

**SICT 2026 / PlasmaTech 2026 / Tribology 2026- Joint Conferences Preliminary Program**

**06 – 08 May 2026 | Prague, Czech. Rep**

06 May 2026		
<b>08:00 - 12:00</b>	<b>Participants registration</b>	
<b>09:30 - 10:30</b>	<b>Welcoming Coffee</b>	
<b>SICT 2026 / Plasma Tech 2026 / Tribology 2026 Joint Plenary Session I</b>		
<b>Conference Room</b>		
<b>Session's Chairs:</b>		
<b>10:00 - 10:30</b>	Lowering the activation temperature of Ti-Zr-V non-evaporable getter films by removing surface carbon contamination <b>J. Fraxedas</b> , G. Sauthier, L. Tran and V. Carlino	<b>Prof. Jordi Fraxedas</b> , ICN2/CSIC -Barcelona <b>Spain</b>
<b>10:30 - 11:00</b>		
<b>11:00 - 11:30</b>	A few basic (and Hitoric) remarks on glows arcs and HIPIMS Discharges <b>H. Kersten</b> , C. Adam, V. Schneider and T. Trottenberg	<b>Prof. Holger Kersten</b> , Univ. Kiel, <b>Germany</b>
<b>11:30 - 12:00</b>	From Collisions to Control: Multiscale Modeling of Process Plasmas <b>T. Mussenbrock</b>	<b>Prof. Thomas Mussenbrock</b> , Ruhr Univ. Bochum, <b>Germany</b>
<b>12:00 - 14:00</b>	<b>Lunch Break – Restaurant</b>	
<b>SICT 2026 Session I. A: Coating Deposition &amp; Surface Treatment Technologies Surface Functionalization &amp; Engineering Coating Characterization &amp; Modeling</b>		
<b>Session's Chairs:</b>		
<b>14:00 - 14:15</b>	Sustainable Plasma Enhanced Nanocoatings for Advanced Surface Functionalization P. Vieth, K. Braun, F. Hollmann, I. Ostrovsky and B.Fassbender	<b>Dr. Pascal Vieth</b> , Chemetall GmbH, <b>Germany</b>
<b>14:15 - 14:30</b>	Deposition of Silazane Precursors by Atmospheric Pressure Plasma for the Development of Ultra-hydrophobic Fluorine-Free coatings <b>M. Saget</b> , K. Baba, S. Bulou and R. Quintana	<b>Dr. Manon Saget</b> , Luxembourg Institute of Science & Tech, <b>Luxembourg</b>
<b>14:30 - 14:45</b>	Hybrid Plasma Spraying for Novel Coatings with Tailored Architectures <b>T. Tesar</b> , R. Musalek, F. Lukac and P. Capek	<b>Dr. Tomas Tesar</b> , Institute of Plasma Physics, <b>Czech. Rep</b>
<b>14:45 - 15:00</b>	Forming novel micro- & nanostructures for advanced coating and bonding applications on copper by environmentally friendly electrochemical etching in seawater like electrolyte <b>J. Rank</b> , J. Bahr, J. Carstensen and R. Adelung	<b>Mr. Jannik Rank</b> , Christian-Albrechts-University Kiel, <b>Germany</b>
<b>15:00 - 15:15</b>	Al-Doped ZnO Transparent Conductors Deposited from a Two-Component Target: Properties and Flexibility Assessment <b>S. Kielczawa</b> , A. Wiatrowski, M. Mazur, W. Posadowski and J. Domaradzki	<b>Mr. Szymon Kielczawa</b> , Wroclaw Univ. of Science and Technology, <b>Poland</b>
<b>15:15 - 15:30</b>	Combinatorial deposition of gallium oxynitride thin films <b>M. Gajdics</b> , I. Cora, T. Kolonits, Gy. Safran and B. Pecz	<b>Dr. Marcell Gajdics</b> , HUNREN Centre for Energy Research, <b>Hungary</b>
<b>15:30 - 15:45</b>	Optimization for the composition gradient of Al-O-N thin film deposited by reactive RF sputtering technology <b>M. Serenyi</b> , M. Gajdics, D. Olasz and G. Safran	<b>Dr. Miklos Serenyi</b> , HUNREN Centre for Energy Research, <b>Hungary</b>
<b>15:45 - 16:00</b>	High-Throughput Combinatorial Characterization of thin Binary and Ternary Layers <b>G. Safran</b> , M. Gajdics, D. Olasz, N. Szász, N. Quang Chinh and M. Serényi	<b>Dr. Gyorgy Safran</b> , HUNREN Centre for Energy Research, <b>Hungary</b>
<b>16:00 - 16:30</b>	<b>Coffee Break / Posters Session</b>	

**Session's Chairs:**

<b>16:30 - 16:45</b>	Piezo-Assisted RF Magnetron Sputtering of Ni Nanoparticles on TiO <sub>2</sub> Powder Supports for Electrocatalytic Applications <b>C.R. Chandraiahgari</b> , G. Gottardi, G. Speranza, D. Dalessandro, M. Bordin, V. Micheli, R. Bartali and M. Testi	<b>Dr. Chandrakanth R. Chandraiahgari</b> , Fondazione Bruno Kessler (FBK), <b>Italy</b>
<b>16:45 - 17:00</b>	Safe and sustainable by design approach for omniphobic PFAS free ceramic like coatings for glass packaging <b>E. Khouakoun</b> , M. Poelman, S. Desprez, A.-L. Dechief, B. Belloncle, A. Mezy, J. Alcodori, P. Lledo, A. Rashid and A. Nelson	<b>Dr. Eric Khouakoun</b> , Materia Nova, <b>Belgium</b>
<b>17:00 - 17:15</b>	From Lignin Depolymerization to BPA-Free Epoxy Coatings: A Scalable Biobased Route for Construction Materials <b>M. Comí</b>	<b>Dr. Marc Comi</b> , VITO, <b>Belgium.</b>
<b>17:15 - 17:30</b>	Non-destructive automated mechanical characterization for coatings and surfaces using surface acoustic wave spectroscopy <b>S. Makowski</b> , M. Zawischa, R. Knieß, A. Arshad and F. Härtwig	<b>Dr. Stefan Makowski</b> , Fraunhofer Institute for Material and Beam Technology, <b>Germany</b>
<b>17:30 - 17:45</b>	Microstructured impregnations of Carbon Yarns for Graded Interphases in Concrete <b>L. Flechsig</b> , G. K. Auernhammer and C. Scheffler	<b>Ms. Lissy Flechsig</b> , Leibniz Institute of Polymer Research, <b>Germany</b>
<b>17:45 - 18:00</b>	From Challenge to Insight: Exploring Analytical Methods at the Fiber-Matrix Interphase <b>R. Reichenbacher</b> and C. Scheffler	<b>Mr. Rudi Reichenbacher</b> , Leibniz-Institute for Polymer Research, <b>Germany</b>
<b>18:00 - 18:15</b>	Mechanical Properties of miniature samples of Spark Plasma Sintered NiTi Alloy <b>S. Samal</b> , J. Kopeček, E. Iaparova and P. Sittner	<b>Dr. Sneha Samal</b> , Institute of Physics of Czech Acad. of Science, <b>Czech Rep</b>
<b>18:15 - 18:30</b>	Investigation of Mechanical Interlocking Using Sculptured Aluminum Foils for Joining Two Dissimilar Polymers <b>P. Hakimi</b> , F. Hahnewald, J. Carstensen, C. Balzer, C. Laugwitz and R. Adelung	<b>Ms. Parisa Hakimi</b> , Christian-Albrechts Univ. Kiel, <b>Germany</b>
<b>18:30 - 18:45</b>	The self-healing corrosion resistant coatings for AZ-31 magnesium alloy <b>J. Szpunar</b>	<b>Prof. Jerzy Szpunar</b> , Univ. of Saskatchewan, <b>Canada</b>

06 May 2026

**Plasma Tech Session I. B:  
Plasma fundamentals / Modelling / Atomic and Molecular Processes  
Plasma Source Design and Diagnostics**

**Conference Room**

**Session's Chairs:**

<b>14:00 - 14:30</b>	High-power electron beams for technological applications <b>T. Minea</b>	<b>Prof. Tiberiu Minea</b> , Univ. Paris-Saclay- CNRS, <b>France</b>
<b>14:30 - 14:45</b>	Anode erosion and gas flow symmetry in plasma spray torch <b>R. Zhukovskii</b> , R. Molz, R. Enzl, M. Messina and M. Giglmaier	<b>Dr. Rodion Zhukovskii</b> , Oerlikon Metco AG, <b>Switzerland</b>
<b>14:45 - 15:00</b>	Study of ion beam sources by self consistent simulation approach <b>M. Queck</b> , K.M. Rettig and T. Dunger	<b>Dr. Martina Queck</b> , Scia Systems GmnH, <b>Germany</b>
<b>15:00 - 15:15</b>	Simulation of the electron density time evolution in the ignition process of an Ar RF-CCP plasma discharge <b>P. Mandracci</b>	<b>Prof. Pietro Mandracci</b> , Politecnico di Torino, <b>Italy</b>
<b>15:15 - 15:30</b>	Chemistry Data Generation for Plasma Simulations <b>S. Mohr</b> , G.S.J. Armstrong, R. Brook and J. Tennyson	<b>Dr. Sebastian Mohr</b> , Quantemol Ltd., <b>UK</b>
<b>15:30 - 15:45</b>	Superposition of HiPIMS with RF on a single magnetron: Generation of high ion energies <b>C. Adam</b> , L. Hansen, T.A. Hahn, J. Niemann, D. Zuhayra, G. Mark, J. Löffler, J. Benedikt and H. Kersten	<b>Ms. Caroline Adam</b> , Kiel University, <b>Germany</b>
<b>15:45 - 16:00</b>	Establishing an Atomic Oxygen Test Facility for Space Hardware Based on an Inductively Coupled Plasma Source <b>S. Zoehrer</b> , W. Engel, L. Bettiol, B. Seifert	<b>Dr. Siegfried Zoehrer</b> , FOTEC GmbH, <b>Austria</b>
<b>16:00 - 16:30</b>	<b>Coffee Break / Posters Session</b>	
<b>Session's Chairs:</b>		
<b>16:30 - 17:00</b>	Generation and Manipulation of Pulsed-Driven Dielectric Barrier Discharges using Tailored High-Voltage Waveforms <b>H. Höft</b> , J. J. van Oorschot, R. Brandenburg, T. Huiskamp and M. M. Becker	<b>Dr. Hans Höftq</b> , Leibniz Institute for Plasma Science and Technology, <b>Germany</b>
<b>17:00 - 17:15</b>	Numerical and Experimental Investigation of Collector Geometry Effects in Gridded Electrohydrodynamic Thrusters <b>G. Mongaretto</b> , F. Ragazzi, D. Usuelli, S. Trovato, R. Terenzi, A. Popoli, A. Cristofolini and M. Belan	<b>Mr. Giorgio Mongaretto</b> , University of Bologna, <b>Italy</b>
<b>17:15 - 17:30</b>	MHD multiphase modelling of electrical explosions confined in air and dense media <b>F. Tholin</b> , A. Jarnac, B. Khlar, F. Pechereau, C. Zaepffel, V. Gaudineau and K. Thomas	<b>Dr. Fabien Tholin</b> , ONERA- Univ. Paris-Saclay, <b>France</b>

06 May 2026

**SICT 2026/ Tribology 2026 Joint Session I. C:  
Fundamentals of Tribology & Advanced Surfaces  
Coatings and Surfaces Corrosion / Tribological Properties  
Testing, Measurement & Methodologies**

Conference Room

Session's Chairs:

14:00 - 14:30		<b>Prof. Auezhan Amanov</b> , Tampere Univ., Finland
14:30 - 15:00	The Effects of Build Parameters on the Reciprocating Wear Response of Al <sub>2</sub> O <sub>3</sub> Ceramics Produced Using DLP Additive Manufacturing A.M.S. David, G. Boubnova, S. Clemens and <b>K.P. Plucknett</b>	<b>Prof. Kevin P. Plucknett</b> , Dalhousie Univ., Canada
15:00 - 15:15	Dry friction behavior of Ceramic Matrix Composites (CMC) obtained by duplex treatment combining cold spray aluminum layers with alumina, zirconia and rutile particles followed by plasma electrolytic oxidation (PEO) treatments <b>T. Czerwiec</b> , A. Maizeray, G. Marcos, A. Cappella, M.-P. Planche, H. Liao, G. Henrion, S. Philippon and J. Martin	<b>Prof. Czerwiec Thierry</b> , Univ. de Lorraine, France
15:15 - 15:30	Design and generation of sealing shaft counter-surfaces by two-stage turning for the reduction of friction in sealing contacts <b>T. Junge</b> , L. M. de C. Silva, A. Nestler, A. Schubert and O. Koch	<b>Mr. Thomas Junge</b> , Chemnitz Univ. of Technology, Germany
15:30 - 15:45	Effects of DLC and CrN thin coatings on the wear behaviour of L-PBF AlSi10Mg alloy M. Merlin, C. Morales, S. Urbinati, C. Moply and <b>C. Soffritti</b>	<b>Mrs. Chiara Soffritti</b> , University of Ferrara, Italy
15:45 - 16:00	Influence of O <sub>2</sub> flow rate on scratch and wear behavior of silver oxide thin films fabricated via RF magnetron sputtering deposition <b>K. Win</b> , K. Kulikowski and M. Koba	<b>Dr. Khunnay Win</b> , Warsaw University of Technology, Poland.
16:00 - 16:30	Coffee Break / Posters Session	
Session's Chairs:		
16:30 - 16:45	Improved wear protection of tribological boundary layers <b>N. Gregarek</b> , G. Jacobs and S. Zhang	<b>Mr. Nico Gregarek</b> , RWTH Aachen University, Germany
16:45 - 17:00	Friction mode and humidity effects on tribological behavior of DC magnetron sputtered (NbMoTaW) <sub>100-z</sub> -(CN) <sub>z</sub> coatings <b>F. Lofaj</b> , P. Hviščová, D. Kondrakhova and J. Dobrovodský	<b>Dr. Frantisek Lofaj</b> , Institute of Materials Research of the Slovak Acad. of Sciences, Slovakia
17:00 - 17:15	Friction of GO/MoSe <sub>2</sub> films in ambient air and vacuum conditions <b>A. Kozak</b> , M. Precner, M. Precnerová, M. Ilčíková, N. Konios, M. Mičušík, J. Osička, V. Vretenár, J. Mosnáček and M. Ťapajna	<b>Dr. Andrii Kozak</b> , Institute of Electrical Engineering, Slovak Acad. of Sciences, Slovakia
17:15 - 17:30	Replacing PTFE with Self-Organizing HDPE Particle containing Composites for low Friction Applications <b>N. Kubat</b> , J. Rank, J. Bahr, J. Carstensen and R. Adelung	<b>Mr. Niklas Kubat</b> , Christian-Albrecht's Univ. Kiel, Germany
17:30 - 17:45	Effect of Microstructure on the Wear Behavior of Eutectic and Non-Eutectic BCC High-Entropy Alloys <b>L. Chen</b> , W. Ma and O. Tisov	<b>Mr. Liming Chen</b> , Xi'an Jiaotong University, China

07 May 2026

Conference Room

**SICT 2026 / Plasma Tech 2026 / Tribology 2026 Joint Plenary Session II**

**Session's Chairs:**

09:00 - 09:30	Plasma Fluxes and Their Atomic-Scale Heating Effects on Thin Film Growth <b>A. Anders</b> , D. Kalanov and Y. Unutulmazsoy	<b>Prof. André Anders</b> , Leibniz Institute of Surface Eng, Germany/Plasma Eng. LLC, USA
09:00 - 09:30	New antimicrobial surface technology <b>R. Spontak</b>	<b>Prof. Richard Spontak</b> , North Carolina State Univ., USA
09:30 - 10:00	Methane pyrolysis in a constant-current DC gliding arc discharge: impact of discharge regime on the process performances and soot formation P. Mathieu, Y. Tian, A. Abdirakhmanov, A. Chatterjee and <b>R. Snyders</b>	<b>Prof. Rony Snyders</b> , Univ. of Mons, Belgium
10:00 - 10:30	Green Plasma Processing – from Deposition to Gas Conversion <b>D. Hegemann</b> , P. Navascués and R. Snoeckx	<b>Dr. Dirk Hegemann</b> , Empa, Switzerland

10:30 - 11:00

Coffee Break / Posters Session

**SICT 2026 Session II. A:  
Advanced Materials & Emerging Coating Systems  
Performance-Oriented Coating Applications**

**Session's Chairs:**

11:00 - 11:30	The use of thermal spray technologies in energy conversion systems <b>R. Vassen</b>	<b>Prof. Robert Vassen</b> , Ruhr University Bochum, Germany
11:30 - 12:00	Study of Thermal and Environmental Barrier Coatings for Aero-engine Applications <b>P. Xiao</b>	<b>Prof. Ping Xiao</b> , Univ. of Manchester, UK

12:00 - 14:00

Lunch Break – Restaurant

**Group Photo at 13:45**

**Session's Chairs:**

14:00 - 14:15	The influence of the thickness of the buried ITO thin film on charge dissipation and optical properties in functional multilayer oxide coatings <b>A. Obstarczyk</b>	<b>Dr. Agata Obstarczyk</b> , Wroclaw Univ. of Science and Technology, Poland
14:15 - 14:30	The impact of the thickness on the properties of CuO <b>E. Mańkowska</b>	<b>Dr. Ewa Mańkowska</b> , Wroclaw Univ. of Science and Technology, Poland
14:30 - 14:45	Gas sensing properties of copper and titanium oxides thin films deposited by magnetron sputtering <b>P. Pokora</b> and E. Mańkowska	<b>Dr. Patrycja Pokora</b> , Wroclaw Univ. of Science and Technology, Poland
14:45 - 15:00	Fluorescent Nanocomposites of Polydiacetylene-ZnO Quantum Dots-Zn(II) ion with Temperature/Acid-Responsive Properties <b>N. Traiphol</b> , S. Boonmak, K. Phetnam and R. Traiphol	<b>Prof. Nisanart Traiphol</b> , Chulalongkorn University, Thailand
15:00 - 15:15	High-Temperature Reversible Thermochromic and Acid-responsive Polydiacetylene/Li <sup>+</sup> Assemblies for Smart Coatings <b>R. Traiphol</b> , K. Phetnam, S. Boonmak and N. Traiphol	<b>Prof. Rakchart Traiphol</b> , Mahidol University, Thailand
15:15 - 15:30	Encapsulation of Essential Oils in Silica Nanopores: A Molecular Dynamics simulation study <b>I. Papageorgiou</b> , K.S. Karadima, L. Peristeras and V.G. Mavrantzas	<b>Mrs. Ioanna Papageorgiou</b> , University of Patras, Greece
15:30 - 15:45	Development of a Specialized Coating for Moisture and Aggressive Environment Resistance <b>O. Ghorab</b> , L. Chetibi, I. Calliari, M. Pigato, M. Dabalà, D. Hamana, F. Ahani, S. Achour and Lorenzo Dambrosi	<b>Ms. Ouissal Ghorab</b> , Univ. of Padua, Italy

15:45 - 16:00		
16:00 - 16:30	Coffee Break / Posters Session	
<b>SICT 2026 / Plasma Tech 2026 Joint session II. B: Bio-interfaces, Biomedical / Bioactive surfaces and coatings Plasma applications for biology, medicine, and agriculture</b>		
<b>Session's Chairs:</b>		
16:30 - 17:00	Self-Templated Highly Porous Gold as Antibiofouling strategy in Electrochemical Biosensing: application in a microneedles-based bio-sensor for $\beta$ -hydroxybutyrate ( $\beta$ -HB) detection <b>A. Degjoni, C. Tortolini, D. Passeri, A. Lenzi and R. Antiochia</b>	<b>Prof. Riccarda Antiochia</b> , Sapienza Univ. of Rome, Italy
17:00 - 17:15	Low-Remanence Iron-Oxide Thin Films and Microdiscs for Cell-Interactive Biointerfaces and Biomedical Actuators <b>I. Lasa, C. Redondo, D. Salazar and R. Morales</b>	<b>Ms. Irati Lasa Uriarte</b> , Univ. of the Basque Country, Spain
17:15 - 17:30	Surface Functionalization of Inner Microchannel Surfaces in a Power-Free Microfluidic Chip for Extracellular Vesicle Detection <b>R. Ishihara, M. Hosono, M. Ogawa, H. Yazawa, T. Nakajima, E. Shimura, T. Baba and H. Shibata</b>	<b>Dr. Ryo Ishihara</b> , Juntendo University, Japan
17:30 - 17:45	Innovative SiO <sub>2</sub> /PEG/Caffeic Acid Sol-Gel Coatings on Stainless Steel: Toward Bioactive and Biocompatible Prosthetic Surfaces <b>F. Barrino, F. Giuliano, H. de la Rosa-Ramírez and M.D. Samper</b>	<b>Dr. Federico Barrino</b> , University of Palermo, Italy
17:45 - 18:00	Microwave Cold Plasma Jets for Microbial Inactivation: From RONS Chemistry to Cell Morphology <b>K. Trebulová, V. Loupová, B. Chobotská, L. Kletzander, P. Kulich, Z. Kozáková and F. Krčma</b>	<b>Ms. Kristína Trebulová</b> , Brno University of Technology, Czech Rep.

Conference Dinner

Conference venue hotel, from 19:30

07 May 2026

Conference Room

**SICT 2026 / Plasma Tech 2026 Joint Session II. C:  
Plasma fundamentals / Modelling / Atomic and Molecular Processes  
Plasma Processing / Materials Interactions / Coatings**

Session's Chairs:

10:30 - 11:00	Coffee Break / Posters Session	
11:00 - 11:30	Comparative Study of Metal Atom, Metal Ion, and Argon Ion Fluxes in Laboratory and Industrial Sputtering Using Metallic and Alloy Targets <b>P. Vesina</b>	<b>Prof. Petr Vašina</b> , Masaryk Univ., Czech. Rep
11:30 - 12:00	Technological Change for future Speciality Glass Production <b>S. Wolf</b> , M. Hauf, B. Bochtler, T. Golubeva, W. Schmidbauer, J. Hessenkemper, K. Jochem, S. Knoche, S. Knoche, J. Costard and M. Hahn	<b>Dr. Sebastian Wolf</b> , SCHOTT AG, Germany
12:00 -12:30		<b>Prof. Marcela Bilek</b> , University of Sydney, Australia
12:00 - 14:00	Lunch Break – Restaurant	
Group Photo at 13:45		
Session's Chairs:		
14:00 - 14:15	Complex plasma with active Janus particles in patterned confinement <b>V. Nosenko</b>	<b>Dr. Volodymyr Nosenko</b> , German Aerospace Center, Germany
14:15 - 14:30	Investigation of the chemical behaviour of an electrolytic discharge used to synthesize low-density mesoporous metals <b>C. Boudat</b> , R. Botrel, F. Durut, C. Noël and T. Belmonte	<b>Ms. Claire Boudat</b> , CEA, France
14:30 - 14:45	Plasma-Catalytic Pyrolysis Via Water-Stabilized Plasma Torch for Single-Walled Carbon Nanotubes Synthesis <b>J. Fathi</b> , A. Mašláni and O. Jankovský	<b>Mr. Jafar Fathi</b> , Institute of Plasma Physics Prague, Czech Rep.
14:45 - 15:00	Synthesis of higher order organic compounds from hydrocarbons, alcohols and amines using a microsecond-pulsed dielectric barrier discharge <b>P-L. Girard-Lauriault</b> , A. Banerjee, S. Marji, O Armstrong and G. Baez-Zaldivar	<b>Prof. Pierre-Luc Girard-Lauriault</b> McGill University, Canada
15:00 - 15:15	Production of nitrogen oxides as fertilizers precursors via an atmospheric microwave air plasma torch <b>M. Troia</b> , K. Wieggers, A. Schulz and M. Walker	<b>Dr. Mariagrazia Troia</b> , University of Stuttgart, Germany
15:15 - 15:30	Scalable nanopulsed plasma seed disinfection using a long wire-plate DBD module <b>L.F.A. Wymenga</b> and J. van Turnhout	<b>Mr. Luitzen Wymenga</b> , Delft University of Technology, The Netherlands
15:30 - 15:45	Cold Plasma-Assisted Drying: A Promising Strategy for Enhancing Drying Characteristics and Quality Retention in Cannabis Processing P.C. Das, L.G. Tabil and <b>O.D. Baik</b>	<b>Prof. Oon-Doo Baik</b> , University of Saskatchewan, Canada
15:45 - 16:00		
16:00 - 16:30		
<b>SICT 2026 / Plasma Tech 2026 Session II D: Plasma Processing / Materials Interactions / Coatings Plasma application in Energy and environment</b>		
Session's Chairs:		
16:30 - 16:45	Selective single-step microwave plasma conversion of hazardous aromatic hydrocarbons into few-layer graphene	<b>Dr. Ondrej Jasek</b> , Masaryk University, Czech Rep.

	<b>O. Jašek</b>	
<b>16:45 - 17:00</b>	Conversion of plastic waste into high-quality soot by microwave-based plasma pyrolysis <b>D. Schüpfer</b> , L. Beran, I. Kinski, G. Homm and T. Kraus	<b>Dr. Dominique Schüpfer</b> , Fraunhofer IWKS, <b>Germany</b>
<b>17:00 - 17:15</b>	Experimental and simulation-based investigations into sustainable metal-catalytic plasma etching of silicon using hydrogen <b>L. Böhm</b> , N. Reghunath, G. Umlauf, X. Hu, M. Haas and J. Schuster	<b>Ms. Lenia Böhm</b> , Fraunhofer ENAS, <b>Germany</b>
<b>17:15 - 17:30</b>	Degradation of Methylene Orange in Aqueous Solution Using Non-Thermal Plasma <b>T. Nguyen</b> , H. Gerard, L. Sonhafouo Mbantio, G. Thomas and N. Cedric	<b>Dr. Truong Son Nguyen</b> , Univ. Lorraine, <b>France</b>
<b>17:30 - 17:45</b>	Nanosecond-pulsed plasma bubbles for pollutant and pathogen elimination in water <b>C.A. Aggelopoulos</b> , K. Papalexopoulou and M. Kariofillis	<b>Dr. Christos Aggelopoulos</b> , FORTH/ ICE-HT, <b>Greece</b>

**Conference Dinner**

**Conference venue hotel, from 19:30**

07 May 2026

**Tribology 2026 Session II. E:  
Physics or Chemistry of Tribo-Surfaces/ Nanotribology  
Sustainable & Green Tribology**

Conference Room

10:30 - 11:00 Coffee Break / Posters Session

**Session's Chairs:**

11:00 - 11:30	Fracture and adhesion of viscoelastic materials <b>G. Carbone</b>	<b>Prof. Giuseppe Carbone</b> , Nanjing Univ. of Science & Tech, <b>China</b> / Polytechnic Univ. of Bari, <b>Italy</b>
11:30 - 12:00	Advancing Lubricant Design with Machine Learning Molecular Dynamics <b>M. Clelia Righi</b>	<b>Prof. Maria Clelia Righi</b> , Univ. of Bologna, <b>Italy</b>
11:45 - 12:00	Tribological Behavior of 2D MXene-reinforced Polymer and Metal Matrix Composites <b>M. Marian</b>	<b>Prof. Max Marian</b> , Leibniz Univ. Hannover, <b>Germany</b>

12:00 - 14:00 Lunch Break – Restaurant

**Group Photo at 13:45**

**Session's Chairs:**

14:00 - 14:30	Ice-Rubber Friction Mechanisms across Scales <b>J. Cayer Barrioz</b>	<b>Prof. Juliette Cayer-Barrioz</b> , Ecole centrale de Lyon – CNRS, <b>France</b>
14:15 - 14:30	Adsorption/Friction Property Measurements of nm-thick Additive Films by Vertical-Objective Type Ellipsometric Microscopy (VEM) <b>K. Fukuzawa</b> and <b>Y. Song</b>	<b>Prof Kenji Fukuzawa</b> , Nagoya University, <b>Japan</b>
14:30 - 14:45	Molecular dynamic characterization of surface active additives – sorption, solubility and diffusion <b>K. Falk</b> , L. Kruse, S. Peeters, G.Moras and M. Moseler	<b>Dr. Kerstin Falk</b> , Fraunhofer IWM, <b>Germany</b>
14:45 - 15:00	Enhancement of Wear Resistance and Cooling Efficiency of Additively Manufactured Nylon Gears C. He, <b>W. Li</b> , A. Daman, Z. Peng	<b>Mr. Wenhan Li</b> , UNSW Sydney, <b>Australia</b>
15:00 - 15:15	Solid particle erosion behavior of cold-rolled austenitic stainless steels under Martian regolith simulant <b>M. Gragnanini</b> , A. Fortini, N. Zanini, A. Suman and M. Pierret	<b>Mr. Michele Gragnanini</b> , University of Ferrara, <b>Italy</b>
15:15 - 15:30	Study on In Situ Damage Evaluation in Rolling Friction using Acoustic Emission Sensing <b>Y. Hirai</b> and A. Hase	<b>Mr. Yuto Hirai</b> , Saitama Institute of Technology, <b>Japan</b>
15:30 - 15:45	Estimations of wear scar volumes based on profile measurements P. Pawlus, S. Woś and <b>R. Reizer</b>	<b>Prof. Rafal Reizer</b> , Rzeszow University of Technology, <b>Poland</b>
15:45 - 16:00	A novel approach based on Greenwood-Williamson theory for the estimation of tribocorrosion wear <b>M. De Stefano</b> and A. Ruggiero	<b>Dr. Marco De Stefano</b> , University of Salerno, <b>Italy</b>

16:00 - 16:30 Coffee Break / Posters Session

**Session's Chairs:**

16:30 - 16:45	Tribological behaviour of Soybean oil-based biolubricants <b>P. Mostaza</b> , M.D. Avilés, T. Caparrós, M.D. Bermúdez and F.J. Carrion-Vilches	<b>Ms. Paloma Mostaza Ucedo</b> , Univ. Politécnica de Cartagena, <b>Spain</b>
16:45 - 17:00	Superlubricity with ta-C Coatings: From Model Tests to Journal Bearing Application <b>F. Härtwig</b> , S. Makowski, S. Kattookaren and V. Weihnacht	<b>Mr. Fabian Härtwig</b> , Fraunhofer IWS Dresden, <b>Germany</b>

Conference Dinner

Conference venue hotel, from 19:30

07 May 2026

**SICT 2026/ PlasmaTech 2026:  
Workshop on antimicrobial Nanocoatings: Aligning Innovation, Regulatory Compliance and Market Uptake**

**Conference Room**

10:30 - 11:00 Coffee Break / Posters Session

**Session's Chair/ Moderator: Miren Blanco, RELIANCE**

11:00 - 11:05	<b>Welcome &amp; Opening Remarks = Framing the Ambition</b>	
<b>Session 1 – Smart Material Design &amp; Antimicrobial Functionality</b>		
11:05 - 12:20	SMIN nanoparticles loaded with essential oils Triggered release (T, pH) – adaptive functionality	Maialen Argaiz, Tekniker RELIANCE –
	Computational modelling of nanoparticle–microorganism interactions	University of Patras RELIANCE –
	Comparative antimicrobial effects of various nanoparticles	SUPREME
	Modelling of microorganism reactions on surfaces – Liska Vojtech	MIRIA
12:20 - 12:30	Q&A discussion.	

12:00 - 14:00 Lunch Break – Restaurant

**Group Photo at 13:45**

**Session's Chair/ / Moderator: Angelica Luceri, NANOBLOC**

**Session 2 – Validation & Performance on Real Surfaces**

	<b>MIRIA</b> Lab testing results on different surfaces	
	<ul style="list-style-type: none"> <li>Sustainability testing               <ul style="list-style-type: none"> <li>Surface durability</li> <li>Nanoparticle release</li> <li>Adhesion strength</li> </ul> </li> </ul>	<b>NOVA (Nurshen Mutlu)</b>
	<b>SUPREME – Second presentation (TBC)</b>	
	<b>RELIANCE</b> Ecotoxicological Analysis – Thomas Loret, INERIS	<b>Thomas Loret, INERIS</b>
	<b>NANOBLOC - Rocío Ortiz, TEKNIKER</b> Antibacterial test in real application environments (toilet) Proposed Q&A discussion focus: <ul style="list-style-type: none"> <li>Are antimicrobial testing methods harmonised?</li> <li>Do we need standard protocols for nanoparticle-containing coatings?</li> <li>Is durability vs. release a trade-off?</li> </ul>	<b>Rocío Ortiz, TEKNIKER</b>

**Session's Chairs: Jan Vam Impe, SUPREME**

**Session 3 – From Lab to Scale & Compliance**

15:00 - 16:00	<ul style="list-style-type: none"> <li>Coating deposition upscaling</li> </ul>	<b>Angelica Luceri, NANOBLOC</b>
	<ul style="list-style-type: none"> <li>Microbiology compliance challenges</li> <li>Regulatory bottlenecks for advanced coatings</li> </ul>	<b>NOVA – Regulation expert (Alexander Cunliffe)</b>
	<ul style="list-style-type: none"> <li>Gaps/Innovation misalignment in standards for antimicrobial nanocoatings</li> </ul>	<b>NANOBLOC - Potential standardisation body partner (TBC)</b>
	<ul style="list-style-type: none"> <li>Application technologies &amp; industrialization</li> </ul>	<b>RELIANCE - Molecular Plasma Group</b>

16:00 - 16:30 Coffee Break / Posters Session

**Session's Chair/ / Moderator: Sara Espinoza, NOVA**

**Session 4 – The Future: Aligning Research, Regulation & Sustainability**

<b>16:20 - 17:20</b>	3 thematic areas:	
	1.Predictive & Digital Design How far are we from modelling-driven material approval? What research gaps remain?	
	2.Safety, SSbD & Environmental Impact How do we operationalise Safe and Sustainable by Design? What test methods need harmonisation?	
	3.Industrial Deployment & Standardisation What standards are missing? What demonstration cases are still needed? What should FP10 fund?	

**Conference Dinner**

**Conference venue hotel, from 19:30**

08 May 2026

**SICT 2026 / Plasma Tech 2026 Session III. A:  
Coatings for Energy and Environmental Applications**

**Conference Room**

**Session's Chairs:**

<b>09:00 - 09:30</b>	Metal oxide cathode coating of NASICON cathode materials to enhance cathode performance in Na-ion batteries <b>S. Lavela, C. Pérez Vicente, P. Lavela and J. L. Tirado</b>	<b>Prof. José L. Tirado</b> , Univ. Cordoba, <b>Spain</b>
<b>09:30 - 09:45</b>	Optimizing Slot-Die Coating of High-Viscous Slurries for Energy and Green Technology Applications <b>K.V. Graae, J. Hansen and V. Popok</b>	<b>Dr. Vladimir Popok</b> , FOM Technologies, <b>Denmark</b>
<b>09:45 - 10:00</b>	Sequential Surface Treatment and Insulation Testing of Additively Manufactured Litz Conductors <b>A.P Sankowski, D. North and N. Simpson</b>	<b>Dr. Andrzej P. Sankowski</b> , University of Bristol, <b>UK</b>
<b>10:00 - 10:30</b>	<b>Coffee Break</b>	
<b>Session's Chairs:</b>		
<b>10:30 - 10:45</b>	Surface Engineering of 3D-Printed PVA Structures for the Integration of Functionalized UCNPs into Stable Hydrogel Systems. <b>D.A. P. Guachalla, M. Maturi, A. Sanz de León and M. Herrera</b>	<b>Damaris. A.P. Guachalla</b> , Univ. de Cadiz, <b>Spain.</b>
<b>10:45 - 11:00</b>	Enhancing the Photocatalytic Activity of BiOBr Supported by Graphene Oxide for Antibiotic Degradation in Wastewater <b>S. Promrit, C. Sronsri and S. Kaowphong</b>	<b>Mr. Stanon Promrit</b> , Chiang Mai University, <b>Thailand</b>

08 May 2026

**Tribology 2026 Session III. B:  
Tribology: Health, Safety & Industrial Impact/ Biotribology**

**Conference Room**

**Session's Chairs:**

<b>08:30 - 09:00</b>	Recent insights and perspectives in silico modelling of synovial lubricated total Hip replacements <b>A.Ruggiero</b>	<b>Prof. Alessandro Ruggiero</b> , Univ. of Salerno, <b>Italy</b>
<b>09:00 - 09:30</b>		
<b>09:30 - 09:45</b>	Modulating the Boundary Lubrication of Orthokeratology Lenses via Polysaccharide-Protein Interfacial Interactions <b>H.-W. Fang</b> and Y.-C Chang	<b>Dr. Hsu-Wei Fang</b> , National Taipei University of Technology, <b>Taiwan</b>
<b>09:45 - 10:00</b>		
<b>10:00 - 10:30</b>	<b>Coffee Break / Posters Session</b>	
<b>10:30 - 10:45</b>	Adhesive Performance of Mushroom-Shaped Microstructure in Wet Condition: the Role of Deformation <b>L. Nasca</b> , M. Santeramo, C. Putignano, E. Pierro and G. Carbone	<b>Dr. Luciana Nasca</b> , Polytechnic University of Bari, <b>Italy</b>

## SICT 2026 / PlasmaTech 2026 / Tribology 2026 Joint Conferences Posters

### 06 and 07 May 2026 Sessions (No Posters session on 08 May 2026)

N.	Poster Title	Author, Affiliation, Country
1.	Influence of Diffusion-Modified Sublayers on the Performance of PVD Coatings on Austenitic Stainless Steel <b>K. Korsos</b> and D. Kovacs	<b>Mr. Krisztian Korsos</b> , Budapest University of Technology and Economics, <b>Hungary</b>
2.	Surface nano-patterning and coatings for advanced plasmonic devices <b>D. Turover</b> , Y. Jourlin, B. Bartenlian, F. Hamouda, V. Gate	<b>Mr. Daniel Turover</b> , SILSEF SAS, <b>France</b>
3.	Patterned Nafion-Enabled Selective-Area Doping and Stable Low-Resistance Contacts in 2D WSe <sub>2</sub> <b>S. Oh</b> and S. Im	<b>Mr. Sewoong Oh</b> , Yonsei University, Seoul, <b>Rep. of Korea</b>
4.	Functionalization of silica by nitrogen-containing silanes <b>K. Simanová</b> and I. Melnyk	<b>Mrs. Klaudia Simanova</b> , Institute of Geotechnics of SAS, <b>Slovak Rep.</b>
5.	Voltex-Assisted Scale-Up of Intense Pulsed Light Surface Treatment of Low-Grade Carbon Fibers for Epoxy Composite Applications Y.-J. Park, T.-Y. Kim and <b>K.-S. Kim</b>	<b>Dr. Kwang-Seok Kim</b> , Korea Institute of Industrial Tech. Jeonju, <b>Rep. of Korea</b>
6.	Bouncing characteristics of multi-component droplets with viscosity contrast for a control of the hydrodynamics <b>S. Yun</b>	<b>Prof. Sungchan Yun</b> , Korea National University of Transportation, <b>Rep. of Korea</b>
7.	Effect of Post-Heat Treatment on the Structural and Mechanical Properties of CrAlN/Al <sub>2</sub> O <sub>3</sub> Functionally Graded Coatings for Tool Applications <b>W. R. Kim</b> , B. M. Lee, I. W. Park and S. B. Heo	<b>Dr. Wangryeol Kim</b> , Korea Institute of Industrial Technology- Busan, <b>Rep. of Korea</b>
8.	Preparation and characterisation of YIG thin films deposited via DC Magnetron Sputtering for magnonic research applications <b>V. Faldu</b> , T. Reimann, O. Surzhenko, T. Friedrich, A. Gopakumar, O. Beier and A. Pfuch	<b>Mr. Vivek Bharatbhai Faldu</b> , INNOVENT, <b>Germany</b>
9.	Influence of Gas Admixtures and Target Materials on Plasma Gun Emission Characteristics <b>M. Moravčík</b> , K. Trebulová, E. Robert, A. Stancampiano and F. Krčma	<b>Mr. Marek Moravčík</b> , Brno University of Technology, <b>Czech Rep.</b>
10.	New hybrid technology for deposition of transparent conductive oxide films for solar cell applications <b>A. Lacoste</b> , Z. Ennaji, A. Bès, P. Carroy and S. Béchu	<b>Prof. Ana Lacoste</b> , Univ. Grenoble Alpes, <b>France</b>
11.	Atomistic Insight into Sustainable Etching: Unraveling Halogen-Free Hydrogen and Fluorine Reaction Kinetics on the Si Surface <b>B. Bamdad</b> , X. Hu and J. Schuster	<b>Dr. Bahareh Bamdad</b> , Chemnitz Univ. of Technology, <b>Germany</b>
12.	Influence of the plasma discharge regime on the structure of metallic foams synthesized by plasma electrolytic <b>R. Botrel</b> , C. Boudat, F. Durut, A. Zentz, C. Noël and T. Belmonte	<b>Mr. Ronan Botrel</b> , CEA, <b>France</b>
13.	Quantitative measurement of hydrogen peroxide from plasma jet on soft materials <b>W. Zhang</b> and D. Caruana	<b>Ms. Wanqi Zhang</b> , UCL, <b>UK</b>
14.	Improvement of the surface tribological properties of 42CrMo4 steel through the slide burnishing process <b>A. Dzierwa</b>	<b>Prof. Andrzej Dzierwa</b> , Rzeszow University of Technology, <b>Poland</b>
15.	Anodic Aluminum Oxide Coating as a Dielectric Platform for Electrically Tunable Lubrication <b>M. García-Pérez</b> , S. D. Fernández-Silva, C. Roman, L. Lazar, J. D. Mozo, M. A. Delgado and M. García-Morales	<b>Ms. Maria Garcia Perez</b> , University of Huelva, <b>Spain</b>
16.	Modelling of the wear process in a two-surface system separated by a granular medium using DEM and reconstruction of the contact fields <b>K. Ligier</b> , M. Lemecha and O. Vrublevskij	<b>Dr. Krzysztof Ligier</b> , University of Warmia and Mazury in Olsztyn, <b>Poland</b>
17.	Geometric modeling of granular bed particles in DEM simulations using image analysis methods <b>M. Lemecha</b> , K. Ligier and O. Vrublevskij	<b>Dr. Magdalena Lemecha</b> , University of Warmia and Mazury in Olsztyn, <b>Poland</b>
18.	Tribo-induced microstructural evolutions and wear mechanisms of CoCrFeMnNi high-entropy alloy composite enhanced by Al/Ti doping and hBN/TiC dual ceramic reinforcement at elevated temperatures <b>W. Ma</b> and O. Tisov	<b>Mr. Wenbo Ma</b> , Xi'an Jiaotong University, <b>China</b>

19.	Rapid Detection of Indoor Microbial Toxins on Various Surfaces with Direct Analysis in Real Time - Mass Spectrometry <b>M.Raimo</b> and S. Heidi	<b>Dr. Mikkola, Raimo</b> , Aalto University, Espoo, Finland
20.	In Situ Gold Functionalization of Gallium Nitride Nanoparticles Mediated by Polyethyleneimine for Enhanced Electrochemical Sensing of Erythromycin <b>O-E. Carp</b> , D-L. Bostiog, E.L. Ursu, R. Mocanu, N-L. Marangoci, I. Tighineanu and A. Rotaru	<b>Dr. Oana-Elena Carp</b> , Petru Poni Institute of Macromolecular Chemistry, Romania.
21.	Functionalized Carbon Dots as Multifunctional Biointerface Nanomaterials for MRI and Fluorescence Imaging <b>A. Coroaba</b> , B-F. Craciun, A. Fifere and N-L. Marangoci	<b>Dr. Adina Coroaba</b> , Petru Poni Institute of Macromolecular Chemistry, Romania
22.	Practical Applications of Electron Microscopy for the Structural and Functional Characterization of Organic Nanoparticles <b>F. Doroftei</b> , R. Ghiarasim, N. Marangoci and M. Pinteala	<b>Dr. Florica Doroftei</b> , Petru Poni Institute of Macromolecular Chemistry, Romania
23.	Non-Thermal Plasma for Sustainable Seed Technologies <b>P. Lickova</b> , D. Kostolani, S. Mosovská, M. Khalaf, R. Švubová, V. Medvecká, D. Kováčik and A. Zahoranová	<b>Dr. Petra Lickova</b> , Comenius University Bratislava, Slovakia
24.	Non-Thermal Atmospheric Plasma-Induced Transformation of Agro-Industrial By-Products into Soil Improvers V. Crespo-Torbado, A. Álvarez-Ordóñez, R. Bodelón, Y. Chourak, PF. Rizzo, E. Garcia-Muchart, M. González-Raurich, M. Prieto, M. López and <b>M. Oliveira</b>	<b>Dr. Marcia Oliveira</b> , University of Leon, Spain.
25.	Influence of Plasma and Plasma Treated Water on Plant Vitality in Short and Long-Term Applications <b>Z. Kozáková</b> , L. Krejsová, K. Šindelková, E. Neroda and K. Šťastná	<b>Dr. Zdenka Kozáková</b> , Brno University of Technology, Czech Rep.
26.	Development of Pd and Pd-Ag Thin Films by Magnetron Sputtering for High-Performance Hydrogen Separation Membranes <b>A. D'Angelo</b> , S. Esposito, G. Rossi, R. Volpe and M. Lanchi	<b>Mr. Antonio D'Angelo</b> , ENEA, Italy
27.	Surface Modification Approaches on Porous Hastelloy for Long-Lasting Hydrogen Separation Membranes <b>G. Rossi</b> , A. D'Angelo, C. Diletto, A. Guglielmo and G. Rametta	<b>Dr. Gabriella Rossi</b> , ENEA, Italy
28.	Radiative cooling coating solution: principle and applications <b>H. Lee</b> , H. K. Im and J. I. Park	<b>Prof. Heon Lee</b> , Korea Univ. Seoul, Rep. of Korea
29.	Bismuth-Rich Oxyiodides as Highly Efficient Photocatalysts for the Visible-Light Photooxidation of As(III) <b>S. Kittiwachana</b> , S. Kaowphong, T. Charoensuk and C. Sronsri	<b>Dr. Sila Kittiwachana</b> , Chiang Mai Univ., Thailand
30.	Hydrothermal synthesis of BiOBr/Bi <sub>24</sub> O <sub>31</sub> Br <sub>10</sub> Heterojunction Under pH-Controlled Conditions for Enhanced Dye Degradation, Antibiotic Removal, and Arsenite Oxidation <b>S. Kaowphong</b> , P. Wisedkoon and C. Sronsri	<b>Dr. Sulawan Kaowphong</b> , Chiang Mai Univ., Thailand
31.	Titanium Nitride Protective Coatings for High-Performance Proton Exchange Membrane Water Electrolysis <b>B. Chavan</b> , R. Kortlever and J. Ruud van Ommen	<b>Mr. Bhavesh Chavan</b> , Delft Univ. of Technology, The Netherlands
32.	Sustainable removal of carbamazepine from aqueous solutions using dielectric barrier discharge plasma: Efficiency, toxicity assessment, and environmental impact <b>Q.U. Din</b> , G. Iervolino and V. Vaiano	<b>Mr. Qayam U. Din</b> , University of Salerno, Italy
33.	Revealing the role of temperature in Non-Thermal Atmospheric Plasma-based water disinfection Á. Francés, M. Oliveira, R. Cordero-García, M. González-Raurich, A. Alvarez-Ordóñez and <b>M. López</b>	<b>Prof. Mercedes López</b> , University of Leon, Spain