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X-ray Diffraction (XRD) for Hydroxyapatite

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Deadline for manuscript submissions:
closed (10 June 2023)

Message from the Guest Editors

In addition to being an indispensable material for medicine, hydroxyapatite has many other applications; it is a catalyst or catalyst support for various organic reactions and an effective sorbent for water, soil, and air purification. Hydroxyapatite is ready to form various kinds of substitutions, which makes it possible to obtain new properties, for example, antibacterial, antitumor, conductive, or magnetic properties. A wide range of useful properties of hydroxyapatite indicate the great potential of this material and stimulate further research activity.

The main method for monitoring the composition and structure of materials is X-ray diffraction. Using this method, it is possible to simultaneously control both the phase purity of the material and the structural changes; determine the degree of crystallinity, crystallite size, and lattice parameters; carry out the crystal structure refinement; investigate phase transitions under heating; analyze the thermal stability; and calculate the coefficient of thermal expansion of the material.

For this Special Issue, we invite authors to contribute research articles or reviews on the above-mentioned topics.

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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