

Springer

1st
edition1st ed. 2018, VII, 229 p.
117 illus.**Printed book**

Hardcover

Printed book

Hardcover

ISBN 978-3-319-64745-6

£ 101,00 | CHF 136,00 | 114,99 € |
126,49 € (A) | 123,04 € (D)

Available

Discount group

Science (SC)

Product category

Monograph

Series

Integrated Analytical Systems

Other renditions

Softcover

ISBN 978-3-319-64746-3

Softcover

ISBN 978-3-319-87860-7

Chemistry : Analytical Chemistry

Oh, S.-H., Escobedo, C., Brolo, A.G. (Eds.)

Miniature Fluidic Devices for Rapid Biological Detection

- Focuses on rapid detection using miniaturized sensors
- Describes the physical principles of nanoscale sensors, surface modifications, microfluids and reaction engineering, diffusion and kinetics
- Covers fundamental aspects of surface-based biosensors and techniques for enhancing their detection sensitivity and speed

This book presents an overview of fundamental aspects of surface-based biosensors and techniques for enhancing their detection sensitivity and speed. It focuses on rapid detection using miniaturized sensors and describes the physical principles of nanoscale transducers, surface modifications, microfluidics and reaction engineering, diffusion and kinetics. A key challenge in the field of bioanalytical sensors is the rapid delivery of target biomolecules to the sensing surface. While various nanostructures have shown great promise in sensitive detection, diffusion-limited binding of analyte molecules remains a fundamental problem. Recently, many researchers have put forward novel schemes to overcome this challenge, such as nanopore channels, electrokinetics, and dielectrophoresis, to name but a few. This book provides the readers an up-to-date account on these technological advances.

Order online at springer.com/book sellers**Springer Nature Customer Service Center GmbH**

Customer Service

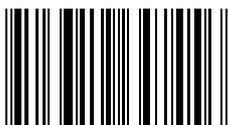
Tiergartenstrasse 15-17

69121 Heidelberg

Germany

T: +49 (0)6221 345-4301

row-booksellers@springernature.com



ISBN 978-3-319-64745-6 / BIC: PNF / SPRINGER NATURE: SCC11006

Prices and other details are subject to change without notice. All errors and omissions excepted. Americas: Tax will be added where applicable. Canadian residents please add PST, QST or GST. Please add \$5.00 for shipping one book and \$ 1.00 for each additional book. Outside the US and Canada add \$ 10.00 for first book, \$5.00 for each additional book. If an order cannot be fulfilled within 90 days, payment will be refunded upon request. Prices are payable in US currency or its equivalent.

Part of **SPRINGER NATURE**