Special Issue

Novel In Situ Synthesis of Advanced Functional Materials

Message from the Guest Editor

A remarkable amount of functional materials has been elaborated due to the synergetic coupling of different components (molecular precursors, colloids, (bio)-organic molecules, polymers, complex fluids, templating agents, liquid crystalline phases, etc.) and the development of processing and patterning techniques (electrodeposition, chemical/physical vapor deposition, extrusion, lithography, etc.). A promising method for the preparation of these materials is afforded by the in-situ synthesis approach in which the synthesis and self-assembly of components take place in one-step procedure together with the shaping of materials. This Special Issue is intended to cover novel in-situ synthesis approaches of a wide range of functional materials differing by their composition (inorganic or organic solids, hybrids, polymers, composites, etc.), texture (porous or dense) and functionality. Therefore, the rational design of materials requires the understanding of their growth mechanism which can be studied by sampling and characterizing the reaction medium by in-situ or ex-situ methods at different times.

Guest Editor

Prof. Dr. Nathalie Steunou
Institut Lavoisier de Versailles, Versailles, France

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

mdpi.com/journal/materials

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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.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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