

SurfCoat Korea 2019 Conference Program

27 - 29 March 2019 | Seoul, Republic of Korea

March 27, 2019		
09:00-10:00	Registration + Welcoming coffee	
SurfCoat Korea 2019 / Graphene Korea 2019 Joint Session I		
Conference Room 116/117		
Session Chairs: Prof. Sang Ouk Kim, KAIST, Rep. of Korea Prof. Agnes Granier, CNRS-University of Nantes, France Prof. Holger Kersten, Kiel University, Germany		
10:00-10:30	The GRAPHENE SHIFT is already ongoing J. Hoon Lee	Mr. Joung Hoon Lee , Standard Graphene Inc., Rep. of Korea
10:30-11:00	Graphene and Carbon Nanotube (CNT) Commercialization: Past, Present and Future R. Collins and K. Ghaffarzadeh	Dr. Richard Collins , IDTechEx- Cambridge, UK
11:00-11:30	Industrial deposition methods and applications of carbon based coatings J. Vetter , J. Karner, M. Kirk, F. Meunier, S. Krassnitzer, H. Eberle, M. Grischke, W. Kalss, J. Becker and A. Zedda	Dr. Jörg Vetter , Oerlikon Balzers Coating, Germany
11:30-11:45	Functionalized graphene as structural fortifier for polymers and coatings C. Xia and B. Zhmud	Dr. Chao Xia , Applied Nano Surfaces Sweden AB, Sweden
11:45-12:00	Chemically Induced Transformation of CVD-Grown Bilayer Graphene into Single Layer Diamond P.V. Bakharev , M. Huang, M. Saxena, S. W. Lee, S. H. Joo, S.O. Park, J. Dong, D. Camacho-Mojica, S. Jin, Y. Kwon, M. Biswal, F. Ding, S.K. Kwak, Z. Lee and R.S. Ruoff	Dr. Pavel V. Bakharev , Institute for Basic Science-Ulsan, Rep. of Korea
12:00-12:15	Graphene Growth on Cu Foil by Direct-Liquid-Injection Chemical Vapor Deposition with Cyclohexane Precursor in N ₂ Ambient T. Intaro , T. Taychatanapat, N. Nuntawong, S. Koh and S. Sanorpim	Mr. Taworn Intaro , Chulalongkorn University, Thailand
12:15-12:30	Scaling up single-crystal graphene by CVD of ethanol and methane A. Capasso , C.D. Liao, B. Sompalle, M.F. Cerqueira, J. Borme, G. Faggio, G. Messina, N. Lisi, G.H. Lee and P. Alpuim	Dr. Andrea Capasso , International Iberian Nanotechnology Laboratory, Portugal
12:00-14:00	Lunch Break / Posters Session I - Room 118	
SurfCoat Korea 2019		
Session I.A: Plasma Coatings deposition and processing		
Conference Room 117		
Session Chairs: Prof. Tiberiu Minea, CNRS- Paris-Saclay University, France Prof. Koji Sugioka, RIKEN Center for Advanced Photonics, Japan		
14:00-14:30	Magnetron Sputtering: The Special Role of Localized Electron Heating and Supply of Neutrals A. Anders	Prof. André Anders , Leibniz Institute of Surface Engineering (IOM), Germany
14:30-15:00	Application of Plasma Monitoring and Diagnostic Techniques for the Reactive high-power Impulse Magnetron Sputtering J-W. Lee	Prof. Jyh-Wei Lee , Ming Chi University of Technology, Taiwan
15:00-15:30	Ionized PVD and Hybrid Processes H. Barankova and L. Bardos	Prof. Hana Barankova , Uppsala University, Sweden
15:30-16:00	Determination of momentum and energy fluxes in plasma surface processing H. Kersten , T. Trottenberg, A. Spethmann, M. Klette and L. Hansen	Prof. Holger Kersten , Kiel University, Germany

16:00-16:30		Coffee Break / Posters Session I
Session Chairs: Prof Jyh-Wei Lee, Ming Chi University of Technology, Taiwan Prof André Anders, Leibniz Institute of Surface Engineering (IOM), Germany		
16:30-17:00	Tailored Growth Process of Ultra-Thin Films by Magnetron Plasma T. Minea , F. Cemin, M. Rudolph and D. Lundin	Prof. Tiberiu Minea , CNRS-Paris-Saclay University, France
17:00-17:30	Control of the deposition temperature and nanostructure of silicon and titanium oxide thin films in PECVD routes A. Granier , D. Li, M. Richard-Plouet, S. Bulou, P. Choquet and A. Goullet	Prof. Agnes Granier , CNRS-University of Nantes, France
17:30-18:00	Femtosecond Laser 3D Processing for Fabrication of Functional Micro- and Nano-Systems K. Sugioka	Prof. Koji Sugioka , RIKEN Center for Advanced Photonics, Japan
18:00-18:15	Fabrication and performance analysis of protective coating deposited on nickel alloy used in nuclear reactor Y.Liu , M.Zheng, X.Wang, H.Li, Y.Lu and H.Xia	Dr. Yanhong Liu , State Power Investment Corporation S&T Research Institute, China
18:15-18:30	Product Orientated Optimization of Coating Processes by Acoustic Levitation D. L. Wong, A. Reinbeck, S. C. Müller, H.-U. Moritz and W. Pauer	Ms Doris Locsin Wong , University of Hamburg, Germany
18:30-18:45	Influence of processing conditions on deposit layer formation by barrel nitriding treatment on aluminum alloy K. Nambu , K. Sayo and M. Okumiya	Dr. Koichiro Nambu , Toyota Technological Institute, Japan

18:30 – 21:00	Social Activity: SongDo Night Tour
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March 28, 2019

SurfCoat Korea 2019

Session II A : Functional/ Multi-functional, composite/ hybrid, graded and multilayers coatings

Conference Room 117

Session Chairs:

Prof. Hana Barankova, Uppsala University, Sweden
Prof. Ulrich Schmid, TU Wien Institute of Sensor and Actuator Systems, Austria
Prof. Andreas Gerdes, Karlsruhe Institute of Technology, Germany
Prof Jyh-Wei Lee, Ming Chi University of Technology, Taiwan

09:30-10:00	Siloxane Based Flexible Hard Coating for Foldable Smartphone Cover Window Film B-S. Bae, G-M. Choi and J. Ko	Prof. Byeong-Soo Bae, KAIST, Rep of Korea
10:00-10:15	Silver nanowire/graphene-based Thin Film for Transparent Electrode and Thermal Heater Applications J. W. Shin, * E. Jeong and Y-H. Choa	Ms. Jeong Eunhye, Hanyang University, Rep. of Korea
10:15-10:30	Corona discharge mitigation of HV transmission lines by surface modification N. K. Tnyshtykbayev, N. Zhakiyev, J. Norem and Z. Insepov	Dr. Nurkhat Zhakiyev, Nazarbayev University, Kazakhstan
10:30-11:00	Coffee Break / Posters Session II	
SurfCoat Korea 2019		
Session II B : Surfaces and coatings characterization and properties		
11:00-11:15	Roughness influence on self-adaptation and self-healing of DLC-MoS2 wear protective, low-friction coatings on 3D printed polymers J.M. Lackner, W. Waldhauser, L. Major, M. Kot and P. Angerer	Dr. Juergen M. Lackner, Joanneum Research Forschungsgesellschaft mbH, Austria
11:15-11:30	Wear Resistance of Electrodeposited Ni-P and Ni-B-TiO2 Sol-enhanced Nano-composite Coatings S. Sheikholeslami, W. Gao and Y. Wang	Mr. Sina Sheikholeslami, The University of Auckland, New Zealand
11:30-11:45	Synergistic Effect of Different Nanocontainers For Self-healing Corrosion Protection Coatings On AA2024-T4 S. Manasa, K.V. Gobi and R. Subasri	Ms. Manasa Samavedam, International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), India.
11:45-12:00	Barrier Coatings in Food Packaging Applications M. Bendig, H.-U. Moritz and W. Pauer	Ms. Mareike Bendig, University of Hamburg, Germany
12:00-12:15	Scanning Droplet Adhesion Microscopy M. Vuckovac, V. Liimatainen, V. Jokinen, V. Sariola, M.J. Hokkanen, Q. Zhou and R.H. A. Ras	Dr. Maja Vuckovac, Aalto University, Finland
12:00-13:45	Lunch Break / Posters Session II - Room 118	

13:45 – 14:00

Group Photo

<p align="center">SurfCoat Korea 2019 Session II C : Surface engineering / coatings in sustainable energy, conversion, optical, electric, photovoltaic and magnetic applications</p>		
<p align="center">Session chairs: Prof. Karin Stana Kleinschek, University of Maribor, Slovenia Prof André Anders, Leibniz Institute of Surface Engineering (IOM), Germany Prof. Alessandro Pezzella, University of Naples Federico II, Italy</p>		
14:00-14:30	Advanced Aluminium Nitride Thin Films for Piezoelectric MEMS U. Schmid and M. Schneider	Prof. Ulrich Schmid , TU Wien Institute of Sensor and Actuator Systems, Austria
14:30-14:45	Challenges on Adhesion in the Aqueous Processing of Cathodes for Lithium Ion Batteries W. Bauer , U. Kaufmann, M. Müller, L. Pfaffmann	Dr. Werner Bauer , Karlsruhe Institut of Technology, Germany
14:45-15:00	Oxide Surfaces, Interfaces and Thin Films: Electrochemical Studies Relevant to Perovskite Photovoltaics L. Kavan	Prof. Ladislav Kavan , J. Heyrovsky Institute of Physical Chemistry, Czech Rep.

<p align="center">SurfCoat Korea 2019 Session II D : Bio-interfaces/ Biomedical/ Bioactive surfaces and coatings</p>		
15:00-15:30	Surface and material science of biopolymers and their potential application in biomedicine T. Mohan, M. Bračič, R. Kargl, T. Heinze and K. Stana Kleinschek	Prof. Karin Stana Kleinschek , University of Maribor, Slovenia
15:30-16:00	A Multiphysics Modelling of Magnetic-Sensitive Hydrogels H. Li	Prof. Hua Li , Nanyang Technological University, Singapore
16:00-16:30	Coffee Break / Posters Session II	
16:30-17:00	Bioinspired Melanin Coatings in Bioelectronics: the case of Eumelanin/PEDOT(PSS) blend for ITO-free electrodes A. Pezzella	Prof. Alessandro Pezzella , University of Naples Federico II, Italy
17:00-17:15	Derivatization of biopolymers for functional coatings A. Bratuša, L. Jurko, K. Stana Kleinschek and R. Kargl	Dr. Rupert Kargl , University of Maribor, Slovenia
17:15-17:30	Biopolymer-based coatings on the plasmochemical activated surface of NiTi alloy P. Jabłoński , W. Niemiec, Ł. Kaczmarek, M. Hebda, H. Krawiec and K. Kyzioł	Mr. Piotr Jabłoński , AGH University of Science and Technology, Poland
17:30-17:45	TiO ₂ /CaP as a bioactive coating produced by using plasma electrolytic oxidation technique A. Zakaria , M. Hamdi and M. Todoh	Mrs. Siti Hidayatul A.B Zakaria , Hokkaido University, Japan
17:45-18:00	Enhancement of Adhesion of γ -Al ₂ O ₃ with Stainless Steel Catalytic Supports M. Abbas , M-W. Moon, J.Y. Byun and S. H. Kim	Mr. Muzafar Abbas , University of Science and Technology- Daejeon, Rep. of Korea

19:00 – 21:00	Social Activity: The conference Cocktail Reception
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March 29, 2019
SurfCoat Korea 2019
Session III: Coatings for energy and environmental applications

Conference Room 117

Session chairs:
Prof. Hana Barankova, Uppsala University, Sweden
Prof. Rimantas Ramanaukas, Center for Physical Sciences and Technology, Lithuania

09:00-09:30	Active Corrosion Protection of Metals by Ce-containing Conversion Coatings R. Ramanaukas , O. Girciene, L. Gudaviciute, S. Butkute, A. Kirdiekiene, I. Morkvenaite-Vilkonciene, J. Juodkazyte and A. Selskis	Prof. Rimantas Ramanaukas , Center for Physical Sciences and Technology, Lithuania
09:30-10:00	Prevention in Construction – from the molecule to the building A. Gerdes	Prof. Andreas Gerdes , Karlsruhe Institute of Technology, Germany
10:00-10:30	Coffee Break	
10:30-11:00	Insight into the structure-property relationship of the protective coatings at the atomic level Z. Zhang	Dr. Zaoli Zhang , Erich Schmid Institute of Materials Science, Austrian Academy of Sciences, Austria
11:00-11:15	Hybrid Organic-Inorganic Coatings of Double Layered Hydroxide on Aluminum Alloy for Enhanced Alkaline Resistance S-T. Tsai, W.C. Chang, P-H. Chao and T-C. Tsai	Prof. Tseng-Chang Tsai , National University of Kaohsiung, Taiwan
11:15-12:15	Getting published: The publication process in a peer-reviewed journal, and insight-views about the Dos and Don'ts for authors A. Anders	Prof André Anders , Leibniz Institute of Surface Engineering (IOM), Germany / Editor-in-Chief, Journal of Applied Physics, AIP Publishing, Melville, NY/ USA

13:30 – 18:00

Social Activity: Visit to Ganghwa

Posters Sessions

March 27, 2019

SurfCoat Korea 2019

Session I: Surface treatments and coatings deposition processes/Characterisation

Conference Room 118

N.	Poster Title	Author/Affiliation/Country
1.	In-situ thickness monitoring of dielectric layer growth using rotated silicon witness L. Nozka , P. Schovaneck, M. Pech, D. Mandat and M. Hrabovsky	Dr. Libor Nozka , Palacky University, Czech Republic
2.	Characteristics of Ni/LPD-Al ₂ O ₃ /Sputtering-ZnO/Glass UV Photodetector C-C. Lin, J-J. Huang and D-S. Wu	Prof. Jung-Jie Huang , Da-Yeh University, Taiwan
3.	Synthesis of N-heterocyclic complexes of Cr,Fe,Mn,Co and Ti conversion to nanoparticles and application for cyclohexane oxidation Z. Alrufaydi , SM. Ahmad and AT. Mubarak	Mrs Zahrah Alrufaydi , King Khalid University, Saudi Arabia
4.	Low cost metal-free reduction catalysts of violet phosphorus synthesized by High Energy Mechanical Milling R.H. Jeong , D.I. Kim, J.W. Lee, J-H. Yu, A. Ananth and J-H. Boo	Mr. Rak Hyun Jeong , Sungkyunkwan University,
5.	Particle Fabrication via Drying Droplet Method on a Super Hydrophobic Surface H-J. Kim , S-J. Kim, C.W. Park and H-M. Yang	Dr. Hyung-Ju Kim , Korea Atomic Energy Research Institute, Rep.of Korea
6.	On the method of laser surface micromachining to increase the adhesion properties of joints G. Witkowski , S. Tofil, K. Mulczyk and H. Danielewski	Dr. Grzegorz Witkowski , Kielce University of Technology, Poland
7.	Surface laser micromachining to increase the strength of joints in adhesive joints Sz. Tofil , G. Witkowski, K. Mulczyk and H. Danielewski	Dr. Szymon Tofil , Kielce University of Technology, Poland
8.	Newly Designed TiO ₂ Hollow Spheres and its Photocatalytic Properties C-N. Chen, J-Y. Wang , T -Y. Lin and J-J. Huang*	Mr. Jui Yu Wang , Da-Yeh University, Taiwan
9.	Micro-alloys precipitation in NiO- and CoO-bearing enamel coatings and their effect on adherence of enamel/steel K. Chen , M. Chen, S. Zhu and F, Wang	Mr. Ken Chen , University of Science and Technology of China, China
10.	Effects of Process Parameters on the Properties of Ga-doped SnOx Thin Films H. I. Bang, B. S. Bae and E.-J. Yun	Prof. Eui-Jung Yun , Hoseo University, Rep.of Korea
11.	Development and Evaluation of Self-polishing Copolymer (SPC) resins and antifouling paints based on silyl acrylate R. Park and H. Park	Ms. Rahui Park , Pusan National University, Rep. of Korea
12.	General Electrical Characteristics of an Impulse Magnetron Discharge in Target Material Vapor A.V. Kaziev, K.A. Leonova , M.M. Kharkov, A.V. Tumarkin, D.V. Kolodko and D.G. Ageychenkov	Ms. Kseniya Leonova , NRNU MEPhI, Russia
13	Highly stable robust superhydrophobic coating deposited on glass substrate using atmospheric pressure plasma jet Md. M. Hossain , Q. H. Trinh, D.B. Nguyen, M.S.P. Sudhakaran, Y. Sun Mok	Mr. Md. Mokter Hossain , Jeju National University, Rep. of Korea

Graphene Korea 2019 Preliminary Program

27 - 29 March 2019 | Seoul, Republic of Korea

March 27, 2019		
SurfCoat Korea 2019 - Graphene Korea 2019 joint Session I		
Conference Room 116/117		
Session Chairs: Prof. Sang Ouk Kim, KAIST, Rep. of Korea Prof. Agnes Granier, CNRS-University of Nantes, France Prof. Holger Kersten, Kiel University, Germany		
09:00-10:00 Registration + Welcoming coffee		
10:00-10:30	The GRAPHENE SHIFT is already ongoing J. Hoon Lee	Mr. Joung Hoon Lee , Standard Graphene Inc., Rep. of Korea
10:30-11:00	Graphene and Carbon Nanotube (CNT) Commercialization: Past, Present and Future R. Collins and K. Ghaffarzadeh	Dr. Richard Collins , IDTechEx- Cambridge, United Kingdom
11:00-11:30	Industrial deposition methods and applications of carbon based coatings J. Vetter , J. Karner , M. Kirk , F. Meunier , S. Krassnitzer , H. Eberle , M. Grischke , W. Kalss , J. Becker and A. Zedda	Dr. Jörg Vetter , Oerlikon Balzers Coating, Germany
11:30-11:45	Functionalized graphene as structural fortifier for polymers and coatings C. Xia and B. Zhmud	Dr. Chao Xia , Applied Nano Surfaces Sweden AB, Sweden
11:45-12:00	Chemically Induced Transformation of CVD-Grown Bilayer Graphene into Single Layer Diamond P.V. Bakharev , M. Huang , M. Saxena , S. W. Lee , S. H. Joo , S.O. Park , J. Dong , D. Camacho-Mojica , S. Jin , Y. Kwon , M. Biswal , F. Ding , S.K. Kwak , Z. Lee and R.S. Ruoff	Dr. Pavel V. Bakharev , Institute for Basic Science-Ulsan, Rep. of Korea
12:00-12:15	Graphene Growth on Cu Foil by Direct-Liquid-Injection Chemical Vapor Deposition with Cyclohexane Precursor in N ₂ Ambient T. Intaro , T. Taychatanapat , N. Nuntawong , S. Koh and S. Sanorpim	Mr. Taworn Intaro , Chulalongkorn University, Thailand
12:15-12:30	Scaling up single-crystal graphene by CVD of ethanol and methane A. Capasso , C.D. Liao , B. Sompalle , M.F. Cerqueira , J. Borme , G. Faggio , G. Messina , N. Lisi , G.H. Lee and P. Alpuim	Dr. Andrea Capasso , International Iberian Nanotechnology Laboratory, Portugal
12:00-14:00 Lunch Break / Posters Session I		
Graphene Korea 2019 Session I A : Graphene and 2D Materials, Growth, synthesis, modification and functionalization and Characterization		
Conference Room 116		
Session Chairs: Dr. Blanca Biel, University of Granada, Spain Prof. Feng Ding, Institute for Basic Science, Rep. of Korea Prof. Johnson Goh Kuan Eng, Agency for Science, Technology and Research (A*STAR), Singapore		
14:00-14:30	Graphene Oxide Liquid Crystal S.O. Kim	Prof. Sang Ouk Kim , KAIST, Rep. of Korea
14:30-15:00	Strategies for the Synthesis of Wafer Scale Graphene Single Crystal F. Ding	Prof. Feng Ding , Institute for Basic Science, Rep. of Korea
15:00-15:30	Transfer-Free Large-Scale High-Quality Monolayer Graphene Synthesized at Lower Temperatures than Boiling Point of Water B-J. Park , Y. Han , J-S. Choi , H. Ha , H.Y. Kim , C. Jeon , J-H. Eom , G. Park , H-T. Jung , Y-H. Kim and S-G. Yoon	Prof. Soon-Gil Yoon , Chungnam National University, Rep. of Korea

15:30-16:00	Graphene anode for organic and perovskite light-emitting diodes T-W. Lee	Prof. Tae-Woo Lee , Seoul Nat. University, Rep. of Korea
16:00-16:30	Coffee Break / Posters Session I	
16:30-17:00	Point-like defects in transition metal dichalcogenides characterized by SPM simulations B. Biel, A. Gallardo and P. Pou	Dr. Blanca Biel , University of Granada, Spain
17:00-17:15	The structure of graphene folds in single crystal graphene film grown on a Cu (111) foil D. Luo, M. Choi, M. Wang, Y. Kwon, Z. Lee and R.S. Ruoff	Dr. Da Luo , Institute for Basic Science- Ulsan, Rep. of Korea
17:00-17:30	Many-body quantum Monte Carlo study of 2D materials: Cohesion, band gap, and strain effect in phosphorene T. Frank, R. Derian, K. Toár, L. Mitas, J. Fabian and I. Štich	Prof. Ivan Stich , Slovak Academy of Sciences, Slovakia
17:30-17:45	A novel approach to grow the bulk TMDC with two-dimensional material properties S.W. Tong* , H. Medina and D. Chi	Dr. Shi Wun Tong , Agency for Science Technology and Research, Singapore
17:45-18:00	Influence of Nano-confined Water on the Frictional Properties of Single-layer Graphene Coated Rough Silica Surface H-C. Chiu and E-D. Chu	Dr. Hsiang-Chih Chiu , National Taiwan Normal University, Taiwan
18:00-18:15	Similarities and differences of fractional end charges in graphene zigzag ribbon and polyacetylene S.-R Eric Yang	Prof. Sung R.Eric Yang , Korea University, Rep. of Korea
18:15-18:30	Single layer h-BN grown on curved Ni(111) crystal: oxidation and oxygen intercalation A. A. Makarova , L. Fernandez, D. Yu. Usachov, A. Fedorov, K. A. Bokai, D. A. Smirnov, C. Laubschat, D. V. Vyalikh, F. Schiller and J. E. Ortega	Dr. Anna Makarova , Dresden University of Technology, Germany
18:30-18:45	Development of Roll to Roll CVD system for mass production of high quality and large area Graphene Y-S. Kim , J. Sung, J.S. Moon, W.B. Park, J.Rho and M. Hee Jung	Dr. Youn-Su Kim , LG electronics, Rep. of Korea

18:30 – 21:00	Social Activity: SongDo Night Tour
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March 28, 2019
Graphene Korea 2019
Session II A: Graphene for electronic, photovoltaic and magnetic applications

Conference Room 116

Session Chairs:
Dr. Elena Polyakova, National University of Singapore, Singapore
Prof. Philip Feng, Case Western Reserve University, USA
Dr. Mindaugas Lukosius, Institute for High Performance Microelectronics, Germany

09:00-09:30	Moiré superlattices and minibands for Dirac electrons in graphene heterostructures V. Falko	Prof. Vladimir Falko , University of Manchester, UK
09:30-10:00	Programmable van der Waals materials A. Mishchenko	Dr. Artem Mishchenko , Manchester University, UK
10:00-10:30	Critical Overview of Performance of 2D Materials and Composites E. Polyakova	Dr. Elena Polyakova , National University of Singapore, Singapore
10:30-11:00	Coffee Break / Posters Session II - Room 118	
11:00-11:30	Upcoming industrial applications of graphene oxide R. Wendelbo	Dr. Rune Wendelbo , Abalonyx AS/ Graphene Batteries AS, Norway
11:30-12:00	Emergence of Black Phosphorus as Anisotropic 2D Material for Electronics and Optoelectronics K-W. Ang	Prof. Kah-Wee Ang , National University of Singapore, Singapore
12:00-12:15	High Areal Loading and Stable Sulfur Cathode Enabled with RGO Coating for LiS Batteries A. Oguz Tezel, R. Wendelbo and S. Fotedar	Dr. Ahmet Oguz Tezel , Graphene Batteries AS, Norway
12:00-13:45	Lunch Break / Posters Session II	

13:45 – 14:00

Group Photo

Session Chairs:
Prof. Won-Chun Oh, Hanseo University, Rep. of Korea
Dr. Artem Mishchenko, Manchester University, UK

14:00-14:30	Growth of Single-Crystalline Nanobelts Composed of Transition Metal Ditellurides for Future Electronic & Energy Applications S-Y. Kwon	Prof. Soon-Yong Kwon , Ulsan National Institute of Science and Technology, Rep. of Korea
14:30-15:00	Towards the integration of 200 nm graphene into microelectronics M. Lukosius	Dr. Mindaugas Lukosius , Institute for High Performance Microelectronics, Germany
15:00-15:30	Atom-by-atom engineering of Kekule lattices: the boundary of topological insulators C. Morais Smith	Prof. Cristiane Morais Smith , University of Utrecht, The Netherlands
15:30-16:00	Highly Tunable and Glowing Graphene Nanoelectromechanical Systems (NEMS) P. Feng	Prof. Philip Feng , Case Western Reserve University, USA
16:00-16:30	Coffee Break / Posters Session II - Room 118	
16:30-17:00	Finding Chiral Valleys in 2D Semiconductors K. E. Johnson Goh	Prof. Johnson Goh Kuan Eng , Agency for Science, Technology and Research, Singapore
17:00-17:30	Charge density wave and superconducting order in TiSe ₂ driven by excitonic condensation and its fluctuations V.M. Pereira	Prof. Vitor M. Pereira , National University of Singapore, Singapore

17:30-17:45	Graphene Fibers for Energy Applications S. Padmajan Sasikala and S.O. Kim,	Dr. Suchithra Padmajan Sasikala , KAIST, Rep. of Korea
17:45-18:00	2D Metal Chalcogenide Nanopatterning by Block Copolymer Lithography T. Yun , G.S. Lee, J.G. Kim and S. O. Kim	Dr. Taeyeong Yun , KAIST, Rep. of Korea

19:00 – 21:00	Social Activity: The conference Cocktail Reception
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March 29, 2019
Graphene Korea 2019
Session III: Application of Graphene in Energy/ Health and biomedical

Conference Room 116

Session chairs:

Prof. Vitor M. Pereira, National University of Singapore, Singapore

Prof. Ho Won Jang, Seoul National University, Rep. of Korea

Dr. Elena Polyakova, National University of Singapore, Singapore

09:00-09:30	Flexible graphene-based gas sensors of low power consumption H.W.Jang	Prof. Ho Won Jang , Seoul National Univ., Rep. of Korea
09:30-09:45	Photoluminescence properties of monolayer transition metal dichalcogenides in an aqueous solution W. Zhang , K. Matsuda, and Y. Miyauchi	Mr. Wenjin Zhang , Kyoto University, Japan
09:45-10:00	Competing energy scale in Bilayer Graphene Quantum Point Contacts Y. Lee , A. Knothe, H. Overweg, P. Rickhaus, M. Eich, A. Kurzman, K. Watanabe, T. Taniguchi, V. I. Fal'ko, T. Ihn and K. Ensslin	Dr. Yongjin Lee , ETH Zurich, Switzerland
10:00-10:15	Tuning the performance of graphene-field-effect-transistors using Self-Assembled Monolayers S. Ramadan, Y. Zhang , D. K. Hong Tsang, O. Shaforost, C.Watts, I. E. Dunlop, P.K. Petrov and N. Klein	Mr. Yuanzhou Zhang , Imperial College London, UK
10:15-10:30	Development and fabrication of graphene oxide membranes for water desalination Z.Balgin, Z.Yelemessova , Z.Yermogambetov, K.Tynyshtykbayev, and Z.Insepov	Mrs. Zarina Yelemessova , Nazarbayev University, Kazakhstan
10:30-11:00	Coffee Break - Room 118	
11:00-11:30	Prospective Study of Graphene Combined Semiconductor and its Potential Application W-C. Oh	Prof. Won-Chun Oh , Hanseo University, Rep. of Korea
11:30-11:45	Characterization of Hybrid MnO ₂ /RGO/PANI Supercapacitor with Green Reducing Agent S.I. Khairul, M.N.M.Ansari , S.Z.Omar, P.J.Ker, M.N.Saifuddin, A.Q. Al-Amin and H.Hasmaizan	Dr. Mohamed Ansari Mohamed Nainar , Tenaga National University, Malaysia
11:45-12:00	Dielectric properties of semiconductor armchair graphene nanoribbon arrays C. Vacacela Gomez , A. Sindona, M. Pisarra, T. Tene and M. Guevara	Dr. Cristian Vacacela Gomez , Polytechnic School of Chimborazo, Ecuador
12:00-12:15	Chemically Functionalised Graphene Biosensor for the Label-free Sensing of Exosomes D. Kwong Hong Tsang , T. J. Lieberthal, C. Watts, I. E. Dunlop, S. Ramadan and N. Klein	Ms. Deana K.H. Tsang , Imperial College London, UK

13:30 – 18:00

Social Activity: Visit to Ganghwa

Posters Sessions

March 28, 2019

SurfCoat Korea 2019 / Graphene Korea 2019

Joint Session II: Surfaces and Coatings applications/ Graphene synthesis and applications

Conference Room 118

N.	Poster Title	Author/Affiliation/Country
1.	Growth of MnSi _{1.7} Thermoelectric Coating on Si Substrate by Pack Cementation A. Teknetzi, E. Tarani, D. Kourtidou, D. Karfaridis, E. Pavlidou, K. Chrissafis, G. Vourlias and E. K. Polychroniadis	Prof. Efstathios Polychroniadis , Aristotle University of Thessaloniki, Greece
2.	Electron Beam annealing method for realization of High Mobility Oxide Semiconductor Thin-film transistor Y-J. Cha , M.U. Cho and J. S. kwak*	Dr. Yu-Jung Cha , Sunchon National University, Rep. of Korea
3.	Anti-corrosion and Anti-oxidation Effects of Aluminum Metal Substrate by Inorganic-Organic Binder / Graphene NanoComposite Film Coating H. Kim , H. Lee, H-B. Cho and Y-H. Choa	Mr. Han Kim , Hanyang University, Rep. of Korea
4.	A Synergistic Combination of Au-coated Ag Nanowire and WO ₃ Nanofiber for Enhanced Electrochromic Application Y-B. Oh , J. Lee, H-B. Cho and Y-H. Choa	Mr. Yeong-Been Oh , Hanyang University, Rep. of Korea
5.	Preparation of one dimensional Co ₃ O ₂ -NiO@AgNWs nanowire for the thin film electrodes of supercapacitor J-Y. Lin, Y-X. Zhang , Y-Q. Wu and J-J. Huang	Ms. Yu-Xuan Zhang , National Yunlin University of Science and Technology, Taiwan
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9.	Crystalline and Uniform ZrO ₂ by Atomic Layer Deposition on Atmospheric Plasma Treated Graphene J.W. Shin , M.H. Kang, S. Oh, B. C. Yang, D. Go, T. H. Lee and J. An	Mr. Jeong Woo Shin , Seoul National University of Science and Technology, Rep. of Korea
10.	Temperature Dependence of optical properties of WS ₂ by Spectroscopic Ellipsometry H. T. Nguyen , T. J. Kim, H. G. Park, V. L. Le, X. A. Nguyen, W. Lee, D. H. Koo, C.-H. Lee and Y. D. Kim	Mr. Hoang Tung Nguyen , Kyung Hee University, Rep. of Korea
11.	A Graphene-Gated Carbon Nanotube Electron Emitter for Digital X-ray Tubes with High-Spatial Resolution H. Jeon , E. Go, J.-W. Lee, Y. Ahn, S. Park, J.-W. Kim, J.-T. Kang, J.-W. Jeong, K.N. Yun, J.-W. Yeon, S. Kim and Y.-H. Song	Ms. Jeon Hyojin , University of Science & Technology- Daejeon, Rep. of Korea
12.	Comparison of Cytotoxicity of Black Phosphorus Particles against Three Different Types of Fibroblastic Cells S.J. Song , Y.B. Lee, M.S. Kang, Y.C. Shin, H.U. Lee and D.W. Han	Ms. Sujin Song , Pusan National University, Rep. of Korea
13.	Structure-directing effect of single crystal graphene film on polymer carbonization and graphitization B.V. Cuning , B. Wang, T.J. Shin and R.S. Ruoff	Dr. Benjamin V. Cuning , Institute for Basic Science, Rep. of Korea
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