

P. Type	Presenting author	Abstract title
Plenary	Hamish Fraser	Use of principles of modern physical metallurgy, materials characterization and novel processing to develop solutions to problems limiting technological application of non-ferrous alloys
Plenary	Kristián Máthi	Deformation in Action: Multiscale In-Situ Testing of Magnesium Alloys
Plenary	Robert Maass	Metallic glasses – do they have a microstructure?
Plenary	Shigenobu Ogata	Atomistic Insights into Hydrogen-Induced Damage in Metals
Plenary	Markus Strobl	Advanced Neutron Imaging in Applied Materials Science
Plenary	Eteri Svanidze	New ways to design, create, and explore quantum materials
Oral	Vladimir Popov	Design and synthesis of W-Cu core-shell-like powders for Selective Laser Melting of high-performance Metal Matrix Composites
Oral	Hiromoto Kitahara	Structure and mechanical properties of Mg/Zn sheets fabricated by ARB
Oral	Gerrit Kurz	Development of a hardenable magnesium alloy with good forming properties
Oral	Adam Strnad	Thermomechanical processing of novel zirconium alloys via hot rotary swaging
Oral	Jaroslav Čech	Nanoindentation as a Tool for the Comparison of Pseudoelastic Behavior of NiTi Alloys
Oral	Vaclav Paidar	Not-homogeneous structure of high-entropy alloys
Oral	Kristina Bartha	Design of chemically graded titanium implant by additive manufacturing
Oral	Gerardo Garces	Effect of the processing route on the mechanical behaviour and corrosion resistance of Mg-10%Y-1%Al (wt.%) alloy
Oral	João Felipe Queiroz Rodrigues	Effect of Increased Layer Thickness on Phase Stability and Mechanical Behavior of Ti-20Nb-6Ta and Ti-35Nb-6Ta Alloys
Oral	Sergio Perosanz	Leveraging In-Situ HCP precipitation for anomalous strengthening in additively manufactured Al <sub>5</sub> Co <sub>35</sub> Cr <sub>35</sub> Fe <sub>20</sub> Ni <sub>5</sub> High-Entropy Alloy
Oral	František Lukáč	Radiofrequency plasma spheroidization of mechanically alloyed complex concentrated alloy
Oral	Iman Peivaste	From Phase Prediction to Phase Design: An Agentic Framework for High-Entropy Alloy Discovery
Oral	Oleg Heczko	How to increase operational temperature of magnetic shape memory materials?
Oral	Petr Veřtát	Duality of Wave Modulation and Nanotwinning in Ni–Mn–Ga Martensites
Oral	Kristian Salata	Martensitic transformation in Metastable titanium alloys
Oral	Ladislav Straka	Martensitic Transformation and Magnetic Functionality in Ni–Fe–Ga-Based Shape Memory Alloys
Oral	Werner Skrotzki	Superposition of solute and dislocation strengthening in a single crystal CrMnFeCoNi high-entropy alloy
Oral	Michiaki Yamasaki	Anisotropic Mechanical Property-Induced Ductilization (AMID) Mechanism Acting in High Strength Mg-Y-Zn Alloys with Multimodal Microstructure
Oral	Silvie Cerna	f-ELEMENT HIGH-ENTROPY ALLOYS FOR HYDROGEN APPLICATIONS
Oral	Josef Izák	Influence of 3D Printing Strategy and Post-processing on Texture, Residual Stress and Mechanical Behaviour of Inconel 718 Superalloy
Oral	Michael Zehetbauer	Improving Hydrogen Storage in Solids by SPD: From Mg Alloys to HEA-Polymer Composites
Oral	Jan Bohlen	Microstructure Evolution and Mechanical Properties of Magnesium Alloy Wires Processed by Hot Extrusion and Cold Drawing
Oral	Zsolt Beke	In-situ X-ray diffraction study of temperature-dependent deformation mechanisms in a rapidly solidified ribbon consolidated Mg–Zn–Y alloy
Oral	Daria Drozdenko	Plasticity and strengthening mechanisms in low-alloyed Mg alloys: the role of solute-enriched layers
Oral	Benjamin Machat	Analysis of the microstructure and mechanical properties of the Mg-6Zn-3Al alloy containing a stable quasicrystalline phase
Oral	Josef Stráský	Cold Spray Additive Manufacturing of Ti-5553: Microstructural Control via Hard-Particle-Assisted Deposition
Oral	Peter Mínarík	Influence of Surface Pre-treatments on the Morphology and Corrosion Performance of PEO-coated Magnesium Alloys
Oral	Megumi Kawasaki	Lattice-Defect Induced Thermal Behavior of Ultrafine-Grained Copper Examined by Synchrotron X-ray Diffraction
Oral	Mikko Alava	Bayesian methods for the impact of structure on the mechanical properties of metallic glasses
Oral	Yoshinori Shiihara	Local Stress Evolution and Cooperative Atomic Rearrangement in Shear Transformation Zones of CuZr Metallic Glass
Oral	Julian Brandstätter	Tuning microstructures and properties of SPD-processed materials by high pressure annealing
Oral	Shinji Ando	Dislocation mechanism of pyramidal slips in pure magnesium single crystals
Oral	Pavel Lejček	New modes of grain boundary segregation
Oral	Istvan Groma	Comparison of the Strain Gradient Plasticity Theory and the Continuum Theory of Dislocations
Oral	Zoltán Száraz	Advanced Ion-Beam techniques for materials research and development
Oral	František Lofaj	Compositionally complex (NbMoTaW) <sub>100-(x+y)-CxNy</sub> coatings with variable stoichiometry: structure, mechanical, thermal, and electrical properties
Oral	Daisuke Egusa	Kink-induced ductilization of a layered intermetallic compound
Oral	Petr Haušild	Effect of temperature and strain rate on indentation size effect at shallow indentation depths in <001> oriented silicon iron single crystal
Oral	Marie Kvapilová	Creep Behaviour of IN939 Superalloy Produced by L-PBF: Effect of Build Orientation and Comparison with Cast Material
Oral	Gergely Farkas	Power-Law twinning kinetics in Mg alloy determined by 3D neutron diffraction
Oral	Zuzana Soudná	Angle-resolved Brillouin spectroscopy of Al <sub>2</sub> O <sub>3</sub> (0001)
Oral	Pablo Pérez Zubiaur	Effect of Cu and Mo addition on the oxidation behaviour of CoCrFe <sub>2</sub> Ni <sub>2</sub> High Entropy Alloy
Oral	Tomáš Tayari	Deformation Mechanisms and Plastic Instabilities of FeAlNi-based High Entropy Alloys
Oral	Chandana Ravikummar	Effect of Annealing on the Tensile Properties of Hot Roll Bonded Al–Steel Composites
Oral	Michal Knapek	In-situ Investigation of Plasticity Dynamics: From Micron-Scale Crystals to Complex Concentrated Alloys
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Oral	Limpat Nulandaya	Characterization of Microstructure and Shape Memory Functionality in Ni-Fe-Ga Microwires
Oral	Martin Koller	Elastic anisotropy of additive-manufactured β-type Ti-Nb-Sn-Fe alloys
Oral	František Chmelík	Exploring macroscopic plastic instabilities by the acoustic emission technique - a short review
Oral	Grethe Winther	Imaging Dislocation Structure Evolution in the Early Stages of Plastic Deformation
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Oral	Jitka Stráská	Development of Harmonic Grain Structures in Zn–Mg(–Ag) Alloys for Bioabsorbable Implants
Oral	Chih-Chieh Hsu	Reliability Enhancement of Barium Titanate Resistive Memory through Structural and Chemical State Optimization
Oral	Wun-Ciang Jhang	Compliance Current Modulated Multi-Functional Resistive Switching Characteristic in Solution Processed Strontium Zirconate Memory
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Oral	Ladislav Havela	5f ferromagnetism brought to ambient temperatures in uranium Zintl phases
Oral	Amit Chattopadhyay	At the crossover of spinodal decomposition: Modelling curvature-dependence in nanodiffusion
Oral	Michal Beneš	Modeling the Onset of Solidification in a Porous Medium at Micro Scale
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Oral	Jan Capek	TRIP in Austenitic Steels: Synchrotron X-ray Diffraction and MTEX-Based Texture Analysis
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Oral	Miroslav Kolar	Computational investigation of dislocation vs nano-precipitate interactions in austenitic steel by parametric method
Oral	Yuto ITO	Lattice instability-driven kink deformation in hcp-Zn based on machine learning force field
Oral	Yong-Chao Wu	General-Purpose Machine-Learned Potential for CrCoNi Alloys Enabling Large-Scale Atomistic Simulations with First-Principles Accuracy
Oral	Andrej Ostapovec	Shear-Coupled Migration of Grain Boundaries: Linking the Frank–Bilby Approach with the Disconnection Model
Oral	Denys Musienko	Finite Element Modelling of Thermophysical Behaviour and Compositional Segregation in Optical-Floating-Zone-Grown Ni-Mn-Ga Alloys
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Oral	Lenka Kunčíková	Extreme plastic deformation of directly consolidated copper-carbon composites, study of stress and strain characteristics
Oral	Sylvain Queyreau	Criticality and strain-rate dependence of dislocation avalanches in bulk fcc crystals
Oral	Daniil Nazarenko	Twin Propagation in Magnesium Bicrystal: A Combined CPFEM and Experimental Study
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