



Droplet Microfluidics

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Message from the Guest Editors

The rapid development and adoption of droplet microfluidics have relied not only on an efficient stabilizing system (oil and surfactant), but also on a library of modules that are able to manipulate droplets at a high-throughput. Droplet microfluidics is a vibrant field that keeps evolving, with advances that span technology development and applications. Recent examples include innovative methods to generate droplets, to perform single-cell encapsulation, magnetic extraction, or sorting at an even higher throughput. The trend consists of improving parameters such as robustness, throughput, or ease of use. Remarkably, these developments rely on a firm understanding of the physics and chemistry involved in capillary systems at a small scale. Finally, droplet microfluidics has played a pivotal role in biological applications, such as single-cell genomics or high-throughput microbial screening, and chemical applications.

This Special Issue seeks to showcase all of the aspects of the exciting field of droplet microfluidics, including, but not limited to, technology development, applications, and open-source systems.





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