



## State-of-the-Art Nanofluidics

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### Message from the Guest Editor

Dear Colleagues,

Recently, nanofluidics has gained a tremendous amount of interest in high-performance microfluidic lab on a chip applications at the smallest scale level as well as conventional research fields. Basically, nanofluidics is the study of the behavior, manipulation, and control of fluids that are confined to structures of nanometer (typically 1–100 nm) characteristic dimensions ( $1 \text{ nm} = 10^{-9} \text{ m}$ ). A significant growth of research in nanofluidics has been achieved, but there are still many challenges to understand new physical phenomena and underlying mechanism for nanofluidics. Based on those studies, a various applications for nanofluidics can be developed providing considerable opportunities. This special issue will highlight the progress that has been made in theory, fabrication, and application of recent micro/nano fluidics, as well as show readers new opportunities and insight of future nanofluidics.

### Keywords

- micro/nano fluidics
- lab-on-a-chip
- mass transport
- electrokinetics
- concentration polarization
- fabrication of nanofluidic device
- application of nanofluidics





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