# Special Issue

# Processing Technology of Brittle Crystal Materials

## Message from the Guest Editors

Brittle crystals and ceramics have been widely used in aerospace, 5G networks, and new energy vehicles owing to their excellent mechanical properties and stable chemical properties. For these advanced applications, brittle crystals and ceramics must be shaped into smooth substrates with high surface integrity using precision and ultra-precision processing technologies. However, there materials have high brittleness and hardness but low fracture toughness, posing great challenges for efficient machining. Brittle damages, including fractures and cracks, are easily generated during the machining process, which inevitably shortens the service life of crystal components and compromises further applications. Understanding the mechanical properties, revealing the damage evolution and material removal mechanism at micro- and nano-scales, exploring innovative machining technology, and optimizing machining process parameters are of great significance to realize the high-efficiency and precision machining of brittle materials. This collection aims to summarize the frontier research on processing and surface integrity characterization of brittle crystals, ceramics, and composite materials.

## Guest Editors

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## Deadline for manuscript submissions

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## Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

## Editor-in-Chief

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