

**Monday, 13 May 2019**

**Poster Session 1**

**Co-Chairs: Han-Yi Chen, Chia-Liang Sun**

**@4F Foyer**

**Poster set up 13:00-16:00**

**Poster presentation 16:00-18:00**

**Poster must be removed before 12:00, May 14**



## Monday, 13 May 2019

### Poster Session 1

[P1-1] Laser-induced forward transfer of carbon nanomaterials /  
**Maxim Komlenok**

[P1-2] Molecular dynamics simulation of compression test of carbon onion  
nanoparticle / **Atsushi Hirata**

[P1-3] Growth monolayer SnSe<sub>2</sub> on Graphene using chemical vapor deposition  
method / **Tian-Hsin Wang**

[P1-4] Study of HPMC Composite Solution with Copper-Graphene Nanoparticles on  
Mechanical and Electrical Properties / **Kar-Peng Goh**

[P1-5] Synthesis of solvent-free conductive flexible cellulose carbon nanohorns  
sheet and its application as a water vapor sensor / **Karthik paneer selvam**

[P1-6] Electronic, Electrical and Magnetic Behavioural change of Si-NPs incorpo-  
rated MWCNTs / **Sekhar Ray**

[P1-7] Study on High Efficiency Heat Transfer and Hydromechanical Wear Reduc-  
tion Technology Based on MBCNTs Nanofluids / **Bai Mingjie**

[P1-8] The ethanol concentrations effect of KOH electrolyte to improve the elec-  
tric double-layer capacitance based on CNTs supercapacitor / **JIAN-HONG YE**

[P1-9] Flexible laser-induced graphene nanoribbon field emitters / **Sankaran K. J.**

[P1-10] Wireless Near-Field Microwave Imaging Based On Charge State Switching Of  
NV Centers In Nanodiamonds / **Spencer Chuang**

[P1-11] Effect of material characteristics on the performance of monocrystal dia-  
mond radiation detectors / **Jinfeng Zhang**

[P1-12] Normally-off Herminated Diamond Field effect transistor with HfZrOx/  
Al<sub>2</sub>O<sub>3</sub> Ferroelectric gate dielectrics / **Kai Su**

[P1-13] Direct bonding of diamond and Cu at room temperature for power devise  
application / **Jianbo Liang**

[P1-14] Improved homogeneity of diamond vertical SBDs: dislocation reduction to  
suppress the killer defects in type-IIb substrates / **Atsushi KOBAYASHI**

[P1-15] Master Stones and Color Grading of CVD Diamond / **Tzu-Hsiang Yen**

## Poster Session 1

**[P1-16]** Crystallinity evaluation of single crystal diamond by forbidden reflection / **KAI KOUDA**

**[P1-17]** Surface modification of diamond for electronic property tuning / **Yuet Mun Gary Wan**

**[P1-18]** Study of nanoparticles influence on pre-implantation mammalian embryo: Perspective of embryonic quality through spectroscopy / **Micahella Sarmiento**

**[P1-19]** An Investigation on Manganese Distribution During the Fabrication of Manganese Embedded Nanodiamonds / **Bo-Rong Lin**

**[P1-20]** Nucleation of Diamond / **Evan Thomas**

**[P1-21]** Characterization of homoepitaxial diamond film on TiN-coated HPHT diamond substrate / **Kun-An Chiu**

**[P1-22]** Dielectric high power characterization of a F-passivated diamond disk surface for fusion applications / **Theo Scherer**

**[P1-23]** A comparison of the electron field emission properties of diamond films grow on different nanostructured silicon substrates / **Wen-Ching Shih**

**[P1-24]** Growth of diamond (111) surfaces by hot-filament CVD with trimethylphosphine addition / **Yuki Katamune**

**[P1-25]** Evaluation of the influence of hydrogen on phosphorus doped diamond by Raman spectroscopy / **Minori Matsuoka**

**[P1-26]** Evaluation of Damaged Layer Induced by Mechanical Polishing by Raman Spectroscopy / **Yuki Kawamata**

**[P1-27]** Decomposition and their structural change by heating on amorphous carbon films / **HIROKI AKASAKA**

**[P1-28]** Diamond Devices for Tritium Betavoltaic Batteries / **Sergey Maximenko**

**[P1-29]** Modification process of hydrogenated Si containing DLC films by soft X-ray irradiation / **Kazuhiro Kanda**

**[P1-30]** Relationship between structure and electrical conduction properties in hydrogenated amorphous carbon films / **Masashi Tomidokoro**



## Poster Session 1

**[P1-31]** Fluorescent nanodiamonds with molecularly programmed interface for quantum sensing / **Petr Cigler**

**[P1-32]** Metal-insulator-metal-semiconductor (MIMS) field-effect transistors based on semiconductor diamond with controllable threshold voltages / **Meiyong Liao**

**[P1-33]** Towards fabrication of boron-doped diamond films at low temperatures / **Petr Ashcheulov**

**[P1-34]** Multi-modal nanodiamond drug-delivery platform for treating oncogene-specific hepatocellular carcinoma / **Mengjie Gu**

**[P1-35]** CVD grown nitrogen-vacancy centers in isotopically controlled diamond / **Christian Osterkamp**

**[P1-36]** Microwave cavity perturbation for non-contact electrical conductivity measurements of doped diamond films / **Jerome Cuenca**

**Tuesday, 14 May 2019**

**Poster Session 2**

**Co-Chairs: Mario Hofmann, Chen-Hao Wang**

**@4F Foyer**

**Poster set up 13:00-15:45**

**Poster presentation 15:45-18:00**

**Poster must be removed before 12:00, May 15**



## Tuesday, 14 May 2019

### Poster Session 2

[P2-1] Study on surface modification and heat dissipation of diamond microchannel heat sink / **Zhina Qi**

[P2-2] Nanodiamond composites; comparing detonation, high-pressure/high-temperature, and CVD nanodiamonds within epoxy matrices / **Dominic Palubski**

[P2-3] Atomic structures, mechanical, and tribological properties of B-doped ultrananocrystalline diamond/ nonhydrogenated amorphous carbon composite films deposited on cemented carbide / **Mohamed Egiza**

[P2-4] Simulation and experimental researches on the substrate temperature distribution of the HFCVD setup for mass-production of diamond coated milling tools / **Hua Wang**

[P2-5] Increased deposition rates of micro- and nanocrystalline diamond films during MWCVD growth in high power density conditions / **Vadim Sedov**

[P2-6] Research on Transmission Electron Microscopy (TEM) of Diamonds / **JOE YUAN**

[P2-7] Electronic Band Structure of Phosphorus Doped Single Crystal Diamond: Spin-Orbit Splitting of Donor Ground State / **Kirill Boldyrev**

[P2-8] Shallow boron doping of Singlecrystalline diamond by excimer laser irradiation / **Eslam Abubakr**

[P2-9] Enhancing or reducing oxidation resistance of CVD diamonds by doping technique / **Xinchang Wang**

[P2-10] In-situ IR Study of Boron-doped Diamond Electrode/Electrolyte Interface / **Naoki Kamoshida**

[P2-11] Control of Product Selectivity on Electrochemical Reduction of CO<sub>2</sub> Using Boron-Doped Diamond Electrode / **Mai Tomisaki**

[P2-12] Preparation of diamond-Ti composite as an anode material / **Weizhong Tang**

[P2-13] Structural, Electronic and Electrical Behaviour of TiO<sub>2</sub> - MWCNTs Nano-Composite Material / **Sekhar Ray**

## Poster Session 2

**[P2-14]** Modification of carbon nanotubes as anode materials for microbial fuel cells / **Liu Yu-Chen**

**[P2-15]** Preparation of few-layer graphene-capped silicon nanostructures and their electron field emission properties / **Wen-Ching Shih**

**[P2-16]** Investigation of Photocatalytic CO<sub>2</sub> Reduction Reaction Performance by Controlling Oxygen Containing Functional Groups of Graphene Oxide. / **又中 張 (Yu-Chung Chang)**

**[P2-17]** A new model for the synthesis of graphite encapsulated nickel nanoparticles when using organic compounds in an arc-discharge system / **Mao-Hua Teng**

**[P2-18]** Intercalation at the graphene interface leads to the stable formation of thermodynamically unfavorable  $\beta$ -Cu<sub>2</sub>S / **Shu Yu Huang**

**[P2-19]** High frequency electromechanical resonators based on strained graphene / **Ifan Hu**

**[P2-20]** Dendritic Polymers Modified Reduced Graphene Oxide Nanoplatelets with Ag Nanoparticle for Raman-Enhanced Detection / **Ting-Yu Liu**

**[P2-21]** In-situ and Green Synthesis of N-doped Graphene / **Yu-Chen Chang**

**[P2-22]** Fabrication Functional Graphene via High Temperature Carbonization of Biomaterials for Water Purification Applications / **Jeff Tsai**

**[P2-23]** Tuning of electronic and magnetic properties of multifunctional reduced-graphene-oxide/Fe<sub>2</sub>O<sub>3</sub> nanocomposite for magnetic resonance imaging application / **Sekhar Ray**

**[P2-24]** High Capacity Organic Cathode Materials for Lithium Batteries / **Bang-Hung Tsao**

**[P2-25]** Biowaste-Derived Carbons as Anode Materials for Sodium Ion Batteries / **Peng-Hsuan Chiang**



## Poster Session 2

**[P2-26]** Investigation of carbon nanotube-ZnO hybrid nanostructures /  
**Adam Pander**

**[P2-27]** The Effects of Hydrogen Chemical Potential on the Graphene Precursors  
During Transition Metal Graphene CVD. / **Izaak Mitchell**

**[P2-28]** Study on improvement of heat resistance of boron doped CVD  
diamond / **Tae-Gyu Kim**

**[P2-29]** Improvement of Diamond Capsule Quality for Direct-Drive Inertial  
Confinement Fusion / **Toshihiro Iwasaki**

**[P2-30]** Highly enhanced photoluminescence of single crystal continuous  
monolayer  $WS_2$  growth in centimeter-scale by chemical vapor deposition /  
**Chong-Yo Liu**

**[P2-31]** The effective passivation on device stability of two-dimensional materials /  
**Yu-Ling Hsieh**

**[P2-32]** Annealing with LPHT CVD Diamonds / **Chi-Ray Lee**

**[P2-33]** Design of Flower-Like Boron-Doped Diamond and Electrochemical Detec-  
tion of  $H_2O_2$  and Glucose / **Kazuaki Takagi**