Special Issue

Self-Healing Materials and Their Applications

Message from the Guest Editor

This Special Issue of *Nanomanufacturing* covers recent developments in the field of self-healing materials and establishes a platform for collecting and exchanging research results to expand and improve the field. The Special Issue will include manuscripts on the following areas: cementitious, polymeric, ceramic, metal, and composite materials. In addition, there will be a discussion on historical issues such as Roman concrete, including research efforts in the field. Coatings with self-healing ability for applications in the transport industry will be discussed, including developments in self-detection, as well as intelligent nano-containers. Advances in modeling self-healing phenomena will highlight the efforts undertaken to understand self-healing processes. Scaling and commercialization applications will also be included in this issue to showcase the developments in the industry. Moreover, new developments in self-healing chemistry (e.g., supramolecular polymer chemistry) and innovations (e. g., self-healing of batteries) are outlined within the issue, which will conclude by remarking on the prospects of the technology discussed.

Guest Editor

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Deadline for manuscript submissions

closed (31 March 2024)

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About the Journal

Message from the Editor-in-Chief

The capability to manipulate, assemble, and fabricate nano-objects have given rise to nanoscience, one of the most rich and interdisciplinary fields of research. In fact, mechanics, optics, magnetism, or electronics at the nanoscale strongly differ from their macroscopic counterparts, and thus several disciplines are necessary to study nanomaterials. This field's development parallels the technical advances that have made it possible to control matter at the nanoscale. Our journal, *Nanomanufacturing*, seeks to provide a forum for discussion and a platform to publish the latest results regarding the fabrication, manipulation, scalability, and eventual industrial production of miniaturized devices or objects. All of our articles are published with rigorous refereeing and open access.

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