

JOM TECHNICAL TOPICS

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Below is a sample of articles that will appear in the May issue, based on information available at press time. For the most up-to-date article listing, visit www.tms.org/JOM.

MAY 2024

Advanced Functional and Structural Thin Films and Coatings

Editors: Gerald Ferblantier, University of Strasbourg; Adele Carrado, University of Strasbourg; Karine Mougín, Mulhouse Materials Science Institute; Nuggehalli Ravindra, New Jersey Institute of Technology; and Heinz Palkowski, Clausthal University of Technology

Sponsor: Thin Films and Interfaces Committee

"Comparative Study of the Microstructure and Mechanical Properties of WC/High-Speed Steel Composite Materials Prepared with Co, Ni, and Fe Binders," **Hongnan Li**, et al.

"Tuning the Physical Properties of Ag and ZnO Nanoparticles to be Applied in Various Applications," **Asmaa A. H. El-Bassuony**, et al.

"Effect Of Rare Earth Y Addition on the Microstructure and Properties of Stellite6/WC Coating by Laser Cladding," **Hao Liu**, et al.

"Effect Of Preparation Process on Microstructure and Mechanical Properties of Metal Hollow Sphere Composites (MHSCs)," **Chunhe Wang**, et al.

"From Powder Manufacturing to Perovskite/*p*-type TCO Thin Film Deposition," **Youssef Dombia**, et al.

"Investigation of Wear Behavior of 34CrNiMo6 Low Alloy Steel Coated by PACVD Method," **Yaser Mahdavi**, et al.

"Electrodeposition of Ni from Choline Chloride/Ethylene Glycol Deep Eutectic Solvent and Pure Ethylene Glycol," **Jianing Cui**, et al.

"Novel Nano-Core-Shell Structure SiO₂@Ni-Reinforced Ni-P-Based Amorphous Composite Coating," **Zhihao Zhao**, et al.

"Microstructural Characterization of Plasma Sprayed Ni-5wt.%Al Coatings Using Rietveld Refinement," **Fairouz Chouit**, et al.

Deformation-influenced Microstructural Evolution of High-Temperature Alloys

Editor: Stoichko Antonov, National Energy Technology Laboratory

Sponsor: High Temperature Alloys Committee

"Responses of Nano-sized Oxides and Damage Behaviors of Microstructure in ODS FeCrAl Alloy During Deformation," **Xi Wang**, et al.

"Effects of the Extrusion Ratio on the Microstructure and Mechanical Properties of the Columnar Network Structure TiBw/TA15 Composites," **Yangju Feng**, et al.

"Plane Strain Deformation Behavior and Evolution of Grain Boundary Characteristics of Inconel 625 Alloy," **Zhanjie Jing**, et al.

"Variant Selection and Coarsening During Stress Aging and Creep Deformation of HAYNES® 244® Alloy," **Thomas Mann**, et al.

"Role of Austenite Stability in Elevated Temperature Mechanical Properties of Gas Metal Arc-Directed Energy Deposition Austenitic Stainless Steels," **Olivia DeNonno**, et al.

"Improved Thermodynamic Descriptions of Carbides in Ni-based Superalloys," **Richard Buerstmayr**, et al.

EUROMAT23: Micro- and Nano-mechanics—Characterization and Modelling

Editors: Verena Maier-Kiener, Montanuniversität Leoben; André Clausner, Fraunhofer IKTS; and Johan Hoefnagels, Eindhoven University of Technology

"Micro-Mechanical Fracture Investigations on Grain Size Tailored Tungsten-Copper Nanocomposites," **Klemens Schmuck**, et al.

"Comparative Analysis and Error Assessment of Nanoindentation Evaluation Techniques for Nafion™117," **Velislava Yonkova**, et al.

"CeOx Elastic Properties: An In Situ Nanocompression Study in Environmental Transmission Electron Microscopy (ETEM)," **Lucile Joly-Pottuz**, et al.

"Neural Network Supported Microscale In Situ Deformation Tracking: A Comparative Study of Testing Geometries," **Julius F. Keckes**, et al.

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