Special Issue

Self-Healing Materials and Applications

Message from the Guest Editors

Self-healing materials regain functionality after being damaged. For example, chemical decomposition is reversed, cracks mend themselves, and material fragments reconstitute themselves. Examples of applications include structures whose mechanical integrity repairs itself after fracture, lasers that come back to life after optically-induced damage has been caused to the active medium, and materials that reconstitute themselves after being shattered. This Special Issue focuses on all self-healing materials, including polymers, crystals, amorphous materials and composites such as thin films, fibers and bulk materials. The scope of this Special Issue includes material synthesis, processing, characterization, theoretical studies of underlying mechanisms, devices that rely on self-healing, and applications.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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