Title
Small droplet, big world

Journal
Droplet, 1(1)

ISSN
2731-4375

Authors
Ren, Luquan
Kim, Chang-Jin
Wang, Zuankai

Publication Date
2022-07-01

DOI
10.1002/dro2.14

Peer reviewed

DOI: 10.1002/dro2.14

EDITORIAL

Droplet WILEY

Small droplet, big world

It is hard to imagine something as scientifically and visually beautiful as droplets and bubbles. In nature, plants and animals use droplets and bubbles to survive, evolve, and flourish. Beetles in the Namib Desert drink from droplets on their backs collected from the fog-laden wind, pistol shrimps utilize collapsing bubbles to stun prey, and pathogenic microbes spread through tiny droplets seeking new hosts.

Defined by the liquid–gas interface, droplets and bubbles can form, grow, deform, migrate, coalesce, and interact with each other or with their surroundings. They fascinate us with captivating physical phenomena such as tears of wine caused by the Marangoni effect and dancing droplets on a cooking pot by the Leidenfrost effect. Droplets and bubbles facilitate and mediate mass, heat, and momentum transfer during a wide range of processes, making them central to numerous applications ranging from agriculture and industry to environment, energy, biology, medicine, and even art. Through the lens of droplets and bubbles, we can better understand nature. By learning to manipulate them, we can create a better world.

Despite extensive progress to date, there is not yet a journal centered around droplets and bubbles. In response to this need, *Droplet* is being launched jointly by Wiley and Jilin University with the aim to provide a unique platform fully devoted to this cutting-edge area that combines fluid dynamics, physics, chemistry, biology, and engineering in which droplets or bubbles play a key role. *Droplet* covers a wide range of topics including the design, synthesis, fabrication, characterization, manipulation, control, application, and commercialization of structures, devices, and systems that involve droplets or bubbles from microscopic to macroscopic scales.

As a peer-reviewed international and cross-disciplinary open access journal, *Droplet* calls for original and innovative work including reviews, research papers, short communications, research highlights, and news that are pertinent to droplets, bubbles, and related topics. The journal is led by the advisory and editorial board members who are dedicated to building a hub that promotes communications and fusion between different research communities. We are confident that *Droplet* will become a leading journal in this interdisciplinary field by bringing high-quality and impactful contributions, which would expand the fundamental understanding and potential applications of droplets and bubbles, in one place for a wide audience.

Together, let's explore. Small droplet, big world!

Luquan Ren[1]
Chang-Jin Kim[2]
Zuankai Wang[3]

[1]*Key Laboratory of Bionic Engineering (Ministry of Education), Jilin University, Changchun, China*
[2]*Department of Mechanical and Aerospace Engineering, University of California, Los Angeles, California, USA*
[3]*Department of Mechanical Engineering, City University of Hong Kong, Hong Kong, China*

Correspondence
Luquan Ren, Key Laboratory of Bionic Engineering (Ministry of Education), Jilin University, Changchun 130022, China.
Email: lqren@jlu.edu.cn

Chang-Jin Kim, Department of Mechanical and Aerospace Engineering, University of California, Los Angeles 90095, California, USA.
Email: cjkim@ucla.edu

Zuankai Wang, Department of Mechanical Engineering, City University of Hong Kong, Hong Kong 999077, China.
Email: zuanwang@cityu.edu.hk

ORCID
Luquan Ren https://orcid.org/0000-0002-8728-7176
Chang-Jin Kim https://orcid.org/0000-0002-4600-9962
Zuankai Wang https://orcid.org/0000-0002-3510-1122