

MONDAY: MAY 6, 2024

7:00 AM TFB: Digitalization in the Coating Industry – Does It (Already) Improve Production and Product?
Holger Gerdes (Fraunhofer-IST) / Thomas Schötte (Plasus GmbH)
International Ballroom North
TFB: Aligning Deposition Process Requirements with Vacuum System Layout and Design
Wolfgang Decker (Kurt J. Lesker Company) / Jimmy Haight (Semikore)
International Ballroom North
TFB: Optical Coating Design
Robert Sargent (Vinci Solutions Inc.) / Ron Willey (Willey Optical Consultants)
International Ballroom North
TFB: Advanced Deposition Coating Hardware
Frank Papa (GP Plasma, LLC) / Raff Bandorf (Fraunhofer-IST)
International Ballroom North
TFB: Coatings for Thin Film Photovoltaics
Volker Sittinger (Fraunhofer-IST) / Ric Shimshock (MLD Technologies, LLC)
International Ballroom North
TFB: CVD and ALD Processing
Matt Weiner (ForgeNano) / Miasaryk University)
International Ballroom North
TFB: Thin Film Sensors
Jason Hrebik (Kurt J. Lesker Company) / Binbin Wang (University of Oklahoma)
International Ballroom North
TFB: Ultra-Thin Flexible Glass - The Next Big Thing?
Manuela Junghönel (Fraunhofer-ASS/IZM) / Jörg Neidhardt (Fraunhofer-FEP)
International Ballroom North
TFB: Supply Chains, Manufacturing Processes, and Sustainability for Materials Enabling PVD Processes
Christina Linka, Paul Rudnik (Plansee) / David Sanchez (Materion) / Christos Peranidis (Avulcan) / Amin Keller (EvoChem)
International Ballroom North

8:30 AM 10 Minute Passing Break

8:30 AM SVC Annual Business Meeting (30 minutes)
Continental B Ballroom

9:10 AM 10 Minute Passing Break

9:20 AM 10 Minute Conference Introduction (Program Director) - Continental B Ballroom

9:30 AM Keynote - Continental B Ballroom
Sustainability Inspired Design of HIPIMS Deposited Coating Materials
(Jochen Schneider - RWTH Aachen University, Germany)

10:10 AM 20 Minute Refreshment Break

Table with 4 columns: Continental A Ballroom, Continental B Ballroom, Continental C Ballroom, Buckingham. Rows include presentations on Plasma Processing (PP1-PP6), Process Monitoring, Control, and Automation (PC1-PC4), and Large Area (LT1-LT6).

10:10 AM 10 Minute Passing Break

Don Mattox Tutorial - Continental B. Ballroom
From Thin Films to Airplanes: Engineering Leadership in the Fulfillment of Serving as Many People as Possible
(Marvi Matos Rodriguez - Boeing Corporation, Seattle, WA)

2:00 PM Continental A Ballroom, Continental B Ballroom, Continental C Ballroom, Buckingham

Table with 4 columns: Continental A Ballroom, Continental B Ballroom, Continental C Ballroom, Buckingham. Rows include presentations on HIPIMS (HP1-HP10), Atomic Layer Processing (AL1-AL8), and Coatings and Processes for Biomedical Applications (BT1-BT8).

4:10 PM 20 Minute Refreshment Break

Table with 4 columns: Continental A Ballroom, Continental B Ballroom, Continental C Ballroom, Buckingham. Rows include presentations on HIPIMS (HP7-HP10), Atomic Layer Processing (AL5-AL8), and Coatings and Processes for Biomedical Applications (BT5-BT8).

5:50 PM Dinner Break

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

10:00 PM

TUESDAY: MAY 7, 2024				
7:00 AM	TFB: Industrial Challenges: Uptime, Yield, and Consistency <i>Nick Franzer (Kurt J. Lesker Company) / Cameron Gottlieb (AGC)</i> International Ballroom North TFB: Leak Detection - Issues and Practices <i>Mike Ridenour (Leybold USA) / Jean-Pierre Deluca (BDL Redwood)</i> International Ballroom North TFB: Coatings and Surface Engineering for Medical Applications <i>Jeff Hettinger (Rowan University) / Greg Taylor (Lawrence Livermore National Laboratory)</i> International Ballroom North TFB: Magnetron Sputtering <i>Wilmert De Bosscher (Soleras Advanced Coatings) / Patrick Morse (Intevac)</i> International Ballroom North TFB: Energy Conversion and Storage <i>Ric Shimshock (MLD Technologies, LLC) / Volker Sittinger (Fraunhofer-IST)</i> International Ballroom North TFB: High-Powered Electron Beam Technology <i>Mark Pellman (Pellman Technology, Inc.) / Stefan Saager (Fraunhofer-FEP)</i> International Ballroom North TFB: Process Monitoring and Control <i>Martynas Audronis (Nova Fabrica, Ltd.) / Edmund Schöngel (Evatech AG)</i> International Ballroom North TFB: High Power Impulse Magnetron Sputtering (HIPIMS) <i>Arutun P. Ehasarian (Sheffield Hallam University) / Ralf Bandorf (Fraunhofer-IST)</i> International Ballroom North TFB: Tribological and Diamond-Like Coatings <i>Jolanta Klemberg-Sapieha (Polytechnique Montréal) / George Savva (IHI Ionbond, Inc.)</i> International Ballroom North			
8:30 AM	EXHIBIT HALL OPEN: 1:00 PM - 6:00 PM 82B Coffee (Exhibitors Only) 12:00 PM - 1:00 PM 10 Minute Passing Break			
8:40 AM	Awards Ceremony - Continental B Ballroom			
9:10 AM	10 Minute Passing Break			
9:20 AM	Continental A Ballroom	Continental B Ballroom	Continental C Ballroom	Buckingham
9:30 AM	HIPIMS (HP11) Temporal Plasma Evolution in the Pulse Peak Current Controlled HIPIMS Discharge <i>(Anna W. Oniszczak - TRUMPF Huettinger Sp. z o.o.)</i>	Plasma Processing (PP7) Indium Free Transparent Conductive Electrodes: Effects of Deposition Temperature and Angle on the Thin Film Characteristics <i>(Tabitha Amollo - Michigan State University)</i>	Process Monitoring, Control, and Automation (PC7) Advanced Energy's Ascent AMS II <i>(Kyle Moore - Advanced Energy Industries Inc.)</i>	Exhibitor Innovator Showcase (EIS1) Innovations in Vacuum Web Coating <i>(Eric Josephson - INTELLIVATION LLC)</i>
9:50 AM	HIPIMS (HP12) Influence of Pulse Parameters in Dual Cathode HIPIMS: Study on the Effect of the Off-Time in Asymmetric Pulse Shapes on the Ionization at the Cathode Site <i>(Ralf Bandorf - Fraunhofer IST)</i>	Plasma Processing (PP8) Plasma Diagnostics for an AFSD Plasma Cleaning Process <i>(Sebastian Martinez-Garcia - Centro de Ingeniería y Desarrollo Industrial CIDEI)</i>	Process Monitoring, Control, and Automation (PC8) Reducing Coating System OPEX Through Advanced ICP Power Control <i>(Tim Dubs - Advanced Energy Industries, Inc.)</i>	Exhibitor Innovator Showcase (EIS2) Development of High-Value Companies Related to Vacuum in Mexico and Latin America: The Case of Devcoatings <i>(Niels Garcia-Tapia - DEVCOATINGS, GRUPO FEDECO)</i>
10:10 AM	HIPIMS (HP13) Continuous Pulse-Resolved Spectroscopic and Electrical Plasma Process Control in HIPIMS Applications <i>(Thomas Schütte - PLASUS GmbH)</i>	Plasma Processing (PP9) Eliminating Signal Bias Caused by Vacuum System Backstreaming in the Diagnostic Residual Gas Analyzer of ITR <i>(Chris Marcus - Oak Ridge National Laboratory)</i>	Process Monitoring, Control, and Automation (PC9) Instrument/Instrument and Supplier/Supplier On-line and Laboratory Reproducibility Considerations <i>(Brian Werner - Apex Measurement Systems)</i>	Exhibitor Innovator Showcase (EIS3) Upgrading Industrial Thin Film Coaters Powered by Crystal® with Advanced Energy's Integrated New Technology Solutions <i>(Craig Rappe - Advanced Energy Industries, Inc.)</i>
10:30 AM	20 Minute Refreshment Break			
10:50 AM	HIPIMS (HP14) HIPIMS Prepared Metal Films on Stretchable Substrate for Thin-Film Strain Gauge <i>(Ying Hung Chen - Feng Chia University)</i>	Plasma Processing (PP10) Advancements in Plasma Sensor Technology for Enhanced Control in Sputtering Systems <i>(Angus McCarter - Impedans Ltd.)</i>	Process Monitoring, Control, and Automation (PCInv2) 30 Years of Industrial Vacuum Robots: Leveraging Statistical Process Control to Enhance Performance and Reliability <i>(Yehoram Youshah, Hsiao-Lung Chang - Brooks Automation)</i>	Exhibitor Innovator Showcase (EIS4) The EMICON System - Comprehensive Process Control Combining Complementary Diagnostic Techniques in a Single Unit <i>(Thomas Schütte - PLASUS GmbH)</i>
11:10 AM	HIPIMS (HP15) Gas Flow Sputter System for Yttria-Stabilized Zirconia Deposition <i>(Ju-Liang He - Feng Chia University)</i>	Plasma Processing	Process Monitoring, Control, and Automation (PC10) Optimizing Aluminum Zinc Oxide Magnetron Sputtering Process Control on Organic Substrates with PEM <i>(Andris Vorklans - GroGlass, SIA)</i>	Exhibitor Innovator Showcase (EIS5) Research and Business Opportunities in Mexico for Vacuum Technologies, The Center for Engineering and Industrial Development <i>(CONACYT-CIDEI)</i> <i>(Niels Garcia-Tapia - Centro de Ingeniería y Desarrollo Industrial CIDEI)</i>
11:30 AM	HIPIMS (HP16) Boron Carbide Coatings Deposited with HIPIMS <i>(Gregory Taylor - Lawrence Livermore National Laboratory)</i>	Thin Film Contributions to the Hydrogen Economy (HY1) Thin Film Considerations for the Hydrogen Economy <i>(Ralf Bandorf - Fraunhofer IST)</i>	Process Monitoring, Control, and Automation (PC11) Predictive Maintenance with Smartline Vacuum Transducers <i>(Linda Suarez Patino - Thyracon Vacuum Instruments GmbH)</i>	Exhibitor Innovator Showcase (EIS6) Innovative Coating Materials and Solutions for Thin Film Applications <i>(Luca Perrotti - Avulone GmbH)</i>
11:50 AM	HIPIMS (HP17) Two Decades of Industrial Scale HIPIMS <i>(Arutun Ehasarian - Sheffield Hallam University)</i>	Thin Film Contributions to the Hydrogen Economy (HY2) High Volume Coating of Metallic Plates for Hydrogen Applications by PVD Technology <i>(Geert-Jan Franssen - HHI Hauerz Techno Coating B.V.)</i>	Process Monitoring, Control, and Automation (PC12) Predictive Maintenance with Smartline Vacuum Transducers <i>(Linda Suarez Patino - Thyracon Vacuum Instruments GmbH)</i>	Exhibitor Innovator Showcase (EIS7) Process Monitoring, Control, and Leak Detection Using Remote Plasma Optical Emission Spectroscopy <i>(Erik Coen - Gencoo Ltd.)</i>
12:10 PM	HIPIMS	Thin Film Contributions to the Hydrogen Economy (HY3) Ultrarapid Loading Pt Electrodes for PEM Electrolysis Developed by Magnetron Sputtering <i>(Lucia Mendizabal - TEKNIKER)</i>	Process Monitoring, Control, and Automation (PC13) MatSight Apps by PlasmaSolve - a modern simulation toolkit for speeding up equipment development and process development <i>(Adam Obravnik - PlasmaSolve s.r.o.)</i>	Exhibitor Innovator Showcase (EIS8) The Promise of Vacuum System Technology (VST) <i>(Koby Leist - VST Services Ltd.)</i>
12:30 PM		Thin Film Contributions to the Hydrogen Economy (HY3) Cost Effective High Performance Coatings for the Hydrogen Economy: Mass Production of Coatings for Fuel Cells and Electrolysers <i>(Herbert Gabriel - PVT Plasma und Vakuum Technik GmbH)</i>	Process Monitoring, Control, and Automation (PC14) Improved Process Control by Using In-Situ Data to Determine Refractive Indices of Thin Films <i>(Jan-Peter Urbach - PLASUS GmbH)</i>	Exhibitor Innovator Showcase (EIS9) Molybdenum and Tungsten Sputtering Targets for Microelectronic and Semiconductor Applications: Requirements, Material Properties and Perspectives <i>(Christian Linke - Plansee SE)</i>
12:50 PM			Process Monitoring, Control, and Automation (PC15) Outgassing in Vacuum Processes: Problems, Sensing and Control <i>(Joe Brindley - Gencoo Ltd)</i>	Exhibitor Innovator Showcase (EIS10)
1:10 PM			Process Monitoring, Control, and Automation (PC15) Incorporating Automation Skills into a Vacuum Technology Curriculum <i>(Nancy Louwagie - Normandale Community College)</i>	
2:30 PM - 4:30 PM	Poster Session			
	POSTERS (P01): Surface Properties of Plasma Carburized Austenitic Stainless Steels for Tribological Applications and Metallic Bipolar Plates (Phillip Marvin Reinders - TU Braunschweig, Institute for Surface Technology)			
	POSTERS (P02): Investigating Nitrogen-Incorporated Tetrahedral Amorphous Carbon as an Optically Transparent Electrode (David Galstyan - Fraunhofer USA, Inc., Center Midwest)			
	POSTERS (P03): Comparison of PA-CVD and MS-PVD Coatings Deposited on Polymer Foils for Food Packaging Applications with Higher Recyclability (Francisco Delfin - University of Applied Sciences Upper Austria)			
	POSTERS (P04): Two Dimensional Structured Electrode of Nickel Oxide for Enhanced Capacitive Behaviour (Preyush Phogat - Netaji Subhas University of Technology)			
	POSTERS (P05): Effect of Nitrogen Doping on the Mechanical and Tribological Properties of Hydrogen-Free DLC Coatings Deposited by Arc-PVD at an Industrial Scale (Sebastian Martinez-Garcia - Centro de Ingeniería y Desarrollo Industrial CIDEI)			
	POSTERS (P06): Sensor Design and Mass Fabrication Considerations of Micro Anemometer and Its Implementation in a Mechanical Ventilator (Sebastian Martinez-Garcia - Centro de Ingeniería y Desarrollo Industrial CIDEI)			
	POSTERS (P07): Ga₂O₃ and ZnGa₂O₄ Thin Films Deposited by Liquid Metal Target Sputtering (Edward Strods - Institute of Solid State Physics, University of Latvia)			
	POSTERS (P08): Comparison of Different Antimicrobial Testing Methods on Magnetron Sputtered Coatings (Viktors Vibernijs - Institute of Solid State Physics, University of Latvia)			
	POSTERS (P09): Tribology Coatings on Lightweight Metals by Using Ion Plating Technology (Giyoung Kim - Gyeongbuk Technopark)			
	POSTERS (P10): Tomographic View - New Tool to View Inside the Material (Nick Bierwisch - SIO)			
5:00 PM	Welcome Reception 5:00 PM - 6:00 PM (In Exhibit Hall)			
6:00 PM	Exhibit Hall Closes at 6:00 PM			

WEDNESDAY: MAY 8, 2024

SVC Foundation 5K Fun Run (Hilton Lobby meet-up)

5:30 AM	
7:00 AM	<p>TAC Breakfast Meetings: 7:00 AM - 8:30 AM International Ballroom North-South</p> <p>Optical Coatings TAC Breakfast Protective, Tribological, and Decorative Coatings TAC Breakfast Large Area Coatings TAC Breakfast WebTech Roll-to-Roll Coatings for High-End Applications TAC Breakfast Emerging and Translational Technologies and Applications TAC Breakfast Plasma Processing TAC Breakfast Atomic Layer Processing TAC Breakfast HIPIMS TAC Breakfast High-Powered Electron Beam Technology TAC Breakfast Thin Film Contributions for the Hydrogen Economy TAC Breakfast Coatings for Energy Conversion and Related Processes TAC Breakfast Coatings and Processes for Biomedical Applications TAC Breakfast Thin Film Sensors TAC Breakfast Process Monitoring, Control and Automation TAC Breakfast Digital Transformation of Industrial Deposition Processes TAC Breakfast</p>
8:30 AM	<p>EXHIBIT HALL OPEN: 10:00 AM - 4:00 PM Exhibitor Meeting (closed session) 9:00 AM - 10:00 AM</p>

8:30 AM	EXHIBIT HALL OPEN: 10:00 AM - 4:00 PM
8:40 AM	Exhibitor Meeting (closed session) 9:00 AM - 10:00 AM
	10 Minute Passing Break

8:40 AM	<p>Keynote - Continental B Ballroom</p> <p>Why Your AI Effort Failed... and How to Engineer Success (Sean McGregor - Underwriters Laboratories, Rancho Mission Viejo, CA)</p>
9:20 AM	10 Minute Passing Break

	Continental A Ballroom	Continental B Ballroom	Continental C Ballroom	Buckingham
9:30 AM	<p>Optical Coatings (OT1v1) A Collection of Interesting Coating Challenges (and Solutions!) (Leo Baldwin - Meta)</p>	<p>Protective, Tribological and Decorative Coatings (TT1) Creating a Digital Twin and How It Helps to Speed Up Your Coating Development (Nick Bierwisch - SID)</p>	<p>Emerging and Translational Technologies and Applications (ET1) Miniaturized rTMS Coil Powered by SCR High Current Supply (Han-Ping Hung - Feng Chia University)</p>	<p>Closed Door Exhibitor Meeting in Salon C/D</p>
10:10 AM	<p>Optical Coatings (OT1) Design and Fabrication of Multilayer Metallo-Dielectric Transmission Filters with an Anisotropic Transfer Matrix Method Analysis (Lirong Sun - Air Force Research Laboratory)</p>	<p>Protective, Tribological and Decorative Coatings (TT2) HIPIMS Deposited AlScN Films: Sc Dependent Phase Transition (Anas Ghailane - AVALUXE Coating Technologies GmbH & co KG)</p>	<p>Emerging and Translational Technologies and Applications (ET2) Driving Innovation: Leveraging NSF Industry/University Cooperative Research Centers for Successful Start-Up Launches (Ray Lewandowski - Power Roll Ltd)</p>	<p>Exhibitor Innovator Showcase (EIS11) New Product Release: FTE (Full Target Encapsulation) Shutters (Jason Hrebik - Kurt J. Lesker Company)</p>

10:10 AM	<p>Optical Coatings (OT1) Design and Fabrication of Multilayer Metallo-Dielectric Transmission Filters with an Anisotropic Transfer Matrix Method Analysis (Lirong Sun - Air Force Research Laboratory)</p>	<p>Protective, Tribological and Decorative Coatings (TT3) Can the Solid Particle Erosion Literature Provide Quantitative Predictions of Erosion Performance? A Machine Learning Analysis (Stephen Brown - Polytechnique Montréal)</p>	<p>Emerging and Translational Technologies and Applications (ET3) Open Innovation for Thin Film Vacuum Coating in Europe (André Wahl - KETMarket GmbH)</p>	<p>Exhibitor Innovator Showcase (EIS12) Intelleg® S EI - Long Life-time EIES Deposition Rate Controller (Martynas Audronis - Nova Fabrica Ltd.)</p>
10:30 AM	20 Minute Refreshment Break			

10:50 AM	<p>Optical Coatings (OT2) Temperature-Dependent In-Situ Analysis to Enhance the Performance of Optical Coatings in Gravitational Wave Detectors (Michèle Magnozzi - Università di Genova)</p>	<p>Protective, Tribological and Decorative Coatings (TT4) Tribological Behavior of Nb-Doped Oxynitride for High Temperature Applications (Sebastian Martinez-Garcia - Centro de Ingeniería y Desarrollo Industrial CIDESI)</p>	<p>Emerging and Translational Technologies and Applications (ET1v1) FlexGlass Pilotlab - An Innovative Platform for Emerging Use Cases (Jörg Neidhardt - Fraunhofer FEP)</p>	<p>Exhibitor Innovator Showcase (EIS13) Temperature Compensation for QCMs (Sheldon Wayman - INFICON)</p>
11:10 AM	<p>Optical Coatings (OT3) Gas Flow Sputtering Prepared SiC Coating for Plasma Etching Resistance (Cha Yin Liou - Feng Chia University)</p>	<p>Protective, Tribological and Decorative Coatings (TT5) Near-Infrared Optical Properties of Thermal Barrier Coatings: Effect of Microstructure and Degradation (Ludvik Martinu - Polytechnique Montréal)</p>	<p>Emerging and Translational Technologies and Applications (ET1v1) FlexGlass Pilotlab - An Innovative Platform for Emerging Use Cases (Jörg Neidhardt - Fraunhofer FEP)</p>	<p>Exhibitor Innovator Showcase (EIS14) Creating New Pathways from R&D to Production in the Vacuum Coating World (Frank Papa - GP Plasma)</p>

11:30 AM	<p>Optical Coatings (OT4) Innovative Approaches to the Development of Transparent Flexible Electrodes (Aleksandra Pajak - Polytechnique Montréal)</p>	<p>Protective, Tribological and Decorative Coatings (TT1v1) Application of Various Coatings on Aircraft Jet Engine Parts (Tsunao Tezuka - IHI Corporation)</p>	<p>Emerging and Translational Technologies and Applications (ET4) Directional Off Axis Sputtering for Structurally Defined Solar Modules (Alexander Topping - Power Roll Ltd)</p>	<p>Exhibitor Innovator Showcase (EIS15) The R-ALD: An Economical ALD Research and Development System (Jacob Bertrand - Maxima Sciences LLC)</p>
11:50 AM	<p>Optical Coatings (OT5) New Era for Eyeglasses (Ronald Willey - Willey Optical, Consultants)</p>		<p>Emerging and Translational Technologies and Applications (ET5) Advanced Thin Film Coatings based on TiN for next Generation Quantum Computing (Manuela Junghechel - Fraunhofer IZM-ASSID)</p>	<p>Exhibitor Innovator Showcase (EIS16) Accelerating Material Breakthroughs with Atomic Layer Deposition (ALD) and Physical Vapor Deposition (PVD) Combined Processes (Carlos Guerra - Swiss Cluster AG)</p>

12:10 PM	<p>Optical Coatings (OT1v2) Coatings for Laser Fusion Ignition and Beyond (Christopher Stolz - Lawrence Livermore National Laboratory)</p>	<p>Protective, Tribological and Decorative Coatings (TT6) Studies of Porosity in Ceramic Titanium Nitride Oxide PVD Coatings (Zhonghui Wang - Tamary Industries)</p>	<p>Emerging and Translational Technologies and Applications (ET6) Circular Economy and PVD: Adding Value to the Future (Lara Maroto-Diaz - Gencou Ltd.)</p>	<p>Exhibitor Innovator Showcase (EIS17)</p>
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12:30 PM	<p>9:00 AM Exhibitor Meeting (closed session)</p> <p>Exhibit Hall Opens at 10:00 AM</p>	<p>Emerging and Translational Technologies and Applications (ET7) Ultra-Low, Non-Contact Temperature Measurement in Temperature Critical Processes, Challenges, and Best Practices (Tim Dubbs - Advanced Energy Industries, Inc.)</p>	<p>Exhibitor Innovator Showcase (EIS18)</p>
	<p>2:00 PM Beer Blast</p> <p>3:00 PM Announce: 5K Walk/Run Winner & Best Poster Award</p> <p>Exhibit Hall Closes at 4:00 PM</p>		

4:00 PM	90 Minute Break
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6:00 PM	<p>5:30 - 7:30 PM</p> <p>Program Committee Meeting</p> <p>Lake Huron (8th floor)</p>
7:30 PM	

THURSDAY: MAY 9, 2024				
7:00 AM	TFB: Manufacturing in Space <i>Nick Franzer (Kurt J. Lesker Company) / Kevin Savin (Redwire Space Co.)</i> International Ballroom North TFB: Protective, Reflective, and Decorative Coatings <i>Joshua Soper (Vergason Technology, Inc.) / Robert Stachnisky (Valence Technologies, LLC)</i> International Ballroom North TFB: Fabrication and Performance of Optical Coatings <i>Ludvik Martinu (Ecole Polytechnique Montreal) / Vivek Gupta (Meta) / Kestutis Juskevicius (ARO Corp)</i> International Ballroom North TFB: Transparent Conductive Materials (TCM) <i>Clark Bright (Bright Thin Film Solutions, LLC) / Patrick Morse (Intevac)</i> International Ballroom North TFB: Atmospheric Plasma Technology <i>Hana Baranková (Uppsala University) / Ladislav Bardos (Uppsala University)</i> International Ballroom North TFB: Post-Processing of Vacuum-Coated Roll-to-Roll Products <i>Andy Jack (Emerson and Renwick Ltd.) / Chris Stoessel (Stoessel Consulting)</i> International Ballroom North TFB: Surface Engineering for the Hydrogen Economy <i>Ralf Bandorf (Fraunhofer IST) / Herbert Gabriel (PVT Plasma and Vakuum Technik GmbH)</i> International Ballroom North			
8:30 AM	10 Minute Passing Break			
8:30 AM	10 Minute Passing Break			
8:40 AM	Keynote - Continental B Ballroom			
9:10 AM	"New" Approaches to Controlling Composition and Crystallinity in Sputter-Deposited Thin Films (Suneel Kodambaka - Virginia Polytechnic and State University, Blacksburg, VA)			
9:20 AM	10 Minute Passing Break			
9:30 AM	Continental A Ballroom	Continental B Ballroom	Buckingham	
9:30 AM	Optical Coatings Panel Discussion and Workshop (1 hour-forty minutes) "The Challenge of Managing Defects in Production Optical Coating Processes"	Protective, Tribological and Decorative Coatings (TT7) Conformal and Superparamagnetic Chemical Vapor Deposition of Silicon Carbide Coatings on Structured Graphite (Jing-Jia Huang - Linköping University)	High-Powered Electron Beam Technology	
9:50 AM		Protective, Tribological and Decorative Coatings (TT8) CVD-Diamond Tool Coatings for Wire Drawing Dies with High Aspect Ratios (Christian Stehl - Fraunhofer Institute for Surface Engineering and Thin Films IST)	Digital Transformation of Industrial Deposition Processes (DT1v1) How Will Our Vacuum Coater and Deposition Processes Look Like Tomorrow? (Wilmer De Bosscher - Seleris Advanced Coatings)	
10:10 AM		Protective, Tribological and Decorative Coatings (TT1m2) CVD Coatings for Cutting Tools Evolution and Challenges (Dino Banerjee - Konowest)	Digital Transformation of Industrial Deposition Processes (DT1) Automated Design of Coating Recipes Using a Digital Twin Model (Adam Orvutsk - Plasmasolve s.r.o.)	High-Powered Electron Beam Technology (EB1) Industrial Coating Developments by Electron Beam Physical Vapor Deposition (EB-PVD) - Technological Challenges for the Coating of Steel Strips at High Speed (Dziana Gillet - CRM Group)
10:30 AM			Digital Transformation of Industrial Deposition Processes (DT2) How to Handle All the Data Within Surface Technology? (Holger Gerdes - Fraunhofer IST)	High-Powered Electron Beam Technology (EB2) Plasma Activated EB-PVD for High-Throughput Continuous Coating of Bipolar Plates (Stefan Seeger - Fraunhofer IFF)
10:30 AM	30 Minute Refreshment Break			
11:10 AM	Optical Coatings (OT6) Improved Three Layer Antireflection Coating Design Discovery (Ronald Willey - Willey Optical, Consultants)	Protective, Tribological and Decorative Coatings (TT9) Characterization of Diamond Like Carbon Coatings for Applications in Infrared Optics and Tribology (Sarech Bellinger - McMaster University)	Digital Transformation of Industrial Deposition Processes (DT3) Simulink II From Simulation to Optimization for Coating Processes and Coaters (Dennis Barton - Fraunhofer IST)	High-Powered Electron Beam Technology (EB1v1) EBPVD Thermal Barrier Coatings for the Aerospace Industry, Current Status, Challenges, and Future Outlook (Jason Van Slyman - Honeywell Aerospace)
11:30 AM	Optical Coatings (OT7) Origins of Stress in Amorphous Optical Thin Films: Mechanisms of Stress Generation and the Role of the Sputtering Parameters (Pedro Avila - Polytechnique Montreal)	Protective, Tribological and Decorative Coatings (TT10) High Temperature Tribology of Arc-Evaporated CrN + Cr ₂ O ₃ Coatings (Ton Hurkmans/George Savva - HI Ionbond)	Digital Transformation of Industrial Deposition Processes (DT4) Progress in Open-Source Plasma Modeling: Introducing the Simulation Tool PFCas and Harnessing its Potential with Web-Based Platforms for Thin-Film Technologies (Paul Nizenzov - Boltzmann-numerical plasma dynamics GmbH)	High-Powered Electron Beam Technology (EB3) Features and Applications of Electron Beam Process Controllers (Dimitris Heurkens - VOR Advanced Coatings)
11:50 AM	Optical Coatings (OT8) Sputtered Coatings for Space-Based Optical Systems Including Gold Insulated-Transmission Filters (John Atkinson - Chroma Technology)	Protective, Tribological and Decorative Coatings (TT11) Challenges and Approaches in the Development and Application of Decorative PVD Coatings (Martin Engels - Ionbond Netherlands B.V.)	Digital Transformation of Industrial Deposition Processes (DT5) Leverage Data to Enhance Arc Management and Anomaly Detection Capabilities on Advanced Energy™ (AE) Power Supplies to Reduce Operational Costs (Jing Li - Advanced Energy Industries, Inc.)	
12:10 PM	30 Minute Lunch Break			
12:40 PM	Continental A Ballroom	Continental B Ballroom	Continental C Ballroom	
12:40 PM	Optical Coatings (OT1v8) MOCVD Technology for 2D TMDC Equipment, Processes, Material Properties and Future Applications (Michael Heuken - AixTRON SE)	Protective, Tribological and Decorative Coatings (TT12) Wear Resistance of Highly Textured TiN Coatings (Xiaoyu Sheng - Purdue University)	WebTech Roll-to-Roll Coatings for High-End Applications (WT1v1) Monitoring of Conductive Thin Films in Challenging Vacuum Environments by Eddy Current Sensors (Marcus Klein - SURAGUR GmbH)	Thin Film Sensors (SE1) Phase-Change Thin Films for Electrical, Thermal, Friction and Strain Sensing (Amin Kachae - Universitè de Monrovia)
1:00 PM		Protective, Tribological and Decorative Coatings (TT13) Unlocking the Potential: Synergistic Tribological Performance of Gadolinium Doped DLC Coatings with Phosphorus-Containing Ionic Liquids (Takara Oniya - University of Coimbra)		Thin Film Sensors (SE2) Development and Study of Low-Cost, Scalable Nitrogen-Incorporated Tetrahedral Amorphous Carbon (ta-C:N) Electrochemical Sensor (Nave Basile - Fraunhofer USA)
1:20 PM	Optical Coatings (OT9) In-Situ Characterization of Coating Roughness Evolution Using Light Scattering Methods (Nadja Felde - Fraunhofer IOP)	Protective, Tribological and Decorative Coatings (TT14) Study of Protecting Mechanical Properties of 3-D Printed Polymers Exposed to Severe Testing Conditions by Magnetron Sputtering Depositions (Dorina Mihael - Mercer University)		Thin Film Sensors (SE1v1) Complex Germanates Thin Film Growth by Sub-Oxide Source Molecular Beam Epitaxy (Harjot Paik - University of Oklahoma)
1:40 PM	Optical Coatings (OT10) Estimating the Average Reflectance of an Antireflection Coating (Ronald Willey - Willey Optical, Consultants)	Programming pause	WebTech Roll-to-Roll Coatings for High-End Applications Panel Discussion and Workshop (1 hour - twenty minutes)	Thin Film Sensors (SE3) Optical Metasurface Engineering for Enabling the Mid-Wave Infrared Polarization Detection (Hosna Sultana - University of Oklahoma)
2:00 PM	Optical Coatings (OT11) High Mobility TCO for Superior Optical Performance (Clark Bright - Bright Thin Film Solutions LLC)	Protective, Tribological and Decorative Coatings (TT1v3) Application of Thermal Barrier Coatings on Hotter Parts of Aero-Engines (Ravishankar Narayana - DLR)	"Coating Thousands of Meters of Flexible Substrate in a Vacuum Coater - What Could Possibly Go Wrong?"	Thin Film Sensors (SE4) Study of Ion Charging Effect to Improve Reactive-Ion Etching Profile of PDS Grating Structures (Tabere Memari - University of Oklahoma)
2:20 PM	Optical Coatings (OT12) Using Different Coating Techniques to Minimize Stress of Hafnia/Silica Stacked Filter Coating (Eyad Demir - ASULSAN)			
2:40 PM	Optical Coatings (OT13) Metallic Thin Films: The Forgotten Transparent Conductive Material (Clark Bright - Bright Thin Film Solutions LLC)	Protective, Tribological and Decorative Coatings (TT15) Plasma Etching Resistance of Gas Flow Sputter Prepared Yttrium Oxynitride Coating Against Different Fluorine Plasma (Peng-Yen Hsieh - Feng Chia University)	WebTech Roll-to-Roll Coatings for High-End Applications (WT1) Integration of a Mid IR Tunable Quantum Cascade Laser Based Reflectance Spectrometer in a Roll-to-Roll Sputter Coater (Mike Simmons - INTELLIVATION LLC)	Coatings for Energy Conversion and Related Applications (EN1v1) Vertically Aligned Carbon Nanotube Coatings for Graphite-Free and Stable Lithium-Metal Battery Anodes (Abdul-Rahman Raji - Zeta Energy Corporation)
3:00 PM	Optical Coatings (OT13)	Protective, Tribological and Decorative Coatings (TT16)	WebTech Roll-to-Roll Coatings for High-End Applications (WT2) A Modular R2R Vacuum Coating Platform Using State of the Art Automation Tools for Productivity in Multi-Layer Application (Michael Muecke - Bahler Leybold Optics)	
3:20 PM	20 Minute Refreshment Break			
3:40 PM				Coatings for Energy Conversion and Related Applications (EN1) Electrode Coatings for the Energy Transition (Matija Lovrak - Magneto Special Anodes B.V.)
4:00 PM				Coatings for Energy Conversion and Related Applications (EN2) Combinatorial Thin Film Catalysts for Oxygen Evolution Reaction (Natalie Page - Rowan University)
4:20 PM				Coatings for Energy Conversion and Related Applications (EN3) Spatial Atomic Layer Deposition of Indium oxide electrocatalyst layers for PEM electrolysis (Paul Poort - SparkNano B.V.)
4:40 PM	Protective, Tribological and Decorative Coatings Panel Discussion and Workshop (2 hours) "CVD Today and Going Forward"			Coatings for Energy Conversion and Related Applications (EN4) Indium Zinc Oxide TCOs Films Deposited from a Metallic Tube Target for Perovskite-Silicon Tandem Solar Cell Applications (Volker Stritzinger - Fraunhofer IST)
5:00 PM				Coatings for Energy Conversion and Related Applications (EN5) Swift Solar: From Research and Development to the Commercialization of Perovskite Photovoltaics (Tobias Abzieher - Swift Solar Inc.)
5:20 PM				Coatings for Energy Conversion and Related Applications (EN6) Dry IBNation coloration and electron density characterization of tungsten trioxide (WO ₃) thin films (Pundarikumar Aduri - Université de Monrovia)
5:40 PM				
6:00 PM	6:00 PM - 7:30 PM Young Members/Farewell Social International Ballroom South			
7:30 PM				