



## Self-Healing Polymers and Vitrimers

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### Message from the Guest Editors

Dear Colleagues,

Recently, self-healing polymers and vitrimers have attracted considerable interest from investigators. Inspired by the fact that biological tissues can heal injury, preparing these synthetic materials with self-healing properties in order to maintain the mechanical strength and structural integrity of materials against injury and damage is of interest. Vitrimers are a class of crosslinked polymer networks that contain dynamic chemical bonds. Their reprocessing can be achieved via the exchange of dynamic bonds. At service temperature, vitrimers behave as conventional thermosets. Nonetheless, the exchanges of dynamic bonds can be triggered at elevated temperatures. As a consequence, the thermosets display weldability, thermoplasticity or malleability.

This Special Issue is concerned with the synthesis, characterization, structure, and properties of self-healing polymers and vitrimers. Hopefully, contributions focus on synthesis, mechanisms, physical and functional properties, and/or applications of the materials. These research articles can help to compile this Special Issue to reflect the current state-of-the-art advances in this area.





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