

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 16(29) 4891–5122 (2024)



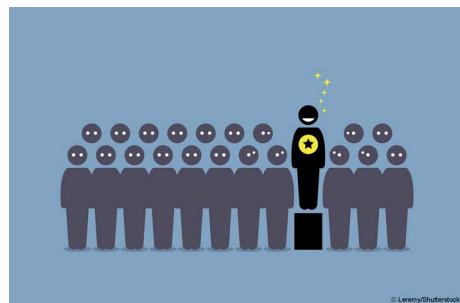
Cover

See Ashish Kalkal, Gopinath Packirisamy *et al.*, pp. 4938–4950. Image reproduced by permission of Manali Choramle, Damini Verma, Ashish Kalkal, Rangadhar Pradhan, Avdhesh Kumar Rai, and Gopinath Packirisamy from *Anal. Methods*, 2024, 16, 4938.

EDITORIAL

4900

Outstanding Reviewers for *Analytical Methods* in 2023

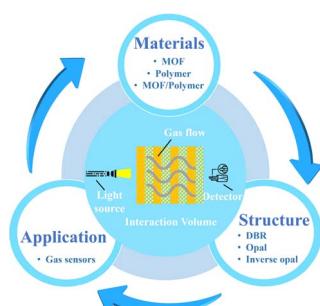


CRITICAL REVIEWS

4901

Photonic crystal gas sensors based on metal–organic frameworks and polymers

Jianan Wei, Zhihao Yi, Liu Yang, Ling Zhang, Junchao Yang, Molin Qin* and Shuya Cao*



Environmental Science: Atmospheres



GOLD
OPEN
ACCESS

Connecting communities and inspiring new ideas

rsc.li/submittoEA

Fundamental questions
Elemental answers



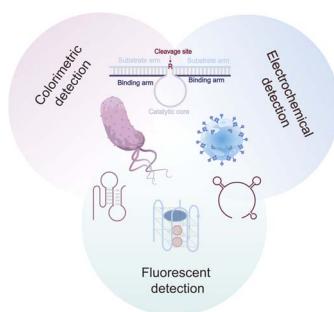
Registered charity number: 207890

CRITICAL REVIEWS

4917

Recent progress on DNAzyme-based biosensors for pathogen detection

Xingxing Liu, Wenzhu Yuan and Heng Xiao*

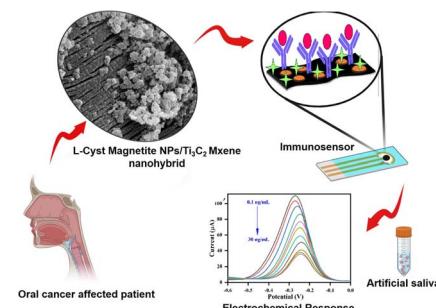


PAPERS

4938

L-Cysteine functionalized magnetite nanoparticle adorned Ti_3C_2 -MXene nanohybrid based screen printed immunosensor for oral cancer biomarker detection

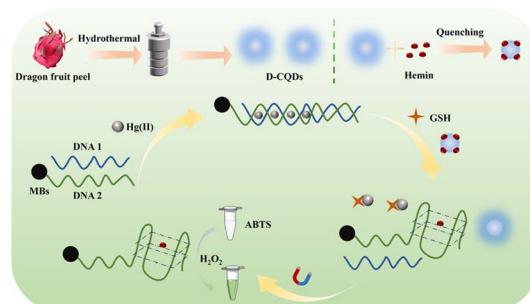
Manali Choramle, Damini Verma, Ashish Kalkal*, Rangadhar Pradhan, Avdhesh Kumar Rai and Gopinath Packirisamy*



4951

Detection of GSH with a dual-mode biosensor based on carbon quantum dots prepared from dragon fruit peel and the T-Hg(II)-T mismatch

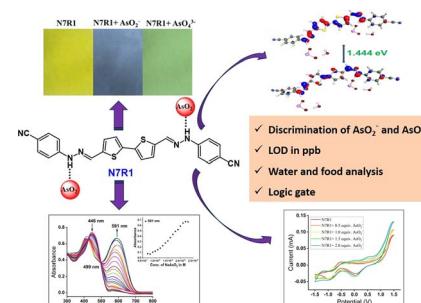
Weiwei Zhao, Ruichen Zhai, Qianxiao Chen, Chun Huang, Haojia Li, Youyu Zhu, Yingfeng Duan and Jie Gao*



4960

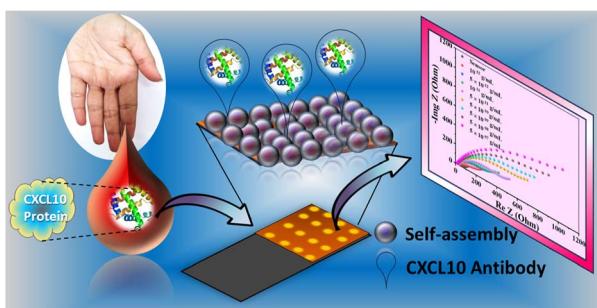
Colorimetric differentiation of arsenite and arsenate anions using a bithiophene sensor with two binding sites: DFT studies and application in food and water samples

Nagaraj K. A. Nityananda Shetty and Darshak R. Trivedi*



PAPERS

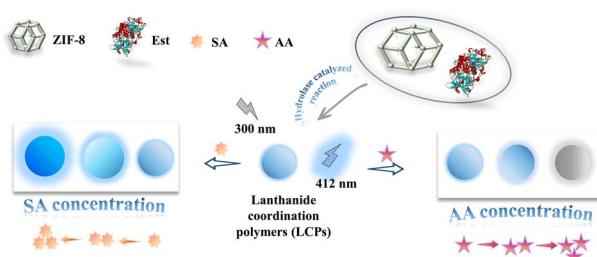
4971



Early diagnosis of autoimmune diseases through electrochemical biosensing using a modified plastic chip electrode

Kinjal B. Patel, Sunil Luhar and Divesh N. Srivastava*

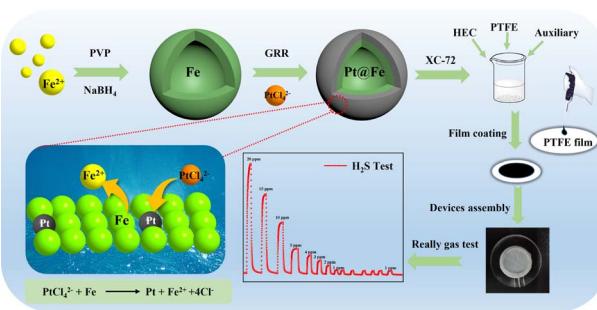
4981



Selective fluorescence detection of acetylsalicylic acid, succinic acid and ascorbic acid based on a responsive lanthanide metal fluorescent coordination polymer

Guo-Ying Chen, Mao-Ling Luo, Li Chen, Jia-Li Wang, Tong-Qing Chai, Dan Wang* and Feng-Qing Yang*

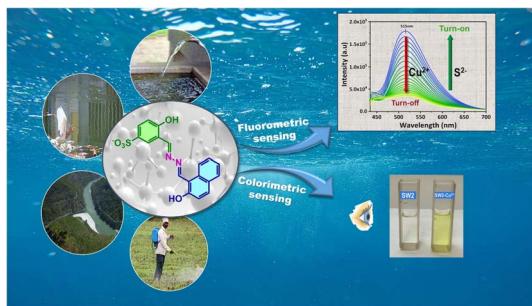
4995



An electrochemical H₂S sensor based on the screen printing Fe@Pt/C/PTFE sensing electrode

Dandan Liu, Xukun Deng, Chunhui Du, Lu Zheng, Yanting Guo, Yanmei Cheng and Guangming Nie*

5003



Chelation therapy-inspired design of a water-stable fluorescent probe for the effectual monitoring of copper(II) ions in real water

Suvojit Roy, Prosenjit Choudhury and Bhaskar Biswas*

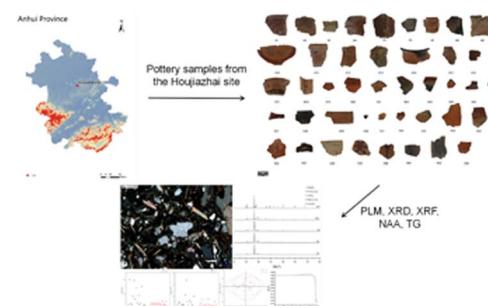


PAPERS

5012

Archaeometric characterization of pottery from the Houjiazhai site (ca. 7.3–5.7 ka BP), Anhui Province, China

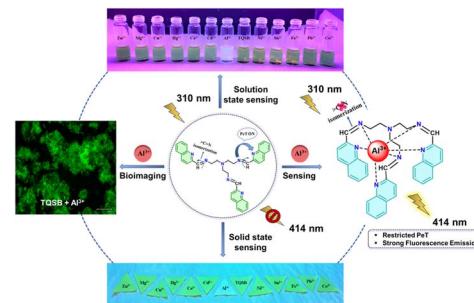
Fei Qi, Jinjiao Qin, Guofeng Wei* and Xuhang Kan



5022

Turn-on detection of Al³⁺ ions using quinoline-based tripodal probe: mechanistic investigation and live cell imaging applications

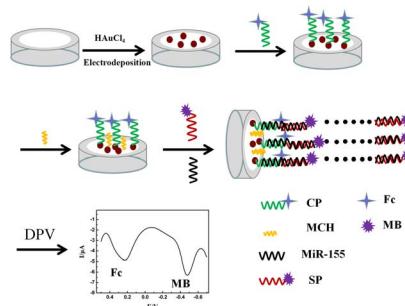
Nidhi Goswami, Sudhanshu Naithani, Tapas Goswami, Pankaj Kumar,* Pramod Kumar* and Sushil Kumar*



5032

Ratiometric electrochemical biosensor based on hybridization chain reaction signal amplification for sensitive microRNA-155 detection

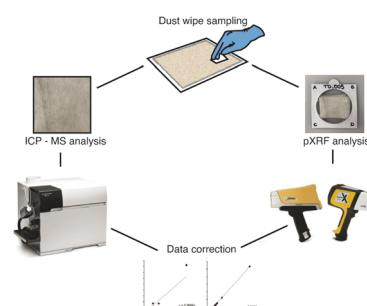
Yan Ma, Mengyao Li and Yuzhong Zhang*



5038

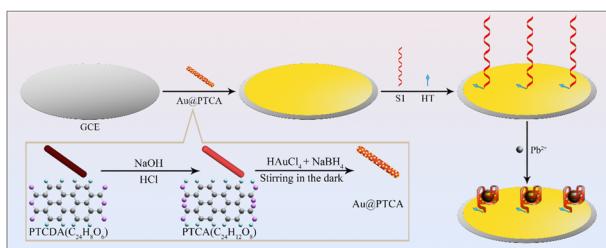
Portable X-ray fluorescence spectrometry: a cost-effective method for analysing trace metals in deposited dust

Carlos Ibañez-Del Rivero, Cassandra A. Wheeler, Kara L. Fry and Mark Patrick Taylor*



PAPERS

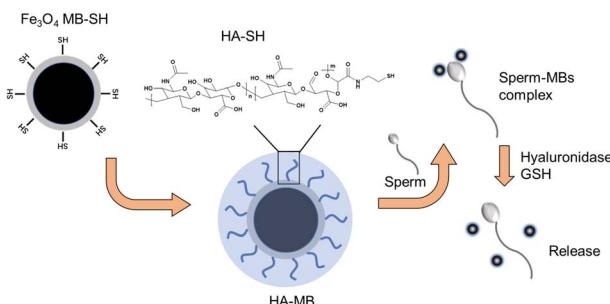
5049



Photoelectrochemical analysis of Pb²⁺ based on Au@PTCA Schottky junction with Pb²⁺-G quadruplex structure

Mengjie Li,* Guohao Shen, You Zhou, Yang Chen, Liping Jia, Xiang Li and Feng Zhang*

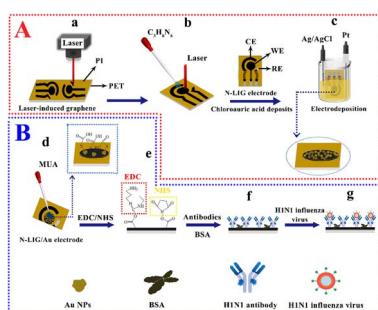
5060



Selection of functional sperm by using hyaluronic acid modified magnetic microbeads and an electromagnetic manipulation system

Jing Fan,* Kexin Chen, Yanjun Cheng, Yanqing Kong, Huakun Zhang, Zhengzhong Wu, Chuan Lei, Chunrong Qin and Xuemei Li*

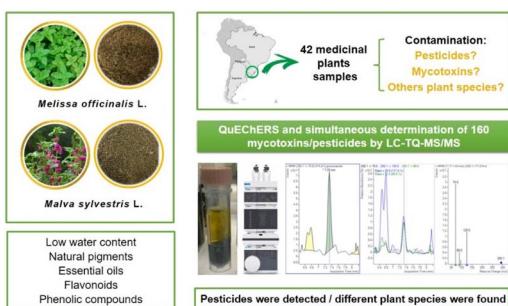
5069



A label-free H1N1 influenza virus immunosensor based on an N-LIG/Au laser induced graphene microelectrode

Yuchen Zhou, Wanchun Chen, Guangyuan Wang, Zhenfeng Lei, Mei Zhang* and Yanxia Li*

5082



Comprehensive assessment of clean-up strategies for optimizing an analytical multi-method to determine pesticides and mycotoxins in Brazilian medicinal herbs using QuEChERS-LC-TQ-MS/MS

Marlos Eduardo Zorzella Fontana, Rosselei Caiel da Silva, Ingrid Duarte dos Santos, Júlia Paula Neu, Robson Dias Wouters, Paola Jennifer Babinski, Jessica Fernanda Hoffmann, Rochele Cassanta Rossi, Liliana Essi and Ionara Regina Pizzutti*



PAPERS

5105

Microsyringe-assisted visual volume detection based on phase separation: the case of chymosin milk-clotting activity study

Shan Gao, Ruotong Li, Wenjun Tai, Ping Song,
Qiongzheng Hu* and Li Yu*



5112

Removal and detection of phenols through an SPE-HPLC method using microporous organic networks as adsorbent

Azam Ali, Huipeng Sun, Syed Faheem Askari Rizvi,
Ding Nana and Haixia Zhang*

