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Advances in Self-Healing Composites

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Message from the Guest Editors

Dear Colleagues,

In the contemporary panorama of technologically-advanced self-healing materials, polymers undoubtedly assume a primary role because of their widespread use and the wide variety of self-healing mechanisms available.

Self-healing composites potentially offer greater durability for severe load-bearing applications in which safety is a concern and where repair and maintenance are expensive.

In addition, the development of self-healing thermosets incorporating dynamic bonds can introduce a new paradigm in developing materials that can combine the reworkability and recyclability of thermoplastics with structural and chemical resistance of thermosets, enabling the development of high performance thermoset composites with reduced CO₂ footprints.

This Special Issue highlights the achievements and applications of self-healing composites. Contributions also focus on the molecular dynamics at the base of self-healing and the assessment of its effectiveness, and the interfacial adhesion and self-healing at the fiber matrix interface.

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Special Issue



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Message from the Editor-in-Chief

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