Analytical Methods

rsc.li/methods

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

ISSN 1759-9679 CODEN AMNECT 15(20) 2401-2538 (2023)



Cover See Kali Kishore Reddy Tetala and Lokesh Kumar S., pp. 2408–2416. Image reproduced by permission of Kali Kishore Reddy Tetala and Lokesh Kumar S. from *Anal. Methods*, 2023, **15**, 2408.

PAPERS

2408

Fabrication of a bi-metallic metal organic framework nanocomposite for selective and sensitive detection of triclosan

Lokesh Kumar S. and Kishore K. R. Tetala*



2417

A sensitive enzyme-free electrochemical sensor based on a rod-shaped bimetallic MOF anchored on graphene oxide nanosheets for determination of glucose in huangshui

Yi Ma,* Yinjiang Leng, Danqun Huo, Dong Zhao, Jia Zheng, Huisi Yang, Peng Zhao, Feifeng Li and Changjun Hou*



Editorial Staff

Executive Editor Philippa Ross

Deputy Editor

Alice Smallwood Editorial Production Manager

Jason Woolford Development Editor Celeste Brady

Publishing Editors Gabriel Clarke, Derya Kara-Fisher, Emma Stephen, Ziva Whitelock

Publishing Assistant

Andrea Whiteside Editorial Assistant

Leo Curtis

Publisher Jeanne Andres

For queries about submitted articles please contact

Jason Woolford, Editorial production manager, in the first instance. E-mail methods@rsc.org

For pre-submission queries please contact Philippa Ross, Executive editor. E-mail methods-rsc@rsc.org

Analytical Methods (electronic: ISSN 1759-9679) is published 48 times a year by the Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, UK CB4 0WF.

All orders, with cheques made payable to the Royal Society of Chemistry, should be sent to the Royal Society of Chemistry Order Department, Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, CB4 0WF, UK

Tel +44 (0)1223 432398; E-mail orders@rsc.org

2023 Annual (electronic) subscription price: £2416; US\$4255. Customers in Canada will be subject to a surcharge to cover GST. Customers in the EU subscribing to the electronic version only will be charged VAT.

If you take an institutional subscription to any Royal Society of Chemistry journal you are entitled to free, site-wide web access to that journal. You can arrange access via Internet Protocol (IP) address at www.rsc.org/ip

Customers should make payments by cheque in sterling payable on a UK clearing bank or in US dollars payable on a US clearing bank.

Whilst this material has been produced with all due care, the Royal Society of Chemistry cannot be held responsible or liable for its accuracy and completeness, nor for any consequences arising from any errors or the use of the information contained in this publication. The publication of advertisements does not constitute any endorsement by the Royal Society of Chemistry or Authors of any products advertised. The views and opinions advanced by contributors do not necessarily reflect those of the Royal Society of Chemistry which shall not be liable for any resulting loss or damage arising as a result of reliance upon this material. The Royal Society of Chemistry is a charity, registered in England and Wales, Number 207890, and a company incorporated in England by Royal Charter (Registered No. RC000524), registered office:

Burlington House, Piccadilly, London W1J 0BA, UK, Telephone: +44 (0) 207 4378 6556.

Advertisement sales:

Tel +44 (0) 1223 432246; Fax +44 (0) 1223 426017; E-mail advertising@rsc.org

For marketing opportunities relating to this journal, contact marketing@rsc.org

Analytical Methods

rsc.li/methods

Early applications of new analytical methods with clear societal impact.

USΔ

Canada

Editorial Board

Editor-in-Chief Scott Martin, St. Louis University, USA

Associate Editors

Jonas Bergquist, Uppsala University, Sweden Wendell Coltro, Federal University of Goiás, Brazil

Advisory Board

Jailson de Andrade, Federal University of Bahia, Brazil Lane Baker, Indiana University, USA Craig Banks, The Manchester Metropolitan University, UK Emanuel Carrilho, University of São Paulo, Brazil Yi Chen, Chinese Academy of Sciences, China Christopher Easley, Auburn University, USA

Information for Authors

Juan García-Reyes, Jaén University, Spain Tony Killard, University of the West of England, UK Zhen Liu, Nanjing University, China Chao Lu, Beijing University of Chemical Technology, China

of Agriculture and Technology, Kenya

Ally Lewis, University of York, UK

Amanda Hummon, Ohio State University

Lauro Kubota, Instituto de Química, Brazil

Juewen Liu, University of Waterloo, Canada

Susan Lunte, University of Kansas, USA

Jim Luong, Dow Chemical Canada ULC,

Fiona Regan, Dublin City University, Ireland Michael Roper, Florida State University, USA Jill Venton, University of Virginia, USA

Anthony Gachanja, Jomo Kenyatta University Susheel Mittal, Thapar University, India Antonio Molina-Díaz, University of Jaén, Spain

Koji Otsuka, Kyoto University, Japan Brett Paull, University of Tasmania, Australia Zachary Schultz, Ohio State University, USA Guobao Xu, Changchun Institute of Applied Chemistry, China

Full details on how to submit material for publication in Analytical Methods are given in the Instructions for Authors (available from http://www.rsc.org/authors). Submissions should be made via the journal's homepage: rsc.li/methods

Authors may reproduce/republish portions of their published contribution without seeking permission from the Royal Society of Chemistry, provided that any such republication is accompanied by an acknowledgement in the form: (Original Citation)-Reproduced by permission of the Royal Society of Chemistry.

This journal is © The Royal Society of Chemistry 2023. Apart from fair dealing for the purposes of research or private study for non-commercial purposes, or criticism or review, as permitted under the Copyright, Designs and Patents Act 1988 and the Copyright and Related Rights Regulation 2003, this publication may only be reproduced, stored or transmitted, in any form or by any means, with the prior permission in writing of the Publishers or in the case of reprographic reproduction in accordance with the terms of licences issued by the Copyright Licensing Agency in the UK. US copyright law is applicable to users in the USA. Registered charity number: 207890

ROYAL SOCIETY OF CHEMISTRY

PAPERS

2427

Lipidest: a lipid profile screening test under extreme point of care settings using a portable spinning disc and an office scanner

Victor Pakira, Rahul Agarwal, Subhamoy Chatterjee, Arghya Mukherjee and Suman Chakraborty*



2441

A novel colorimetric assay for sensitive detection of kanamycin based on the aptamer-regulated peroxidase-mimicking activity of Co₃O₄ nanoparticles

Xuan Zhou, Jiaxin Li, Yuda Hu, Yaohui Wu, Yonghong Wang* and Ge Ning*



2448

Ambient mass spectrometry and near-infrared spectroscopy – a direct comparison of methods for the quantification of sucralose in e-liquids

Tobias Schlappack, Christoph Kappacher, Michela Demetz, Thomas Jakschitz, Günther K. Bonn, Christian W. Huck and Matthias Rainer*



2456

An ultra-sensitive uric acid second generation biosensor based on chemical immobilization of uricase on functionalized multiwall carbon nanotube grafted palm oil fiber in the presence of a ferrocene mediator

Gullit Deffo, Ranjit Hazarika, Marcel Cédric Deussi Ngaha, Mwina Basumatary, Shyamali Kalita, Nayab Hussain, Evangéline Njanja, Panchanan Puzari* and Emmanuel Ngameni



PAPERS

2480



Application of molecular imprinting technology based on new nanomaterials in adsorption and detection of fluoroquinolones

Gaoshuang Hu, Tianqi Wu, Ziyang Liu, Shan Gao* and Jianxiong Hao*

Simultaneous determination of 22 fatty acids in total parenteral nutrition (TPN) components by gas chromatography-mass spectrometry (GC-MS)

Mark Dennis Chico Retrato,^{*} Siyuan Qiu, Anna Lundquist, Aida Zuberovic Muratovic, Farshid Mashayekhy Rad, S. J. Kumari A. Ubhayasekera and Jonas Bergquist

2490



11

Polychromatic fluorescent MoS₂ quantum dots: fabrication and off–on sensing for fluorine ions in water

Feng-Yi Wu,* Ji-Liang Yang, You-Sheng Ye, Ya-Qiong Kong, Rong Wu, Hai-Yan Wang and Xin Wang



Rapid visual detection of *Mycobacterium* tuberculosis DNA using gold nanoparticles

Aparna Tripathi, Ratnesh Jain and Prajakta Dandekar*

PAPERS

2505

A ratiometric fluorescence sensor based on gold silver nanoclusters and tungsten disulfide quantum dots with simple fabrication for the detection of copper ions in river water

Zhiya Wang, Rong Liu,* Zhifang Fu, Xin Yi, Yongjun Hu,* Changhui Liu, Dong Pan and Zhaoyang Wu*



2512

Factorial design applied to LC-ESI-QTOF mass spectrometer parameters for untargeted metabolomics

Olívia Brito de Oliveira Moreira, Jéssica Cordeiro Queiroz de Souza, João Marcos Beraldo Candido, Maria Patrícia do Nascimento, Paula Rocha Chellini, Lúcio Marco de Lemos and Marcone Augusto Leal de Oliveira*



2522

Dual-amplification colorimetric detection of bisphenol A based on catalytic hairpin assembly and DNAzyme-caused fragment self-assembly hybridization chain reaction

Wen Yun, Yiyan Lin, Ruiqi Wang, Xia Ha, Nana Xie, Xiaoli Xiong, Zhengwei Xiong, Ning Li,* Xingmin Wang* and Lizhu Yang*

2528

A voltammetric sensor based on a reduced graphene oxide/β-cyclodextrin/silver nanoparticle/ polyoxometalate nanocomposite for detecting uric acid and tyrosine

Xu Chai, Yongbiao Li, Chaonan Ma, Minjie Guo, Zhi Fan,* Jin Zhao* and Bowen Cheng*

This journal is © The Royal Society of Chemistry 2023



