

Special Issue

Recent Advances in Polymer-Derived Ceramics and Ceramic Nanocomposites

Message from the Guest Editor

Silicon-based polymer-derived ceramics (PDCs) and ceramic nanocomposites (PDC-NCs) represent a class of materials which are produced by the controlled pyrolysis of suitable organosilicon polymers in inert or reactive atmosphere. This procedure allows the access to novel additive-free ternary and quaternary ceramic materials which cannot be achieved using conventional processing techniques such as sintering or melting.

The scope of this Special Issue includes, without being limited to, the following topics:

- Synthesis methods for oxide and non-oxide PDCs and ceramic nanocomposites;
- Properties: electronic, optical, magnetic, catalytic, high-temperature resistance to crystallization and decomposition, mechanical, charge carriers transport, thermal transport, etc.;
- Micro-/nanostructure (nanodomain structure);
- Applications: electronic applications, high-temperature structural applications, catalysis, energy conversion and storage, lightning, coatings etc.

Guest Editor

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 29th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts, and novel materials. Pushing the boundaries of the discipline, we invite papers on all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

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