

Special Issue

X-ray Absorption Spectroscopy of Synthetic and Natural Minerals

Message from the Guest Editor

In order to understand the properties of materials and improve them, we need to know their atomic and electronic structure. One of the structural methods used to determine atomic structure is X-ray absorption spectroscopy (XAS). Due to their ability to solve a wide range of scientific problems, XAS techniques are widely used for determining the atomic structure of liquids, melts, and minerals. X-ray absorption spectroscopy (XAS) methods, including pre-edge, x-ray absorption near-edge structure (XANES), extended x-ray absorption fine structure (EXAFS) regions, ... XANES spectra are quite difficult to analyse, but can be used for straightforward analysis of atomic and electronic structures. Another advantage of the XAS is applicability for the investigation of electronic states and the atomic geometry of impurities with very low concentrations. This Special Issue aims to publish papers with applications and demonstrations of the ability of XAS techniques to solve the atomic and electronic structures of synthetic and natural minerals.

Guest Editor

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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.

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