

**Sunday, 29th Sept**

17:00	Registration
19:00	Welcome drink & welcome dinner

Monday, 30th Sept

8:45	Opening of JVC-19
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Session 1

9:00	David N. Ruzic , Illinois Plasma Institute, USA <i>Controlling the Energy and Species in PVD: HiPIMS with Cathode Reversal, Plenary</i>
9:45	Martin Čada , Czech Republic <i>HiPIMS with controlled arc ignition: hybrid plasma deposition technique for hard coatings, Invited</i>
10:15	Miha Čekada , Slovenia <i>Property variation of hard coatings deposited in industrial deposition systems, Oral</i>
10:35	Jozef Novák , Slovakia <i>Focused Ion Beam technology as an excellent tool for integration of the three dimensional GaP nanocone onto Single Mode Optical Fibre, Oral</i>
10:55	Coffee break

Session 2

11:30	Attila Csík , Hungary <i>Surface coating layers for sensors and biomedical applications, Invited</i>
12:00	Matej Drobnič , Slovenia <i>Effect of LCO₂ on TiAlN hard coating wear behavior at elevated temperatures, Oral</i>
12:20	Klára Hajagos-Nagy , Hungary <i>Non-equilibrium solubility of Cu in α-Mn structure – microstructure and growth of α-Mn(Cu) films, Oral</i>
12:40	Nikolina Novosel , Croatia <i>Complex magnetic and transport phenomena in nanocrystalline gadolinium doped manganite CaMnO₃, Oral</i>
13:00	Lunch break



Session 3	
15:00	Peter Siffalovic , Slovakia <i>In-Situ Techniques for Perovskite Layer Growth Monitoring: X-ray Scattering and Photoluminescence, Invited</i>
15:30	Jaroslav Kousal , Czech Republic <i>Plasma-Assisted Vapour Thermal Deposition for Controlled Deposition of Nanocomposites, Oral</i>
15:50	Vedran Đerek , Croatia <i>Optically driven thin film OECT electrochemical sensor, Oral</i>
16:10	Rainer Hahn , Austria <i>title: Assessing and enhancing fracture toughness of hexagonal diboride coatings, Invited</i>
16:40	Coffee break
17:10	Poster session 1
19:00	Dinner

Tuesday, 1st Oct

Session 4	
9:00	László Óvári , University Szeged & Extreme Light Infrastructure ALPS, Hungary <i>2D Boron Carbon Nitride structures: from synthesis to application, Plenary</i>
9:45	Petr Vašina , Czech Republic <i>Me-B-C coatings - hard and fracture resistant material, Invited</i>
10:15	Žan Gostenčnik , Slovenia <i>Refractory high-entropy nitride coatings deposited by reactive direct current magnetron sputtering, Oral</i>
10:35	Erzsébet Dodony , Hungary <i>EDIC intensity correction of electron diffraction, Oral</i>
10:55	Coffee break

**Session 5**

11:30	Pavol Noga , Slovakia <i>Ion beams for high fluence irradiation testing and characterization of materials, Invited</i>
12:00	Zoltán Száraz , Slovakia <i>Ion beam irradiation and analysis of materials for radiation environments, Oral</i>
12:20	Milena D. Majkić , Serbia <i>Mechanism of nanostructure formation on metal surface by an impact of slow highly charged ions under arbitrary angle of incidence, Oral</i>
12:40	Andrea Schulze , Germany <i>Enhancing Magnetic Sensing & Next-Gen AR Devices - Superior Performance with Ion Beam Processing (scia systems – sponsor presentation)</i>
13:00	Lunch

Session 6

15:00	Jordi Sancho Paramon , Croatia <i>Semi-continuous metal films as building blocks for optical coating, Invited</i>
15:30	Pavel Čurda , Czech Republic <i>ITO nanostructures for label free electro-optical modulated LMR sensing, Oral</i>
15:50	Aleš Omerzu , Croatia <i>Thin ZnO films prepared by plasma-enhanced atomic layer deposition for enhanced photocatalytic applications, Oral</i>
16:10	Róbert Kun , Hungary <i>Nanomechanical characterization of solid-state Li-ion battery components, Invited</i>
16:40	Coffee break
17:10	Poster session 2
19:00	Dinner

Wednesday, 2nd Oct**Session 7**

9:00	María C. Asensio , Materials Science Institute of Madrid, Spain <i>Discovery of advanced materials using artificial intelligence methods and advanced characterization techniques, Plenary</i>
9:45	Michael Tkadletz , Austria <i>Microstructural Design of Cathodic Arc Deposited fcc-TiAlN Coatings: A Path Toward Sustainable Hard Coatings, Invited</i>
10:15	Rok Zaplotnik , Slovenia <i>Novel plasma-supercavitation technology for water cleaning, Oral</i>
10:35	Gregor Primc , Slovenia <i>Combination of advanced oxidation technologies for removal of micropollutants, Oral</i>
10:55	Coffee break

Session 8

11:30	Matjaž Panjan , Slovenia <i>Unraveling plasma self-organization of magnetron sputtering discharges, Invited</i>
12:00	Nina Recek , Slovenia <i>Upscaling the plasma reactor for the treatment of seeds and seed-borne toxins in agriculture use, Oral</i>
12:20	Ardita Kurtishaj Hamzaj , Slovenia <i>Hydrogen interaction and oxide permeation barrier formation in B2-ordered Fe-Al intermetallic alloy, Oral</i>
12:40	Iveta Ukropcová , Czech Republic <i>3D Printing of Semiconductors using Electron Tweezers, Oral</i>
13:00	Lunch
15:00	Excursion / City tour - Split sightseeing & Conference dinner at konoba Rudine

Thursday, 3rd Oct**Session 9**

9:00	Judith L. Driscoll , University of Cambridge, United Kingdom <i>Challenges and Solutions of Oxides for Future AI Hardware, Plenary</i>
9:45	Nives Štrkalj , Croatia <i>Nanoscale Ferroelectricity and Electrochemical Dynamics in Hafnia-Based Films, Invited</i>
10:15	Ján Šoltýs , Slovakia <i>Fabrication of NbTiN superconducting nanowire single-photon detector, Oral</i>
10:35	Karel Mašek , Czech Republic <i>Structure and growth of cobalt oxide epitaxial layers, Oral</i>
10:55	Coffee break

Session 10

11:30	Barbara Šetina Batič , Slovenia <i>Microbiologically induced corrosion of power plant steel components, Invited</i>
12:00	Kinga Kutasi , Hungary <i>Alginate-stabilized colloidal ZnO NPs for biomedical applications, Oral</i>
12:20	Nepal C. Roy , Belgium <i>Atmospheric plasmas for depositing sulfonated plasma-polymerized films for use in liquid contacts, Oral</i>
12:40	Mark Zver , Slovenia <i>Plasma-generated vacuum-UV radiation for inactivation of viruses in water, Oral</i>
13:00	Lunch

**Session 11**

15:00	Željko Skoko , Croatia <i>Revealing nanoscale mechanism in the jumping crystals, Invited</i>
15:30	Lucie Janů , Czech Republic Radical-assisted covalent binding of biomolecules to amine plasma polymers, Oral
15:50	Ida Delač , Croatia <i>Exploring the effects and stability of organic molecule modifications on CVD-synthesized monolayer MoS₂, Oral</i>
16:10	Closing remarks
16:20	Coffee break
19:00	Dinner

Monday 30th Sept

17:10-19:00

Poster session 1

P1	Changhwan Choi , Korea <i>ALD HfZrOx and InGaOx Thin Films for Flash Memory Application</i>
P2	Robert Peter , Croatia <i>Photocatalytic activity of TiO2 thin films embedded with Cu nanoparticles prepared by atomic layer deposition technique</i>
P3	Aljaž Drnovšek , Slovenia <i>High-Temperature Tribology of Multilayered CrN/(Cr,V)N/VN Protective Coatings</i>
P4	Vedran Brusar , Croatia <i>Pressure dependent nonlinear spectral broadening of ultrashort laser pulses in hollow-core fiber (HCF)</i>
P5	Iva Šrut Rakić , Croatia <i>Monolayer MoS2 growth on a pre-patterned substrate as a way to induce strain</i>
P6	Andrea Jurov , Slovenia <i>Characterization of Alumina Scales on Fe-Al Alloys: Enhancing High-Temperature Hydrogen Permeability Resistance</i>
P7	Davor Čapeta , Croatia <i>High resolution, compact Raman spectrometer based on CMOS camera</i>
P8	Julio Car , Croatia <i>Determination of dielectric functions of colloidal silver nanoparticles in LSPR relevant wavelength range</i>
P9	Filip Ferenčík , Slovakia <i>Effect of Sputtering Power on Low Concentration Impurities in Binary Oxides for Semiconductor Applications: A ToF-ERDA Characterization Study</i>
P10	Iva Šarić Janković , Croatia <i>Low-energy ion bombardment induced reduction of TiO2 grown by Atomic Layer Deposition</i>
P11	Karmen Kapustić , Croatia <i>Visualizing intercalation of 2D material using AFM based techniques: MoS2 on graphene/Ir(111) case study</i>
P12	Nikša Krstulović , Croatia <i>UV and solar-driven photocatalysis of organic dyes using ZnO-Ag heterojunction nanoparticles synthesized by one-step laser synthesis in water</i>
P13	Karolina Pietrzak , Croatia <i>Application of electrochemical impedance spectroscopy in studying the mechanism of metal oxide nanoparticles used in ion-selective electrodes</i>



P14	Šárka Zuzjaková , Czech Republic <i>High entropy nitrides: High temperature study of Cr–Hf–Mo–Ta–W–N thin films</i>
P15	Zsolt Fogarassy , Hungary <i>Structural investigation of the heat-treated Ti/Al/TiN/Au contact layer on n-GaN - role of TiN</i>
P16	Miklós Serényi , Hungary <i>On the challenges in reactive HiPIMS co-sputtering of Y and Ti for oxide layers</i>
P17	Béla Pécz , Hungary <i>Advanced structural characterization of Gallium Oxide by transmission electron microscopy</i>

Tuesday 1st Oct

17:10-19:00

Poster session 2

P1	Lucija Krce , Croatia <i>PET surfaces treated with atmospheric pressure plasma jet and enhanced with ZnO nanoparticles: characterization and antibacterial activity</i>
P2	Damir Dominko , Croatia <i>Collective states driven far away from the equilibrium</i>
P3	Miran Mozetič , Slovenia <i>Characterization of low-pressure gaseous plasmas by optical emission spectroscopy</i>
P4	Maja Mičetić , Croatia <i>Synthesis and properties of Ge-based core-shell quantum structures</i>
P5	Mario Rakić , Croatia <i>Femtosecond engraving computer-generated holograms</i>
P6	Rafaela Radičić , Croatia <i>Fabricating PET/ZnO composite assisted by RF plasma processing</i>
P7	Tihomir Car , Croatia <i>Silver nanoparticles in SiC matrix</i>
P8	Zsolt Fogarassy , Hungary <i>Technological applicability of VO₂ layers prepared with different approaches</i>
P9	Krešimir Salamon , Croatia <i>Grazing incidence high-energy heavy ion irradiation for surface nanopatterning</i>
P10	Tímea Hegedűs , Hungary <i>Pt nanoparticles on inert h-BN support: investigation of the CO₂ hydrogenation mechanism on the surface level</i>



P11	Ildiko Cora, Hungary <i>In situ TEM examination of the monoclinic VO₂ thin layer phase transformation to tetragonal VO₂</i>
P12	Dimo Yosifov, Canada <i>Python Modeling of Beamline Vacuum System</i>
P13	Klára Hajagos-Nagy, Hungary <i>The effect of impurities on the structure and mechanical properties of CoCrCuFeNi alloy films</i>
P14	Pranjali Jadhao, Czech Republic <i>Direct growth and application of 2D single crystals of MXenes</i>
P15	Ivna Kavre Piltaver, Croatia <i>Enhanced Photocatalytic Activity of ZnO Films with Fe₂O₃ Intermediate Layers for Efficient Water Purification</i>
P16	Alenka Vesel, Slovenia <i>Influence of chitosan-coated urinary catheters on adhesion of urethral cells</i>
P17	Martin Vičar, Czech Republic <i>New stable ionization vacuum gauge as the transfer standard</i>
P18	Marcell Gajdics, Hungary <i>GaON thin films prepared by reactive sputtering of a liquid Ga target</i>
