

## Special Issue

# Grinding Technology: Theory and Application of Machining

### Message from the Guest Editors

Grinding technology is recognized as one of the most essential methods for achieving precision and ultra-precision machining, particularly for hard-to-machine materials such as advanced ceramics and composite materials. With the rapid development of modern industries, revealing the complex material removal mechanisms and micro-scale damage behaviors during machining processes has become increasingly critical. Furthermore, the growing demand for sustainable manufacturing necessitates the continuous exploration of green machining technologies and advanced simulation methods. This Special Issue, "Grinding Technology: Theory and Application of Machining", aims to provide a comprehensive platform for researchers and engineers to present their latest discoveries and technological breakthroughs. We invite original research articles and review papers covering a broad range of topics, including, but not limited to, precision and ultra-precision grinding, material removal mechanisms of composite materials, green and sustainable machining strategies, multiscale analysis of machining (from nanoscratch to macroscopic grinding) and the evaluation of surface and subsurface integrity.

### Guest Editors

Dr. Shuoshuo Qu  
Dr. Chen Li  
Dr. Tianchen Zhao

### Deadline for manuscript submissions

20 December 2026



## Materials

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### 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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