Special Issue

Microwave Assisted Synthesis of Hybrid and Nano-Engineered Materials

Message from the Guest Editor

Development of economically attractive and environmentally friendly nanomaterials, which are of immense importance for improving quality of life, is often hampered by the poor efficiency of the methods used. Application of microwave heating/activation provides sometimes new opportunities related to the synthesis of extremely small nanoparticles or extremely uniform particle-size distribution, as well as the production of metastable phases that are otherwise not formed under conventional heating conditions. Of special interest are hybrid nanomaterials that demonstrate a synergy of the components. The use of microwave activation for production of nanomaterials and in-situ chemical, in particular, catalytic processes can provide a significant gain in energy consumption. MW-assisted processes occurring in the presence of hydrogen may be enhanced due to the effect of hydrogen spillover.

Guest Editor

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Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

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