

Map of National Taiwan University of Science and Technology

Layout of Taiwan Tech



基隆 Keelung

基隆路四段 Keelung Rd., Sec. 4

MRT Gongguan Station

National Taiwan University

Committee

Local Organizing Committee:

Jyh-Chiang Jiang (NTUST) [Chair]

Wei-Hung Chiang (NTUST) [Chair]

Jer-Lai Kuo (Academia Sinica) [Chair]

Chao-Ping Hsu (Academia Sinica)

Kuo-Chuan Ho (NTU)

Chen-Hao Yeh (NTUST) [Secretary]

Cheng-Chau Chiu (Academia Sinica) [Secretary]

International Scientific Committee:

Sumio Iijima (Meijo University, Japan)

Liming Dai (Case Western Reserve University, USA)

Toyoko Imae (NTUST, Taiwan)

Shigeo Maruyama (The University of Tokyo, Japan)

Suguru Noda (Waseda University, Japan)

Elena D. Obraztsova (Prokhorov General Physics Institute, Russia)

Fei Wei (Tsinghua University, China)

Paulo Bartolo (University of Manchester, UK)

Yan Li (Peking University, China)

Toshihide Horikawa (Tokushima University, Japan)

Ming Xu (Huazhong University of Science and Technology, China)

Acknowledgement

The Organizing Committee would like to express its great gratitude to the following sponsors.



National Taiwan University of
Science and Technology



Institute of Atomic and Molecular Sciences
Academia Sinica



Ministry of Science and Technology

Ministry of Science and Technology



National Center for Theoretical Sciences



Taiwan Graphene Co., Ltd.



Lanka Graphite LTD



台灣理論計算分子科學學會

Taiwan Theoretical and Computational
Molecular Sciences Association

2017 ICFC Program

2017/11/1 Wednesday

14:00~15:20	Registration
15:20~15:30	Opening: Ching-Jong Liao, NTUST President (IB - 101)
15:30~16:20	Keynote 1: Sumio Iijima (IB - 101)
16:20~17:10	Keynote 2: Bor Z. Jang (IB - 101)
17:10~17:30	Break
17:30~18:30	Poster Session (IB-1F)
18:30~19:30	Welcome Reception (IB-1F)

2017/11/2 Thursday

08:00~09:00	Registration	
09:00~09:50	Keynote 3: Liming Dai (IB - 101)	
09:50~10:10	Group Photo and Coffee Break	
	IB - 301	IB - 302
10:10~12:10	Section 1A M. Kubo K. Morishige Y.-W. Son M. Xu	Section 1B K. Hata E. I. Kauppinen D. Z. Pai P. Bartolo
12:10~13:30	Lunch	
13:30~15:20	Section 2A Y. Homma D. D. Do B.-Y. Jin C.-K. Lin	Section 2B M. Tachibana S. Noda S. J. Pai T. Kato
15:20~15:40	Coffee Break	
15:40~17:30	Section 3A T. J. Bandoz T. Horikawa S. Nachimuthu S. R. Mukai	Section 3B Z. Pei R. Belosludov Y.-J. Huang M. Hayashi
17:30~18:30	Go to Banquet	
Banquet at La Marée		

2017 ICFC Program

2017/11/3 Friday	
08:30~09:00	Registration
09:00~09:50	Keynote 4: Huan-Cheng Chang (IB - 101)
09:50~10:10	Coffee Break
	IB - 301 IB - 302
10:10~12:10	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Section 4A S. Maruyama K. Matsumoto S. Ata T. Imae</p> </div> <div style="width: 45%;"> <p>Section 4B H. Teng C.-W. Pao S. Sakurai Z. Xia</p> </div> </div>
12:10~13:30	Lunch
13:30~15:20	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Section 5A C.-Y. Su Y.-C. Chiu C. Wang W. Wang</p> </div> <div style="width: 45%;"> <p>Section 5B P.-W. Chiu J.-D. Chai K. Takahashi S.-L. Jian</p> </div> </div>
15:20~15:40	Coffee Break
15:40~17:30	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Section 6A T. Taketsugu H.-T. Chen C.-c. Chiu D. Zhang</p> </div> <div style="width: 45%;"> <p>Section 6B H. Mizuseki Y. Nonoguchi W.-J. Lee B. Han</p> </div> </div>
17:45~18:15	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">Section PA</div> <div style="width: 45%;">Section PB</div> </div>
18:15~18:30	Break
18:30~20:00	Dinner and Poster Session (IB-1F)

2017/11/4 Saturday	
09:00~09:50	Keynote 5: Mei-Yin Chou (IB - 101)
09:50~10:00	Break
10:00~10:40	Award and Closing Ceremony (IB - 101)
10:40~	Excursion to Yehliu

2017/11/1 Wednesday

14:00~15:20	Registration
Keynote 1, IB - 101	Chair: Wei-Hung Chiang
15:20~15:30	Opening: Ching-Jong Liao, NTUST President
15:30~16:20	Sumio Iijima (Meijo University) <i>Carbon Nanotubes: Discovery, Impact and Beyond</i>
Keynote 2, IB - 101	Chair: Wei-Hung Chiang
16:20~17:10	Bor Z. Jang (Angstrom Materials, Inc.) <i>A Progress Report on Graphene Industry: "What You Can Do for Graphene"</i>
17:10~17:30	Break
17:30~18:30	Poster Session (IB - 1F)
18:30~19:30	Welcome Reception (IB - 1F)

08:00~09:00	Registration
Keynote 3, IB - 101	Chair: Ming Xu
09:00~09:50	Liming Dai (Case Western Reserve University) <i>Multidimensional and multifunctional carbon nanomaterials for energy conversion and storage</i>
09:50~10:10	Group Photo (IB - 1F) and Coffee Break (IB - 3F)
Section 1A, IB - 301	Chair: Kaito Takahashi
10:10~10:40	Momoji Kubo (Tohoku University) <i>Multi-Physics and Multi-Chemistry Simulations on Friction and Wear Processes of Diamond-Like Carbon Films</i>
10:40~11:10	Kunimitsu Morishige (Okayama University of Science) <i>Freezing and Melting of Water in Mesoporous Carbon</i>
11:10~11:40	Young-Woo Son (Korea Institute for Advanced Study) <i>Low dimensional moire crystals of carbon atoms</i>
11:40~12:10	Ming Xu (Huazhong University of Science and Technology) <i>Advances in Structural Design of Three-dimensional Nanomaterials</i>
Section 1B, IB - 302	Chair: Suguru Noda
10:10~10:40	Kenji Hata (National Institute of Advanced Industrial Science and Technology) <i>Fabrication of CNT films and the rational CNT applications made from them</i>
10:40~11:10	Esko I. Kauppinen (Aalto University School of Science) <i>Controlling SWNT metallic fraction and (n,m) distribution during the floating catalyst CVD synthesis</i>
11:10~11:40	David Z. Pai (CNRS Institut Pprime) <i>Nanosecond repetitively pulsed microplasmas and perspectives on the synthesis of carbon nanomaterials</i>
11:40~12:10	Paolo Bartolo (The University of Manchester) <i>Design and fabrication of polymer-graphene scaffolds by 3D bioprinting for tissue engineering</i>
12:10~13:30	Lunch

Section 2A, IB - 301	Chair: Toshihide Horikawa
13:30~14:00	Yoshikazu Homma (Tokyo University of Science) <i>Measurements of Thermodynamic Properties on Nano-Scale by Single Carbon Nanotube Spectroscopy</i>
14:00~14:30	D. D. Do (University of Queensland) <i>A New Molecular Model for Graphite to Model Adsorption Mechanisms of Non-Polar Gases and Associating Fluids - Isotherms and Isosteric Heats</i>
14:30~15:00	Bih-Yaw Jin (National Taiwan University) <i>Polarized excitons and optical activity in single-wall carbon nanotubes</i>
15:00~15:20	Chih-Kai Lin (National Taiwan University) <i>Theoretical Study of Nitrogen-Doped Graphene Nanoflakes: Stability and Spectroscopic Properties Depending on Dopant Types and Flake Sizes</i>
Section 2B, IB - 302	Chair: Esko I. Kauppinen
13:30~14:00	Masaru Tachibana (Yokohama City University) <i>Carbon nanowalls and related materials as electrodes in lithium-ion batteries and fuel cells</i>
14:00~14:30	Suguru Noda (Waseda University) <i>Practical Production and Functionalization of Carbon Nanotubes for Energy Devices</i>
14:30~14:50	Sung Jin Pai (Korea Institute of Science and Technology) <i>ReaxFF development for 3-methyl-1,2-BN-cyclopentane; Liquid-Phase Hydrogen Storage Material</i>
14:50~15:20	Toshiaki Kato (Tohoku University) <i>Atomic-Structure-Controlled Synthesis of Nanocarbon Materials with Nanoscale Plasma Processing</i>
15:20~15:40	Coffee Break (IB - 3F)

Section 3A, IB - 301	Chair: D. D. Do
15:40~16:10	Teresa J. Badosz (The City College of New York) <i>Adsorption.. for Beyond Adsorption</i>
16:10~16:40	Toshihide Horikawa (The University of Tokushima) <i>Water Adsorption on Carbon Materials</i>
16:40~17:00	Santhanamoorthi Nachimuthu (National Taiwan University of Science and Technology) <i>Hydrogen storage in Metal atoms decorated Boron and Boron-Nitrogen Co-doped graphene</i>
17:00~17:30	Shin R. Mukai (Hokkaido University) <i>Efficient Production of Filamentous Carbons Using the Liquid Pulse Injection Technique</i>
Section 3B, IB - 302	Chair: Hiroshi Mizuseki
15:40~16:10	Zingway Pei (National Chung Hsing University) <i>Transparent Phototransistor for Visible Light Detection Based on Graphene Nanoclusters</i>
16:10~16:40	Rodion Belosludov (Tohoku University) <i>Theoretical study of functional carbon nanomaterials based on tetraazaporphyrin subunits</i>
16:40~17:00	Yi-June Huang (National Taiwan University) <i>Tailoring Carbon Aerogel as the Counter Electrode for Dye-sensitized Solar Cells</i>
17:00~17:30	Michitoshi Hayashi (National Taiwan University) <i>Optical and Photoinduced Processes of Carbon Nanoclusters</i>
17:30~18:30	Go to Banquet
	Banquet at La Marée

08:30~09:00	Registration
Keynote 4, IB - 101	Chair: Michitoshi Hayashi
09:00~09:50	Huan-Cheng Chang (Academia Sinica) <i>Fluorescent Nanodiamonds: Fabrication, Properties, and Applications</i>
09:50~10:10	Coffee Break (IB - 3F)
Section 4A, IB - 301	Chair: Yoshiyuki Nonoguchi
10:10~10:40	Shigeo Maruyama (The University of Tokyo) <i>Carbon Nanotubes and Graphene for Perovskite Solar Cells</i>
10:40~11:10	Kazuhiko Matsumoto (Osaka University) <i>Sugar Chain Modified Graphene FET for Virus Detection</i>
11:10~11:40	Seisuke Ata (National Institute of Advanced Industrial Science and Technology) <i>Improvement of thermal stability of polymeric materials by carbon nanotube as an antioxidant</i>
11:40~12:10	Toyoko Imae (National Taiwan University of Science and Technology) <i>Characteristics and Functionality of Carbon Dot Hybrids</i>
Section 4B, IB - 302	Chair: Chundong Wang
10:10~10:40	Hsisheng Teng (National Cheng Kung University) <i>Graphene Oxide Quantum Dots for Photoluminescence and Photocatalytic Hydrogen Evolution</i>
10:40~11:10	Chun-Wei Pao (Academia Sinica) <i>Nanoscale Patterning of 2D Materials Using Focused Ion Beam</i>
11:10~11:40	Shunsuke Sakurai (National Institute of Advanced Industrial Science and Technology) <i>Development of Catalyst Metal/Catalyst Underlayer Systems for a Highly Efficient Synthesis of Vertically-aligned Array of Single-walled Carbon Nanotube</i>
11:40~12:10	Zhenghai Xia (University of North Texas & Northwestern Polytechnic University) <i>Design Principles of Heteroatom-Doped Carbon-Based Electrocatalysts for Clean Energy Conversion</i>
12:10~13:30	Lunch

Section 5A, IB - 301	Chair: Seisuke Ata
13:30~14:00	Ching-Yuan Su (National Central University) <i>The Nanostructured and Functionalized Graphene for Applications on Sensing, Optronics and Energy Storage</i>
14:00~14:30	Yu-Cheng Chiu (National Taiwan University of Science and Technology) <i>Intrinsically Stretchable and Healable Semiconducting Polymer for Soft Transistor Application</i>
14:30~15:00	Chundong Wang (Huazhong University of Science and Technology) <i>Engineering graphene/carbon towards energy storage and conversion</i>
15:00~15:20	Weiguang Wang (The University of Manchester) <i>PCL/graphene scaffolds fabricated by additive manufacturing for bone regeneration</i>
Section 5B, IB - 302	Chair: Shunsuke Sakurai
13:30~14:00	Po-Wen Chiu (National Tsing Hua University) <i>Exploring single atomic spin states in 2D flatland</i>
14:00~14:30	Jeng-Da Chai (National Taiwan University) <i>TAO-DFT and Its Applications to Carbon Nanomaterials</i>
14:30~15:00	Kaito Takahashi (Academia Sinica) <i>Imprint of Electronic Structure on the Reactivity of Linear Carbon Chain Cations</i>
15:00~15:20	Siou-Ling Jian (National Taiwan University) <i>Zeolitic Imidazolate Framework-Derived ZnSe/Carbon/PEDOT:PSS as the Counter Electrode for Dye-Sensitized Solar Cells</i>
15:20~15:40	Coffee Break (IB - 3F)

Section 6A, IB - 301		Chair: Jyh-Chiang Jiang
15:40~16:10	Tetsuya Taketsugu (Hokkaido University) <i>Theoretical Suggestion and Experimental Proof for Novel Catalyst: Boron Nitride with Gold</i>	
16:10~16:40	Hsin-Tsung Chen (Chung Yuan Christian University) <i>Nitrogen-doped carbon nanomaterials as a potential metal-free catalyst for CO oxidation</i>	
16:40~17:00	Cheng-chau Chiu (Academia Sinica) <i>Quantum Chemical Modeling of the Molecular Processes in the Carbon-Catalyzed Oxidation of Benzene Yielding Phenol</i>	
17:00~17:30	Dengsong Zhang (Shanghai University) <i>Novel Carbon Materials for DeNO_x and Deionization</i>	
Section 6B, IB - 302		Chair: Chun-Wei Pao
15:40~16:10	Hiroshi Mizuseki (Korea Institute of Science and Technology) <i>New Carbon Allotropes: Materials Design and Photocatalysis Application</i>	
16:10~16:40	Yoshiyuki Nonoguchi (Nara Institute of Science and Technology) <i>Exploring the Thermoelectric Transport in Carbon Nanotube Films</i>	
16:40~17:00	Wen-Jay Lee (National Center for High Performance Computing) <i>Application of High-Throughput Framework and Machine Learning on the Prediction of Material Properties</i>	
17:00~17:30	Byungchan Han (Yonsei University) <i>Multiscale Computational Design of Highly Functional Carbon for Renewable Energy Materials</i>	
Flash Talks (Chair: Yu-Cheng Chiu; Masaru Tachibana)		
17:45~18:15	Section PA at IB - 301	Section PB at IB - 302
18:15~18:30	Break	
18:30~20:00	Poster Session and Dinner (IB - 1F)	

2017/11/4 Saturday

Keynote 5, IB - 101	Chair: Jer-Lai Kuo
09:00~09:50	Mei-Yin Chou (Academia Sinica) <i>Topological Properties of Atomically Modified Graphene Systems</i>
09:50~10:00	Break
10:00~10:40	Award and Closing ceremony
10:40	Excursion to Yehliu