Special Issue

Advances in Micro-/Nanorobotics

Message from the Guest Editors

Micro-/nanorobots (MNRs) are capable of navigating and manipulating micro/nanoobjects in many hard-to-reach environments and have been considered to bring revolutionary changes to biomedicine, sensing, micro/nanoengineering, and environmental remediation. Nevertheless, when facing practical application scenarios, current MNRs are still limited by small-scale preparation, weak driving forces, easy deactivation, difficult imaging/tracking, poor automation, low intelligence, high safety risks, simple functions, etc. Continuous scientific discovery and technological innovation are highly desired in the field. This Special Issue will present the latest research outlining progress on the design and application of micro-/nanorobotics. Potential topics include, but are not limited to fundamental understanding of MNRs and their interactions with surroundings; design and fabrication of MNRs with different driving mechanisms; actuation and control strategies for MNRs; automated platforms and systematization of MNRs; swarming dynamics and collective intelligence of MNRs; functionalization and applications of MNRs; smart materials and actuators; active matter and programmable materials.

Guest Editors

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Deadline for manuscript submissions

closed (31 March 2024)

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/161700

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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

Editor-in-Chief

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