

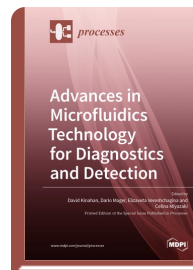
*Special Issue Reprint*

## **Advances in Microfluidics Technology for Diagnostics and Detection**

[www.mdpi.com/books/reprint/3997](http://www.mdpi.com/books/reprint/3997)

Edited by  
David Kinahan  
Dario Mager  
Elizaveta Vereshchagina  
Celina Miyazaki

ISBN 978-3-0365-1366-9 (Hardback)  
ISBN 978-3-0365-1365-2 (PDF)



Microfluidics and lab-on-a-chip have, in recent years, come to the forefront in diagnostics and detection. At point-of-care, in the emergency room, and at the hospital bed or GP clinic, lab-on-a-chip offers the potential to rapidly detect time-critical and life-threatening diseases such as sepsis and bacterial meningitis. Furthermore, portable and user-friendly diagnostic platforms can enable disease diagnostics and detection in resource-poor settings where centralised laboratory facilities may not be available. At point-of-use, microfluidics and lab-on-chip can be applied in the field to rapidly identify plant pathogens, thus reducing the need for damaging broad spectrum pesticides while also reducing food losses. Microfluidics can also be applied to the continuous monitoring of water quality and can support policy-makers and protection agencies in protecting the environment. Perhaps most excitingly, microfluidics also offers the potential to enable entirely new diagnostic tests that cannot be implemented using conventional laboratory tools. Examples of microfluidics at the frontier of new medical diagnostic tests include early detection of cancers through circulating tumour cells (CTCs) and highly sensitive genetic tests using droplet-based digital PCR.

This Special Issue on “Advances in Microfluidics Technology for Diagnostics and Detection” aims to gather outstanding research and to carry out comprehensive coverage of all aspects related to microfluidics in diagnostics and detection.

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.