



Preparation, Characterization and Application of Hydroxyapatite

Guest Editors:

Dr. Margarita A. Goldberg

Laboratory of Composite
Ceramic Materials, A. A. Baikov
Institute of Metallurgy and
Materials Science (IMET), Russian
Academy of Sciences, 119334
Moscow, Russia

Dr. Natalia V. Bulina

Laboratory of Synthesis and
Physical and Chemical Analysis
of Functional Materials, Institute
of Solid State Chemistry and
Mechanochemistry, Kutateladze
str. 18, 630090 Novosibirsk,
Russia

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Message from the Guest Editors

In recent decades, significant progress in the science of biomaterials has been made. Hydroxyapatite deserves special attention, as it is an analogue of biogenic apatite, the main inorganic component of bone tissue. Synthetic hydroxyapatite is widely applied in medicine as a filler for bone defects, a material for implants, a carrier for drug delivery and an anticancer/imaging agent, and a base of cements or various composites. Hydroxyapatite is also used as a bioactive component of toothpastes and cleaning products. In addition to being an indispensable material for medicine, hydroxyapatite has many other applications, as it is a catalyst or catalyst support for various organic reactions and an effective sorbent for protein, water, soil, and air purification. It is used in the form of gels, pastes, powders, and ceramics.

A wide range of useful properties of hydroxyapatite indicate the great potential of this material and stimulate further research activity. This list of properties can be extended by implementing substitution in the hydroxyapatite structure, as the insertion of foreign ions with useful properties transfers them to the material.





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McGill University, Duff Medical
Science Building, 3775 University
Street, Montreal, QC H3A 2B4,
Canada

Message from the Editor-in-Chief

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Materials
MDPI, St. Alban-Anlage 66
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