Special Issue

Physics and Applications of Microfluidics

Message from the Guest Editor

Research on microfluidics concerns the study of geometrically constrained fluid flows inside domains of micrometric size. Ever since its introduction, about 40 years ago, the miniaturization of typical fluidic elements, such as channels, reservoirs, or mixing/separation chambers, has attracted significant interest, enabling improvement in the performance of classical devices, such as compact heat exchangers, or the development of innovative concepts, such as the biochip. This Special Issue seeks contributions that bring new insight into the physics of microfluidic flows. In this context, theoretical, experimental, and computational approaches are all welcome. **Keywords**

- microfluidics
- multiphase flow
- rarefied flow
- nonequilibrium gas flow
- biochip
- lab-on-a-chip
- microchannels
- computational fluid dynamics
- experimental fluid dynamics

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