

# Analytical Methods

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## IN THIS ISSUE

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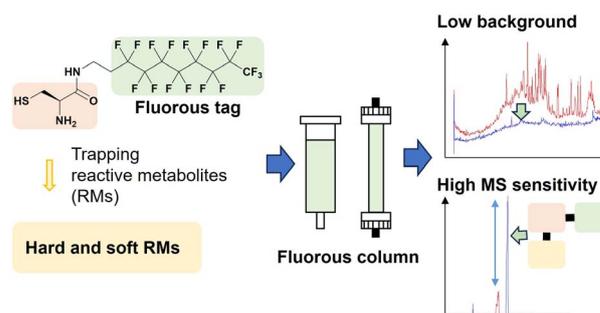
**Cover**  
See Huan Chen, Hongwei Hou *et al.*, pp. 3815–3830. Image reproduced by permission of Hongwei Hou from *Anal. Methods*, 2024, **16**, 3815.

## COMMUNICATION

3810

### Development of a fluoros trapping reagent for rapid detection of electrophilic reactive metabolites

Yusuke Akagi, Hiroyuki Yamakoshi and Yoshiharu Iwabuchi\*

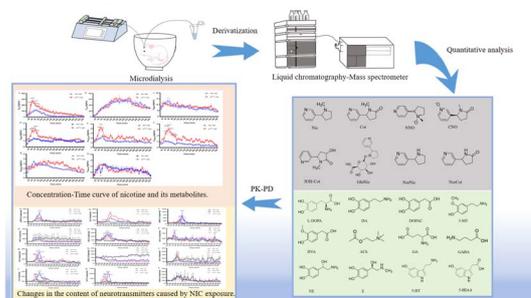


## PAPERS

3815

### UHPLC-MS/MS combined with microdialysis for simultaneous determination of nicotine and neurotransmitter metabolites in the rat hippocampal brain region: application to pharmacokinetic and pharmacodynamic study

Mingyu Zhu, Lili Cui, Guanglin Liu, Pengpeng Yu, Qingyuan Hu, Huan Chen\* and Hongwei Hou\*



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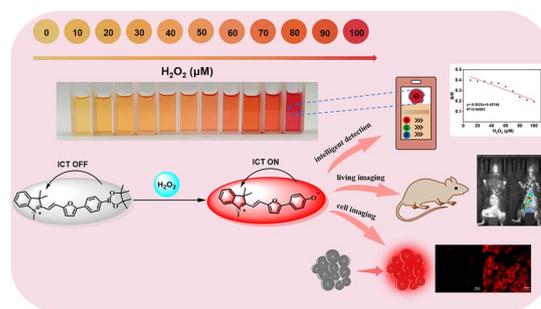
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Fundamental questions  
Elemental answers

3831

### A fluorescence probe with targeted mitochondria for detecting hydrogen peroxide *in vitro* and in diabetic mice

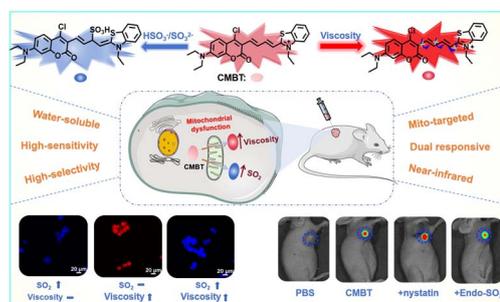
Yi-Ru Wang, Fu-Qiang Qiao, Yu-Wei Tan, Jia-Ling Hu, Ai-Hong Zhang, Ting Liang,\* Xu-Ying Liu, Hong-Ru Song\* and Yan-Fei Kang\*



3839

### A mitochondria-specific NIR fluorescence probe for dual-detection of sulfur dioxide and viscosity in living cells and mice

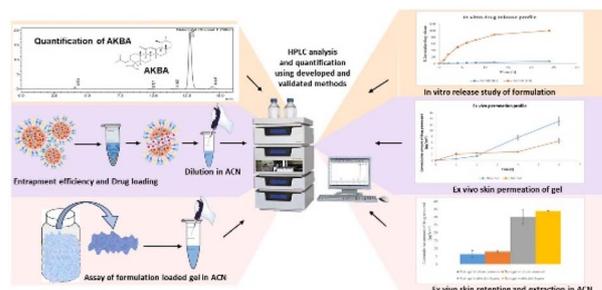
Xue-Yi Sun, Xi Zhang, Ke Gao, Wen-Jing Zhao, Yu-Ting Tian, Tao Liu\* and Zhong-Lin Lu\*



3847

### Determination of 3-acetyl-11-keto- $\beta$ -boswellic acid in analytical and biological samples using streamlined and robust RP-HPLC method

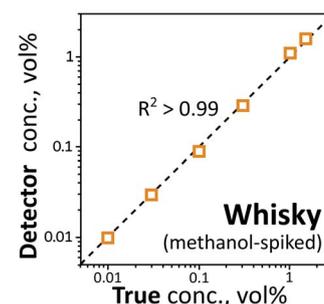
Sakshi Priya and Gautam Singhvi\*



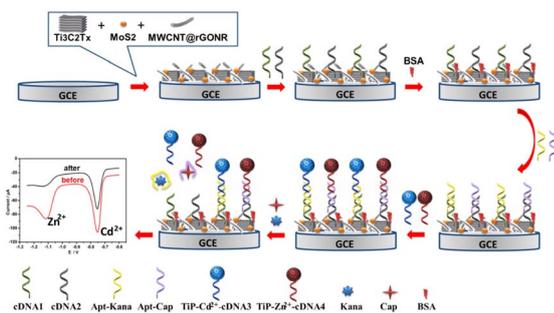
3859

### Handheld methanol detector for beverage analysis: interlaboratory validation

Jan van den Broek,\* Sebastian D. Keller, Ian Goodall, Katie Parish-Virtue, Claudia Bauer-Christoph, Johannes Fuchs, Despina Tsipi, Andreas T. Guntner, Thomas Blum, Jean-Charles Mathurin, Matthias G. Steiger, Roghayeh Shirvani, Manfred Gössinger, Monika Graf, Peter Anderhub, Daniel Z'graggen, Claudio Hüsser, Benjamin Faigle and Agapiou Agapios



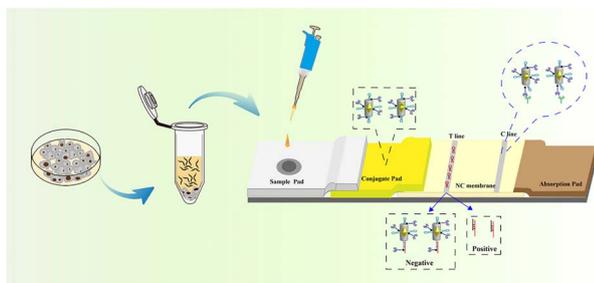
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### A sensitive sandwich-type electrochemical aptasensing platform based on $\text{Ti}_3\text{C}_2\text{T}_x/\text{MoS}_2/\text{MWCNT@rGONR}$ composites for simultaneous detection of kanamycin and chloramphenicol in food samples

Xin Yao, Liyu Yang, Siyi Yang, Jinhui Shen, Danqun Huo, Huanbao Fa, Changjun Hou\* and Mei Yang\*

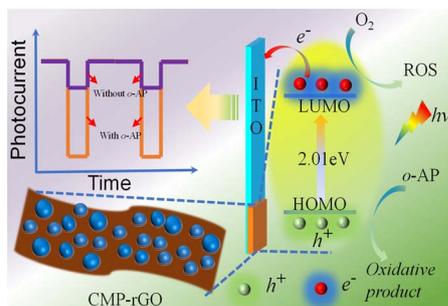
3878



### A novel SERS-lateral flow assay (LFA) tray for monitoring of miR-155-5p during pyroptosis in breast cancer cells

Xiaoxia Lu, Wenlong Lu and Dong Hua\*

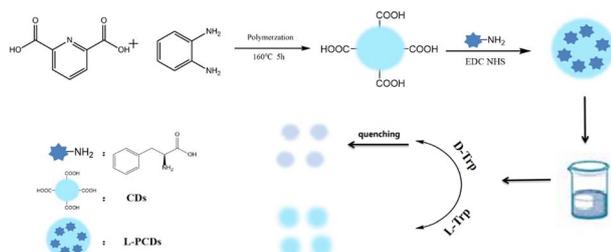
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### Visible-light-driven photoelectrochemical sensor based on conjugated microporous polymer-grafted graphene for *o*-aminophenol detection

Qiu jing Qin, Gang Xiang,\* Jiangfen Xu, Wenzhuo Li, Qinying Huang, Fengping Liu, Cuizhong Zhang, Zhengfa Zhang, Wei Huang and Jinyun Peng\*

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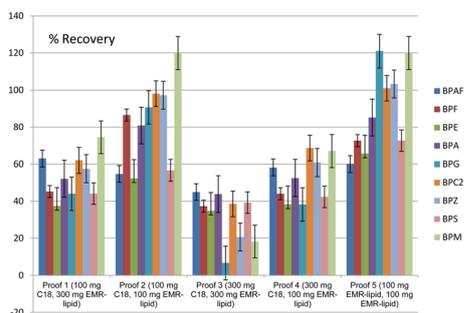
### Modifying carbon dots with *L*-phenylalanine for rapid discrimination of tryptophan enantiomers

Bozhi Lang, Wenming Ma, Xuan Liao, Yaning Duan, Cuiling Ren\* and Hongli Chen





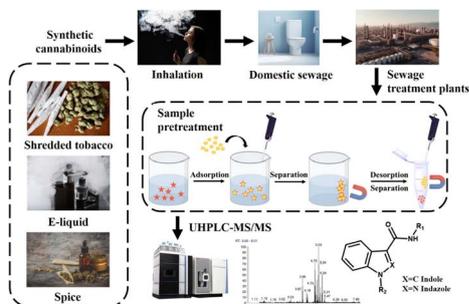
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### Optimization of a modified Captiva EMR-lipid method based on micro-matrix solid-phase dispersion coupled with gas chromatography-mass spectrometry for the determination of nine bisphenols in mussel samples

N. Carro,\* R. Fernández, J. Cobas, I. García, M. Ignacio and A. Mouteira

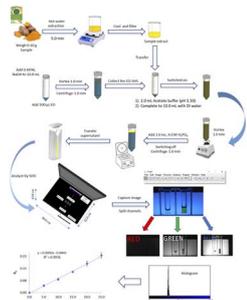
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### Preparation of amphiphilic poly(divinylbenzene-co-N-vinylpyrrolidone)-functionalized polydopamine magnetic nanoadsorbents for enrichment of synthetic cannabinoids in wastewater

Xiuchen Li, Le Jiang, Bin Di\* and Chi Hu\*

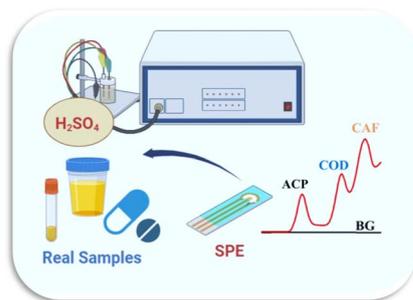
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### Edible oil-based switchable-hydrophilicity solvent liquid-liquid microextraction prior to smartphone digital image colorimetry for the determination of total curcuminoids in food samples

Salihu Ismail, Aliyu B. Abdullahi and Usama Alshana\*

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### Synchronous analysis of acetaminophen, codeine, and caffeine in human fluids employing graphite screen-printed electrodes

Bahaa G. Mahmoud, Mustafa. J. A. Abualreish, Mohamed Ismael and Mohamed Khairy\*

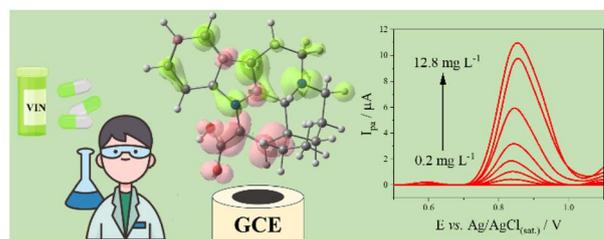


## TECHNICAL NOTE

4002

### First report on the electrooxidation of vinpocetine using a modification free sensing platform: application to pharmaceutical formulations

Adriano Rogerio Silva Lima, Gabriel Chitolina Rodrigues, Alan Carlos Rezende Rodrigues, Caio Raphael Vanoni, Gustavo Amadeu Micke, Giovanni Finoto Caramori, Ricardo Ferreira Affeldt, Glaucio Régis Nagurniak and Cristiane Luisa Jost\*



## CORRECTION

4010

### Correction: UHPLC-MS/MS combined with microdialysis for simultaneous determination of nicotine and neurotransmitter metabolites in the rat hippocampal brain region: application to pharmacokinetic and pharmacodynamic study

Mingyu Zhu, Lili Cui, Guanglin Liu, Pengpeng Yu, Qingyuan Hu, Huan Chen\* and Hongwei Hou\*

