ICMCTF exhibitors offer a wide range of instrumentation, components and services that support and enable the analysis and characterization of metallurgical coatings, thin films and surface modification.

Exhibits are open Tuesday and Wednesday only! Take the time to visit the exhibits to speak to the vendors and challenge them with your specific needs and let them help you perform your research more efficiently.

**Exhibit Hall Event Schedule**

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**EXHIBIT HALL HOURS**

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**ICMCTF 2022 EXHIBIT SHOW GUIDE**

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**GRAND EXHIBIT HALL**

**ENTRANCE**

**FOOD & BEVERAGE SERVICE**

**BAR**

**DINING AREA**
ICMCTF sincerely thank the 2022 Sponsors for their support of the Conference and Exhibit Hall Events.
**Synchronization of Superimposed Pulse Power Technology with MELEC GmbH SYNC MY2020 SOFTWARE**

SPIK3000A
DC Pulse Power Controller

BP HiPIMS & BP Mid.-freq.
Chamber with Dual Magnetron

UP HiPIMS & UP Mid.-freq.
Chamber with Single Magnetron

ADL GmbH
DC Power Supply

Trigger signal
AWFG

ethernet cable

Industrial PC

The SYNC system is designed to synchronize up to eight pulse devices using arbitrary function generators (AWFG). The AWFGs are controlled using the recipe tool software, which forms the link between the PLC and the AWFG. The pulse pattern is created using the Pulse Editor software SYNC MY2020.

**Example of a synchronized PVD Coating-System**

The drawing shows a PVD device with 2 single magnetrons and 1 dual magnetron system and a pulsed BIAS power supply. All magnetrons are operated using a trigger system in HiPIMS mode. A phase shift of HiPIMS pulses may be necessary not to overload the BIAS power supply. Other applications could be for example co-sputtering or combinations with HiPIMS and Mid-frequency.
Understanding interfaces and surfaces at a fundamental level and using this understanding to advance the state-of-the-art in various technological applications

Editor-in-Chief: Eray Aydil, New York University, USA

- 2D Materials
- Applied and fundamental surface science
- Atomic layer deposition
- Atomic layer etching
- Electronic and photonic materials and thin films
- Magnetic thin films and interfaces
- Materials and thin films for energy conversion and storage
- Photovoltaics including thin-film solar cells and organic and hybrid solar cells
- Plasma science and technology including plasma surface interactions, plasma diagnostics, plasma deposition, and plasma etching
- Surface Engineering
- Thin film deposition, etching, properties and characterization

Journal Impact Factor® from Clarivate, 2021

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Not sure which vendors offer the products you’re looking for? The Product Locator will help you find the vendors and the products they offer. Product categories are listed alphabetically followed by the supplier(s) and their corresponding booth location.
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NEW
ICMCTF 2022 Career Center

The International Conference on Metallurgical Coatings and Thin Films (ICMCTF) will be hosting their first on site Career Center, open to all attendees, for the purpose of connecting job seekers with potential employers. The goal is to facilitate contact and networking during the Conference. This event will take place Sunday-Thursday, May 20-26, 2022. Please visit the registration area for participation instructions.

PLENARY LECTURE
“The Fundamental Physics of Spray Coatings and Surface Impacts: Unit Process Studies of Hypersonic Particle Impacts”

Monday, May 23, 2022 8:00 am

Christopher A. Schuh
Department of Materials Science and Engineering
MIT
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- Thin Films
- Surfaces & Interfaces

**JVST B:**
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- Microelectronics & Nanoelectronics
- Device Measurement & Materials Characterization Technology

**Biointerphases:**
- Connecting Biology & the Physical Sciences
- Quantitative Analysis on Biological & Soft Matter Interfaces
- Experiments, Modeling, Theory, & Applications

**Surface Science Spectra (SSS):**
- Reference Spectra & Database for XPS/AES, SIMS, SE, LEIS, UV-Vis
- Technological Materials

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www.annealsys.com
Annealsys manufactures Rapid Thermal Processing (RTP) and chemical vapor deposition (CVD/ALD) systems. Our customers are Research and Development laboratories and companies for production applications. The privately owned company Annealsys was established in 2004 in Montpellier, South of France. Annealsys provides outstanding technical and process customer service through a worldwide sales and service organization. Our philosophy involves: · Building up a long-term relationship with our customers · Provide high reliability and high quality tools · Insure low cost of ownership · Offer support and service excellence To achieve this goal, we set up a worldwide sales and customer service network.

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Phone: 805-648-4664
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- Journal of Vacuum Science & Technology B (JVST B)
- AVS Quantum Science (co-published with AIP)
- Biointerphases
- Surface Science Spectra (SSS)

Bruker

40 Manning Rd
Billerica, MA 01821
Phone: 502-289-2207
www.bruker.com/nano
Bruker is a world-leading manufacturer of metrology and testing solutions with a suite of technologies for thin film characterization, including contact and non-contact surface profilers, mechanical testers and nanoindenters. Visit our booth (#403) to see our latest technologies and application stories. Check us out online at www.bruker.com/nano.

CemeCon AG
Adenauerstrasse 20A4
52146 Wuerselen
Germany
Phone: 49-2405-4470-100
www.cemecon.com
CemeCon highlights for the 2022 ICMCTF: Pure HiPIMS Coatings with a deposition rate as high as 2 µm/hour - this makes the CC800 HIPIMS the ideal piece of equipment for industrial HiPIMS production and for cutting edge thin films research. The next generation Diamond Coatings for graphite moulds for curved displays for cell phones and CFRP/composites for the aircraft industry.

FemtoTools AG
Furtbachstrasse 4
Buchs ZH 8107
Switzerland
Phone: +41 44 844 44 25 • www.femtotools.com
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www.ferrotec.com
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KCS Europe GmbH
Am Handwerkerzentrum 6
Monschau 52156
Germany
Phone: 247-297-0320
www.kcs-europe.com

KCS Europe GmbH is the European Partner of the globally operating Kobe Steel Group from Japan, which specializes in the construction of PVD coating systems under the trade name KOBELCO. With more than 500 coating units sold worldwide, KOBELCO is one of the market leaders in the field of surface technology. KCS Europe, based in Monschau, Germany, therefore provides high-performance coating units as well as application-based coating solutions and films for various applications that significantly enhance the performance and service life of precision components and tools. The latter is made possible by the in-house research and development department as well as numerous collaborations with renowned institutes and universities. Visit us at booth #219 and get to know more about our latest innovations. We look forward to seeing you there!
<table>
<thead>
<tr>
<th>Company Name</th>
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<tr>
<td>KLA Corporation</td>
<td>314</td>
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<tr>
<td>1 Technology Drive</td>
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<td>Milpitas, CA 95035</td>
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<td>Phone: 408-375-3000 • <a href="http://www.kla.com/">www.kla.com/</a></td>
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<td>The Nano Indenter product line extends KLA-Tencor’s surface metrology product suite to include a range of products well matched to customer’s broader KLA Instruments offers a portfolio of profilometers, nanoindenters, thin film reflectometers, sheet-resistance tools and defect inspection and metrology systems. For industry experts, academics and other innovators, KLA Instruments delivers trusted measurements, enabling the world’s breakthrough technologies.</td>
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| 100 Red School House Road Building A |    |
| Chestnut Ridge, NY 10977     |      |
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EXHIBITORS KEYNOTE

“Fabrication and Characterization of Industrially Important Films and Coatings”  
Tuesday, May 24, 2022, 11:00 a.m.

Vincent S. Smentkowski  
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