

## IN THIS ISSUE

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### Cover

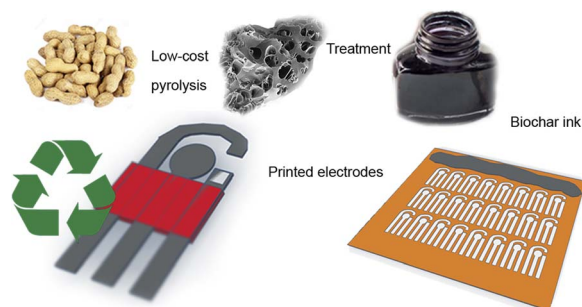
See F. Bernassani, M. Mosquera-Ortega, I. Sánchez, S. Susmel, E. Cortón and F. Figueredo, pp. 6565–6576. Image reproduced by permission of F. Bernassani, M. Mosquera-Ortega, I. Sánchez, S. Susmel, E. Cortón and F. Figueredo from *Anal. Methods*, 2025, 17, 6565.

## PAPERS

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### Sustainability from the start: biochar-based conductive inks enable the streamlined fabrication of green electroanalytical devices

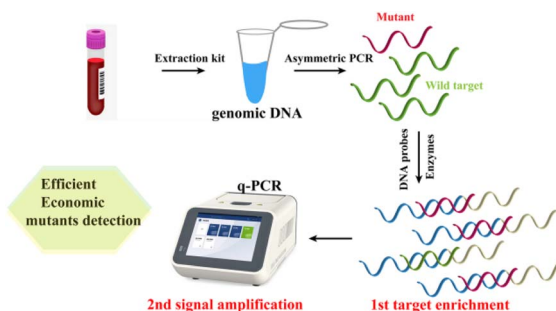
Florencia Bernassani, Monica Mosquera-Ortega,\* Ismael Sánchez, Sabina Susmel, Eduardo Cortón and Federico Figueredo



6577

### A universal approach for mutation identification with a DNA probe–enzyme combination platform

Bo Li, Yufei Wang, Yan Zhong, Hui Xin, Zheng Li, Chang Xu and Chunyan Wang\*



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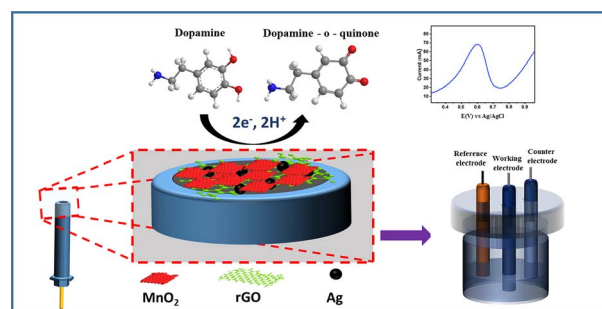
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6584

### Synergistic ternary MnO<sub>2</sub>/(rGO@Ag) nanocomposites for sensitive electrochemical dopamine detection

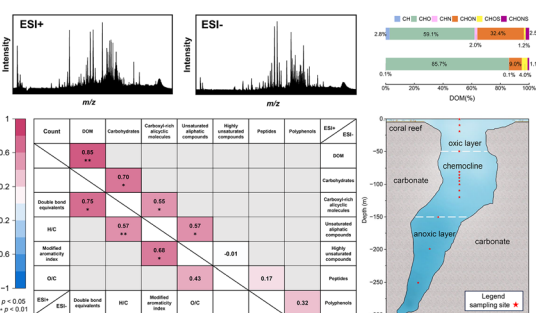
Ankita K. Dhukate, Pramod A. Koyale, Sajid B. Mullani, Swapnajt V. Mulik, Navaj B. Mullani, Tukaram D. Dongale and Sagar D. Delekar\*



6598

### Comparative evaluation of positive and negative LC-MS modes for DOM profiling

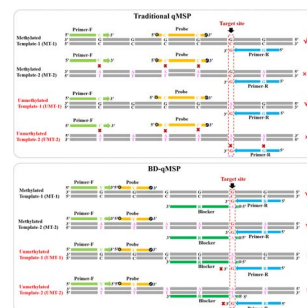
Jiying Pei, Shiguo Chen, Jiayu Zhang, Wenfeng Yu, Weijie Qin and Kefu Yu\*



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### A novel blocker displacement qMSP assay for DNA methylation analysis at single-base resolution

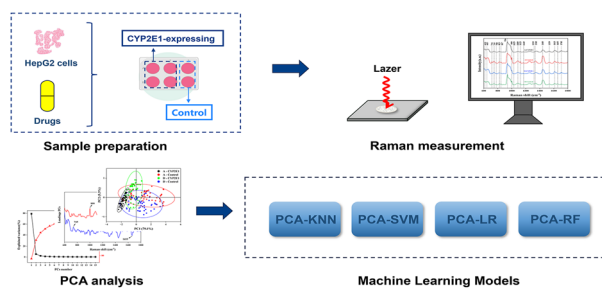
Qianqian Wu, Hui Li, Hang Lu, Guodong Zhao, Fang Tan, Peng Guo, Yong Meng, Zhentao Li\* and Zhifeng Gao\*



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### Application of Raman spectroscopy and machine learning for determination of pro-toxicant activation in CYP2E1-expressing cells

Hua Sun, Ming Li, Jin-Ling Song, Chun-Zhi Ai\* and Wei Li\*



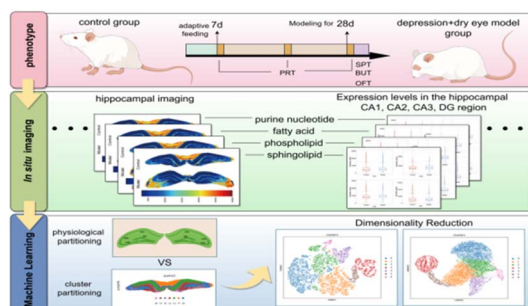
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### Research on lake pollutant prediction based on the osprey optimization algorithm (OOA)

Yinshan Yu,\* Xu Tang, Mingjian Ding, Guochen Tan, Jiawen Bi, Wenkai Huang and Yudong Yang

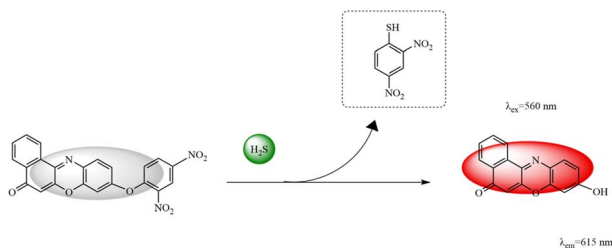
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### Machine learning-assisted MALDI-MSI to characterize hippocampal subregion lipid and purine metabolic alterations in depression-related dry eye disease

Xie Minsi, Deng Qibo, Huang Yu, Li Dongdong, Liu Pei, Liu Qianhong, Lei Junxian, Yang Yijing, Song Houpan, Tian Sainan, Yao Xiaolei, Peng Qinghua\* and Yuan Zhiying\*

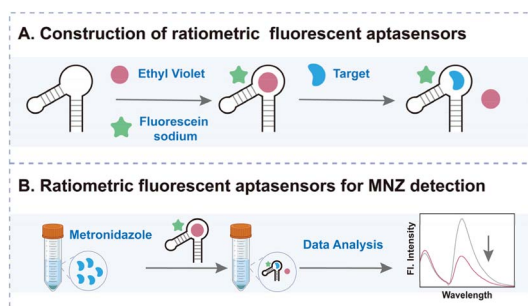
6656



### Development of an effective H<sub>2</sub>S-activatable fluorescent probe for imaging drug-induced living cells

Yangmei Hou, Jiaxuan Li, Yingqi Ding, Ji Zhuoma, Yimeng Zhao, Zhuoga Langjie and Meipan Yang\*

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### A label-free ratiometric fluorescent aptasensor for highly sensitive detection of metronidazole

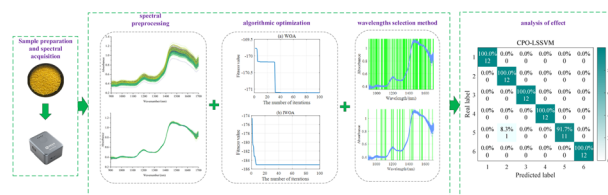
Lingli Bu, Sining Chen, Qianqian Ren, Yanyan He, Jun Li\* and Yue Wang\*



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## Non-destructive origin identification of millet based on the combination of NIRS and improved WOA-based feature wavelength selection

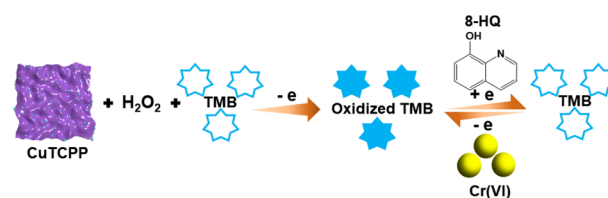
Peng Gao, Na Wang,\* Yang Lu, Jinming Liu, Rui Hou, Xinyue Du and Yingying Hao



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## Colorimetric detection of chromium(vi) using copper-based porphyrin organic framework materials and 8-hydroxyquinoline via a 'signal inhibition-target activation' response mode

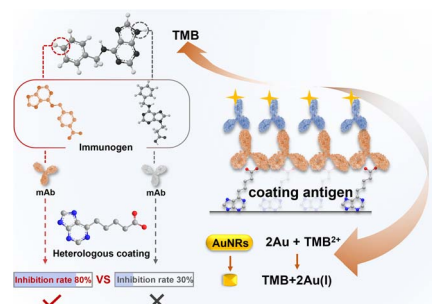
Jianhua Luan, Xin Zhang, Wenjing Qian, Xinyu Zhang, Mengru Shu, Xiubo Zhao\* and Nan Wang\*



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## Enhancing the sensitivity of a monoclonal antibody-based heterologous coating strategy for the detection of 6-benzyladenine through the LSPR effect of AuNRs

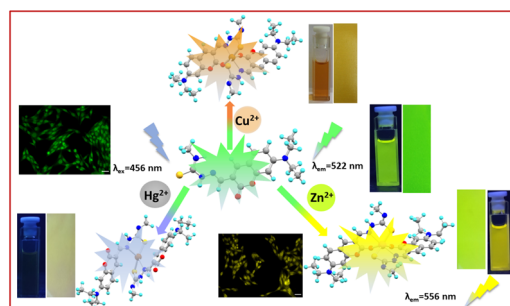
Jin-Zhi Han, Ling Hu, Zhan-Peng Chen, Jia-Yan Wen, Ri-Sheng Chen, Lin Luo, Qileng Aori\* and Zhen-Lin Xu

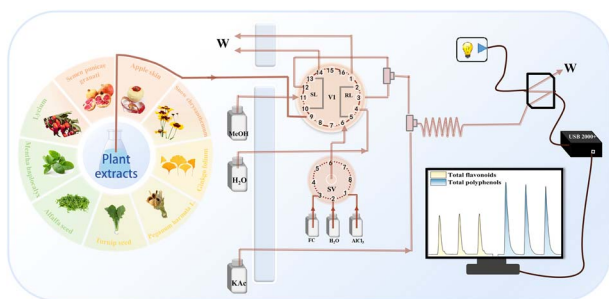


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## Adaptable coumarin-based fluorescent molecular multianalyte sensor for Zn<sup>2+</sup>, Hg<sup>2+</sup> and Cu<sup>2+</sup> via different sensing modalities and its bioimaging applications

Amitav Biswas, Toby Biswas, Subhabrata Guha, Atanu Maji, Gaurav Das, Rahul Naskar, Saswati Gharami\* and Tapan Kumar Mondal\*





## Rapid simultaneous determination of plant total flavonoids and polyphenols by merging zone flow injection spectrophotometry

Junxia Gao, Turghun Muhammad,\* Gaowei Guo, Jia Zhao and Yan Zhang

