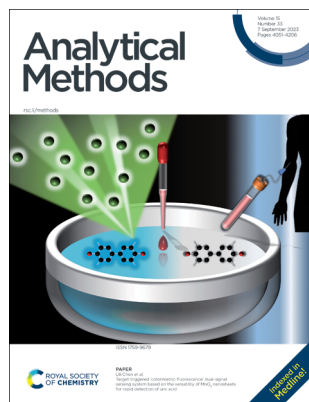


IN THIS ISSUE

ISSN 1759-9679 CODEN AMNECT 15(33) 4051–4206 (2023)



Cover

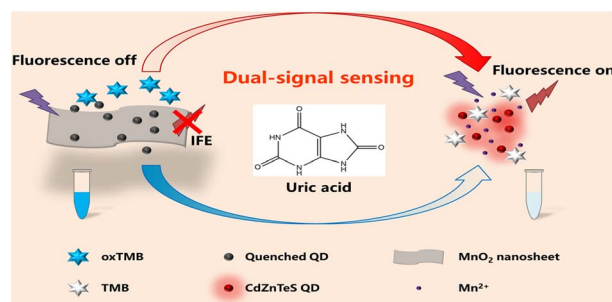
See Lili Chen *et al.*,
pp. 4059–4065.
Image reproduced by
permission of Hao Liang from
Anal. Methods, 2023, 15, 4059.

PAPERS

4059

Target-triggered 'colorimetric-fluorescence' dual-signal sensing system based on the versatility of MnO_2 nanosheets for rapid detection of uric acid

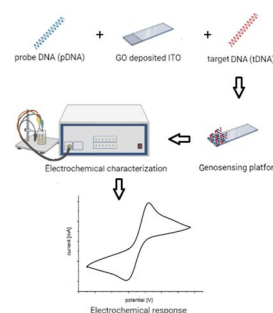
Hao Liang, Danliang Li, Xuebing Zhang, Deshuai Zhen, Yunfei Li, Yuchen Luo, Yuyun Zhang, Dongyun Xu and Lili Chen*



4066

Designing of a unique bioreceptor and fabrication of an efficient genosensing platform for neonatal sepsis detection

Neha Gopal, Nidhi Chauhan, Utkarsh Jain, Sujata K. Dass, Suveen Kumar* and Ramesh Chandra*



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.

Editorial Board

Editor-in-Chief

Scott Martin, St. Louis University, USA

Juan García-Reyes, Jaén University, Spain
Tony Killard, University of the West of
England, UK

Associate Editors

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

Zhen Liu, Nanjing University, China
Matthew Lockett, University of North
Carolina at Chapel Hill, USA

Chao Lu, Beijing University of Chemical
Technology, China

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

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

James Chapman, Royal Australian Chemical
Institute, Australia

Yi Chen, Chinese Academy of
Sciences, China

Christopher Easley, Auburn University, USA
Anthony Gachanja, Jomo Kenyatta University
of Agriculture and Technology, Kenya

Amanda Hummon, Ohio State University,
USA

Lauro Kubota, Instituto de Química, Brazil
Ally Lewis, University of York, UK

Juewen Liu, University of Waterloo, Canada
Susan Lunte, University of Kansas, USA

Jim Luong, Dow Chemical Canada ULC,
Canada

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

Information for Authors

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.

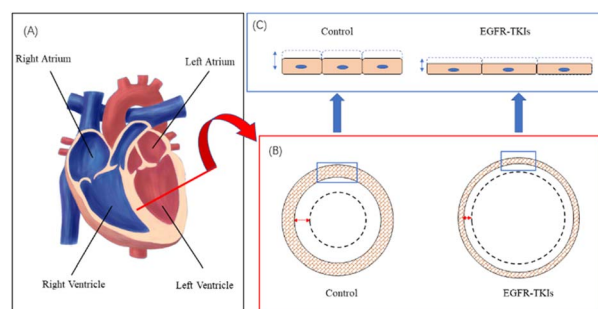
Registered charity number: 207890



4077

Effects of targeted lung cancer drugs on cardiomyocytes studied by atomic force microscopy

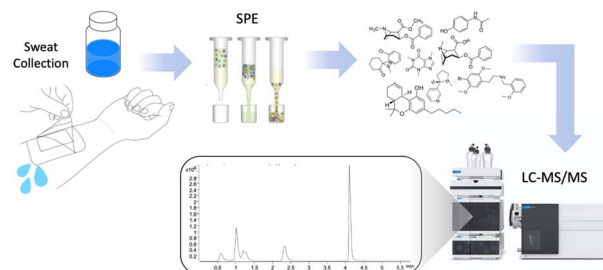
Can Cheng, Shuwei Wang, Jianjun Dong, Shengli Zhang, Dongliang Yu and Zuobin Wang*



4085

Determination of licit and illicit drugs and metabolites in human sweat by liquid chromatography-tandem mass spectrometry

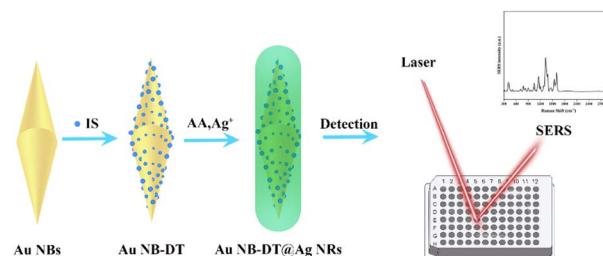
Margaret Sotom, Paul Bowdler and Kevin C. Honeychurch*



4094

Regulated synthesis of an Au NB-DT@Ag bimetallic core-molecule-shell nanostructure for reliable SERS detection

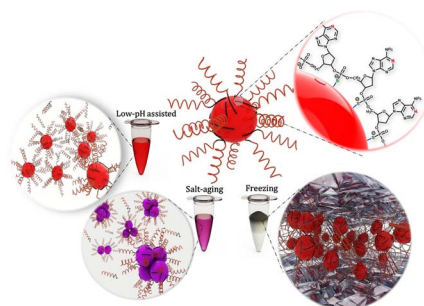
Haiting Ren, Yan Sun, Junjie Wang, Hongxing Qiu, Shenghao Zhang, Yueshou Zhang, Xingxing Yu, Jieyu Hu and Yongjun Hu*



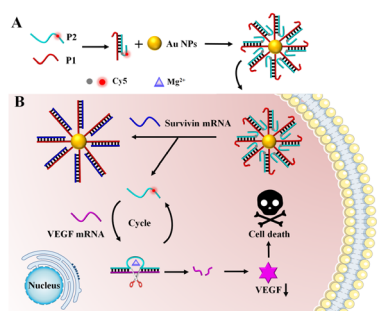
4104

Methods to functionalize gold nanoparticles with tandem-phosphorothioate DNA: role of physicochemical properties of the phosphorothioate backbone in DNA adsorption to gold nanoparticles

Abbas Karami and Masoumeh Hasani*



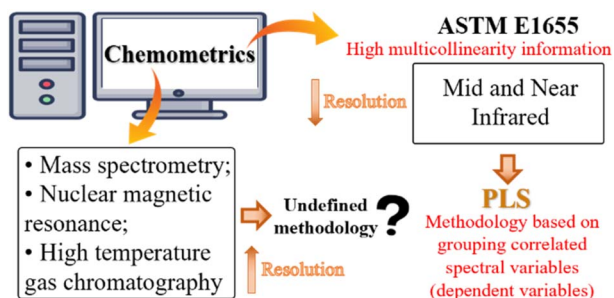
4114



mRNA-activated DNAzyme nanoprobe for tumor cell precise imaging and gene therapy

Mingzhu Fan, Huakui Huang, Yang Xu, Shulong Wang,*
Shengyu Chen, Zhihui Luo and Jiayao Xu*

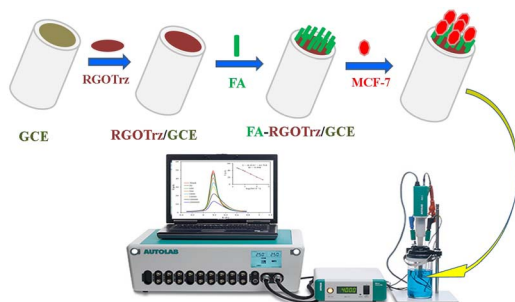
4119



Correlation analysis of modern analytical data – a chemometric dissection of spectral and chromatographic variables

Gabriely S. Folli, Ellisson H. de Paulo, Francine D. Santos,
Márcia H. C. Nascimento, Pedro H. P. da Cunha,
Wanderson Romão and Paulo R. Filgueiras*

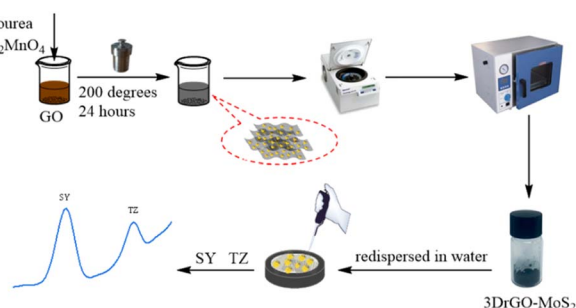
4134



Electrochemical biosensing based on folic acid-triazine-grafted reduced graphene oxide: a highly selective breast cancer cell sensor

Abdollah Yari* and Foroozan Shokri

4142



A modified electrode based on a 3D reduced graphene oxide and MoS₂ composite for simultaneous detection of sunset yellow and tartrazine

Shiqi Cheng, Zhongwei Lin, Shangying Qin, Li Huang,
Jin Yang and Yilin Wang*

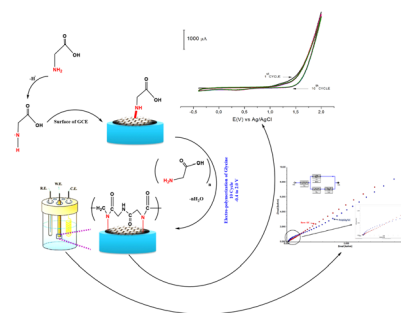


PAPERS

4149

Sensitive and selective determination of paracetamol in antipyretic children's syrup with a polyglycine modified glassy carbon electrode

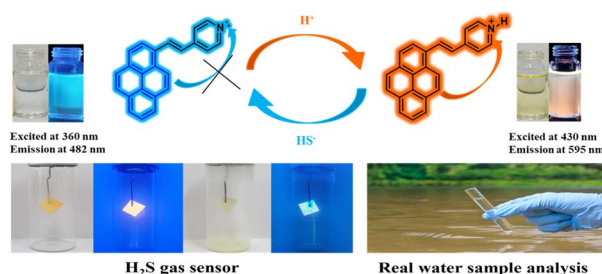
Nesim İslamoğlu, İbrahim Ender Mülazımoğlu* and Ayşen Demir Mülazımoğlu



4159

One-step synthesis of a pH switched pyrene-based fluorescent probe for ratiometric detection of HS⁻ in real water samples

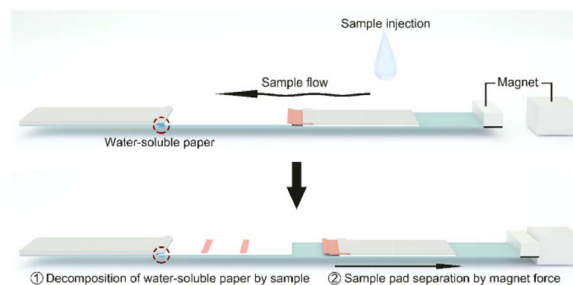
Kuppan Magesh, Sukhvant Singh, Shu Pao Wu and Sivan Velmathi*



4168

Quantitative injection strip platform using water-soluble paper and magnet based on a lateral flow assay

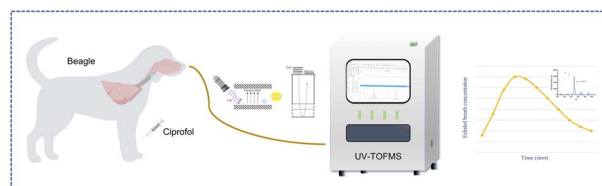
Yewon Kwon, Dami Kim and Sanghyo Kim*



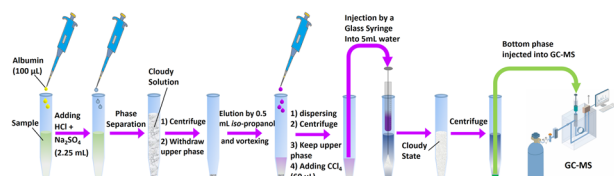
4179

Calibration and validation of ultraviolet time-of-flight mass spectrometry for online measurement of exhaled ciprofol

Xiaoxiao Li, Pan Chang, Xing Liu, Zhongjun Zhao, Wenwen Li, Yi Kang, Yixiang Duan and Wensheng Zhang*



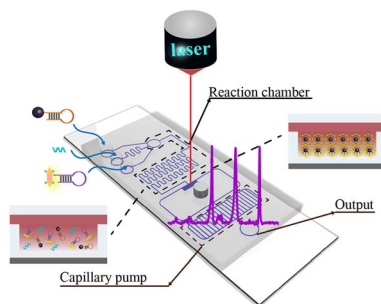
4187



Development of homogeneous dispersive solid phase extraction using albumin as a green sorbent and its combination with dispersive liquid–liquid microextraction: application in extraction of pesticides from fruit juices

Mohammad Reza Afshar Mogaddam, Mir Ali Farajzadeh, Aysa Abbasalizadeh, Mahboob Nemati, Ali Akbar Alizadeh Nabil, Mustafa Tuzen and Ali Pourali*

4194



A LoC-SERS platform based on triple signal amplification for highly sensitive detection of colorectal cancer miRNAs

Chun Dai, Kun Wang, Ming Tan, Zhaolai Hua, Lin Xia and Lei Qin*

