

CONFERENCE
PROGRAMME



Chair: Milde	Tuesday 15.9.		Room 2.001	
	8:30 – 9:00		Opening	
	9:00 – 9:50	Kanický	The Early Development of ICP Optical Spectrometry in Czechoslovakia: From the First Instruments to Modern Plasma spectrometry	
	9:50 – 10:20	Holá	LA-ICP-MS for Strategic Raw Materials: From Laser-Sample Interactions to Trace Element Analysis, Imaging and New Glass Calibration Materials	
	10:20 – 10:40	Pragolab		
Chair: Machala	10:40 – 11:00	Coffee break		
	11:00 – 11.30	Dubiel	Impact of Magnetism on Lattice Vibrations	
	11:30 – 11:50	Georgiadis	Carbon-Encapsulated Fe ₃ C Nanoparticles Formed During CVD on AISi 1095 High-Carbon Steel	
	11:50 – 12:10	Andrýšková	Nanostructured Cobalt Ferrite Thin Layers Preapred by Thermally Induced Decomposition of Oxalates	
	12:10 – 12:30	Kudor	⁵⁷ Fe and ¹⁵¹ Eu Mössbauer and XRD Study of Eu-Doped Goethite Nano-Composites Prepared from Different Eu-Compound Precurzors	
	12:30 – 13:00	Wang	Operando Mössbauer Spectroscopy for Single-Atom Electrocatalysts	
	13:00 – 13:30	Gracheva	Mössbauer and Complementary Spectroscopic Studies of Iron in Fertilizers and Plant Tissues	
	13:30 – 14:45	Lunch		
	14:45 – 15:15	Kůsová	Optical Spectroscopy and Properties of Silicon Quantum Dots	
	15:15 – 15:35	Černá	Layer-by-Layer Defect Analysis of He-Ion-Irradiated MoS ₂	
Chair: Pluháček	15:35 – 15:55	Kubala	Mean Fluorescence Lifetime	
	15:55 – 16:15	Pazderková	Stereochemical Analysis of P-Chirogenic Compounds Using Chiroptical Spectroscopies and Quantum-Chemical Calculations	
	16:15 – 16:35	Papoušková	Extending Ambient Mass Spectrometry Using Deep-UV Laser-Based Ionization Approach	
	16:35 – 16:55	Knytllová	Rapid Screening of Small Molecules Using Ambient Mass Spectrometry	
	16:55 – 17:15	Palounek	Concurrent Characterization of Plasmonic Hot Spot, Molecular Structure and Molecular Mass	
	17:45 – 18:00	Group photo		
	18:00 – 19:30	Poster session		

Chair: Matějka	Wednesday 16.9.		Room 2.001	
	8:30 – 9:20	Vlčková	The Role of Surface-Adsorbate Bonding in SERRS and in Plasmon Catalysis	
	9:20 – 9:50	Schlücker	SERS-Based Biophotonics: From Nanotags to Lateral Flow Assays 2.0	
	9:10 – 10:10	Klimiček	Modern Approach to Raman Microscopy – RAMANTouch	
Chair: Schünemann	10:10 – 10:30	Coffee break		
	10:30 – 11:00	Szumiat	Mössbauer Spectroscopy and Magnetic Methods for Environmental Monitoring in Industrial and Post-Industrial Areas	
	11:00 – 11:30	Kubuki	⁵⁷ Fe-Mössbauer Study of Photo-Fenton Catalyst Prepared from Domestic Waste Slag	
	11:30 – 11:50	Machala	Molybdenum-Modified Iron Oxides as Catalysts for Degradation of Meropenem by Peroxydisulfate	
	11:50 – 12:10	Kalusová	Spectroscopic and Photocatalytic Study of β-Fe ₂ O ₃ Prepared in The Presence of Alkali Chlorides	
	12:10 – 12:30	Dubiel	Lattice Dynamics and Magnetism of Two Sigma-Phase FeCrNi Compounds: Mössbauer Spectroscopic Study	
	12:30 – 13:00	Šepelák	Local Structural Disorder–Magnetism Relationships in Nanostructured Complex Oxides	
	13:00 – 14:15	Lunch		
	14:30	Excursion		

Chair: Procházka	Thursday 17.9.		Room 2.001	
	8:30 – 9:20	Ozaki	Advances in Semiconductor SERS	
	9:20 – 9:40	Pěgřimočová	Quantitative Mineralogical Analysis of Sedimentary Rocks Using Far-IR Spectroscopy	
	9:40 – 10:00	MTM	Beyond the Diffraction Limit: Advanced Photothermal Spectroscopy Techniques	
	10:00 – 10:20	Tulupová	Combination of SERS and Enzymatic Detection – Introduction of 4D Space for Interference Overcoming	
	10:20 – 10:40	Coffee break		
	10:40 – 11:10	Klencsár	Key Insights Into MossWinn 5.0	
	11:10 – 11:30	Yaroslavtsev	What’s New in Syncmoss – Faster and Smarter Mössbauer Analysis	
	11:30 – 11:50	Procházka	Dopper Modulator for Synchotron Mössbauer Spectroscopy	
	11:50 – 12:10	Hausner	Observation of Ultrasonically Generated X-Ray Pulses from Resonantly Excited 57-Fe Nuclei	
Chair: Šepelák	12:10 – 12:30	Kouřil	Oltwins Tenbeam: A Multi-Beam Mössbauer Spectrometer Towards Higher Efficiency of Measurement	
	12:30 – 12:50	Dubiel	Distribution of Cr Atoms in Selected Strained and Strain-Free Fe-Cr Alloys	
	12:50 – 13:10	Garg (online)		
	13:10 – 14:30	Lunch		
	14:30 – 15:00	Musil	Photochemical Vapor Generation Coupled with ICP-MS and DART-HRMS: From Highly Sensitive Determination to Volatile Species Identification and Back Again	
	15:00 – 15:20	Wahlen	Enhancing Helium Collision and Reaction Cell Modes with A Novel Cell Design for ICP-MS	
	15:20 – 15:40	Gregar	Beyond Elemental Certification: Exploring Food CRMs for Nanoparticle Characterization	
	15:40 – 16:00	Fouček	Multi-Analytical Spectroscopic Investigation of Roman-Provincial and Germanic Knee Brooches from The Central Danube Region	
	16:00 – 16:20	Gibbs	At The Mercy of Sensitivity and Matrix Effects: Quantification of Fluorine and Oxygen in Polymers with Laser-Induced Breakdown Spectroscopy	
	16:20 – 16:40	Nyaba	Application of Nickel Iron Layered Double Hydroxides/Activated Carbon (NiFe-LDH@AC) Composite for Preconcentration and Removal of Cr and As from Water Systems	
Chair: Holá	16:40 – 17:00	Vaculovič	LA-ICP-MS as An Effective Tool for Studying The Fate of Metals in Organisms	
	17:00 – 19:00	Optional visit to Fort Science		
	19:00 – 01:00	Conference dinner in Fort Science		

Chair: Šířková	Friday 18.9.		Room 2.001
	9:00 – 9:30	Guarrotxena	Beyond Single-Analyte Detection: SERS for Multiplexed Biosensing and Bioimaging
	9:30 – 9:50	Pavelka	Spike Annihilator: Life Without Spikes
	9:50 – 10:20	Marques	Advancing Cancer Therapy by Vibrational Spectroscopy – New Drugs and Targets
	10:20 – 10:50	Schünemann	The Mössbauer Effect Can Be Used for More Than Just Detecting The Electronic and Dynamic Properties of Iron Centers in Proteins
	10:50 – 11:00	Closing ceremony	
	11:00 – 11:30	Farewell drink	