sensors

IMPACT FACTOR 3.4

Indexed in: PubMed

CITESCORE 8.2

Special Issue Reprint

Sensors for Air Quality Monitoring

www.mdpi.com/books/reprint/11000

Edited by
Klaus Schäfer
Matthias Budde

ISBN 978-3-7258-4241-4 (Hardback)
ISBN 978-3-7258-4242-1 (PDF)

Novel sensors to detect air pollutants like fine dust (PM_{10}, $PM_{2.5}$), O_3, NO_2, NO, or CO, as well as greenhouse gases like CO_2, are currently available and have been widely used for atmospheric and indoor air monitoring. Although these sensors are small, lightweight, fast, and cheap, they can be relatively unstable and inaccurate. To address these limitations, further research is needed in the following areas: possibilities and shortcomings of new sensing techniques and applications; methodologies to overcome their disadvantages; solutions to integrate networks of these sensors into existing, well-calibrated air quality monitoring networks; solutions to use them for air quality monitoring; and their application in new tasks such as the detection of air pollution hot spots or the evaluation of emission inventories and numerical air pollution simulations. Environmental scientists, including physicians, chemists, and epidemiologists, play a vital role in defining the requirements for developing new sensors to detect harmful compounds in the atmosphere. The detection of personal air pollution exposure, and potentially personal pollen and fungi exposure in the future, is close to being elucidated and will form the basis for enhanced measures to improve human health.

MDPI

Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/11000

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
Grosspeteranlage 5
4052 Basel
Switzerland
Tel: +41 61 683 77 34
www.mdpi.com/books
books@mdpi.com