

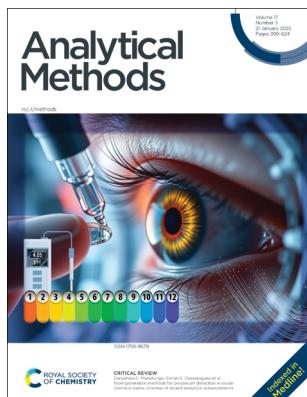
# Analytical Methods

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## IN THIS ISSUE

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### Cover

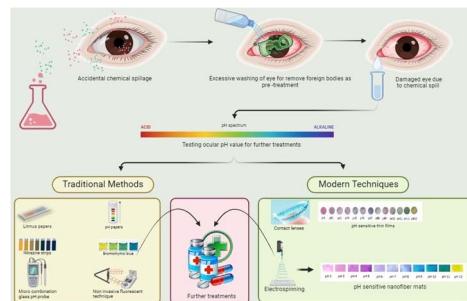
See Danushika C. Manatunga, Rohan S. Dassanayake *et al.*, pp. 408–431. Image reproduced by permission of Danushika C. Manatunga, Rohan S. Dassanayake *et al.* from *Anal. Methods*, 2025, 17, 408. Image partially generated using Google Gemini AI.

## CRITICAL REVIEW

408

### Next-generation methods for precise pH detection in ocular chemical burns: a review of recent analytical advancements

H. H. P. Benuwana Sandaruwan, Danushika C. Manatunga,\* Renuka N. Liyanage, Narahenpitage Pabakara Costha, Rohan S. Dassanayake,\* Ruchire Eranga Wijesinghe, Yang Zhou and Yuanyuan Liu

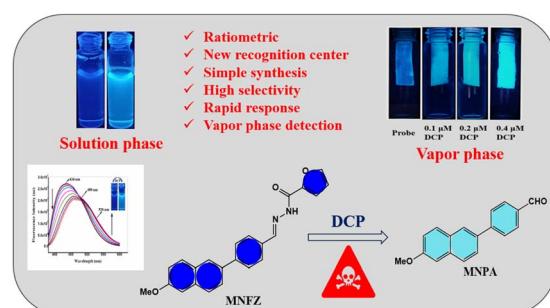


## PAPERS

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### A chemodosimetric chemosensor for the ratiometric detection of nerve agent-mimic DCP in solution and vapor phases

Shilpita Banerjee, Pintu Ghosh, Anirban Karak, Dipanjan Banik and Ajit Kumar Mahapatra\*



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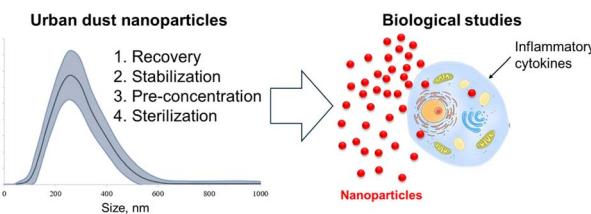
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## PAPERS

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**Separation and preparation of nanoparticles of urban dust for biological studies**

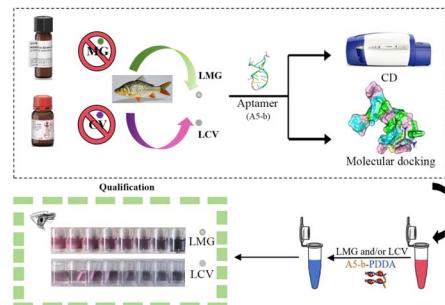
Alexandr I. Ivaneev,\* Mikhail S. Ermolin, Roman A. Zinovkin, Anna A. Dashkevich, Ludmila A. Zinovkina, Boris V. Chernyak and Petr S. Fedotov



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**A label-free colorimetric aptasensor for rapid multiplex detection of leuco-malachite green and leuco-crystal violet**

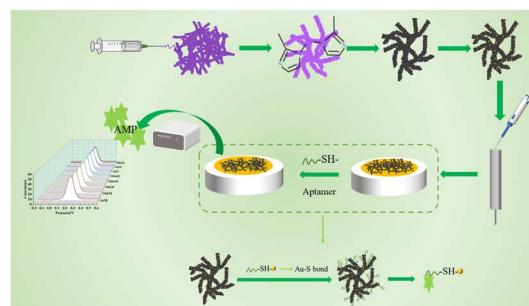
Runze Zhang, Kexin Liu, Fangran Jia, Tianci Xu and Yongjie Yang\*



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**An electrochemical aptasensor based on C-ZIF-67@PAN nanofibers for detection of ampicillin in milk**

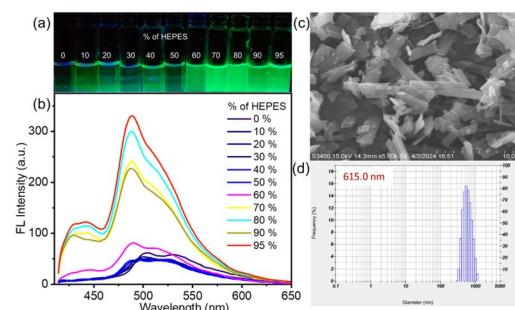
Yuting Luo, Yiwei Sun, Haoxiang Wang, Yuyang He, Yuxun Zhang, Hailu Lei, Hong Yang, Jinhao Wei and Dongpo Xu\*



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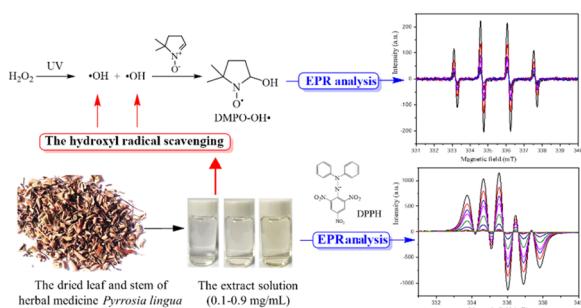
**An AIE active luminogen derived using 2-hydroxy-1-naphthaldehyde and 3-hydroxy-2-naphthohydrazide for the detection of sparfloxacin and azithromycin**

Dhvani A. Patel, Bigyan R. Jali and Suban K. Sahoo\*



## PAPERS

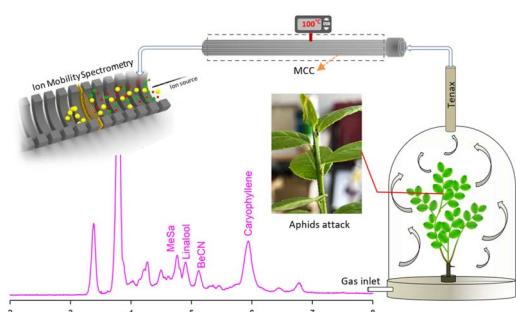
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### Antioxidant activity of herbal medicine *Pyrosia lingua* evaluated by electron paramagnetic resonance spectroscopy

Li Quan, En-chao Zhou,\* Xue-wen Guo and Gui Yin

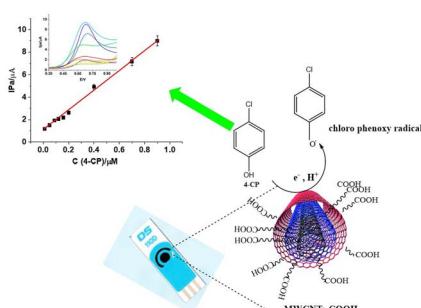
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### Rapid detection of volatile organic compounds emitted from plants by multicapillary column-ion mobility spectrometry

Vahideh Ilbeigi,\* Younes Valadbeigi, Martina Zvaríková, Peter Fedor and Štefan Matejčík\*

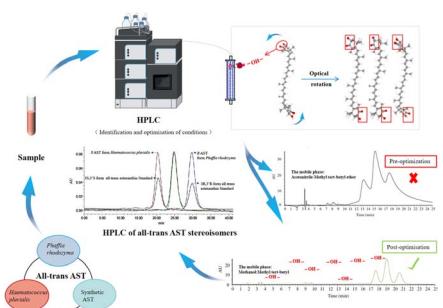
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### Fast and effective assessment of 4-chlorophenol as a persistent organic pollutant (POP) using a multi-walled carbon nanotube-modified screen-printed carbon electrode (C/MWCNT-COOH/SPCE)

Ayman H. Kamel,\* Ayman Alnakkal, Hisham S. M. Abd-Rabboh and A. Hefnawy

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### Optimized separation of astaxanthin stereoisomers from microbial sources using chiral HPLC

Xuehua Han, Xin Wang, Yanhong Chen, Yuanfan Yang, Xiping Du,\* Zhipeng Li,\* Zedong Jiang, Hui Ni and Qingbiao Li

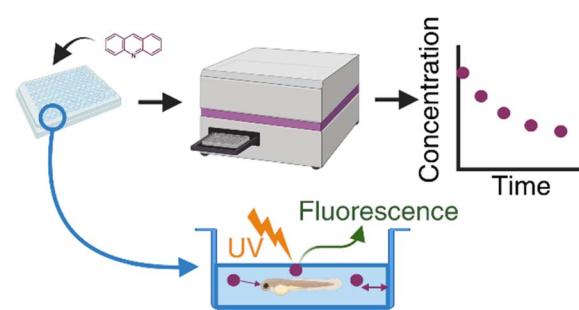


## PAPERS

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**Rapid determination of chemical losses in a microplate bioassay using fluorescence spectroscopy**

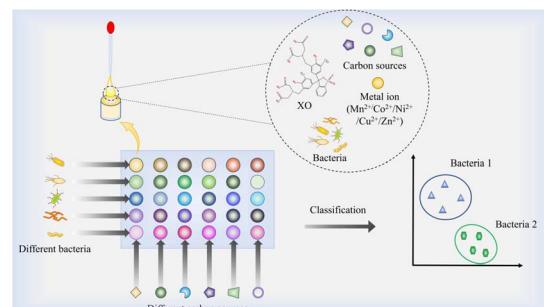
Juliana M. Huizenga,\* Lisa Truong and Lewis Semprini



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**A xylenol orange-based pH-sensitive sensor array for identification of bacteria and differentiation of probiotic drinks**

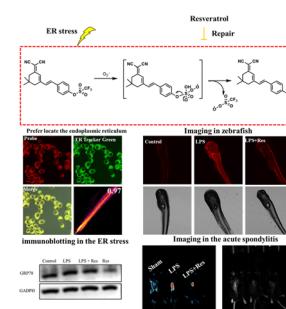
Changmao Yang, Yue Xiao, Yunjun Yan and Houjin Zhang\*



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**Development of a fluorescent probe for detecting superoxide anions for monitoring the progression and treatment of acute spondylitis**

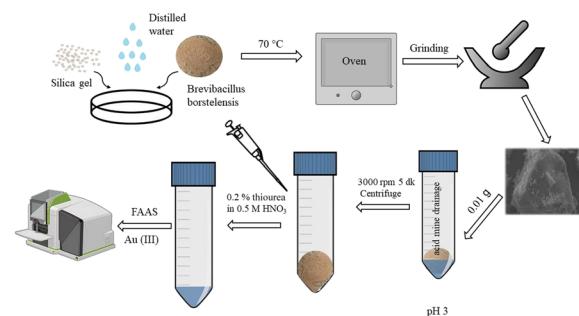
Xiaoming Chen,\* Peng Li and Guiqing Wang



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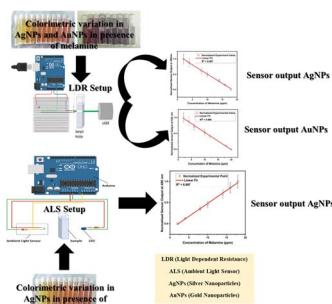
**Efficient extraction and determination of Au(III) ions from acid mine drainage and water samples using silica gel immobilized with *Brevibacillus borstelensis***

Aslihan Yilmaz Camoglu, Celal Duran,\* Duygu Ozdes, Aleyna Nalcaoglu, Kadriye Inan Bektas and Ali Osman Belduz



## PAPERS

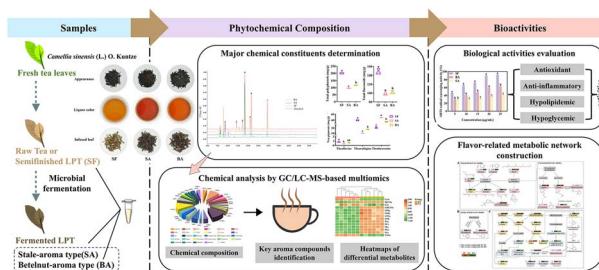
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## A highly sensitive facile plasmonic scheme for assessment of melamine in raw milk

Upama Das, Abhilash Gayan and Rajib Biswas\*

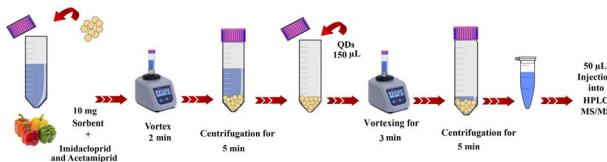
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## Characterisation of the phytochemical and bioactivity profiles of raw tea, stale-aroma, and betelnut-aroma type of Liupao tea through GC/LC-MS-based metabolomics

Xuancheng Wang, Zhiyong She, Hailin Zhou, Tingting An, Jianwen Teng, Ning Xia, Pingchuan Zhu, Wenhui Liu, Huanxiao Dong, Limin Tang, Shulan You, Lu Wei, Kongying Li, Lingli Wang, Li Huang\* and Qisong Zhang\*

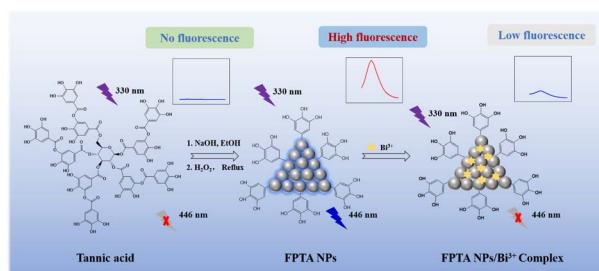
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## Bimetallic metal-organic framework based dispersive solid phase extraction followed by using a carbon dot solution as the elution solvent; application in the extraction of imidacloprid and acetamiprid from pepper samples

Sarina Beiramzadeh, Mir Ali Farazjadeh, Ali Akbar Fathi, Mohammad Reza Afshar Mogaddam\* and Jafar Abolhasani\*

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## Fluorescent poly(tannic acid)-based nanoprobes for selective and sensitive detection of bismuth ions

Changchang Chen, Yuqing Yang, Chenyang Ji, Yasi Shui, Xiaoyan Jiang, Renyong Liu, Chenggen Xie\* and Lijuan Chen\*

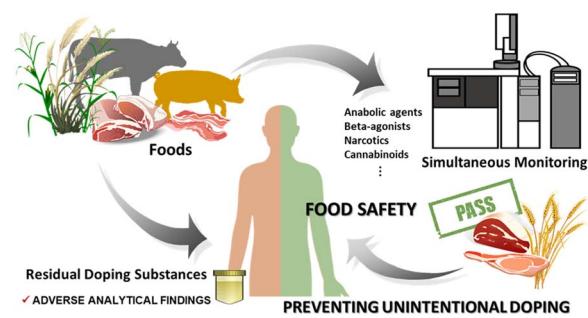


## PAPERS

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### Simultaneous analysis of residual prohibited doping substances in foods using gas chromatography-tandem mass spectrometry

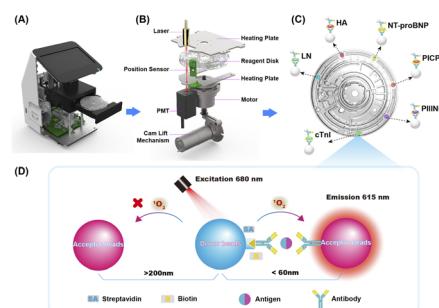
Yejin Lee, Yoeseph Cho, Seongeun Jeon, Yinglan Xu, Kang Mi Lee, Ho Jun Kim, Dong-Woo Lee and Junghyun Son\*



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### Multiplexed centrifugal microfluidic system for rapid and non-invasive detection of myocardial fibrosis

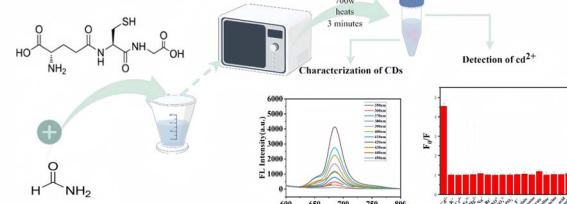
Luhai Wang, Jiaze Sun, Siwei Dai, Pengfei Zhang, Yefei Zhu\* and Yu Zhang\*



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### Research and application discussion on new technology for detecting cadmium ions based on a near-red light carbon dot fluorescence quenching method

Runfeng Tian, Shifang Zhan, Guanlong He, Zixuan Wang, Zheng Zhang and Xiaoyan Wang\*



## CORRECTION

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### Correction: A rapid evaluation method for the quality consistency assessment and spectrum–effect relationship study of Xiaohuoluo Pills developed based on combined spectral and chromatography technology

Fangfang Cheng, Yiting Gao, Beibei Ren, Zhongyang Zhang, Minghui Dong, Guoxiang Sun, Chaohui Song, Siqi Wang, Haixia Gao,\* Chunhua Zhou\* and Lingjiao Wang\*

