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Advanced Nanoindentation in Alloys

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Message from the Guest Editor

The nanoindentation technique is currently one of the most essential tools for characterizing nano-/micromechanical properties of advanced metals and nanostructured materials, such as additive manufacturing materials, high-entropy alloys, nanocrystalline/nanotwinned metals, and nanoporous materials. Its great success is due in part to the simplicity of the sample requirements. In addition, the progress in the capabilities of hardware and experiment methods makes it possible to measure various mechanical properties (e.g., hardness, elastic modulus, strain-rate sensitivity, creep stress exponent, activation volume, and activation energy) under environmentally controlled conditions as well as high-temperature conditions. Therefore, this Special Issue titled “Advanced Nanoindentation in Alloys” will present the latest advances in characterizing small-scale mechanical properties of various metals and alloys with novel nano-/micromechanical testing techniques.



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Special Issue



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Message from the Editor-in-Chief

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