Biogenic and Bioinspired Self-Healing Materials

Message from the Guest Editor

Dear Colleagues,

This Special Issue of Biomimetics will present original research and reviews focused on the development and production of synthetic self-healing materials inspired by nature, as well as investigations of biological materials that serve as archetypes for self-healing behavior. Self-healing capacity offers the potential to increase the functional lifetime of materials in numerous technical and biomedical applications. Over the last twenty years, there have been increasing efforts to integrate both extrinsic and intrinsic self-healing behavior into polymers and composites. In many cases, these efforts have been based on a handful of paradigms distilled from investigation of biological systems (e.g., wound healing, bone mending, healing in biopolymers via reversible bonds). However, it is clear that there is much to still be learned through further investigation of the natural role models. In this Special Issue, we will bring together current research in both the synthetic and biogenic realms to paint a picture of the state-of-the-art in this exciting field.

Dr. Matthew J. Harrington
Guest Editor

Deadline for manuscript submissions: closed (15 January 2019)