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Biomimetic Growth of Calcium Phosphate Crystals

Guest Editors:

Dr. Michele Iafisco

Laboratory of Bioceramics and
Bio-hybrid Composites, CNR -
Institute of Science and
Technology for Ceramics, Via
Granarolo, 64 I-48018 Faenza
(RA), Italy

**Dr. José Manuel Delgado-
López**

Instituto Andaluz de Ciencias de
la Tierra (IACT, CSIC-UGR),
Armilla, Granada, Spain

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Message from the Guest Editors

Understanding how living organisms form their extremely specialized mineralized structures, and identifying the organic molecules controlling the final crystal size, shape and polymorphism, which in turn determine their unique mechanical properties, is highly relevant, not only on the fundamental knowledge side, but also as a source of inspiration for the design of advanced biomaterials. Synthetic calcium phosphates are among the most interesting and versatile biomimetic materials since they chemically resemble the inorganic phase in hard tissues and pathological calcifications. Most of their excellent features, including biocompatibility and bioactivity, can be significantly enhanced by improving their biomimetism. Therefore, the synthesis of calcium phosphates under physiological conditions or mediated by organic additives, resembling the small molecules or macromolecules of the organic matrix of bone and teeth, is a matter of intensive research and a hot topic.



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Special Issue



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Editor-in-Chief

Prof. Dr. Alessandra Toncelli

Department of Physics, University
of Pisa, 56126 Pisa, PI, Italy

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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Crystals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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