

Symposia – F02

From Thin Film to Nanomembranes: Materials, Devices and Systems

Oct 15 (Sunday), 2023

Conference Room: 5605, #6 floor

9:00-10:35 Session I

Chair: Yongfeng Mei

9:00-9:30 (F02-01)

Area-selective Thin Film Deposition using Isothermal Integrated Atomic Layer Deposition and Atomic Layer Etching (Plenary)

Gregory Parsons, North Carolina State University, USA

9:30-9:55 (F02-02)

Molecular/Atomic Layer Deposition of Hybrid Dielectrics for Flexible Electronic Devices (Invited)

Xinwei Wang, Peking University Shenzhen Graduate School, China

9:55-10:20 (F02-03)

Fabrication of flexible optoelectronic devices by Atomic Layer Deposition (Invited)

Yu Duan, Jilin University, China

10:20-10:35 (F02-04)

In situ growth of Pt nanoparticles on metal-organic frameworks nanosheets induced by atomic layer deposition technique for efficient alkaline hydrogen evolution (Oral)

Guoxiang Chen, Yiwu Research Institute of Fudan University, China

10:35-10:45 Coffee Break

10:45-12:00 Session II

Chair: Jizhai Cui

10:45-11:10 (F02-05)

Phosphorus-based anode materials for fast-charging Li-ion batteries (Invited)

Hengxing Ji, University of Science and Technology of China, China

11:10-11:35 (F02-06)

Intelligent Photothermal Regulation Materials and Devices for Energy-efficient Applications (Invited)

Xun Cao, Shanghai Institute of Ceramics, Chinese Academy of Sciences, China

11:35-12:00 (F02-07)

Supercapacitor Devices for Biomedical Applications (Invited)

Hongwei Sheng, Lanzhou University, China

12:00-13:30 Lunch

13:30-15:25 Session III

Chair: Enming Song

13:30-13:55 (F02-08)

Approach for high-density integration of intrinsically stretchable electronics (Invited)

Yuqing Zheng, Peking University, China

13:55-14:20 (F02-09)

Soft tactile sensors for biomedicine (Invited)

Mengdi Han, Peking University, China

14:20-14:45 (F02-10)

Ultraflexible Organic Electronics Towards Seamless Human Integration (Invited)

Xiaomin Xu, Tsinghua Shenzhen International Graduate School, China

14:45-15:10 (F02-11)

Microscale Optoelectronic Devices for Advanced Neural Interfaces (Invited)

Xing Sheng, Tsinghua University, China

15:10-15:25 (F02-12)

Materials and Strategies for Multifunctional Flexible Temperature Sensors (Oral)

Haonan Zhao, Shandong University, China

15:25-15:35 Coffee break

15:35-17:45 Session IV

Chair: Wen Huang

15:35-16:00 (F02-13)

Integrated Thin Film Communication Photonic Devices (Invited)

Ping Ma, University of Science and Technology of China, China

16:00-16:25 (F02-14)

Graphene Transistor Sensors (Invited)

Yuehang Xu, University of Electronic Science and Technology of China, China

16:25-16:50 (F02-15)

High-Efficiency Blue-Emission Crystalline OLEDs (Invited)

Feng Zhu, Changchun Institute of Applied Chemistry Chinese Academy of Sciences, China

16:50-17:15 (F02-16)

Redefinable Microwave Devices Enabled by

Phase Transition Thin Films (Invited)
Lei Sang, Hefei University of Technology, China

17:15-17:30 (F02-17)
Engineering Semiconductors towards Noble-Metal-Comparable SERS Sensitivity (Oral)
Xingce Fan, Southeast University, China

17:30-17:45 (F02-18)
On Demand Fabrication of Nanoarrays with Complex Composites by Porous Alumina Nanomembranes (Oral)
Qi Hao, Southeast University, China

17:45 Dinner

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Oct 16 (Monday), 2023

9:00-10:40 Session I
Chair: Xiangzhong Chen

9:00-9:25 (F02-19)
Reconfigurable photodetection from two-dimensional materials (Invited)
Jinshui Miao, Shanghai Institute of Technical Physics, Chinese Academy of Sciences, China

9:25-9:50 (F02-20)
Two-dimensional ferroelectric devices based on van der Waals heterostructure (Invited)
Shuoguo Yuan, China University of Geosciences, Wuhan, China

9:50-10:15 (F02-21)
Ferroelectricity in freestanding hafnia-based nanomembranes (Invited)
Chen Ge, Institute of Physics, Chinese Academy of Sciences, China

10:15-10:40 (F02-22)
Integration status and challenges of 2D transition metal dichalcogenides based high-performance logic devices (Invited)
Yuanyuan Shi, University of Science and Technology of China, China

10:40-10:50 Coffee Break

10:50-12:00 Session II
Chair: Qinglei Guo

10:50-11:15 (F02-23)
Piezoelectric Behavior of Single-Layer Oxidized-MXene for Nanogenerators and Piezotronics (Invited)

Chengming Jiang, Dalian University of Technology, China

11:15-11:30 (F02-24)
Piezoelectric poly-L-actic acid film-based unimodal strain sensors (Oral)
Lu Jin, Yiwu Research Institute of Fudan University, China

11:30-11:45 (F02-25)
Magnetically Anisotropic Tubular Microrobots for Adaptive Locomotion and Non-contact Cargo Transportation (Oral)
Guanghai Yan, Yiwu Research Institute of Fudan University, China

11:45-12:00 (F02-26)
Untethered cargo transport and release of soft magnetic robot under magnetic and optical modulation (Oral)
Yi Ouyang, Yiwu Research Institute of Fudan University, China

12:00 Lunch