



# NDNC 2019

13<sup>th</sup> New Diamond and Nano Carbons Conference

5/12<sub>(Sun)</sub> — 17<sub>(Fri)</sub>

Hualien, Taiwan  
FARGLORY HOTEL

## Program



# NDNC 2019 PROGRAM

## Sunday, 12 May 2019

<b>16:00-20:00</b>	Reception in Taipei (Institute of Atomic and Molecular Sciences (IAMS), Sinica Academia in National Taiwan University (NTU) campus; next to the post office)
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## Monday, 13 May 2019

<b>09:00-12:00</b>	Train (#5948) 08:56-11:57 Taipei to Hualien (Meet at platform entrance at 08:30, Taipei Main Station) (Lunch box on train)
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Time/Room	Crystal	Victoria
<b>13:30-13:40</b>	<b>Opening</b>	
<b>13:40-14:30</b>	<b>Plenary Session 1</b>	
	<b>Chair: Robert J. Nemanich</b>	
	[Plenary 1] Tuning atomic bonding, crystallinity, and dimensionality of carbon with high pressure / <b>Hokwang Mao</b>	
<b>14:30-15:20</b>	<b>Plenary Session 2</b>	
	<b>Chair: Yasuo Koide</b>	
	[Plenary 2] Nanographenes: Interplay of edge geometry and chemistry in the electronic structures / <b>Toshiaki Enoki</b>	
<b>15:20-16:00</b>	<b>Coffee Break &amp; Hotel check-in</b>	
<b>16:00-18:00</b>	<b>Poster Session 1 (@4F Foyer)</b> <b>Poster set up 13:00-16:00</b> <b>Poster presentation 16:00-18:00</b> <b>Poster must be removed before 12:00, May 14</b>	
<b>18:00 -</b>	<b>Welcome Dinner (@Farglory, Victoria Ballroom)</b>	

**5/14** (Tue)Hualien, Taiwan  
FARGLORY HOTEL**Tuesday, 14 May 2019**

Time/Room	Crystal	Victoria
08:20-09:10	<b>Plenary Session 3</b>	
	<b>Chair: Rodney Ruoff</b>	
	[Plenary 3] Graphene to diamond, and dimensionality effects on doping and photon-emission-in theory / <b>Boris Yakobson</b>	
09:10-09:30	<b>Short Break</b>	
09:30-10:00	<b>Session 1: Nanocarbons I</b>	<b>*Session 2: Diamond Applications I (Teaser)</b>
	<b>Chair: Yonhua Tzeng</b>	<b>Co-Chairs: Han-Yi Chen, Chia-Liang Sun</b>
	[S1-1-I] Carbon Materials / <b>Rodney S. Ruoff</b>	[S2-1-T] Zhina Qi [S2-2-T] Dominic Palubiski [S2-3-T] Mohamed Egiza [S2-4-T] Hua Wang [S2-5-T] Vadim Sedov [S2-6-T] JOE YUAN [S2-7-T] Kirill Boldyrev [S2-8-T] Eslam Abubakr
10:00-10:30	[S1-2-I] Nanodiamond and 2D Transition Metal Carbides (MXenes): Chemistry and Applications / <b>Vadym Mochalin</b>	[S2-9-T] Xinchang Wang [S2-10-T] Naoki Kamoshida [S2-11-T] Mai Tomisaki [S2-12-T] Weizhong Tang [S2-13-T] Sekhar Ray
10:30-11:00	<b>Coffee Break</b>	
11:00-11:30	<b>*Session 3: Nanocarbons II (Teaser)</b>	<b>Session 4: Diamond Electronics I</b>
	<b>Co-Chairs: Mario Hofmann, Chen-Hao Wang</b>	<b>Co-Chairs: Yasuo Koide, Shih-Chen Shi</b>
	[S3-1-T] Maxim Komlenok [S3-2-T] Atsushi Hirata [S3-3-T] Tian-Hsin Wang [S3-4-T] Kar-Peng Goh [S3-5-T] karthik paneer selvam [S3-6-T] Sekhar Ray [S3-7-T] Bai Mingjie	[S4-1-I] Science and Technology of Interface-Engineered High-K Dielectric Nanolaminate-Based Oxides / Diamond Films for New Generation High Power Electronics / <b>Orlando Auciello</b>

11:30-12:00	[S3-8-T] JIAN-HONG YE [S3-9-T] Sankaran K. J. [S3-10-T] Spencer Chuang [S3-11-T] Jinfeng Zhang [S3-12-T] Kai Su [S3-13-T] Kazuaki Takagi [S3-14-T] Jianbo Liang	[S4-2-I] Diamond transistor with an h-BN gate dielectric / <b>Takahide Yamaguchi</b>	
12:00-13:30	<b>Lunch (@Farglory buffet )</b>		
<b>Time/Room</b>	<b>Crystal</b>	<b>Victoria</b>	<b>Red-Orange</b>
13:30-13:45	<b>Session 5: Diamond Conversion</b>	<b>Session 6: Diamond Growth</b>	<b>Session 7: Nanocarbon Applications</b>
	<b>Co-Chairs: Boris Yakobson, Chia-Ching Chang</b>	<b>Chair: Timothy A. Grotjohn</b>	<b>Co-Chairs: Daniel Chua, Han-Yi Chen</b>
13:30-13:45	[S5-1-I] Chemically Induced Transformation of CVD-Grown Bilayer Gra-phene into Single Layer Diamond / <b>Pavel Bakharev</b>	[S6-1-O] Selective growth of diamond (111) by metal mask and its application for hydrogen terminated diamond FET / <b>Masataka Imura</b>	[S7-1-I] Metal Oxide and Reduced Graphene Oxide Composite for Vanadium Redox Flow Battery / <b>Chen-Hao Wang</b>
13:45-14:00		[S6-2-O] CVD layers grown on cross sections of millimetre thick diamonds / <b>Hideaki Yamada</b>	
14:00-14:15	[S5-2-I] Low temperature, low pressure conversion of graphene into diamondoids / <b>Fabrice Piazza</b>	[S6-3-I] Developing Rapid Growth of High-Quality Single Crystal Diamond by a Toroidal Plasma Process / <b>Amanda Charris</b>	[S7-2-O] Size-selected Pt nanoparticles in graphene-based anode electrodes for a glucose fuel cell / <b>Chia-Liang Sun</b>
14:15-14:30			[S7-3-O] Plasma-modified graphite sheets for reduced-graphene-oxide/polyaniline supercapacitors / <b>Ing-Song Yu</b>

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14:30-14:45	<b>[S5-3-I]</b> Nucleation of Diamond / <b>Soumen Mandal</b>	<b>[S6-4-I]</b> Property and prospect of gem-quality single crystal cvd diamond in industry / <b>Chih-Shiue Yan</b>	<b>[S7-4-O]</b> Advances in two-ply carbon nanotube yarn supercapacitor proper- ties by wet coating of molybdenum oxide / <b>Tatsuki Marui</b>
14:45-15:00			<b>[S7-5-O]</b> Thermoelectric Trans- port Across Epitaxial Growth of Nano-flakes $\text{Bi}_2\text{Se}_3$ / Graphene Mul- tilayer / <b>Jen-Kai Wu</b>
15:00-15:15	<b>[S5-4-O]</b> PECVD of diamond films on graphene covered non-diamond substrates without diamond seeding and externally applied bias- ing voltage / <b>Yonhua Tzeng</b>	<b>[S6-5-O]</b> Surface oxidation and electron-spin coher- ence of nitrogen-va- cancy centres in nano- diamonds / <b>Masazumi Fujiwara</b>	<b>[S7-6-I]</b> <b>(15:00-15:30)</b> Nanostructure Engi- neering using Micro- plasmas toward Func- tional Nanomaterials Synthesis and Applica- tions / <b>Wei-Hung Chiang</b>
15:15-15:45	<b>Coffee Break</b>		
15:45-18:00	<b>Poster Session 2 (@4F Foyer)</b> Poster set up 13:00-15:45 Poster presentation 15:45-18:00 Poster must be removed before 12:00, May 15		
18:00 -	<b>Dinner (@Yingtianye Hotpot 櫻之田野)</b>		



## Tuesday, 14 May 2019

### Session 2: Diamond Applications I (Teaser)

**[S2-1-T]** Study on surface modification and heat dissipation of diamond microchannel heat sink / **Zhina Qi**

**[S2-2-T]** Nanodiamond composites; comparing detonation, high-pressure/high-temperature, and CVD nanodiamonds within epoxy matrices / **Dominic Palubiski**

**[S2-3-T]** Atomic structures, mechanical, and tribological properties of B-doped ultrananocrystalline diamond/ nonhydrogenated amorphous carbon composite films deposited on cemented carbide / **Mohamed Egiza**

**[S2-4-T]** Simulation and experimental researches on the substrate temperature distribution of the HFCVD setup for mass-production of diamond coated milling tools / **Hua Wang**

**[S2-5-T]** Increased deposition rates of micro- and nanocrystalline diamond films during MWCVD growth in high power density conditions / **Vadim Sedov**

**[S2-6-T]** Research on Transmission Electron Microscopy (TEM) of Diamonds / **JOE YUAN**

**[S2-7-T]** Electronic Band Structure of Phosphorus Doped Single Crystal Diamond: Spin-Orbit Splitting of Donor Ground State / **Kirill Boldyrev**

**[S2-8-T]** Shallow boron doping of Singlecrystalline diamond by excimer laser irradiation / **Eslam Abubakr**

**[S2-9-T]** Enhancing or reducing oxidation resistance of CVD diamonds by doping technique / **Xinchang Wang**

**[S2-10-T]** In-situ IR Study of Boron-doped Diamond Electrode/Electrolyte Interface / **Naoki Kamoshida**

**[S2-11-T]** Control of Product Selectivity on Electrochemical Reduction of CO<sub>2</sub> Using Boron-Doped Diamond Electrode / **Mai Tomisaki**

**[S2-12-T]** Preparation of diamond-Ti composite as an anode material / **Weizhong Tang**

**[S2-13-T]** Structural, Electronic and Electrical Behaviour of TiO<sub>2</sub> - MWCNTs Nano-Composite Material / **Sekhar Ray**



### Session 3: Nanocarbons II (Teaser)

[S3-1-T] Laser-induced forward transfer of carbon nanomaterials /  
**Maxim Komlenok**

[S3-2-T] Molecular dynamics simulation of compression test of carbon onion  
nanoparticle / **Atsushi Hirata**

[S3-3-T] Growth monolayer SnSe<sub>2</sub> on Graphene using chemical vapor deposition  
method / **Tian-Hsin Wang**

[S3-4-T] Study of HPMC Composite Solution with Copper-Graphene Nanoparticles  
on Mechanical and Electrical Properties / **Kar-Peng Goh**

[S3-5-T] Synthesis of solvent-free conductive flexible cellulose carbon nanohorns  
sheet and its application as a water vapor sensor / **Karthik paneer selvam**

[S3-6-T] Electronic, Electrical and Magnetic Behavioural change of Si-NPs incorpo-  
rated MWCNTs / **Sekhar Ray**

[S3-7-T] Study on High Efficiency Heat Transfer and Hydromechanical Wear Reduc-  
tion Technology Based on MBCNTs Nanofluids / **Bai Mingjie**

[S3-8-T] The ethanol concentrations effect of KOH electrolyte to improve the elec-  
tric double-layer capacitance based on CNTs supercapacitor / **JIAN-HONG YE**

[S3-9-T] Flexible laser-induced graphene nanoribbon field emitters / **Sankaran K. J.**

[S3-10-T] Wireless Near-Field Microwave Imaging Based On Charge State Switching  
Of NV Centers In Nanodiamonds / **Spencer Chuang**

[S3-11-T] Effect of material characteristics on the performance of monocrystal dia-  
mond radiation detectors / **Jinfeng Zhang**

[S3-12-T] Normally-off H-terminated Diamond Field effect transistor with HfZrO<sub>x</sub>/  
Al<sub>2</sub>O<sub>3</sub> Ferroelectric gate dielectrics / **Kai Su**

[S3-13-T] Design of Flower-Like Boron-Doped Diamond and Electrochemical Detec-  
tion of H<sub>2</sub>O<sub>2</sub> and Glucose / **Kazuaki Takagi**

[S3-14-T] Direct bonding of diamond and Cu at room temperature for power devise  
application / **Jianbo Liang**

## Wednesday, 15 May 2019

Room	Crystal	Victoria	Red-Orange
<b>08:20-09:10</b>	<b>Plenary Session 4</b>		
	<b>Chair: Ken Haenen</b>		
	<b>[Plenary 4]</b> Fluorescent nanodiamond: a versatile nanomaterial for bioimaging and quantum sensing / <b>Huan-Cheng Chang</b>		
<b>09:10-09:30</b>	<b>Short Break</b>		
<b>09:30-09:45</b>	<b>Session 8: Diamond Photonics/ Spintronics I</b>	<b>Session 9: Diamond Applications III</b>	<b>Session 10: Diamond Electronics II</b>
	<b>Co-Chairs: Huan-Cheng Chang, Tsung-Hui Tsai</b>	<b>Co-Chairs: Amanda Charris, Chen-Hao Wang</b>	<b>Co-Chairs: I-Nan Lin, Shih-Chen Shi</b>
<b>09:45-10:00</b>	<b>[S8-1-I]</b> Laser writing of colour centres in diamond / <b>Jason Smith</b>	<b>[S9-1-I]</b> Recent development on electrochemical application of boron-doped diamond electrodes / <b>Yasuaki Einaga</b>	<b>[S10-1-O]</b> Optimized Phosphorus Doping for High Temperature Diamond PIN Diodes / <b>Robert Nemanich</b>
			<b>[S10-2-O]</b> Engineering the 2D Hole Gas on Diamond by Surface Transfer Doping and its Device Applications / <b>Dongchen Qi</b>
<b>10:00-10:15</b>	<b>[S8-2-I]</b> Nanodiamond for catalytic applications / <b>Anke Krueger</b>	<b>[S9-2-O]</b> Combined experimental and theoretical study on heavily boron-doped single crystal diamond layers for Schottky diode applications / <b>Ken Haenen</b>	<b>[S10-3-O]</b> Anisotropic Precipitates of Elementary Diamond Nanoparticles from their Aqueous Solutions / <b>Toshihiko Tannaka</b>
<b>10:15-10:30</b>		<b>[S9-3-O]</b> Characterization of Diamond Schottky Barrier Diode with Fluorination-based Edge Termination / <b>Dan Zhao</b>	<b>[S10-4-O]</b> Aggregation behaviour of purified and functionalized detonation nanodiamond in water / <b>Shery Chang</b>



**5/15** (Wed)Hualien, Taiwan  
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10:30-11:00		Coffee Break		
Room	Crystal	Victoria	Red-Orange	
11:00-11:15	<b>Session 11: Diamond Photonics/ Spintronics II</b>	<b>Session 12: Diamond Applications IV</b>	<b>Session 13: 2D Nanocarbon and Applications</b>	
	<b>Chair: Oliver Williams</b>	<b>Chair: Atsushi Hirata</b>	<b>Chair: Kuei-Hsien Chen</b>	
	<b>[S11-1-O]</b> Characteristics of diamond films synthe- sized via two kinds of nucleation layer and their electron field emission and electro- chemical application / <b>I-Nan Lin</b>	<b>[S12-1-O]</b> Ultra-high quality fac- tors and high-reliability diamond mechanical resonators on diamond / <b>Meiyong Liao</b>	<b>[S13-1-I]</b> Expanding the range of chalcogenide, ox- ides and phosphide catalyst for Water Splitting / <b>Daniel H.C. Chua</b>	
	<b>[S11-2-O]</b> Experiment and first-principles calcu- lations of localized modes in a diamond with a GeV center / <b>Kirill Boldyrev</b>	<b>[S12-2-O]</b> Evaluation of ScAlN/ PCD high frequency dia- mond SAW resonator / <b>Yusuke Kobayashi</b>		
	<b>[S11-3-O]</b> Room temperature opti- cally induced dynam- ic nuclear polarization in diamond / <b>Yuliya Mindarava</b>	<b>[S12-3-O]</b> Black diamond: a new material for Thz optics / <b>Maxim Komlenok</b>	<b>[S13-2-I]</b> Large Scale Synthesis of Graphene / <b>Kian Ping LOH</b>	
11:45-12:00	<b>[S11-4-O]</b> Quantum-enhanced imaging through Spin Defects in Dia- mond / <b>Zhiqin Chu</b>	<b>[S12-4-O]</b> Detecting diamond seeds quality and CVD diamonds color/ <b>Tony Huang</b>		
12:00-13:30	Lunch (@Farglory buffet )			
13:30-18:00	Tour I: East Coast			
18:00 -	Dinner (@Yenliao Seafood 鹽寮海鮮餐廳)			

**Cancelled  
by Author**

## Thursday, 16 May 2019

Time/Room	Crystal	Victoria	Red-Orange
08:30-09:00	<b>Session 14: Diamond Photonics/ Spintronics III</b>	<b>Session 15: Modification of Nanocarbons and Diamonds</b>	<b>Session 16: Bio/Chemistry Appli- cations of Diamond I</b>
	<b>Co-Chairs: Li-Chyong Chen, Chia-Liang Sun</b>	<b>Co-Chairs: Orlando Auciello, Lance Li</b>	<b>Co-Chairs: Ani Sumant, Yu-Lun Chueh</b>
	<b>[S14-1-I]</b> Wireless Microwave Sensing based on charge state switching of NV centers in Nano- diamonds / <b>Mario Hofmann</b>	<b>[S15-1-I]</b> DIAMOND AND NI- TRIDE POWER DEVICES FUTURE CROSSOVER / <b>Mohd Syamsul Na- syrig Samsol Baharin</b>	<b>[S16-1-I]</b> Laser Threshold Mag- netometry and hybrid diamond platforms for sensing magnetic fields / <b>Andrew Greentree</b>
09:00-09:15	<b>[S14-2-O]</b> The Alignment of 2D Materials on High In- dex Copper Surfaces for the Synthesis of Wafer-scale 2D Single Crystals-A Theoretical Study / <b>Leining Zhang</b>	<b>[S15-2-O]</b> Development of a large-area hot filament diamond CVD reactor for diamond-on-GaN devices / <b>Edmund Smith</b>	<b>[S16-2-O]</b> Comparing the effect of macro and micro environment on cellu- lar FND uptake / <b>Viraj Damle</b>
09:15-09:30	<b>[S14-3-O]</b> Photo-excitation dynamics of nitro- gen-vacancy centers in diamond / <b>Ronald Ulbricht</b>	<b>[S15-3-I]</b> Reduction of dislo- cation density in dia- mond by hot-filament CVD accompanying metal incorporations / <b>Shinya OHMAGARI</b>	<b>[S16-3-O]</b> Detonation nanodia- mond particles grafted by lanthanides. Synthe- sis and application in MRI contrast enhance- ment / <b>Elena Iudina</b>
09:30-09:45	<b>[S14-4-O]</b> Modified electronic transport property on graphene nanorib- bon by NV center: a Non-equilibrium Green function approach / <b>Tsung-Wei Huang</b>		<b>[S16-4-O]</b> Nanodiamonds as arti- ficial proteins for regu- lation of cell signaling / <b>Petr Cigler</b>



**5/16** (Thu)

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09:45-10:00	<b>[S14-5-O]</b> Formation of Twinned Graphene Polycrystals / <b>Jichen Dong</b>	<b>[S15-4-O]</b> Studies of Nitrogen Atoms Implanted in Single Crystal Diamond and Polycrystalline Diamond Films via Nanoscale X-ray Photoelectron Spectroscopy Analysis / <b>Jean Veyan</b>	<b>[S16-5-O]</b> Heterointerfacial electronic properties and energy band alignment of Al <sub>2</sub> O <sub>3</sub> /Air/H-diamond heterointerface using XPS/XANES measurements / <b>Niloy Saha</b>
10:00-10:15	<b>[S14-6-O]</b> Diamond micro-optics: fabrication and applications of diamond microlenses / <b>Hong-Xing Wang</b>	<b>[S15-5-I]</b> Graphene oxide and derivatives: the place in graphene family / <b>Artur Dideikin</b>	<b>[S16-6-O]</b> Fabrication of Manganese Ion-implanted Nanodiamonds for Bio-tracing Applications / <b>SRINIVASU KUNUKU</b>
10:15-10:30	<b>[S14-7-O]</b> Nitrogen-vacancy, annealing and color in single crystal synthetic diamond by MPCVD / <b>Te-Yuan Chen</b>		
10:30-11:00	<b>Coffee Break</b>		
<b>Time/Room</b>	<b>Crystal</b>	<b>Victoria</b>	<b>Red-Orange</b>
11:00-11:30	<b>Session 17:</b> 2D materials and graphene I <b>Chair:</b> <b>Nai-Chang Yeh</b>	<b>Session 18:</b> Diamond Applications V <b>Chair:</b> <b>Artur Dideikin</b>	<b>Session 19:</b> Bio/Chemistry Applications of Diamond II <b>Chair:</b> <b>Vadym Mochalin</b>
	<b>[S17-1-I]</b> 2-D Materials for Electronics: Challenges and Perspective / <b>Lance Li</b>	<b>[S18-1-I]</b> Electrically Detected Magnetic Resonance Studies of NV centers in Diamond / <b>Hiroki Morishita</b>	<b>[S19-1-I]</b> Towards Developing Oil-Free Solid Lubricants Based on 2D Materials-Nanodiamond Ensembles / <b>Anirudha Sumant</b>

<b>11:30-11:45</b>	<b>[S17-2-I]</b> Strategies Towards the Synthesis of Wafer Scale Single Crystalline 2D materials—From Theoretical Prediction to Experimental Realization / <b>Feng Ding</b>	<b>[S18-2-I]</b> Manufacturing and Investigating CVD Single Crystalline Diamonds / <b>Nan Jiang</b>	<b>[S19-2-O]</b> Aligned Carbon Nanotube Array for Size-Based Virus Capture and Detection / <b>Yin-Ting Yeh</b>
<b>11:45-12:00</b>			<b>[S19-3-O]</b> Formation of Carbon-Rich Nanofilament in a Memristive Device / <b>Niloufar RaeisHosseini</b>
<b>12:00-13:30</b>	<b>Lunch (@Farglory buffet )</b>		
<b>Thursday, 16 May 2019</b>			
<b>Time/Room</b>	<b>Crystal</b>	<b>Victoria</b>	<b>Red-Orange</b>
	<b>Session 20: 2D materials and graphene II</b>	<b>Session 21: Diamond Applications VI</b>	<b>Session 22: Bio/Chemistry Applications of Diamond III</b>
	<b>Chair: Lance Li</b>	<b>Chair: Paul May</b>	<b>Chair: Shery Chang</b>
<b>13:30-13:45</b>	<b>[S20-1-I]</b> Manipulating different quantum degrees of freedom in two-dimensional van der Waals materials and nano-metamaterials / <b>Nai-Chang Yeh</b>	<b>[S21-1-O]</b> Diamond Quality and Surface Effects on Diamond Diodes and Transistors / <b>Timothy Grotjohn</b>	<b>[S22-1-I]</b> Direct growth of 2D materials: Development of novel growth methods and its multifunctional applications / <b>Yu-Lun Chueh</b>
<b>13:45-14:00</b>		<b>[S21-2-O]</b> Crystalline quality of homoepitaxial film grown on CVD substrate / <b>Tokuyuki Teraji</b>	
<b>14:00-14:15</b>	<b>[S20-2-I]</b> Very rapid heating of metal carbide powders to > 3000°C and products formed / <b>Won Kyung Seong</b>	<b>[S21-3-O]</b> Radiation hardness of diamond Schottky barrier diode / <b>Hitoshi Umezawa</b>	<b>[S22-2-I]</b> Retinoschisis mutation mouse model development by carboxyl nanodiamond mediated CRISPR/Cas9 genome editing system / <b>Chia-Ching Chang</b>



5/16 (Thu)

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14:15-14:30		[S21-4-O] Dislocation analysis using XRT and their effect to the device characteristics / <b>Shinichi Shikata</b>	
14:30-14:45	[S20-3-O] High precision surface structuring of diamond-like nanocomposite films with femtosecond laser pulses / <b>Sergei Pimenov</b>	[S21-5-O] Investigation of stability and switching characteristics of diamond MOSFET with $Al_2O_3$ gate insulator and passivation layer / <b>Zeyang Ren</b>	[S22-3-O] Spectroscopic and Electrical Characterizations of Phosphorous Doped CVD-graphene via low-damaged ion implantation / <b>Shih Ming He</b>
14:45-15:00	[S20-4-I] (14:45-15:15) Growth and manipulations of 2D materials through defects / <b>Wei Yen Woon</b>	[S21-6-O] RF characteristics for submicron-gate diamond MOSFETs fabricated on heteroepitaxial diamonds / <b>Makoto Kasu</b>	
15:00-15:30	<b>Coffee Break</b>		
Time/Room	<b>Crystal</b>	<b>Victoria</b>	<b>Red-Orange</b>
15:30-15:45	<b>Session 23: Bio/Chemistry Applications of Diamond IV</b>	<b>Session 24: Diamond Applications VII</b>	<b>Session 25: Bio/Chemistry Applications of Diamond V</b>
	<b>Chair: Cheng-Hao Chuang</b>	<b>Chair: Shinichi Shikata</b>	<b>Chair: Andrew Greentree</b>
	[S23-1-I] Multifunctional Nanostructures for Therapeutics / <b>Sergey Deyev</b>	[S24-1-O] Microwave plasma geometry management: a combined theoretical / experimental approach to allow synthesis of homogeneous MCD/NCD films on WC-Co cutting tool / <b>Vadim Sedov</b>	[S25-1-O] Surface termination, crystal size, and bonding-site density effects on diamond biosensing surfaces / <b>Alexis Rogien</b>

15:45-16:00		<p><b>[S24-2-O]</b> Mass production of small aperture HFC-VD diamond coated wire-drawing dies with double layer netlike filaments assignment / <b>Xin Song</b></p>	<p><b>[S25-2-O]</b> Diamond Surface Functionalization with Donor-Acceptor Chromophores for Photoelectrochemical Applications / <b>Jorne Raymakers</b></p>
16:00-16:15	<p><b>[S23-2-O]</b> Black Diamond as an antibacterial surface: interplay between chemical and mechanical bactericidal activity / <b>Paul May</b></p>	<p><b>[S24-3-O]</b> Fabrication of three-dimensional high aspect ratio microchannels in single crystal diamond by two-step process / <b>Jiao Fu</b></p>	<p><b>[S25-3-O]</b> Negative Electron Affinity from Aluminium on the Diamond Surface / <b>Michael James</b></p>
16:15-16:30	<p><b>[S23-3-O]</b> Science and Technology of Interface-Engineered High Piezoelectricity Multifunctional Nanolaminate-Based Oxide / Ultrananocrystalline Diamond Films for New Generation Human Body Implantable Sensors and Drug Delivery and Power Generation Devices / <b>Orlando Auciello</b></p>	<p><b>[S24-4-O]</b> Structural and mechanical properties of ultrananocrystalline diamond films deposited on negatively biased substrates by coaxial arc plasma / <b>Ali M. Ali</b></p>	<p><b>[S25-4-O]</b> One-step growth and field electron emission performances of carbon nanospine-ultrananocrystalline diamond hybrids / <b>Sankaran K. J.</b></p>
16:30-16:45		<p><b>[S24-5-O]</b> Application of un-doped and Si-doped ultrananocrystalline diamond/ amorphous carbon composite films to hard coating on cemented carbide / <b>Mohamed Egiza</b></p>	<p><b>[S25-5-O]</b> Self-assembling carbon nanotube structures for metamaterials / <b>Adam Pander</b></p>
18:00 -		<b>Banquet (@Master Ming 銘師父)</b>	



**5/17** (Fri)  
Hualien, Taiwan  
FARGLORY HOTEL

## Friday, 17 May 2019

Time/Room	Crystal	Victoria
08:30-09:00	<b>Session 26: Diamond Applications VIII</b>	
	<b>Chair: Li-Chyong Chen</b>	
	[S26-1-I] Graphene and 2D materials with novel functionality for photon-to-energy conversion / <b>Chun-Wei Chen</b>	
09:00-09:30	[S26-2-I] The Growth Mechanism of Carbon Nanotubes over Copper Catalysts / <b>Jarrn-Horng Lin</b>	
09:30-10:30	<b>Closing &amp; Hotel Check-out</b>	
10:30-16:30	<b>Tour II: Taroko National Park</b> <b>Train (#5947) 17:13-20:18 Hualien to Taipei</b> <b>(Meet with the group finishing the excursion 16:30, or meet 16:50 at Hualien station)</b>	

## Dinner & Banquet Restaurant

### • 5/13 Welcome Dinner—Hualien Farglory Hotel (Victoria Ballroom)

花蓮縣壽豐鄉鹽寮村山嶺 18 號

No.18, Shanling, Yanliao Village, Shoufeng Township, Hualien 974, Taiwan (R.O.C)

TEL: +886-3-812-3999

### • 5/14 Dinner—Ying Tian Ye Hotpot 櫻の田野休閒養生館

花蓮縣吉安鄉福興村福興七街 8 號

No. 8, Fuxing 7th St., Ji'an Township, Hualien County 973, Taiwan (R.O.C.)

TEL: +886-3-854-0366

### • 5/15 Welcome Dinner—Yan Liao Longxia Seafood Restaurant 鹽寮龍蝦海鮮餐廳

花蓮縣壽豐鄉鹽寮村鹽寮路 130 號

No. 130, Yanliao Rd, Yanliao Village, Shoufeng Township, Hualien 974, Taiwan (R.O.C)

TEL: +886-3-867-1248

### • 5/16 Banquet—Master Ming Restaurant 銘師父餐廳

花蓮縣吉安鄉太昌村明義 6 街 38 巷 22 號

No. 22, Ln. 8, Mingyi 6th St., Ji'an Township, Hualien County 973, Taiwan (R.O.C.)

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SEKI DIAMOND SYSTEMS

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金門潭廠實業股份有限公司  
KINMEN KAOMANG & TOHOH INC.



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