Special Issue

Tailings Dams: Design, Characterization, Monitoring, and Risk Assessment, 2nd Edition

Message from the Guest Editors

Large quantities of tailings are produced and accumulated as a result of the mining of mineral resources and the chemical and mechanical separation processes of mineral extraction. In recent years, there has bene an increase in the number mining tailings dam failures and the discharge of vast volumes of tailings into the natural environment, many of which have caused significant harm to infrastructure and human lives. Therefore, there is a current demand for a broader understanding of the physical and mechanical properties of these complex geotechnical structures, an understanding their geometrical design, an analysis of the failure mechanisms, as well as the development of thorough monitoring technologies and management systems.

Subsequent to the successful publication of the 1st Edition of this Special Issue, this 2nd Edition aims to report recent advances in the characterization, design, monitoring, and risk assessment of mine tailings dams, as well as the evaluation of standards and guidelines for these purposes. Topics of interest include, but are not limited to, those covered by the keyword list below.

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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.

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