Monday (April 27, 2026)

Technical Forum Breakfasts

TFB: Atmospheric Plasma Technology
Hana Barankova (Uppsala University) / Ladislav Bardos (Uppsala University)
Long Beach Convention Center Promenade: 102 A

TFB: Coatings and Surface Engineering for Medical Applications
Jeff Hettinger (Rowan University) / Greg Taylor (Lawrence Livermore National Laboratory)
Long Beach Convention Center Promenade: 102 B

TFB: High Power Impulse Magnetron Sputtering (HIPIMS)
Arutiun P. Ehiasarian (Sheffield Hallam University) / Ralf Bandorf (Fraunhofer-IST)
Long Beach Convention Center Promenade: 102 C

TFB: Photonically Induced Surface and Thin Film Processing
Christopher Muratore (University of Dayton) / Stefan Seager (Fraunhofer-FEP)
Hyatt Regency: Seaview Ballroom A

TFB: Durability Evaluation of Thin Film Coatings: Testing Methods and Practical Implications
Brent Boyce (Guardian) / Anelia Wickerlin (Gilas Tribach)
Hyatt Regency: Seaview Ballroom B

TFB: Transparent Conductive Materials (TCM)
Clark Bright (Bright Thin Film Solutions, LLC) / Patrick Morse (Arizona Thin Film Research, LLC)
Hyatt Regency: Seaview Ballroom C

LBCC Promenade 106A (Program track daily room assignment) | LBCC Promenade 104B (Program track daily room assignment) | LBCC Promenade 104C (Program track daily room assignment) | LBCC Promenade 101A (Program track daily room assignment) | LBCC Promenade 101B (Program track daily room assignment)

10 minute passing break

Compact Business Meeting (30 minutes)
All are encouraged to attend!
(LBCC Promenade 104B)

10 minute passing break

Director of Program Welcome and Conference Introduction (LBCC Promenade 104B)

Keynote (LBCC Promenade 104B)
Sustainability and Life Cycle Thinking as Innovation Drivers for Surface Engineering
(Christoph Hermann - Fraunhofer IST)

20 minute refreshment break

Large Area Colloquium
"Giving new life to old coaters: Modernization of coaters for new demands"

Large Area (1/7)
Vacuum Deposition Technologies for Thin Film Batteries
[Yasuhiro Kumagai - ISMDA]

Characterization, Testing, and Failure Analysis (C7)
In-Situ and Ex-Situ Characterization of Thin Film Electrolytes in Functional Thin Films
[Lukas Mazzola - Polytechnique Montreal]

Characterization, Testing, and Failure Analysis (C7)
Experimental Study of Laser Thin Film Processing Softening and Wrinkling of Aluminum Foil Cells for Bipolar Plates
[Christopher Muratore - University of Dayton]
CONFERENCE STUDENT PRESENTATION

Characterization, Testing, and Failure Analysis (Invited)
Surface Coating, Treatment, and Analysis of Materials for Medical Devices
[Bernard Nemsick - Lehmann]
(pre-recorded video presentation)

Characterization, Testing, and Failure Analysis (C7)
Influence of Laser Ablation Patterning and Pulse Plasma Treatment on the Tribological Behavior of ALCrN Coating
[Ner Alfonso - Universidad Pública de Navarra (UPNA)]
SPONSORED STUDENT PRESENTATION

Characterization, Testing, and Failure Analysis (C7)
Reliable Mechanical Characterization of Vacuum Coatings: Best Practices in Nanoindentation and Scratch Testing
[Yurii Kulyk - Anton Paar USA Inc.]

Large Area (1/7)
Air Stable, Solution Processed Copper Iodide Thin Film Target for HiPIMS Deposition
[Maria Mizanda - IMPTB Kashan University]

Plasma Processing and Diagnostics (PP)
Results using a Specialized ZDR-RGA and a Related Remote-Control System Demonstrated for the PVD ERDA System
[Mark Manus - Del Mar Photonics]

Plasma Processing and Diagnostics (PP)
Tuning the Properties of PVD Films Prepared by Ion Beam Assisted Wetting of Aluminum Melt Drib for Bipolar Plates
[Christopher Muratore - University of Dayton]
CONFERENCE STUDENT PRESENTATION

Plasma Processing and Diagnostics (PP)
Time Resolved OES Diagnostics of Ion Flux Sputtering Using a Copper Target
[Jui-Chieh Chang - Linköping University]
SPONSORED STUDENT PRESENTATION

Plasma Processing and Diagnostics (Invited)
Continuous PVD Roll-to-Roll Processed Material for Fuel Cells: Ultra Thin Catalyst Layers for Low Pt Loading and Improvements for PEM/AEMFC Applications
[Gustaf Sjöblom - Alleese]

Plasma Processing and Diagnostics (PP)
Graphene Oxide Thin Film Deposition Using Pulsed DC Deposition of GPOR for Thin Film Batteries Applications
[Peter Polak - Plasmas Composite Materials Sarl]

HiPIMS (HP)
HiPIMS: Technology with Arbitrary Pulse Shape Generation and Control
[Lukas Mahlke - Fraunhofer-FEP]

HiPIMS (HP)
Comparative Study of Growth and Properties of Thin Film Films Deposited via Reactive DcMS and HiPIMS
[Anna Dhakal - Pentacon Coating Technologies GmbH & Co. KG]

HiPIMS (HP)
Antimicrobial Efficiency and Durability of Nanostructured HiPIMS Deposited Nanoscale Multilayer TiN/MoN Coatings
[Andrea P. Ehiasarian - Sheffield Hallam University]

HiPIMS (HP)
Real-Time Optimization of HiPIMS Processes Using Pulse-Resolved Spectroscopy and Adaptive Pulse Shape Control
[Thomas Schalkx - PLASUS GmbH]

HiPIMS (Invited)
Towards Reactive Gas Ions Synthesizing of Functional Nitrides – The Role of Metal Ions in Plasma Activated Reactive Environments
[Tetsuhide Shimizu - Tokyo Metropolitan University]

Advanced Multifunctional Coatings (AMF)
Advanced Active and Inactive Cooling Technologies to Improve Life and Safety of Industrial Electronics, Automotive and Grid Applications
[Matt Evelyn - Argonne National Laboratory]

Advanced Multifunctional Coatings (AMF)
Sputtered Oxide Fast-Ion Conductors for Solid-State Batteries: Scaling Pathways for Sub-Ambient Operation
[Ivan Kondofersky - Fraunhofer-IST]

Advanced Multifunctional Coatings (AMF)
Lightweight Fractured Zinc Foil Thin Anodes for a Room Temperature Sodium Ion Battery
[Fabiola Arenas - Cyprian University]
(pre-recorded video presentation)

Advanced Multifunctional Coatings (AMF)
Vacuum-Evaporated Composite Copper Foil for Lithium-Ion Batteries: Fabrication and Performance
[Sun Liu/Shenfeng Lu - Northeastern University China]

Advanced Multifunctional Coatings (AMF)
Enhancement of Electrochemical Performance of Ni-Rich Layered Oxide Cathodes via Optimized Annealing and Al2 Dopant
[Luca Magagnin - Politecnico di Milano]

40 minute passing / lunch break

Don Mattox Tutorial (LBCC Promenade 104B)
From Poisoned Targets to Healthy Models: The Quest for Parameters
[Diederik Depla - Ghent University]

10 minute passing break

Large Area (2/7)
Metal Ion Etching Assisted Fabrication of High- and Low-Index Anodic Thin Films
[Junwoo Lee - Michigan State University]

Large Area (2/7)
Enabling Large-Area Advanced Packaging Through Optical In-Situ Metrology in Sputter Deposition
[Volker Hoffmann - Leybold - KGS]

Characterization, Testing, and Failure Analysis (C7)
Influence of Deposition Temperature on Structural, Optical and Electrical Properties of ZnO Thin Films Prepared by Ion Beam Assisted Deposition
[Ner Alfonso - Universidad Pública de Navarra (UPNA)]

Characterization, Testing, and Failure Analysis (C7)
Electrical Characterization of Thin Films Metal Films
[Oleg Zabeida - Polytechnique Montreal]

Coatings and Processes for Biomedical Applications (BP)
Evaluating the Lifetime of the Antimicrobial Property of Silver Containing Thin Films Deposited by Magnetron Sputtered Remanufactured Aluminoborosilicate Devices
[Dawn Bilgrien - Rowan University]

Coatings and Processes for Biomedical Applications (BP)
Electrically Reinforced Titanium Electrodes with Integrated Antibacterial Functionality for Neuromodulation Implantable Devices
[Kirti Pandey - Drexel University]

Coatings and Processes for Biomedical Applications (Invited)
From Vacuum to Biotech - Closing the Loop with Thin Films
[Matthias Wagner]

Three Resolved Investigations on Ion Fraction, Ionization Degree, and Plasma Potential in Cathodic Arc Metal Plasma
[Ralf Bandorf - Fraunhofer-IST]

HiPIMS (HP)
Through-Glass Via Metallization by Using HiPIMS Copper Layer
[Kang-Chen Wu - Feng Chia University]
SPONSORED STUDENT PRESENTATION

HiPIMS (HP)
Advanced HiPIMS Coatings Deposition Using High Performance Cutting Tools Metal Evaporation Plasma Sources
[Wei Zhou - Guangdong Huazheng nanotechnology]

HiPIMS (HP)
Reactive Sputtering Discharge Dynamics by Pulse Sequencing in Multi-Pulse HiPIMS
[Kokong Chen - Tokyo Metropolitan University]

SIG Strategic Technologies and Markets Colloquium
"The challenge of transitioning to sustainable surface engineering practices"

20 minute refreshment break

Large Area (2/7)
Reliable Manufacturing of Aluminum-Doped Zinc Oxide Transparent Conductive Electrodes
[Qiuwen Ding - Lightformation Corp.]

Large Area (2/7)
Spring Loop - Prediction and Optimization of Layer Thickness Distribution for Large Area Magnetron Sputtering
[Eric Vollenkemper - Fraunhofer-IST]

Large Area (2/7)
High-Throughput Large-Area Coating Using a Carousel-Type Sputtering System
[Takuya Sugawara - Shincron Co., Ltd.]

Large Area (2/7)
Process Improvements for Large Area Deposition of TiO2 Thin Films on Flexible Substrates Using Roll-to-Roll Technology
[Mika Simmons - Intellisolution LLC]

Characterization, Testing, and Failure Analysis (Invited)
New Developments in Spectroscopic Ellipsometry
[James Hilfiker - J.A. Woollam Co.]

Characterization, Testing, and Failure Analysis (C7)
Advanced Characterization Techniques for Analysis of Alloy
[Matthew Linford - Brigham Young University]

Characterization, Testing, and Failure Analysis (C7)
Contrast Enhancement Using Ultraviolet Light Imaging to Detect Early/Mask Thin Films
[Xiaoke Chu - Covalent]

Overflow (OP)

Quantum Computing (Invited)
Complete Hamiltonian Control with Multi-Mode Superconducting Circuits
[Eli Levenson-Falk - University of Southern California]

Overflow (OP)

HiPIMS Colloquium
"The Innovation Spirit of HiPIMS Towards Industrialization"

Photonically Induced Transformations of Thin Films (Invited)
Photonic Post-Processing of Printed Inks on Flexible Substrates
[Mark Pellin - SUNY Binghamton University]

Overflow (OP)

Overflow (OP)

20 minute break

Sunset Meeting Forums

SMF: Advanced Deposition Coating Hardware
Frank Papa (UP Plasma, LLC) / Ralf Bandorf (Fraunhofer-IST)
Long Beach Convention Center Promenade: 102 A

SMF: Advanced Multifunctional Coatings: Integrating Vacuum and Electrochemical Deposition
L. Magagnin (Politecnico Milano) / J. Alami (UMJP)
Long Beach Convention Center Promenade: 102 B

SMF: Characterization, Testing and Failure Analysis of Thin Films, Coatings and Engineered Surfaces
Matt Linford (Brigham Young University) / Oleg Zabeida (Ecole Polytechnique Montreal) / Dehua Yang (Ellabcco)
Hyatt Regency: Seaview Ballroom B

SMF: Large-Area Advanced Packaging and Integrated Photonics
Patrick Morse (Arizona Thin Film Research, LLC) / Manuela Junghähnel (Fraunhofer-IKTS)
Hyatt Regency: Seaview Ballroom C

1hr 40 min Dinner Break
6:20 - 8:00 PM

Casino Night Fundraiser (Hyatt Regency - Beacon Ballroom)
8:00 - 10:00 PM

Tuesday (April 28, 2026)

Technical Forum Breakfasts

TFB: Leak Detection - Issues and Practices
Mike Rickenbach (Lyndvalé USA) / Jean-Pierre Delsca (SEQL Redwood)
Long Beach Convention Center Promenade: 102 A

TFB: Industrial Challenges: Uptime, Yield, & Consistency
John Naylor (Kurt J. Lesker Company)/ Jimmy Haight (Semicorex)
Long Beach Convention Center Promenade: 102 B

TFB: Magnetron Sputtering
Wilmert De Bosscher (Solaires Advanced Coatings) / Patrick Morse (Arizona Thin Film Research, LLC)
Long Beach Convention Center Promenade: 102 C

TFB: Process Monitoring & Control
Martynas Audronis (Nova Fabrica, Ltd.) / Edmund Schingel (VAT Group)
Hyatt Regency: Seaview Ballroom A

TFB: Energy Conversion and Storage
Volker Sittinger (Fraunhofer-IST) / Stefan Sauer (Fraunhofer-FEP) / Ric Shimshock (General Atomics)
Hyatt Regency: Seaview Ballroom B

TFB: ALD for Optics
Chris Cook (Edmund Optics) / David Sanchez
Hyatt Regency: Seaview Ballroom C

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10 minute passing break

Awards Ceremony (LBCC Promenade 104B)
8:40-9:20 AM

10 minute passing break

Advanced Multifunctional Coatings (Invited)
Powder Atomic Layer Deposition at the Commercial Scale for Lithium-Ion Batteries
[Christopher Ramp - Forge Nano]

Advanced Multifunctional Coatings (AMF)
Composition Gradient Protective Tooling of TiN and CrN Coatings - Insights Into Microstructure and Mechanical Attributes
[Helmut Rudl - Tec Wise]

Advanced Multifunctional Coatings (AMF)
Stabilizing Lithium Metal Anodes with Vacuum-Deposited PET-Like Composite Current Collectors
[Kiesheng Jia - Northeastern University China]

Exhibitor Innovator Showcase (EIS)
Exciting News From DHF Technical Products
[Marcel Kaspar - DHF Technical Products]

Exhibitor Innovator Showcase (EIS)
Field
[Edwards]

Exhibitor Innovator Showcase (EIS)
New Plasma Source Technology to Help Combat Global Supply Chain Disruptions and Material Price Increases
[Dermot Monaghan - Gencoa Ltd]

Exhibitor Innovator Showcase (EIS)
Dual Output, Half Bio Footprint, Full Control in Sealless Reactive Gas Pulsing Power Supply Enables Stable Process Control with PVD and Advanced Arc Control for Faster Reporting and Lower CAPEX
[Radu Krazinski - TRUMPF Huettinger]

Exhibitor Innovator Showcase (EIS)
Integrated Mechanical Analysis and Optimization Solutions for Vacuum Coatings
[Parth Kotak - Anton Paar USA Inc.]

Exhibitor Innovator Showcase (EIS)
Custom Vacuum Coating Systems, Vacuum Cooler Refurbishment and Contract R&D at DP Plasma
[Frank Papa - DP Plasma LLC]

Process Monitoring, Control, and Automation (PC)
From Legacy to Industry 4.0: Retrofitting Vacuum Coaters with Edge Control Monitoring
[Marcus Klein - SURFACE Group]

Process Monitoring, Control, and Automation (Invited)
Transforming Plasma Process Control: Advanced Chamber Diagnostics
[Pedro Reyes Santiago - VAT Vakuumventile AG]

HiPIMS (HP)
HiPUSE™ + Proprietary Pulse Shape Control Coatings on Inner Surface of Small Diameter Long Tubing
[Ivan Shchelokov - Starfire Industries]

Organic and Perovskite Electronics (OPE)
Monitoring Interfacial Decomposition Losses in Perovskite Solar Cells Using Operando Electrochemical Impedance Spectroscopy
[Dr. Dan Bahat - University of Tokyo]
SPONSORED STUDENT PRESENTATION

Organic and Perovskite Electronics (OE)
High Voltage All-Inorganic Lead-Free Inorganic Perovskite Photovoltaic Cells
[Rafiu Lateef Adesina Oladejo - London South Bank University]
SPONSORED STUDENT PRESENTATION

Organic and Perovskite Electronics (OE)
Thermal Co-Evaporation of Thin Film Photovoltaics by the Cluster Source
[Jim Fox - University of Oxford]

Organic and Perovskite Electronics (OE)
Optical In-Situ Metrology for Perovskite Processing: A Review of Reflectance and Photoluminescence Based Process Insights
[Vedje Nakarmi - LayTechS]

Process Monitoring, Control, and Automation (PC)
Intelligent Process Control Using Machine Learning Algorithms
[Ivan Kondofersky - Fraunhofer-IST]

Process Monitoring, Control, and Automation (PC)
Advanced Process Control Using Machine Learning Algorithms
[Ivan Kondofersky - Fraunhofer-IST]

Process Monitoring, Control, and Automation (PC)
Beyond Traditional High Power Impulse Magnetron Sputtering
[Dan Boyanovsky - Trumpf Huettinger USA, Inc.]

Process Monitoring, Control, and Automation (PC)
Pure, Highly Responsive Optical Monitoring Control for Atomic Layer Processes
[Bryan Preeg - Brooks Instrument]

Process Monitoring, Control, and Automation (PC)
Critical Substrate Temperature Plays a Key Role in the Global Wafer Uniformity Control
[Frank Gunn - Tom Group]

Process Monitoring, Control, and Automation (PC)
Toward Intelligent In-Situ Metrology: From Real-Time Data to Actionable Process Control
[Hall Chen - h.Spec Associates]

This Film Contributions for the Hydrogen Economy (Invited)
Hydrogen Born or Burn? Opportunities and Challenges in Coating Solutions for Natural Gas-to-Hydrogen
[Nazim Naginov - Schaeffler Technologies]

This Film Contributions for the Hydrogen Economy (PH)
Hydrogen Tribology: Wear and Friction Challenges in Hydrogen Infrastructure
[Ralf Bandorf - Fraunhofer-IST]

This Film Contributions for the Hydrogen Economy (PH)
PVD Coatings for the Hydrogen economy - Applications, Testing Methods and Practical Implications
[Herbert Gabriel - PVT Plasma und Vakuum Technik GmbH]

This Film Contributions for the Hydrogen Economy (PH)
Carrotating Deposition Fixtures Integrated with Structure and Sensing Performance in Pd Thin Film Hydrogen Sensors
[Ruslan Ivanov - Technical University of Ilmenau]
SPONSORED STUDENT PRESENTATION

This Film Contributions for the Hydrogen Economy (PH)
Thin-Film Coatings Enhance Durability and Performance of Hydrogen Fuel Cell Components
[Ivan Sarayli - Starfire Industries LLC]

Overflow (OP)

Overflow (OP)

Overflow (OP)