

Special Issue

Microscale Surface Tension and Its Applications

Message from the Guest Editors

Building on advances in miniaturization and soft matter, surface tension effects are a major key to the development of soft/fluidic microrobotics. Various applications are under development: microfluidic and lab-on-chip devices, soft gripping and manipulation of particles, colloidal and interfacial assemblies, fluidic/droplet mechatronics.

In this Special Issue of *Micromachines*, we invite contributions covering all aspects of microscale engineering relying on surface tension. Particularly, we welcome contributions on fundamentals or applications related to:

- **Drop-botics:** capillary manipulation, gripping, and actuation, sensing, folding, propulsion and bio-inspired solutions
- **Control of surface tension effects:** surface tension gradients, active surfactants, thermocapillarity, electrowetting, elastocapillarity
- **Handling of droplets, bubbles and liquid bridges**
- **Capillary forces:** modelling, measurement, simulation
- **Interfacial engineering:** smart liquids, surface treatments

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