

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 16(14) 1959–2154 (2024)



Cover

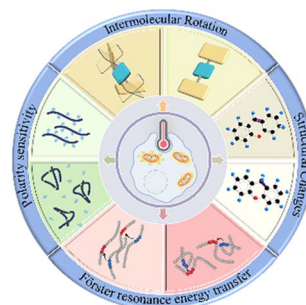
See Vagner Bezerra dos Santos *et al.*, pp. 2009–2018. Image reproduced by permission of Vagner Bezerra dos Santos from *Anal. Methods*, 2024, **16**, 2009.

MINIREVIEW

1968

Response strategies and biological applications of organic fluorescent thermometry: cell- and mitochondrion-level detection

Shuai Li, Yaoxuan Li, Shiji Zhang, Haixiao Fang, Ze Huang, Duoteng Zhang, Aixiang Ding, Kajsa Uvdal, Zhangjun Hu,* Kai Huang* and Lin Li*

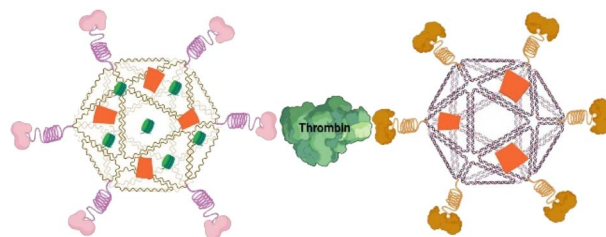


CRITICAL REVIEW

1985

Sandwich-type aptamer-based biosensors for thrombin detection

Somayeh Sahraneshin Samani, Elham Sameiyan, Farideh Tabatabaei Yazdi, Seyed Ali Mortazavi, Mona Alibolandi, Mohammad Ramezani, Seyed Mohammad Taghdisi* and Khalil Abnous*



Environmental Science journals

One impactful portfolio for
every exceptional mind

Harnessing the power of interdisciplinary
science to preserve our environment

rsc.li/envsci

Fundamental questions
Elemental answers

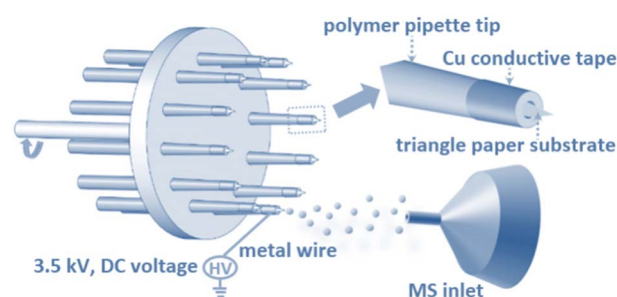


COMMUNICATION

2002

Surface charge-induced electrospray for high-throughput analysis of complex samples and electrochemical reaction intermediates using mass spectrometry

Yajie Huang, Yajun Zheng, Qianqian Zuo, Zhiming Zhang, Lixuan Zhu, Yun Li and Zhiping Zhang*

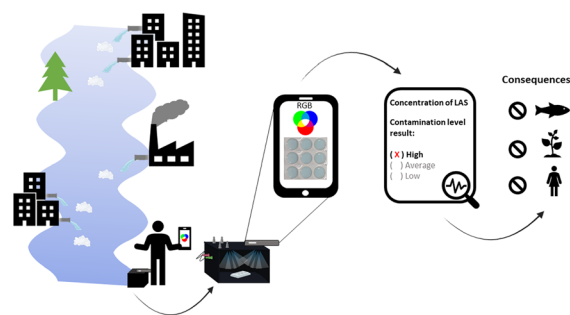


PAPERS

2009

A novel *in situ* method for linear alkylbenzene sulfonate quantification in environmental samples using a digital image-based method

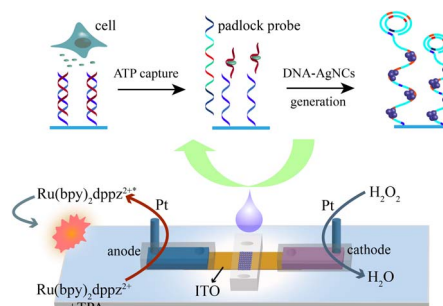
Helayne S. de Sousa, Roxanny Arruda-Santos, Eliete Zanardi-Lamardo, Willian T. Suarez, Josiane L. de Oliveira, Renata A. Farias and Vagner Bezerra dos Santos*



2019

An electrochemiluminescence microsensor based on DNA-silver nanoclusters amplification for detecting cellular adenosine triphosphate

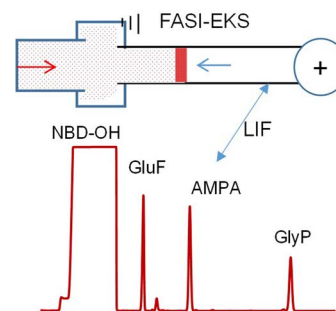
GuanQi Wu, Jian Chen, JinXin Dou, XiangWei He,* Hai-Fang Li* and Jin-Ming Lin



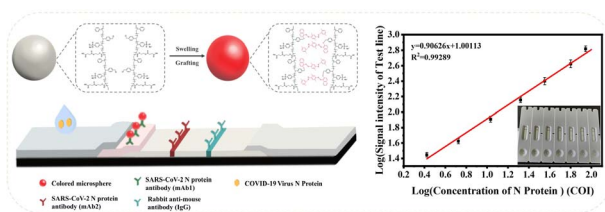
2025

Sensitive detection of herbicide residues using field-amplified sample injection coupled with electrokinetic supercharging in flow-gated capillary electrophoresis

Ying Gong and Maojun Gong*



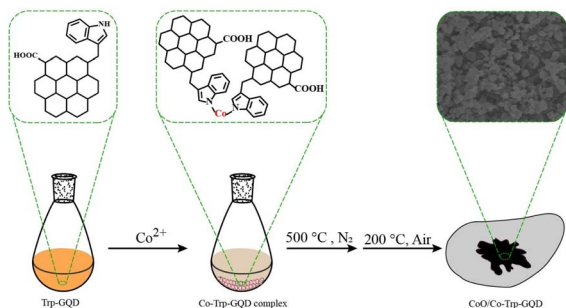
2033



Preparation of dyed polymer microspheres by a physical-chemical dual-binding method and their application in lateral flow immunoassay

Jiatong Li, Pengfei Zhang, Qianrui Xu, Yingrui Nie, Shimin Shao, Zhifei Wang and Yong Jiang*

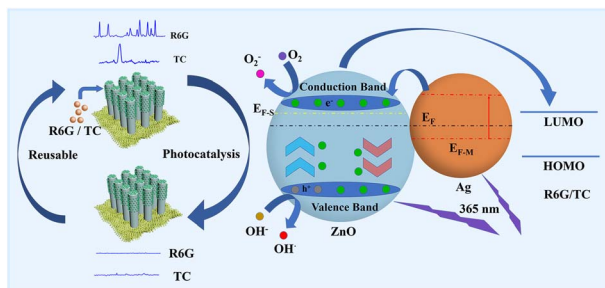
2044



CoO/Co-graphene quantum dots as an oxidative mimetic nanozyme for the colorimetric detection of L-cysteine

Dan Xu,* Qingbo Tu, Xin San, Anhong Zhu and Xinru Li

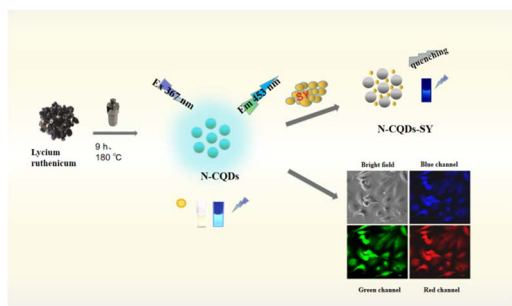
2051



High performance and recyclable Ag/ZnO/PM substrate for the detection of organic pollutants

Yixin Shao, Hongxin Cai,* Lingling Yan,* Hang Yu, Qiang Hu, Liang Chen, Haitao Zong and Xiufang Hou

2063



Nitrogen-doped biomass-derived carbon dots for fluorescence determination of sunset yellow

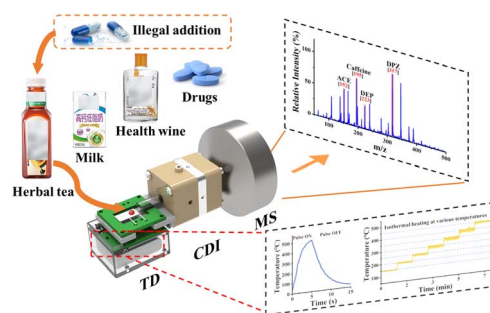
Qian Zhang, Xiaoqi Wang, Lili Yuan, Lina Yu, Congying Shao,* Hongxing Jia* and Shun Lu*



2071

Diverse thermal desorption combined with self-aspirating corona discharge ionization for direct mass spectrometry analysis of complex samples

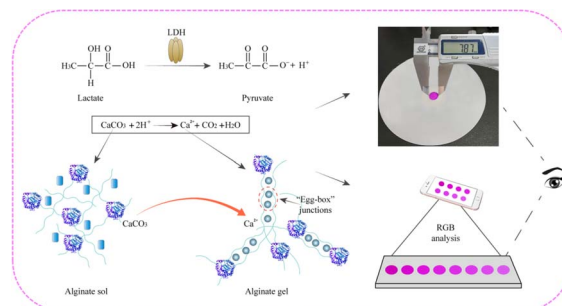
Qinhao Shi, Xiaohua Yu, Shuang Sun, Weilong Wu, Wenyan Shi* and Quan Yu*



2077

Sodium alginate hydrogelation mediated paper-based POCT sensor for visual distance reading and smartphone-assisted colorimetric dual-signal determination of L-lactate

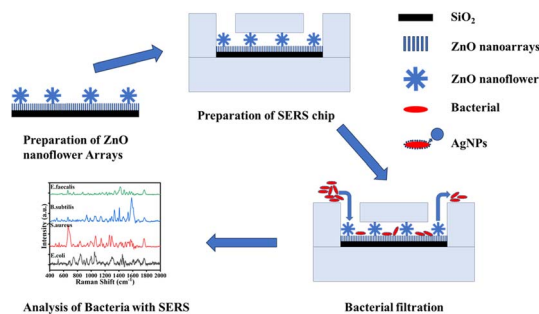
Wenjuan Wang, Danrong Chen, Yujiao Cai, Zijing Liu, Hongfen Yang, Hongbin Xie, Jinquan Liu and Shengyuan Yang*



2085

A novel multifunctional SERS microfluidic sensor based on ZnO/Ag nanoflower arrays for label-free ultrasensitive detection of bacteria

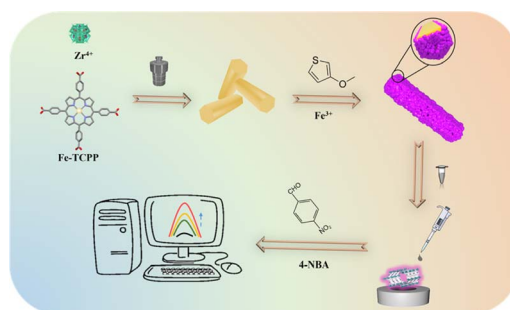
Yue Liu, Guanwen Su, Wei Wang, Hongyuan Wei and Leping Dang*



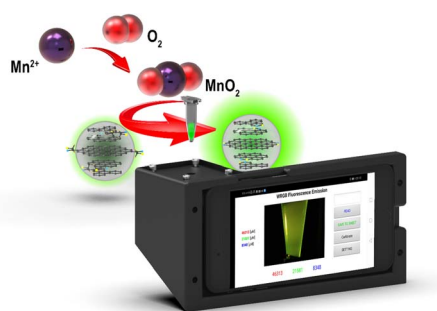
2093

P3MOT-decorated metal-porphyrin-based zirconium-MOF for the efficient electrochemical detection of 4-nitrobenzaldehyde

Wen-yi Chen, Xin-yu Huang, Qian Sun* and En-qing Gao



2101

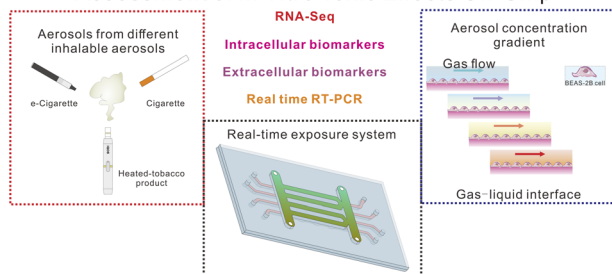


A portable fluorescence detection device based on a smartphone employing carbon nanodots for Mn²⁺ sensing

Pijika Mool-am-kha, Samuch Phetduang, Kessarin Ngamdee, Chayada Surawanitkun, Xiang-Kui Ren and Wittaya Ngeontae*

2111

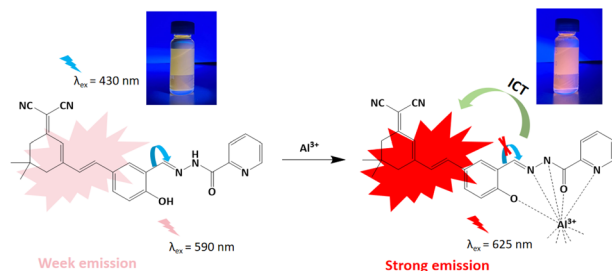
Assessment of *In Vitro* Toxic Effects On-Chip



The application of a self-designed microfluidic lung chip in the assessment of different inhalable aerosols

ZeZhi Li, Xiang Li,* Boyang Feng, Junwei Zhao, Kejian Liu, Fuwei Xie and Jianping Xie*

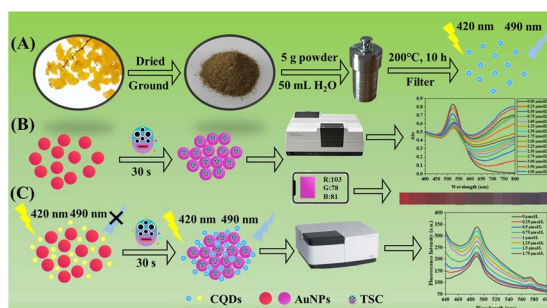
2120



A novel isophorone-based fluorescent probe for recognizing Al³⁺ and its bioimaging in plants

Yanna Zhao,* Yuqi Wang, Yingying Zhang, Xiaowei Bai, Wentong Hou and Yuqing Huang

2127



Construction of a three-mode sensor based on gold nanoparticles and carbon quantum dots as probes for the detection of thiosemicarbazone

Zhili Liu, Xiaojun Wang, Jing Li, Wenfeng Zhou, Haixiang Gao and Runhua Lu*

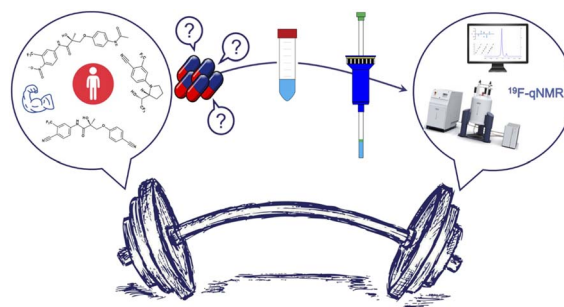


PAPERS

2135

A screening method for the quantitative determination of selective androgen receptor modulators (SARMs) in capsules by high resolution ^{19}F - and ^1H -NMR spectroscopy

Alessandro Maccelli, Anna Borioni, Federica Aureli, Maria Cristina Gaudiano, Livia Manna and Mariangela Raimondo*



TECHNICAL NOTE

2147

Capillary action-driven surface-enhanced Raman spectroscopy (SERS) for the identification of phthalocyanine blue in modern paintings based on the BPG spot test

Shao-Chun Hsueh, Ling-Hsuan Wang, Yung-Chen Liao, Hui-Yu Chiang and Cheng-Huang Lin*

