Monday (May 19, 2025)

Technical Forum Breakfasts

TFB: Manufacturing in Space
Nick Fraiser (Kurt J. Lesker Company) / Bart Lacin (Redwire Space Co.)
Chestwood A

TFB: Protective, Reflective, and Decorative Coatings
Martin Engelke (Heidenreich) / Arno Shulten (Heidenreich)
Chestwood B

TFB: Transparent Conductive Materials (TCM)
Clark Bright (Bright Thin Film Solutions, LLC) / Patricia Morse (Arizona Thin Film Research LLC)
Chestwood C

TFB: Atmospheric Plasma Technology
Hana Barankova (Uppsala University) / Ladislav Bardos (Uppsala University)
Chestwood D

TFB: Post-Processing of Vacuum-Coated Roll-to-Roll Products
Andy Ach (Fraunhofer IST) / Ralf Bandorf (Fraunhofer IST)
Chestwood E

TFB: Surface Engineering for the Hydrogen Economy
Ralf Bandorf (Fraunhofer IST) / Herbert Gatzen(PVD Plasma and Vacuum Technik GmbH)
Chestwood F

TFB: Supply chains, manufacturing processes and availability for materials enabling PVD processes
David Sanchez (Mesoscale) / Christos Pomaglidis (Pavalum)
Belmont A

TFB: Durability Evaluation of Thin Film Coatings: Testing Methods and Practical Implications
Brent Boyce (Guardian) / Anette Wilcherth (Glas Trösch)
Belmont B

10 minute passing break

Compact Business Meeting (30 minutes)
Tennessee C

10 minute passing break

Director of Program Welcome and Conference Introduction

Keynote
Paul H. Mayrhofer - TU Wien
Materials Science-Based Guidelines to Develop Robust Hard Coatings
(Tennessee C)

20 minute refreshment break

Optical Coatings (OTime)
Optical Coatings and Photonics Research for Quantum Computing Hardware
Ulrike Schulz - Fraunhofer IOF

Optical Coatings (OT)
Titanium Dioxide Thin Films from a Low-Frequency Dual Magnetron Sputtering Process
(Philipp Dornstauder - Advanced Energy Industries)

Optical Coatings (OT)
Comparison of ECD Electrochromic Coating Compositions
(Rajiv Prabhu - Vitro Chemicals)

Optical Coatings (OT)
Clark Bright + 5 min Ron Willey Tribute

Optical Coatings (OT)
Practical Designs for the Next Generation of Eyeglass Coatings
(Ronald Willey - Willey Optical Consultants)

Optical Coatings (OT)
California Wildfires Measurements
(Ronald Willey - Willey Optical Consultants)

Optical Coatings (OT)
An Alternative to Bayer Coatings
(Ronald Willey - Willey Optical Consultants)

Protective, Tribological and Decorative Coatings (TT)
The Importance of Substrate Surface Roughness and Rounding of Sharp Edges Deposited on Chalcogenide Glasses - SPONSORED STUDENT PRESENTATION
(Simon - Wolfenstein University)

Protective, Tribological and Decorative Coatings (TT)
High Durability Coated Cutting Tools Assisted Self-Lubrication Mechanism with PVD Low Step-by-Step Verification and Application Examples
(Ingolv Bertram - Proteo Surface Technologies)

Protective, Tribological and Decorative Coatings (TTime)
CVD-Diamond Coatings for High Performing Tools and Components
(Christian Stein - Fraunhofer IST)

Protective, Tribological and Decorative Coatings (TT)
Thermal Conditioning for DLC Hardening For the Aircraft Industry
(Jeffrey Barlow - Canadian Ink)

Protective, Tribological and Decorative Coatings (TT)
Surface Engineering of Cast Iron for Stamping Dies: a Plasma Surface Alloying and Nitriding Approach with Computational Insights
(Isaac Figueroa - National University of Santa Catarina (UFSC))

Protective, Tribological and Decorative Coatings (TT)

Digital Information (DIT)
Simulation of Delay Generation Using the TALAON Code
(Ralf Bandorf - Fraunhofer IST)

Digital Information (DIT)
Open-Source Simulation Software for Pulsed Magnetron Sputtering with PVCom: Step-by-Step Verification and Application Examples
(Paul Mahnke - Ionbond - numerical plasma dynamics GmbH)

Digital Information (DIT)
AI-Powered Analysis: Predicting Process Success with Deep Learning
(Elias Bayle - Vacuum Lab)

Digital Information (DIT)
Practical Use Cases for Digital Twin Models: Automated Recipe Design, Troubleshooting Prediction Challenges
(Fabian Ebrecht - Thermokeller s.r.o.)

Digital Information (DITime)
Physics-Informed Deep Learning for Process Monitoring Technologies
(Satoshi Hamaguchi - Osaka University)

Digital Information (DI)
Coping with Limited Data Amounts When Applying Artificial Intelligence in Industrial Process Control
(Thomas Schickes - PLASSIS GmbH)

Digital Information (DI)
Geometry-Dependent Thin Film Properties and Sputtering with Rotary Cathodes: A COMSOL Multiphysics Modeling Study
(Patricia Morse - Arizona Thin Film Research)

Electron Beam Processes (EBms)
Innovative Approach to Low Temperature Deposition of Functional Coatings, Using Electron Beam Assisted Physical Vapor Deposition
(Andreas Neumann - Kurosaki Corporation)

Electron Beam Processes (EB)
Novel Thermal Barrier Coating Microstructures Produced via Electron Beam Physical Vapor Deposition
(Andis Dhesiyan Nyasan - Cranfield University)

Electron Beam Processes (EB)
Rare Earth Zirconates for Thermal Barrier Coatings: Improving Manufacturability and Jointing Performance
(Lilia Sabin - Cranfield University)

Electron Beam Processes (EB)
Shaping the Future: Advanced Manufacturing Technology for a Dense Range of Applications
(Stefan Geiger - Fraunhofer IOF)

Electron Beam Processes (EB)
Electron Beam Technology: Thin Film Coatings, High Heat Flux Testing, Additive Manufacturing and Advanced Materials Characterization
(Christopher Saclsky - Proto Labs Applied Research Laboratory)

Electron Beam Processes (EB)
Supporting the Electrochemical Energy Production, Industry and Transport Decarbonisation Through Electron Beam Technology
(Chris Forsdon - Cambridge Vacuum Engineering)

10 minute passing break

Don Mattox Tutorial
Kenneth Sande - Redwire
Crystals Generated in a Microgravity Environment
(Tennessee C)

10 minute passing break

Optical Coatings (OTime)
Effect of Copper Doping on the Optical and Electrical Properties of Aluminum Chlorophthalocyanine (AlCPc): Thin Films for Photovoltaic Applications
(Bassel Abdel Samad - Université de Mansoura)

Optical Coatings (OT)
Influence of Different Substrates on Optical Properties of Co-Coatings
(Benjamin Kleine - Siemens)

Optical Coatings (OT)
Precision Sputtering System OPTA X
(Matthias Schlesinger - VON ARDENNE GmbH)

Thin Film Sensors (SEnm)
Development of Highly Sensitive Electrochromic Lightweight Infrared Avalanche Photodetectors
(Seunghyun Lee - University of Texas At Arlington)

Protective, Tribological and Decorative Coatings
Colloquium
"A large success factor of vacuum coating: the right cleaning!"

Coatings for Energy Conversion and Related Processes (EN)
Broad Beam Plasma Source Enhanced Thin Film Growth at Low Temperatures
(Uğ Fan - Michigan State University)

Coatings for Energy Conversion and Related Processes (EMm)
Thin Film Thermoelectric Generator Based on Transparent Solar Cell
(Jeeseong Hong - Korea Institute of Materials Science)

Coatings for Energy Conversion and Related Processes (EN)
Effect of Different Composition Ratio of Quaternary Alloy Targets Prepared by DC Magnetron Sputtering for CIGS Solar Cells
(Cheng-Kuei Chu - National University of Tainan)

Coatings for Energy Conversion and Related Processes (EN)
One-Step Deposition of Cu(In,Ga)Se2 Thin Films from Quaternary Target
SPONSORED STUDENT PRESENTATION
(Rachid Dalsaki - University Mohammed V Polytechnic)

WebTech Roll-to-Roll Technologies and Innovation (WTInn)
Market Insights into Roll-to-Roll Production of Flexible Devices
(Heike Lalli - BCC Research)

WebTech Roll-to-Roll Technologies and Innovation (WT)
Roll-to-Roll Sputtering Deposition of Transparent Conductive Oxide Films on Flexible Substrates Using Low Capacitive Anti-Reflective Thin-Film Multilayer Application
(Michael Wleacke - Bühler Alzenau GmbH)

WebTech Roll-to-Roll Technologies and Innovation (WT)
Deposition of Magnetic Materials as Thin-Films in an R2R Vacuum Coater
(Robert Mahey - VonArdenne LLC)

20 minute refreshment break

Protective, Tribological and Decorative Coatings (TTInn)
PVD Coatings for Cutting Tools: Trends and Visions
(Christoph Schiffman - CemeCon AG)

Protective, Tribological and Decorative Coatings (TT)
Mega Leap for Commercially Viable PVD Functional Coatings for Anti-Corrosion and Industrial Components
(Chinmay Trivedi - Sil Impact Thelma Coating AG)

Protective, Tribological and Decorative Coatings (TT)
Influence of Substrate Surface Roughness on Tribological Properties of Cr/CrN Coatings Deposited on Ferritic/Martensitic Steels
(Mohammed Lahna - University of Polytechnic Hauts-de-France)

Coatings for Energy Conversion and Related Processes (EN)
Construction of a Linear PVD Evaporator for the Deposition of CdS/CdTe/CdS Electron Contact Layers in a SnO2:F/CdS Hybrid System
(Gunter Kampschulte - Ardenne)

Coatings for Energy Conversion and Related Processes (EN)
Design of Vacuum Evaporation Coating Process for Composite Copper Carbon Nanotube Thin Film Based Flexible Electrodes
(Kai Liu - Northeastern University, Shenyang, China)

2hr Dinner Break
5:50 - 8 PM

Casino Night Fundraiser
8:00 - 10:00 PM
(Magnolia Ballroom)

Tuesday (May 20, 2025)

Technical Forum Breakfasts

TFB: Industrial Challenges: Uptime, Yield, & Consistency
Nick Fraiser (Kurt J. Lesker Company) / Jenny Hedgle (Sentinel)
Chestwood A

TFB: Leak Detection - Issues and Practices
Mike Ritenour (Leybold USA) / Ken-Pierre Heise (Bilfinger)
Chestwood B

TFB: Coatings and Surface Engineering for Medical Applications
Jeff Nedinger (Rowan University) / Ingolv Bertram (Proteo Surface Technologies Luxembourg National Laboratory)
Chestwood C

TFB: Magnetron Sputtering
Wilmont De Bouscher (Solvera Advanced Coatings) / Patricia Morse (Arizona Thin Film Research LLC)
Chestwood D

TFB: Energy Conversion and Storage
Volker Bettinger (Fraunhofer IOF) / Stephan Sonn (Fraunhofer IST)
Chestwood E

TFB: Electron Beam Processes
Mark Pellerano (Pellerano Technology, Inc.) / Stefan Seager (Fraunhofer IEP)
Chestwood F

TFB: Process Monitoring, & Control
Markynas Auskenis (Nova Sensors, Ltd.) / Eun Hwan Lee (Korea Institute of Materials Science)
Chestwood G

TFB: High Power Impulse Magnetron Sputtering (HIPIMS)
Arnaud P. Chauveau (Sheffield Hallam University) / Ralf Bandorf (Fraunhofer IST)
Belmont A

TFB: Tribological and Diamond-Like Coatings
George Sanna (HR Vacuum) / Ralf Bandorf (Fraunhofer IST)
Belmont B

10 minute passing break

Awards Ceremony (Tennessee C)
8:45-9:20 AM

10 minute passing break

Protective, Tribological and Decorative Coatings (TT)
Plasma Nitriding and Coatings: Industrial Challenges
(Jiang Kuishuai - Fraunhofer IST)

Protective, Tribological and Decorative Coatings (TT)
Wear Resistance Improvement of Ti6Al4V Alloy Using Laser Surface Texturing and Duplex Treatment
(Mathieu Brunson - Polytechnique Montreal)

Protective, Tribological and Decorative Coatings (TT)
Influence of Nitrided Substrate Surfaces on Tribological Properties of Cr and CrN Films Deposited on Ferritic/Martensitic Steels
(Mathieu Brunson - Polytechnique Montreal)

Protective, Tribological and Decorative Coatings (TT)
Influence of Nitrided Substrate Surfaces on Tribological Properties of Cr and CrN Films Deposited on Ferritic/Martensitic Steels
(Luan Thiago - Polytechnique Montreal)

Emerging and Translational Tech and Applications (ETm)
Cold Spray Processing: A Novel Approach to Surface Engineering Challenges
(Joerg Kirchhoff - Fraunhofer IOF)

Emerging and Translational Tech and Applications (ET)
AI and AIPMS Technologies for Advanced PVD Manufacturing: A Focus on High-Mix Low-Volume Production Environments
(Ola Sifan - Sheffield Hallam Smart Cities Ltd)

Process Monitoring, Control, and Automation (PC)
Research on Autonomous In-Situ Composition Method for Wide-Range Vacuum Gauges
(Kun Liu - Northeastern University)

Process Monitoring, Control, and Automation (PCm)
PlasmaSolve™ - Advanced Plasma Simulation Software for Process Mining and Digital Twins in Thin Film Production
(Ruben Obrando - Plasmasolve s.r.o.)

Process Monitoring, Control, and Automation (PC)
Cutting-Edge Plasma Monitoring Techniques for Process Development, Production Control and Fault Detection
(Thomas Schickes - PLASSIS GmbH)

Exhibitor Innovator Showcase (EIS)
Solvent Cleaning in High Tech Coating Processes
(Ralf Thiele - HERAG GmbH)

Exhibitor Innovator Showcase (EIS)
DHF Technical Product Portfolio Supporting Customers' Cycle Management of Precious Metal Sputtering Targets
(Ed Wagner - DHF Technical Products)

Exhibitor Innovator Showcase (EIS)
ROX System for Process and Product Development
(Wolfgang Dunker - Euro-T - Letter Company)

Exhibitor Innovator Showcase (EIS)
Contract R&D and Production Service with a Vertical Inline Coater
(Frank Pape - GP Plasma)

10 AM Exhibitor B2B Coffee Hour

11 AM Exhibit Hall Opens

(Ryman Hall B1-B3)

20 minute refreshment break

Selective Atomic Scale Processes (SAAm)
Area Selective Deposition Using Atomic Layer Deposition Nanodots
(Stacey Bent - Stanford University)

Emerging and Translational Tech and Applications (ET)
Sustainability and What Can We Do?
(Lara Hawrylchak - Ionbond)

Emerging and Translational Tech and Applications (ET)
Amorphous Carbon Interlayers: Surface Engineering toward Oxide Next Generation Electronics
(Hana Kwon - Fraunhofer USA, Inc.)

Emerging and Translational Tech and Applications (ET)
Leveraging "Internal Information" to Boost Sputtering Deposition Process in Percolated Coatings and Surface Engineering
(Chris Emslie - Nanoval Consulting)

Process Monitoring, Control, and Automation (PC)
Improving Real-Time Data Acquisition and Analysis in Plasma Etching Processes Using Optical Emission Spectroscopy and Machine Learning
(Mario Ocelic - Spectrolytic GmbH)

Process Monitoring, Control, and Automation (PC)
A New Differential Process Control Method Based Upon Flow Controller for Advanced Semiconductor Processing
(Bruce Pawsey - Brooks Instruments)

Process Monitoring, Control, and Automation (PC)
Non-Precious Electrocatalyst Based on Transition Metal Oxides Deposited Thin Films by Daily Current Interval Metrology
(Marcus Klein - IONBOND GmbH)

Process Monitoring, Control, and Automation (PC)
Pyrometry Solutions for Vacuum Chamber Temperature Monitoring
(Tim Dudde - Industrial Energy Industries)

Process Monitoring, Control, and Automation (PC)
Deposition Control Technology for Thin Film Production
(Don Hoen Lee - Korea Institute of Materials Science (KIMS))

Process Monitoring, Control, and Automation (PC)
Transforming Lab-Scale Innovation into Production Success with Remote Plasma Optical Emission Spectroscopy
(Marcus Lear - Gencoa Ltd)

Two-Dimensional Materials and Heterostructures (2D)
Accelerated Thin Film Optimization via Laser Ablation and Crystallization
(Chris Muratore - University of Dayton)

Two-Dimensional Materials and Heterostructures (2Dm)
2D Materials Synthesis and Characterization
(Deep Jariwala - University of Pennsylvania)

Exhibit Hall Closes: 6:00 PM

Welcome Reception
5:00-6:00 PM
(Exhibit Hall, Ryman Hall B1-B3)

Wednesday (May 21, 2025)

TAC Breakfast Meetings

(1) Digital Transformation through Artificial Intelligence, Machine Learning, Simulation, and Data Science in the Thin Film Industry, and (2) Process Monitoring, Control, and Automation
Chestwood A

Atomic Layer Processing (ALP)
Chestwood B

(1) High Power Impulse Magnetron Sputtering, and (2) Thin Film Contributions for the Hydrogen Economy
Chestwood C

(1) Coatings and Processes for Biomedical Applications, and (2) Organic and Perovskite Electronics
Chestwood D

Optical Coatings
Chestwood E

Coatings for Energy Conversion and Related Processes
Chestwood F

Protective, Tribological and Decorative Coatings
Chestwood G

Large Area Coatings
Chestwood H

(1) Quantum Computing, and (2) Organic and Perovskite Electronics
Belmont A

Plasma Processing and Diagnostics
Belmont B

(1) Thin Film Sensors, (2) Emerging and Translational Technologies and Applications, and (3) WebTech Roll-to-Roll Technologies and Innovation
Bella Hendel-Cliff
Belmont B

(1) Electron Beam Processes, (2) Two-Dimensional (2D) Materials and Heterostructures - Applications, Large Scale Growth and Advanced Characterization, and (3) Selective Atomic Scale Processes
Magnolia Boardroom B

10 minute passing break

Keynote
André Anders - Leibniz Institute of Surface Engineering (IOM)
Equilibrium versus Non-Equilibrium Heating to Control the Microstructure of Coatings and Thin Films
(Tennessee C)

10 minute passing break

Organic and Perovskite Electronics (OEmo)
Vacuum Coating of Metal Halide Perovskite Thin Films for Photovoltaic Applications Challenges and Opportunities
(Xiaoming Kong - University of Toronto)

Organic and Perovskite Electronics (OE)
Thermally Evaporated Metal Halide Perovskite Semiconductors for Triple-Junction Photovoltaics
(Jay Patel - King's College London)

Thin Film Contributions for the Hydrogen Economy (HT)
Catalysts or Ceq Substrates Prepared by Magnetron Sputtering and Ion Implantation
(Ilya Pinsky - Ionbond)

Process Monitoring, Control, and Automation (PCmo)
Critical Subsystem Enabling Technologies for the Next Generation of Advanced Lithography Challenges and Opportunities
(Jiaxiong Hong - University of Toronto)

Process Monitoring, Control, and Automation (PC)
Ionizing™ GEI: Advancing Tools 3R-PEM to DFSD: NGL CIEL, Plasma Diagnostics, Process Control, Fault Detection
(Hamilton Audencio - Nova Fabrika Ltd.)

20 minute refreshment break

Organic and Perovskite Electronics (OE)
Organic Photovoltaics - What's Next?
(Martin Drake - University of Surrey)

Organic and Perovskite Electronics (OE)
Low Cost, Flexible and Fully R2R Processed Perovskite Solar Modules
(Trevor McArdle - Power Roll Ltd)

Organic and Perovskite Electronics (OEmo)
Engineering Organic and Metal Halide Perovskite Thin Films and Devices Via Vapor Phase Deposition
(Russell Holmes - University of Minnesota)

Quantum Computing (QCmo)
High Quality Superconducting Resonators from a Magnetically Contaminated Sputter System
(Nicolas Chisholm - Cornell University)

Quantum (QCmo)
Understanding and Conquering Decoherence in Superconducting Qubits
(Adam Schwartzberg - Lawrence Berkeley National Laboratory)

Process Monitoring, Control, and Automation (PCmo)
Reactive Magnetron Sputtering Feedback Control, "Stability for Success"
(Dietmar Monsacher - Sensor.Info)

Process Monitoring, Control, and Automation (PCmo)
Unlocking Innovation: Solving Complex Challenges Through Collaborative Partnerships
(Jimmy Wright - Sensorium Equipment, Inc.)

Exhibitor Innovator Showcase (EIS)

Exhibitor Innovator Showcase (EIS)

Exhibitor Innovator Showcase (EIS)
Vacuum Process Monitoring, Control and Automation Using Remote Plasma Optical Emission Spectroscopy
(Erik Cox - Gencoa Ltd)

Exhibitor Innovator Showcase (EIS)
DEMINO: Efficient Solutions for Thin Film Equipment
(Bruce Zelenski - INFICON)

Exhibitor Innovator Showcase (EIS)
INFICON Zeidoscope™ INFCOD: Precision Control for Maximum Repeatability and Process Stability
(Brandon Weisheyer - INFICON)

Free Time
4:00-5:30 PM

TAC Program Meeting
5:30-7:30 PM
(Tennessee Lobby/Tennessee C)

Thursday (May 22, 2025)

Technical Forum Breakfasts

TFB: Digital Transformation of Industrial Deposition Processes
Holger Sanden (Fraunhofer IOF) / Thomas Schulke (Plasus GmbH)
Chestwood A

TFB: Aligning Deposition Process Requirements with Vacuum System Layout and Design
Wolfgang Decker (Kurt J. Lesker Company) / Jenny Hedgle (Sentinel)
Chestwood B

TFB: Optical Thin Films and Fabrication
Ulrike Schulz (Fraunhofer IOF) / Rajiv Prabhu (Vitro)
Chestwood C

TFB: Advanced Deposition Coating Hardware
Frank Pape (GP Plasma, LLC) / Ralf Bandorf (Fraunhofer IST)
Chestwood D

TFB: Coatings for Thin Film Photovoltaics
Volker Bettinger (Fraunhofer IOF) / Stephan Sonn (Fraunhofer IST)
Chestwood E

TFB: CVD and ALD Processing
Mark Wahler (Fraunhofer) / Kazuki Borstrand (Kanekka Sciences)
Chestwood F

TFB: Thin Sensors
Jason Hodzik (Kurt J. Lesker Company) / Binbin Weng (University of Oklahoma)
Belmont A

TFB: Ultra-thin Flexible Glass - the next big thing?
Chris Stewart (StewartConsulting) / Jörg Reinhardt (Fraunhofer FEP)
Belmont B

10 minute passing break

Keynote
Angel Yanguas-Gil - Argonne National Laboratory
Machine Learning for Atomic Layer Deposition: Accelerating Optimization and Predicting Scale Up of Thin Film Growth Processes
(Tennessee C)

10 minute passing break

HiPIMS (HP)
Enhancing Uniformity and Stability through SDD-Based Feedback Control in an Industrial Roll-to-Roll HiPIMS Coater
(Lu Jiang-Sen - Hong Chis University)

HiPIMS (HP)
Novel Reactive Process Control in Industrial HiPIMS
(Rafael Sanchez Rodriguez - Ionautics)

HiPIMS (HP)
Influence of Pulse Duration on Plasma Dynamics and Thin Film Growth of Plasmonic Titanium Nitride Deposited by Reactive Ultra-Short Pulsed Magnetron Sputtering Using a Segmented Target
(Mina Ohno - Kanagawa Academy of Science and Technology)

HiPIMS (HP)
HiPIMS TiSiC Coating onto 100m Carbon Fibers to Enhance Aluminum Capacitor Foil Cutting Quality
(Sai Cheng Chen - Hong Chis University)

HiPIMS (HP)
Experiments and Modelling of Reactive Pulsed Magnetron Sputtering Discharges with Metallic Target
(Jan Tomas Gudmundsson - University of Iceland)

HiPIMS (HP)
Black Metal Film Prepared by One-Time Sputtering for Capacitor Electrode Purpose
(Ping-Yen Hsieh - Hong Chis University)

HiPIMS (HPInn)
Reactive Sputtering of High Quality Nitride, Carbide, and Oxide Thin Films by HiPIMS Offers Many Benefits
(Jyh-Wei Lee - Ming Chi University of Technology)

Large Area (LAtm)
Trends in Large Area Glass Coating
(Paul Mengesser - Saint Gobain Glass France)

Large Area (LA)
Simulation of Rotary Magnetron Discharges Excited by Different Frequencies (2.54 Kaleidoscope - Spectrum Components Inc.)
(Mike Ross - Spectrum Components Inc.)

Large Area (LA)
Ion Source Pretreatment for Large Area Glass Substrates
(Alexey Ankiryan - Bühler Alzenau GmbH)

Large Area (LA)
Impact of AC Waveforms on Plasma Properties and Film Growth – Sine Wave vs Square Wave
(Adam Obrzerski - University of Iceland)

Large Area (LA)
High Rate - High Quality Thin Films Made Possible with a Game Changing Plasma Source
(David Zimmerman - Ionautics, Inc.)

Large Area (LA)
Large Area Coating Innovation for Roll-to-Roll for Energy Applications
(Jerry Wu - Guangdong Huicheng Vacuum Technology Co., Ltd)

Large Area (LA)
Bringing Novel Application to Large Area with Advanced Sputtering Solutions
(Ramey Venkatesan - Sublime Advanced Coatings)

Coatings and Processes for Biomedical Applications (BT)
Functional Coatings on Kapton – Film Resistive of Flexibility Study
(Christina Lemarre - Technical University Braunschweig)

Coatings and Processes for Biomedical Applications (BT)
Identification of New Silicon Nitride Formulations Using Combinatorial Approaches
(Jeffrey Hedberg - Swaan University)

Coatings and Processes for Biomedical Applications (BT)
Use of Elevated Temperature Ti-Alloy Diffusion for Investigating Biomedical Coatings
(Theodore Scalenoski - Thermo Labs)

Coatings and Processes for Biomedical Applications (BT)
Electrochemical and Microstructural Studies of Nano-Zirconium Dioxides Coated with Antibacterial Metal Oxide Thin Films
(Eric Prasetyo - Zeno Coatings)

Coatings and Processes for Biomedical Applications (BTInn)
Biomechical Surface Restructuring: The Technology of the Future for Sustainable, High Performing and Biocompatible Implants Including Electrodes and Microneedle Arrays
(Shahram Amini - Pulse Technologies Inc.)

Plasma Processing and Diagnostics (PP)
Plasma Nitriding and PACVD Coating as Complementary Technology for PVD for Big Industrial Applications
(Stefan Hein - Nitrity GmbH & Co KG)

Plasma Processing and Diagnostics (PP)
Simulating the Impact of Loading Density onto Coating Uniformity in Batch Coaters
(Thaddeus Szulkowski - Thermo Labs LLC)

Plasma Processing and Diagnostics (PP)
Plasma Processing and Diagnostics (PP)
Plasma Process Fault Detection Using High Speed Signal Analysis
(Moritz Sussmann - Nanoval GmbH)

Plasma Processing and Diagnostics (PP)
Fast Kinetic Modelling of the Plasma Evaluation, Etch Rate and Deposition Profile in Semiconductor Manufacturing
(David Mace - Tech-X Europe)

Plasma Processing and Diagnostics (PP)
Diagnostic Techniques for Real-Time Monitoring and Optimization of Plasma-Assisted Deposition and Etching Processes
(Angus McCarter - Impedans Ltd)

Plasma Processing and Diagnostics (PP)
Plasma Assistance in the Production of ARC Layers
(Scott Walter - U.S. Naval Research Laboratory)

Lunch break

HiPIMS Panel Discussion and Workshop
(2 hrs)

"Success Stories and Positive Adaption of HiPIMS"

Plasma Processing and Diagnostics (PPmo)
Data-Integrated Modeling for Nanometer-Scale Processing
(Jun Tomachman - Kla Corporation)

Plasma Processing and Diagnostics (PP)
A Specialized QMS System for High Sensitivity Measurement to Correlate Partial Pressure Data for ITER
(Chris Marcus - U. S. - Kashiko Inc USA)

Atomic Layer Processing (AL)
Advanced Materials and Processes for Climate Technology Solutions: An Industry Perspective
(Alexander Cruz - Kolon Hughes)

Atomic Layer Processing (AL)
Challenges and Advances in Selective Area Atomic Layer Deposition - SPONSORED STUDENT PRESENTATION
(Jacob Fredin - Brigham Young University)

Atomic Layer Processing (AL)

Atomic Layer Processing (AL)
Advances in Plasma Enhanced Atomic Layer Deposition Chalcogenides - SPONSORED STUDENT PRESENTATION
(Jacob Fredin - Brigham Young University)

Atomic Layer Processing (AL)
Challenges and Advances in Selective Area Atomic Layer Deposition - SPONSORED STUDENT PRESENTATION
(Jacob Fredin - Brigham Young University)

Atomic Layer Processing (AL)
Thermal Atomic Layer Deposition of Low Resistivity Metallic Films for High Aspect Ratio Vias
(Dana Lenchenkova - Forge Nano)

20 minute refreshment break

HiPIMS (HP)
Optimizing HiPIMS Processes in Industry: Pulse-Resolved Spectroscopy and Electrical Measurements
(Jan-Peter Urbach - PLASSIS GmbH)

HiPIMS (HP)
HiPIMS Deposited Cerroborides Alloy Film for Stretchable Thin-Film Strain Gauge
(Yu-Wen Chen - Feng Chia University)

HiPIMS (HPInn)
Optimization of Value Stream and Digitalization
(Klaus Boehler - Oerlikon Surface Solutions)

HiPIMS (HP)
HiPIMS TiGZ As Electron Transport Layer for Double Perovskite Solar Cells Application
(Pei-Ze Sung - Feng Chia University)

HiPIMS (HP)
In-Line Coating System With Hollow Cathode Inverted Cylindrical Magnetron for Thin Film Applications on Surface Mount Electronic Fibers
(Ivan Wolchkovsky - Sheffler Industries LLC)

Atomic Layer Processing (AL)
Thermal Atomic Layer Deposition of Low Resistivity Metallic Films for High Aspect Ratio Vias
(Dana Lenchenkova - Forge Nano)

Young Mentors/Farewell Party
6:00-7:30 PM
(Waters Edge)