Special Issue

Grain Size Control in the Processing of Poly-Crystalline Materials

Message from the Guest Editors

In poly-crystalline materials, grain size, grain size distribution and grain boundaries are critical to materials' physical and chemical properties. Tremendous progress has been made to control the microstructure evolution when processing bulk poly-crystalline materials, including many novel processing techniques. The microstructural features of the processed materials are correlated with the properties of the final products. Advances to retrieve the desired grain size distribution for specific applications depend on the comprehensive understanding of the mechanisms and kinetics of recrystallization and grain growth, as well as grain refinement techniques. There have also been considerable research efforts dedicated to developing both analytical and numerical grain growth/microstructure evolution models as an essential step toward strengthening the theoretical aspects of grain growth.

This Special Issue is particularly concerned with, but not limited to, the topics outlined in the keywords. We sincerely invite researchers in the field of material processing to contribute to this Special Issue and to make advances to this important aspect in poly-crystalline materials.

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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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