# Special Issue

# Small-Scale Properties of Materials

## Message from the Guest Editor

The characterization of mechanical properties, on micro- and nano-scales, is crucial for a fundamental understanding of materials behavior to assess other characteristics of materials in the actual service (i.e. elastic-plastic deformation, residual stresses, time-dependent creep and relaxation properties, fracture toughness, fatigue and yield strength). This special issue focuses on properties of materials at small-length scales from both theoretical/modeling and experimental viewpoints. The scope includes, but not limited to, the following areas:

- Materials characterization through micro/nanoindentation testing
- In-situ nanomechanical measurements in application environments (thermal, electrical, electrochemical, and biological stimuli)
- Small scale testing of interfaces
- Mechanical properties of thin films and coatings
- Small scale quasistatic tests (tension, compression, bending, and torsional tests)
- Small scale fatigue, creep and impact tests
- Nano-scale measurements of strain and stress

#### **Guest Editor**

Prof. Meysam Haghshenas

Department of Mechanical Engineering, College of Engineering and Mine, University of North Dakota, Grand Forks, North Dakota, USA

## Deadline for manuscript submissions

closed (31 May 2020)



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Metals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
metals@mdpi.com

mdpi.com/journal/ metals





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## **About the Journal**

## Message from the Editor-in-Chief

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

#### Editor-in-Chief

### Prof. Dr. Yong Zhang

Beijing Advanced Innovation Center of Materials Genome Engineering, State Key Laboratory for Advanced Metals and Materials, University of Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083, China

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## **Rapid Publication:**

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).

