

## Special Issue

# Advances of Indentation Technology in Materials

### Message from the Guest Editors

Indentation has become an indispensable technique in material science and engineering, providing valuable insights into mechanical behavior and properties of local regions, and exerting a revolutionary impact on the testing of small samples. As this technology continues to develop, we must explore its application in various material systems and address existing challenges. This Special Issue's topics of interest include, but are not limited to:

- Development of new indentation techniques and methodologies;
- Characterization of mechanical properties via instrumented indentation;
- Understanding of deformation or fracture mechanisms by indentation;
- Evaluating material behaviour under extreme conditions;
- Assessing distribution of local properties by indentation;
- Advancements in probe materials, surface treatment, and geometries;
- Integration of indentation with other characterization techniques;
- Applications of indentation in different material systems;
- Modeling and simulation of indentation experiments;
- Standardization and calibration of indentation techniques.

We invite researchers to contribute to this Special Issue and address the topics above.

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### Guest Editors

Prof. Dr. Ming Liu

Prof. Dr. Xu Long

Prof. Dr. Lixun Cai

Prof. Dr. Yan Li

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### Deadline for manuscript submissions

20 October 2025



## Materials

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## About the Journal

### Message from the Editor-in-Chief

*Materials* (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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