

Special Issue

Microreactors: From Principles to Rational Design and Applications

Message from the Guest Editor

By virtue of their many unique merits, such as low cost, high throughput, low sample consumption, high flexibility, and precise spatiotemporal control, microscale reactors have attracted increasing attention in the last two decades. To date, passive and active microreactors have been widely employed for process intensification toward advanced chemical engineering, environment science, and biomedical engineering. Specifically, we invite contributions on, but not limited to, the following topics: 1) microfluidic and nanofluidic reactors for engineering of chemicals and relevant numerical simulation studies; 2) acoustofluidic reactors for chemical engineering, environment science, and biomedical engineering; 3) advanced microreactor fabrication techniques toward rational design of micro-/nanomaterials; 4) design, fabrication, and applications of 3D-printed microreactors; 5) design, fabrication, and applications of paper microreactors; 6) theoretical studies for exploring the relationship between microchannel geometries and mixing intensification.

Guest Editor

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