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

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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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Special issue



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Message from the Editor-in-Chief

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