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Paper-Based Microfluidic Devices and Applications

Guest Editors:

Dr. Constantine Anagnostopoulos

Mechanical, Industrial and Systems Engineering, University of Rhode Island, Kingston, RI, USA

Prof. Dr. Mohammad Faghri

Mechanical Industrial and Systems Engineering, University of Rhode Island, Kingston, RI, USA

Deadline for manuscript submissions:
closed (20 February 2024)

Message from the Guest Editors

Paper-based microfluidic analytical devices have improved substantially over the past decade by incorporating new components and materials for the point-of-care diagnosis of different diseases as well as the on-site sensitive detection of pollutants in the environment and contaminants and toxins in foods.

The word “paper” in this context refers to any porous and flexible material.

For this Special Issue we invite original research articles and comprehensive reviews on the following and related topics:

1. New components for fluidic actuators for control of capillary flow and fluid mixing.
2. Innovative detection methods and protocols at molecular and protein levels for biological and chemical reagents.
3. Multiplexed detection methods.
4. Innovative applications in point-of-care diagnostics, on-site environmental measurements, and clinical and demographic studies.
5. Smart readers for quantitative measurements, communication and control of the ambient conditions at the reaction site.
6. Coupled mathematical modeling of fluid flow with on-chip porous structures and biological or chemical reactions.
7. Autonomous sensor operation for minimal user involvement.



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Special Issue



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Editor-in-Chief

Prof. Dr. Giovanna Marrazza

Department of Chemistry "Ugo Schiff", University of Florence, Via della Lastruccia 3, 50019 Sesto Fiorentino, Italy

Message from the Editor-in-Chief

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Biosensors Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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