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Experimental and Theoretical Electron Density Analysis of Crystals

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Deadline for manuscript
submissions:

closed (31 December 2017)

Message from the Guest Editor

The electron density of a given material, be that a molecular species of relevance to life science or an inorganic phase that physicists appreciate, is a determining factor for many of its essential and unique physical properties, and it is obviously of huge importance in any study of physical properties of solid matter. The chemical systems under scrutiny are increasingly complex, and for instance the first electron density determinations of excited states have surfaced in recent years. In parallel, the electron density may also be obtained by computational methods and this field is developing at an even higher pace thanks in large to the increasing speed of computers.

With this Special Issue, we aim to show the broad applicability of electron density analysis and its strength in addressing a large variety of chemical and physical problems.

Therefore, we invite you to contribute a research article to this Special Issue, featuring your particular scientific problem among others having in common the use of the electron density.

Keywords

- X-ray diffraction
- Electron density determination
- Topological analysis



mdpi.com/si/9781

Special Issue



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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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