micromachines

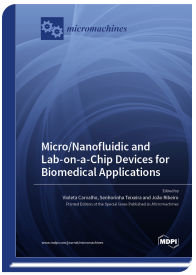
IMPACT FACTOR 3.4

Indexed in: PubMed

CITESCORE 4.7

Special Issue Reprint

Micro/Nanofluidic and Lab-on-a-Chip Devices for Biomedical Applications



www.mdpi.com/books/reprint/6532

Edited by
Violeta Carvalho
Senhorinha de Fátima Capela Fortunas Teixeira
João Ribeiro

ISBN 978-3-0365-6100-4 (Hardback)
ISBN 978-3-0365-6099-1 (PDF)

Recently, microfluidic, nanofluidic and lab-on-a-chip devices have gained particular attention in biomedical applications. Due to their advantages, such as miniaturization, versatility, ease of use, cost-effectiveness, and the potential to replace animal models for drug development and testing, these devices hold tremendous potential to revolutionize the research of more effective treatments for several diseases that threaten human life. With integrated biosensors, these devices allow the development and design of micro- and nanoparticles to be studied in detail, modelling human physiology, investigating the molecular and cellular mechanisms underlying disease formation and progression, and gaining insights into the performance and long-term effects of responsive drug delivery nanocarriers. This Special Issue gathered research papers, and review articles focusing on novel microfluidic, nanofluidic and lab-on-a-chip devices for biomedical applications, addressing all steps related to fabrication, biosensor integration and development, characterization, numerical simulations and validation of the devices, optimization and, the translation of these devices from research labs to industry settings.

MDPI

Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/6532

MDPI Books

Publishing Open Access Books & Series

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.

Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.

Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.

High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.

High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).

Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.

MDPI AG
St. Alban-Anlage 66
4052 Basel
Switzerland
Tel: +41 61 683 77 34
www.mdpi.com/books
books@mdpi.com