Topical Collection

Ultrasound-Assisted Technologies in Mineral Processing and Metallurgy

Message from the Collection Editors

Ultrasound is a mechanical wave with a frequency exceeding 20 kHz, capable of propagating through gaseous, liquid, and solid media. In recent decades, ultrasound-assisted processing has emerged as a promising technique, leveraging the unique effects of cavitation, mechanical vibration, and localized heating to enhance mineral processing such as crushing, flotation, chemical beneficiation, and crystallization. This Topical Collection invites contributions on all aspects of ultrasound-assisted mineral processing, including but not limited to innovative ultrasound-assisted processing techniques, mechanisms of ultrasonic intensification, design and optimization of specialized ultrasound processing equipment. We believe that advances in innovative techniques, enhanced mechanisms, and specialized equipment will promote the industrial applications of the efficient ultrasound-assisted mineral processing technology in strategic mineral resource recovery. We welcome original research articles, comprehensive reviews, and short communications that advance the field.

Collection Editors

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About the Journal

Message from the Editor-in-Chief

Minerals welcomes submissions that report basic and applied research in mineralogy. Research areas of traditional interest are mineral deposits, mining, mineral processing and environmental mineralogy. The journal footprint also includes novel uses of elemental and isotopic analyses of minerals for petrology, geochronology and thermochronology, thermobarometry, ore genesis and sedimentary provenance. Contributions are encouraged in emerging research areas such as applications of quantitative mineralogy to the oil and gas, manufacturing, forensic science, climate change, geohazard and health sectors.

Editor-in-Chief

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Journal Rank:

JCR - Q2 (Mining and Mineral Processing) / CiteScore - Q1 (Geology)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.2 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).

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