

Joint Event on

2nd Edition of

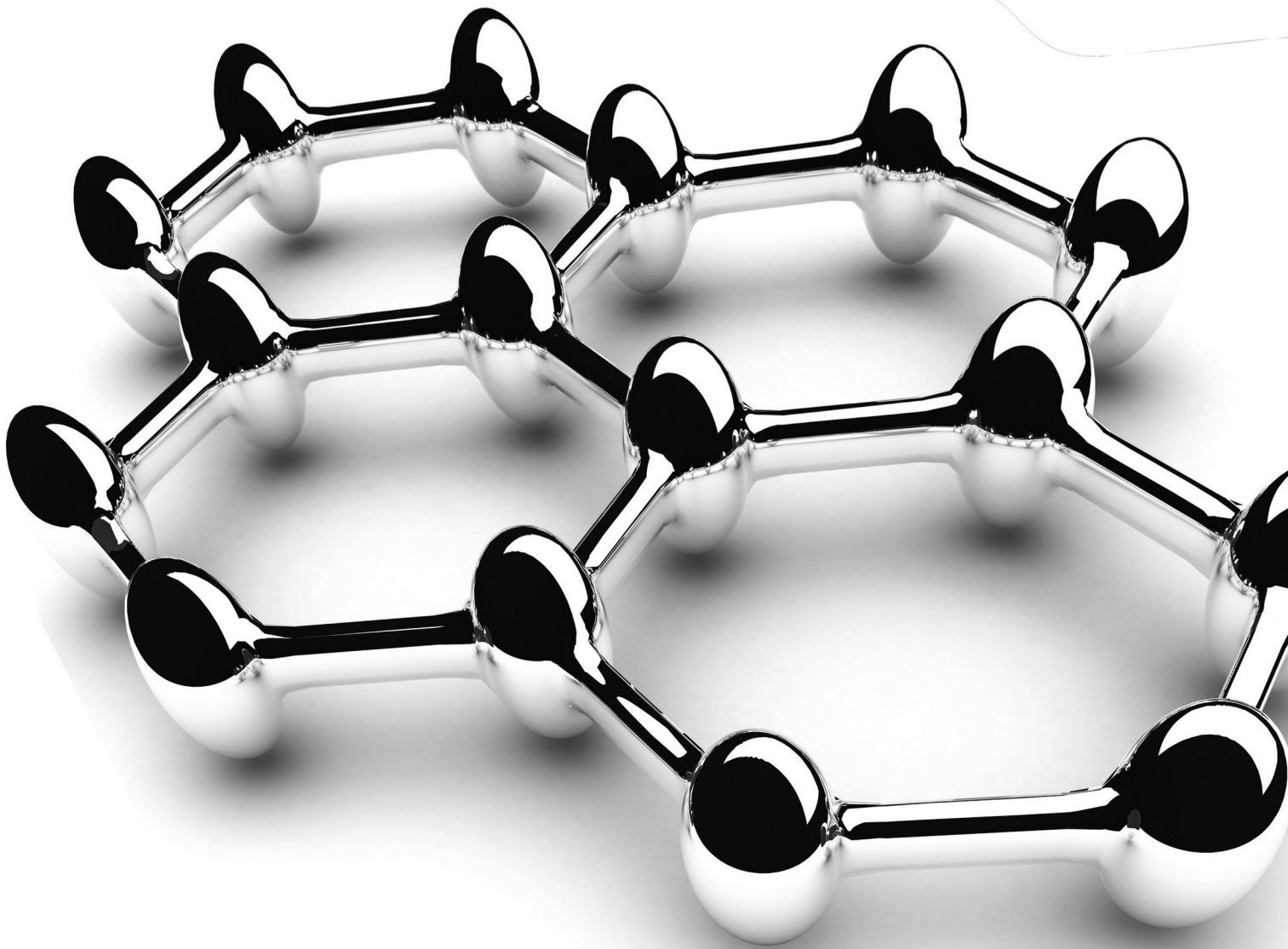
GRAPHENE & SEMICONDUCTORS | DIAMOND, GRAPHITE
& CARBON MATERIALS CONFERENCE

&

6th Edition of

SMART MATERIALS & STRUCTURES CONFERENCE

April 16-17, 2018 Las Vegas, Nevada, USA



08:00-08:30 Registrations

Conference Hall: Oasis C

08:30-08:55 Opening Ceremony

Keynote Forum

09:00-09:45 Title: Multilayer nanocrystalline diamond for optical sensing and electronics display application

Adam H Khan, AKHAN Semiconductor, USA

09:45-10:30 Title: Nanoscale tribochemical reaction drive superlubricity at macroscale with 2D materials-nanoparticles ensembles

Anirudha V Sumant, Argonne National Laboratory, USA

Networking & Refreshment Break 10:30-10:50 @ Foyer

10:50-11:35 Title: Graphene on Diamond (GOD)

James C Sung, Synthetic Element Six (SES), Taiwan

Group Photo

Panel Discussion 11:35-11:45

Sessions:

Graphene and Other 2D materials | Smart Materials and Technologies | Carbon Materials in Energy | Novel Hybrid Carbon Materials | Graphene Modification and Functionalization | Applications of Carbon Nanotubes

Session Chair: Richard A Clark, Morgan Advanced Materials, USA

Session Introduction

11:45-12:15 Title: One step in the right direction: Manufacture of graphene by electrochemical exfoliation and simultaneous functionalization with metal nanostructures

Richard A Clark, Morgan Advanced Materials, USA

12:15-12:45 Title: Stretchable and hydrophobic electrochromic devices using wrinkled graphene and PEDOT:PSS

Hossein Sojoudi, University of Toledo, USA

12:45-13:15 Title: Synthesis and application of vertical graphene network

Mineo Hiramatsu, Meijo University, Japan

Lunch Break 13:15-14:15 @ Hawaiian Gardens

14:15-14:45 Title: Generation of molecular species on graphene-based materials and their catalytic applications

Sungjin Park, Inha University, Republic of Korea

14:45-15:15 Title: Transition metal oxide thin films-applications

K V Madhuri, VFSTR University, India

15:15- 15:45 Title: Molecular probe characterization of microporous carbons

Larry Christner, LGC Consultants LLC, USA

15:45-16:15 Title: Terahertz light emission and lasing in current-injection graphene-channel transistors

Taiichi Otsuji, Tohoku University, Japan

16:15-16:45 Title: New generation nano copper/carbon composite and applications

Kun Lian, Xi'an Jiaotong University, China

Networking & Refreshment Break 16:45-17:05 @ Foyer

Panel Discussion 17:05-17:15

Young Research Forum

17:15-17:30 Title: Quantitative detection of Rhodamine 6G (R6G) by Surface-Enhanced Raman Spectroscopy (SERS) using MoS₂/graphene van der Waal (vdW) heterostructure substrate

Mohammed Alamri, The University of Kansas, USA

17:30-17:45 Title: Graphene radicals: Manipulations and applications

Zahra Komeily Nia, Deakin University, Australia

17:45-18:00 Title: Crystal growth of 2D-layered semiconductors, MoS₂ and GaSe For the development of novel photonic and electronic devices

Takahumi Ito, Tohoku University, Japan

18:00-18:15 Title: Wet-spun carbon nanotubes for soft robotic applications

Bijan Nasri Nasrabadi, Deakin University, Australia

Video Presentation

18:15-18:30 Title: Crumpled graphene-Au nanoparticle hybrid photodetector with enhanced stretchability and photoresponsivity

Pilgyu Kang, George Mason University, USA

Panel Discussion & Closing 18:30-18:40

Keynote Forum

- 09:00-09:45** Title: **Large single crystal graphene manufacture**
James C Sung, Synthetic Element Six (SES), Taiwan
- 09:45-10:30** Title: **Odd-frequency superconducting order parameter in boron-doped nano crystalline diamond films**
Somnath Bhattacharyya, University of the Witwatersrand, South Africa

Group photo & Networking & Refreshment Break 10:30-10:50 @ Foyer

- 10:50-11:35** Title: **Stiction assisted fabrication of single crystal silicon nanomembranes for MEMS applications**
Gokul Gopalakrishnan, University of Wisconsin, USA

Panel Discussion 11:35-11:45

Sessions:

**Nanomaterials and Nanotechnology | Applications of Graphene in Energy and Biomedicals
Semiconductor Materials and Nanostructures | Electrochemistry of Diamond and Nano Carbon Materials | Materials for Energy Conversion and Storage Devices**

Session Chair: Richard A Clark, Morgan Advanced Materials, USA

Session Introduction

- 11:45-12:15** Title: **Carbon nanotubes used as a thermal stabilizer in polymers**
Yeong-Tarng Shieh, National University of Kaohsiung, Taiwan
- 12:15-12:45** Title: **Synthesis of nanocrystalline diamond for applications in high temperature electronics**
Rahul Ramamurti, Ultra Clean Technology, Canada
- 12:45-13:15** Title: **Focus on optimization of colorimetric assay for the detection of hydrogen peroxide using a green synthesis pathway for silver capped nanoparticles**
Hamid Idriss, University of Sharjah, UAE

Lunch Break 13:15-14:15 @ Hawaiian Gardens

- 14:15-14:45** Title : **Electrical conductivity of a copper-metallic carbon nanotube composite**
Henry C de Groh, NASA Glenn Research Center, USA
- 14:45-15:15** Title: **Electrochemical synthesis of photoactive carbon-carbide structure on silicon**
Eimutis Juzeliunas, Klaipeda University, Lithuania
- 15:15-15:45** Title: **Graphene and carbon nanostructures/magnesium hybrid materials for hydrogen storage**
Giorgio Speranza, Fondazione Bruno Kessler, Italy
- 15:45-16:15** Title: **Surface modified barium titanate for optimal dielectric properties in polymer-ceramic nanocomposite films**
Kimberly Cook-Chennault, Rutgers university, USA

Panel Discussion 16:15-16:25

Networking & Refreshment Break 16:25-16:45 @ Foyer

Posters Presentation on Day 2 (16:45-18:00)

Poster Judge: Mineo Hiramatsu, Meijo University, Japan

- GDCSM18-01** Title: **Smart nano composite paint sensors for infrared detecting and energy harvesting**
Ashok K Batra, Alabama A&M University, USA
- GDCSM18-02** Title: **Ultra-High Molecular Weight Polyethylene (UHMWPE) material for lithium battery separators**
Xinwei Wang, Shanghai Research Institute of Chemical Industry, China
- GDCSM18-03** Title: **Poly(α -methylene- γ -butyrolactone) as potential smart polymeric material for healthcare applications**
Pascal Binda, Savannah State University, USA
- GDCSM18-04** Title: **A comparison of graphene and graphene oxide fibers in antimicrobial applications**
Rupy Kaur Matharu, University College London, United Kingdom
- GDCSM18-05** Title: **Preparation and characterization of poly (ether-block-amide)/polyethylene glycol composite films for packaging application**
Sarinthip Thanakkasaranee, Yonsei University, South Korea

Panel Discussion

Award Ceremony

Thanks Giving & Closing Ceremony