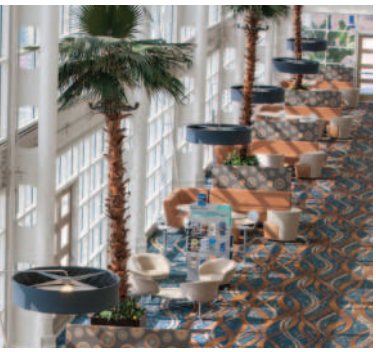
SVC™ SOCIETY of VACUUM COATERS

TechCon 2026 Long Beach

69th Annual SVC Technical Conference • April 25 – 30, 2026

Long Beach Convention Center, Long Beach, California, USA



Final Program and Exhibit Guide

Scan to see the latest pictures from the 2026 Techcon

EFDS

SVC TechCon Co-Sponsor

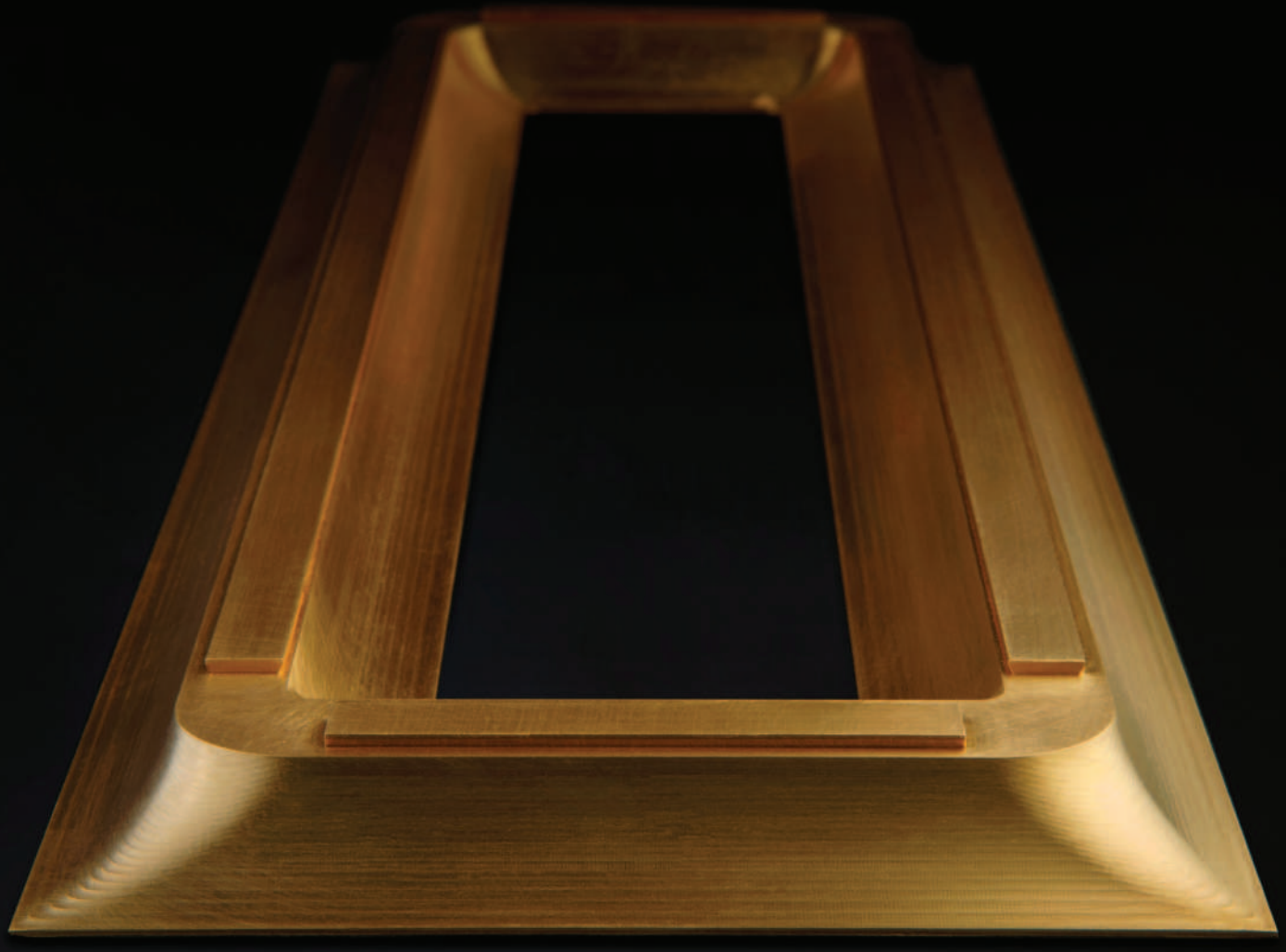
The Largest Expo and Conference Dedicated to Vacuum Coating Technologies

EMERALD TECHCON SPONSOR:

J.A. Woollam

Scan to register for the 2026 TechCon

DHF Tech



The precious metal targets you've been waiting for. Without the waiting.

Need the gold, silver, platinum and palladium targets of tomorrow, today? Our innovative target designs, lightning fast spent target recycling programs and 99.5% on time delivery help lower your cost of ownership and keep more working capital working for you. See what makes us the precious metal target experts at dhftargets.com.

You create the future, **we'll handle logistics.**

angstromengineering.com

ANGSTROM® ENGINEERING

RETICLE®

Our **RETICLE®** ion beam sputter deposition systems are engineered to create **precise optical films of the highest purity, density, and stability.**

- antireflective (AR) coatings
- highly reflective (HR) coatings
- coatings for laser diode bars
- telecom optical filters
- vanadium oxide deposition

Single Substrate
up to Ø300 mm

Load Locks
up to Ø300 mm

Batch Coating
4 x up to Ø300 mm

About Our Venue

Long Beach Convention Center, Long Beach, California, USA

The 2026 TechCon will be held in the "Center" of Southern California... the Long Beach Convention & Entertainment Center. Located in the heart of Long Beach, the Convention Center is an urban waterfront destination. The building has an impressive architectural design, modern enhancements, and eye-catching décor. The glass dome of the Atrium provides illumination by sunlight in daytime and by colorful LED lights in the evening. The exhibit hall and meetings rooms are perfectly suited for the TechCon and our emphasis on networking and technical exchange. Overlooking bustling Rainbow Harbor, Queensway Bay, and Pacific Ocean beachfront, the Center sits in the middle of Long Beach's downtown waterfront, within walking distance to first-class accommodations, shopping, dining, attractions, sightseeing along picturesque bays, and 5 1/2 miles of sandy beach. Long Beach is convenient to Los Angeles International, Long Beach, and Orange County Airports.

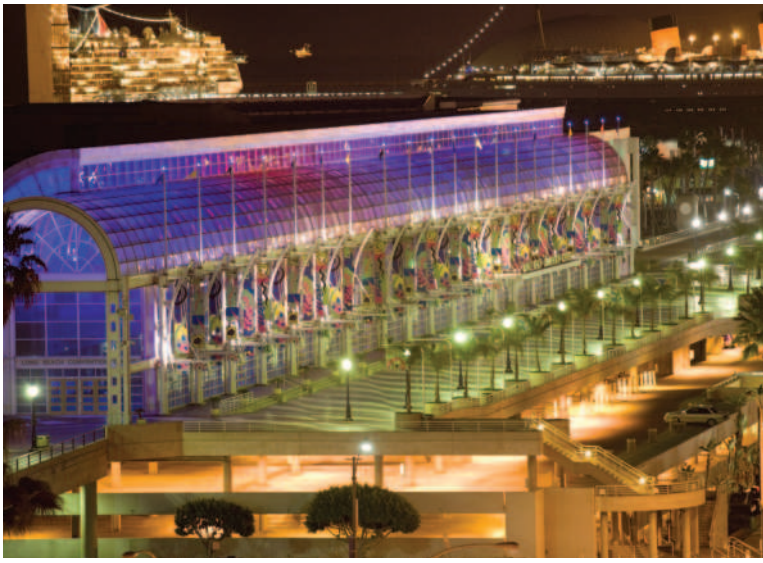
Room blocks and discounted rates have been organized for TechCon attendees. These accommodations are available at:

- $309 USD (double occupancy) - Hyatt Regency Long Beach Hotel, 200 S. Pine Avenue, Long Beach, CA 90802

  Located on a premier waterfront spot in the heart of downtown, Hyatt Regency Long Beach is the only 4 Diamond Award-winning Long Beach, California, hotel with all 531 rooms and suites offering ocean or harbor views. The Hyatt Regency Long Beach is connected directly to the Long Beach Convention Center and will house the majority of the TechCon's social events as well as meeting space/classrooms for the TechCon TFB and tutorial programs.

- $319 USD (double occupancy) - Hyatt Centric The Pike Long Beach Hotel, 285 Bay St, Long Beach, CA 9080

  Hyatt Centric The Pike Long Beach pays homage to the fascinating history of The Pike, an amusement park founded in 1902 that was a thriving destination for its bathhouse, wooden roller coaster, arcades and exciting family fun until 1979. This luxe hotel possesses a rooftop pool and bar with 360° panoramic views, places you in the middle of the neighborhood action so you can explore Long Beach's bustling shopping areas, non-stop nightlife and the rolling surf of California's Pacific Ocean. The hotel is a two-minute walk from the Long Beach Convention Center.



Important note! Discounted room rates are available **exclusively** on the dedicated hotel pages that will be accessible on the SVC 2026 TechCon registration site. ***The SVC does not engage with any third-party companies to provide hotel accommodations.*** Be aware that in all cases, organizations representing themselves as affiliated with the SVC when it comes to hotel accommodations for the TechCon are likely to have malicious motives leading to a nefarious outcome if you rely on them.

Exhibit Floor Plan

Exhibit Dates and Hours

Tuesday, April 28
11:00 a.m. to 6:00 p.m.

Wednesday, April 29
10:00 a.m. to 4:00 p.m.

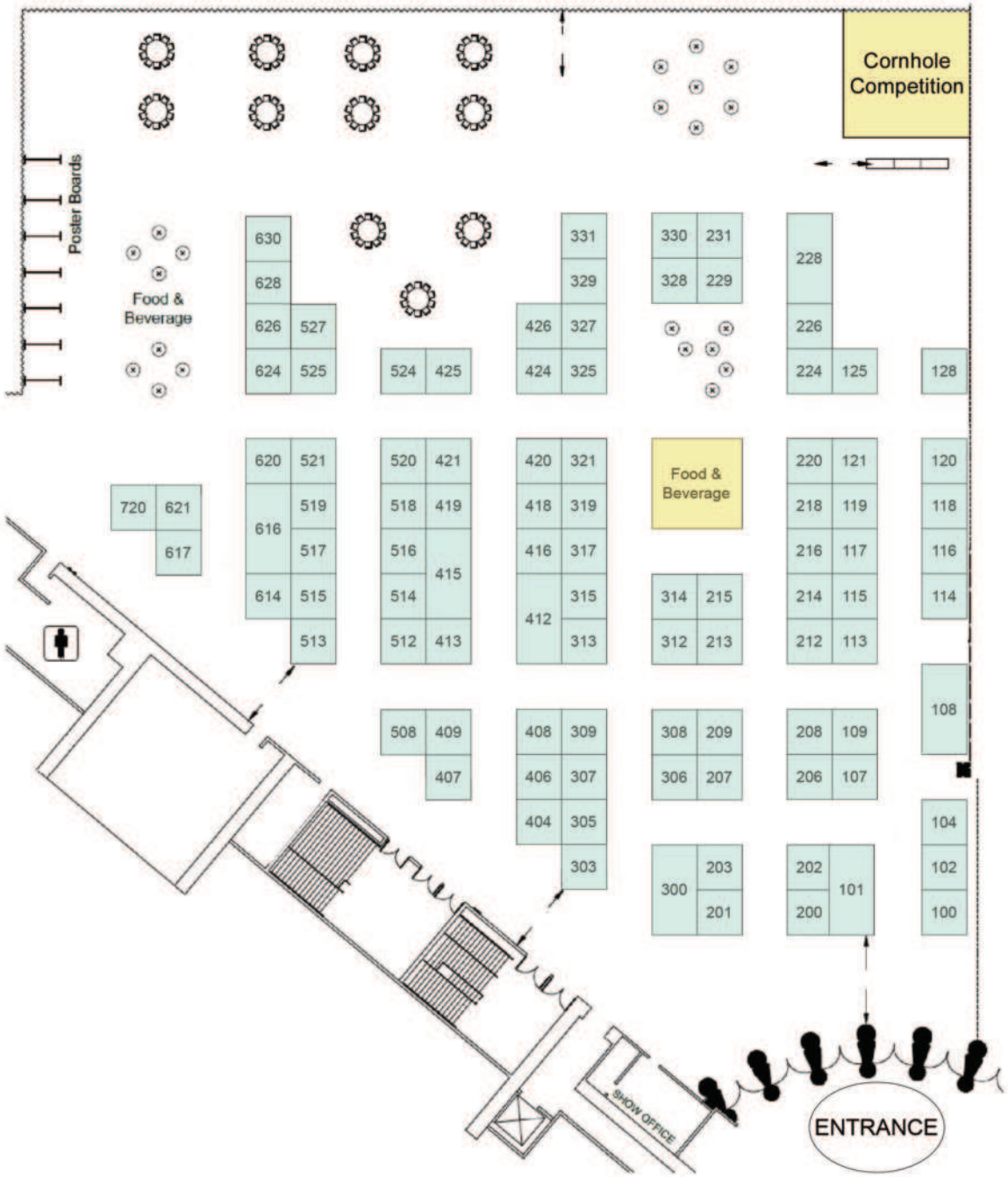
Booth Set-Up Hours

Monday, April 27
1:00 p.m. to 6:00 p.m.
Tuesday, April 29
7:00 a.m. to 9:00 a.m.

Booth Tear-Down Hours

Wednesday, April 30
4:00 p.m. to 8:00 p.m.
Thursday, April 31
7:00 a.m. to 10:00 a.m.

Note: The Welcome Reception will be held on Tuesday, April 28, in the Exhibit Hall from 5:00 p.m. to 6:00 p.m.!



Networking Opportunities at the 2026 TechCon

Make Connections

The TechCon is packed with networking events designed to connect vacuum coating and surface engineering professionals with the global SVC community. Each technical and social networking event provides a different forum for invaluable face-to-face interactions and the opportunity to collaborate with technical experts.

Technology Forum Breakfasts

Vacuum coating technology spans multiple applications and processes. Join a discussion group focused on a topic that's important to you. Enjoy the conversation over breakfast before the start of the technical program Monday, Tuesday and Thursday. Late afternoon sessions are currently under development for Monday and Thursday.

To all of our SVC Stakeholders:

The **Technology Forum Breakfasts** have emerged as one of the most significant networking events at the TechCon. These breakfasts, held from 7:30 a.m. to 8:30 a.m. during the TechCon are "loosely" organized around a specific topic where we provide a moderator, a continental breakfast, plenty of seating, and an opportunity for free form discussion to take place. In the TFBs problems are solved, new ideas are vetted, relationships are made and rekindled; all in the spirit of camaraderie that has made the SVC the most unique technical conference in our field. This year we are expanding the program even further with early evening Sunset sessions from 5:20 - 6:20 PM on Monday, April 27, and from 6:00 - 7:00 PM on Thursday, April 30. Please be sure to check the daily schedule (the TFBs are offered on Monday, Tuesday, and Thursday of the TechCon) to find those topics that interest you! And remember, we are always looking for new topics as well as moderators to get the discussion going. Good luck and have fun!

– Frank Zimone, Executive Director

Exhibit Networking

Enjoy more opportunities than ever to visit the Exhibit Hall.

- Welcome Snacks and Cocktail Hour are two separate events held in the exhibit hall during the first day of the technical exhibition.
- Poster Session ■ Beer Blast

Additional Networking:

- Technical Program Keynote Presentations
- Exhibitor Innovator Showcase
- Colloquium Round Table Discussions

SVC Foundation Networking Events

CASINO NIGHT

Come and join us for an evening of fun and networking, all to help a great cause at the Annual SVC Foundation Casino Night on Monday, April 27, 2026. ***Additional Casino Night tickets can be purchased on-line during TechCon registration or at the TechCon. This is a wonderful opportunity to entertain friends and customers who may not be registered for the conference.***

RUN FOR A CAUSE!

Register for the Annual 5K Fun Run and support the scholarship efforts of the SVC Foundation. Bib pickup is tentatively scheduled for 5:30 a.m. on Wednesday, April 29, 2026, outside the Convention Center entrance.

Networking Opportunities at the 2026 TechCon

2026 SVC TechCon Farewell Social

Date: **Thursday, April 30, 2026** (7:20 - 8:50 p.m.)

Everyone is invited to attend

The **Farewell Social** will be the last networking event of the TechCon and will commemorate what promises to be the most successful TechCon yet! Come join us as we celebrate our Young Members and all the new connections that were made after a densely packed four day program.

Job Board

There will be a Job Board in the exhibit hall adjacent to the poster session. Open positions as well as resumes of those looking for a position can be posted. Messages for interested parties, either potential employer or employee, can also be posted on the board.

2026 SVC Awards Ceremony and Welcome Reception

Date: **Tuesday, April 28, 2026**
(8:40 - 9:20 a.m.)

Everyone is invited to attend

The **Awards Ceremony** will introduce and recognize the Nathaniel Sugerman Memorial Award recipient, SVC Fellow-Mentor Award recipients, and Sponsored Student awardees.

The **Welcome Reception** is a popular networking event at the TechCon. It offers a relaxed venue to meet friends and colleagues and provides the opportunity to make new connections. In 2026 the Welcome Reception will be break for snacks at 1:30 p.m. and a cocktail hour at 5:00 p.m; all held in the exhibit hall.

Introducing the SVC's Keynote

Sustainability and Life Cycle Thinking as Innovation Drivers for Surface Engineerings

(Monday, April 27, 2026 – 9:30 AM)

Christoph Herrmann
Fraunhofer Institute for Surface Engineering and Thin Films IST and TU Braunschweig, Braunschweig, Germany

Surface technologies are fundamental to a wide range of industrial applications and are typically integrated within comprehensive process chains comprising both upstream and downstream activities. Achieving sustainable development demands that engineered solutions operate within the Earth's biophysical limits and adhere to established environmental boundaries. This necessitates the identification of challenges throughout circular value chains and emphasizes the importance of practical, application-oriented research into sustainable product and process innovations. Concurrently, it is crucial to ensure that micro-level engineering decisions are consistent with macro-level sustainability frameworks, such as planetary boundaries, which recognize the finite capacities of global climate and ecosystems. This presentation will outline a systematic methodology designed to identify and prioritize mitigation strategies, thereby providing valuable insights for engineering initiatives. Relevant case studies from the field of surface engineering will illustrate the effective implementation of this approach..

Prof. Dr.-Ing. Christoph Herrmann is university professor for Sustainable Manufacturing & Life Cycle Engineering and co-director of IWF, Institute of Machine Tools and Production Technology, Technische Universität Braunschweig as well as director of the Fraunhofer Institute for Surface Engineering and Thin Films IST since November 2018. Prof. Herrmann serves on different boards, including the Open Hybrid LabFactory (Wolfsburg), the Hydrogen Campus Salzgitter, and the Battery LabFactory Braunschweig. He currently acts as the Spokesperson of the Fraunhofer Center for Energy Storage and Systems (ZESS) in Braunschweig. Since July 2025, he is also the chairman of the Fraunhofer Group for Production. Prof. Herrmann has conducted various industry and research projects in the context of life cycle engineering and sustainable manufacturing on national and international level. He has published more than 500 papers and book publications as author, co-other and editor. Prof. Herrmann is member of the German Academic Association for Production Technology (WGP) and the International Academy for Production Engineering (CIRP).

Plasma Technologies for Precision and Large-Scale Surface Engineering

(Thursday, April 30,2026 | 8:40 AM)

Elizabeth von Hauff
Fraunhofer Institute for Organic Electronics, Electron Beam and Plasma Technologies FEP and TU Dresden, Dresden, Germany

Fraunhofer Society's mission is to bridge the gap between fundamental and applied research by partnering with industry to translate laboratory results into real-world applications. Fraunhofer FEP in Dresden specializes in electron-beam and plasma technologies for large-scale and precision coatings, alongside advanced surface engineering. By integrating process and hardware development, we deliver technical solutions across a broad range of fields, including energy technologies, architectural glazing, semiconductors, optics, sustainable packaging, and environmental and biomedical applications. Our collaboration models span from feasibility studies to pilot-scale production, accelerating knowledge transfer and reducing risk for industry, with a focus on overcoming bottlenecks in cost, reliability, and performance to deliver scalable, robust solutions. In this talk, I present our latest results in precision coatings for optics and power electronics, and in large-scale, flexible coatings for photovoltaic and battery technologies. We also highlight advances in plasma-chemical processes and discuss how tailored hardware platforms and integrated process chains can reduce material usage, lower energy consumption, and eliminate toxic precursors, without compromising performance. The focus is on strategies that combine process design, equipment engineering, and system integration to enable cleaner, more efficient solutions.

Elizabeth von Hauff studied Physics at the University of Alberta in Edmonton, Canada. Her PhD and Habilitation work was performed at the University of Oldenburg, Germany in experimental physics. In 2011 Elizabeth accepted a joint appointment between the Institute of Physics, University of Freiburg and the Fraunhofer Institute for Solar Energy Systems (ISE). From 2013 – 2021 Elizabeth was an Associate Professor in Physics at the VU Amsterdam. In 2020 she was appointed as a special Chair in Chemistry at the University of Amsterdam. In 2021, she accepted an appointment as director of the Fraunhofer FEP and Professor in Electrical Engineering at the TU Dresden. Her research interests lie in fundamental questions in physics and chemistry within the context of real applications.

Speakers for the 2026 TechCon

Fano-Resonant Optical Coatings and Applications

(Wednesday, April 29, 2026 | 8:40 AM)

Chunlei Guo
University of Rochester, Rochester, NY

Despite being a century-old technology, optical coating comprises only a handful of types. Here, I introduce a new class of optical coatings exhibiting photonic Fano resonance, termed Fano-resonant optical coatings (FROCs). FROCs consist of just four thin layers, yet they outperform coatings that require orders of magnitude more layers and thickness. I will also discuss a range of applications enabled by FROCs' superior properties, including beam splitter filters that transmit and reflect the same color, full-gamut high-purity structural colors, and efficient solar energy harvesting systems.

Chunlei Guo is a Professor in The Institute of Optics and Physics at University of Rochester, where his research spans femtosecond laser-matter interactions to nanophotonics. His work at Rochester led to the discovery of a range of highly functionalized materials, including the so-called black and colored metals, super-hydrophillic/-hydrophobic surfaces, and advanced coatings. These discoveries have gained extensive public interest, including 4 features in The New York Times. He is a Fellow of the American Physical Society, Optica, and Int'l Academy of Photonics and Laser Engineering. He served as the Editor-in-Chief for the recently released 2nd edition of the CRC Handbook of Laser Technology and Applications, which serves as the most comprehensive handbook in the field of lasers to date.

From Poisoned Targets to Healthy Models: The Quest for Parameters

(Monday, April 27, 2026 | 1:10 PM)

Diederik Depla
Ghent University, Gent, Belgium

The conceptual simplicity of reactive magnetron sputtering facilitates the description of global trends in process curves characteristic of reactive magnetron sputtering. However, achieving a quantitative description of these trends through simulations remains far more challenging, as the critical bottleneck of every modelling effort lies in the determination of accurate input parameters. Following a brief introduction to the RSD model, this paper provides an overview of several experimental methodologies designed to extract the parameters essential for its implementation. A central parameter in any thin-film deposition technique is the deposition rate. While its determination in metallic mode is relatively straightforward, the task becomes substantially more complex in poisoned mode due to the limited availability of sputter yield data for oxides. Our experiments reveal that in poisoned mode sputter yields exhibit a pronounced dependence on process conditions. Monte Carlo simulations, moreover, uncover a remarkable material-independent correlation between reported partial yields for oxides and experimentally measured yields in poisoned mode. Another crucial quantity, the ion-induced electron yield, can only be reliably determined experimentally, even for metals. By employing empirical scaling laws, however, it becomes feasible to estimate these yields under poisoned-mode conditions. The strong influence of chemisorption on the electron yield explains the discharge voltage behaviour in metallic mode. The influence of chemisorption on target poisoning emerges as the next major challenge, particularly as a novel strategy to control the reactive sputtering process exposes discrepancies between the current formulation of the model and experimental observations. Nevertheless, this measuring strategy provides compelling evidence that the RSD model's prediction of double hysteresis behaviour is fundamentally correct.

Diederik Depla has received his Master Degree in Chemistry in 1991 at Ghent University (Belgium). In 1996 he promoted with a PhD thesis in Solid State Chemistry on spray drying of precursors for superconductors. After a short period as senior scientist in the Department of Solid State Sciences, in 1999 he became assistant professor. As full professor, he is now head of the research group "Dedicated research on advanced films and targets(DRAFT)" in the same physics department. Two fundamental research questions has driven his research up until now. The first question is how deposition conditions influence film growth, while the second question probes for the impact of reactive gas addition on the magnetron process. Under his guidance, the research group has distinguished itself from the traditional, technological approach, and has set an own course seeking for answers on the two above mentioned fundamental questions, translated in the mission statement of the group: "At DRAFT we want to become the recognized leader in the understanding of thin film growth by reactive magnetron sputtering, and to enjoy research by experiments and simulations." This "target on growth" approach has resulted in several publications in peer reviewed papers. He authored the book "Magnetrons, reactive gases and sputtering." He co-initiated in 2000 the successful RSD conference series. He received the Bill Sproul Award from AVS for "his persistence to unravel the fundamental processes during reactive magnetron sputtering." More details on his research can be found on www.draft.ugent.be.

Invited Speakers

Advanced Multifunctional Coatings: Integrating Vacuum and Electrochemical Deposition for Sustainable Energy, Surface Protection, and Biomedical Innovation

Advanced Active and Inactive Coating Technologies to Improve Life and Safety of Lithium-Ion Batteries for Automotive and Grid Applications

Khalil Amine
Argonne National Laboratory, Argonne, IL

Powder Atomic Layer Deposition at the Commercial Scale for Batteries and Other Applications

Christopher Gump
Forge Nano, Thornton, CO

Advances in Thin Film Sensor Technologies: Materials Design and Applications

Self-Assembled Oxide-Metal and Nitride-Metal Nanocomposite Thin Films for Metamaterials and Optical Sensing Applications

Di Zhang
University of Texas at Arlington, Arlington, TX

Atomic Layer Processing (ALP)

Directional Atomic Layer Etching of Lithium Niobate Using Bromine Plasma Chemistry

Austin Minnich
California Institute of Technology, Pasadena, CA

Hydrazine-Enabled Atomic Layer Deposition of TiN for High Performance DRAM Electrodes

Walter Hernandez[1], **Adrian Alvarez**[1], **Lorenzo Diaz**[1], **Amy Ross**[2], **Andrew Kummel**[2]
[1]RASIRC, Inc., San Diego, CA
[2]University of California, San Diego, San Diego, CA

Characterization, Testing, and Failure Analysis of Thin Films, Coatings, and Engineered Surfaces

New Developments in Spectroscopic Ellipsometry

James N. Hilfiker, **Nina Hong, Rafał Korlacki, Jeffrey S. Hale, Joel Mohrmann, Jeremy Van Derslice**
J.A. Woollam Company, Lincoln, NE

Surface Coating, Treatment, and Analysis of Materials for Medical Devices

Bernard Li
Medtronic Neuromodulation, Minneapolis, MN

Coatings and Processes for Biomedical Applications

From Telecom to Biotech–Closing the Loop with Thin Films

Matthias Wagner
Cambridge, MA

Coatings for Energy Conversion and Related Processes

Yttrium Oxyhydride-Based Photochromic Coatings for Window Applications: From Lab Scale Films to Large Scale Roll-to-Roll Production

S. Zh. Karazhanov
Institute for Energy Technology, Kjeller, Norway and University of Latvia, Riga, Latvia

Digital Transformation through Artificial Intelligence, Machine Learning, Simulation, and Data Science in the Thin Film Industry

Navigating Digital Transformation in an Established Industrial Environment: Data, Simulation, and the Strategic Road Ahead

Alexander Ebner, **Stephan Trassl, Martin Egginger**
Hueck Folien GmbH, Baumgartenberg, Austria

Invited Speakers

Vacuum Barrier Coatings for Mono-Material Films: Developments in Equipment and Process Technology for SiO_x and AlO_x

***Markus Piwko*, Jörg Faber, Carsten Deus, Andreas Steinbach**
VON ARDENNE GmbH, Dresden, Germany

High Power Impulse Magnetron Sputtering – HIPIMS

Beyond Traditional High Power Impulse Magnetron Sputtering

***U. Heydenreich*[1], D. A. L. Loch[1], A. W. Oniszczuk[2], R. Bandorf[3], A.P. Ehiasarian[4], W. Gajewski[2]**
[1]Trumpf Hüttinger GmbH + Co. K.G, Freiburg, Germany
[2]Trumpf Huettinger Sp. z.o.o., Warszawa, Poland
[3]Fraunhofer Institute for Surface Engineering and Thin Films IST, Braunschweig, Germany
[4]Sheffield Hallam University, Sheffield, United Kingdom

Towards Reactive-Gas-Less Sputtering of Functional Nitrides – The Role of Metal Ions in Plasma-Activated Reactive Environments

***Tetsuhide Shimizu*[1], Caroline Hain[2,3], Yuji Oshida[1,2], Eva Vogt[2], Thomas Nelis[2,3], Johann Michler[2]**
[1]Tokyo Metropolitan University, Tokyo, Japan
[2]Swiss Federal Laboratories for Materials Science and Technology, Thun, Switzerland
[3]Bern University of Applied Sciences, Biel/Bienne, Switzerland

Large Area Advanced Packaging and Integrated Photonics

PVD Driven Innovations in Advanced Packaging: Enabling Next Generation Heterogeneous Integration

Manuela Junghähnel
Fraunhofer IZM-ASSID, Moritzburg, Germany

Optical Engines and Thin Film Nanophotonics

Mohamed ElKabbash
University of Arizona, Tucson, AZ

Large Area Coatings

Mass Production of Inorganic and Organic Coatingsfor Display Cover Glass

Brian S. Holsclaw
Corning, Inc., Corning, NY

Optical Coatings

State of the Art of Amorphous IBS Coatings Improvements for the Gravitational Wave Detectors and Other Applications

***L. Pinard*, C. Michel, B. Sassolas, J. DeGallaix, D. Forest, M. Granata, L. Mereni, J. Teillon**
Laboratoire des Matériaux Avancés – CNRS, Villeurbanne, France

Recent Innovations in Optical Coating Design Software

***Michael Trubetskov*[1,2]**
[1]OTF Studio GmbH, Garching, Germany
[2]Max Planck Institute of Quantum Optics, Garching, Germany

Organic and Perovskite Electronics

Achieving Compositional Tunability in Perovskite Thin Filmsby Physical Vapour Deposition

Jay B. Patel
King's College London, London, United Kingdom

Photonically-Induced Transformations of Thin Films and Surfaces

Laser Spike Annealing of Thin Films for Neuromorphic Device Applications

Drake R. Austin
AV Incorporated/U.S. Air Force Research Laboratory, Wright-Patterson AFB, OH

Process-Based Programming of Spatially Varying Nanocarbon Properties by Laser Writing for Multifunctional Flexible Devices

Mostafa Bedewy
University of Pittsburgh, Pittsburgh, PA

Invited Speakers

Photonically-Induced Transformations of Thin Films and Surfaces *cont'd*

Engineering Thin-Film Optoelectronic and Ferroelectric Materials via High-Throughput Laser Processing

Brian Everhart, **Drake Austin, Jose Flores, Michael Newburger, Deep Jariwala, Troy Olsson, Nicholas Glavin**
AV Incorporated/U.S. Air Force Research Laboratory, Wright-Patterson AFB, OH

Photonic Post-Processing of Printed Inks on Flexible Substrates

Mark Poliks
SUNY Binghamton University, Binghamton, NY

Additive Nanomanufacturing and Dry Printing Electronics and Functional Devices

Masoud Mahjouri-Samani
Auburn University, Auburn, AL

Plasma Processing and Diagnostics

Continuous PVD Roll-to-Roll Precoated Material for Fuel Cells: Towards Volume Production of Metallic Bipolar Plates and Interconnects for PEM/SOFC Applications

G. Sjöblom
Alleima, Sandviken, Sweden

Process Monitoring, Control, and Automation

Beyond Ion Gauges: Wide-Range, Maintenance-Free Vacuum Sensing for Modern Coating Systems

Caspar Ask Christiansen**, Ole Wenzel**
Sens4 A/S, Hellebaek, Denmark

Transforming Process Innovation through Advanced Chamber Pressure Control

Pedro Reyero Santiago**, Preston Ernst, Dominic Mayrhofer**
VAT Vakuumventile AG, Haag, Switzerland

Protective, Tribological, and Decorative Coatings

PVD Coatings for Tribological Applications – Known Paths and New Perspectives

K. Bobzin, *C. Kalscheuer*
RWTH Aachen University, Aachen, Germany

Target Microstructure and Coated Tool Lifetime

Christos Pernagidis**[1], Marian Harsani[2], Anas Ghailane[1]**
[1]Avaluxe International GmbH, Fürth, Germany
[2]Staton, srl, Turany, Slovakia

Quantum Computing

Complete Hamiltonian Control with Multi-Mode Superconducting Circuits

Vivek Maurya, Daria Kowsari, Kumar Saurav, Rajamani Vijayaraghavan, Daniel Lidar, *Eli Levenson-Falk*
University of Southern California, Los Angeles, CA

Thin Film Contributions for the Hydrogen Economy

Hydrogen: Boon or Bane? Opportunities and Challenges in Coating Solutions for Industrial Scale-Up

Nazlim Bagcivan
Schaeffler Technologies AG & Co. KG, Herzogenaurach, German

WebTech Roll-to-Roll Technologies and Innovation

Optimizing Barrier Performance in Formed Flexible Bags

Todd Fayne
Pepsi Co, Plano, TX

Colloquium @ TechCon 2026 Long Beach

SVC Society of Vacuum Coaters

The modern SVC era has been the most intense period of innovation, member engagement, event management, and technology focus in the SVC's sixty-nine year history. The SVC is completely focused on our stakeholders, developing an inclusive culture of listening, adopting, refining, and improving approaches that enhance the unique networking and problem solving culture that sets the SVC apart from all other professional organizations. In the spirit of this culture, we are proud to announce, "Colloquium at the TechCon"; a series of focused, technical conversations that address critical industrial needs. This meeting format was first introduced at the 2022 TechCon in Long Beach and based on the extremely positive feedback, we are bringing it back yet again in 2026!

Each topical workshop will be anchored by a technical presentation or series of presentations that will frame a follow-on roundtable discussion. Subject matter experts will be acting as moderators to facilitate discussions and promote interaction and networking between the attendees. As part tutorial, part problem solving, and part networking, the "Colloquium at the TechCon" represents the vanguard of the SVC's efforts to enhance and redefine the technical conference experience. These workshops will be open to all of our conference attendees and exhibitors.

The time and location of all **Colloquium @ TechCon** will be posted in the Final Program; stay tuned!

Monday April 27, 2026 | *Sponsored by the SVC's Large Area Coatings Technical Advisory Committee*

Giving New Life to Old Coaters: Modernization of Coaters for New Demands


Aneliia Wäckerlin

Moderator: **Aneliia Wäckerlin** *(Deputy Head R&D, Glas Trösch)*

Event Description: Retrofitting existing coaters is an attractive approach to upgrade process capabilities to modern standards while avoiding the significant capital expenditure of replacing an entire coater platform. Retrofit projects, however, require careful planning and expertise in order to deliver the expected results.

This interactive event offers a perfect opportunity to learn, discuss and hear perspectives on your specific question. We will start with three concise presentations where our panelists will share their individual perspectives on the following critical topics:

- End user experience on upgrading equipment and considerations for adapting a new coating process
- Running more complex products with higher throughput and uptime on aging coater equipment
- ROI of upgrading hardware based on uptime and throughput

We will then open the discussion to questions and perspectives from the audience. Bring your challenging questions with you, and we will do our best to find the answers together!

Panelists:

— **Kyle Schuberg**
Coating Process Engineering Manager
Gentex Corporation


Kyle Schuberg

— **Wilmert De Bosscher**
Chief Technology Officer
Soleras Advanced Coatings BV


Wilmert De Bosscher

— **Ken Nauman**
Director of Global Business Development
Sputtering Components


Ken Nauman

Colloquium 2.4

The Challenge of Transitioning to Sustainable Surface Engineering Practices


Jochen M. Schneider

Moderator: **Jochen M. Schneider** *(Professor of Materials Chemistry, RWTH Aachen University)* research focuses on the quantum-guided design of thin film materials, including sustainability-relevant aspects. He has held academic appointments in Germany, the UK, the USA, and Sweden, and has received numerous awards and fellowships. Throughout his career, he has served in several international advisory roles and supervised more than 40 Ph.D. students.

Event Description: The Sustainable Surface Engineering Colloquium, held as part of TechCon 2026 of the Society of Vacuum Coaters (SVC), will serve as a dedicated forum for researchers, engineers, technologists, and industry leaders to examine and advance the state of the art in environmentally responsible surface technologies. This event aims to highlight not only emerging technical innovations but also the broader systems-level thinking required to make surface engineering processes more resource-efficient, resilient, and aligned with global sustainability goals.

The session will open with an impulse talk by Prof. Christoph Herrmann of Fraunhofer IST, Braunschweig, Germany, whose research focuses on life-cycle engineering and sustainable manufacturing. His presentation will provide a conceptual and analytical foundation for understanding how sustainability metrics, process modeling, and circular-economy principles can be applied within the field of vacuum coating and surface modification.

Following this keynote impulse, four concise pitch presentations will be delivered by distinguished panel members, each representing a different segment of the international surface engineering community:

- **André Anders** (Plasma Engineering LLC, USA)
- **Klaus Böbel** (Oerlikon, Liechtenstein)
- **Tetsuya Takahashi** (Kobelco, Japan)
- **Christoph Schiffers** (CemeCon AG, Germany)

These short pitches will introduce diverse perspectives—from plasma process innovation and industrial coating solutions to equipment design and sustainable production strategies—thereby establishing a multidisciplinary springboard for further discussion.

The subsequent interactive dialogue between the audience and the panel, moderated by Jochen Schneider of RWTH Aachen University, will delve deeply into the opportunities and challenges associated with transitioning toward more sustainable surface engineering practices. Topics will include actionable pathways for reducing energy consumption, strengthening sustainability education across stakeholder groups, integrating circular-economy concepts, and improving the environmental footprint of coating technologies across their full life cycle. Through this collective exchange, the colloquium aims to underline the crucial role of continuous research, cross-sector collaboration, and forward-looking innovation in shaping a more sustainable future for the global surface engineering community.

Panelists:


Christoph Herrmann

— **Christoph Herrmann** *Fraunhofer Institute for Surface Engineering and Thin Films (IST):* is Director of the Fraunhofer Institute for Surface Engineering and Thin Films (IST) in Braunschweig and a full professor for Sustainable Production & Life Cycle Engineering at the Technische Universität Braunschweig. He leads work on sustainable manufacturing, life-cycle and surface technologies, integrating ecological, economic, and production-engineering perspectives.


André Anders

— **André Anders** *Plasma Engineering LLC:* investigates plasmas and has developed plasma-based coating processes for many years. He worked in Berlin (Germany), Berkeley (California), was an Institute Director and Professor of Applied Physics in Leipzig (Germany), and he is now again in California as the Founder/CEO of Plasma Engineering LLC. André was elected as one of the Directors of AVS for the 2026/27 period.

— **Klaus Böbel** *Oerlikon:*
is an R&D Portfolio Manager at Oerlikon, where he drives innovation in surface, plasma, and coating technologies. Prior to joining Oerlikon, he spent more than two decades advancing plasma and PVD/DLC coating solutions in senior R&D roles at Bosch Manufacturing Solutions. His current work integrates sustainability considerations into technology development, contributing to Oerlikon's efforts toward more energy- and resource-efficient surface solutions.


Klaus Böbel

— **Tetsuya Takahashi** *Kobe Steel, Ltd. (KOBELCO):*
is a senior engineer at Kobe Steel, Ltd. (KOBELCO), Japan, specializing in plasma-based coating technologies and advanced materials. He earned his doctorate in engineering from RWTH Aachen University in Germany. While his main expertise is in hard coatings, he is currently exploring novel applications of vacuum deposition technologies as part of new business creation initiatives.


Tetsuya Takahashi

— **Christoph Schiffers** *CemeCon AG:*
has been with CemeCon AG , the pioneer of HiPIMS coatings for cutting tools, for more than 15 years. HiPIMS has become the new standard in the cutting tool world because of the dense coating structure, the super smooth surface, and the enormous flexibility. The tremendous HiPIMS success story in the cutting tools industry suggests that HiPIMS will replace traditional techniques for high value products within a few years. Christoph holds a Dr.-Ing. in mechanical engineering from RWTH Aachen University.


Christoph Schiffers

The Innovation Spiral of HIPIMS Towards Industrialization

Moderator: **Ton Hurkmans** *(Chief Technology Officer (CTO), IHI Ionbond Group)*


Ton Hurkmans

Event Description: High Power Impulse Magnetron Sputtering (HIPIMS) has emerged as a transformative technology in the field of thin film deposition, driving a dynamic industrial innovation spiral starting from advanced manufacturing tools and expanding into architectural glass, semiconductor and spreading into antimicrobial and sensor applications as more companies and research groups engage with the technology each year. The industrialization of HIPIMS is characterized by iterative advancements in plasma physics, power supply engineering, process control, and design of thin film and coating materials which enabled the realization of dense, adherent coatings with tailored properties, surpassing the limitations of conventional sputtering techniques.

A panel of experts with long track record in plasma science, industrial production and applied research will engage with the audience in an active discourse on current topics ranging from latest academic advances in plasma, process and materials science, and deployment in process development to latest industrial trends and hot topics. We are currently filling the panel seats with renowned experts from academia, applied research, and industry.

Panelists:

— **Ralf Bandorf**
Head of Group, Optical and Electrical Systems
Fraunhofer IST

— **Arutiun Ehiasarian**
Head of National HIPIMS Technology Center
Sheffield Hallam University

— **Uwe Heydenreich**
Key Account Manager
TRUMPF Hüttinger GmbH + Co.

— **Daniel Loch**
Application Engineer
TRUMPF Hüttinger GmbH + Co.

— **Dermot P. Monaghan**
Managing Director
Gencoa Ltd

— **Tetsuhide Shimizu**
Associate Professor
Tokyo Metropolitan University


Ralf Bandorf


Arutiun Ehiasarian


Uwe Heydenreich


Daniel Loch


Dermot P. Monaghan


Tetsuhide Shimizu

A Manufacturer's Guide to Coatings for High Power Lasers

Moderators: **Jay Anzellotti** *(IDEX, Inc.);* **Colin Harthcock** (*Lawrence Livermore National Laboratory (LLNL));* **David Sanchez** *(Materion Electronic Material)*

Event Description: Markets for high LIDT (Laser-Induced Damage Threshold) coatings are expanding rapidly, driven by critical applications in medical lasers, industrial lasers, laser fusion R&D, semiconductor fabrication and metrology, and high-energy defense systems. As these technologies scale, coatings inevitably face damage and require replacement, creating an urgent need for manufacturers to develop methods that extend coating lifetime while managing costs.

Key factory processes will be at the center of our dialogue, including substrate cleaning, cleanroom design and protocol, chamber design and maintenance, deposition dynamics, and post-coating handling and packaging. Each of these steps plays a vital role in achieving coatings that withstand high-energy environments and deliver consistent performance over time.

We invite you to join us and share your challenges in meeting technical specifications and scaling production. This colloquium will bring together experts, innovators, and manufacturers to discuss these challenges in an open forum. The event will consist of several short presentations by a team of experts, followed by a facilitated round-table discussion.

Moderators:


Jay Anzellotti

— **Jay Anzellotti** spent his early career as a hands-on engineer depositing optical coatings for high power lasers. He then held coating development roles in various areas including industrial lighting, optical communications, fluorescence instrumentation, and semiconductor inspection tools. Jay is currently the Director of Filter Design and Coating Engineering in the Optical Filters business at IDEX, Inc. Jay has a BS from the University of Rochester.


Colin Harthcock

— **Colin Harthcock** is currently a group lead at Lawrence Livermore National Laboratory (LLNL). He previously served as a staff scientist and before that a postdoctoral fellow. Colin's work has focused on understanding defect causes in coatings and optical materials for the NIF program, which is pushing the boundaries of laser power to achieve nuclear fusion. Colin has a PhD in chemical physics at Oregon State University.


David Sanchez

— **David Sanchez** has been Chemical Engineer and Materials Scientist for 29 years. He was motivated by firsthand use of advanced thin film optics and technologies in the US Marine Corps. He completed his dual BS degree in California and went to work at OCLI/Flex in 1996 as a Process Engineer. He was classically trained in thin film technology from the best in the emerging field. David has leveraged his experience and built a wide range of skills as a materials and applications scientist and engineer. For more than 28 years he has led many efforts to develop key materials and now supports the complete line of specialty inorganic materials, precious metals, and rare metals for Materion Electronic Material's PVD, energy and semiconductor customers.

Decorative PVD Coatings - Trends and Challenges

Moderator: **Dr.-Ing. Martin Engels** *(Global Process Engineer Deco & Sports, IHI Ionbond Group)*


Martin Engels

Event Description: Decorative Physical Vapor Deposition (PVD) coatings have been a growing market for decades and the number of applications, as well as the request for new colors, are still growing. The markets which are being addressed range from sanitary parts to automotive interior/exterior or luxury articles like watches or golf clubs, and of course numerous other articles which can be coated.

The application of a decorative PVD coating not only gives parts a special appearance but also improves the wear resistance and therefore durability significantly. In the past, interest and availability were mainly focused on grey scale colors ranging from light silver to deep black or bright colors in the range of light gold to copper or brass. Nowadays, additional to the classic features of decorative PVD coatings, the interest of customers is expanding to more special colors like blue, green, dark brown, etc. Other than that, there is a significantly rising demand for additional properties like corrosion protection as well as easy-to-clean or anti-fingerprint behavior. However, new colors and coating properties are also arising with new challenges for the production of a decorative PVD coating. These might range from the need for novel process technology like HiPIMS to additional process steps.

In order to give the TechCon participants a deeper insight into the unique world of decorative coatings and their trends and challenges as well as ideas to address them, we have gathered a team of experts, who will cover a range from coating machine manufacturers, process simulation, and job coaters. Our panelists will start with a brief introduction of themselves and their companies. This will be followed by insights on the history of decorative PVD, the present state of the art and their vision about the future of decorative coatings. The audience is highly welcome to interactively discuss questions and to share experiences with our panelists and will have the unique opportunity to connect with the experts for further cooperations and knowledge exchange.

Panelists:

— **M.Sc. Bryce Anton** (Director of Technology) *Vapor Technologies, Inc.*
26 years of experience in PVD thin film development, primarily in decorative coatings for various consumer product industries (home products, automotive, sporting goods, etc.). Currently holds 11 patents in this field.


Brian T. Nevill

— **Dr. Ton Hurkmans** (Chief Technology Officer - CTO) *IHI Ionbond Group*
Key person in the use of PVD coatings for decorative applications since mid-90's. From pioneering to first applications and the full integration of new PVD production lines at in-house coating facilities. Currently responsible for all coating innovations across all business segments.


Bryce Anton

— **Brian T. Nevill** (President & Owner) *West Coast PVD, Inc.*
40 years experience in the vacuum coating industry including IVD and PVD technology for decorative & functional applications. Owner and operator of PVD coating centers for 25 years.


Adam Obrusnik

— **Adam Obrusnik, PhD** (CEO, head of consulting, co-founder) *PlasmaSolve s.r.o.*
More than 10 years of experience in plasma-based processes, especially PVD, as well as plasma simulation and diagnostics. Worked as independent consultant before co-founding PlasmaSolve company, which amongst others focusses on simulation of decorative PVD processes.


Ton Hurkmans

— **M.Sc. Chinmay Trivedi** (Process Technology Manager) *IHI Hauzer Techno Coating B.V.*
Over a decade of experience in decorative applications with a strong understanding of the essential steps for successful technology integration, including conventional sputtering, Arc, PACV and HiPIMS processes.


Chinmay Trivedi

SVC Society of Vacuum Coaters

Colloquium 2.4

Rigidly Flexible - Exploring the Middle Ground in R2R Substrate Applications

Liz Josephson

Moderator: **Liz Josephson** *(VP of Commercial Operations, INTELLIVATION LLC)*

Event Description: Roll-to-Roll (R2R) coating promises "economy of scale" for a myriad of high-volume applications, whether it is barrier layers for food packaging or flexible electronics. In many cases, the end use does not actually require "flexibility" – think of displays – nor a start-to-finish roll-to-roll process – think of sheet-based chip attached for hybrid electronics – to still make R2R a convincing manufacturing approach. However, experience and detailed knowledge is required to avoid costly failures and reap the full benefits of this powerful yet sometimes "mysterious" manufacturing methodology.

This Colloquium will examine the opportunities and challenges of R2R manufacturing processes, and will touch on substrate considerations, coating material options (vacuum- or wet-coating), issues like multi-pass, lamination and singulation operations and other critical topics that are crucial to successful production.

The interactive nature of this moderated panel discussion welcomes questions from the audience that may be addressed by a panel of subject matter experts, or in discussion with other practitioners in the audience.

We invite you to bring your questions, challenges or success stories that help take the "mystery" out of this powerful high-volume manufacturing methodology!

Panelists:

— **Andy Jack**
Sales Director
Emerson & Renwick Ltd

— **Joe Papalia**
President
DTI Films

— **Mike Simmons**
President & CEO
INTELLIVATION LLC

— **Chris Stoessel**
Innovation Counsultant and Partner
Stoessel Consulting/SputterTek LLC

Andy Jack

Joe Papalia

Mike Simmons

Chris Stoessel

Technical Advisory Committees (TAC)

Advanced Multifunctional Coatings: Integrating Vacuum and Electrochemical Deposition for Sustainable Energy, Surface Protection, and Biomedical Innovations

(Joint Session with The Electrochemical Society)

Session Organizers (ECS):
Luca Magagnin, Politecnico Milano 1863, luca.magagnin@polimi.it
Wei Tong, Lawrence Berkeley National Laboratory, weitong@lbl.gov
Session Organizers (SVC):
Jones Alami, Mohammed VI Polytechnic University, jones.alami@um6p.ma
Mohammed Makha, Mohammed VI Polytechnic University, mohammed.makha@um6p.ma
Chris Stoessel, Stoessel Consulting, cstoessel@stoesselconsulting.net

Advances in Thin Film Sensor Technologies: Materials Design, and Applications

TAC Co-Chairs:
Jason Hrebik, Kurt J. Lesker Company, jasonh@lesker.com
Jacob Lee, University of Texas at Arlington, seunghyun.lee@uta.edu
Binbin Weng, University of Oklahoma, binbinweng@ou.edu

Atomic Layer Processing (ALP)

TAC Co-Chairs:
Sara Harris, Forge Nano, Inc., sharris@forgenano.com
Ivan Maximov, Lund University, ivan.maximov@ftf.lth.se
Craig Outten, Universal Display Corp., coutten@verizon.net
Matt Weimer, Forge Nano, Inc., mweimer@forgenano.com

Characterization, Testing and Failure Analysis of Thin Films, Coatings and Engineered Surfaces

TAC Co-Chairs:
Matthew Linford, Brigham Young University, mrlinford@chem.byu.edu
Dehau Yang, Ebatco, dyang@ebatco.com
Oleg Zabeida, Polytechnique Montréal, oleg.zabeida@polymtl.ca

Coatings and Processes for Biomedical Applications

TAC Co-Chairs:
Jeff Hettinger, Rowan University, hettinger@rowan.edu
Natalie Page, Lila Sciences, npage@lila.ai
Gregory Taylor, Lawrence Livermore National Laboratory, taylor275@llnl.gov
Chinmay Trivedi, IHI Hauzer Techno Coating B.V., ctrivedi@hauzer.nl

Coatings for Energy Conversion and Related Processes

TAC Co-Chairs:
Volker Sittinger, Fraunhofer IST, Germany, volker.sittinger@ist.fraunhofer.de
Roel Bosch, IHI Hauzer Techno Coating B.V., RBosch@hauzer.nl
Ric Shimshock, General Atomics, ric.shimshock@ga.com
Stefan Saager, Fraunhofer FEP, stefan.saager@fep.fraunhofer.de

Digital Transformation through Artificial Intelligence, Machine Learning, Simulation, and Data Science in the Thin Film Industry

TAC Co-Chairs:
Holger Gerdes, Fraunhofer IST, holger.gerdes@ist.fraunhofer.de
Paul Nizenkov, boltzplatz - numerical plasma dynamics GmbH, nizenkov@boltzplatz.eu

Electron Beam Processes

TAC Chair:
Stefan Saager, Fraunhofer FEP, stefan.saager@fep.fraunhofer.de
Assistant TAC Chairs:
Luis Isern Arrom, Cranfield University, l.isernarrom@cranfield.ac.uk
Koldo Almandoz Forcen, Cranfield University, k.almandoz@cranfield.ac.uk
Kevin Meisner, Honeywell, kevin.meisner@honeywell.com
Jack Mershon, PGT, jack.mershon@linde.com
Asim Mirza, boltzplatz - numerical plasma dynamics GmbH, mirza@boltzplatz.eu
Matthias Neumann, VON ARDENNE GmbH, neumann.matthias@vonardenne.com
Sergio Pace, CRM Group, sergio.pace@crmgroup.be
Chris Punshon, Cambridge Vacuum Engineering, cpunshon@camvaceng.com
Jason Van Sluytman, Honeywell, Jason.VanSluytman@honeywell.com

Emerging and Translational Technologies and Applications

TAC Chair:
Chris Stoessel, Stoessel Consulting, cstoessel@stoesselconsulting.net
Assistant TAC Chairs:
Lad Bardos, Uppsala University, ladislav.bardos@angstrom.uu.se
Clark Bright, Bright Thin Film Solutions (3M retired), brightcrewllc@gmail.com
Manuela Junghähnel, Fraunhofer IZM, manuela.junghaehnel@assid.izm.fraunhofer.de
Jörg Neidhardt, Fraunhofer FEP, joerg.neidhardt@fep.fraunhofer.de
Frank Papa, GP Plasma, frank@gpplasma.com

Exhibitor Innovator Showcase

Session Organizers:
Jason Hrebik, Kurt J. Lesker Company, jasonh@lesker.com
Frank Zimone, Society of Vacuum Coaters, frank.zimone@svc.org

High-Power Impulse Magnetron Sputtering – HIPIMS

TAC Chair:
Ralf Bandorf, Fraunhofer IST, ralf.bandorf@ist.fraunhofer.de
Arutiun P. Ehiasarian, Sheffield Hallam University, a.ehiasarian@shu.ac.uk
Frank Papa, GP Plasma, frank@gpplasma.com
Assistant TAC Chairs:
Ju-Liang He, Feng Chia University, jlhe@fcu.edu.tw
Ian Haehnlein, GP Plasma, ian@gpplasma.com
Ivan Shchelkanov, Starfire Industries, ishchelkanov@starfireindustries.com
Brian Jurczyk, Starfire Industries, bjurczyk@starfireindustries.com
Ivan Fernandez, Nano4Energy, ivan.fernandez@nano4energy.eu

Technical Advisory Committees (TAC)

Large Area Advanced Packaging and Integrated Photonics

TAC Chair:
Patrick Morse, Arizona Thin Film Research LLC, pmorse@azthinfilm.com

Large Area Coatings

TAC Chair:
Aneliia Wäckerlin, Glas Trösch, a.waeckerlin@glastroesch.ch
Assistant TAC Chairs:
Brent Boyce, Guardian Industries Corp., bboyce@guardian.com
Marcus Frank, Bühler Group, marcus.frank@buhlergroup.com
Brian Holsclaw, Corning Inc., holsclawb@corning.com
Ken Nauman, SCI /Bühler, knauman@sputteringcomponents.com
Kyle Schuberg, Gentex, kyle.schuberg@gentex.comOptical Coatings

Optical Coatings

TAC Co-Chairs:
Jay Anzellotti, IDEX Health & Science, janzellotti@idexcorp.com
Vivek Gupta, Meta/Facebook, guptavivek23@fb.com
Nadja Felde, Fraunhofer IOF, nadja.felde@iof.fraunhofer.de
Rajiv Pethe, Vital Chemicals USA, Rajiv.Pethe@VitalChemUSA.com

Organic and Perovskite Electronics

TAC Co-Chairs:
Mike Miller, Angstrom Engineering Inc., mmiller@angstromengineering.com
John Naylor, Kurt J. Lesker Company, johnn@lesker.com
Paul Sullivan, Kurt J. Lesker Company, paulsu@lesker.com
Akhil Vohra, Angstrom Engineering Inc., avohra@angstromengineering.com

Photonically-Induced Transformations of Thin Films and Surfaces

TAC Co-Chairs:
Christopher Muratore, University of Dayton, cmuratore1@udayton.edu
Jörg Neidhardt, Fraunhofer FEP, joerg.neidhardt@fep.fraunhofer.de

Plasma Processing and Diagnostics

TAC Chairs:
Hana Baránková, Uppsala University, hana.barankova@angstrom.uu.se
Oleg Zabeida, Polytechnique Montréal, oleg.zabeida@polymtl.ca
Assistant TAC Chairs:
Lenka Zajíčková, Central European Institute of Technology & Masaryk University, enkaz@physics.muni.cz
Craig Outten, Universal Display, coutten@verizon.net

Processing Monitoring, Control, and Automation

TAC Chair:
Martynas Audronis, Nova Fabrica Ltd., martynas@novafabrica.biz
TAC Co-Chairs:
Gun Hwan Lee, Korea Institute of Materials Science, ghlee@kims.re.kr
Edmund Schuengel, VAT Vakuumventile AG, e.schuengel@vat.ch

Protective, Tribological, and Decorative Coatings

TAC Co-Chairs:
Martin Engels, Ionbond, martin.engels@ionbond.com
Anas Ghailane, Avaluxe Coating Technologies, aghailane@avaluxe-technologies.de
Juan Manuel Gonzalez Carmona, Centro de Ingenieria y Desrrollo Insutrial CIDESI, juan.gonzalez@cidesi.edu.mx
Jolanta Klemberg-Sapieha, Polytechnique Montréal, jsapieha@polymtl.ca
Christoph Schiffers, CemeCon, christoph.schiffers@cemecon.de
Christian Stein, Fraunhofer IST, christian.stein@ist.fraunhofer.de

Quantum Computing

TAC Co-Chairs:
Mike Miller, Angstrom Engineering Inc., mmiller@angstromengineering.com
John Naylor, Kurt J Lesker Company, johnn@lesker.com
Akhil Vohra, Angstrom Engineerin Inc., avohra@angstromengineering.com

Thin Film Contributions for the Hydrogen Economy

TAC Co-Chairs:
Ralf Bandorf, Fraunhofer IST, ralf.bandorf@ist.fraunhofer.de
Herbert Gabriel, PVT Plasma und Vakuum Technik GmbH, h.gabriel@pvtvacuum.de
Lucia Mendizabal, Tekniker, lucia.mendizabal@tekniker.es

WebTech Roll-to-Roll Technologies and Innovation

TAC Chair:
Chris Stoessel, Stoessel Consulting, cstoessel@stoesselconsulting.net
Assistant TAC Chairs:
Hazel Assender, University of Oxford (Begbroke), hazel.assender@materials.ox.ac.uk
Corinne D'Ambrosio, NPB Technology Group, corinne@npbtech.com
Wolfgang Decker, Kurt J. Lesker Company, wolfgangd@lesker.com
Andy Jack, Emerson & Renwick, a.jack@eandr.com
Liz Josephson, Intellivation, ljosephson@intellivation.com
Jaime Li, Eastman Chemical Co., Jaime.Li@eastman.com
Robert Malay, Intellivation, rmalay@intellivation.com
Michael Mücke, Bühler/Leybold Optics, michael.muecke@buhlergroup.com
Joe Papalia, Deposition Technology Innovations, jpapalia@dtifilms.com
Jerry Wu, Enpack Composite, wufujw@163.com

Technical Program

DAYS AT A GLANCE

SUNDAY • APRIL 26 | MONDAY • APRIL 27 | TUESDAY • APRIL 28

Sunday At A Glance

Special Events

- **SVC Board of Directors/Committee Chairs Meeting** 2:30 PM – 5:30 PM ***Hyatt Shoreline A/B***
- **Moderators Training Session** 5:30 PM – 6:00 PM ***LBCC Room 104B***
- **SVC Board of Directors Meet and Greet** 7:00 PM – 8:00 PM ***Hyatt Seaview Rotunda*** (invitation only)
- **Young Members Meeting** 6:30 PM – 10:00 PM ***Hyatt Shoreline A/B***

Monday At A Glance

Special Events

- **Technology Forum Breakfasts** 7:30 AM – 8:30 AM
  - → Atmospheric Plasma Technology ***LBCC Room 102A***
  - → Coatings and Surface Engineering for Medical Applications ***LBCC Room 102B***
  - → High Power Impulse Magnetron Sputtering (HIPIMS) ***LBCC Room 102C***
  - → Photonically Induced Surface and Thin Film Processing ***Hyatt Seaview A***
  - → Durability Evaluation of Thin Film Coatings: Testing Methods and Practical Implications ***Hyatt Seaview B***
  - → Transparent Conductive Materials (TCM) ***Hyatt Seaview C***
- **Sunset Meeting Forums** 5:20 PM – 6:20 PM
  - → Advanced Deposition Coating Hardware ***LBCC Room 102A***
  - → Advanced Multifunctional Coatings: Integrating Vacuum and Electrochemical Deposition ***LBCC Room 102B***
  - → Materials for PVD Processes ***LBCC Room 102C***
  - → Characterization, Testing, and Failure Analysis of Thin Films, Coatings and Engineered Surfaces ***Hyatt Seaview B***
  - → Large-Area Advanced Packaging and Integrated Photonics ***Hyatt Seaview C***
- **SVC Annual Business Meeting** 8:40 AM – 9:10 AM ***LBCC Room 104B***
- **SVC 2026 TechCon Conference Introduction** 9:20 AM – 9:30 AM ***LBCC Room 104B***
- **Colloquium:** *Giving New Life to Old Coaters: Modernization of Coaters for New Demands* 10:30 AM – 11:50 AM ***LBCC Room 104A***
- **Colloquium:** *The Challenge of Transitioning to Sustainable Surface Engineering Practices* 2:00 PM – 3:20 PM ***LBCC Room 101B***
- **Colloquium:** *The Innovation Spiral of HIPIMS Towards Industrialization* 3:40 PM – 5:00 PM ***LBCC Room 101A***
- **Women in the SVC Meeting** 6:30 PM – 8:00 PM ***LBCC Room 104B***
- **SVC Foundation Casino Night** 8:00 PM – 10:00 PM ***Hyatt Beacon A/B***

Technical Sessions

- **Keynote Speaker** ***Christoph Herrmann*** *Plasma Technologies for Precision and Large-Scale Surface Engineering* 9:30 AM – 10:10 AM ***LBCC Room 104B***
- **Large Area Coatings** AM/PM ***LBCC Room 104A***
- **Characterization, Testing, and Failure Analysis of Thin Films, Coatings, and Engineered Surfaces** AM/PM ***LBCC Room 104B***
- **Plasma Processing and Diagnostics** AM/PM ***LBCC Room 104C***
- **High Power Impulse Magnetron Sputtering (HIPIMS)** AM/PM ***LBCC Room 101A***
- **Advanced Multifunctional Coatings: Integrating Vacuum and Electrochemical Deposition for Sustainable Energy, Surface Protection, and Biomedical Innovations** (Joint Session with ECS) AM ***LBCC Room 101B***
- **Donald Mattox Tutorial Speaker** ***Diederik Depla*** *From Poisoned Targets to Healthy Models: The Quest for Parameters* 1:20 PM – 2:00 PM ***LBCC Room 104B***
- **Coatings and Processes for Biomedical Applications** PM ***LBCC Room 104C***
- **Quantum Computing** PM ***LBCC Room 104C***
- **Photonically-Induced Transformations of Thin Films and Surfaces** PM ***LBCC Room 101B***

Tuesday At A Glance

Special Events

- **Technology Forum Breakfasts** 7:30 AM – 8:30 AM
  - → Leak Detection - Issues and Practices ***LBCC Room 102A***
  - → Industrial Challenges: Uptime, Yield, and Consistency ***LBCC Room 102B***
  - → Magnetron Sputtering ***LBCC Room 102C***
  - → Process Monitoring and Control ***Hyatt Seaview A***
  - → Energy Conversion and Storage ***Hyatt Seaview B***
  - → ALD for Optics ***Hyatt Seaview C***
- **Awards Ceremony** 8:40 AM – 9:20 AM ***LBCC Room 104B***
- **B2B Exhibitor Coffee Hour** (closed event) 10:00 AM – 11:00 AM ***LBCC Exhibit Hall A***
- **Exhibit Hall Open** 11:00 AM – 6:00 PM ***LBCC Exhibit Hall A***
- **Specialty Coffee Hour** 11:00 AM – 12:00 PM ***LBCC Exhibit Hall A***
- **Welcome/Exhibit Snacks** 1:30 PM – 2:15 PM ***LBCC Exhibit Hall A***
- **Welcome/Exhibit Reception** 5:00 PM – 6:00 PM ***LBCC Exhibit Hall A***

Technical Sessions

- **Advanced Multifunctional Coatings: Integrating Vacuum and Electrochemical Deposition for Sustainable Energy, Surface Protection, and Biomedical Innovations** (Joint Session with ECS) AM ***LBCC Room 101B***
- **Organic and Perovskite Electronics** AM ***LBCC Room 104B***
- **Process Monitoring, Control, and Automatio** AM ***LBCC Room 104C***

TUESDAY • APRIL 28 | WEDNESDAY • APRIL 29

- **High Power Impulse Magnetron Sputtering (HIPIMS)** AM ***LBCC Room 101A***
- **Thin Film Contributions to the Hydrogen Economy** AM ***LBCC Room 101B***
- **Exhibitor Innovator Showcase** AM ***LBCC Room 104A***
- **Poster Session** 2:30 PM – 4:30 PM ***LBCC Exhibit Hall A***

Wednesday At A Glance

Special Events

- **Technical Advisory Committee Breakfast Meetings** 7:00 AM – 8:30 AM
  - → (1) Large Area Coatings and (2) Large Area Advanced Packaging and Integrated Photonics ***LBCC Room 102A***
  - → (1) High Power Impulse Magnetron Sputtering, (2) Protective, Tribological and Decorative Coatings and (3) Thin Film Contributions for the Hydrogen Economy ***LBCC Room 102B***
  - → (1) Plasma Processing and Diagnostics and (2) Atomic Layer Processing (ALP) ***LBCC Room 102C***
  - → (1) Emerging and Translational Technologies and Applications and (2) WebTech Roll-to-Roll Technologies and Innovation ***LBCC Room 103A***
  - → (1) Optical Coatings and (2) Photonically-Induced Transformations of Thin Films and Surfaces ***LBCC Room 103B***
  - → (1) Coatings for Energy Conversion and Related Processes and (2) Electron Beam Processes ***Hyatt Seaview A***
  - → (1) Advanced Multifunctional Coatings and (2) Advances in Thin Film Sensor Technologies ***Hyatt Seaview B***
  - → (1) Digital Transformation through Artificial Intelligence, Machine Learning. Simulation, and Data Science in the Thin Film Industry and (2) Process Monitoring, Control, and Automation ***Hyatt Seaview C***
  - → (1) Characterization, Testing, and Failure Analysis of Thin Films and (2) Coatings and Processes for Biomedical Applications ***Hyatt Shoreline A***
  - → (1) Organic and Perovskite Electronics and (2) Quantum Computing ***Hyatt Shoreline B***
- **Exhibitor Meeting** (closed event) 9:00 AM – 10:00 AM ***LBCC Exhibit Hall A***
- **Exhibit Hall Open** 10:00 AM – 4:00 PM ***LBCC Exhibit Hall A***
- **Beer Blast** 2:00 PM – 4:00 PM ***LBCC Exhibit Hall A***
- **Announcement of 5k and Best Poster Winners** 3:00 PM ***LBCC Exhibit Hall A***
- **Program Committee Meeting** 5:30 PM – 7:30 PM ***Hyatt Shoreline A/B*** (invitation only)

Technical Sessions

- **Keynote Speaker** ***Chunlei Guo*** *Fano-Resonant Optical Coatings and Applications* 8:40 AM – 9:20 AM ***LBCC Room 104B***
- **Exhibitor Innovator Showcase** AM ***LBCC Room 104A***
- **Emerging and Translational Technologies and Applications** AM ***LBCC Room 104B***
- **Process Monitoring, Control, and Automation** AM ***LBCC Room 104C***
- **Optical Coatings** AM ***LBCC Room 101A***
- **Large Area Advanced Packaging and Integrated Photonics** AM ***LBCC Room 101B***

THURSDAY • APRIL 30

Thursday At A Glance

Special Events

- **Technology Forum Breakfasts** 7:30 AM – 8:30 AM
  - → Surface Engineering for the Hydrogen Economy ***LBCC Room 102A***
  - → Protective, Reflective, and Decorative Coatings ***LBCC Room 102B***
  - → Digital Transformation of Industrial Deposition Processes ***LBCC Room 102C***
  - → Optical Thin Film Design ***Hyatt Seaview A***
  - → Aligning Deposition Process Requirements with Vacuum System Layout and Design ***Hyatt Seaview B***
  - → Electron Beam Processes ***Hyatt Seaview C***
- **Sunset Meeting Forums** 6:00 PM – 7:00 PM
  - → Post-Processing of Vacuum-Coated Roll-to-Roll Products ***LBCC Room 102A***
  - → Thin Film Sensors ***LBCC Room 102B***
  - → Tribological and Diamond-Like Coatings ***LBCC Room 102C***
  - → Fabrication and Performance of Optical Coatings ***Hyatt Seaview A***
  - → Coatings for Thin Film Photovoltaics ***Hyatt Seaview B***
  - → CVD and ALD Processing ***Hyatt Seaview C***
- **Colloquium:** *A Manufacturer's Guide to Coatings for High Power Lasers* 11:10 AM – 12:30 PM ***LBCC Room 101A***
- **Colloquium:** *Decorative PVD Coatings – Trends and Challenges* 1:10 PM – 2:50 PM ***LBCC Room 101B***
- **Colloquium:** *Rigidly Flexible – Exploring the Middle Ground in R2R Substrate Applications* 2:50 PM – 4:10 PM ***LBCC Room 104A***
- **Young Members Group/Farewell Social** 7:20 PM – 8:50 PM ***Hyatt Pool Area***

Technical Sessions

- **Keynote Speaker** ***Elizabeth von Hauff*** *Plasma Technologies for Precision and Large-Scale Surface Engineering* 8:40 AM – 9:20 AM ***LBCC Room 104B***
- **Electron Beam Processes** AM ***LBCC Room 104A***
- **Atomic Layer Processing** AM ***LBCC Room 104B***
- **Digital Transformation of Industrial Deposition Processes** AM ***LBCC Room 104C***
- **Optical Coatings** AM/PM ***LBCC Room 101A***
- **Protective, Tribological, and Decorative Coatings** AM/PM ***LBCC Room 101B***
- **Photonically-Induced Transformations of Thin Films and Surfaces** PM ***LBCC Room 104A***
- **Advances in Thin Film Sensor Technologies: Materials Design and Applications** PM ***LBCC Room 104B***
- **Coatings for Energy Conversion and Related Processes** PM ***LBCC Room 104C***
- **WebTech Roll-to-Roll Coatings for High-End Applications** PM ***LBCC Room 104A***

Exhibitors-At-A-Glance

WHAT DRIVES YOUR RESEARCH?

Introducing RC2 Small Spot

J.A. Woollam Company manufactures world-leading spectroscopic ellipsometers for characterization of thin-film thickness and optical properties. Our RC2 Small Spot provides a focused beam 25 x 40 µm in size for uniformity maps, measurement of small features, and patterned samples. It offers standard ellipsometry measurements (Psi and Delta) and full Mueller matrix measurements, enabling characterization of complex anisotropic materials.

J.A. Woollam Co.

Agilent Technologies 117
Silver+ Corporate Sponsor ***https://www.agilent.com/en/solutions/vacuum-solutions***

Agilent Technologies provides a wide array of robust, cost-effective, and easy-to-use vacuum pumps and systems for demanding industrial uses. From high throughput HS Diffusion Pumps to cost-effective DS, MS, and RPS Rotary Vane Pumps, and from reliable, high performance TwisTorr FS Turbo high vacuum pumps to clean, quiet IDP Dry Scroll primary pumps to precise, easy to use HLD Leak Detectors, Agilent delivers the tools you need to achieve your vacuum system productivity.

Angstrom Sciences, Inc. 220
Gold Corporate Sponsor ***https://www.angstromsciences.com***

ANGSTROM SCIENCES Inc. designs, engineers, and manufactures High Performance Magnetron Sputtering Cathodes and PVD Materials for research and development to high throughput production, thin film coating applications.

Patented design features such as profiled magnets, turbulent water flow, and threaded target clamping permit high target utilization and fast deposition rates while producing uncompromised film quality.

Angstrom Sciences also offers a comprehensive selection of High-Purity Vacuum Deposition Materials.

AP Integration 409
https://www.apintegration.com

AP Integration specializes in vacuum technology integration and support for production chamber systems in the optical thin film and semiconductor industries. Our team delivers creative solutions, including tailored full or partial machine rebuilds, seamless system integration of chamber hardware and controls, advanced troubleshooting for PLC/HMI control systems, deposition equipment, and coating processes, as well as software support for active production tools.

Apex Measurement Systems 518
https://www.apexmeasurementsystems.com/

Apex Measurement Systems is a Sales and Service distribution company specializing in quality control and process analytics. Core technology is spectroscopy, XRF, UV/Vis, NIR and IR; and sheet resistance. This includes spectrometer systems from Carl Zeiss Spectroscopy: color, coating thickness measurements, as well as bulk measurements.

Arzuffi PVD srl 218
https://www.arzuffisrl.it/en

For over 30 years, Arzuffi has been designing and manufacturing custom PVD and PECVD plants for high vacuum coatings. We offer high productivity solutions, ideal for complex materials and geometries, with advanced technologies such as sputtering, evaporation, and plasma, for sectors such as automotive, cosmetics, and design.

Association for Roll-to-Roll Converters 508
https://www.rolltoroll.org

The Association for Roll-to-Roll Converters (ARC), formerly AIMCAL, serves as the global forum for the flexible metallizing, coating and laminating industry by providing resources, services and information. ARC collects and distributes information to increase industry knowledge, while fostering an environment that builds relationships and a spirit of cooperation between member companies worldwide.

Avaluxe International GmbH 319
https://en.avaluxe.de/

AVALUXE | Materials and Expertise for High Performance PVD Coatings:

Avaluxe is a full solution partner for vacuum coating technologies. We combine premium coating materials with deep process know how. From high purity sputter targets and system components to consulting, process development and training, we support efficient, scalable and high quality PVD solutions across automotive, medical, aerospace, optics and decorative applications.

boltzplatz - numerical plasma dynamics GmbH 421
https://boltzplatz.eu/

boltzplatz is an engineering service provider, offering numerical simulations of rarefied gas and plasma dynamics. These reduce the need for costly prototypes and extensive testing, saving both time and cost. Potential applications include the prediction of the performance of vacuum pumps, determination of the gas and plasma distribution in vacuum coating equipment, and the characterization of electron and ion beam properties.

Bricada, Inc. 418
https://www.bricada-inc.com

Bricada, Inc. provides high-vacuum wafer-transfer loadlocks, UHV chambers, and precision magnetic manipulators for semiconductor and thin-film applications. We offer custom engineering, UHV-grade fabrication, assembly, and testing, as well as maintenance and refurbishment services. With deep vacuum expertise and responsive support, Bricada delivers reliable, tailored solutions for OEMs, research labs, and advanced manufacturing environments.

Brooks Instrument 200
https://www.brooksinstrument.com/en

Since 1946, Brooks Instrument has been a leader in precision fluid measurement and control technology. Providing instrumentation for flow, pressure and vapor delivery, the company serves customers in semiconductor and high-tech manufacturing, laboratories and other processes and industries. With manufacturing, sales and service locations in the Americas, Europe and Asia, Brooks Instrument has the world's largest installed base of mass flow controllers.

Kaufman & ROBINSON
The Ion Beam Authority®

Delivering efficient, repeatable control for advanced thin-film processes.

Booth 107
ionsources.com

Shaping Tomorrow's Surfaces...Today

Buhler Leybold Optics 212
TECHCON SPONSOR
Gold Corporate Sponsor
https://www.buhlergroup.com/leyboldoptics
Bühler Leybold Optics is a global leader in advanced thin-film coating solutions for industries such as Opto-electronics, Optics, Ophthalmics, Automotive, Display, Glass, Packaging, Electronics, and Aerospace. Known for its innovation and technical excellence, Bühler delivers high-performance equipment and continually advances to meet evolving market needs. Its commitment to quality and cutting-edge technology keeps it at the forefront of the industry.

California Nanotechnologies, Inc. 109
https://www.calnanocorp.com
California Nanotechnologies helps engineers and scientists turn advanced powders into fully dense parts and custom alloy targets for PVD and other coating processes. We specialize in powder processing, diffusion bonding, and developing novel compositions for high-performance applications. From R&D to scalable production, we accelerate innovation in coatings, aerospace, defense, energy, and semiconductors. Stop by our booth to see real examples and discuss your toughest materials challenges.

CCR Technology GmbH 125
Silver+ Corporate Sponsor
https://www.rf-icp-plasmasources.com
CCR Technology GmbH – Your Reliable Partner in Plasma Solutions.
CCR Technology offers versatile, stable RF-ICP plasma sources designed for demanding applications like PECVD, PVD-Assist, Etching on wafer sized up to large-area coatings. Our industrial proven COPRA brands provide gas-independent, durable, and low-maintenance solutions.

With many standard & custom types, including flange-mounted and self-neutralizing assist sources, we deliver flexible, integrated options tailored to your needs.

CemeCon Inc. 121
https://www.cemecon.com
CemeCon is recognized worldwide as the industry leader in HiPIMS and diamond coatings. Providing cutting tool manufacturers with the coating service, coating equipment, process technology, and training needed for success. CemeCon is well-positioned to support customers almost anywhere in the world with facilities in the United States, Europe, and Asia.

China Ningbo Sen Ao Target Technology Co., Ltd 517
https://www.cnalmaterial.com
China Ningbo Sen Ao Electronic Technology Co., Ltd start producing targets in 2012.

We have bonding, sintering, spraying, melting targets.

Looking for Agent. Holding few patents.

Producing/designing new Rotary Targets, Bonded Targets, Ceramic targets and Rare earth targets Materials.

We are leading technology company in Rotary targets, planar targets, Vacumm coating materials.

Service our long term customer as our God, Free sample, Escrow available. Contact: danny@cnalmaterial.com.

Coastal Instruments, Inc. 515
https://www.mfchelp.com
Coastal Instruments is a North Carolina based company started in 1980. We are a service oriented company, dedicated to developing long term partnerships with our customers throughout the world. Our technology, reliability and integrity have made us the recognized leader in the calibration of flow and pressure measurement devices.

Covalent 628
https://covalent.com/
Covalent is an outsourced lab partner for advanced materials characterization, thin-film analysis, surface analysis, and failure analysis. We help clients solve difficult process and materials problems using correlative workflows spanning SEM, FIB, TEM, XPS, SIMS, X-ray methods, thermal analysis, and more. Visit us to discuss coatings, interfaces, contamination, defects, and other complex R&D and manufacturing challenges.

DHF Technical Products **300**

TECHCON SPONSOR

Platinum Corporate Sponsor ***https://www.dhftargets.com***

DHF Technical Products is the premier source in the vacuum world for precision machined precious metal sputtering targets. We have decades of experience supplying gold, silver, platinum and palladium targets to diverse markets such as medical products, glass, electronics, semiconductor and defense. Coupled with our ability to enhance target performance through intelligent design and value engineering we are the leader on l total life cycle cost of target ownership.

DHF also has comprehensive refining capability!

Dynavac **325**

Gold Corporate Sponsor ***https://www.dynavac.com***

Dynavac has been designing and manufacturing high-vacuum systems for thin film deposition for nearly 40 years. Our world-class thin film deposition systems leverage evaporation, sputtering, and plasma technologies. From compact batch units to large-scale inline systems, we build equipment tailored to your specific needs. Whether you're producing precision optical and decorative coatings or high-reflective films, our PVD and PE-CVD systems are engineered to enhance performance, quality, and lower your production costs.

E+R Group **113**

Silver+ Corporate Sponsor ***https://www.eandr.com***

Combining our engineering knowledge from machinery build and substrate handling, we offer vacuum machinery coating platforms expertly designed to the application – meeting and surpassing our customers' needs.

These platforms include pilot scale vacuum coaters for R&D purposes or small-scale production, through to matched production machinery for customers looking to expand the width and productivity of an application with market potential.

This equipment offers higher productivity rates, lower costs, plus differentiating specifications and apps.

Ebara Technologies, Inc. **519**

TECHCON SPONSOR ***https://www.ebaratech.com***

EBARA is a global innovator and local provider of vacuum pumps and advanced exhaust management solutions for the vacuum coating, semiconductor, photovoltaic, thin-film, and R&D industries. Our offerings include dry vacuum pumps, turbomolecular pumps, point-of-use abatement systems, precision chillers, field services, and parts cleaning services.

Ebatco **226**

https://www.ebatco.com

Ebatco provides comprehensive, advanced and critical analyses and tests of materials. Our ISO/IEC 17025:2017 accredited lab services support customers in R&D, new product and process optimization, failure analysis, part performance verifications, regulatory compliance tests, and legal investigations. By offering cutting-edge technologies, using state-of-the-art instruments, combined with years of experience and professional knowledge, Ebatco delivers reliable and quality solutions for your analytical and testing needs.

Ecoclean, Inc. **202**

https://ecoclean-group.us/

Ecoclean meets relevant industry quality standards and cleaning objectives with its individually configurable part cleaning systems – whether the aim is to clean mass-produced items in bulk, precision parts arranged in defined position, or large-size components made of metal, plastics or ceramics.

Innovative technology, continuous product improvement and a customer-oriented advisory and planning competence, backed by a global service network, are the hallmarks of Ecoclean and characterize our cleaning solutions.

Edwards Vacuum, Inc. **624**

https://www.edwardsvacuum.com

Edwards is a global leader of vacuum and abatement. We are proud to lead the industry, pushing the boundaries of science to deliver innovative products which are intrinsic to everyday life, working in partnership with our customers and continually set-

ting new standards.

At Edwards, we are committed to minimizing the negative environmental impacts of semiconductor manufacturing and we strive to minimize the impact on the natural world and environment we live in now and for our future.

Elmet Technologies **416**
https://www.elmettechnologies.com

Elmet Technologies is a fully-integrated, 100% U.S.-owned-and-operated manufacturer of high-performance refractory metals and solutions, enabling creation of the most technologically advanced products in the world. Since 1929, Elmet Technologies has provided its customers with tungsten, molybdenum, and other critical materials and products for demanding applications in defense, aerospace, medical, energy, semiconductor, electronics, industrial processing, and more.

European Society of Thin Films - EFDS **119**
Gold Corporate Sponsor ***https://efds.org/***

Innovation drives the future.

To turn research results into economic success, small and medium-sized enterprises must have access to technological advances. Research and innovation flourish through close exchange and strong cooperation between all stakeholders. At EFDS, we connect people, provide a platform for visionary ideas, and empower companies to collaborate with the right partners.

Ferrotec **208**
Silver Sustaining Corporate Sponsor ***https://www.ferrotec.com***

Ferrotec is a world leader in advanced material, component, and system solutions. FerroTec Thin Film Solutions offer leading evaporative equipment components and precision PVD coating system solutions with the highest level of reliability, precision and versatility for the most demanding Compound Semiconductor and Optical thin film applications. Our Vacuum Feedthroughs will also be featured. Visit our booth or contact us for more information, www.ferrotec.com.

Fil-Tech, Inc. **321**
TECHCON SPONSOR
Platinum Corporate Sponsor ***https://www.filtech.com***

Quality & Savings From Stock! We offer ebeam gun multi & high performance emitters, crucibles, and liners. Save on Mark I & II ion source parts. Try our sensor heads, feedthroughs & custom hardware. Quality Crystals in Au, Ag, & Stress Relieving Alloy 6MHz & 5MHz. Authorized Distributor for INFICON rate monitors/controllers. We supply Fil-Tech FT704 and FT705, hydrocarbons, Krytox fluids and greases. Visit us for ionization, thermocouple, InstruTech & INFICON vacuum gauges. Save on vacuum

- Scalable from R&D to Production
- Engineered to Outperform • Powering Next-Gen Thin Films
- Designed for Demanding Environments • Extended MTBPM

Whatever the requirements, we've got you covered.

Partners in Innovation
SEMICORE

Semicore Equipment, Inc. | www.semicore.com | 925.373.8201 | Livermore, CA

valves from Frontier Vacuum.

Gencoa Ltd 313
Platinum Corporate Sponsor **https://www.gencoa.com**
Gencoa provides components and expert solutions for applications in the field of vacuum coating. All stages of the plasma deposition process are covered by the range of products and services supplied, from plasma pre-treatment and ion sources, to planar and rotatable magnetron sputter cathodes, and instruments for process control and gas analysis. A comprehensive range of services cover magnetic field design, remote or onsite process assistance, and tailored support for specific applications.

Geowell Vacuum Co, Ltd. 118
https://www.geowellscroll.com
GEOWELL VACUUM CO., LTD. is a high-tech enterprise in China dedicated to the manufacturing, and R&D of oil-free scroll vacuum pumps and compressors since 2002. Guided by our core value - achieving maximum efficiency and reliability through cutting-edge technology and continuous innovation - we have been a trusted partner to industries worldwide.

GfE Fremat GmbH 228
TECHCON SPONSOR
Silver+ Corporate Sponsor **https://www.amg-titanium-de.com**
GfE is a world leading manufacturer and supplier of high quality coating materials for PVD thin film applications. With more than 100 years of experience in materials science, technology, engineering and manufacturing, our core competencies include various thermal spraying technologies, vacuum melting and powder processing. These capabilities enable us to supply elemental metals, metal alloys, oxides and mixtures thereof as planar and rotatable sputtering targets with up to 4 meters in lenghth.

GIS -General Interface Solutions Ltd 408
https://www.gis-touch.com
GIS's optical coating products offer anti-reflection, anti-glare, and anti-fingerprint functions for 3D curved and large-size Pillar-to-Pillar applications, suitable for display, automotive, and AR/VR optical fields. In the automotive sector, GIS's premium anti-reflection (PAR) coating specifications surpass those used in high-end vehicle standards.

GNB King Lai Group 407
https://www.gnbvac.com/
GNB King Lai Group is a world-class manufacturer of vacuum hardware, including vacuum chambers, vacuum valves, and vacuum components. With ISO-9000 and ASME U-stamp certifications, GNB is a market leader for high-technology vacuum products. The company serves many industries such as semiconductors, science, research, furnaces, pressure vessels, space exploration, medical systems, cancer treatment, vacuum deposition coating systems, flat panel displays, direct manufacturing, solar panels and metallurgical processing.

GP Plasma 108
TECHCON SPONSOR **https://www.gpplasma.com**
GP Plasma specializes in pilot and production PVD/PECVD systems as well as system refurbishment and process engineering. Whether batch, inline or roll to roll, we'll help you meet your productivity requirements and mitigate risks. GP Plasma also collaborates and represents the following companies. Starfire Industries - HIPIMS and Microwave technology. Nano4energy - HIPIMS. Swiss Cluster - ALD/PVD systems and large batch ALD systems. Tronic Concept - tribological and hard coatings.

Guangdong Huasheng Nanotechnology Co., Ltd 329
https://www.hscoat.com/
Guangdong Huasheng Nanotechnology Co., Ltd. is a leading coating solution supplier in China. We specialize in the research, development, production, and sales of cutting-edge vacuum coating equipment. Our expertise also extends to the application and innovation of coating processing technology, providing professional services and technical support for essential industrial equipment such as cutting tools, parts, and electronic components worldwide.

Guangdong Huicheng Vacuum Technology Co., Ltd. 527
https://www.hcvacuum.com/
Guangdong Huicheng Vacuum Technology Co., Ltd. (Stock Code: 301392.SZ) is a professional supplier of vacuum coating equipment and magnetron sputtering systems, providing advanced thin-film solutions for glass, automotive, electronics, and photovoltaic industries.

With strong R&D capabilities and patented technologies, Huicheng delivers reliable and high-performance coating solutions to global customers.

HEMO Cleaning Systems USA Inc. 420
https://www.hemo-usa.com
Manufacturer of cleaning and degreasing systems prior to the coating process.

Hine Automation LLC 214
http://www.hineautomation.com
Hine Automation delivers cost-effective automation solutions with exceptional customer service and support. We design and manufacture high-quality, versatile robotic components and systems for semiconductor, solar, flat panel display, and related industries worldwide. Serving OEMs, our reliable solutions support both R&D and demanding production environments. Our modular designs provide flexible, functional, and economical answers to today's automation challenges.

HORIBA Instruments, Inc. 404
Silver+ Corporate Sponsor **https://www.horiba.com**
The HORIBA product line-up consists of Mass Flow Controllers and Mass Flow Meters including High Temperature Mass Flow and Liquid Mass Flow. Liquid Automatic Refill Systems, Liquid Vaporizers, Mixed Injection Systems and Gas Concentration Monitors. In all stages, from materials evaluation through to final inspection, HORIBA products maintain precision control in your

process.

HVA, LLC **308**
TECHCON SPONSOR ***https://www.VacuumValves.com***
HVA, LLC is a leading U.S. manufacturer of high-performance vacuum valves with nearly 50 years of experience. Known for quality, durability, and reliability, HVA serves a wide range of industries with application-specific solutions. All products are manufactured in Reno, Nevada, ensuring precision and consistency. Backed by a global network of distributors and a dedicated support team, HVA is committed to long-term partnerships and evolving industry needs.

IHI Hauzer Techno Coating BV **231**
https://www.hauzertechnocoating.com/en/
The right coating can improve a product's performance dramatically, with increased wear resistance, reduced friction or protection against the elements. Hauzer Techno Coating specialises in manufacturing top-of-the-line coating equipment with a flexible, modular design that can provide the optimal solution for your business.

Inficon **303**
Silver+ Corporate Sponsor ***https://www.inficon.com/en***
INFICON offers vacuum measurement, components, gas analysis, measurement and advanced process control through residual gas analyzers (mass spectrometers), helium leak detectors, multi-gas leak detectors, thin film deposition controllers and monitors, RF sensors, sensor integration and analysis software.

Intellivation **314**
TECHCON SPONSOR
Gold Corporate Sponsor ***https://www.intellivation.com***
Intellivation is a leading manufacturer of vacuum web coating systems featuring innovative design and powerful automation. Our products serve high tech application areas including flexible electronics, thin film batteries, superconductors, solar, optical coatings, medical devices, defense, biosensors and more. Our on-site application laboratory is equipped with an R2R600 and an R2R330 roll-to-roll coater enabling us to provide thin film coating development services on flexible substrates.

Ionautics **525**
https://www.ionautics.com
Ionautics is the leading provider of High-Power Impulse Magnetron Sputtering (HiPIMS) technology and process know how. Our latest industrial power supply HiPSTER-25, a state-of-the-art HiPIMS unit featuring advanced process control capabilities, including integrated multi-unit synchronization, efficient arc suppression, constant peak-current mode, burst mode, and constant-power operation. All our HiPSTER series can be equipped with our recent reactive HiPIMS process control.

Ionbond - IHI Group **209**
TECHCON SPONSOR
Silver Sustaining Corporate Sponsor ***https://www.ionbond.com/***
Ionbond provides advanced, eco-friendly coatings using PVD, PACVD, and CVD technologies. Serving industries like aerospace, medical, automotive, and tooling, we deliver reliable solutions for high and low-volume production. With 30+ global centers across Europe, North America, and Asia, we combine local accessibility with global expertise. As part of the IHI Group, a leading Japanese industrial company, we benefit from extensive R&D in energy, industrial machinery, and aircraft engines, driving innovation and quality.

J.A. Woollam **201**
TECHCON SPONSOR
Platinum Corporate Sponsor ***https://www.jawoollam.com***
J.A. Woollam offers a wide range of spectroscopic ellipsometers for non-destructive materials characterization, including thin film thickness of single and multilayer films, refractive index, optical constants n&k, alloy composition, in-situ growth/etch rates, and more. We have instruments available for research and manufacturing metrology. J.A. Woollam instruments include table-top, in-line, and in-situ models covering spectral ranges from the vacuum ultraviolet to far infrared.

Kaufman & Robinson **107**
TECHCON SPONSOR
Gold Corporate Sponsor ***https://www.ionsources.com***
KRI can assist you with your film depositions, etching processes, and material modifications. We manufacture a wide range

of ion/plasma sources, electron neutralizers and power supply controllers. KRI's product technology includes high current gridless plasma sources, filamentless RFICP gridded sources, low energy electron sources and automated power supply controllers. Over 40 years of experience, makes us the source you can trust.

Kolzer **120**

https://www.kolzer.us

Kolzer is a global manufacturer of advanced PVD (Physical Vapor Deposition) coating systems, with more than 70 years of experience in vacuum coating technologies. Our equipment is designed to deliver high performance coatings that enhance surface durability, appearance and functional properties across a wide range of industrial applications.

Kolzer systems are engineered to meet the rigorous demands of modern manufacturing, combining robust mechanical design, high productivity and energy efficient operation.

Korvus Technology **229**

https://www.korvustech.com

Korvus Technology manufactures highly modular thin film deposition PVD systems. The company's HEX series offers an unmatched level of user control and customization. designed to incorporate the latest thin film technologies and performance into single chamber and cluster systems.

With over 20 years experiences and 200+ installations worldwide, HEX systems are utilized in academic and industry settings to advance research into novel thin film materials.

Kurdex Corporation **116**

Gold Corporate Sponsor ***https://www.kurdex.com***

Supplier of Large Area Vacuum Deposition and Etch Equipment for R&D, Pilot and High-Volume Manufacturing. Products include Sputtering, Evaporation, PECVD, Spatial ALD, ARC-CVD, and Plasma Etch Tools. Standard and Custom Systems configured for In-Line, Cluster and R2R with Full Automation. Substrates sizes up to 2300MM Rigid or Flex, Wafers, Glass Sheets or Roll of Flexible Materials. Applications Lab for Contract Coating Services, DOE and Technology Development.

Kurt J. Lesker Company **101**

Silver+ Corporate Sponsor ***https://www.lesker.com***

We are on the cutting edge of thin film technology and innovation, while offering unparalleled customer support. R&D and Production automated PVD and ALD thin film deposition tools for the optical, photonics, and photovoltaic industries. Chambers; thin film deposition sources; pure targets & materials; R&D circular and production linear sputter sources; pumps and oils; vacuum valves.

LabVac **614**

TECHCON SPONSOR ***https://www.labvac.com***

Labvac is focused on meeting your vacuum system needs and specializes in servicing labs, research centers, and general vacuum.

Leybold Vacuum **415**

Silver+ Corporate Sponsor ***https://www.leybold.com/en-us***

We are the pioneers in vacuum innovations. Since 1850, we have been at the forefront of technological breakthroughs that have been at the heart of our competencies. Our comprehensive product line makes us one of the most successful suppliers of vacuum technology to the world market.

Lightwind **327**

https://www.lightwindcorp.com

Lightwind provides spectroscopy solutions for manufacturing, delivering real-time chemical analysis for CVD, ALD, plasma etch, and other vacuum processes. The Lightwind L Series uses OES instead of fragile RGA filaments, enabling reliable monitoring of corrosive chemistries. Applications include leak detection, ALD precursor tracking, etch endpoint, chamber matching, and general vacuum diagnostics.

Luxel Corporation **617**

https://luxel.com/

Built on Luxel's 50 years of free-standing nano- and micro-thin film expertise, the RADAK® furnace is a precision thermal evaporation source engineered for high-purity, highly uniform deposition. With temperature control from below 100 °C to 1500 °C, RADAK® furnaces support CIGS photovoltaics, OLED devices, organics, metals, and other cutting-edge materials research across

R&D, pilot, and production vacuum systems.

Magnum Steel Works 312
https://www.magnumsteelworks.com
A high-tech, large capacity, metal fabricator who specializes in vacuum chambers and other welding and machining for the coating industries.

Megatech Limited 419
https://www.megatech.com
Megatech Limited is the largest independent supplier of equipment and services to the semiconductor and thin film industries in the UK. Established in 1973, the company has built a well-founded reputation for the supply of quality products, in-depth technical expertise, and excellent customer service.

Midwest Tungsten Service 102
Silver Sustaining Corporate Sponsor *https://www.tungsten.com*
Midwest Tungsten Service manufactures a wide variety of vacuum evaporation sources including filaments, boats, electron beam and ion beam sources from tungsten, molybdenum and tantalum. MTS also supplies tungsten, molybdenum and tantalum raw material and custom machines parts from these metals. MTS offers its own brand of silicone diffusion pump fluid and TIG welding electrodes. We carry an extensive inventory to assure prompt delivery.

MKS Inc. 309
Silver Sustaining Corporate Sponsor *https://www.mks.com*
MKS Inc. (NASDAQ: MKSI) enables technologies that transform our world. We deliver foundational technology solutions to leading edge semiconductor manufacturing, electronics and packaging, and specialty industrial applications. We apply our broad science and engineering capabilities to create instruments, subsystems, systems, process control solutions and specialty chemicals technology that improve process performance, optimize productivity and enable unique innovations for many of the world's leading technology and industrial companies. www.mks.com

Moorfield & Teer Coatings 720
https://www.teercoatings.co.uk
Visit us to see a route from thin-film process development to real-world coating performance.

Moorfield designs and manufactures compact PVD deposition, Etch and process systems for academia, R&D and pilot-scale work supported globally and cited in over 500 publications.

Teer Coatings offers a range of PVD coating equipment, using patented closed-field technology, as well as specialising in clusterbeam technology, to support the needs of R&D through to large industrial scale demand.

Moretec Inc. 331
https://www.moretec-inc.com/
Headquartered in Japan, Moretec Group specializes in magnetic fluid feedthroughs (Ferrofluidic seals), offering high-quality products with fast delivery. Leveraging advanced equipment and analysis technologies, we ensure cleanliness, durability, and reliability in ferrofluid feedthroughs, audio ferrofluids, and mesh materials. Our solutions are trusted in demanding fields like semiconductor manufacturing and vacuum coating industries, where precision and performance are critical.

Mustang Vacuum Systems 406
Silver+ Corporate Sponsor *https://mustangvac.com/*
At Mustang, we provide our customers with the best coatings solutions for your specific needs. As experts in PVD (Physical Vapor Deposition) thin-film deposition technology, we build some of the best vacuum coating equipment on the planet, and provide vacuum metallizing and other coating services. Our superior coatings, including DLC (Diamond-Like Carbon) hard coatings and our proprietary SP4 high performance tribological coating, help our customers stand out in their fields.

NANOVEA 128
https://nanovea.com/
NANOVEA manufactures surface characterization and mechanical testing instruments for advanced materials, coatings, and thin films.

Portfolio includes 3D Optical Profilometers, Nanoindentation Systems, Tribometers, and Scratch Testers for measuring thickness, adhesion, wear, friction, hardness, and surface roughness. Supporting PVD, CVD, ALD, and vacuum coatings.

Global in-house laboratory testing and expert consulting services available for industry and research worldwide.

NAVAC, Inc 412

https://navacvacuum.com

NAVAC is the global leader in rotary vane vacuum pump manufacturing. With a legacy of over three decades at the forefront of technological advancements in vacuum pumps, NAVAC has consistently set the industry standard for innovation and quality. As the world's largest rotary vane pump manufacturer, we take pride in empowering our customers in perfecting their systems with cutting-edge vacuum technology.

Nova Fabrica Ltd. 114

https://www.novafabrica.biz/

Nova Fabrica develop, manufacture and provide critical subsystems, components, metrology services and personnel training to OEM vacuum coating, thin-film, plasma processing system manufacturers and end-users alike.

Our products include plasma emission monitoring systems, reactive gas control systems, residual and process gas analysis systems, deposition rate measurement systems, optical and sheet resistance measurement systems, plant-wide supervisory process control system and related components

Oerlikon 620

https://www.oerlikon.com/balzers/us/en/

Oerlikon (SIX: OERL) is a global leader in surface technologies and advanced materials. With a unique portfolio spanning surface engineering, high-performance materials, coating equipment and components, we make products better by enhancing performance, efficiency and sustainability. Oerlikon serves a wide range of industries, including aerospace, automotive, defense, energy, medical, luxury and semiconductors.

Osaka Vacuum USA 621

https://www.osakavacuum.co.jp/en

Manufacturer of vacuum pumps and systems. Products include turbo molecular, dry, oil-sealed rotary, liquid ring and roots vacuum pumps, ejectors and vacuum equipment. Applications include general vacuum exhaust, deuterate, defoam, suction, forming, sterilization, freezing, drying, etching, heat processing, gas replacement, distillation, packaging, polymerization and leak detecting. Markets served include semiconductor, solar, iron and steel, textile, food, oil and atomic energy.

Pfeiffer Vacuum+Fab Solutions 524

https://www.pfeiffer-vacuum.com/us/en/

Pfeiffer Vacuum+Fab Solutions provides specialized vacuum solutions that ensure precise control over thin film coating, minimizing contamination and enabling accurate control of thickness, uniformity, and material properties for high-quality coatings. We can offer you solutions that includes all you need, like backing pumps, turbopumps, gauges, leak detectors and chambers.

Plansee 215

TECHCON SPONSOR

Silver+ Corporate Sponsor *https://www.plansee.com/en.html*

Strong Metals for Strong Products: Plansee is the world's largest manufacturer of powder metallurgically produced high performance components. We are the leading provider of products and solutions for a wide range of applications. Since 1939, Plansee USA has been our centre of excellence and our hub for the production and distribution of semi-finished molybdenum and tungsten products in North America. Founded in 1921 in Reutte, Plansee is now a global company with 12 manufacturing sites.

Plasma Process Group, Inc. 305

Silver+ Corporate Sponsor

https://www.plasmaprocessgroup.com

ION BEAM SOLUTIONS

Established in 2003, Plasma Process Group provides the highest quality equipment and service to the ion beam sputter (IBS) coating industry. We offer solutions ranging from pragmatic to innovative. Our industry standard products are widely used in the vacuum coating world. We have been helping customers with their ion beam equipment for over 20 years.

Process Materials, Inc. 213

Silver Sustaining Corporate Sponsor

https://www.processmaterials.com

At Process Materials Inc, we believe our future rests on our corporate values and company culture. Earning a global reputation for our commitment to quality and service, we have maintained these values as part of our daily operations since 1997.

Process Materials Inc. is a leading supplier of consumable materials serving the thin film industry. Products include planar & cylindrical sputtering targets, backing plates and many other e-beam materials.

Protec Surface Technologies Srl 216

https://www.protectim.com

Founded in 1996, Protec Surface Technologies has become a benchmark in the field of high vacuum deposition systems, specializing in both Physical Vapour Deposition (PVD) and Plasma Enhanced Chemical Vapour Deposition (PECVD). With three decades of experience, the company has consistently pushed the boundaries of surface coating technologies, delivering advanced solutions that cater to a diverse range of industries.

ProTech Materials, Inc. 306

Silver+ Corporate Sponsor *https://www.protechmaterials.com*

Your Partner for Advanced Materials for all Sputter Coating Systems-

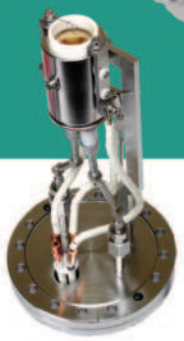
Protech Materials supports a wide range of applications with precision-engineered materials and scalable manufacturing capabilities. From early development through full production, our team provides reliable quality, technical expertise, and responsive support to help you meet performance requirements with confidence.

TELEMARK Ion Sources

Telemark low pressure ion sources provide substrate cleaning and assist in the production of the finest film qualities possible in IAD applications.

- Operates in the -5 torr and higher vacuum ranges
- Models with 750 to 3000 watt output
- Attractively Priced ($20-30K) relative to alternatives
- Low maintenance reduces cost of ownership

Digital Touchscreen Control



Mini UHV Ion Beam Source

E-Beam Power Supplies and Sweeps

4 kW to 20kW ebeam power supplies will meet the strictest process demands. Single or multiple source operation capability. Solid-state and tetrode tube designs are available.

Quartz Crystal Deposition Controllers/ Monitors/Crystals

Real-time thin film thickness and deposition rate monitoring and control. Reliable and economical instrumentation, sensors, and quartz crystals

Water Vapor Cryochillers

Fast pump down, with the efficient trapping of water vapor in the chamber, is a key requirement for maximum efficiency in thin film coating. Telemark has a large selection of water vapor cryochillers.

34 years under same ownership **All products made at our US factory**

TELEMARK

MADE IN USA

1801 SE Commerce Avenue, Battle Ground, WA 98604 USA • Tel: 360-723-5360

www.telemark.com • e-mail: sales@telemark.com

PTB Sales 426

https://ptbsales.com/

PTB was established in 1995 and is a leading North American provider of refurbished vacuum pumps and vacuum pump repair services to the semiconductor fabrication, PV solar, nanotechnology, MEMS, vacuum coating, aerospace and defense, research and development and general industrial industries. Founded on our guiding principle of "What YOU Need, When YOU Need It!" we have established a track record of being there when our customers need support in a timely manner and at a reasonable price.

R. D. Mathis Company 513

TECHCON SPONSOR

Silver+ Corporate Sponsor *https://www.rdmathis.com*

The R. D. Mathis Company offers High Vacuum Evaporation Sources, Evaporation Materials, Power Supplies & Gas Purifiers. Custom fabrication is offered for almost all source designs. We use the highest quality Tungsten, Molybdenum, Tantalum and Niobium to fabricate our products as well as state of the art tooling and processes which result in the highest quality parts in the industry. Visit our website for more info on our products: www.rdmathis.com

Rocky Brook Associates, Inc 307

https://www.rockybrookinc.com

Founded in 1973 by the Sawyer family, and now under 3rd generation family leadership, Rocky Brook Associates, Inc. (RBA) is a vertically integrated manufacturer of high-purity materials for vacuum coating and base metals for gold-filled bonded products. Specializing in 99.995%+ OFE copper, RBA produces backing plates, sputtering targets, tile assemblies, crucible liners, and custom components with complete in-house manufacturing from raw material through finished machining.

RSC - Reliable Silver Corporation 317

Silver+ Corporate Sponsor *https://www.reliablecorp.com*

RSC manufactures and sells a broad range of specialty metal sputter targets and evaporation pellets made from gold, silver, platinum, palladium, nickel, and metal oxide materials, all in the USA. Our PVD related products play a critical role in depositing thin film coatings on low-E glass, flexible web coatings, medical coatings, semiconductors, and newer technologies focused on fusion energy and the hydrogen economy.

RUBIG Industrial Furnaces 424

https://www.rubig.com/en/

RUBIG Industrial Furnaces has been producing customized heat treatment plants since 1992. The know-how reflected in the construction of the furnaces has been gained in the in-house job shop. With the new brand generations MICROPULS® and GASCON, RUBIG has reached new heights in nitriding and coating. RUBIG is supplying big automotive companies, the aviation industry as well as small commercial job shops in more than 40 countries.

SCI Engineered Materials 413

https://sciengineeredmaterials.com/

SCI Engineered Materials is a global supplier and manufacturer of advanced materials for PVD Thin Film applications. Through partnerships with end users and OEM's, SCI develops innovative and customized solutions enabling commercial success. SCI Engineered Materials provides high quality physical vapor deposition (PVD) materials to manufacturers, original equipment manufacturers (OEM's), research institutes and universities around the world since 1987.

Semicore Equipment, Inc 207

TECHCON SPONSOR

Platinum Corporate Sponsor *https://www.semicore.com*

Semicore designs and builds PVD and custom vacuum systems for electronics, optics, solar, medical, MEMS, automotive, defense, and research. We offer high-performance sputtering and evaporation tools for R&D and production, coating substrates like wafers, plastics, glass, ceramics, and metals. Our modular platforms range from benchtop to fully automated multi-chamber systems, each backed by expert support, robust automation, and advanced process control.

Sierra Applied Sciences 512

Silver Sustaining Corporate Sponsor

https://www.sierraapplied.com

Sierra Applied Sciences, was founded over 30 years ago by our current CEO/CTO, Barry Manley. Today the company is the world leader for magnetron sputtering technology for all deposition applications. Sierra Applied's cathodes offer the highest target utilization available in the industry today. All these attributes, along with Sierra Applied's pre-purchase performance & best price guarantee, makes it easy to buy. Simply put, Sierra Applied is the only name for magnetron cathode technology!

Sputtering Components 425

Silver+ Corporate Sponsor

https://www.sputteringcomponents.com/

From the vacuum coating floor to your production line, we know the cost of downtime—and how to prevent it. Built on decades in the industry, our rotary sputtering cathodes and components run reliably across thousands of installations worldwide, day after day.

Whether you're depositing thin films on architectural glass, displays and touchscreens, solar modules, automotive parts, decorative hardware, optics, or electronics, our sputtering systems deliver performance you can trust.

Starfire Industries 108

https://www.starfireindustries.com

Starfire Industries is a pioneer in the field of HIPIMS and Microwave Surface Wave technology. Our next generation HIPIMS technology with a positive super kick allows us to take your PVD processes into the future. Our novel microwave technology can be used for etching, surface modification and PECVD both in

vacuum and at atmosphere. Together with our highly skilled scientists and engineers, we can develop solutions for tomorrow's surface engineering challenges.

Super Conductor Materials **521**
Silver Sustaining Corporate Sponsor ***https://www.scm-inc.com***
SCM manufactures materials for Thin Films and PVD, specializing in sputtering targets, crucibles, e-beam gun and ion implanter source parts, and a variety of backing plates. Our products have been used in semiconductors, solar panels, electronic and optical instruments. Materials range from aluminum to zinc, including alloys, oxides, and precious metals. We also provide a complete CNC shop with various on-site services, including bonding, refining, and reclamation services.

Tarfilm Hi-Tech Co., Ltd. **520**
https://www.tarfilm.com
Tarfilm Hi-Tech Co., Ltd. is a group company driven by scientific and technological innovation, specializing in the research, development, and production of high-quality vacuum coating targets for the global market. Your targets are our target, we strive to became the word leading sputtering target manufacturer.

TDK Lambda Americas **115**
TECHCON SPONSOR
Silver+ Corporate Sponsor ***https://www.us.lambda.tdk.com***
TDK-Lambda Americas, Inc. is a leading manufacturer of:

- AC to DC and DC to DC conversion products
- Programmable DC power supplies
- Programmable AC Sources
- High Voltage Capacitor Charging Power Supplies

And as a result of a recent acquisition:

- RF Generators and Matches for semiconductor plasma processes

For more information, please visit https://www.us.lambda.tdk.com.

Tecport Optics, Inc. **315**
https://www.tecportoptics.com
Tecport Optics, Inc. is an industry-leading manufacturer of top-quality Thin Film Deposition Systems servicing the Precision Optical, Imaging, Medical, & Telecommunication industries. Sophisticated, yet user-friendly systems employ leading technology such as Plasma Assisted Deposition, Diamond-Like Carbon, PECVD, & Ion Beam Sputtering. Systems are custom built & pre-configured for your process and your volume. Coating systems are production-ready within one week after installation.

Teledyne Hastings Instruments **328**
https://www.teledyne-hi.com
Teledyne Hastings Instruments (THI) is a trusted manufacturer of a wide range of quality vacuum instruments and gas mass flow instruments.

Telemark **100**
TECHCON SPONSOR
Silver+ Corporate Sponsor ***https://www.telemark.com***
Come see Telemark's new generation of Ion Beam Systems. TELEMARK offers evaporation components, including electron beam sources, e-beam power supplies, cryochillers, magnetic fluid feedthrus, quartz crystal deposition controllers, ion beam systems, and related accessories. Products featured at the 2026 TechCon include a new generation of ion beam systems, cryochillers, and a new vacuum controller to upgrade older systems.

Testbourne Ltd **330**
https://www.testbourne.com
Testbourne Ltd has been supplying high purity metals, alloys & compounds to industries and R&D such as Semiconductors, Thin-films, Electronics, and Electro-optics for over 40 years. With Testbourne you will find an extensive selection of materials available in fabricated forms including sputtering targets, evaporation materials, powders, wire, rods & sheets. We also accommodate any custom requirements you may have.

Texas Capitol Semiconductor **516**
https://www.tcsemi.com
TCS repairs Turbo and Cryo pumps world wide. Please contact us for your pump needs at 480-834-3000 or email at sales@tcsemi.com

We service and repair a broad range of Turbomolecular (Turbo) and Cryogenic (Cryo) Pumps. Since 1993, TCS has remained at the forefront of high vacuum technology by specializing in the complexities of magnetic levitation technology and controller circuitry and software.

Thermal Conductive Bonding, Inc. **203**
https://www.tcbonding.com

Thermal Conductive Bonding, Inc. offers thin film coating, sputtering target bonding, Nanofoil®, Nanobond® and elastomer bonding and molding services. All of our processes are meticulously engineered to ensure the finest quality services in the industry. Contact TCB for all of your thin film and bonding needs.

TRUMPF Hüttinger **616**
Silver Sustaining Corporate Sponsor ***https://www.trumpf.com/en_US/products/power-electronics/***

A stable process power supply is necessary for all high-tech areas. As a leading global manufacturer, TRUMPF Hüttinger provides current with the required frequency and power with its DC, MF, and RF generators – no matter whether for plasma applications, induction heating, or CO_2 laser excitation. The newly developed inverter from TRUMPF Hüttinger provides the perfect solution for energy storage from renewable energies, and is seen as the storage technology of the future.

TS VTI **224**
https://www.vergason.com

Provider of PVD Equipment and Coating Services and Processes utilizing Sputtering, Thermal Evaporation, and Cathodic-Arc. Vacuum Metallizing Services, Industries served: Lighting, LED, Reflective, Decorative, Wear, Chrome Plating Replacement, Automotive, Aerospace, Appliance, Sports, Electronic, Display, Cosmetic, Consumer Products, Energy Technologies (Batteries, Oil & Gas, Solar), Packaging, Medical devices, and EMI/RFI Shielding. ISO 9001:2015, ITAR Registered, and RoHS Compliant.

UC Components **104**
Silver Sustaining Corporate Sponsor
http://www.uccomponents.com

At the heart of UC's philosophy is a dedication to quality, service, and responsibility. The company maintains ISO 9001 certification, complies with global standards such as REACH and RoHS, and powers its operations with renewable solar energy. Every order, from small quantities to large-scale projects, receives personalized attention from Certified Fastener Specialists. UC Components provides reliable products and lasting partnerships for clean-critical industries worldwide.

VAT Group **514**
TECHCON SPONSOR
Silver+ Corporate Sponsor ***https://www.vatgroup.com***

VAT is a global leader in the development of high vacuum solutions that are essential for the production of semiconductors, displays, and digital technologies.

Vital Materials and FHR **206**
https://en.vitalchem.com/

Vital's advancing thin film technology ensures your solutions for vacuum coating, sputtering targets and evaporation materials. Vital Materials is a global materials technology and equipment company that has been operating since 1995. With vertically integrated industrial and commercial operations spanning Americas, Europe, and Asia, Vital Materials employs over 15,000 individuals worldwide.

FHR Anlagenbau GmbH, a division of Vital Materials, is a leading manufacturer of vacuum coating systems.

Witzenmann, USA **626**
https://www.witzenmann.com

Witzenmann offers the most extensive product range of flexible metal hoses, expansion joints, metal bellows, pipe supports components in the world.
For microelectronic and semiconductor production:

- Non-fatigue metal bellows for vacuum valves
- Diaphragm bellows with the highest flexibility
- Flexible metal hoses for applications requiring extreme cleanliness
- Precision bellows/actuators for optical applications

2026 SVC TechCon Promotional Partners

American Vacuum Society

AVS unites a global community of scientific professionals and students dedicated to advancing materials, interfaces, and processing. Through conferences, training programs, career services, and peer-reviewed publications, AVS fosters interdisciplinary collaboration, professional growth and recognition, and meaningful, lasting connections. Learn more about AVS membership at **www.avs.org**!

Physics World/IOP Publishing

Physics World represents a key part of IOP Publishing's mission to communicate world-class research and innovation to the widest possible audience. Physics World helps scientists working in academic and industrial research stay up to date with the latest breakthroughs in physics and interdisciplinary science. We provide an international readership with a unique mix of daily news, opinion and analysis from an award-winning team of science writers and editors.
Visit us at **https://physicsworld.com/**.

16th International Conference on HIPIMS

Join us at HIPIMS 2026! This premier forum for scientists and engineers working in HIPIMS and surface engineering brings together global leaders to explore progressive opportunities in plasma surface engineering and beyond. Get up to speed on fundamental science and application-oriented research and development! Whether you're looking to stay ahead of the curve or discover successful commercialization opportunities, HIPIMS 2026 is where the next big ideas take their first breath. Don't miss out - be part of shaping the future of technology! June 15-18, 2026, Sheffield, UK, **https://hipimsconference.com.**

Vacuum Technology & Coating

Vacuum Technology & Coating Magazine is the leading trade publication in the Vacuum Processing industry with coverage of topics ranging from Thin Film Coating & Deposition to Photonics, Microelectronics, Nanotechnology and Biotechnology. VT&C's entire library of digital issues going back to 2004 is archived at www.vtcmag.com and a free digital subscription is available at **www.vtcmag.com/subscribe**.

SVC Board of Directors

PRESIDENT
Liz Josephson
INTELLIVATION LLC
ljosephson@intellivation.com

PAST PRESIDENT
Frank Papa
GP Plasma
frank@gpplasma.com

VICE PRESIDENT
Lee Howell
Kurt J Lesker Company
leeh@lesker.com

TREASURER
Albert Miranda
LightPath Technologies
amiranda@lightpath.com

SECRETARY
Hana Baránková
Uppsala University, Sweden
hana.barankova@angstrom.uu.se

DIRECTOR
Ralf Bandorf
Fraunhofer IST
ralf.bandorf@ist.fraunhofer.de

DIRECTOR
Ton Hurkmans
IHI Ionbond Group
ton.hurkmans@ionbond.com

DIRECTOR
Christopher Muratore
University of Dayton
cmuratore1@udayton.edu

DIRECTOR
Kyle Schuberg
Gentex Corporation
kyle.schuberg@gentex.com

DIRECTOR
Sarah Willliams
Advanced Energy Industries, Inc.
sarah.williams@aei.com

EXECUTIVE DIRECTOR
Frank Zimone
frank.zimone@svc.org

SVC ADMINISTRATIVE OFFICES
P.O. Box 10628
Albuquerque, NM 87184
Telephone 505.897.7743
Fax 866.577.2407
E-mail svcinfo@svc.org
Website www.svc.org

SVC Foundation Board of Directors

Gary Vergason, *Chair*
Retired
vergiedude@yahoo.com

P**atrick Morse**, *Vice Chair & Scholarship Committee Chair*
Arizona Thin Film Research
plmorse@svcfoundation.org

James N. Hilfiker, *Past Chair & Marketing Chair*
J.A. Woollam Co., Inc.
jhilfiker@jawoollam.com

Lee Howell, *Treasurer & Finance Chair*
Kurt J. Lesker Company
leeh@lesker.com

Paula L. Becker, Esq., *Secretary & Governance Chair*
Fil-Tech, Inc.
paula@filtech.com

Jessica L. Hilton, *Special Events Co-Chair*
SPECS-TII Inc.
jessica.hilton@specs-tii.com

Traci Langevin
Tlangevin9@gmail.com

Nancy Louwagie
Normandale Community College
nancy.louwagie@normandale.edu

Caitlin Mathey
Innovative Vacuum Solutions
caitlin.mathey@ivsonline.com

Wolfgang Decker
Kurt J. Lesker Company
wolfgangd@lesker.com

SVCF
SOCIETY OF VACUUM COATERS FOUNDATION
- Established 2002 -

ANGSTROM® ENGINEERING

ALD ONE®

Advanced Atomic Layer Deposition.

For research & commercial manufacturing.

- Substrate sizes up to ø300 mm & 210 mm x 210 mm.
- Available with a hollow cathode plasma source.
- Integrated ellipsometry & QCM control.
- ±1% (1σ) for thermal ALD of Al_2O_3 on a ø200 mm wafer.
- Standalone system, cluster or glovebox integration.

www.angstromengineering.com

70th Annual SVC Technical Conference • May 1 – May 6, 2027

Sheraton Dallas, Dallas, Texas, USA

Advance Exhibit/Booth Registration

The Advance Booth Reservation Process enables 2026 exhibitors to reserve the best available booth (or booths) for the next SVC Exhibit, using any of the exhibitor points that they have accumulated. The current Point System will still apply for 2027. The exhibiting company contact will be presented with a 2027 Exhibit contract when the 2027 Exhibit Hall Layout has been finalized.

2027 TechCon Sponsorships

Current exhibitors have opportunity to commit to 2027 TechCon Sponsorships now. Select from the following:

- ☐ Emerald.....$4,500 USD
- ☐ Sapphire .....$3,500 USD
- ☐ Ruby.....$2,500 USD
- ☐ Coral.....$1,500 USD
- ☐ Cellular-5G Data .....$6,750 USD
- ☐ ID Badges .....$4,750 USD
- ☐ Logo Bottle Water .....$4,000 USD
- ☐ Notepad (2-color).....$3,250 USD
- ☐ Welcome Reception (max 3 sponsors) $3,750 USD
- ☐ Specialty Coffee Cart .....$4,000 USD
- ☐ Young Members Recognition & Farewell Social (max 3 sponsors) .....$3,750 USD
- ☐ Tote Bags (max 5 sponsors) .....$3,000 USD
- ☐ Online Registration Splash Page (max 3 sponsors).....$3,250 USD
- ☐ Online Hotel Registration Splash Page $1,750 USD
- ☐ Exhibit Hall Floor Decals .....$2,500 USD
- ☐ Promenade Carpet Decal (10×10).....$6,250 USD
- ☐ Exhibit Hall Aisle "Dangler" Banner ...$2,100 USD
- ☐ Escalator Branding .....$6,150 USD
- ☐ Exhibit Hall Entrance Column Wrap ..$4,000 USD
- ☐ Contact the SVC with your ideas (we are open to any creative approach!)

2027 TechCon Advance Booth Reservation Form

10 foot × 10 foot booth $3,695 USD

Booth fee increases to $3,895 USD on September 12, 2026.

The Second Wave of Booth Assignments will apply to booth reservations received between July 18, 2026 and September 11, 2026.

Full payment by credit card or company check is required for a complete booth application.

Booth registration form can be sent by fax to 866-577-2407 or by email to jacque.matanis@svc.org.

Mail checks to SVC, PO Box 10628, Albuquerque, NM 87184-0628 USA

Company Name _____

Exhibit Contact Name _____

Address _____

City _____ State _____ Zip _____ Country _____

Work Phone _____ Mobile Phone _____

Fax _____

Email _____ Website _____

# of Booths _____ 10 foot × 10 foot space ($3,695 USD each)$ _____

(booth fee increases to $3,895 on September 12, 2026)

Method of Payment:

☐ Check ☐ Visa ☐ Mastercard ☐ AmEx ☐ Discover

All credit card charges will incur a 3% service fee

Card # _____ Expiration Date _____ Security Code _____

Billing Zip/Postal Code _____ Cardholder's Signature _____

Booth Fee Includes: 8 foot high backwall, 3 foot high dividers, booth ID sign, 500-character listing in the 2027 TechCon Program/Exhibit Guide, 2,000-character exhibitor profile in the 2027 online exhibit floor plan, and two giftable seats to any tutorial offered at the 2027 TechCon.

Once you fill out this form, print this page and either email it to: jacque.matanis@svc.org *or* FAX to: +1 (866) 577-2407

SVC USE ONLY

RECEIPT DATE _____

RECEIPT TIME _____

TDK In Everything, Better

ADVANCED RF POWER Solutions from TDK

Powering Semiconductor & Industrial Plasma Applications

- 300W – 10kW Output
- 2MHz – 60MHz Frequency Range
- Air & Water Cooled Models
- Advanced Tuning Algorithms
- Q-Link Generator & Matching Integration

Designed for:

Semiconductor | PECVD | PVD | Etch | Plasma Cleaning | Thin Films

Precision RF Controls:

- High Accuracy
- High Repeatability
- Auto Frequency Tuning
- High-Speed Pulsing

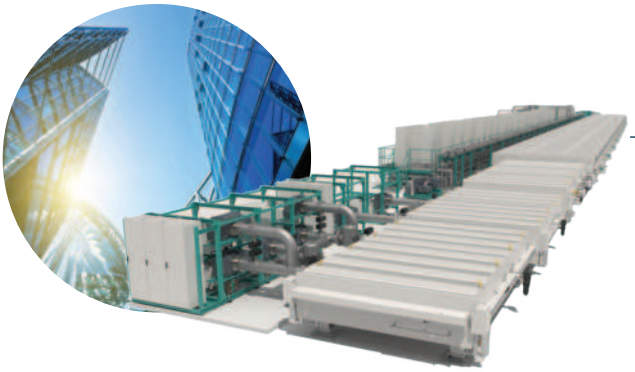
Phone: 800-526-2324

Explore the Full RF Portfolio

https://www.us.lambda.tdk.com/products/rf/

BÜHLER
Leybold Optics

Your partner for **vacuum deposition equipment** for **advanced application.**

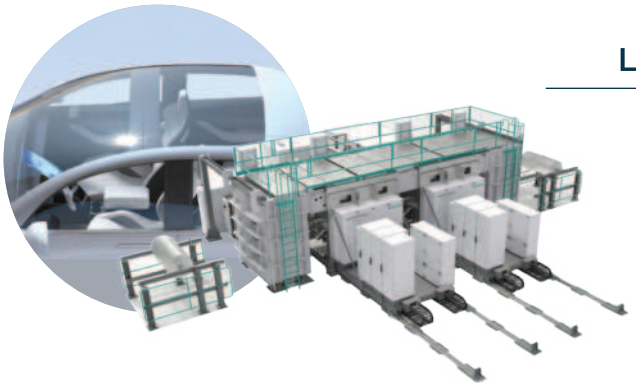


LEYBOLD OPTICS GLC H

Industry standard for high-volume glass coating in architectural and automotive industries. Its modular system utilizes state-of-the-art magnetron sputtering to achieve nanometer-scale thickness uniformity. By integrating in-situ and ex-situ metrology for real-time process control, it ensures absolute consistency for low-e, solar control, and AR coatings.

LEYBOLD OPTICS CAPone

The Leybold Optics CAPone provides high-precision roll-to-roll metallizing of dielectric films for the film capacitor industry. By depositing ultra-thin aluminum or zinc layers onto polymer substrates, it enables the production of capacitors used in EV inverters, renewable energy grids, and consumer electronics.



LEYBOLD OPTICS FLC 1600 D

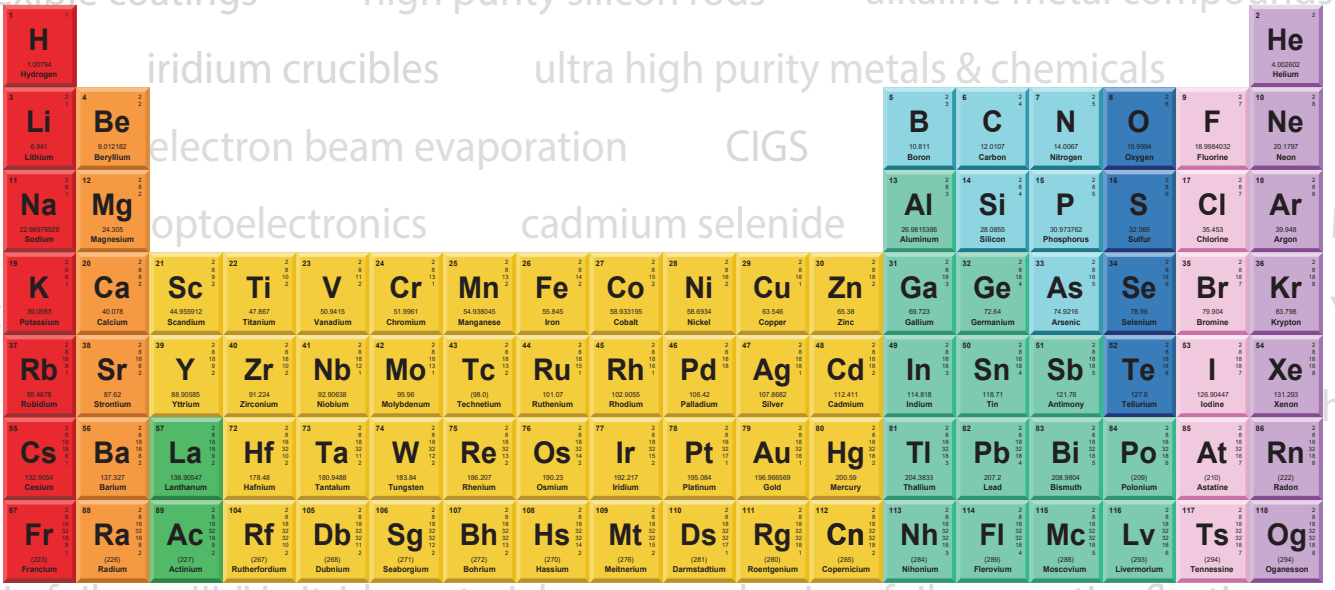
This versatile roll-to-roll (R2R) system specializes in high-precision multilayer coating stacks on flexible substrates enhancing light transmittance and conductivity for AR-coated ITO touch-screens, low-e/electrochromic foils for smart glazing, and high-performance layers for lithium-ion batteries and solar cells.

SVC TechCon
Join us in booth 212!

Dr. Michael Mücke
R&D Flexible
4/30/2026 5:00pm

Technical Conference: Next Level Control of Reactive Mid-Frequency Sputtering by Automated Voltage Adjustment at Different Power Levels.

Buhler Inc.
Business Area Leybold Optics
100 Aeroglide Drive
Cary, NC 27511
leyboldoptics.cary@buhlergroup.com



Now Invent.™

The Next Generation of Vacuum Materials Manufacturers

Bulk & lab scale manufacturers of over 35,000 certified high purity compounds, metals, and advanced materials, including high density, ultra-high purity (99.9% to 99.9999%) sputtering targets and other deposition materials (analyzed using best demonstrated technologies including XRF, GDMS, and ICP). Access the catalog via our secure, multi-language, mobile-responsive platform today.

American Elements Opens a World of Possibilities..... Now Invent!

www.americanelements.com