

MATHI: Call for Papers Special Issue

“Biomedical Applications of Micro- and Nanoparticles”



Guest Editors:

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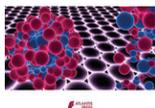
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Aims and Scope

This Special Issue on biomedical applications of micro- and nanoparticles is motivated by the current challenges that are fueling a growing interest on the use of micro- and nanoparticles in biomedical fields. Recently, a lot of progress has been made not only related to metal nanoparticles, magnetic nanoparticles, carbon nanomaterials, and mesoporous silica nanoparticles, but also in emerging fields such as virus-like particles, quantum dots, polymeric particles, cerium oxide nanoparticles, self-assembled nanoparticles, etc.

The aim of this Special Issue is to present the latest developments in micro- and nanoparticles related to biomedical applications for solving the increase in and complexity of real-world health issues. Papers contributing in developments in fundamentals, approaches, methodologies, and applications such as drug delivery, biomedical imaging, biosensors, disease therapy, bioprinting, and tissue engineering are encouraged to submit. Finally, as micro- and nanoparticles biomedical applications are multidisciplinary, discussions in this area in different perspectives, cross-disciplinary and interdisciplinary, are welcome as well.



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Main topics and quality control

The major topics of interest include, but are not limited to:

- New methods of micro-nanoparticle fabrication
- New applications of micro- and nanoparticles
- Functional nanoparticles used in drug delivery
- Micro- and nanoparticles used in
 - Biomedical imaging
 - Bioprinting
 - Biosensors
 - Photothermal therapy of diseases
 - Tissue engineering

This special issue is dedicated to a set of best papers in the field of micro- and nanoparticles. Full papers will be subject to a strict review procedure for final selection to this special issue based on the following criteria:

1. Quality and originality in theory and methodology of the special issue.
2. Relevance to the topic of the special issue.
3. Application orientation which exhibits originality.
4. If there is an implementation, the details of the implementation must be provided.
5. Extended papers must contain at least 40% new material (qualitative) relative to the conference paper.

Important Dates

Submission of papers:	31 January 2021
Notification of review results:	21 March 2021
Submission of revised papers:	18 April 2021
Notification of final review results:	30 April 2021

Submit your paper

All papers must be submitted via the Editorial Manager online submission and peer review system. Instructions will be provided on screen and you will be stepwise guided through the process of uploading all the relevant article details and files associated with your submission. All manuscripts must be in the English language.

To access the online submission site for the journal, please visit <https://www.editorialmanager.com/mathi/default.aspx>. Note that if this is the first time that you submit to the Materials Highlights, you need to register as a user of the system first.



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NOTE : Before submitting your paper, please make sure to review the journal's [Author Guidelines](#) first.

Introduction of the guest editors

Xiang Zhang Dr. Zhang has received his MS degree in Materials Processing Engineering in 2004 from Zhengzhou University and Ph.D. in Chemical Process Machinery in 2008 from Zhejiang University. Now he is an associate professor at the School of Mechanics & Safety Engineering, the associate director of National Center for International Joint Research of Micro-nano Molding Technology in Zhengzhou University. He has published 40+ papers in scientific journals, and 6 authorized patents. He has hosted 10 projects as PI funded by the government or university, and he participated as co-PI in 3 other projects from MOST or NSFC. He was a visiting scientist at Harvard Medical School from Jan. 2019 to Jul. 2020. His research is focused on polymer micro molding, microfluidic, organ-on-a-chip and bioprinting.

Jianhua Zhou Dr. Zhou obtained his M.Phil. and Ph.D. in Chemistry from Tsinghua University and the Hong Kong University of Science and Technology, respectively. He was a Fulbright visiting Ph.D. student and studied at the Biomedical Engineering Department of Washington University at St. Louis. After working at Tohoku University as a postdoc for half a year, he joined Sun Yat-sen University, and became a full professor of Biomedical Engineering in 2019. He was a visiting scientist at Harvard Medical School in 2019. His research interests focus on microfluidics and its applications in rapid diagnosis, drug delivery, and tissue engineering.

Liguo Zhang Dr. Zhang obtained her MA in Biomedical Engineering from Chongqing University and obtained her Ph.D. in Bioengineering, Biomechanics, Biomaterials from University of Technology of Compiègne (France). Then she joined Zhengzhou University and is now an associated professor in the Academy of Medical Science, Zhengzhou University. Her research interests focus on the biological mechanism of Piezo1 in the process of tumor development, as well as the reaction of Piezo1 under the ultrasonic stimulation, different shear stress, different microstructures on biomaterial surface and other external stimuli, to explore the use of Piezo1 as a new therapy target in clinical application.