

Analytical Methods

rsc.li/methods

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

ISSN 1759-9679 CODEN AMNECT 17(28) 5799–5984 (2025)



Cover

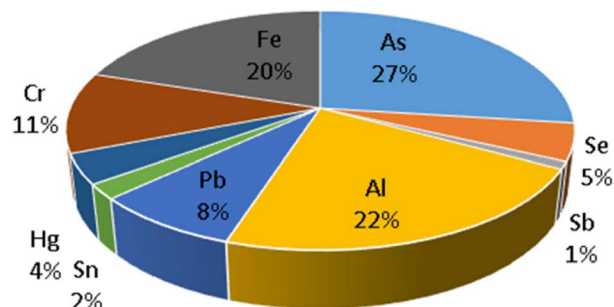
See Vagner Bezerra dos Santos *et al.*, pp. 5836–5848. Image reproduced by permission of Vagner Bezerra dos Santos from *Anal. Methods*, 2025, 17, 5836. The image was partially generated using Google Gemini AI.

CRITICAL REVIEW

5807

A systematic review of separation/preconcentration and detection techniques for speciation analysis of arsenic and selenium in water

Yanping Li,* Cuicui Wang, Jianchao Zhao, Xiaoqi Liu, Mingyuan Ma, Ai Gao and Kangrui Sun

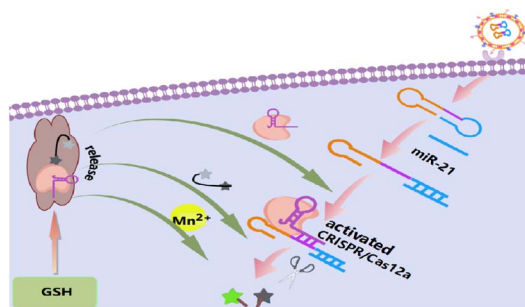


COMMUNICATION

5831

Targeting liposomes and an accelerated CRISPR system for selective imaging of miR-21 in cells

Wenyue Zhang, Mengting Wu, Qingqing Zhang, Xibin Chen and Yingshu Guo*



Industrial Chemistry & Materials

GOLD
OPEN
ACCESS

[View Article Online](#)

Focus on industrial chemistry
Advance material innovations
Highlight interdisciplinary feature

Innovative.
Interdisciplinary.
Problem solving

APCs currently waived

Learn more about ICM
Submit your high-quality article

 **@IndChemMater**

 **@IndChemMater**

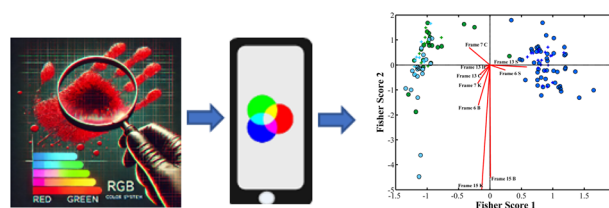
rsc.li/icm

PAPERS

5836

Chemiluminescence video assisted by chemometric modeling for forensic identification of blood at crime scenes

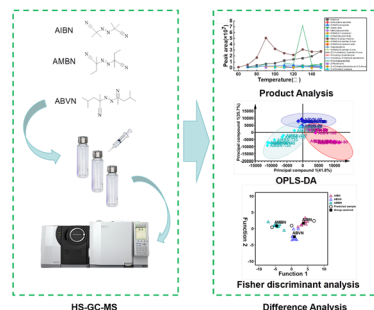
Thomas F. F. T. dos Santos, José R. S. Júnior, Licarion Pinto, Tadeu Morais Cruz, Jose Ailton M. Nascimento, Severino Carlos B. Oliveira and Vagner Bezerra dos Santos*



5849

Analysis of pyrolysis component variations in three azo compounds using headspace gas chromatography-mass spectrometry (HS-GC-MS)

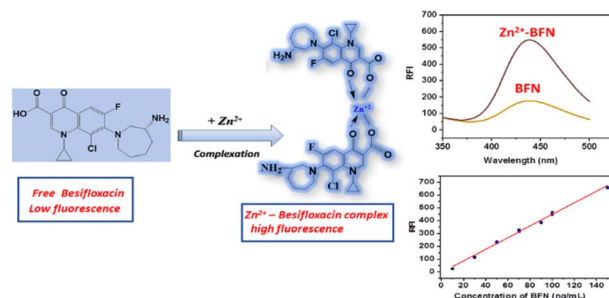
Jinkun Liu, Zhanfang Liu,* Jun Zhu, Guannan Zhang, Yajun Li, Zhenwen Sun, Hong Zhou, Zheng Zhou, Xianhe Deng, Dong Han and Yao Liu



5860

Harnessing zinc(II) chelation for fluorescence determination of besifloxacin in ophthalmic and biological matrices

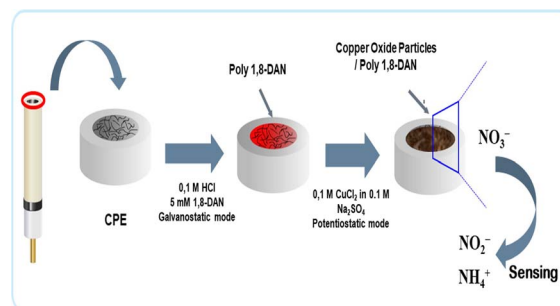
Islam M. Mostafa,* Demiana W. Fakhry, Mohamed A. Abdelshakour and Deena A. M. Nour El-Deen



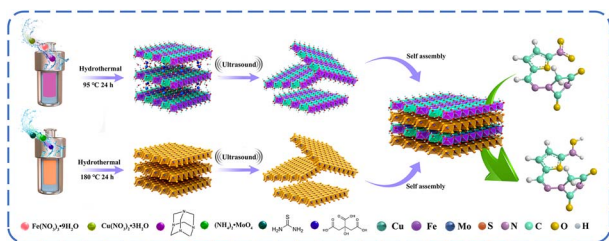
5868

Facile and highly sensitive nitrate ion detection via an electrochemical sensor based on a poly 1,8-diaminonaphthalene and copper oxide particle film

Saad Benhaiba, Anas El Attar, Ouissal Salhi, Badr Bouljoihel, Charafeddine Jama, Soad Youssefi, Amine Ezzahi and Mama El Rhazi*



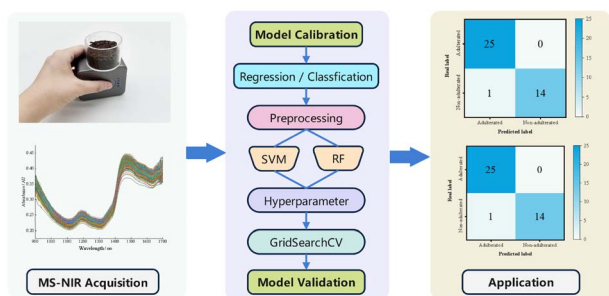
5886



FeCu₃-LDH/MoS₂ superlattice-modified carbon paper as an integrated sensor for the sensitive detection of nitrofurantoin in various samples

Xueting Wang, Yuehua Li,^{*} Boran Tong, Xingwen Wang,^{*} Wei Meng, Jing Zhang and Chao Han^{*}

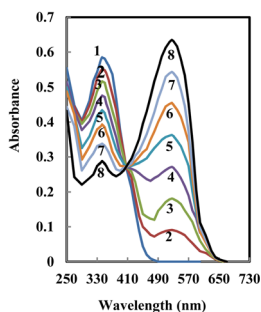
5897



Rapid detection of colorants in black tea using mid- and short-wave near infrared spectroscopy

Zhengfei Luo, Yunfeng Chai,^{*} Guohua Zhao, Dongling Qiao, Fayin Ye, Lin Lei and Jia Chen^{*}

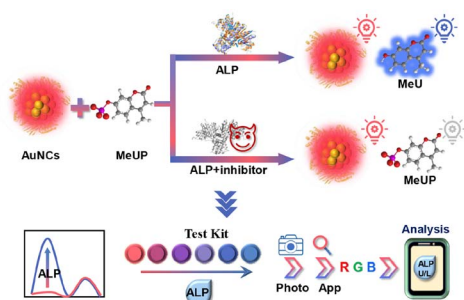
5906



Design of a novel optical sensor for the determination of cadmium based on the immobilization of β -2-hydroxybenzyl-5-chloro-2-hydroxyazastyrene on an agarose membrane

Muneera Alrasheedi, Ahmed H. Alanazi, Amnah Al Zbedy, Alaa M. Younis and Alaa S. Amin^{*}

5920



Mediating *in situ*-generated fluorescence for Au nanocluster-based multi-color ratiometric detection of alkaline phosphatase

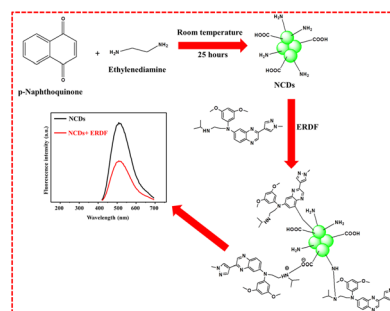
Chao-Zhe Zhu, Shuo Tian, Hua-Nong Ting, Mengke Wang^{*} and Yufeng Wang^{*}



5929

Selective detection of tyrosine kinase inhibitor erdafitinib using nitrogen-doped carbon dots synthesized at room temperature

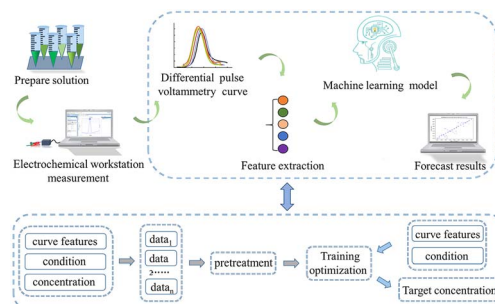
Mohamed N. Goda, Laila S. Alqarni, Hossieny Ibrahim, Al-Montaser Bellah H. Ali and Mohamed M. El-Wakil*



5939

Multi-component metabolite electrochemical detection and analysis based on machine learning

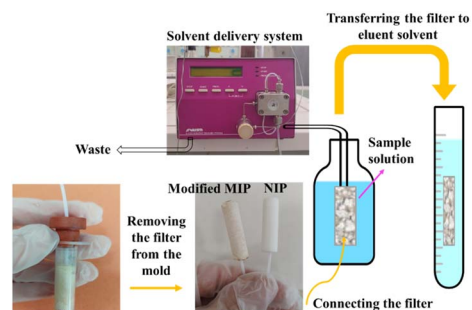
Jianing Shen, Bo Zhang, Tianhao Xue, Yao Zhang and Guixian Zhu*



5951

Molecularly imprinted polymer filter modified with natural polyphenols for extraction of levothyroxine from biological samples

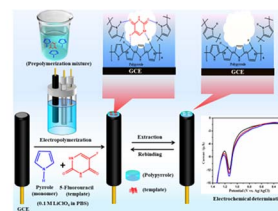
Fatemeh Yeksan and Tahere Khezeli*



5961

A polypyrrole-coated GCE sensor for sensitive detection of 5-fluorouracil via molecular imprinting

Manjeet Harijan, Akriti Srivastava and Meenakshi Singh*



- A reliable, rapid, highly sensitive and selective method for 5-Fluorouracil in 'real' samples
- Facile single-step preparation
- Simple template molecule removal without any extracting reagents



5973

**3D-printed accessories for nano/microelectrodes**

Cody W. Leasor, Kelly L. Vernon, Yunong Wang,
Reed E. Baker and Lane A. Baker*

