Special Issue

Self-Healing Materials and Devices

Message from the Guest Editors

Polymers are undoubtedly excellent candidates for the design of self-healing materials, which have the ability to repair or restore damage, due to their widespread application and various self-healing mechanisms. Specifically, the underlying healing mechanisms can be categorized into extrinsic and intrinsic self-healing materials. Moreover, endowing devices with a self-healing ability is of significance to achieving a long lifetime and reducing polymer waste, especially in the circular economy model. Over the past few decades, tremendous progress has been made in the development of self-healing materials, which have been successfully integrated into different functional devices, including sensors, artificial muscle, solar cells, field-effect transistors, dielectric actuators, and energy devices. The aim of this Special Issue is to provide readers with an up-to-date overview of recent progress in research on self-healing materials and devices.

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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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