From the Editorial Board and Compilers

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The editorial board of the journal *Kristallografiya* (*Crystallography Reports*) has planned to release a series of thematic issues. This issue, referred to as “Mineralogical Crystallography,” is the first one in the series.

It is well known that specifically investigations of minerals played the most important role in the formation of crystallographic science in the XVIII century. Undoubtedly, nowadays, as before, the characterization of natural crystalline materials—minerals (whose number is now more than 5500)—makes it possible to study the structure and physical and chemical properties of representatives of many structure types; draw conclusions on the expediency of attempts to synthesize their artificial analogues; and estimate the prospects of their application in various modern technologies. Of particular importance is the fact that many minerals form larger crystals of higher structural quality as compared with their synthetic analogues (here, the geological time factor plays an important role), which are more convenient for studying the atomic structure and various properties of materials. Thus, being oriented to practical applications, many results of modern crystallography are directly related to the formation of scientific bases of nature-like manufacturing technologies of new crystalline materials with specified properties and structures similar to those of natural minerals or their derivatives.

Many aspects of this extremely important problem are considered in this special issue of *Kristallografiya* (*Crystallography Reports*). It is opened by a review devoted to the very interesting recent results in the field of mineralogical crystallography, which made it possible to reveal new landmarks and outline ways of its future development. The range of problems consid-

ered in the papers of this issue is extremely wide. It includes characterization of new and rare minerals, as well as scientific concepts of mineralogical systematics, crystallomorphological and crystallochemical indicators of diamond formation conditions, the influence of trace impurities on the processes of mineral formation in deep geospheres, the structural features of crystals that are promising for immobilizing actinides, and the new types of microporous heteropolyhedral frameworks with developed properties of ionites and molecular sieves. This issue contains also a paper devoted to the “ancient” geology, specifically, the determination of the origin of lead in a sculpture dated back to the V century BC.

The authors of the papers included in this special issue are Russian researchers that are well known to the world crystallographic community; they represent university and academic scientific centers of Moscow, St. Petersburg, Novosibirsk, Apatity, Chernogolovka, Petropavlovsk-Kamchatskii, and other towns. The editorial board of the journal is grateful to our foreign colleagues, Professor L. Bindi (Florence, Italy) and Professor I. Grey (Melbourne, Australia), who kindly submitted their papers for publication in this issue of *Kristallografiya* (*Crystallography Reports*).

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