

Special Issue

Advances in Preparation, Characterization and Application of Hydroxyapatite-Based Materials

Message from the Guest Editors

This Special Issue aims to present recent advances in the synthesis, doping, surface modification, and composite development of HAp-based materials. We welcome contributions that deepen our understanding of structure–property relationships through advanced characterization techniques, as well as studies that explore innovative applications in biomedical, dental, environmental, and industrial contexts. Topics of interest include but are not limited to:

- Novel synthetic routes and green chemistry approaches to hydroxyapatite;
- Functionalization and doping with metallic and non-metallic ions;
- Nanostructured and hierarchical HAp materials;
- Advanced characterization (FTIR, XRD, TEM, etc.) and in vitro/in vivo evaluation;
- Applications in bone regeneration, dental restoration and implants, antimicrobial coatings, biosensors, water treatment, and cultural heritage.

Guest Editors

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About the Journal

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.

Editor-in-Chief

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