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Nanofluidic transport of water, ions and nanoparticles
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Aim and Scope
Not only our daily life, but also life itself is dependent on the transport of fluids. For example, water and ions are selectively and efficiently transported in and out of cells by protein channels. Actually, at the nanoscale, structures have high surface-to-volume ratios, leading to new physical phenomenons that differ from macrofluidics or microfluidics, as exemplified by extraordinary conduction of water through carbon nanotubes (CNTs), observed both in recent experiments and computer simulations.

This special issue will focus on the transport dynamics of water, ions and nanoparticles through nanometer channels, including the structure of confined water and ions, the controlling of water flow, the separation and filtration of ions or nanoparticles and so on. Both experimental and computer simulation work are welcome.

Keywords: Transport; Nanochannel; Water; Ion; Nanoparticle

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