Special Issue

Construction and Applications in Functional Polymers

Message from the Guest Editors

Functional polymers have gained enormous attention in recent decades owing to their great potential in delivering a wide range of functionalities, e.g., electrical conductivity, strain sensing, thermal conductivity, thermoelectric property, dielectric property. electromagnetic shielding, and microwave absorption. These functionalities are largely determined by the physicochemical properties of functional fillers and their network morphology in polymer matrices. Functional polymer materials are a current research hotspot and they are being gradually developed in terms of intelligence, with modifications such as self-healing and stimuli-responsive materials. Functional polymers are applied in many fields, such as flexible electronics, superhydrophobic coatings, drug delivery, tissue engineering, medical devices, food packaging, sensors, actuators, optoelectronics, organic light-emitting diodes, thin-film transistors, batteries, waste water treatment, antifouling, etc. This Special Issue is devoted to showcasing the most recent research in this interdisciplinary field, covering the latest advances in the design, synthesis, and applications of functional polymer materials.

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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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