

Special Issue

Role of Clay Mineralogy in Geotechnical Engineering Behavior of Clay Soils

Message from the Guest Editors

Clay mineralogy plays a pivotal role in determining the geotechnical engineering properties of clay soils. The unique characteristics of clay minerals, including their type, composition, and arrangement, significantly impact the clay's microstructure, electrochemical activity, and interactions with water. These factors collectively influence the engineering behavior and stability of clay in a wide range of applications, such as foundation engineering, slope stability, landfill liners, and embankment and road construction. Understanding the mineralogical composition of clay is essential for predicting and mitigating potential issues related to shrink-swell behavior, shear strength, and permeability, thereby ensuring the reliability and safety of geotechnical structures.

This Special Issue invites submissions that present original scientific research on the effect of clay mineralogy on the engineering behavior of clayey soils. Researchers and practitioners are encouraged to submit papers that enhance our understanding of these areas, thereby contributing to the development of more reliable and effective geotechnical engineering practices.

Guest Editors

Prof. Dr. Hossam Abuel-Naga

Engineering Department, School of Computing, Engineering and Mathematical Sciences, La Trobe University, Melbourne 3086, Australia

Dr. Anasua GuhaRay

Department of Civil Engineering, BITS Pilani Hyderabad Campus, Jawahar Nagar, Kapra Mandal, Medchal District, Hyderabad 500078, India

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Minerals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
minerals@mdpi.com

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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

Prof. Dr. Leonid Dubrovinsky

Bayerisches Geoinstitut, University Bayreuth, D-95440 Bayreuth,
Germany

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