| | 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 Schütte (Plasus GmbH) | | | | |
| | hternational Ballrow Mr. TFB: Aligning Deposition Process Requirements with Vacuum System Layout and Design | | | | |
| | Wolfgang Decker (Kurt 1. Lesker Companyl / Jimmy Haight (Semicore) htterational Ballroom North TBE: Optical Costing Design | | | | |
| | Robert Sargent (Vlawl Solutions Inc.) / Ron Willey (Willey Optical Consultants) International Ballroom North | | | | |
| | | TFB: Advanced Depos Frank Papa (GP Plasma, LLC) , | ition Coating Hardware / Ralf Bandorf (Fraunhofer-IST) | | |
| | | International TFB: Coatings for Th | Ballroom North iin Film Photovoltaics | | |
| | | International | ic Shimshock (MLD Technologies, LLC) Ballroom North | | |
| | | Matt Weimer (ForgeNano) / Len | ALD Processing ka Zajickova (Masaryk University) | | |
| | | TFB: Thin F | Ballroom North Film Sensors / Binbin Weng (University of Oklahoma) | | |
| | | International | Ballroom North Glass - The Next Big Thing? | | |
| | | Manuela Junghähnel (Fraunhofer-ASSI, | /IZM) / Jörg Neidhardt (Fraunhofer-FEP) Ballroom North | | |
| | | TFB: Supply Chains, Manufacturing Processes, and | sustainability for Materials Enabling PVD Processes vion) / Christos Pernagidis (Avaluxe) / Armin Keller (EvoChem |) | |
| 8:30 AM | | International | Ballroom North | | |
| 8:30 AM | | 10 Minute I | Passing Break | | |
| 8:40 AM | | SVC Annual Business | Meeting (30 minutes) Il B Ballroom | | |
| 9:10 AM | | | Passing Break | | |
| 9:20 AM 9:30 AM | | 10 Minute Conference Introduction (Pro | ogram Director) - Continental B Ballroom | | |
| | | Sustainability Inspired Design of H | nental B Ballroom HIPIMS Deposited Coating Materials | | |
| 10:10 AM | | | Aachen University, Germany) reshment Break | | |
| 10:30 AM | Continental A Ballroom | Continental B Ballroom | Continental C Ballroom | Buckingham | |
| | | | Process Monitoring, Control, and Automation (PC1) Understanding Convergence and Steady-State Conditions During Feedback Control in Reactive Magnetron Sputtering | Large Area (LT1) Utilizing Large Area Sputtering to Overcome Cost and Yield Barriers for Scratch Resistant Anti-Reflective Coatings | |
| 10:50 AM | | Plasma Processing (PPinv1) Plasma-Enhanced Chemical Film Conversion (R. Mohan Sankaran - University of Illinois Urbana-Champaign) | (Josja Van Bever - Ghent University) Process Monitoring, Control, and Automation (PC2) | (Patrick Morse - Intevac Inc.) | |
| | | (it. Monsin Samaran - University of Illinois Oreana-Champaign) | Process Monitoring, Control, and Automation (PC2) Rapid Titanium Nitride Process Development on a Production PVD System Using a Plasma Emission Monitor Nick Franzer - KDF Technologies) | Large Area (LT2) Printable Masking for Large Area Magnetron Sputtering Process (Alexey Arthipov - Bühler Alzenau GmbH) | |
| 11:10 AM | HIPIMS Panel Discussion and Workshop | Plasma Processing (PP1) A Plasma-Based Anodization Process for the Production of Alf ₈ Layers (Scott Walton - Naval Research Laboratory) | Process Monitoring, Control, and Automation (PC3) Diagnostic Solutions to Common Issues in Vacuum Coating and Plasma Processing (Angus McCarter - Impedans Ltd.) | Large Area (LTinv1) | |
| 11:30 AM | (2 hrs) "HIPIMS Success Stories" | Plasma Processing (PP2) Exploring Shallow Depth Profiles of Plasma-Treated Polymer Surfaces (Sabour Un Nisa - Leibni: Institut für Polymerforschung Dresden e. V.) | Process Monitoring, Control, and Automation (PC4) Residual Gas Analysis for Process Monitoring (Edward Ho-Polifier Vaccuum Inc.) | The Practical Considerations of RF Sputtering in Large Area Manufacturing (Jesus Garcia - Advanced Energy Industries, Inc.) | |
| 11:50 AM | | Plasma Processing (PP3) Hybrid Polyhedral Oligomeric Silsespiciosane (POSS) Films Prepared by Ion Beam Assisted Evaporation | (coward no - Premier v account inc.) | Large Area (LT3) Arc Handling and Managing Arc Energies During Deposition of Insulating | |
| 12:10 PM | | (Oleg Zabeida - Polytechnique Montréal) Plasma Processing (PP4) Which Processes Really Matter in Industrial HiPMMS? Understanding a PVD | Process Monitoring, Control, and Automation (PCinv1) Equipment Control in 2024 – From Must Haves to Future Dreams (Frank Geissler - Kontron AIS) | Film: Comparison Between Power Delivery Modes (Gayatri Rane - Advanced Energy Industries, Inc.) Large Area (LT4) Highly Selective Multilayer Low-E Coatings on Float Glass | |
| 12:30 PM | | Process Through Global Plasma Modelling (Kristina Tomanková - PlasmaSolve s.r.o.) Plasma Processing (PPS) | Process Monitoring, Control, and Automation (PCS) | (Utku Er - SISECAM) Large Area (LTS) Scalable Manufacturing Technology for Mobile Signal Penetrating Low-E | |
| 12:50 PM | HIPIMS (HPirnv1) The Use of HIPIMS in an industrial Setting (from Paggett - Kyocra Hardcooling Technologies) | Rapid Process Prototyping and Upscaling Using the AGC Mini-Coater Platform (John Chambers - AGC Plasma Technology Solutions) | Cutting-Edge Real-Time OES/PEM Innovations for Key Industry Advancements (Martynas Audronis - Nova Fabrica Ltd.) Process Monitoring, Control, and Automation (PC6) | (Guowen Ding - Labforinvention Corporation) Large Area (LT6) | |
| | | Plasma Processing (PP6) Fast Kinetic Modeling of Magnetron Sputtering (Daniel Main - Tech-X Corporation) | Advancing Vacuum Arc Evaporation Processes: In-situ Deposition Rate Measurement and Real-time Thickness Estimation for Enhanced Precision and Control (Gun-Hwan Lee - KIMS) | Protecting Cork and Rubber Form Mechanical Wear and UV Radiation through Coatings Produced by Vacuum Techniques (Belgacem Tiss - University of Minho) | |
| 1:10 PM 1:20 PM | | 10 Minute F | Continental B Ballroom | | |
| | | From Thin Films to Airplanes: Engineering Leadership | in the Fulfillment of Serving as Many People as Possible eing Corporation, Seattle, WA) | | |
| 2:00 PM | | | | | |
| 2:10 PM | Continental A Ballroom HIPIMS (HP1) | Continental B Ballroom Atomic Layer Processing (AL1) | Continental C Ballroom | Buckingham Large Area (LT7) | |
| | HiPIMS Coatings for Next Generation Cutting Tools (Christoph Schiffers - CemeCon AG) | High-Quality and High Deposition Rate Atomic Layer Peposition of NbN and TiN for Superconducting Quantum Applications (Harm Knoops - Oxford Instruments Plasma Technology) | Coatings and Processes for Biomedical Applications (BTinv1) | Spatial Plasma Enabled Atomic Layer Deposition for Large Area Substrates (Eric Dickey - Lotus Applied Technology) | |
| 2:30 PM | HIPIMS (HP2) | | A Hitchhiker's Guide to Antimicrobial Thin Film Coatings (Gregory Caputo - Rowan University) | Large Area (LT8) | |
| | A Comprehensive Study of HiPIMS Coated Tool and Microtool Performance: From Edge Preparation to Micro-Machining Tests (Ivan Fernandz - NANO4ENERGY SL) | Atomic Layer Processing (AL2) | | Reactive Gas Ionizers - For Next Generation Thin Film Coatings (David Stevenson - Ampres, Inc.) | |
| 2:50 PM | HIPIMS (HP3) | | Coatings and Processes for Biomedical Applications (BT1) | Large Area (LT9) Effect of Pulse shape on Reactive Sputtering Process and Film Properties: | |
| | Optimization and Application of HiPIMS Hafnium Oxynitride (HfO N _y) Thin Films in MOS Structures (Robert Mroczyński - Warsaw University of Technology) | Atomic Layer Processing (ALInv1) | Development of Antibacterial Metal Oxide Thin Films for Neurostimulation Applications using Atomic Layer Deposition (Henna Khosla - Villanova University) | Comparison Between Sine-Wave, Square-Wave and Dynamic Reverse Pulsing Modes (Gayatri Rane - Advanced Energy Industries, Inc.) | |
| 3:10 PM | HIPIMS (HP4) Yttrium Oxyhydride Thin Films: Synthesis, Optical, and Photochromic | Atomic Layer Processing Approaches for Advanced Thin Film Heterojunctions (Virginia Wheeler - Naval Research Laboratory) | Coatings and Processes for Rigmedical Applications (RT2) | Large Area (LT10) | |
| | Yttrium Oxyhydride Thin Films: Synthesis, Optical, and Photochromic Properties (Martins Zubkins - Institute of Solid State Physics) | | Sealing of PVD Coating Defects by Ti-O ALD Layers for Orthopedic Implant Applications (Zoran Bobić - University of Novi Sad) | Simulating the Effect of Pulse Shape and Anode Placement in Large Area Coaters – Correlating Plasma Dynamics with Film Growth (Adam Obrusnik - PlasmaSolve s.r.o.) | |
| 3:30 PM | HIPIMS (HPS) | Atomic Layer Processing (AL3) | Coatings and Processes for Biomedical Applications (BT3) Ultrathin TiO, ALD Coatings Enhance Properties of Biomaterials Used in | Large Area (LT11) Vera C. Bubin Observatory Final Cratina Results Over the Main Telescope | |
| 3:40 PM | Heterogrown Graphene on Silicon for Thermal Spreading (Chi-Ya Hsia - Feng Chia University) | Novel Fiber-Optic Sensors for Advanced ALD and Plasma Systems (Tim Dubbs - Advanced Energy Industries, Inc.) | Medicine (Raul Zazpe - University of Pardubice) | Vera C. Rubin Observatory Final Coating Results Over the Main Telescope Mirrors (Tomislav Vucina - AURA / Vera C. Rubin Observatory) | |
| 3:50 PM | HIPIMS (HP6) Multilayer Ti/TiN Structures Deposited via HIPIMS on 2K60 Mg Alloy to | Atomic Layer Processing (AL4) Tailored Atomic Layer Deposition of Transparent Conductive Oxides Using | Coatings and Processes for Biomedical Applications (BT4) Antimicrobial Protection for Touch Surfaces to Reduce Hospital Associated | | |
| | Control its Degradation Rate (Adrian Claver - Public University of Navarre) | Supercycles (Hagen Bryja - FHR Anlagenbau GmbH) | Infections (Lara Maroto-Diaz - Gencoa Ltd.) | | |
| 4:10 PM 4:30 PM | | 20 Minute Refi | reshment Break | | |
| | HIPIMS (HP7) A Novel High-Efficiency Plasma Nitriding Process Utilising a HIPIMS Discharge (Arutiun Ehiasarian - Sheffield Hallam University) | Protection of Electrochemically Active Surfaces by Ultrathin Barrier Layers Using Atomic Layer Deposition (Raul Zazpe - University of Pardubice) | Coatings and Processes for Biomedical Applications (BTS) Synthesis and Characterization of Coatings for Bactericidal Applications (Jeffrey Hettinger - Rowan University) | | |
| 4:50 PM | HIPIMS (HP8) HIPIMS – A Fascinating Technology: To Make Decorative and Functional Application for Industrial Coating Solution | Atomic Layer Processing (AL6) Ontimizing Procursor Utilization for Spatial Al D in High Surface Area | Coatings and Processes for Biomedical Applications (BT6) Boron carbide coatings deposited with H97MtS for Cythopedic Applications (Gregory Taylor - Lawrence Livermore National Laboratory) | | |
| 5:10 PM | Application for Industrial Coating Solution (Chinmay Trivedi - Hit Hauser Techno Coating BV) HIPIMS (HP9) Advanced PVD Coatings for the Decorative Field: New Colours and Improved | Substrates (Paul Prooft - SparkNano B.V.) Atomic Layer Processing (AL7) Low-Cost, Ultra-Barrier Coating via Spatial, Pleama-Enabled ALD with Simultaneous Procursor Delivery | (Gregory Taylor - Lawrence Livermore National Laboratory) Coatings and Processes for Biomedical Applications (BT7) Characterization of Reactively Sputtered Platinum Group Metal Oxide Coatings for Biomedical Applications | | |
| | Film Properties (Francesca Marchetti - Protec Surface Technologies SRL) | Simultaneous Precursor Delivery (Bryan Danforth - Lotus Applied Technology) | Coatings for Biomedical Applications (Jeffrey Hettinger - Rowan University) | | |
| 5:30 PM | HIPIMS (HP10) Tuning Residual Stress for Enhanced Tribological Performance of TIAIN | Atomic Layer Processing (ALB) Enhancing Heavy Metal Ion Removal: Thiol-Functionalized Adsorbents via | Coatings and Processes for Biomedical Application-IATE | | |
| | Coatings Prepared by HIPIMS in Cylindrical Magnetron Configuration (Ludvik Martinu - Polytechnique Montréal) | Atomic Layer Deposition and Vapor-Phase Silanization (Vepa Rozyyev - Argonne National Laboratory) | The second secon | | |
| 5:50 PM | | Dinne | r Break | | |
| | 01500 | | | | |
| 8:00 PM | | | | | |
| | Casino Night Fundraiser (International Ballroom South) 8:00 - 10:00 PM | | | | |
| 10:00 PM | | | | | |
| 10:00 PM | | | | | |

| _ | TUESDAY: MAY 7, 2024 | | | | |
|----------------------|---|---|---|--|--|
| 7:00 AM | TFB: Industrial Challenges: Uptime, Y, 2024 TFB: Industrial Challenges: Uptime, Yield, and Consistency | | | | |
| 7:00 AW | Nick Franzer (Kurt J. Lesker Company) / Cameron Gottlieb (AGC) | | | | |
| | International Ballroom North | | | | |
| | TFB: Leak Detection - Issues and Practices Mike Ridenour (Leybold USA) / Jean-Pierre Deluca (BDL Redwood) | | | | |
| | International Ballroom North | | | | |
| | TFB: Coatings and Surface Engineering for Medical Applications | | | | |
| | leff Hettlinger (Rowan University) / Greg Taylor (Lowence Livermore National Laboratory) international Baltoom North | | | | |
| | menanoma sarroom norm TFB: Magnets sputtering | | | | |
| | | | ced Coatings) / Patrick Morse (Intevac) | | |
| | | TFB: Energy Conve | Ballroom North ersion and Storage | | |
| | | Ric Shimshock (MLD Technologies, LL | .C) / Volker Sittinger (Fraunhofer-IST) | | |
| | | TFB: High-Powered Ele | Ballroom North ctron Beam Technology | | |
| | | Mark Pellman (Pellman Technology, | Inc.) / Stefan Saager (Fraunhofer-FEP) | | |
| | | International I | Ballroom North itoring and Control | | |
| | | Martynas Audronis (Nova Fabrica, L | | | |
| | International Ballroom North | | | | |
| | TFB: High Power Impulse Magnetron Sputtering (HIPIMS) Andulun P. Hissarian (Sheffield Hallom University) / Roll Bandor (Fraunhofer-IST) | | | | |
| | | International | Ballroom North | | |
| | | Jolanta Klemberg-Sapieha (Polytechnique I | Diamond-Like Coatings | | |
| 8:30 AM | | International | Ballroom North | | |
| | | | l: 1:00 PM - 6:00 PM only) 12:00 PM - 1:00 PM | | |
| 8:30 AM | | | assing Break | | |
| 8:40 AM | | | | | |
| | | Awards Ceremony - C | Continental B Ballroom | | |
| 9:10 AM | | | | | |
| 9:10 AM 9:20 AM | | 10 Minute F | Passing Break | | |
| | 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 | Plasma Processing (PP7) Indium Free Transparent Conductive Electrodes: Effects of Deposition | Process Monitoring, Control, and Automation (PC7) | Exhibitor Innovator Showcase (EIS1) | |
| | Discharge | Temperature and Angle on the Thin Film Characteristics | Advanced Energy's Ascent AMS II (Kyle Moore - Advanced Energy Industries Inc.) | Innovations in Vacuum Web Coating (Liz Josephson - INTELLIVATION LLC) | |
| | (Anna W. Oniszczuk - TRUMPF Huettinger Sp. z o.o.) | (Tabitha Amollo - Michigan State University) | | | |
| 9:50 AM | HIPIMS (HP12) Influence of Pulse Parameters in Dual Cathode HIPIMS: Study on the | Plasma Processing (PP8) | Process Monitoring, Control, and Automation (PC8) | Exhibitor Innovator Showcase (EIS2) Development of High-Value Companies Related to Vacuum in Mexico and | |
| | Influence of the Off-Time in Asymmetric Pulse Shapes on the Ionization at the Cathode Site | Plasma Diagnostics for an AEGD Plasma Cleaning Process (Sebastian Martinez-Garcia - Centro de Ingeniería y Desarrollo Industrial | Reducing Coating System OPEX Through Advanced SCR Power Control (Andreas Breitkopf - Advanced Energy Industries, Inc.) | Latin America: The Case of Devcoatings | |
| | (Ralf Bandorf - Fraunhofer IST) | CIDESI) | princes sterropt - resulted the gy mountes, me.) | (Niels Garcia-Tapia - DEVCOATINGS, GRUPO FEDEQRO) | |
| 10:10 AM | HIPIMS (HP13) | Plasma Processing (PP9) | Process Monitoring, Control, and Automation (PC9) | Exhibitor Innovator Showcase (EIS3) | |
| | Continuous Pulse-Resolved Spectroscopic and Electrical Plasma Process Control in HIPIMS Applications | Eliminating Signal Bias Caused by Vacuum System Backstreaming in the Diagnostic Residual Gas Analyzer of ITER | Instrument/Instrument and Supplier/Supplier On-line and Laboratory Reproducibility Considerations | Upgrading Industrial Thin Film Coaters Powered by Crystal® with Advanced Energy's Integrated New Technology Solutions | |
| | (Thomas Schütte - PLASUS GmbH) | (Chris Marcus - Oak Ridge National Laboratory) | (Brian Werner - Apex Measurement Systems) | (Craig Rappe - Advanced Energy Industries, Inc.) | |
| 10:30 AM 10:50 AM | | 20 Minute Refr | eshment Break | | |
| 10:50 AW | HIPIMS (HP14) HiPIMS Prepared Metal Films on Stretchable Substrate for Thin-Film Strain | Plasma Processing (PP10) Advancements in Plasma Sensor Technology for Enhanced Control in | | Exhibitor Innovator Showcase (EIS4) The EMICON System - Comprehensive Process Control Combining | |
| | Gauge | Sputtering Systems (Angus McCarter - Impedans Ltd.) | Process Monitoring, Control, and Automation (PCinv2) | Complementary Diagnostic Techniques in a Single Unit (Thomas Schütte - PLASUS GmbH) | |
| | (Ying Hung Chen - Feng Chia University) | (Angus McCarter - Impedans Ltd.) | 30 Years of Industrial Vacuum Robots: Leveraging Statistical Process Control to Enhance Performance and Reliability | · · · · · · · · · · · · · · · · · · · | |
| 11:10 AM | HIPIMS (HP15) | | (Yehoram Yosubash, Hsiao-Lung Chang - Brooks Automation) | Exhibitor Innovator Showcase (EISS) Research and Business Opportunities in Mexico for Vacuum Technologies, | |
| | Gas Flow Sputter System for Yttria-Stabilized Zirconia Deposition (Ju-Liang He - Feng Chia University) | Plasma Processing | | The Center for Engineering and Industrial Development (CONAHCYT-CIDESI) | |
| | , | | | (Niels Garcia-Tapia - Centro de Ingeniería y Desarrollo Industrial CIDESI) | |
| 11:30 AM | HIPIMS (HP16) | | Process Monitoring, Control, and Automation (PC10) | Exhibitor Innovator Showcase (EIS6) | |
| | Boron Carbide Coatings Deposited with HiPIMS (Gregory Taylor - Lawrence Livermore National Laboratory) | | (Andris Voitkans - GroGlass, SIA) | Innovative Coating Materials and Solutions for Thin Film Applications (Lucca Pernagidis - Avaluxe GmbH) | |
| | (| Thin Film Contributions to the Hydrogen Economy (HYinv1) Thin Film Considerations for the Hydrogen Economy | | (, | |
| 11:50 AM | HIPIMS (HP17) | (Ralf Bandorf - Fraunhofer IST) | Process Monitoring, Control, and Automation (PC11) | Exhibitor Innovator Showcase (EIS7) Process Monitoring, Control, and Leak Detection Using Remote Plasma | |
| | Two Decades of Industrial Scale HIPIMS (Arutiun Ehiasarian - Sheffield Hallam University) | | Predictive Maintenance with Smartline Vacuum Transducers (Linda Suarez Patino - Thyracont Vacuum Instruments GmbH) | Optical Emission Spectroscopy | |
| 12:10 PM | | | | (Erik Cox - Gencoa Ltd.) | |
| 12:10 PM | | Thin Film Contributions to the Hydrogen Economy (HY1) Ultralow Loading Pt Electrodes for PEM Electrolysis Developed by | Process Monitoring, Control, and Automation (PC12) | Exhibitor Innovator Showcase (EIS8) | |
| | HIPIMS | Magnetron Sputtering | MatSight Apps by PlasmaSolve – a modern simulation toolkit for speeding up equipment development and process development | The Promise of Vacuum System Technology (VST) (Koby Leist - VST Services Ltd.) | |
| | | (Lucia Mendizabel - TEKNIKER) | (Adam Obrusnik - PlasmaSolve s.r.o.) | (11) | |
| 12:30 PM | | Thin Film Contributions to the Hydrogen Economy (HY2) | Process Monitoring, Control, and Automation (PC13) | Exhibitor Innovator Showcase (EIS9) Molybdenum and Tungsten Sputtering Targets for Microelectronic and | |
| | | High Volume Coating of Metallic Plates for Hydrogen Applications by PVD Technology | Improved Process Control by Using In-Situ Data to Determine Refractive Indices of Thin Films | Semiconductor Applications: Requirements, Material Properties and Perspectives | |
| | | (Geert-Jan Fransen - IHI Hauzer Techno Coating B.V.) | (Jan-Peter Urbach - PLASUS GmbH) | (Christian Linke - Plansee SE) | |
| 12:50 PM | | Thin Film Contributions to the Hydrogen Economy (HY3) | Process Monitoring, Control, and Automation (PC14) | Exhibitor Innovator Showcase (EIS10) | |
| | | Cost Effective High Performance Coatings for the Hydrogen Economy: Mass Production of Coatings for Fuel Cells and Electrolyzers | Outgassing in Vacuum Processes: Problems, Sensing and Control (Joe Brindley - Gencoa Ltd) | EXHIBITOL HIHOARTOL SHOWCASE (EISTO) | |
| | | (Herbert Gabriel - PVT Plasma und Vakuum Technik GmbH) | y General Car | | |
| 1:10 PM | | | Process Monitoring, Control, and Automation (PC15) | | |
| | | | Incorporating Automation Skills into a Vacuum Technology Curriculum (Nancy Louwagie - Normandale Community College) | | |
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| | | POSTERS (PO1): Surface Properties of Plasma Carburized Austenitic Stainless | Steels for Tribological Applications and Metallic Bipolar Plates (Phillip Marvin | Reinders - TU Braunschweig, Institute for Surface Technology) | |
| 1 | | POSTERS (PO2): Investigating Nitrogen-Incorporated Tetrahedral Amorphous | Carbon As an Optically Transparent Electrode (Davit Galstyan - Fraunhofer US. | A, Inc., Center Midwest) | |
| | | POSTERS (PO3): Comparison of PA-CVD and MS-PVD Coatings Deposited on Po | olymer Foils for Food Packaging Applications with Higher Recyclability (Francis | o Delfin - University of Applied Sciences Upper Austria) | |
| | 2:20 084 -4:20 084 | POSTERS (PO4): Two Dimensional Structured Electrode of Nickel Oxide for En | hanced Capacitive Behaviour (Peeyush Phogat - Netaji Subhas University of Te | chnology) | |
| | 2:30 PM - 4:30 PM Poster Session | | | | |
| | | POSTESS (POS): 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 Ingenieria y Desarrollo Industrial CDISI) | | | |
| | | POSTERS (POG): 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 CIDESI) | | | |
| | | POSTERS (POT): Ga ₂ O ₃ and ZnGa ₂ O ₄ Thin Films Deposited by Liquid Metal Target Sputtering (Edvard Strods - Institute of Solid State Physics, University of Latvia) | | | |
| | | POSTERS (POB): Comparison of Different Antimicrobial Testing Methods on Magnetron Sputtered Coatings (Viktots Vibornijs- Institute of Solid State Physics, University of Latvia) | | | |
| | | POSTERS (PO9): Tribology Costings on Lightweight Metals by Using Ion Plating Technology (Giyoung Kim - Gyeongbuk Technopark) | | | |
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| | | POSTERS (P10) | | | |
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| 5:00 PM | | | | | |
| | Welcome Reception 5:00 PM - 6:00 PM (In Exhibit Hall) | | | | |
| | Exhibit Hall Closes at 6:00 PM | | | | |
| 6:00 PM | EXHIBIT RBIT CLOSES AT GLOV FM | | | | |

| | WEDNESDAY: MAY 8, 2024 | | | | |
|----------------------|--|--|---|--|--|
| 5:30 AM 7:00 AM | | | | | |
| 7.00 7.00 | TAC Breakfast Meetings: 7:00 AM - 8:30 AM International Ballroom North-South | | | | |
| | Optical Coatings TAC Breakfast | | | | |
| | Protective, Tribological, and Decorative Coatings TAC Breakfast | | | | |
| | Large Area Coatings TAC Breakfast WebTech Roll-toRoll Coatings for High-End Applications TAC Breakfast | | | | |
| | | | | | |
| | Emerging and Translational Technologies and Applications TAC Breakfast Plasma Processing TAC Breakfast | | | | |
| | | Atomic Layer Proce | essing 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 | | | | |
| | | | and Automation TAC Breakfast | | |
| 8:30 AM | | | Deposition Processes TAC Breakfast | | |
| | EXHIBIT HALL OPEN: 10:00 AM - 4:00 PM Exhibitor Meeting (closed session) 9:00 AM - 10:00 AM | | | | |
| 8:30 AM 8:40 AM | | | Passing Break | | |
| | | | nental B Ballroom and How to Engineer Success | | |
| | (Sean McGregor - Underwriters Laboratories, Rancho Mission Viejo, CA) | | | | |
| 9:20 AM | | | Passing Break | | |
| 9:30 AM | Continental A Ballroom | Continental B Ballroom Protective, Tribological and Decorative Coatings (TT1) | Continental C Ballroom | Buckingham | |
| | Optical Coatings (OTinv1) A Collection of Interesting Coating Challenges (and Solutions!) (Leo Baldwin - Meta) | Creating a Digital Twin and How It Helps to Speed Up Your Coating Development (Nick Bierwisch - SIO) | Emerging and Translational Technologies and Applications (ET1) Miniaturized rTMS Coil Powered by SCR High Current Supply (Han-Ping Hung - Feng Chia University) | Closed Door Exhibitor Meeting in Salon C/D | |
| | | Protective, Tribological and Decorative Coatings (TT2) HiPIMS Deposited AIScN Films: Sc Dependent Phase Transition (Anas Ghailane - Avaluxe Coating Technologies GmbH & co KG) | 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) | Exhibitor Innovator Showcase (EIS11) New Product Release-FTE (Full Target Encapsulation) Shutters (Jason Hrebik - Kurt J. Lesker Company) | |
| 10:10 AM | 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) | 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) | Emerging and Translational Technologies and Applications (ET3) Open Innovation for Thin Film Vacuum Coating in Europe (André Wahl - KETMarket GmbH) | Exhibitor Innovator Showcase (EIS12) Inteleg" S Ei - Long life-time EIES Deposition Rate Controller (Martynas Audronis - Nova Fabrica Ltd.) | |
| 10:30 AM 10:50 AM | | 20 Minute Refi | reshment Break | | |
| 10.30 AW | Optical Coatings (OT2) Temperature-Dependent In-Situ Analysis to Enhance the Performance of Optical Coatings in Gravitational Wave Detectors (Michele Magnozzi - Università di Genova) | Priotective, rinoungical and Decorative Countings (114) Tribological Behavior of Nb-Doped Oxinitride for High Temperature Applications (Sebastian Martinez-Garcia - Centro de Ingeniería y Desarrollo Industrial CIDESI) | Emerging and Translational Technologies and Applications (ETINV1) FlexGlass Pilotisb – An Innovative Platform for Emerging Use Cases (Jörg Neidhardt - Fraunholer FEP) | Exhibitor Innovator Showcase (EIS13) Temperature Compensation for QCMs (Sheldon Wayman - INFICON) | |
| 11:10 AM | Optical Coatings (OT3) Gas Flow Sputtering Prepared SIC Coating for Plasma Etching Resistance (Chia Yin Liou - Feng Chia University) | Protective, Tribological and Decorative Coatings (TTS) Near-Infrared Optical Properties of Thermal Barrier Coatings: Effect of Microstructure and Degradation (Ludvik Martinu - Polytechnique Montréal) | | Exhibitor Innovator Showcase (EIS 14) Creating New Pathways from R&D to Production in the Vacuum Coating World (Frank Papa - GP Plasma) | |
| 11:30 AM | Optical Coatings (OT4) Innovative Approaches to the Development of Transparent Flexible Electrodes (Aleksandra Pajak - Polytechnique Montréal) | Protective, Tribological and Decorative Coatings (TTinv1) Application of Various Coatings on Aircraft Jet Engine Parts | Emerging and Translational Technologies and Applications (ET4) Directional Off Axis Sputtering for Structurally Defined Solar Modules (Alexander Topping - Power Roll Ltd) | Exhibitor Innovator Showcase (EIS 15) The R-ALD: An Economical ALD Research and Development System (Jacob Bertrand - Maxima Sciences LLC) | |
| 11:50 AM | Optical Coatings (OT5) New Era for Eyeglasses (Ronald Willey - Willey Optical, Consultants) | (Tsunao Tezuka - IHI Corporation) | Emerging and Translational Technologies and Applications (ETS) Advanced Thin Film Coatings based on TiM for next Generation Quantum Computing (Manuela Junghaehnel - Fraunhofer IZM-ASSID) | Exhibitor Innovator Showcase (EIS 16) Accelerating Material Breakthroughs with Atomic Layer Deposition (ALD) and Physical Vapor Deposition (PVD) Combined Processes (Carlos Guerra - Swiss Cluster AG) | |
| 12:10 PM | M Optical Coatings (OTinv2) | Protective, Tribological and Decorative Coatings (TT6) Studies of Porosity in Ceramic TRanium Nitride Oxide PVD Coatings (Zhonghuai Wang - Tanury Industries) | Emerging and Translational Technologies and Applications (ET6) Circular Economy and PVD: Adding Value to the Future (Lara Maroto-Diaz - Gencoa Ltd.) | Exhibitor Innovator Showcase (EIS 17) | |
| 12:30 PM | Coatings for Laser Fusion Ignition and Beyond (Christopher Stolz - Lawrence Livermore National Laboratory) | 9:00 AM Exhibitor Meeting (closed session) Exhibitor Innovator Showcase (EIS 18) | | Exhibitor Innovator Showcase (EIS 18) | |
| | Exhibit Hall Opens at 10:00 AM | | | | |
| | 2:00 PM Beer Blast | | | | |
| | 3:00 PM Announce: 5K Walk/Run Winner & Best Poster | | | | |
| 4:00 PM | Exhibit Hall Closes at 4:00 PM | | | | |
| | 90 Minute Break | | | | |
| 6:00 PM | 5:30 - 7:30 PM Program Committee Meeting | | | | |
| | Program Committee Meeting Lake Huron (8 th floor) | | | | |
| 7:30 PM | | | | | |

7:30 PM

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| 7:00 AM | | THURSDAY: | MAY 9, 2024 | |
|----------------------|---|--|--|--|
| 7.50 AIII | TFB: Manufacturing in Space Nick Franzer (Kurt J. Lesker Company) / Kerin Sovin (Redwire Space Co.) International Balloom North International Balloom North | | | |
| | TF8: Protective, Reflective, and Decrative Coatings Joshua Soper (Vergrapar Technology, Inc., (Nichoert Stubnisty (Volumer Technologies, LLC) | | | |
| | International Ballroom North TFB: Fabrication and Performance of Optical Coatings | | | |
| | Ludvik Martinu (Ecole Polytechnique Montreal) / Vivek Gupta (Meta)/ Kestutis Juskevicius (ARO Corp) International Birono Materials (TCM) TFB: Transparent Conductive Materials (TCM) | | | |
| | Clark Bright (Bright Thin Film Solutions, LLC) / Patrick Morse (Intevac) International Ballroom North | | | |
| | | Hana Baránková (Uppsala University), International E | Plasma Technology / Ladislav Bardos (Uppsala University) Ralicom North | |
| | | TFB: Post-Processing of Vacuum Andy Jack (Emerson and Renwick Ltd.) | m-Coated Roll-to-Roll Products) / Chris Stoessel (Stoessel Consulting) | |
| | | TFB: Surface Engineering f | Sallroom North for the Hydrogen Economy | |
| 8:30 AM | | Ralf Bandorf (Fraunhofer IST) / Herbert Gabri International E | iel (PVT Plasma und Vakuum Technik GmbH) Ballroom North | |
| 8:30 AM | | 10 Minute P | assing Break | |
| 8:40 AM | zo winture rassing break Keynote - Continental B Ballroom | | | |
| 9:10 AM | | | and Crystallinity in Sputter-Deposited Thin Films nic and State University, Blacksburg, VA) | |
| 9:20 AM | Continental A Ballroom | 10 Minute P Continental B Ballroom | assing Break Continental C Ballroom | Buckingham |
| 9:30 AM | | Protective, Tribological and Decorative Coatings (TT7) Conformal and Superconformal Chemical Vapor Deposition of Silicon Carbide Coatings on Structured Graphite (Jing-Jia Huang - Linköping University) | | High-Powered Electron Beam Technology |
| | | (Jing-Jia Huang - Linköping University) | Digital Transformation of Industrial Deposition Processes (DTinv1) How Will Our Vacuum Coater and Deposition Processes Look Like Tomorrow? | |
| | | Protective, Tribological and Decorative Coatings (TT8) CVD-Diamond Tool Coatings for Wire Drawing Dies with High Aspect Ratios (Christian Stein - Fraunhofer Institute for Surface Engineering and Thin | (Wilmert De Bosscher - Soleras Advanced Coatings) | High-Powered Electron Beam Technology |
| 10:10 AM | Optical Coatings Panel Discussion and Workshop (1 hour-forty minutes) | Films (ST) | | High-Powered Electron Beam Technology (EB1) |
| | "The Challenge of Managing Defects in Production Optical Coating Processes" | | Digital Transformation of Industrial Deposition Processes (DT1) Automated Design of Coating Recipes Using a Digital Twin Model (Adam Obrusnik - PlasmaSolve s.r.o.) | Industrial Coating Developments by Electron Beam Physical Vapor Deposition (EB-PVD) : Technological Challenges for the Coating of Steel Strips at High Speed |
| 10:30 AM | | Protective, Tribological and Decorative Coatings (TTinv2) CVD Coatings for Cutting Tools: Evolution and Challenges (Dev Banerjee - Kennametal) | Digital Transformation of Industrial Deposition Processes (DT2) | (Oceane Gillet - CKM Group) High-Powered Electron Beam Technology (EB2) |
| | | | Digital Transformation of Industrial Deposition Processes (DT2) How to Handle All the Data Within Surface Technology? (Holger Gerdes - Fraunhofer IST) | Plasma-Activated EB-PVD for High-Throughput Continuous Coating of Bipolar Plates (Stefan Saager - Fraunhofer FEP) |
| 10:50 AM 11:10 AM | | | 20 Minute Refreshment Break | |
| | 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 (Gareth Bellinger - McMaster University) | Digital Transformation of Industrial Deposition Processes (DT3) Simulize it! From Simulation to Optimization for Coating Processes and Coaters | High-Powered Electron Beam Technology (EBinv1) |
| 11:30 AM | Optical Coatings (OT7) | | (Dennis Barton - Fraunhofer IST) Digital Transformation of Industrial Deposition Processes (DT4) | High-Powered Electron Beam Technology (EBINY1) EBPVD Thermal Barrier Coatings for the Aerospace Industry. Current Status, Challenges, and Future Outlook (Jason Van Sluytman - Honeywell Aerospace) |
| | Origins of Stress in Amorphous Optical Thin Films: Mechanisms of Stress Generation and the Role of the Sputtering Parameters (Pedro Avila - Polytechnique Montréal) | Protective, Tribological and Decorative Coatings (TT10) A Sustainable, Fossill Free Method to Produce Decorative Automothe Interior Plattic Parts in Industrial Scale by Olgical Printing and PECUD Pard Coating with Superior Quality and Extraordinary Cost Savings | Progress in Open-Source Plasma Modelling: Introducing the Simulation Tool PICLas and Harnessing Its Potential with Web-Based Platforms for Thin-Film Technologies | (Jason van Suyonan - Honeywell Aerospace) |
| 11:50 AM | Optical Coatings (OT8) | Protective, Tribological and Decorative Coatings (TT11) | (Paul Nizenkov - Boltzplatz-numerical plasma dynamics GmbH) Digital Transformation of Industrial Deposition Processes (DTS) Leverage Data to Enhance Arc Management and Anomaly Detection | High-Powered Electron Beam Technology (EB3) |
| | Sputtered Coatings for Space-Based Optical Systems Including Gold Induced-Transmission Filters (John Atkinson - Chroma Technology) | Challenges and Approaches in the Development and Application of Decorative PVD Coatings (Martin Engels - Ionbond Netherlands B.V.) | Capabilities on Advanced Energy ^{on} (AE) Power Supplies to Reduce Operational Costs (Jing Li - Advanced Energy Industries, Inc.) | Features and Applications of Electron Beam Process Controllers (Matthias Neumann - VON ARDENNE GmbH) |
| 12:10 PM | Continental A Ballroom | 30 Minute I | | Buckingham |
| 12:40 PM | | Protective. Tribological and Decorative Coatings (TT12) | | Thin Film Sensors (SE1) Phase-Change Thin Films for Electrical, Thermal, Friction and Strain Sensing |
| | Optical Coatings (OTInv3) MOCVD Technology for 20-TMDC: Equipment, Processes, Material Properties and Future Applications | Wear Resistance of Highly Textured TIN Coatings (Xuanyu Sheng - Purdue University) | WebTech Roll-to-Roll Coatings for High-End Applications (WTinv1) Monitoring of Conductive Thin-Films in Challenging Vacuum Environments by Eddy Current Sensors | Phase-Change Trun Fams for Electrical, Inermal, Priction and Strain Sensing (Alain Hache - Université de Moncton) |
| 1:00 PM | Properties and Future Applications (Michael Heuken - AIXTRON SE) | Protective, Tribological and Decorative Coatings (TT13) Unlocking the Potential: Synergistic Tribological Performance of Gadolinium-Doped DLC Coatings with Phosphorus-Containing Ionic Liquids | by Eddy Current Sensors (Marcus Klein - SURAGUS GmbH) | Thin Film Sensors (SE2) Development and Study of Low-Cost, Scalable Nitrogen-Incorporated Tetrahedral Amorphous Carbon (ta-C:N) Electrochemical Sensor |
| 1:20 PM | | (Takeru Omiya - University of Colmbra) | | (Nina Baule - Fraunhofer USA) |
| | Optical Coatings (OT9) In-Situ Characterization of Coating Roughness Evolution Using Light Scattering Methods | 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 Mihut - Mercer University) | | Thin Film Sensors (SEinv1) |
| 1:40 PM | (Nadja Felde - Fraunhofer IOF) Optical Coatings (OT10) | (Doring Minut - Mercer University) | | I nin Film Sensors (SEINV1) Complex Germanates Thin Film Growth by Sub-Oxide Source Molecular Beam Epitaxy (Hanjong Palk - University of Oklahoma) |
| | Optical Coatings (OT10) Estimating the Average Reflectance of an Antireflection Coating (Ronald Willey - Willey Optical, Consultants) | Programming pause | | Construction of Champing |
| 2:00 PM | Optical Coatings (OT11) | | WebTech Roll-to-Roll Coatings for High-End Applications Panel Discussion and Workshop (1 hour - forty mouter) | Thin Film Sensors (SE3) |
| | Using Different Coating Techniques to Minimize Stress of Hafnia/Sillica Stacked Filter Coating (Eylül Demir - ASELSAN) | Protective, Tribological and Decorative Coatings (TTinv3) Application of Thermal Barrier Coatings on Hotter Parts of Acco. Sections | (1 hour - forty minutes) "Coating Thousands of Meters of Flexible Substrate in a Vacuum Coater - | Optical Metasurface Engineering for Enabling the Mid-Wave Infrared Polarization Detection (Hosna Sultana - University of Oklahoma) |
| 2:20 PM | Optical Coatings (OT12) | Protective, Tribological and Decorative Coatings (TTinv3) Application of Thermal Barrier Coatings on Hotter Parts of Aero-Engines Using EB-PVD Technology (Rawisankar Narapara)u - DLR) | What Could Possibly Go Wrong?" | Thin Film Sensors (SE4) Study of Ion Charging Effect to Improve Reactive-Ion-Etching Profile of |
| | High Mobility TCO for Superior Optical Performance (Clark Bright - Bright Thin Film Solutions LLC) | | | PbSe Grating Structures (Tahere Hemati - University of Oklahoma) |
| 2:40 PM | Optical Coatings (OT13) Plasma-Assisted Reactive Magnetron Sputtering Technology for Versatile Gradient Outland Interference Filters Sabrication | Protective, Tribological and Decorative Coatings (TT15) Plasms Etching Resistance of Gas Flow Sputter Prepared Yttrium Oxyfluoride Coating Against Different Flourine Plasma (Ping-Yen Histeh - Feng Chla University) | | Thin Film Sensors |
| 3:00 PM | Gradient Optical Interference Filters Fabrication (Julien Lumeau - Institut Fresnel - CNRS) | Oxylluoride Coating Against Different Fluorine Plasma (Ping-Yen Hsieh - Feng Chia University) | | |
| 3:00 PM | Optical Coatings (OT14) Metallic Thin Films: The Forgotten Transparent Conductive Material (Clark Bright - Bright Thin Film Solutions LLC) | Protective, Tribological and Decorative Coatings (TT16) | 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 | |
| 3:20 PM | (Clark Bright - Bright Thin Film Solutions LLC) | 20 Minute Refr | (Mike Simmons - INTELLIVATION LLC) reshment Break | |
| 3:40 PM | | | WebTech Roll-to-Roll Coatings for High-End Applications (WT2) A Modular R2R Vacuum Coating Platform Using State of the Art | |
| 4:00 PM | Coatings for Energy Conversion and Related Applications (ENinv1) Vertically Aligned Carbon Nanotube Coatings for Dendrite-Free and Stable Lithium-Metal Battery Anodes | | Automation Tools for Productivity in Multi-Layer Application (Michael Muecke - Buhler Leybold Optics) | |
| 4.00 PM | LITMUM-METAI SATTERY ANGUES (Abdul-Rahman Raji - Zeta Energy Corporation) | | | |
| 4:20 PM | | | | |
| | Coatings for Energy Conversion and Related Applications (EN1) Electrode Coatings for the Energy Transition (Matija Lovrak - Magneto Special Anodes B.V.) | Protective, Tribological and Decorative Coatings | | |
| 4:40 PM | | Panel Discussion and Workshop (2 hours) | | |
| | Coatings for Energy Conversion and Related Applications (EN2) Combinatorial Thin Film Catalysts for Oxygen Evolution Reaction (Natalie Page - Rowan University) | "CVD Today and Going Forward" | | |
| 5:00 PM | Coatings for Energy Conversion and Related Applications (EN3) | | | |
| | Spatial Atomic Layer Deposition of Iridium oxide electrocatalyst layers for PEM electrolysis (Paul Poodt - SparkNano B.V.) | | | |
| 5:20 PM | 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 Sittinger - Fraunhofer IST) | | | |
| 5:40 PM | Coatings for Energy Conversion and Related Applications (ENS) Swift Solar: From Research and Development to the Commercialization of Perovskite Photovoltaics | Protective. Tribological and Decorative Coatings | | |
| | Perovskite Photovoltaics (Tobias Abzieher - Swift Solar Inc.) | - Annual of the Control of the Contr | | |
| 6:00 PM | 6:00 PM - 7:30 PM Young Members/Farewell Social | | | |
| 7:30 PM | International Ballroom South | | | |