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

Dr. Gabriela Mera
Senior Researcher, Institute of Materials Science, Technische Universität Darmstadt, Darmstadt, Germany

Deadline for manuscript submissions

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Molecules
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
molecules@mdpi.com

mdpi.com/journal/molecules

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Message from the Editor-in-Chief

As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th 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 multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

Editor-in-Chief

Prof. Dr. Thomas J. Schmidt
Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Corrensstrasse 48, D-48149 Münster, Germany

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