Special Issue

Magnetic Manipulation of Micro/Nano Objects

Message from the Guest Editors

Manipulation of micro/nano objects has numerous potential applications in various fields, including (but not limited to) engineering, medicine, physics, chemistry, and biology, which can be achieved using several types of external fields, such as the electric, magnetic, optical, and acoustic fields. Among them, magnetic field-based manipulation has attracted widespread attention over the past few decades due to its advantageous features, such as wireless remote actuation, high degree of controllability, programmability, and versatility. There is still a long way to go in terms of the development of high-performance magnetic tools, multifunctional actuation strategies, and deep understanding of the mechanism of magnetically driven micro/nano objects. In this Special Issue, we welcome original research papers and review papers related to the applications (such as magnetic micro/nanorobots, colloidal assembly, separation, trapping, and mixing), fundamentals, design, and underlying mechanisms of magnetic manipulation of micro/nano objects, including analytical, numerical, and experimental analysis. We look forward to receiving your submissions.

Guest Editors

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