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Advances in Self-Healing Materials Based on Vascular Networks with Mechanical Self-Repair Characteristics

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ABSTRACT

Here, we review the state-of-the-art in the field of engineered self-healing materials. These materials mimic the functionalities of various natural materials found in the human body (e.g., the healing of skin and bones by the vascular system). The fabrication methods used to produce these “vascular-system-like” engineered self-healing materials, such as electrospinning (including co-electrospinning and emulsion spinning) and solution blowing (including coaxial solution blowing and emulsion blowing) are discussed in detail. Further, a few other approaches involving the use of hollow fibers are also described. In addition, various currently used healing

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