



OCTOBER 22-25, 2018 - GUILIN, CHINA

TENTATIVE PROGRAM

19/10/2018

Plenary session - Monday October 22, 2018

08:00 – 09:00: Registration

09:00 – 09:30: Opening ceremony

09:30 – 10:15: **Kostya Novoselov** (University of Manchester, UK) P
Materials in the Flatland

10:15 – 10:45: Coffee Break – Poster session & Exhibition

10:45 – 11:15: **Hui-Ming Cheng** (Chinese Academy of Sciences, China) K
Fabrication of Graphene and Other 2D Materials by Exfoliation

11:15 – 11:45: **Zhongfan Liu** (Peking University, China) K
CVD Graphene: Scalable Growth and Beyond

11:45 – 12:15: **Wanlin Guo** (Nanjing University of Aeronautics & Astronautics, China) K
Emerging Hydrovoltaic Technology

12:15 – 12:45: **Hailin Peng** (Peking University, China) K
High-Mobility 2D Crystals: Controlled Synthesis and Functional Devices

12:45 – 14:15: Buffet Lunch

14:15 – 14:45: **Jun Chen** (Nankai University, China) K
Inorganic/organic and carbon composites for Li/Na Batteries

14:45 – 15:00: **Zhenyuan Xia** (Chalmers University of Technology, Sweden) O
Three-Dimensional Multilayer Graphene-Fe₂O₃ Foam Composites and Their Application in Energy Storage

15:00 – 15:15: **Hai Wang** (Guilin University of Technology, China) O
Consideration on the structure of Mo-based anode materials for improving lithium storage performance

15:15 – 15:45: **Xiangfeng Duan** (University of California, USA) K
Van der Waals Integration beyond 2D Materials

15:45 – 16:30: Coffee Break – Poster session & Exhibition

16:30 -17:00: **Qiaoliang Bao** (Monash University, Australia) I
Photonic and Optoelectronic Device Applications Based on 2D Materials

17:00 – 17:30: **Goki Eda** (NUS, Singapore) I
Photonics of 2D semiconductors

17:30 – 18:00: **Jian-Bin Xu** (The Chinese University of Hong Kong, China) I
Optoelectronic Devices Based on Graphene-Like Materials and their Related Heterostructures

Parallel workshops - Tuesday October 23, 2018

2018 New Materials Industrialization Investment Forum (CGIU)

08:30 – 09:00: **Sign-in**

09:00 – 09:10: **Opening**

- Play video to introduce CIGIU

09:10 – 09:30: **Speeches**

- ✧ Ruxiang Ruan, Permanent Vice Chairman of CIGIU
- ✧ Leaders from Guilin Municipal Science and Technology Bureau
- ✧ Dr. Antonio Correia, President of Phantoms Foundation
- ✧ Prof. Francesco Bonaccorso, Member of the Development Committee of European Graphene Flagship

09:30 – 10:30: **Report Presentation**

- ✧ Konstantin Novoselov, winner of 2010 Nobel Prize in Physics, Professor at the University of Manchester
- ✧ Prof. Cheng Huiming, Academician of Chinese Academy of Sciences and the Third World Academy of Sciences

10:30 – 11:00: **Coffee Break**

11:00 – 12:30: **Special Presentation**

- ✧ Promotion of domestic new materials industrial parks
Presenter: The management committee of Rugao Port, Jiangsu
- ✧ Financial and investment institutions
Presenter: To be determined
- ✧ Promotion of Beijing Institute of Graphene Technology
Presenter: Wang Gang, Vice Dean of Beijing Institute of Graphene Technology
- ✧ Intelligent graphene instrument and equipment industrialization
Presenter: Yu Geliang, Professor at Nanjing University, President of Wuxi Feiman Technology Co., Ltd.
- ✧ TS carbon fiber conductor and graphene-like advanced carbon materials
Presenter: Dr. Jason Huang, Member of CIGRE SC B2, Executive Committee Member of USNC CIGRE.

12:30: **End**

Parallel Workshop 1

09:00 – 09:30: **Aitor Mugarza** (ICN2, Spain) I
Engineering nanoporous graphene with atomic precision

09:30 – 09:45: **Geng Li** (Institute of Physics, CAS, China) O
Construction of graphene/silicene heterostructure by Si intercalation

09:45 – 10:00: **ZhengMing Wu** (SwissLitho AG, Switzerland) O
Fabrication of sub-20 nm Metal Electrodes on 2D Materials without a Charged Particle Beam

10:00 – 10:30: Poster session & Exhibition

10:30 – 11:00: Coffee Break – Poster session & Exhibition

Parallel Workshop 1

11:00 – 11:30: **Jinsong Hu** (Institute of Chemistry, Chinese Academy of Science, China) I
2D Germanium Selenide for Photovoltaics and Optoelectronics

11:30 – 12:00: **Ching-Yuan Su** (National Central University, Taiwan, China) I
Rational Design of Nanostructured and Functionalized Graphene and Their Applications for Electronics and Energy Devices

12:00 – 12:30: **Li Tao** (Southeast University, China) I
Emerging 2D Xenes for Innovative Nanoelectronics

12:30 – 14:00: Buffet Lunch

Parallel Workshop 3

14:00 – 14:30: **Takamasa Kawanago** (Tokyo Institute of Technology, Japan) I
Two-Dimensional Inorganic/Organic Hetero Interface for Field-Effect Transistor Applications

14:30 – 15:00: **Keun Su Kim** (Yonsei University, South Korea) I
Bandgap engineering of two-dimensional semiconductors

15:00 – 15:15: **Carla Bittencourt** (University of Mons, Belgium) O
Molybdenum Disulfide as Surface Enhanced Raman Scattering Substrates for Sensing Polycyclic Aromatic Hydrocarbons

15:15 -15:30: **Shaolin Zhang** (Guangzhou University, China) O
Preparation and mechanism of molybdenum diselenide nanosheets for ethanol detection

15:30 -16:00: **Yen-Fu Lin** (National Chung Hsing University, Taiwan, China) I
Performance potential and limit in van der Waals MoTe₂ Transistors

16:00 – 16:30: Coffee Break – Poster session & Exhibition

Parallel Session PhD Students

16:30 – 16:45: **Suyan Shan** (Wenzhou Medical University, China) O
The fibroblast growth factor modified nitrogen-containing graphene for regeneration of photo-damaged retinal pigment epithelial cells

- 16:45 – 17:00: **Huibing Lu** (Guilin University of Technology, China) O
Controllable synthesis of 2D Cr-doped MoO_{2.5}(OH)_{0.5} nanosheets and application in Lithium Ion Batteries
- 17:00 – 17:15: **Zhi Wang** (Institute of metal research, Chinese academy and sciences, China) O
Electric-field control of magnetism in a few-layered van der Waals ferromagnetic semiconductor
- 17:15 – 17:30: **Munindra** (Delhi Technological University, India) O
Quantum Capacitance Effect in Graphene-Metal-Oxide-Semiconductor Field Effect Transistor with Large Area Graphene Channel
- 17:30 – 17:45: **Rizwan Ur Rehman Sagar** (Tsinghua University, China) O
Magneto-transport Properties of Graphene Foam
- 17:45 – 18:00: **Inyong Moon** (Sungkyunkwan University, South Korea) O
Measurements of Fermi Level and Doping Concentration of 2D Transition Metal Dichalcogenide Using Kelvin Probe Force Microscopy
- 18:00 – 18:15: **Mohan Ghimire** (Sungkyunkwan University, South Korea) O
Graphene-CdSe quantum dot hybrid as a platform for the control of carrier temperature
- 18:15 – 18:30: **Dewu Yue** (SKKU advance institute of nano technology, South Korea) O
High Performance Two-dimensional Semiconductors established by using a Benzyl Viologen Interlayer

Parallel workshops - Tuesday October 23, 2018

Parallel Workshop 2

- 09:00 – 09:30: **Slaven Garaj** (NUS, Singapore) I
Nanofluidics with graphene and graphene-oxide membranes
- 09:30 – 09:45: **Zhao Wang** (Guangxi University, China) O
Low-temperature superlubricity of suspended graphene
- 09:45 – 10:00: **Scheyla Kuester** (École de technologie supérieure/NanoXplore Inc., Canada) O
Electrical properties and electromagnetic shielding effectiveness of polycarbonate/acrylonitrile butadiene styrene/graphene nanoplatelets nanocomposites

10:00 – 10:30: Poster session & Exhibition

10:30 – 11:00: Coffee Break – Poster session & Exhibition

Parallel Workshop 2

- 11:00 – 11:15: **Lihong Bao** (Institute of Physics, Chinese Academy of Sciences, China) O
Black Phosphorus and Its Analogue: Electrical Transport Properties and Devices

11:15 – 11:30: **Ruisong Ma** (Institute of Physics Chinese Academy of Sciences, China) O
Direct Four-Probe Measurement of Grain-Boundary Resistivity and Mobility in Millimeter-Sized Graphene

11:30 – 11:45: **Hui Chen** (Institute of Physics, CAS, China) O
Recovering edge states of graphene nanoislands on Ir(111) by silicon intercalations

11:45 – 12:00: **Claas Julian Reckmeier** (neaspec, Germany) O
Cryogenic near-field imaging and spectroscopy at the 10-nanometer-scale

12:00 – 12:15: **Hai Wang** (Max Planck Institute for Polymer Research, Germany) O
Tailoring Graphene: from optical control of carrier density to bandgap engineering in graphene nanoribbons

12:15 – 12:30: **Lin Wang** (Shanghai Institute of Technical Physics, China) O
Toward Sensitive Terahertz Detection Based on Two-dimensional Materials

12:30 – 14:00: [Buffet Lunch](#)

[Parallel Workshop 4](#)

14:00 – 14:30: **Jijun Zhao** (Dalian University of Technology, China) I
Computational design of novel 2D electronic and magnetic materials

14:30 – 15:00: **Pilkyung Moon** (NYU Shanghai, China) I
Theory of Dirac Electrons in a Dodecagonal Graphene Quasicrystal

15:00 – 15:15: **Haihua Tao** (Shanghai Jiao Tong University, China) O
Patterning Graphene Film by Magnetic-assisted UV Photochemical Oxidation

15:15 – 15:45: **Taishi Takenobu** (Nagoya University, Japan) I
Electrochemically Doped Light-Emitting Devices of Transition Metal Dichalcogenide Monolayers

15:45 – 16:30: [Coffee Break – Poster session & Exhibition](#)

[Parallel Session PhD Students](#)

16:30 – 16:45: **Valentino Romano** (University of Messina, Italy) O
An industrial scalable approach for graphene/carbon nanotubes hybrid flexible supercapacitors

16:45 – 17:00: **Hamin Park** (Korea Advanced Institute of Science and Technology (KAIST), South Korea) O
Interlayer interaction in a van der Waals heterostructure of transition metal dichalcogenide and hexagonal boron nitride

- 17:00 – 17:15: **Gwang Hyuk Shin** (KAIST, South Korea) O
Si-MoS₂ Vertical Heterostructure for High Responsivity Photodetector
- 17:15 – 17:30: **Zhaolong Chen** (Peking University, China) O
High Brightness Blue/UV Light-Emitting Diodes Enabled by Directly Grown Graphene Buffer Layer
- 17:30 – 17:45: **Xing Xin** (Institute of Metal Research, Chinese Academy of Sciences, China) O
Circular Graphene Platelets with Grain Size and Orientation Gradients Grown by Chemical Vapor Deposition
- 17:45 – 18:00: **Qinwei Wei** (Institute of Metal Research, Chinese Academy of Sciences, China) O
Green Controlled Synthesis of Graphene Oxide by Water Electrolytic Oxidation
- 18:00 – 18:15: **Jinhua Sun** (Chalmers University of Technology, Sweden) O
Molecular pillar approach to construct functionalized graphene for energy storage
- 18:15 – 18:30: **Jinshu Li** (Sungkyunkwan University, South Korea) O
Quasiparticle interference (QPI) in twisted bilayer graphene

Plenary session - Wednesday October 24, 2018

- 09:00 - 09:30: **Li-Xian Sun** (Guilin Univ. of Electronic Technology, China) I
Interfacing graphene with nanoparticles for energy and gas storage as well as sensors
- 09:30 – 10:00: **Xuebin Yu** (Fudan University, China) I
Graphene-Supported Complex Hydrides as Advanced Hydrogen Storage Materials
- 10:00 – 10:15: **Fengxia Geng** (Soochow University, China) O
Novel Inorganic Layered Materials: From Interlayer Chemistry, Delamination, toward Energy Storage Applications
- 10:15 – 11:00: [Coffee Break – Poster session & Exhibition](#)
- 11:00 – 11:30: **Mauricio Terrones** (The Pennsylvania State University, USA) K
A review of Defects in 2D Metal Dichalcogenides: Doping, Alloys, Interfaces, Vacancies and Their Effects in Catalysis & Optical Emission
- 11:30 – 12:00: **Hua Zhang** (NTU, Singapore) K
Synthesis and Applications of Novel Two-Dimensional Nanomaterials
- 12:00 – 12:15: **Jiang Pu** (Nagoya University, Japan) O
Room Temperature Valley Polarized Light-Emitting Diodes of Monolayer Transition Metal Dichalcogenides

12:15 – 12:30: **Chuan Xu** (Institute of Metal Research, Chinese Academy of Sciences, China)O
CVD-Grown High-Quality Ultrathin Mo₂C Crystals and Their Vertical Heterostructures with Graphene

12:30 – 14:00: **Buffet Lunch**

14:00 – 14:30: **Francesco Bonaccorso** (IIT-Graphene Labs / BeDimensional, Italy) I
Large scale production of 2D-materials for energy applications

14:30 – 14:45: **Jong Min Kim** (Kyung Hee University, South Korea) O
Use of Doped-Graphene Transparent Conductive Electrodes for High-Performance Si-Quantum-Dots-Based Solar Cells

14:45 – 15:00: **Junying Wang** (Institute of Coal Chemistry, Chinese Academy of Sciences, China) O
Co-synthesis of atomic Fe and few-layer graphene towards superior electrocatalysts of O₂ and CO₂

15:00 – 15:15: **Mustafa Eginligil** (Nanjing Tech University, China) O
Circular Photogalvanic Photocurrents in 2D Materials

15:15 – 15:45: **Yoshihiro Iwasa** (The University of Tokyo, Japan) I
Symmetry Controlled Optical Properties in TMD Nanostructures

15:45 – 16:15: **Coffee Break – Poster session & Exhibition**

16:15 – 16:45: **Lance Li** (Taiwan Semiconductor Manufacturing Company, Taiwan, China)K
Continue the transistor scaling with 2D materials: Challenges and Perspective

16:45 – 17:15: **Hongjun Gao** (Chinese Academy of Sciences, China) K
Construction of Novel 2D Atomic/molecular Crystals and Its physical Property

17:15 – 17:45: **Young-Woo Son** (Korea Institute for Advanced Study, South Korea) I
Effects of interlayer interactions on physics of layered crystals

17:45 – 18:00: **Zhibo Liu** (Institute of Metal Research, Chinese Academy of Sciences, China)O
The boundaries of 2D Mo₂C superconducting crystals

18:00 – 18:15: **Deliang Bao** (Institute of Physics, China) O
Fabrication of Millimeter-Scale, Single-Crystal One-Third-Hydrogenated Graphene with Anisotropic Electronic Properties

Industrial Forum – Wednesday October 24, 2018

09:00 – 09:20: **Zakuan Azizi Shamsul** (NanoMalaysia Berhad, Malaysia) I
Malaysia's Graphene Commercialization Progress - National Graphene Action Plan 2020

09:20 – 09:35: **Shanshan Huo** (Graphene Enabled Systems Ltd, UK) O
A New Model for Accelerating the Commercialisation of Graphene and other 2D Materials
Research from Universities

09:35 – 09:55: **Daniel Chua** (NUS, Singapore) I
New varieties of Metal Sulphides / Phosphides for Electronics and Clean Energy applications

09:55 – 10:15: **Rune Wendelbo** (Abalonyx, Norway) I
Graphene Oxide Derivatives, Properties and Applications

10:15 – 10:45: Coffee Break – Poster session & Exhibition

10:45 – 11:05: **Chang-Hua Liu** (National Tsing Hua University, Taiwan, China) I
Developing ultrathin light emitters and metalenses based on van der Waals materials

11:05 – 11:25: **Shintaro Sato** (Fujitsu Laboratories Ltd., Japan) I
Application of Graphene and Graphene Nanoribbons to Electronic Devices Including
Ultrasensitive Gas Sensors

11:25 – 11:40: **Zongping Chen** (Zhejiang University, China) O
Precision synthesis of structurally defined graphene nanoribbons by chemical vapor
deposition

11:40 – 12:00: **Jason Jieshan Qiu** (Beijing University of Chemical Technology, China) I
Synthesis and Applications of Carbon Dots

12:00 – 12:15: **Ting Leng** (The University of Manchester, UK) O
Printed Graphene For Chipless RFID Applications

12:15 – 12:30: **Xiao Sun** (Peking University, China) O
Rapid Growth of Large Single-Crystalline Graphene with Ethane

12:30 – 14:00: Buffet Lunch

Industrial Forum – Wednesday October 24, 2018

14:00 – 14:15: **Hao-Lin Hsu** (Green Energy Technology Research Center/Kun Shan
University, Taiwan, China) O
Application of Carbon Aerogel in the Adsorption of Polycyclic Aromatic Compounds from
Diesel Exhaust

14:15 – 14:30: **Muhammad Zahid** (Istituto Italiano di Tecnologia, Italy) O
Effect of 2D Nanomaterials on Gas Permeability and Mechanical Properties of
Thermoplastic Polyurethane Nanocomposites

14:30 – 14:45: **Jian Zheng** (Institute of Chemistry Chinese Academy of Sciences, China) O
Single Layer TMD Fabrication and Rolling up into Nanoscrolls

14:45 – 15:00: **Chengli Jiao** (Qingdao Institute of BioEnergy and Bioprocess Technology
Chinese Academy of Sciences, China) O

Induced Assembly of Two-Dimensional Metal–Organic Framework Nanosheets for Gas Separation

15:00 – 15:20: **Yihe Zhang** (China University of Geosciences, China) I
Graphene Composites as Energy, Catalyst, Environmental and Biomedical Materials, and Full Utilization of Graphite-Mining

15:20 – 15:35: **Jian Zhang** (Guilin University of Electronic Technology, China) O
Graphene quantum dots as interface materials for organic photovoltaic cells

15:35 – 16:15: Coffee Break – Poster session & Exhibition

16:15 – 16:35: **Hongyang Liu** (Shenyang National Lab for Mat Science / CAS, China) I
Nano-Graphene Based Catalyst for Efficient Light Alkane Activation

16:35 – 16:55: **Min Zhu** (South China University of Technology, China) I
Highly reversible conversion reactions in lithiated SnO₂ based thin film anode materials

16:55 – 17:15: **Lei Miao** (Guilin University of Electronic Technology, China) I
Enhanced Thermoelectric Performance in Graphene Quantum Dots/Te Nanowires Flexible Hybrid Film

17:15 – 17:30: **Zheng Zhang** (University of Science and Technology Beijing, China) O
Defects engineering for monolayer MoS₂ homojunction construction

17:30 – 17:45: **Lei Tao** (Institute of Physics, Chinese Academy of Science, China) O
Band engineering of double-wall Mo-based hybrid nanotubes

17:45 – 18:00: **Hao Luo** (Tsinghua University, China) O
Probing and Modulating Interface Interactions in 2-Dimensional Materials and Their Heterostructures

Plenary session - Thursday October 25, 2018

09:00 - 09:15: **He Tian** (Tsinghua University, China) O
Novel 2D devices based on graphene, BP and perovskite

09:15 – 09:45: **Feng Miao** (Nanjing University, China) I
Electronic Transport and Device Applications of 2D Materials

09:45 – 10:15: **Mario Lanza** (Soochow University, China) I
Building the hardware of future artificial intelligence systems: two-dimensional materials based electronic synapses

10:15 – 11:15: Coffee Break – Poster session & Exhibition

11:15 – 11:45: **Wencai Ren** (Chinese Academy of Sciences, China) K
Graphene Oxide: Green Synthesis and Membrane Applications

11:45 – 12:00: **Samaneh Etemadi** (Abalonyx AS, Norway)
Graphene Oxide acidity modifications

O

12:00 – 12:30: **Mikito Koshino** (Osaka University, Japan)
Effective theory for the flat band in the twisted bilayer graphene

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[12:30: Closing and RPGR2019 announcement](#)