



applied sciences

IMPACT
FACTOR
2.5

CITESCORE
5.3

Special Issue Reprint

10th Anniversary of *Applied Sciences*-Invited Papers in Chemistry Section

www.mdpi.com/books/reprint/4576

Edited by
Samuel Adeboju

ISBN 978-3-0365-1114-6 (Hardback)

ISBN 978-3-0365-1115-3 (PDF)



This book consists of 12 original research articles and one comprehensive review from invited chemists from around the world covering different fields of chemistry. The article on analytical chemistry features the analysis of highly polar metabolites in biological fluids, the determination of non-steroidal anti-inflammatory drugs with a gas chromatography coupled to ion trap mass spectrometry, and the synthesis of MoS₂ nanostructures for the production of near-infrared photodetectors. The environmental chemistry articles include discussions on weekly and longitudinal elemental variability in hair samples, use of bottom ash as a stabilizing agent, the removal of phosphorus from the effluent of a paper company, and the chemistry and consequences of arsenic contamination of groundwater. Polymer/coating chemistry coverage includes the incorporation of superabsorbent polymers into cementitious-based composite materials, the use of licorice root extracts for edible coatings and postharvest quality improvement, and the use of mucin-grafted polyethylene glycol-based micro- for the oral delivery of insulin. The reported research on nanomaterials chemistry covers the synthesis of ZnO-doped ceria nanorods made up of CeO₂/ZnO mixed oxides, and the production of carbon fiber-reinforced plastic bonded joints with novel carbon nanotube (CNT) adhesive films. A final paper on flavonol chemistry utilizes LC-MS/MS to investigate the stability of four common types of dietary flavonols.



Order Your Print Copy

You can order print copies at

www.mdpi.com/books/reprint/4576

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.