# **Analytical Methods**

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**Cover** See Pascaline Bouzy and Nick Stone *et al.*, pp. 1620–1630. Image reproduced by permission of Photothermal Spectroscopy Corp., from *Anal. Methods*, 2023, **15**, 1620.

# PAPERS

#### 1620

Exploration of utility of combined optical photothermal infrared and Raman imaging for investigating the chemical composition of microcalcifications in breast cancer

Pascaline Bouzy, Iain D. Lyburn, Sarah E. Pinder, Robert Scott, Jessica Mansfield, Julian Moger, Charlene Greenwood, Ihssane Bouybayoune, Eleanor Cornford, Keith Rogers and Nick Stone\*

#### 1631

# The fabrication of N-doped carbon dots by methionine and their utility in sensing Cu<sup>2+</sup> in real water

Peng Sun, Wanyu Song, Yu Zou, Miaomiao Tian,\* Fang Zhang\* and Fang Chai\*



-2600 x1400 µm Acquisition time: 40 mir -187.5 x129.5 µm

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# PAPERS

## 1639

A novel coumarin derivative-modified cellulose fluorescent probe for selective and sensitive detection of  $CN^-$  in food samples

Jiali Kou, Zhiyuan Meng, Xiaoyuan Wang, Zhonglong Wang<sup>\*</sup> and Yiqin Yang<sup>\*</sup>



# 1649

Ultraviolet-induced fluorescence of oil spill recognition using a semi-supervised algorithm based on thickness and mixing proportion-emission matrices

Bowen Gong, Hongji Zhang, Xiaodong Wang, Ke Lian, Xinkai Li, Bo Chen,\* Hanlin Wang and Xiaoqian Niu



Label-free colorimetric apta-assay for detection of *Escherichia coli* based on gold nanoparticles with peroxidase-like amplification

Mengyue Liu, Fengjuan Zhang, Shouyi Dou, Jiashuai Sun, Frank Vriesekoop, Falan Li, Yemin Guo\* and Xia Sun\*



# 1668

An analytical method for the determination of glyphosate and aminomethylphosphoric acid using an anionic polar pesticide column and the application in urine and serum from glyphosate poisoning patients

Hao Zhang, Jianrui Dou, Runfeng Miao, Jiacai Hu, Zongli Huo, Feng Zhang\* and Wenliang Ji\*





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#### PAPERS

### 1713

# Construction of multiple modes using gold nanoparticles as probes for the rapid detection of fenpyroximate

Yumei Yan, Zhili Liu, Wenfeng Zhou, Haixiang Gao and Runhua Lu $\!$ 



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# Optimization of a simple, effective, and greener methodology for polycyclic aromatic hydrocarbon extraction from human adipose tissue

Sara Sousa, Paula Paíga, Diogo Pestana, Gil Faria, Cristina Delerue-Matos, Maria João Ramalhosa, Conceição Calhau and Valentina Fernandes Domingues\*



# 1734

Unified analysis method for total and inorganic As determination in foodstuffs by hydride generation high-resolution continuum source quartz tube atomic absorption spectrometry

Lucia Chirita, Eniko Covaci, Michaela Ponta and Tiberiu Frentiu\*



#### 1747

A three-stage search strategy combining database reduction and retention time filtering to improve the sensitivity of low-input and single-cell proteomic analysis

Wei Fang, Zhuokun Du, Linlin Kong, Guibin Wang, Yangjun Zhang and Weijie Qin\*

