



Crystal Chemical Design of Inorganic Materials: From Structural Features to Advanced Physical Properties

Guest Editors:

Dr. Sergey M. Aksenov

Kola Science Centre, Russian
Academy of Sciences, 184209
Apatity, Russia

Dr. Dina V. Deyneko

Faculty of Chemistry, Lomonosov
Moscow State University, 119991
Moscow, Russia

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Message from the Guest Editors

Modern chemistry of inorganic materials is based on a detailed analysis of the features of crystal structures of compounds, since even the slightest changes in chemical composition or atomic coordinational environment can lead to a significant change in the quality of observed physical properties. This basic principle is realized in a wide range of types of inorganic materials used in modern technologies.

The crystal chemical design of new compounds involves a direct synthesis of compounds with optimal compositions taking into account structural data, which makes it possible to use one type of inorganic matrix for different technological applications. Thus, the basic principle of solid state chemistry is realized: from chemical composition and crystal structure features to advanced physical properties.

The purpose of this Special Issue is to summarize the data on different types of inorganic matrices exhibiting crystal chemical variability and isomorphic capacity, which is expressed in different types of physical properties.





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Editors-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Prof. Dr. Yuguang Ma

State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

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Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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