Special Issue

Recent Advances in Shape Memory Polymeric Composites

Message from the Guest Editors

Since the discovery of shape memory polymers (SMPs) in 1960, interest in this type of polymers has suffered a huge increase. Basically, a shape memory polymer is a smart stimuli-responsive material that can be deformed by an external force and then fixed in a temporary shape until an external stimulus provides the recovery of the original shape. As a consequence of these unique features, SMPs have a broad range of applications in many fields. When the change in shape is triggered by heating, the material shows a thermally induced shape-memory effect. In general, thermo-sensitive SMPs require suitable polymer networks with junctions and network chains with reversible mobility switching. The junctions determine the permanent shape; they are responsible for the original shape recovery, based on entropic elasticity, while the switchable network is responsible for the temporary shape fixation. As a result of their unique elasticity and extensibility afforded by the formation of a three-dimensional cross-linked network, elastomers are excellent candidates to fix the permanent shape.

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Since its foundation in 2009, *Polymers* has developed into an internationally renowned, extremely successful open access journal. The editorial team and the editorial board dedicatedly combine open-access publishing and high-quality rigorous peer reviewing. The performance of the journal has proven this strategy to be well-suited and highly successful. This is reflected in the increasing impact factor of *Polymers*, the most recent one being 4.7.

I would like to invite you to contribute to the success of the journal by sending us your high quality research papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

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