soumitra	University of Michigan
Bari, Md Faizul	Bangladesh University of Engineering and Technology
Baten, Zunaid	Bangladesh University of Engineering and Technology
Lan, Feng	University of Michigan
Mazumder, Pinaki	University of Michigan
16:45-17:00	WeOBO1.2
<i>Enhancing Environmental Sensing Capability of AFM-Based Nanorobot Via Spiral Local Scan Strategy</i> , pp. 141-146.	
Sun, Zhiyong	University of Hong Kong
Xi, Ning	University of Hong Kong
Yu, Huiyang	University of Hong Kong
Xue, Yuxuan	University of Hong Kong
Bi, Sheng	University of Hong Kong
CHEN, Liangliang	Shenzhen Academy of Robotics
17:00-17:15	WeOBO1.3
<i>Optical Characterization of ZnO Nanoforest for Hardware Security Applications</i> , pp. 147-152.	
Noor, Nafisa	University of Connecticut
Silva, Helena	University of Connecticut
17:15-17:30	WeOBO1.4
<i>Implantable Microelectrode Arrays for Epileptiform Electrical Signals Detection in the Awake Epileptic Mice</i> , pp. 153-156.	
Cai, Xinxia	Institute of Electronics, Chinese Academy of Sciences,
Xiao, Guihua	The State Key Laboratory of Transducer Technology, Institute Of
Song, Yilin	The State Key Laboratory of Transducer Technology, Institute Of
zhang, yu	The State Key Laboratory of Transducer Technology, Institute Of
Xu, Shengwei	Institute of Electronics Chinese Academy of Sciences,
Gao, fei	The State Key Laboratory of Transducer Technology, Institute Of

Xie, jingyu	The State Key Laboratory of Transducer Technology, Institute Of
Wang, Mixia	The State Key Laboratory of Transducer Technology, Institute Of
Yin, Huabing	Division of Biomedical Engineering, School of Engineering, Unive
Cui, Tianhong	Department of Mechanical Engineering, University of Minnesota

17:30-17:45	WeOBO1.5
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Wave-Based Spiking Neural Network with Nano-Structured Electronics (I), pp. 157-162.

Katayama, Yasunao	IBM Research - Tokyo
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17:45-18:00	WeOBO1.6
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Effects of Interface Trap Charges on the Electrical Characteristics of Back-Gated 2D Negative Capacitance FET, pp. 163-166.

Jiang, Chunsheng	Microsystem & Terahertz Research Center, China Academy of Engine
Zhong, Le	Microsystem & Terahertz Research Center, China Academy of Engine
Xie, Lei	Microsystem & Terahertz Research Center, China Academy of Engine

WeOBO2	Room 7204
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Invited Session: Nanotechnology: Materials, Devices to Instrumentations (Invited Session)

Chair: Yeow, John T.W.	University of Waterloo
Co-Chair: Kim, Jin-Woo	University of Arkansas

16:30-16:45	WeOBO2.1
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Multifunctional Hybrid Soft Nanomaterials: Design and Assembly Jin-Woo (I), ~~P&OE~~

Kim, Jin-Woo	University of Arkansas
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16:45-17:00	WeOBO2.2
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THz Spectroscopy for Molecular and Nanoscale Material Analyses (I), ~~P&OE~~

Han, Haewook	Pohang University of Science and Technology
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17:00-17:15	WeOBO2.3
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Micro/Nano Cracks-Based Flexible Pressure Sensor for Wearable Devices Application (I), ~~P&OE~~

YANG, Zhuoqing	Shanghai Jiao Tong University (SJTU)
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17:15-17:30	WeOBO2.4
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Ultrasonic-Assisted Sintering of Cu@Ag NPs Nanoparticles in Air for High-Temperature Power Device Packaging (I), ~~P&OE~~

Ji, Hongjun	Harbin Institute of Technology at Shenzhen
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17:30-17:45	WeOBO2.5
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Multi-Pixel Field Emission Based X-Ray Generators (I), ~~P&OE~~

Yeow, John T.W.	University of Waterloo
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17:45-18:00	WeOBO2.6
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Engineered Materials for Sensing Applications (I), ~~P&OE~~

Vellaisamy, A. L. Roy	City University of Hong Kong
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WeOBO3	Room 7205
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Invited Session: Ultrahigh-Precision Mechatronics and Automation Systems (Invited Session)

Chair: Xu, Qingsong	University of Macau
Co-Chair: Li, Shihua	Southeast University

16:30-16:45	WeOBO3.1
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A Novel 5-DOF Flexure-Based Passive Alignment Stage for Microassembly System, pp. 173-178.

Chen, Shasha	Beihang University
Chen, Weihai	Beihang University
Liu, Jingmeng	Beihang University
Chen, Wenjie	Singapore Institute of Manufacturing Technology

16:45-17:00	WeOBO3.2
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Design, Modeling and Analysis of a Novel Backdrivable Cable-Driven Series Elastic Actuator, pp. 179-183.

Wang, Zhengyu	Hefei University of Technology
Zi, Bin	Hefei University of Technology
Wang, Daoming	Hefei University of Technology
Qian, Jun	Hefei University of Technology

17:00-17:15	WeOBO3.3
<i>A Nonlinear State-Constrained Controller for Permanent Magnet Synchronous Motor Systems with Mismatched Disturbances</i> , P OE	
Dai, Chen	Southeast University
Li, Shihua	Southeast University
Yang, Jun	Southeast University
17:15-17:30	WeOBO3.4
<i>A Novel Piezoelectric Transducer for Driving Underwater Robotic Finger (I)</i> , P OE	
Wang, Liang	Nanjing University of Aeronautics and Astronautics
17:30-17:45	WeOBO3.5
<i>Design of a Novel Macro/Micro Nanopositioner for MicroLED Chip Mass-Transfer Operations (I)</i> , P OE	
Tang, Hui	Guangdong University of Technology
17:45-18:00	WeOBO3.6
<i>Design of a New Rotary Micropositioning Stage Driven by Piezoelectric Actuator</i> , pp. 188-192.	
Zhang, Hanlun	University of Macau
Xu, Qingsong	University of Macau
WeOBO4	Room 7304
Nanomaterials (Oral Session)	
Chair: Tzeng, Yonhua	National Cheng Kung University
Co-Chair: Zhang, Li	The Chinese University of Hong Kong
16:30-16:45	WeOBO4.1
<i>Prediction of Strain Effect on Hydrogen Evolution Reaction on VMo-SLMoS₂</i> , pp. 193-196.	
Lai, Lianfeng	Ningde Normal University
Ye, Kongqiang	Fuzhou University
Li, Minglin	Fuzhou University
Luo, Jing	Xiamen Tungsten Co., Ltd
Bo, Wu	Fuzhou University
Ren, Zhiying	Fuzhou University
16:45-17:00	WeOBO4.2
<i>Photo Aligned Quantum Rod Films by Inkjet Printing for Modern LCDs with Extended Color Gamut</i> , pp. 197-200.	
GUPTA, Swadesh Kumar	Hong Kong University of Science and Technology, Hong Kong
Prodanov, Maksym	Hong Kong University of Science and Technology
Diakov, Maksym	HKUST
Vashchenko, Valerii	Hong Kong University of Science and Technology
Kang, Chenbin	Hong Kong University of Science and Technology, Hong Kong
Srivastava, Abhishek Kumar	Hong Kong University of Science and Technology
17:00-17:15	WeOBO4.3
<i>ZIF-67-Based Nanofiber Filters As Highly Promising Candidates for Air Pollution Control</i> , P OE	
Bian, Ye	The Chinese University of Hong Kong
Wang, Shijie	The Chinese University of Hong Kong
Chen, Chun	The Chinese University of Hong Kong
Zhang, Li	The Chinese University of Hong Kong
17:15-17:30	WeOBO4.4
<i>Sub-Surface Localization of Graphene by Near-Field Ultrasound Vibration*</i> .	
Li, Meng	Shenyang University of Technology
17:30-17:45	WeOBO4.5
<i>Synthesis of High Throughput Ibuprofen Nanoparticles Via Supercritical CO₂ Processing</i> , pp. 203-206.	
Sharma, Sudhir	New York University Abu Dhabi
Jagannathan, Ramesh	New York University Abu Dhabi
17:45-18:00	WeOBO4.6
<i>Impact of Total Ionization Doze on Substrate Biased Symmetric Lateral Bipolar Transistor on SiGe-OI</i> , pp. 207-210.	
Lourembam, Beloni	Jawaharlal Nehru University
Kumar, Jitendra	Jawaharlal Nehru University
Srivastava, Asutosh	Jawaharlal Nehru University

WeOBO5		Room 7305
Nanofabrication (Oral Session)		
Chair: POTEJANA, POTEJANASAK		School of Engineering, University of Phayao
16:30-16:45		WeOBO5.1
<i>Large-Area, Fully Conformable, μm-Thick E-Tattoo for High-Fidelity in Situ Personal Health Monitoring</i> , pp. 211-214.		
Yin, Lang		Huazhong University of Science and Technology
Deng, Pengfei		Huazhong University of Science and Technology
Ma, Jiaji		Huazhong University of Science and Technology
Shen, Yaoxin		Huazhong University of Science and Technology
Ren, Junhui		Huazhong University of Science and Technology
Zhang, Shuchang		Huazhong University of Science and Technology
Huang, Yong'an		State Key Laboratory of Digital Manufacturing Equipment and Tech
16:45-17:00		WeOBO5.2
<i>Fabrication of Metallic Nano-Ring Arrays by Imprinting-Sputtering-Self Uplifting Methods with Localized Surface Plasmon Resonance Effect</i> , pp. 215-220.		
POTEJANA, POTEJANASAK		School of Engineering, University of Phayao
17:00-17:15		WeOBO5.3
<i>Fabrication of Cross Nanoantenna with Tiny Gap by "Sketch and Peel" E-Beam Lithography</i> , pp. 205-210.		
Zhang, Taiping		CAEP Microsystem & Terahertz Research Center
Liu, Qing		Hunan University
Li, Ru		CAEP Microsystem & Terahertz Research Center
Li, Ma		CAEP Microsystem & Terahertz Research Center
Sun, Song		CAEP Microsystem & Terahertz Research Center
Li, Mo		CAEP Microsystem & Terahertz Research Center
Duan, Huigao		Hunan University
17:15-17:30		WeOBO5.4
<i>Anti-Lotus Leaf Effect: Smearing Millions of Picoliter Droplets on Bio-Inspired Artificial Lotus Leaves</i> , pp. 223-226.		
Du, Lin		Fudan University
Wei, Youheng		Fudan University
Riaud, Antoine		Fudan University
Zhou, Jia		Fudan University
17:30-17:45		WeOBO5.5
<i>Self-Peeling Adhesion Lithography to Scaling down Nanostructures for Large Electronics*</i> .		
Luo, Sihai		NTNU
Hoff, Bård Helge		NTNU
de mello, John		Imperial College
17:45-18:00		WeOBO5.6
<i>Silica-Based Robust, Transparent, Superhydrophobic Coatings with Enhanced Porosity on Polymer Substrates*</i> .		
zhao, xiaoxiao		Louisiana State University
Park, Daniel		Louisiana State University
Soper, Steven		University of Kansas
Murphy, Michael		Louisiana State University

Thursday July 25, 2019

ThPLPL	Room 7201
Plenary Session II (Plenary Session)	
Chair: Hu, Walter	University of Texas at Dallas
Co-Chair: Li, Xiuling	University of Illinois
09:00-09:40	ThPLPL.1
<i>Precise Chemical, Physical, and Electronic Nanoscale Contacts (I)*.</i>	
Weiss, Paul S.	University of California, Los Angeles
09:40-10:20	ThPLPL.2
<i>Shrink Polymer Biosensors: Manufacturing from Micro to Nano (I)*.</i>	
Cui, Tianhong	University of Minnesota
10:20-11:00	ThPLPL.3
<i>Materials Science with Two-Dimensional Atomic Layers (I)*.</i>	
Ajayan, Pulickel M.	Rice University
ThKNKN	Room 7201
Keynote Session II (Plenary Session)	
Chair: Tang, Jianshi	Tsinghua University
Co-Chair: Oh, Soong Ju	Korea University
11:15-11:45	ThKNKN.1
<i>Flexible and Stretchable Sensing Electronics (I)*.</i>	
Zhang, Ting	Suzhou Institute of Nanotech and Nanobionics, Chinese Academy of Sciences,
11:45-12:15	ThKNKN.2
<i>Not Your Ordinary Etching: MacEtch of Si, Ge, III-V, and Wide Bandgap Semiconductors (I)*.</i>	
Li, Xiuling	UNIVERSITY OF ILLINOIS
12:15-12:45	ThKNKN.3
<i>Nanoimprinted Perovskite Devices towards Integrated Optoelectronics (I)*.</i>	
Hu, Walter	University of Texas at Dallas
ThOAO1	Room 7201
Nanoelectronics: Graphene and Other 2D Materials, CNTs and NWs I (Oral Session)	
Chair: Khalil, Ahmed S. G.	Fayoum University
Co-Chair: Zhang, Min	Peking University
14:00-14:15	ThOAO1.1
<i>Carbon Nanotube Network Transistor for a Physical Unclonable Functions-Based Security Device</i> , pp. 227-230.	
Lee, Yongwoo	Kookmin University
Yoon, Jinsu	Kookmin University
Kim, Hyo-Jin	Kookmin University
Park, Geon-Hwi	Kookmin University
Kim, Dae Hwan	Kookmin University
Kim, Dong Myong	Kookmin University
Kang, Min-Ho	National Nanofab Center
Choi, Sung-Jin	Kookmin University
14:15-14:30	ThOAO1.2
<i>Hybrid Graphene-Molybdenum Disulfide Antenna for ISM Applications</i> , pp. 231-234.	
Abdul-Aziz, Mohamed R. R.	Fayoum University
Mohassieb, Shaimaa A.	Akhbar Elyom Academy
Eltresy, Nermeen A	Electronics Research Institute
Yousef, Moataz M. K.	Fayoum University
Anis, Badawi Ali	National Research Center
Khalil, Ahmed S. G.	Fayoum University
14:30-14:45	ThOAO1.3
<i>Low-Dimensional Nanomaterials for Emerging Resistive Switching Memory Devices*.</i>	
Liu, Juqing	Nanjing Tech University

14:45-15:00	ThOAO1.4
<i>Schottky Junction Properties of Graphene with Nitrogen and Gallium Polar Freestanding GaN</i> , pp. 235-238.	
Ranade, Ajinkya	Nagoya Institute of Technology
Mahyavanshi, Rakesh	Nagoya Institute of Technology
Desai, Pradeep	Nagoya Institute of Technology
Tanemura, Masaki	Nagoya Institute of Technology
Kalita, Golap	Nagoya Institute of Technology
15:00-15:15	ThOAO1.5
<i>Integration and Characterization of Transparent Thin Film Transistors with Carbon Nanotubes As Aligned Channel and Electrodes</i> , pp. 239-242.	
Huang, Qiuyue	Peking University
Wang, Qinghua	Peking University
Liao, Zhiqiang	Peking University
Du, Chunhui	Peking University
Zhang, Min	Peking University
15:15-15:30	ThOAO1.6
<i>Crosstalk Aware Global Routing of Graphene Nanoribbon Based Circuits</i> , pp. 243-248.	
Das, Subrata	Institute of Radio Physics and Electronics, University of Calcut
Pandit, Soumya	Institute of Radio Physics and Electronics, University of Calcut
Das, Debesh Kumar	Jadavpur University
ThOAO2	Room 7204
Invited Session: Advanced Micro/nano Robotics (Invited Session)	
Chair: Lai, King Wai Chiu	City University of Hong Kong
Co-Chair: Fan, Zheng	University of Houston
14:00-14:15	ThOAO2.1
<i>Bio-Inspired Multi Legged Soft Millirobot towards Biomedical Applications (I)</i> , P&OE	
Shen, Yajing	City University of Hong Kong
14:15-14:30	ThOAO2.2
<i>Swarming Microrobots for Biomedicine (I)</i> , P&OE	
Zhang, Li	The Chinese University of Hong Kong
14:30-14:45	ThOAO2.3
<i>Abnormal Biophysical Properties in $A\beta$-Induced Neurodegeneration for Disease Diagnosis and Pathogenesis (I)</i> , P&OE	
Lai, King Wai Chiu	City University of Hong Kong
14:45-15:00	ThOAO2.4
<i>2D-Material-Based Nanodevices for Microrobots (I)</i> , P&OE	
Dong, Lixin	City University of Hong Kong
15:00-15:15	ThOAO2.5
<i>Nanorobotic Manipulations in the in Situ Electrochemistry Investigations (I)*</i> .	
Fan, Zheng	University of Houston
ThOAO3	Room 7205
Nano-Acoustics (Oral Session)	
Chair: Jiang, Xiaoning	North Carolina State University
Co-Chair: Bao, Jiming	University of Houston
14:00-14:15	ThOAO3.1
<i>Viscoelasticity Characterization of Micro-Structures at Different Depths by Photoacoustic Effect</i> , P&OE	
Zhao, Wenxiu	Shenyang Institute of Automation, Chinese Academy of Sciences
Yu, Haibo	Chinese Academy of Sciences
wen, yangdong	Shenyang Institute of Automation
Li, pan	State Key Laboratory of Robotics, Shenyang Institute of Automati
Wang, Xiaoduo	Shenyang Institute of Automation, Chinese Academy of Sciences
Liu, Zhu	Shenyang Institute of Automation, Chinese Academy of Sciences
Liu, Lianqing	Shenyang Institute of Automation, Chinese Academy of Sciences
Li, Wen Jung	City University of Hong Kong

14:15-14:30	ThOAO3.2
<i>Joint Reconstruction of Speed of Sound and Initial Pressure in Photoacoustic Computed Tomography</i> , pp. 1-8	
Cai, Chuangjian	Tsinghua University
Wang, Xuanhao	Tsinghua University
Deng, Kexin	Tsinghua University
luo, jianwen	Tsinghua University
Ma, Cheng	Tsinghua University
14:30-14:45	ThOAO3.3
<i>Real-Time Contrast Enhanced Superharmonic (CESH) Imaging Using a Dual-Frequency Cylindrical IVUS Array*</i> .	
Wang, Zhuochen	Tianjin University
Jiang, Xiaoning	North Carolina State University
14:45-15:00	ThOAO3.4
<i>Photoacoustic Labelling and Tracking of Stem Cell Assisted by NIR-II Organic Semiconductor Polymer Nanoparticles</i> , pp. 1-8	
WEN, GUOHUA	City University of HongKong
YIN, Chao	The Chinese University of Hong Kong
Bian, Liming	The Chinese University of Hong Kong
wang, lidai	City University of Hong Kong
15:00-15:15	ThOAO3.5
<i>Fiber-Optic Laser-Ultrasound Transducer Using Carbon Nanoparticles for Intravascular Sonothrombolysis</i> , pp. 261-264.	
WU, HUAIYU	NC State University
Kim, Howuk	North Carolina State University
Jiang, Xiaoning	North Carolina State University
Yao, Junjie	Duke University
Tang, Yuqi	Duke University
15:15-15:30	ThOAO3.6
<i>Quantification of Cell Adhesion Strength Using Energy Dissipation from Quartz Microbalance with Dissipation Monitoring</i> , pp. 265-268.	
Monemianesfahani, Amir	UNL
Rosenbohm, Jordan	University of Nebraska Lincoln
Yang, Ruiguo	University of Nebraska-Lincoln
ThOAO4	Room 7304
Nano/bio-Systems (Oral Session)	
Chair: Cai, Xinxia	Institute of Electronics, Chinese Academy of Sciences,
Co-Chair: Bian, Liming	Chinese University of Hong Kong
14:00-14:15	ThOAO4.1
<i>Detection of Neuron-Specific Enolase Using a Wireless Handheld Electrochemical Detector Combined with Label-Free Microfluidic Paper-Based Immunosensor</i> , pp. 1-8	
Luo, Jinping	Institute of Electronics, Chinese Academy of Sciences
Fan, Yan	Institute of Electronics, Chinese Academy of Sciences
Wang, Yang	The State Key Laboratory of Transducer Technology, Institute Of
Liu, Juntao	Institute of Electronics Chinese Academy of Sciences,
Jin, Honghan	Peking University First Hospital
Cai, Xinxia	Institute of Electronics, Chinese Academy of Sciences,
14:15-14:30	ThOAO4.2
<i>Analysis of the Neuronal Electrical Activities Recorded by the Micro-Nano Electrode Array on Cellular Level During the Process of Inducing and Inhibiting Epilepsy in Rat</i> , pp. 1-8	
Song, Yilin	The State Key Laboratory of Transducer Technology, Institute Of
Li, Ziyue	State Key Laboratory of Transducer Technology, Institute of Elec
Xiao, Guihua	The State Key Laboratory of Transducer Technology, Institute Of
Gao, fei	The State Key Laboratory of Transducer Technology, Institute Of
Wang, Mixia	The State Key Laboratory of Transducer Technology, Institute Of
Xu, Shengwei	Institute of Electronics Chinese Academy of Sciences,
Cai, Xinxia	Institute of Electronics, Chinese Academy of Sciences,
14:30-14:45	ThOAO4.3
<i>Anisotropic Nanoscale Presentation of Cell Adhesion Ligand Enhances Mechanosensing-Dependent Differentiation of Stem Cells*</i> .	
Bian, Liming	Chinese University of Hong Kong

14:45-15:00	ThOAO4.4
<i>Organization Dynamics During Protein Adsorption on Thin Silica Layers Containing Silver Nanoparticles</i> , pp. 1-10	
Soumbo, Marvine	LAPLACE, Universite Paul Sabatier
Scarangella, Adriana	LAPLACE, CNRS, Toulouse
Villeneuve-Faure, Christina	LAPLACE, University of Toulouse
Bonafos, Caroline	CEMES-CNRS
Mlayah, Adnen	CEMES-CNRS, Universite Paul Sabatier, Toulouse
Monje, Marie-Carmen	LGC, INPT, Toulouse
Roques, Christine	LCG, Universite Paul Sabatier, Toulouse
Makasheva, Kremena	LAPLACE, University of Toulouse

15:00-15:15	ThOAO4.5
<i>Optical Diffraction Technique Based Study of Lateral Bending of Cantilevers Using Living and Dead E.coli Cells</i> , pp. 1-10	
BASU, AVIRU	IIT KANPUR
Bhatt, Geeta	IIT KANPUR
Bhattacharya, Shantanu	IIT KANPUR

15:15-15:30	ThOAO4.6
<i>Effect of Isoflurane-Induced Anesthesia on Dual-Mode Neural Signals in Rat Striatum Using a Nano-Modified Microelectrode Array</i> , pp. 1-10	
Xu, Shengwei	Institute of Electronics Chinese Academy of Sciences,
zhang, yu	The State Key Laboratory of Transducer Technology, Institute Of
Xiao, Guihua	The State Key Laboratory of Transducer Technology, Institute Of
Wang, Mixia	The State Key Laboratory of Transducer Technology, Institute Of
yang, gucheng	State Key Laboratory of Transducer Technology, Institute of Elec
Gao, Fei	State Key Laboratory of Transducer Technology, Institute of Elec
Song, Yilin	The State Key Laboratory of Transducer Technology, Institute Of
Cai, Xinxia	Institute of Electronics, Chinese Academy of Sciences,

ThOAO5	Room 7305
Nano/Molecular Sensors, Actuators, and Systems (Oral Session)	
Chair: Li, Hui	Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences
Co-Chair: Oh, Soong Ju	Korea University

14:00-14:15	ThOAO5.1
<i>A Super-Sensitive Flexible Strain Sensor with Ag/PDMS Composites for Wearable Physiological Signals Detection</i> , pp. 279-282.	
Zhang, Jinjie	Shenzhen Institutes of Advanced Technology, Chinese Academy of S
Jing, Chen	Shenzhen Institutes of Advanced Technology, Chinese Academy of S
Zebang, Luo	Shenzhen Institutes of Advanced Technology, Chinese Academy of S
Youself, Alhandarish	Shenzhen Institutes of Advanced Technology, Chinese Academy of S
Lei, Wang	Shenzhen Institutes of Advanced Technology, Chinese Academy of S
Li, Hui	Shenzhen Institutes of Advanced Technology, Chinese Academy of S

14:15-14:30	ThOAO5.2
<i>Development of Nickel Nanowire on N-Doped Carbon Supported for Urea Measurement in Spent Dialysate for End-Stage Renal Disease Prognosis</i> , pp. 283-288.	
Janyasupab, Metini	King Mongkut's Institute of Technology Ladkrabang
Asavakijthanant, Narawee	Faculty of Engineering, King Mongkut's Institute of Technology L

14:30-14:45	ThOAO5.3
<i>A Method for Improving the Detection Accuracy of Resonant Micro-Optical Electromechanical Gyroscope</i> , pp. 289-292.	
Tao, Yu	North University of China
Liu, WenYao	North University of China
Pan, ZiWen	North University of China
Tang, Jun	North University of China
Xing, Guohui	North University of China

Liu, Jun	North University of China
14:45-15:00	ThOAO5.4
<i>Sensitivity Analysis of Silicon Nanowire ISFET Sensor with LaF3 Membrane</i> , pp. 293-296.	
Kwak, Hyeon-Tak	Pohang University of Science and Technology (POSTECH)
Kim, Kihyun	Pohang University of Science and Technology
Cho, Hyeonsu	Pohang University of Science and Technology (POSTECH)
Meyyappan, M.	NASA Ames Research Center
Baek, Chang-Ki	POSTECH / CITES
15:00-15:15	ThOAO5.5
<i>A Silk Fibroin and Ultra-Long Silver Nanowires Based Transparent Conductive Composite Film for Nanosensor Devices</i> , pp. 297-301.	
Cheng, Kai	Shanghai University
Qin, Xiangzheng	Shanghai University
Wei, Zhenzhong	Shanghai University
Peng, Yu	Shanghai University
Li, Piaopiao	Shanghai University
Liu, Ping	Shanghai University
Cao, Ning	Shanghai University
Huang, Junyi	Shanghai University
Rao, Jinjun	Shanghai University
Chen, Jinbo	Shanghai University
Wang, Tao	Shanghai University
Liu, Mei	Shanghai University
15:15-15:30	ThOAO5.6
<i>Comparison of the Permittivity Sensing Capabilities of Graphene-Based Nanohybrids and Metal Nanoparticle-Based Nanohybrids</i> , pp. 302-305.	
Senevirathne, Viraj	Monash University
Premaratne, Malin	Monash University
ThPSPP	Hallway
Poster Session II (Poster Session)	
Chair: Shen, Yajing	City University of Hong Kong
15:30-16:30	ThPSPP.1
<i>Development and Application of Novel Microfluidic Culture Chips for Germ Cells</i> , pp. 306-310.	
Huang, Tsung-Tao	Taiwan Instrument Research Institute, National Applied Research
Yu-Hsiang, Tang	Taiwan Instrument Research Institute, National Applied Research
Shiao, Ming-Hua	Instrument Technology Research Center, National Applied Research
Liu, Hung Wei	National Applied Research Laboratories
15:30-16:30	ThPSPP.2
<i>Microfluidics Based Three-Dimensional Graphene Assembly</i> , pp. 311-315	
Seo, Tae Seok	Kyung Hee University
15:30-16:30	ThPSPP.3
<i>The Research Progress and Comparisons between Lithium-Ion Battery and Sodium Ion Battery</i> , pp. 313-318.	
Tian, Wenchao	Xidian University
Li, Mengjuan	Xidian University
Niu, Jiahao	Xidian University
Li, Wenhua	Xidian University
Shi, Jing	Xidian University
15:30-16:30	ThPSPP.4
<i>Heterostructures of Transition Metal Dichalcogenide Thin Films Fabricated by Sputtering and Electron Beam Irradiation</i> , pp. 316-320	
Kim, Bong Ho	Korea Institute of Ceramic Engineering and Technology
Kwon, Soon Hyeong	Korea Institute of Ceramic Engineering and Technology
Yoon, Young Joon	Korea Institute of Ceramic Engineering and Technology
15:30-16:30	ThPSPP.5
<i>Molecular Dynamics Simulation of Dielectric Property of Epoxy/Carbon Nanotube Composites at Different Temperatures</i> , pp. 321-326.	

Ding, Mi	Shandong University
邹, 亮	Shandong University
Han, Zhiyun	Shandong University
Zhao, Tong	Shandong University
Zhang, Li	Shandong University
Wang, Jian	North China Electric Power University
15:30-16:30	ThPSPP.6
<i>Visible Emission Comparison from Both ZnO Thin Films and Nanoarrays Spin-Coated with GO Layers</i> , pp. 327-330.	
Chen, Haixia	Xi'an Shiyou University
Ding, Jijun	Xi'an Shiyou University
Zhang, Xuan	Xi'an Shiyou University
15:30-16:30	ThPSPP.7
<i>Nanomaterials for Catalytic Detoxification and Chemical Recycling of Toxic E-Waste Plastic*</i> .	
Jia, Chunmiao	Nanyang Technological University
Zhao, Jun	Nanyang Technological University
Lee, Jong Min	Nanyang Technological University
15:30-16:30	ThPSPP.8
<i>Hydrophobicity Enhancement Via Formation of Nanostructure for Usage in Water Purification*</i> .	
Tanvanich, Teerit	Chulalongkorn University
Tanrat, Nattapat	Chulalongkorn University
Methachittipan, Apipon	Chulalongkorn University
15:30-16:30	ThPSPP.9
<i>The Standard Development of Nanoparticle Exposure Assessment through SP/ICPMS Equipment</i> , pp. 331-334.	
Park, Jayoung	KIST Europe
Kim, Ki Eun	KIST Europe
Koch, Marcus	INM - Leibniz-Institut Für Neue Materialien GGmbH
Jeon, Hyunpyo	KIST Europe
15:30-16:30	ThPSPP.10
<i>Tunable Plasmon Resonances through Deformation of Gallium Nanoparticles*</i> .	
Yao, Sheng-Min	National Central University
Chen, Chih-Yao	National Central University
Chen, I-Chen	National Central University
15:30-16:30	ThPSPP.11
<i>Molecular Dynamics Study on Mechanical Properties of Nanocrystalline Tantalum</i> , pp. 335-338.	
Wang, Xiao	XIDIAN University
Li, Kang	Xidian University
Zhu, Yingmin	Xidian University
Li, Weibing	ZNDY of Ministerial Key Laboratory, Nanjing University Of
Wang, Weidong	Xidian University
15:30-16:30	ThPSPP.12
<i>A Novel Piezoelectric Transducer for Driving Underwater Robotic Finger</i> , pp. 335-338	
Yu, Pengpeng	Nanjing University of Aerounautics and Astrounautics
Wang, Liang	Nanjing University of Aerounautics and Astrounautics
Jin, Jiamei	Nanjing University of Aerounautics and Astrounautics
15:30-16:30	ThPSPP.13
<i>Real-Time Registration of Organic Molecules with Low Molecular Weight and Different Functionality: LSPR vs. SPPR</i> , pp. 341-344.	
Lytvyn, Vitalii	V.E. Lashkaryov Institute of Semiconductor Physics National Acad
Semeniuk, Anton	Institute of High Technologies of National Taras Shevchenko Univ
Lopatynskiy, Andrii	V.E. Lashkaryov Institute of Semiconductor Physics National Acad
Chegel, Volodymyr	V.E. Lashkaryov Institute of Semiconductor Physics National Acad
15:30-16:30	ThPSPP.14
<i>Calculation Behavior of 2D Ising Spin Computing with Different Spin Decision Logics</i> , pp. 345-348.	
Shimada, Moe	Tokyo University of Agriculture and Technology
Ito, Mitsuki	National Institute of Technology, Kushiuro College
Hirata, Yosuke	Tokyo University of Agriculture and Technology
Kushitani, Yuki	Tokyo University of Agriculture and Technology

Miki, Tsukasa Shirakashi, Jun-ichi	Tokyo University of Agriculture and Technology Tokyo University of Agriculture and Technology
15:30-16:30	ThPSPP.15
<i>Intelligent Identification of Two-Dimensional Nanostructures by Machine-Learning Optical Microscopy*</i> .	
Si, Zhizhong	Student in Beihang
fu, wenzhi	Beihang University
Xinhe, Wang	Beihang University
LIN, Xiaoyang	Beihang University
15:30-16:30	ThPSPP.16
<i>Simultaneous Nanoscale Imaging and Fabrication Beyond the Diffraction-Limit Using Femtosecond Laser and Microsphere Lens, P&OE</i>	
wen, yangdong	Shenyang Institute of Automation
Yu, Haibo	Chinese Academy of Sciences
Zhao, Wenxiu	Shenyang Institute of Automation, Chinese Academy of Sciences
Li, pan	State Key Laboratory of Robotics, Shenyang Institute of Automati
Liu, Lianqing	Shenyang Institute of Automation, Chinese Academy of Sciences
Li, Wen Jung	City University of Hong Kong
15:30-16:30	ThPSPP.17
<i>Liraglutide Peptide Assembled Micelle As a Bio-Functional Drug Delivery Platform, P&OE</i>	
Sun, Yu	Tongji University
Sun, Min	Tongji University
Zhang, Mingjun	The Ohio State University
Fan, Zhen	Tongji University
15:30-16:30	ThPSPP.18
<i>A Better TID Hardened Dopingless Lateral Bipolar Transistor on SiGe-OI Design, pp. 355-358.</i>	
Lourembam, Beloni	Jawaharlal Nehru University
Kumar, Jitendra	Jawaharlal Nehru University
Srivastava, Asutosh	Jawaharlal Nehru University
ThOBO1	Room 7201
Nanoelectronics: Graphene and Other 2D Materials, CNTs and NWs II (Oral Session)	
Chair: Zhang, Yan	Shanghai University
Co-Chair: Wang, Han	USC
16:30-16:45	ThOBO1.1
<i>Liquid Exfoliated MoO3 Nanosheets for Ammonia Sensing, P&OE</i>	
Sakhuja, Neha	IISc
Jha, Ravindra	IISc
Bhat, Navakanta	Indian Institute of Science, Bangalore
16:45-17:00	ThOBO1.2
<i>Bio-Syncretic Light-Gated Field-Effect Transistor: Fabrication and Characterization, pp. 360-363.</i>	
Yang, Jia	The State Key Laboratory of Robotics, Shenyang Institute of Auto
Wang, Wenxue	Shenyang Institute of Automation, Chinese Academy of Sciences
Li, gongxin	Jiangnan University
Li, Guangyong	University of Pittsburgh
Xi, Ning	University of Hong Kong
Liu, Lianqing	Shenyang Institute of Automation, Chinese Academy of Sciences
17:00-17:15	ThOBO1.3
<i>Analysis of Thermal Treatment Influence on Graphene Oxide Thin Film Deposited by Modified Coating Process, pp. 364-367.</i>	
Kang, Xiaoxu	Shanghai IC R&D Center
Kang, Xiaozhi	State Key Laboratory of ASIC and System, School of Microelectron
Ruoxi, Shen	Shanghai IC R&D Center
Xiaolan, Zhong	Shanghai IC R&D Center
17:15-17:30	ThOBO1.4
<i>Improving the "Improved" Graphene Oxide Synthesis Method, P&OE</i>	
Benzait, Zineb	Nanosience and Nanoengineering Department, Istanbul Technical U
Trabzon, Levent	Istanbul Technical University

Chen, Pengwan	School of Mechatronic Engineering, Beijing Institute of Technolo
17:30-17:45	ThOBO1.5
<i>Experimental Measurements of Thermal Performances of Carbon Nanomaterial with Vertical Structures in Hotspot Heat Dissipation</i> , pp. 370-373.	
Zhang, Yan	Shanghai University
Tan, Longwang	Shanghai University
Yin, Hang	Shanghai University
Zhang, Guoqiang	Shanghai University
Liu, Johan	Chalmers University of Technology
17:45-18:00	ThOBO1.6
<i>Tube Redundancy in Statistical Evaluation of Critical Path Delay of CNFET Circuits in the Presence of Tube Variation</i> , pp. 374-377.	
Vendra, Satya Keerthi	Portland State University
Chrzanowska-Jeske, Malgorzata	Portland State University

ThOBO2	Room 7204
Invited Session: Nano Energy and Smart Systems (Invited Session)	

Chair: Zi, Yunlong	The Chinese University of Hong Kong
Co-Chair: Huang, Bolong	The Hong Kong Polytechnic University
16:30-16:45	ThOBO2.1
<i>Intrinsic Energy Conversions for Photon-Generation in Piezo-Phototronic Materials: A Case Study on Alkaline Niobates (I)</i> , IPDE	
Huang, Bolong	The Hong Kong Polytechnic University
16:45-17:00	ThOBO2.2
<i>Triboelectric Nanogenerators for Self-Powered Motion Detection (I)</i> , IPDE	
Yi, Fang	Sun Yat-Sen University
17:00-17:15	ThOBO2.3
<i>Biomimetic Nanocomposites for Bio-Integrated Electronics (I)</i> , IPDE	
Xu, Lizhi	The University of Hong Kong
17:15-17:30	ThOBO2.4
<i>Fabrication of Stable Perovskite Nanowires and Quantum-Confined Perovskite Nanowire with High Photoluminescence Quantum Yield (I)</i> , IPDE	
FAN, Zhiyong	Hong Kong University of Science and Technology, Hong Kong
17:30-17:45	ThOBO2.5
<i>Direct Imaging of Electron Transfer and Its Influence on Superconducting Pairing at FeSe/SrTiO3 Interface (I)</i> , IPDE	
Zhao, Weiwei	Harbin Insitute of Technology, Shenzhen
17:45-18:00	ThOBO2.6
<i>The Breakdown Limitations and Maximized Output of Triboelectric Nanogenerators Toward Blue Energy (I)</i> , IPDE	
Zi, Yunlong	The Chinese University of Hong Kong

ThOBO3	Room 7205
Invited Session: Nano-Acoustics (Invited Session)	

Chair: Jokerst, Jesse	University of California San Diego
Co-Chair: Bao, Jiming	University of Houston
16:30-16:45	ThOBO3.1
<i>Photoacoustic Imaging with Nanoparticle Contrast Agents for Real-Time Disease Monitoring (I)</i> , IPDE	
Jokerst, Jesse	University of California San Diego
16:45-17:00	ThOBO3.2
<i>Enhanced in Situ Liver Cancer Photoacoustic Imaging and Photothermal Therapy in Mice with Red Blood Cell Membranes Camouflaged Gold Nanostars (I)</i> , IPDE	
Huang, Xiazi	Hong Kong Polytechnic University
Lai, Puxiang	Hong Kong Polytechnic University
17:00-17:15	ThOBO3.3
<i>Laser Streaming: The Product of a Perfect Marriage of Photoacoustics and Acoustic Streaming (I)</i> , IPDE	
Bao, Jiming	University of Houston

17:15-17:30	ThOBO3.4
<i>Ultrasound-Enhanced Delivery of Doxorubicin-Loaded Nanodiamonds from Pullulan-All-Trans-Retinal Nanoparticles for Effective Cancer Therapy (I)</i> , P&OE	
Li, Huanan	Chongqing Medical University
17:30-17:45	ThOBO3.5
<i>A Highly Sensitive Compact Liquid Sensor Based on a Circumferential Mode</i> , P&OE	
lin, qin	Shenzhen Institutes of Advanced Technology Chinese Academy of Sc
cai, feiyan	Shenzhen Institutes of Advanced Technology Chinese Academy of Sc
zheng, hairong	Shenzhen Institutes of Advanced Technology Chinese Academy of Sc
17:45-18:00	ThOBO3.6
<i>Miniaturized Ultrasonic Transducer for Intervention Guidance and Diagnostic Imaging</i> , P&OE	
Qiu, Weibao	Shenzhen Institutes of Advanced Technology, Chinese Academy of S
ThOBO4	Room 7304
Nano-Bio-Imaging (Oral Session)	
Chair: Yu, Haibo	Chinese Academy of Sciences
Co-Chair: Yang, Fang	Southeast University
16:30-16:45	ThOBO4.1
<i>Nanoparticle Assisted Ultrasound Imaging and Therapy</i> , pp. 393-397.	
Ng, Shok-Li	Academia Sinica
Chen, Nelson	National Chiao Tung University
Chan, Yung-Chieh	Academia Sinica
Lai, Tsung-Ching	Academia Sinica
Kosheleva, Olga	Academia Sinica
Hsiao, Michael	Academia Sinica
Chen, Chung-Hsuan	Academia Sinica
16:45-17:00	ThOBO4.2
<i>Bio-Enzyme Sensitive Drug Delivery Nanoliposomes for Tumor Cells Destruction</i> , P&OE	
Liu, Yang	Southeast University
Gu, Ning	Southeast University
Yang, Fang	Southeast University
17:00-17:15	ThOBO4.3
<i>Tamper Evidence of SEM Imaging Attack in Phase Change Memory Nanodevices</i> , pp. 400-404.	
Noor, Nafisa	University of Connecticut
Khan, Raihan	University of Connecticut
Muneer, Sadid	University of Connecticut
Silva, Helena	University of Connecticut
17:15-17:30	ThOBO4.4
<i>Direct Transfer of Dielectric Nanoparticles Assembled Superlens Array for Super-Resolution Imaging</i> , pp. 405-409.	
Li, pan	State Key Laboratory of Robotics, Shenyang Institute of Automati
Yu, Haibo	Chinese Academy of Sciences
wen, yangdong	Shenyang Institute of Automation
Zhao, Wenxiu	Shenyang Institute of Automation, Chinese Academy of Sciences
Liu, Lianqing	Shenyang Institute of Automation, Chinese Academy of Sciences
Li, Wen Jung	City University of Hong Kong
17:30-17:45	ThOBO4.5
<i>Preparation of Novel Nanobubbles Based on Platelet Membrane</i> , P&OE	
Li, Mingxi	Southeast University
Gu, Ning	Southeast University
Yang, Fang	Southeast University
17:45-18:00	ThOBO4.6
<i>Electrosynthesis of Janus Alginate Hydrogel Microcapsules with Programmable Shapes for Cell Encapsulation</i> , pp. 412-416.	
Nan, Haochen	South University of Science and Technology

ThOBO5		Room 7305
Nanoscale Metrology and Characterization (Oral Session)		
Chair: Ganeshkumar, Rajasekaran		Exponent Ltd
Co-Chair: Vasyukov, Denis		METAS
16:30-16:45		ThOBO5.1
<i>Resistance Drift and Crystallization in Suspended and On-Oxide Phase Change Memory Line Cells</i> , pp. 417-420.		
Gorbenko, Anna		University of Connecticut
Noor, Nafisa		University of Connecticut
Muneer, Sadid		University of Connecticut
Khan, Raihan		University of Connecticut
Dirisaglik, Faruk		Eskisehir Osmangazi University
Cywar, Adam		Analog Devices
Shakya, Bicky		University of Florida
Forte, Domenic		University of Florida
Dijk, Marten van		University of Connecticut
Gokirmak, Ali		University of Connecticut
Silva, Helena		University of Connecticut
16:45-17:00		ThOBO5.2
<i>Factors Influencing Ferroelectric Switching Behavior in Perovskite Nanofibers</i> , pp. 421-424.		
Ganeshkumar, Rajasekaran		Exponent Ltd
Zhao, Rong		Singapore University of Technology and Design
17:00-17:15		ThOBO5.3
<i>Concentration Dynamic Probe of Micro/Nano Aluminum Powder</i> , pp. 425-428.		
Fu, ShengHua		Beijing Institute of Technology School of Mechatronical Engineer
17:15-17:30		ThOBO5.4
<i>Fabrication and Measurements of Inductive Devices for Scanning Microwave Microscopy</i> , pp. 429-432.		
le quang, toai		Federal Institute of Metrology
Vasyukov, Denis		METAS
Hoffmann, Johannes		Federal Institute of Metrology
Buchter, Arne		METAS
Zeier, Markus		Federal Institute of Metrology METAS
17:30-17:45		ThOBO5.5
<i>Reliable and Accurate MEMS-Based Thermal Conductivity Characterization Device for Individual Nanowires</i> , pp. 433-436.		
Cui, Yan		Chinese Academy of Sciences
Yang, Yang		Shanghai Institute of Microsystem and Information Technology, Ch
LI, TIE		The Chinese Academy of Sciences
Wang, Yuelin		Chinese Academy of Sciences
17:45-18:00		ThOBO5.6
<i>Implanted Neural Microelectrode Array for In-Situ Extracellular Action Potential and Local Field Potential Detection in Hippocampus of Simulated Microgravity Rats</i> , pp. 437-440.		
Wang, Hao		State Key Laboratory of Transducer Technology, Institute of Elec
Liu, Juntao		Institute of Electronics Chinese Academy of Sciences,
Lu, Zeying		State Key Laboratory of Transducer Technology, Institute of Elec
Xu, Shengwei		Institute of Electronics Chinese Academy of Sciences,
Wang, Yun		State Key Laboratory of Transducer Technology, Institute of Elec
Xie, jingyu		The State Key Laboratory of Transducer Technology, Institute Of
Song, Yilin		The State Key Laboratory of Transducer Technology, Institute Of
Wang, Mixia		The State Key Laboratory of Transducer Technology, Institute Of
Gao, Fei		State Key Laboratory of Transducer Technology, Institute of Elec
Qu, Lina		State Key Laboratory of Space Medicine Fundamentals and Applicat
Cai, Xinxia		Institute of Electronics, Chinese Academy of Sciences,

Friday July 26, 2019

FrPLPL	Room 7201
Plenary Session III (Plenary Session)	
Chair: Wang, Han	USC
Co-Chair: Xie, Hui	Harbin Institute of Technology
09:00-09:40	FrPLPL.1
<i>DNA As an Engineering Material to Bridge between MEMS and Nanotechnology (I)*.</i>	
Tabata, Osamu	Kyoto University
FrKNKN	Room 7201
Keynote Session III (Plenary Session)	
Chair: Wu, Wei	University of Southern California
Co-Chair: Trivedi, Amit	University of Illinois at Chicago
09:40-10:10	FrKNKN.1
<i>Fundamental Properties and Device Prospect of Emerging Low-Dimensional Materials (I)*.</i>	
Wang, Han	USC
FrPIIT	Room 7201
Invited Talks I: NanoManufacturing (Invited Session)	
Chair: Dong-Kyun, Ko	New Jersey Institute of Technology
Co-Chair: Wang, Wenxue	Shenyang Institute of Automation, Chinese Academy of Sciences
10:10-10:25	FrPIIT.1
<i>Plasmonic Structures and Applications Fabricated Using Collapsible Nano-Fingers (I), P&OE</i>	
Wu, Wei	University of Southern California
10:25-10:40	FrPIIT.2
<i>3D Printing Ultrasound Transducers Using Nanoparticle Ceramic Power for Medical Ultrasonic Imaging and Energy Harvesting Applications (I)*.</i>	
Zhou, Qifa	University of Southern Ca
10:40-10:55	FrPIIT.3
<i>Bioinspired Peptide Assemblies with Tunable Optical Properties and Their Biomedical Applications (I)*.</i>	
Fan, Zhen	Tongji University
FrOIIT	Room 7201
Invited Talks II: NanoElectronics (Invited Session)	
Chair: Xie, Hui	Harbin Institute of Technology
Co-Chair: Dong-Kyun, Ko	New Jersey Institute of Technology
11:15-11:30	FrOIIT.1
<i>Silver Nanoflower Based High Sensitivity Adenine Sensors by SERS, P&OE</i>	
Tzeng, Yonhua	National Cheng Kung University
11:30-11:45	FrOIIT.2
<i>Mixed-Mode Magnetic Tunnel Junction-Based Deep Belief Network (I), pp. 443-448.</i>	
Nasrin, Shamma	University of Illinois at Chicago
Drobitch, Justine	Virginia Commonwealth University
Bandyopadhyay, Supriyo	Virginia Commonwealth University
Trivedi, Amit	University of Illinois at Chicago
11:45-12:00	FrOIIT.3
<i>Nanocrystal Based Electronic Devices and Sensors (I), P&OE</i>	
Oh, Soong Ju	Korea University
12:00-12:15	FrOIIT.4
<i>Progress and Perspectives of Carbon Nanotubes Electronics (I), P&OE</i>	
Tang, Jianshi	Tsinghua University
12:15-12:30	FrOIIT.5
<i>Bio-Syncretic Robotics Based on the Integration of Living Materials and Electromechanical Systems (I)*.</i>	
Wang, Wenxue	Shenyang Institute of Automation, Chinese Academy of Sciences

12:30-12:45	FrOIT.6
<i>Fluoro-Graphene and MoS2 for Transistors and Memory Devices (I)*.</i>	
Lai, Chao-Sung	Department of Electronic Engineering, Chang Gung University

FrOIS	Room 7204
Invited Session: Materials Innovation for Next-Generation Spintronics (Invited Session)	

Chair: LIN, Xiaoyang	Beihang University
Co-Chair: Liu, Kai	Tsinghua University

11:15-11:30	FrOIS.1
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<i>Electrical Switching of Antiferromagnet (I), PDE</i>	
Song, Cheng	Tsinghua University

11:30-11:45	FrOIS.2
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<i>Electric-Field Control of Magnetism in Multiferroic Heterostructures (I), PDE</i>	
Zhao, Yonggang	Tsinghua University

11:45-12:00	FrOIS.3
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<i>Quest of High Efficiency Spintronic Terahertz Emitter with Tunable Property (I), PDE</i>	
NIE, Tianxiao	Beihang University

12:00-12:15	FrOIS.4
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<i>Magnetic Memory with Topological Insulators and Ferrimagnetic Insulators (I), PDE</i>	
Shao, Qiming	UCLA

12:15-12:30	FrOIS.5
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<i>Optical Control of Magnetism in Phase-Change Spintronic Heterostructures (I), PDE</i>	
LIN, Xiaoyang	Beihang University

FrOAO1	Room 7201
Nanorobotics and Nanomanipulation I (Oral Session)	

Chair: Yue, Tao	Shanghai University
Co-Chair: Liu, Meng	Chinese Academy of Sciences

14:00-14:15	FrOAO1.1
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<i>Detection of Peritoneal Metastasis Cancer Cells Based on Optically Induced Dielectrophoresis (ODEP) Microfluidic Chip, PDE</i>	
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Zhang, Yuzhao	Shenyang Institute of Automation, Chinese Academy of Sciences
Li, pan	State Key Laboratory of Robotics, Shenyang Institute of Automati
Yu, Haibo	Chinese Academy of Sciences
wen, yangdong	Shenyang Institute of Automation
Liu, Lianqing	Shenyang Institute of Automation, Chinese Academy of Sciences
Li, Wen Jung	City University of Hong Kong

14:15-14:30	FrOAO1.2
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<i>Nanoscale Manipulation for the Fabrication of Field-Emission Air-Channel Transistors, pp. 459-462.</i>	
Liu, Meng	Chinese Academy of Sciences
Lei, Yu	Chinese Academy of Sciences
LI, TIE	The Chinese Academy of Sciences
Wang, Yuelin	Chinese Academy of Sciences

14:30-14:45	FrOAO1.3
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<i>Analysis and Evaluation of Micromanipulation Performance Based on Swirl, pp. 463-467.</i>	
Qin, Zhang	South China University of Technology
Yang, Hao	South China University of Technology
Ou, Zhiming	South China University of Technology

14:45-15:00	FrOAO1.4
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<i>Quantifying Nano-Scale Single Cell Mechanics for Clinical Applications, PDE</i>	
Yue, Tao	Shanghai University

15:00-15:15	FrOAO1.5
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<i>Stick-Slip Motion Style of Magnetic Field Actuated Microrobots, pp. 469-472.</i>	
zheng, jianghong	FuZhou University
Zhan, Ziheng	Fuzhou University
Wei, Fanan	Fuzhou University

15:15-15:30	FrOAO1.6
<i>Injection Lock Frequency Divider with Class-C Coupled VCO for Nanoelectronics Harmonic Demodulator of Fluxgate Sensing</i> , pp. 473-476.	
Lai, Wen Cheng	National Penghu Univ. of Science and Technology, Taiwan
FrOAO2	Room 7204
Invited Session: Magnetic Skyrmions (Invited Session)	
Chair: Wang, Kang	Beihang University
Co-Chair: Zhou, Yan	The Chinese University of Hong Kong, Shenzhen
14:00-14:15	FrOAO2.1
<i>Magnetic Skyrmions, Bimerons and Antiskyrmions in New Materials (I)</i> , P&OE	
Zhou, Yan	The Chinese University of Hong Kong, Shenzhen
14:15-14:30	FrOAO2.2
<i>Magnetic Bobbers in Chiral Magnet (I)</i> , P&OE	
Du, Haifeng	High Magnetic Field Laboratory, Chinese Academy of Science
14:30-14:45	FrOAO2.3
<i>Skyrmions in Curved Magnetic Film (I)</i> , P&OE	
Liu, Yan	College of Sciences, Northeastern University
14:45-15:00	FrOAO2.4
<i>Efficient Manipulation of Ferro and Ferri-Magnetic Skyrmions (I)</i> , P&OE	
Lei, Na	Beihang University
15:00-15:15	FrOAO2.5
<i>New Ideas and Translational Applications of Magnetic Skyrmions (I)</i> , P&OE	
Wang, Chen	University of Electronic Science and Technology of China
FrOAO3	Room 7205
Invited Session: Computing with Nanotechnologies (Invited Session)	
Chair: Liu, Weiqiang	Nanjing University of Aeronautics and Astronautics
Co-Chair: Zhang, Yue	Beihang University
14:00-14:15	FrOAO3.1
<i>Emerging Spintronic Devices and Circuits: From Logic and Memory to Logic-In-Memory (I)</i> , P&OE	
Zhang, Yue	Beihang University
14:15-14:30	FrOAO3.2
<i>DNA Computing for Combinational Logic (I)</i> , P&OE	
Zhang, Chuan	Southeast University
14:30-14:45	FrOAO3.3
<i>Enabling New Computing Paradigms with Emerging Memory Transistors (I)</i> , P&OE	
Li, Xueqing	Tsinghua University
14:45-15:00	FrOAO3.4
<i>Tunable MRAM-On-FDSOI Bit-Cell towards Energy Efficiency for In-Memory Computing (I)</i> , P&OE	
Cai, Hao	Southeast University
15:00-15:15	FrOAO3.5
<i>Majority-Logic Based Approximate Computing (I)</i> , P&OE	
Liu, Weiqiang	Nanjing University of Aeronautics and Astronautics
FrOAO4	Room 7304
Nanobiology and Nanomedicine (Oral Session)	
Chair: Cai, Xinxia	Institute of Electronics, Chinese Academy of Sciences,
Co-Chair: Wang, Wenxue	Shenyang Institute of Automation, Chinese Academy of Sciences
14:00-14:15	FrOAO4.1
<i>Detection of the Neuronal Electrophysiological Activity in the Hippocampus of Rats under the Modulation of Caged-GABA Delivered by Nano-Liposomes</i> , P&OE	
Xie, jingyu	The State Key Laboratory of Transducer Technology, Institute Of
Song, Yilin	The State Key Laboratory of Transducer Technology, Institute Of
Li, Ziyue	State Key Laboratory of Transducer Technology, Institute of Elec

Dai, Yuchuan	State Key Laboratory of Transducer Technology, Institute of Elec
Gao, Fei	State Key Laboratory of Transducer Technology, Institute of Elec
Li, Xuanyu	Beijing Engineering Research Center for BioNanotechnology, CAS K
zhang, yu	The State Key Laboratory of Transducer Technology, Institute Of
Wang, Hao	State Key Laboratory of Transducer Technology, Institute of Elec
Lu, Zeying	State Key Laboratory of Transducer Technology, Institute of Elec
Zheng, Wenfu	Beijing Engineering Research Center for BioNanotechnology, CAS K
Cai, Xinxia	Institute of Electronics, Chinese Academy of Sciences,
14:15-14:30	FrOAO4.2
<i>Implantable Microelectrode Arrays for Electrophysiological Activity Detection in Cortex of Sleep Deprived Rats</i> , pp. 491-494.	
Lu, Zeying	State Key Laboratory of Transducer Technology, Institute of Elec
Xu, Shengwei	Institute of Electronics Chinese Academy of Sciences,
Wang, Hao	State Key Laboratory of Transducer Technology, Institute of Elec
Liu, Juntao	Institute of Electronics Chinese Academy of Sciences,
Wang, Yun	State Key Laboratory of Transducer Technology, Institute of Elec
Xie, jingyu	The State Key Laboratory of Transducer Technology, Institute Of
Song, Yilin	The State Key Laboratory of Transducer Technology, Institute Of
Gao, fei	The State Key Laboratory of Transducer Technology, Institute Of
Dai, Yuchuan	State Key Laboratory of Transducer Technology, Institute of Elec
Qu, Lina	State Key Laboratory of Space Medicine Fundamentals and Applicat
Cai, Xinxia	Institute of Electronics, Chinese Academy of Sciences,
14:30-14:45	FrOAO4.3
<i>Nanotopography-Induced Cell Growth with Enhanced Maturation on Polymer Substrates</i> , pp. N/A	
WU, Cong	City University of Hong Kong
Jia, Boliang	City University of Hong Kong
Chan, Hoyin	City University of Hong Kong
Li, Wen Jung	City University of Hong Kong
14:45-15:00	FrOAO4.4
<i>Catalytic Cerium Oxide Nanoparticles in Nanomedicine and Their Use in Liver Diseases</i> , pp. 497-500.	
Casals, Eudald	School of Biotechnology and Health Sciences, Wuyi University, Ji
Zeng, Muling	School of Biotechnology and Health Sciences, Wuyi University, Ji
Parra, Marina	Hospital Clinic of Barcelona
Fernández-Varo, Guillermo	Hospital Clinic of Barcelona
Jiménez, Wladimiro	Hospital Clinic of Barcelona
Puntes, Victor	Vall d'Hebron Institut of Research (VHIR), Barcelona, Spain, Cat
Casals, Gregori	Hospital Clinic of Barcelona
15:00-15:15	FrOAO4.5
<i>Estimation of Bacteria Death on the Nanostructural Surface Using Electrochemical Impedance Spectroscopy</i> , N/A.	
Ito, Takeshi	Kansai University
Masuda, Kyosuke	Kansai University
Jindai, Keisuke	Kansai University
Kojima, Hiroaki	NICT
yamashita, ichiro	Nara Institute of Science and Technology
Shimizu, Tomohiro	Kansai University
Shingubara, Shoso	Kansai University
FrOAO5	Room 7305
Nanoelectronics (Oral Session)	
Chair: Rezk, Ayman	Khalifa University
Co-Chair: Zhang, Shuye	State Key Laboratory of Advanced Welding and Joining, Harbin Institute of Technology
14:00-14:15	FrOAO5.1
<i>Impact of Silver Nano-Particles on Metal Si Schottky Contact</i> , N/A.	
Rezk, Ayman	Khalifa University

Abbas, Yawar	Khalifa University
Saadat, Irfan	Khalifa University
Nayfeh, Ammar	Masdar Institute of Science and Technology
Rezeq, Moh'd	Khalifa University of Science, Technology & Research (KUSTAR)
14:15-14:30	FrOAO5.2
<i>Atomic Layer of ZnO Deposition on Ag Nanowires for Novel Electrical Applications</i> , pp. 507-511.	
Zhang, Shuye	State Key Laboratory of Advanced Welding and Joining, Harbin Ins
Liu, Xu	Harbin Institute of Technology
Lin, Tiesong	Harbin Institute of Technology
He, Peng	Harbin Institute of Technology
14:30-14:45	FrOAO5.3
<i>Resistive Switching in Single Core-Shell Nanoparticles</i> , pp. 512-516.	
Speckbacher, Maximilian	Technical University of Munich
Ji, Xinrui	TU Munich
Tornow, Marc	TU München
14:45-15:00	FrOAO5.4
<i>Synaptic Behavior of Flexible IGZO TFTs with Al₂O₃ Gate Insulator by Low Temperature ALD</i> , pp. 517-520.	
Park, Shinyoung	Kookmin University
Jang, Jun Tae	Kookmin University
Choi, Sung-Jin	Kookmin University
Kim, Dong Myong	Kookmin University
Kim, Dae Hwan	Kookmin University
15:00-15:15	FrOAO5.5
<i>Silicon Nanogap Electrode Engineering for Organic Monolayer Field Effect Transistors</i> , pp. 521-525.	
Pfaehler, Simon	TU München
Pathak, Anshuma	Technische Universität München
Liao, Kung-Ching	Princeton University
Schwartz, Jeffrey	Princeton University
Tornow, Marc	TU München
15:15-15:30	FrOAO5.6
<i>Novel Organic Metallic Hybrid Polymer of Redox Non-Innocent Tridentate Schiff's Base Organic Ligand: Study of Electrochromic and Non-Volatile Memristive Properties*</i> .	
Oberoi, Deepa Ghune	IIT Roorkee
Bandyopadhyay, Anasuya	Indian Institute of Technology Roorkee, India

FrOBO1	Room 7201
Nanorobotics and Nanomanipulation II (Oral Session)	
Chair: Lee, Chengkuo	National University of Singapore
Co-Chair: Zhao, Qili	Nankai University
15:45-16:00	FrOBO1.1
<i>Experimental Verification of Guidance and Search Strategy of Nanobots under Magnetic Field Control in Grid Network</i> , pp. 526-529.	
Shi, Shaolong	Southern University of Science and Technology
Xiong, Junfeng	Southern University of Science and Technology
ZHOU, YU	Beijing Institute of Collaborative Innovation
CHEN, YIFAN	The University of Waikato
Cheang, U Kei	Southern University of Science and Technology
16:00-16:15	FrOBO1.2
<i>Augmented Reality-Based Precise Oocyte Enucleation</i> , pp. 530-534.	
Feng, Zeyang	Nankai University
Zhao, Qili	Nankai University
Liu, Yaowei	Nankai University
Sun, Mingzhu	Nankai University
Zhao, Xiangfei	Nankai University
Cui, Maosheng	Institute of Animal Sciences
Zhao, Xin	Nankai University
16:15-16:30	FrOBO1.3
<i>Augmented Multidimensional Nano-Manipulation Terminal Using Triboelectric Strip Sensors</i> , DOI	

ZHU, MINGLU Chen, Tao Lee, Chengkuo	National University of Singapore Research Institute Soochow University National University of Singapore
16:30-16:45	FrOBO1.4
<i>Nanorobot Assisted Self-Soldering Investigation between PVP-Coated Silver Electrodes and Carbon Nanotubes</i> , pp. 541-545.	
Yu, Zhiqiang Shi, Qing Dong, Lixin Wei, Zihou Wang, Huaping Wang, Haojun Huang, Qiang Fukuda, Toshio	Beijing Institute of Technology Beijing Institute of Technology City University of Hong Kong Beijing Institute of Technology Beijing Institute of Technology Michigan State University Intelligent Robotics Institute, School of Mechatronic Engineerin Nagoya University
16:45-17:00	FrOBO1.5
<i>Untethered Micromachines Using Magnetic Nanoparticles for Wireless Assembly of Cell-Laden Heterogeneous Micromodules</i> , pp. 546-551.	
Li, Jianing Wang, Huaping Shi, Qing Zheng, Zhiqiang Cui, Juan Sun, Tao Huang, Qiang Fukuda, Toshio	Beijing Institute of Technology Beijing Institute of Technology Beijing Institute of Technology Beijing Institute of Technology Beijing Institute of Technology Beijing Institute of Technology Intelligent Robotics Institute, School of Mechatronic Engineerin Nagoya University
FrOBO2	Room 7204
Invited Session: Low-Dimensional Materials, Devices and Applications (Invited Session)	
Chair: Tang, Jianshi Co-Chair: Kim, Jeehwan	Tsinghua University MIT
15:45-16:00	FrOBO2.1
<i>Stackable Electronics Enabled by Freestanding 2D & 3D Materials (I)</i> , P&DE	
Kim, Jeehwan	MIT
16:00-16:15	FrOBO2.2
<i>Nanoscale Devices Based on Two-Dimensional Materials and Ferroelectric Materials (I)</i> , P&DE	
Zhu, Wenjuan	University of Illinois at Urbana-Champaign
16:15-16:30	FrOBO2.3
<i>Toward High-Mobility and Low-Power 2D MoS2 Field-Effect Transistors (I)</i> , P&DE	
wang, xinran	Nanjing University
16:30-16:45	FrOBO2.4
<i>Electronic Devices Based on Two-Dimensional Materials and Heterostructures (I)</i> , P&DE	
Wu, Yanqing	Peking University
16:45-17:00	FrOBO2.5
<i>Microelectrode Arrays for Large Scale Clinical Mapping: Electrochemical and Density Considerations (I)</i> , P&DE	
Dayeh, Shadi	University of California San Diego
17:15-17:30	FrOBO2.6
<i>Optoelectronic Devices Based on Graphene and Its Related Heterostructures (I)*</i> .	
Xu, Jian-Bin	The Chinese Universtiy of Hong Kong
FrOBO3	Room 7205
Invited Session: Dynamics on DNA Nanostructure (Invited Session)	
Chair: Tabata, Osamu Co-Chair: Yagyu, Hiromasa	Kyoto University Kanto Gakuin University
15:45-16:00	FrOBO3.1
<i>Nanostructures and Mechanical Properties of DNA Origami Constructed with Different Crossover/Nick Designs (I)</i> , P&DE	
Ma, Zhipeng	Zhejiang University

16:00-16:15	FrOBO3.2
<i>Mechanical Analysis and Design for DNA Nanostructures (I)</i> , PDE	
Kim, Do-Nyun	Seoul National University
16:15-16:30	FrOBO3.3
<i>Coarse-Grained Molecular Dynamics DNA Model for DNA Origami Nanostructures (I)</i> , PDE	
Yagyu, Hiromasa	Kanto Gakuin University
16:30-16:45	FrOBO3.4
<i>Surface-Enhanced Raman Spectroscopy of DNA with Single-Molecule Sensitivity Using Gold Nanoparticle Dimer (I)</i> , PDE	
Sugano, Koji	Kobe University
16:45-17:00	FrOBO3.5
<i>Rapid DNA Origami Assembly by Fast Heat Exchange and Small Diffusion Length (I)</i> , PDE	
Kawai, Kentaro	Osaka University
FrOBO4	Room 7304
Modeling and Simulation (Oral Session)	
Chair: Yeow, John T.W.	University of Waterloo
Co-Chair: Dong-Kyun, Ko	New Jersey Institute of Technology
15:45-16:00	FrOBO4.1
<i>SPICE Compact Model of IGZO Memristor Based on Non-Quasi Statically Updated Schottky Barrier Height</i> , pp. 562-565.	
Jang, Jun Tae	Kookmin University
Min, Jungi	Kookmin University
Kim, Donguk	Kookmin University
Park, Jingyu	Kookmin University
Choi, Sung-Jin	Kookmin University
Kim, Dong Myong	Kookmin University
Kim, Dae Hwan	Kookmin University
16:00-16:15	FrOBO4.2
<i>Development of Design Models for Nanomagnetic Logic Based Combinatorial Subsystem</i> , pp. 566-571.	
Oraon, Neha	International Institute of Information Technology Bangalore
Rao, Madhav	International Institute of Information Technology Bangalore
16:15-16:30	FrOBO4.3
<i>The Field Emission Properties of a New Design: Multi-Pixel Carbon Nanotube Field Emitter for Imaging Application</i> , pp. 572-575.	
Yeow, John T.W.	University of Waterloo
Sun, Yonghai	University of Waterloo
Cheraghi, Elahe	Department of Systems Design Engineering, University of Waterloo
Liu, Jiayu	University of Waterloo
Chen, Siyuan	University of Waterloo
16:30-16:45	FrOBO4.4
<i>Performance Enhancement of MEMS Based Piezoelectric Pressure Sensor Using Multistep Configuration</i> , pp. 576-579.	
Bhargava, Mudit	SRM Institute of Science and Technology
Tamboli, Alkausil	SRM University
Kandhasamy, Sivanathan	SRM Institute of Science and Technology
16:45-17:00	FrOBO4.5
<i>Highly Symmetrical Cross Nanoantenna Enhanced Random-Oriented Dipole Emission</i> , PDE	
Sun, Song	CAEP Microsystem & Terahertz Research Center
Li, Ma	CAEP Microsystem & Terahertz Research Center
Zhang, Taiping	CAEP Microsystem & Terahertz Research Center
Li, Mo	CAEP Microsystem & Terahertz Research Center
FrOBO5	Room 7305
Nano-Optics, Nano-Optoelectronics, and Nanophotonics (Oral Session)	
Chair: Baek, Chang-Ki	POSTECH / CiTES
Co-Chair: ZHOU, HANG	Peking University Shenzhen Graduate School
15:45-16:00	FrOBO5.1

Interface Engineering to Enhance Photoresponse of Core-Shell Silicon Nanowire Photodetectors, pp. 583-586.
 Kim, Kihyun Pohang University of Science and Technology
 YOON, SOL Pohang University of Science and Technology
 Cho, Hyeonsu Pohang University of Science and Technology (POSTECH)
 Meyyappan, M. NASA Ames Research Center
 Baek, Chang-Ki POSTECH / CITES

16:00-16:15 FrOBO5.2

Size Effect of Inkjet Printed Glycerol-Based Superlenses in Super-Resolution Imaging, pp. N/A
 Jia, Boliang City University of Hong Kong
 Chan, Hoyin City University of Hong Kong
 Wang, Feifei Stanford University
 Zhang, Guanglie City University of Hong Kong
 Li, Wen Jung City University of Hong Kong

16:15-16:30 FrOBO5.3

Patterning Perovskite Thin Film Via CYTOP Assisted Photolithography Process, pp. 589-592.
 Yan, Lizhi Peking University Shenzhen Graduate School
 Zou, Taoyu Peking University Shenzhen Graduate School
 Liu, Xiyuan Peking University Shenzhen Graduate School
 ZHOU, HANG Peking University Shenzhen Graduate School

16:30-16:45 FrOBO5.4

Strongly Enhanced Second and Third-Harmonic Generation in Graphene Metasurfaces, N/A.
 You, Jian Wei University College London
 Qun, Ren University College London
 Panoiu, Nicolae UCL

16:45-17:00 FrOBO5.5

Localized Surface Plasmon Resonance Scanning Microscopy with Optical Antenna on Fiber Taper, N/A.
 Chen, Cheng Shanghai Jiao Tong University
 Li, Hongquan Stanford University
 Li, Hui Shanghai Jiao Tong University
 Lei, Zeyu Shanghai Jiao Tong University
 Yang, Tian Shanghai Jiao Tong University

17:15-17:30 FrOBO5.6

Silver Selenide Colloidal Quantum Dots for Low-Cost Mid-Wavelength Infrared Optoelectronics, N/A.
 Shihab Bin, Hafiz New Jersey Institute of Technology
 Michael, Scimeca New York University
 Ayaskanta, Sahu New York University
 Dong-Kyun, Ko New Jersey Institute of Technology