

# Analytical Methods

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ISSN 1759-9679 CODEN AMNCT 16(45) 7645–7844 (2024)



### Cover

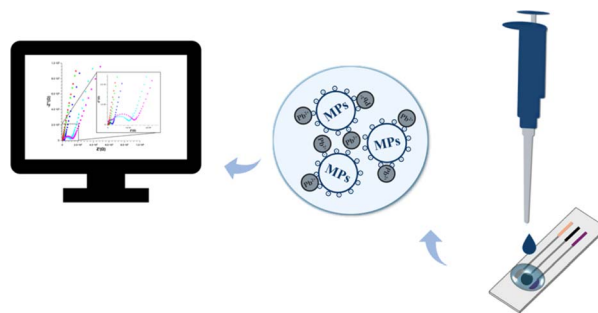
See Giuseppe Arrabito, Alberto Pettignano *et al.*, pp. 7654–7666. Image reproduced by permission of Giuseppe Arrabito from *Anal. Methods*, 2024, **16**, 7654.

## PAPERS

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### Label-free impedimetric analysis of microplastics dispersed in aqueous media polluted by $\text{Pb}^{2+}$ ions

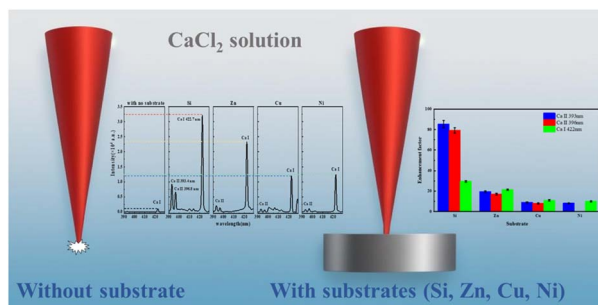
Davide Lascari, Salvatore Cataldo, Nicola Muratore, Giuseppe Prestopino, Bruno Pignataro, Giuseppe Lazzara, Giuseppe Arrabito\* and Alberto Pettignano\*



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### Solid substrate assisted enhanced laser induced breakdown spectroscopy for metal element analysis in aqueous solution

Linna Song, Jianwen Han, Mingda Sui, Zihao Wei, Yunpeng Qin, Yuan Lu, Jiaojian Song,\* Wangquan Ye\* and Jinjia Guo



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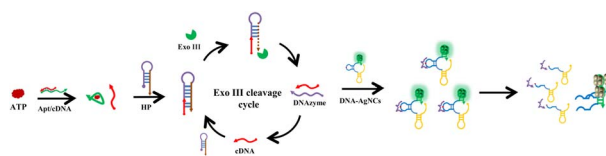


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## DNAzyme-mediated fluorescence signal variation of DNA-Ag nanoclusters and construction of an aptasensor for ATP

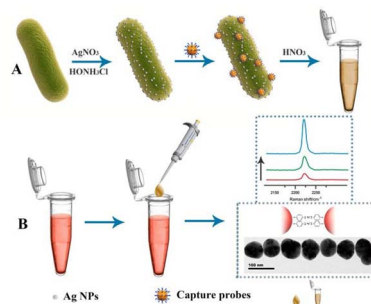
Shixin Cai, Mingrui Li, Xinqi Hu, Shuhua Gui,\* Menglu Li, Yuting Zhang, Xiaoli Wang and Nandi Zhou\*



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## A sensitive SERS-based assay technique for accurate detection of foodborne pathogens without interference

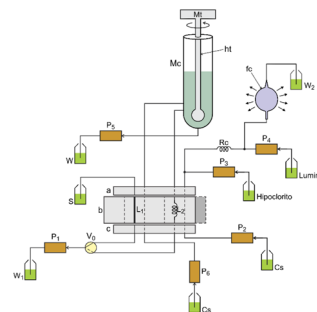
Xiangru Bai,\* Wei Luo, Wenyu Zhou, Wei Chen, Xinling Guo, Aiguo Shen and Jiming Hu



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## Integrated instrumental setup comprising an automatic solution handling module and homemade luminometer with two photodetectors for the determination of antioxidants in wines

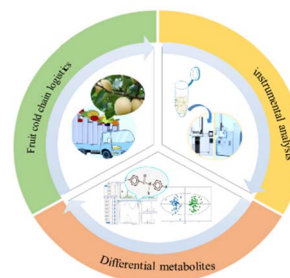
Rafael A. Alexandre and Boaventura F. Reis\*



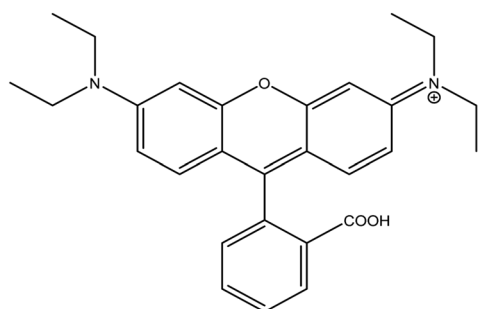
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## Application of a metabolomics method in the study of pear fruit storage

Jing Liu, Zixuan Meng, Baoru Liu, Jing Wang, Haichao Zhang, Lianfeng Ai,\* Junfeng Guan\* and Lingmei Niu\*



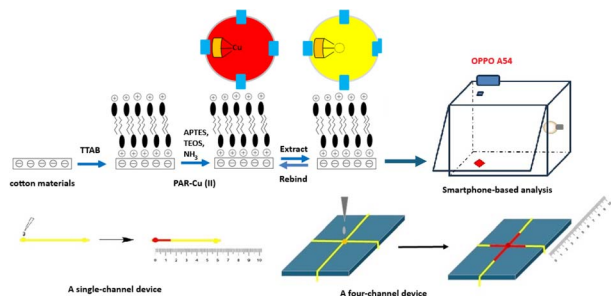
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**Removal and measurement of trace amounts of rhodamine B in aqueous samples based on the synthesis of a nanosorbent composed of  $\text{Fe}_3\text{O}_4$  nanoparticles modified with  $\text{SiO}_2$  and polydopamine by magnetic solid phase extraction**

Abdollah Yari\* and Mariam Salehzadeh

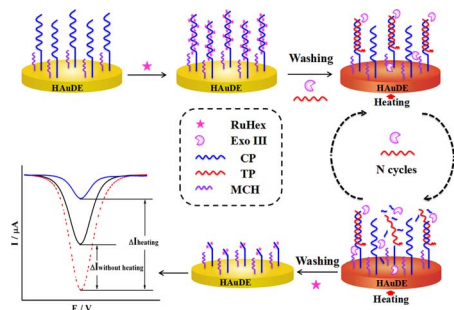
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**Molecularly imprinted polymer on cotton materials as substrates for smartphone-based image and distance-based analysis of  $\text{Cu}(\text{II})$  in water samples**

N. Thongkon,\* Phakamas Maisom, Orawan Taewcharoen, Wannaree Kamsomjit, Supacha Niluwan, Nattakul Saejan and S. Somrak

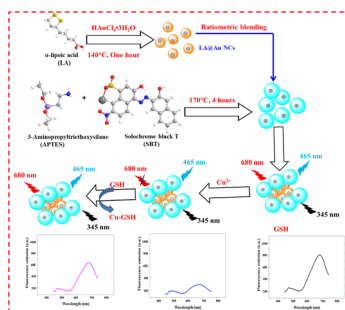
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**Label-free and ultrasensitive electrochemical detection of nucleic acids based on an exonuclease III-assisted target recycling amplification strategy using a heated gold disk electrode**

Yanggang Cheng, Minglu Liu and Fangfang Wang\*

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**A ratiometric fluorescence nanosensor for glutathione detection based on spatially confined dual-emission of  $\alpha$ -lipoic acid-modified gold nanoclusters and silicon nanoparticles**

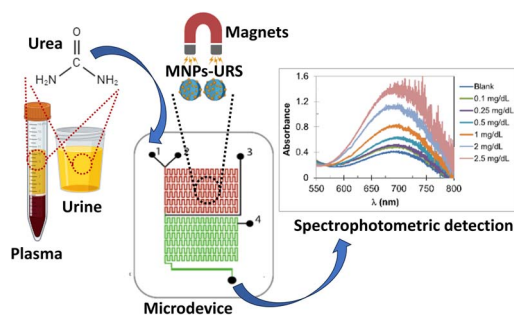
Abdullah S. Albalawi,\* Alanoud Alkhamali, Mohamed M. El-Wekil\* and Ramadan Ali



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### Continuous flow microfluidic system with magnetic nanoparticles for the spectrophotometric quantification of urea in urine and plasma samples

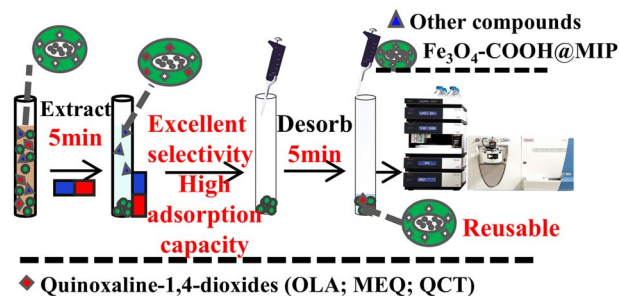
Kenia Chávez-Ramos\* and María del Pilar Cañizares-Macías



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### A water compatible magnetic molecularly imprinted nanocomposite for the class-selective enrichment of quinoxaline-1,4-dioxides in environmental water

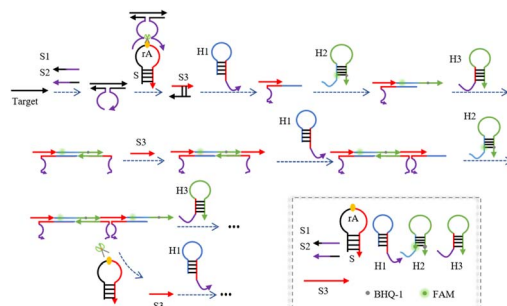
Mengmeng Zhang, Wei Zhou, Qingqing Wang, Ning Wang, Xin Wang, Youping Liu and Xin Di\*



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### A strategy for detecting CSFV using DNAzyme-HCR cascade amplification

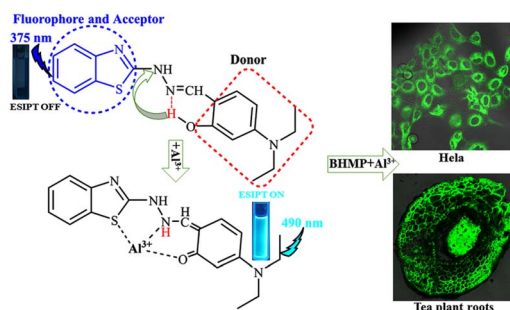
Xiuen Cao, Jiajing Cai, Zhilin He, Haofei Ji, Ruowei Sun, Xun Zhang, Chuanpin Chen and Qubo Zhu\*



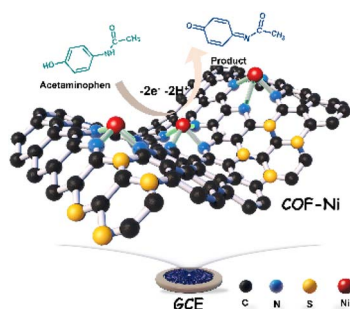
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### A simple fluorescent probe for selectively detecting Al<sup>3+</sup> and F<sup>-</sup> in living cells and growing tea plants

Didi Hu, Yingcui Bu, Mengxiao Liu, Fuqing Bai, Jingjing Li, Longchun Li, Huimei Cai\* and Xiaoping Gan\*



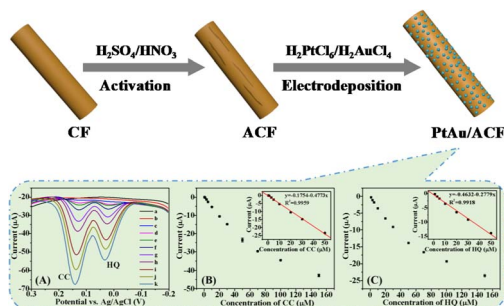
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### A nickel porphyrin-based covalent organic framework modified electrode for the electrochemical detection of acetaminophen

Lu Hou, Yue Jiang, Li-Zhen Chen, Sheng-Feng Zhang, Heng-Ye Li, Mei-Jie Wei,\* Fen-Ying Kong\* and Wei Wang

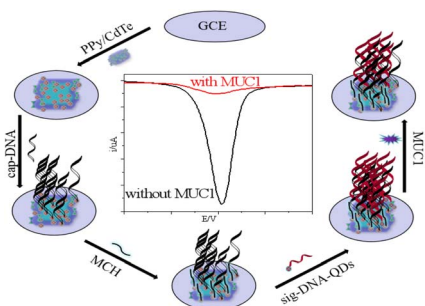
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### A bimetallic PtAu-modified carbon fiber electrochemical sensor for simultaneous and highly sensitive detection of catechol and hydroquinone in environmental water

Qi Xiao, Jiawen Li, Mingli Yang, Huihao Li, Yi Fang and Shan Huang\*

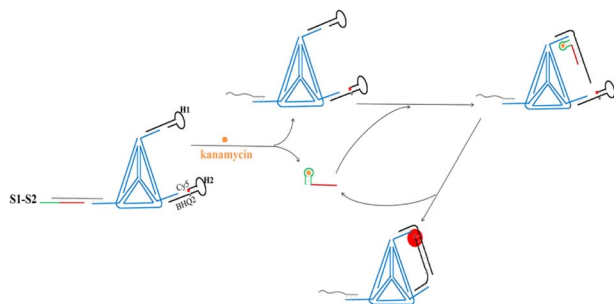
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### Highly sensitive electrochemical biosensor for MUC1 detection based on DNA-functionalized CdTe quantum dots as signal enhancers

JiaJia Wang, Chun Kan and Baokang Jin\*

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### An all-in-one enzyme-free fluorescent aptasensor integrating localized catalyzed hairpin assembly for sensing antibiotics in food with improved detection efficiency

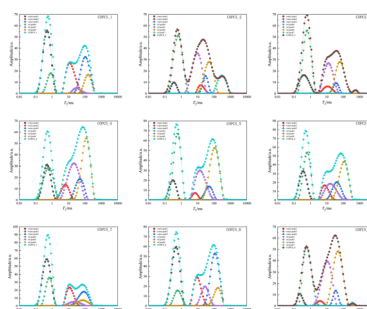
Yuanyuan Peng, Min Wu, Min Liu and Yushu Wu\*



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## Simultaneous measurements of oil- and water-content in crude oil-polluted sands with NMR-deconvolution analysis

Yuxin Wu, Zihan Zhao, Hao Ding, Diansheng Wang and Wei Zhou\*



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## Retention time-independent strategy for screening pesticide residues in herbs based on a fingerprint database and all ion fragmentation acquisition with LC-QTOF MS

Xiu-Ping Chen, Yu-Han Lu, Bo Xu, Yi-Xin Wei, Xia-Lian Cui, Wen-Wen Zhang, Gang-Feng Xu,\* Fang Zhang\* and Chen-Guo Feng

