Special Issue

Biodegradable Polymeric Composites: Development and Industrial Applications

Message from the Guest Editors

Plastics derived from fossil fuels are extensively used for the large-scale production of commodities, due to the availability of well-developed manufacturing processes and to the possibility of achieving good control over their physicochemical properties. However, once commodity plastics end up in landfills and the oceans, their limited biodegradability is a concern for biodiversity, ecosystems, food security and human health. The global threat of plastic pollution has stimulated the research of materials that can be broken down to CO2, CH4 and water by the action of microorganisms. These biodegradable polymers can be produced from fossil fuels, biomasses or micro-organisms. An interesting perspective is represented by composite systems based on this class of polymers for their enhanced properties and retained biodegradability. In this Special Issue, we aim to publish original work and reviews about the current strategies and technologies for the fabrication of biodegradable polymeric composites and their industrial applications, such as in food packaging and biomedical devices, among others.

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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.

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