

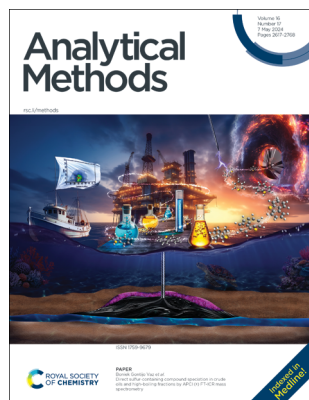
# Analytical Methods

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See Boniek Gontijo Vaz *et al.*, pp. 2635–2642. Image reproduced by permission of Boniek Gontijo Vaz from *Anal. Methods*, 2024, 16, 2635.



### Inside cover

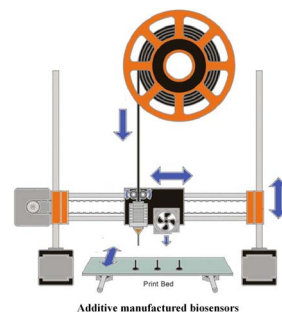
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### Electroanalysis overview: additive manufactured biosensors using fused filament fabrication

Robert D. Crapnell and Craig E. Banks\*

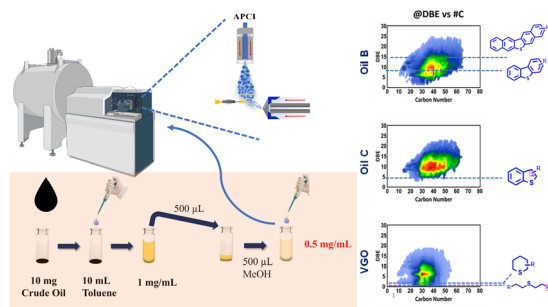


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Danielle Mitze Muller Franco, Taynara Rodrigues Covas, Rosana Cardoso Lopes Pereira, Lidya Cardozo da Silva, Mario Duncan Rangel, Rosineide Costa Simas, Gabriel Henry Morais Dufrayer and Boniek Gontijo Vaz\*



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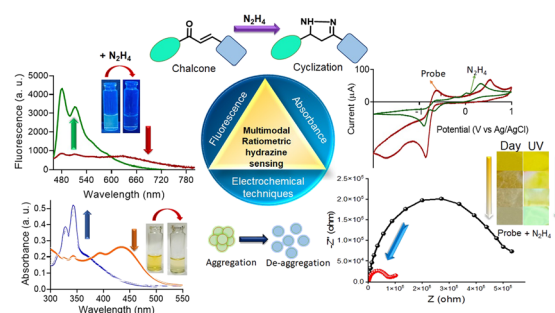
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Fundamental questions  
Elemental answers

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## Converging optical and electrochemical detection strategies for multimodal hydrazine sensing: insights into substituent-driven diverse response

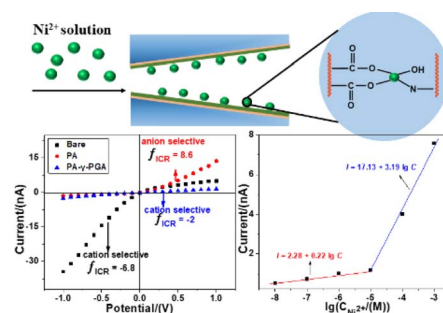
Rikitha S. Fernandes, Sahil Deepak Vasistha, Ritesh Kumar Singh, Sanket Goel and Nilanjan Dey\*



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## Layer-by-layer assembly of homopolypeptide polyelectrolytes on asymmetric nanochannels for the detection of nickel ions

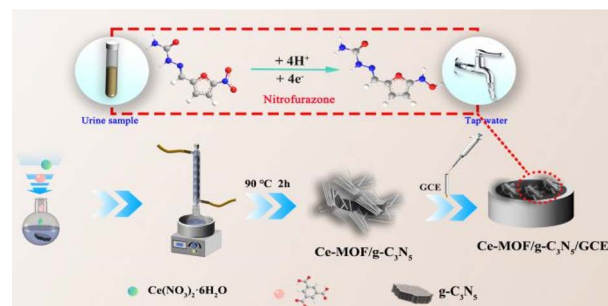
Pengrong An, Jincan Yang, Tianming Wang, Saiwen Lu, Dehao Wang, Zhuoyue Wang, Chun-Lin Sun,\* Chuanguang Qin\* and Jun Li\*



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## An efficient electrochemical sensor based on the Ce-MOF/g-C<sub>3</sub>N<sub>5</sub> composite for the detection of nitrofurazone

Jianxia Gu,\* Yiqiong Jia, Zhanbin Jin, Tingting Wei and Yongxia Li



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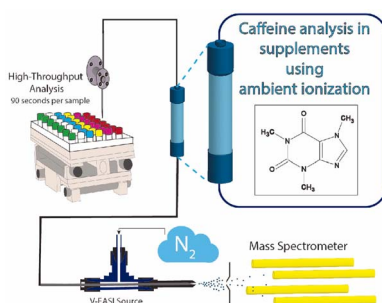
## Field method for preservation of total mercury in waters, including those associated with artisanal scale gold mining

David C. P. King, Michael J. Watts, Elliott M. Hamilton,\* Robert J. G. Mortimer, Mike Coffey, Odipo Osano, Maureene Auma Ondayo and Marcello Di Bonito





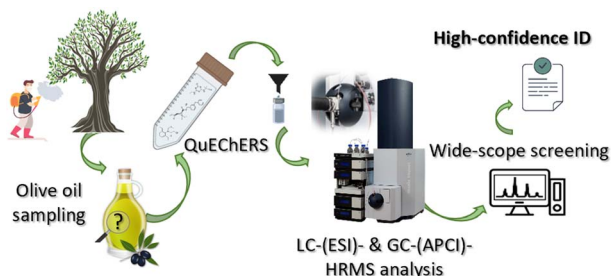
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### Caffeine quantification in dietary supplements using high-throughput on-line solid phase extraction coupled to Venturi easy ambient sonic-spray ionization mass spectrometry

David Ulisses Tega, Luan Felipe Campos Oliveira, Patrick Cesar Ferreira, Bruna Beatriz Soldera, Heliara Dalva Lopes Nascimento, Marcos Nogueira Eberlin and Alessandra Sussulini\*

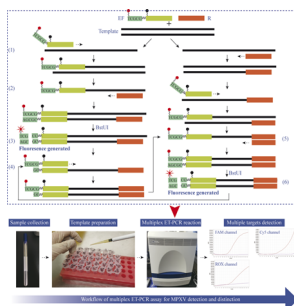
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### A comprehensive HRMS methodology using LC-(ESI)-/GC-(APCI)-QTOF MS complementary platforms for wide-scope target screening of >750 pesticides in olive oil

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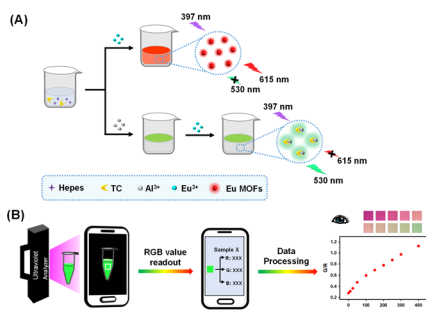
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### Rapid detection of monkeypox virus and differentiation of West African and Congo Basin strains using endonuclease restriction-mediated real-time PCR-based testing

Juan Zhou, Fei Xiao, Xiaolan Huang, Jin Fu, Nan Jia, Chunrong Sun, Min Chen, Zheng Xu, Hui Huang\* and Yi Wang\*

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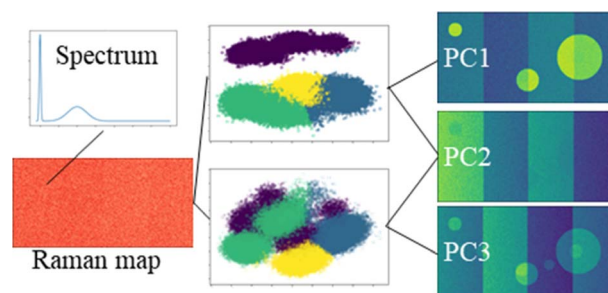
### A novel ratiometric sensor for fluorimetric and visual dual-mode detection of Al<sup>3+</sup> in environmental water based on the target-regulated formation of Eu MOFs

Tao-Li Chen, Xiang-Juan Kong,\* Xin-Xin Dong, Zhi-Jie Mao, Fang-Fang Kong and Qiang Xiao\*

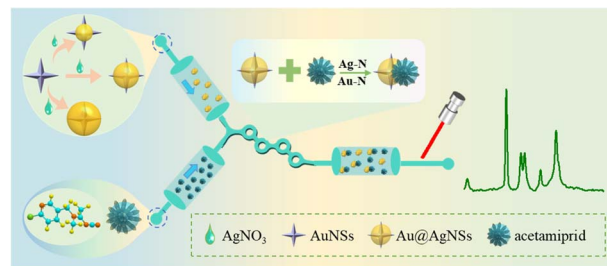


## PAPERS

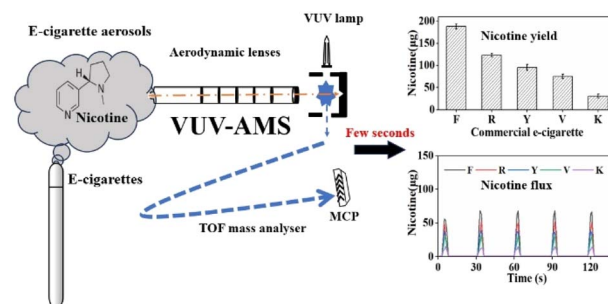
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**Statistical approaches to Raman imaging: principal component score mapping**Elia Marin,<sup>\*</sup> Davide Redolfi Bristol, Alfredo Rondinella, Alex Lanzutti and Pietro Riello

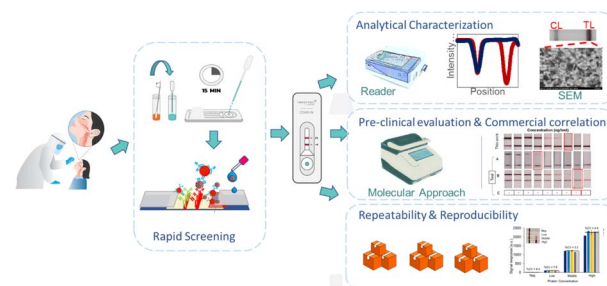
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**Ag-coated tetrapod gold nanostars (Au@AgNSs) for acetamiprid determination in tea using SERS combined with microfluidics**Qian Ke, Limei Yin, Heera Jayan, Hesham R. El-Seedi, Xiaobo Zou and Zhiming Guo<sup>\*</sup>

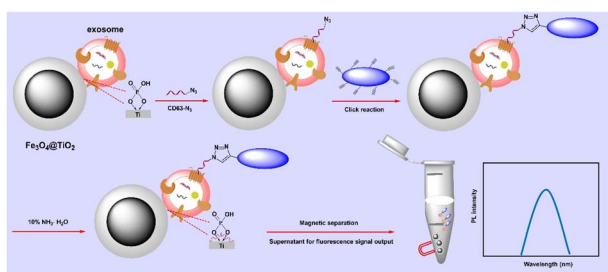
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**Online quantification of nicotine in e-cigarette aerosols by vacuum ultraviolet photoionization mass spectrometry**Shaoxin Ye, Zuoying Wen,<sup>\*</sup> Kai Xie, Xuejun Gu, Jian Wang,<sup>\*</sup> Xiaofeng Tang<sup>\*</sup> and Weijun Zhang

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**Characterizing a visual lateral flow device for rapid SARS-CoV-2 virus protein detection: pre-clinical and system assessment**Natpapas Wiriyaichaiyorn,<sup>\*</sup> Jetnapang Kongrueng, Kannika Sukkuea, Rattana Tanrattanawong, Jarunee Vanichtanankul, Thanaya Saeyang, Tararat Jantra, Deanpen Japrungr, Weerakanya Maneeprakorn, Suwussa Bamrungsap, Pareena Janchompoo and Ekawat Pasomsu

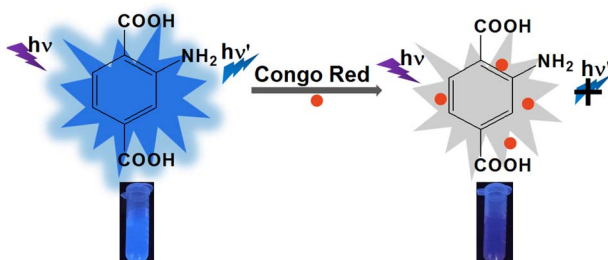
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**A highly sensitive and selective fluorescent biosensor for breast cancer derived exosomes using click reaction of azide–CD63 aptamer and alkyne-polymer dots**

Dumei Ma, Yiting Luo, Xiaoya Zhang, Zehu Xie, Yinghua Yan\* and Chuan-Fan Ding\*

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**Simple fluorescence "turn-off" assay for Congo red using commercial 2-aminophthalic acid**

Jiaqi Qian, Jie Li, Yihan Jiang, Chaoyong Liu, Jiayao Zhu, Liyu Gu and Yongming Guo\*

