

IN THIS ISSUE

ISSN 1759-9679 CODEN AMNECT 17(33) 6557–6732 (2025)



Cover

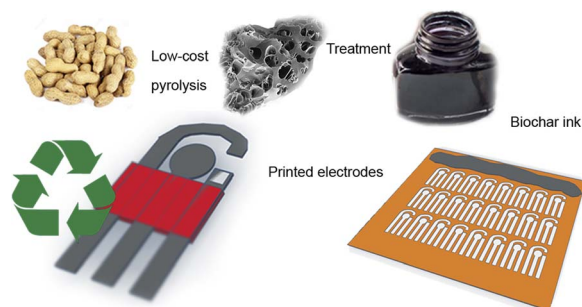
See F. Bernassani, M. Mosquera-Ortega, I. Sánchez, S. Susmel, E. Cortón and F. Figueredo, pp. 6565–6576. Image reproduced by permission of F. Bernassani, M. Mosquera-Ortega, I. Sánchez, S. Susmel, E. Cortón and F. Figueredo from *Anal. Methods*, 2025, 17, 6565.

PAPERS

6565

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

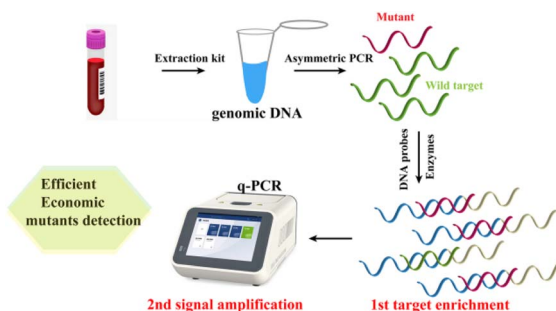
Florencia Bernassani, Monica Mosquera-Ortega,* Ismael Sánchez, Sabina Susmel, Eduardo Cortón and Federico Figueredo



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*



**GOLD
OPEN
ACCESS**

EES Batteries

**Exceptional research on
batteries and energy storage**

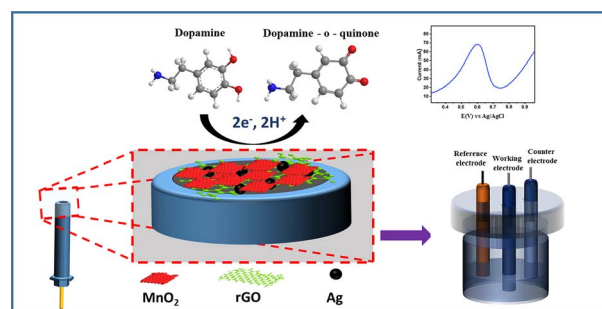
Part of the EES family

**Join
in** | Publish with us
rsc.li/EESBatteries

6584

Synergistic ternary MnO₂/(rGO@Ag) nanocomposites for sensitive electrochemical dopamine detection

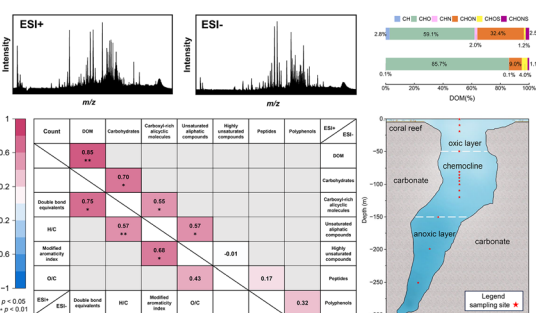
Ankita K. Dhukate, Pramod A. Koyale, Sajid B. Mullani, Swapnajt V. Mulik, Navaj B. Mullani, Tukaram D. Dongale and Sagar D. Delekar*



6598

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

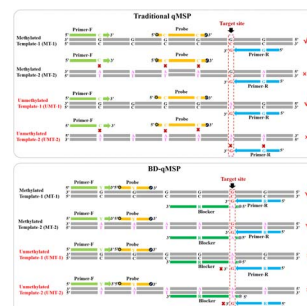
Jiying Pei, Shiguo Chen, Jiayu Zhang, Wenfeng Yu, Weijie Qin and Kefu Yu*



6609

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

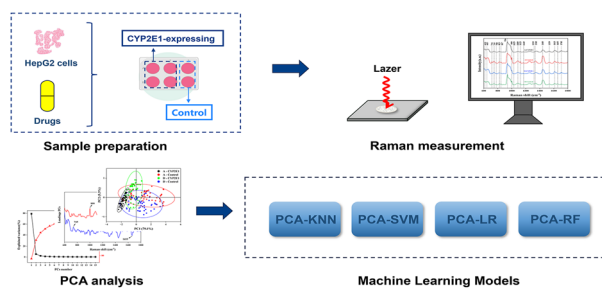
Qianqian Wu, Hui Li, Hang Lu, Guodong Zhao, Fang Tan, Peng Guo, Yong Meng, Zhentao Li* and Zhifeng Gao*



6620

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*



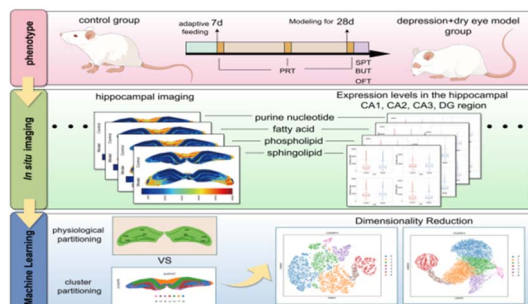
6630



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

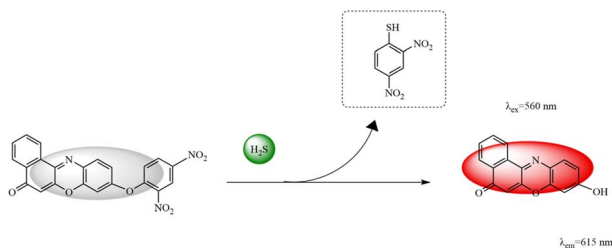
6637



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*

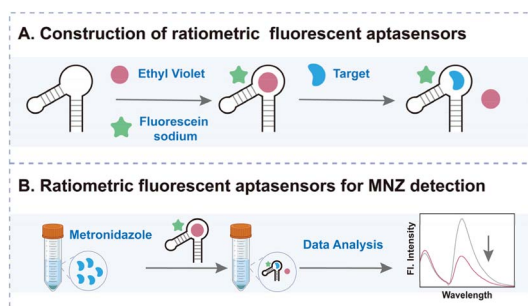
6656



Development of an effective H₂S-activatable fluorescent probe for imaging drug-induced living cells

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

6666



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

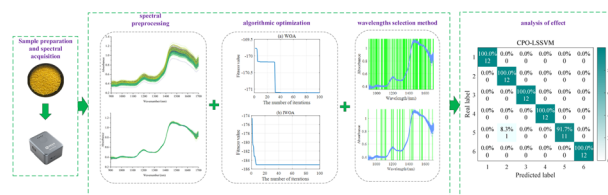
Lingli Bu, Sining Chen, Qianqian Ren, Yanyan He, Jun Li* and Yue Wang*



6672

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

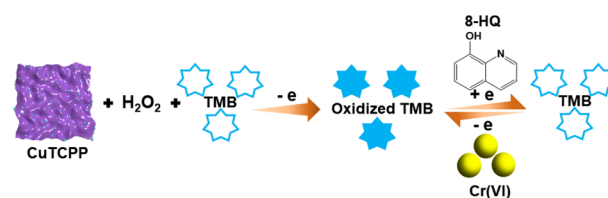
Peng Gao, Na Wang,* Yang Lu, Jinming Liu, Rui Hou, Xinyue Du and Yingying Hao



6684

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

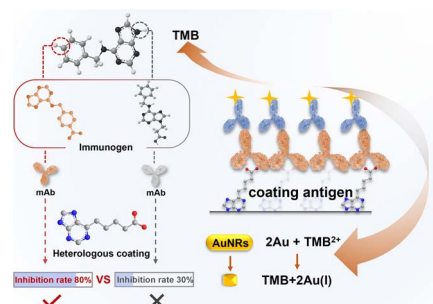
Jianhua Luan, Xin Zhang, Wenjing Qian, Xinyu Zhang, Mengru Shu, Xiubo Zhao* and Nan Wang*



6694

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



6707

Adaptable coumarin-based fluorescent molecular multianalyte sensor for Zn²⁺, Hg²⁺ and Cu²⁺ 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*

