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TMS 2017
146th Annual Meeting & Exhibition



February 26 – March 2, 2017
San Diego, California, USA

MECHANICAL BEHAVIOR OF NANOSTRUCTURED MATERIALS

This symposium will honor the outstanding contributions of Prof. Carl C. Koch to many fields in materials science in the last 50 years and celebrate his 80th birthday. In particular, his pioneering research in the areas of synthesis and processing of nanostructured and amorphous materials using mechanical alloying has led to a new paradigm in the field of nanomaterials research. His recent research has focused on synthesis, microstructure, and mechanical behavior of bulk nanostructured materials, metallic glasses, and high-entropy alloys.

This symposium will focus on experimental, theoretical, and computational studies related to nanostructured materials, amorphous metals and high-entropy alloys in the form of bulk, thin films and coatings. These studies will include the following subject areas:

- Synthesis and microstructural characterization of advanced materials
- Deformation, plasticity, and creep in nanomaterials
- Fatigue and fracture
- Nanomechanics
- Thermal stability
- Radiation damage in materials
- Advanced characterization techniques, including in situ techniques and advances in nanomechanical testing techniques
- Multifunctional nanomaterials (including magnetic materials, metamaterials, and thermoelectric materials)
- Theoretical, computational, and analytical modeling of mechanical properties in small dimensions.

ORGANIZERS

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PROCEEDINGS PLANS

Selected papers from this symposium may be published in the TMS journal, *Metallurgical and Materials Transactions*.

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