

# Analytical Methods

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### Cover

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

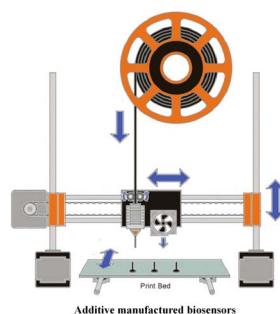
See Nilanjan Dey et al., pp. 2643–2653. Image reproduced by permission of Nilanjan Dey from *Anal. Methods*, 2024, 16, 2643.

## MINIREVIEW

2625

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

Robert D. Crapnell and Craig E. Banks\*

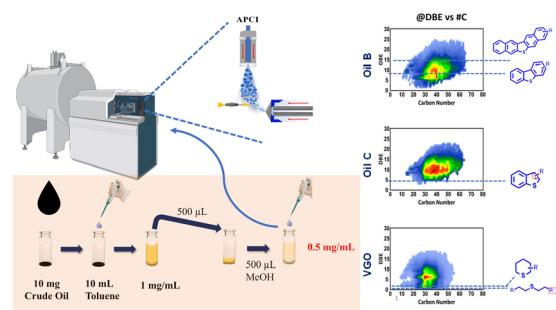


## PAPERS

2635

### Direct sulfur-containing compound speciation in crude oils and high-boiling fractions by APCI (+) FT-ICR mass spectrometry

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





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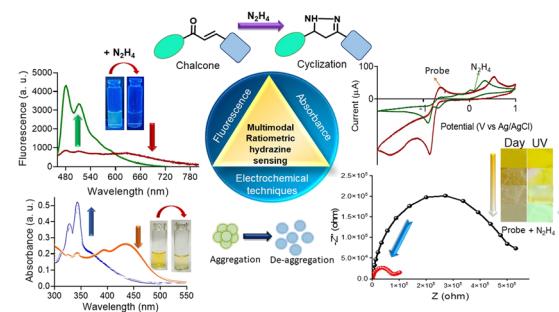
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## PAPERS

2643

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

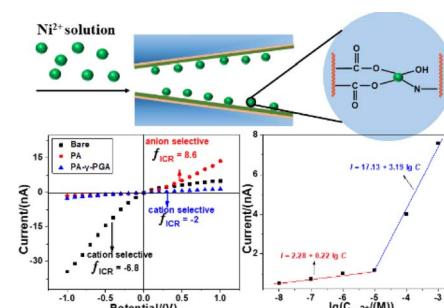
Rikitha S. Fernandes, Sahil Deepak Vasistha, Ritesh Kumar Singh, Sanket Goel and Nilanjan Dey\*



2654

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

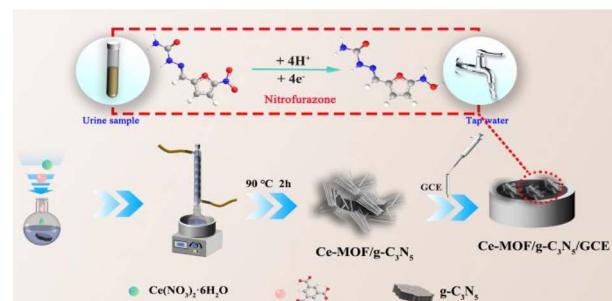
Pengrong An, Jincan Yang, Tianming Wang, Saiwen Lu, Dehao Wang, Zhuoyue Wang, Chun-Lin Sun,\* Chuanguang Qin\* and Jun Li\*



2661

## An efficient electrochemical sensor based on the Ce-MOF/g-C3N5 composite for the detection of nitrofurazone

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



2669

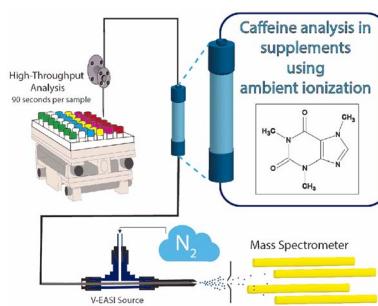
## Field method for preservation of total mercury in waters, including those associated with artisanal scale gold mining

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



## PAPERS

2678

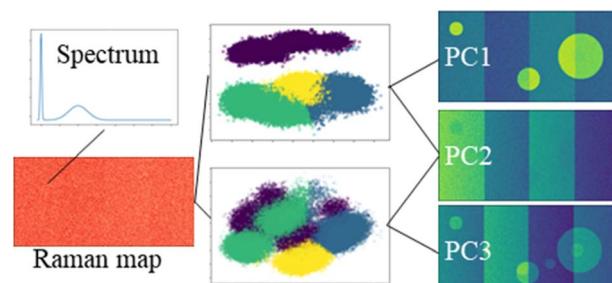


## PAPERS

2707

**Statistical approaches to Raman imaging: principal component score mapping**

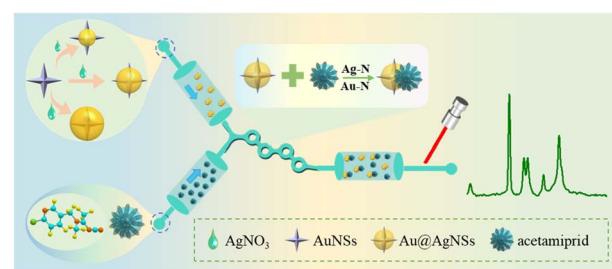
Elia Marin,\* Davide Redolfi Bristol, Alfredo Rondinella, Alex Lanzutti and Pietro Riello



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**Ag-coated tetrapod gold nanostars (Au@AgNSs) for acetamiprid determination in tea using SERS combined with microfluidics**

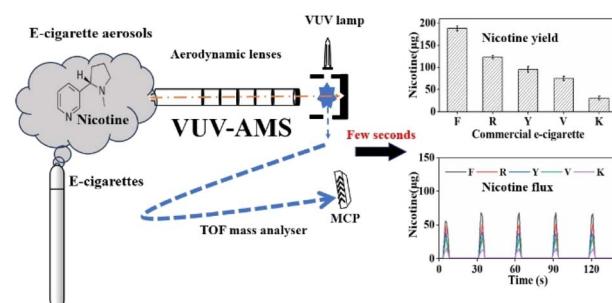
Qian Ke, Limei Yin, Heera Jayan, Hesham R. El-Seedi, Xiaobo Zou and Zhiming Guo\*



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**Online quantification of nicotine in e-cigarette aerosols by vacuum ultraviolet photoionization mass spectrometry**

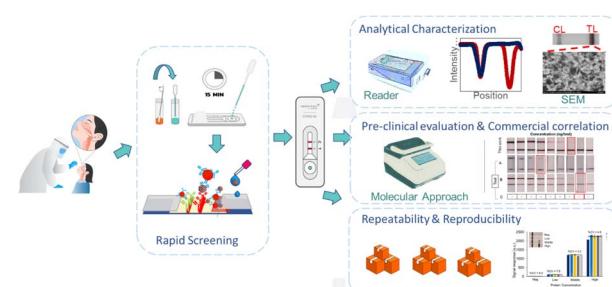
Shaoxin Ye, Zuoying Wen,\* Kai Xie, Xuejun Gu, Jian Wang,\* Xiaofeng Tang\* and Weijun Zhang



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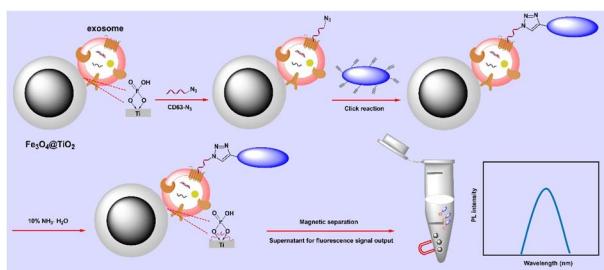
**Characterizing a visual lateral flow device for rapid SARS-CoV-2 virus protein detection: pre-clinical and system assessment**

Natpapas Wiriyachaiporn,\* Jetnapang Kongrueng, Kannika Sukkuea, Rattana Tanrattanawong, Jarunee Vanichtanankul, Thanaya Saeyang, Tararat Jantra, Deanpen Japrung, Weerakanya Maneeprakorn, Suwissa Bamrungsap, Pareena Janchompoo and Ekawat Pasomsub



## PAPERS

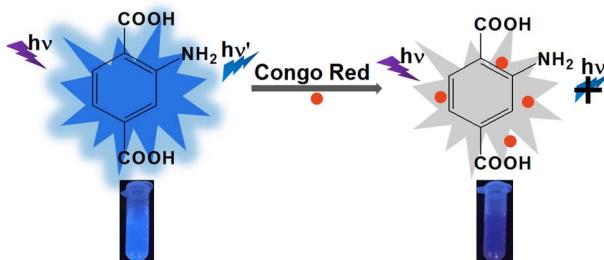
2751



**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\*

2760



**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\*

