



Rietveld Refinement in the Characterization of Crystalline Materials

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Message from the Guest Editor

Nowadays, various crystalline materials are essential in our world due to their broad technological applications arising from their properties: ceramics in engineering, semiconductors in electronic industry, porous materials in catalysis and various families of compounds in sensor industry. In order to understand and tailor the properties of crystalline materials, the atomic structure has to be known. The common used techniques to do this are diffraction techniques using neutrons from neutron sources or X-rays from laboratory sources and synchrotrons. Most materials of technological interest appear in the polycrystalline form with strong tendency to consist of very small crystallites. For those system, the accurate determination of the crystal structure and microstructure has been routinely done using the Rietveld method.

The current special issue focuses on the implementation of the Rietveld refinement of powder X-ray or neutron diffraction data as an advanced analysis tool for the extraction of structu





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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.

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