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The AVS Pacific Rim Symposium on Surfaces, Coatings and Interfaces (PacSurf 2018) will be held on the Big Island of Hawaii from December 2 – 6, 2018. This conference is being organized by AVS (United States) with a Steering Committee composed of representatives from Australia, Canada, China, Japan, Korea, Mexico, New Zealand, Philippines, Singapore, Taiwan, and the USA. Symposium attendees will interact during morning and evening sessions that will include plenary, invited, and contributed presentations. The main topics for PacSurf 2018 will be focused on the latest advances in Biomaterial Surfaces & Interfaces, Energy Harvesting & Storage, Nanomaterials, Plasma Processing, and Thin Films. We will have morning and evening technical sessions with the afternoons free for other activities and discussions.

The conference will be held in the Waikoloa Beach Marriott Resort and Spa on the Big Island of Hawaii. We are confident you will benefit by attending PacSurf 2018 and networking with the other attendees

Late News Abstract Deadline: **October 1, 2018**

https://pacsurf2018.avs.org/

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Plenary Speaker:

Mauricio Terrones, Pennsylvania State University, USA, "A Review of Defects in 2D Metal Dichalcogenides: Doping, Alloys, Interfaces, Vacancies and Their Effects in Catalysis & Optical Emission"

Biomaterial Surfaces & Interfaces Invited Speakers:

Renee Goreham, Victoria University of Wellington, New Zealand, "Exosomes and Extracellular Vesicles: Small Particles with a Big Impact"

Haeshin Lee, KAIST, South Korea, "Polydopamine, the First Material-independent Surface Chemistry Inspired by Mussels"

Gabriel Luna, Cinvestav-Unidad Queretaro, Mexico, "Nanocomposites for Tissue Engineering and the Environment"

Jenny Malmström, The University of Auckland, New Zealand, "Engineered Biointerfaces – Organisation and Functionalisation of Proteins at Surfaces"

Hideaki Yamamoto, Tohoku University, Japan, "Surface Micropatterning Techniques for Reconstituting Functional Neuronal Networks in Culture"

35th NESAC/BIO Anniversary Session

Dave Castner, University of Washington, WA, USA, "The Evolution of Biomedical Surface Analysis at NESAC/BIO"

Lara Gamble, University of Washington, WA, USA, "Future Directions and Challenges in Biomedical Surface Analysis"

Sally McArthur, Swinburne Institute of Technology, Australia, "Trying Not to Suck at Vacuum Biointerface Science: Tips, Hints and Tricks I Have Learnt from the NESAC-Bio Playbook"

Buddy Ratner, University of Washington, WA, USA, "History of Biomaterials and the Founding of NESAC/BIO"

Tobias Weidner, University of Arrhus, Denmark, "Determining Protein Structure and Motion Using SFG Spectroscopy"

Energy Harvesting & Storage Invited Speakers:

Paul Braun, University of Illinois, Urbana-Champaign, USA, "Direct Electrodeposition of High-Performance Li-ion Battery Electrodes"

Paul Dastoor, The University of Newcastle, Australia, "Solar Printing: From Benchtop to Rooftop"

Satoshi Ishii, NIMS(National Institute for Materials Science) MANA, Japan, "Harvesting Sunlight for Photoelectric and Photothermal Conversions with Titanium Nitride Nanostructures"

Ludvik Martinu, Montreal Ecole Polytech, Montreal, Canada, "Surface Engineered Smart Optical Meta-structures for Energy Saving and Thermal Control"

Pei-Chen Su, Nanyang Technological University, Singapore, "Surface Modification for Improved Cathode Performance for Thin Film Solid Oxide Fuel Cells"

Nanomaterials Invited Speakers:

Shintaro Fujii, Tokyo Institute of Technology, Japan, "Single-molecule Study on Nanocarbon Materials"

Jongill Hong, Yonsei University, South Korea, "Voltage-Assisted Magnetic Switching in MgO/CoFeB-Based Magnetic Tunnel Junctions by Way of Interface Reconstruction"

Fumitaro Ishikawa, Ehime University, Japan, "Extending Compound Semiconductor Nanowire Functions by the Introduction of Additional Elements"

Roya Maboudian, University of California at Berkeley, USA, "Nanomaterials-enabled Advances in Microfabricated Sensors for Environmental and Health Monitoring"

Chuan Shi, Dalian University of Technology, China, "Strong Interactions between the Admetal and Molybdenum Carbide Substrates for Catalyzing H2 Related Reactions"

Leyla Soleymani, McMaster University, Ontario, Canada "Nanomaterials for Creating Sensitive and Selective Biosensing Interfaces"

Plasma Processing Invited Speakers:

Ellen Fisher, Colorado State University, USA, "Plasma Surface Modification: Optimizing the Positives of Plasma-Materials Interactions"

Kostya (Ken) Ostrikov, Queensland University of Technology, Australia, "From Atomic- to Macro- Via Nano-scales: Plasma and Ion Effects in Surface Structuring"

David Ruzic, University of Illinois, Urbana-Champaign, USA, "Practical Applications of Plasma in Microelectronics"

Thin Films Invited Speakers

Gregory Abadias, Université de Poitiers, France "Nanostructure and Morphological Evolution during Thin Film Growth of Metals and Silicides Using Real-time Diagnostics"

Paul Bagus, University of North Texas, "Inferring Chemistry from the Analysis of XPS"

Jinn Chu, Taiwan University of Science & Technology, Taiwan, "Novel Metallic-Glass Nanotube Arrays: Synthesis, Characterization, and Application"

Joe Greene, Center for Microanalysis of Materials, Frederick Seitz Materials Research Laboratory, University of Illinois, "Fundamental Properties of Transition-metal Nitrides: Materials Design Strategies for Extreme Properties"

Lars Hultman, Linkoping University, Sweden "Self-organized Nanostructure Formation in Functional Nitride Alloy Thin Films"

Ivan Petrov, University of Illinois, Urbana-Champaign, USA, "Recent Advances in Surface Engineering"

Darrell G. Schlom, Cornell University, USA, "Thin-Film Alchemy: Engineering Oxide Films to Unleash their Hidden Properties"

Toshiki Sugimoto, Institute for Molecular Science, Japan, "Effects of Interface on Orientational Ordering of Heteroepitaxially Grown Ice Film"

Toshiyuki Taniuchi, University of Tokyo, Japan, "Surface and Interface Imaging by Ultrahigh Resolution Laser-based Photoemission Electron Microscopy"

Program Chair:
Alberto Herrera-Gomez,
CINVESTAV, Mexico

General Chair:
Dave Castner,
University of Washington, USA