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Analytical Methods

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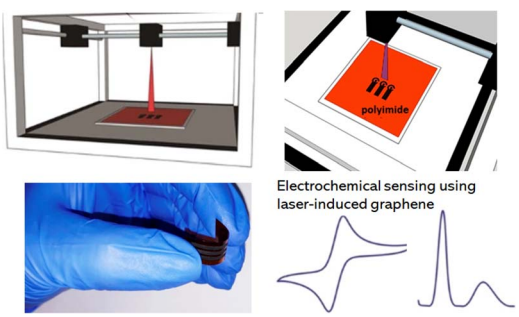
Electroanalytical overview: the use of laser-induced graphene sensors

Robert D. Crapnell, Elena Bernalte, Rodrigo A. A. Muñoz and Craig E. Banks*



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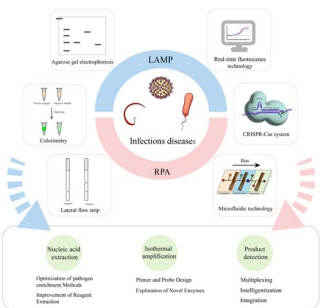
Recent developments in isothermal amplification technology for rapid detection of SARS-CoV-2

Linlin Wang, Ruitong Tang, Wentao Wang, Lingguang Bu, Jingle Sun, Yurong Fu,* Meng Li* and Zhengjun Yi*



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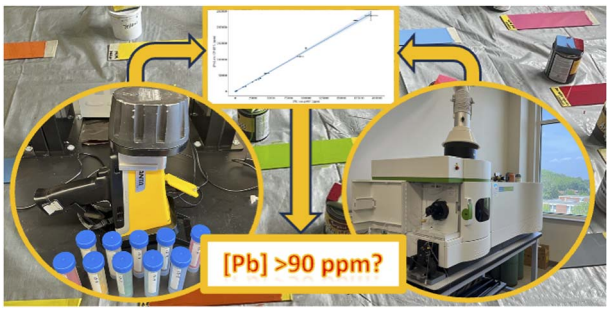
Preliminary studies for the standardization of a pXRF analyzer *via* ICP-OES for the accurate quantification of Pb in new paint

Caryn S. Seney, Adam M. Kiefer,* Samantha T. Brown, Evan R. Stair, David G. Nelson, Lloyd L. Bandoo, W. Benjamin Stewart, Nuren Z. Lara and Clare Donaldson



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Chitosan as a fluorescent probe for the detection of the AIE-active food colorant quinoline yellow

Yuan Gu, Jianwei Wu, Bingyong Lin, Yueliang Wang, Yuanyuan Yao, Lifen Chen, Jianguo Xu* and Longhua Guo*

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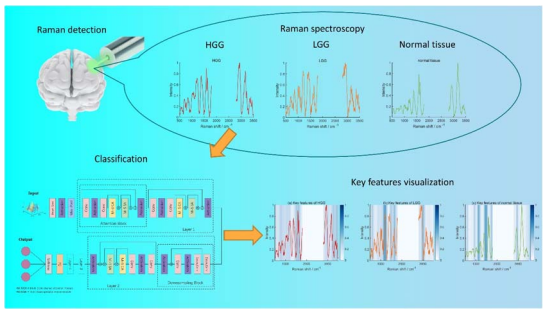
An interpretable multi-scale convolutional attention residual neural network for glioma grading with Raman spectroscopy

Qingbo Li,* Xupeng Shao, Yan Zhou, Yinyan Wang, Zeya Yan, Hongbo Bao and Lipu Zhou



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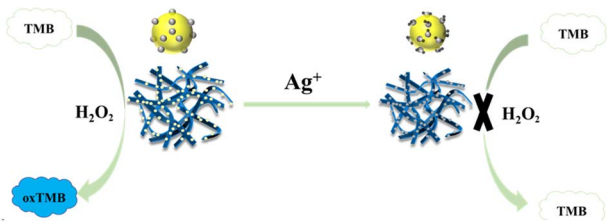
Self-reduction of gold@platinum bimetallic nanoparticles on $Ti_3C_2T_x$ MXene nanoribbons coupled with hydrogel and smartphone technology for colorimetric detection of silver ions

Jing Li, Xun Zhou, Guanghua Mao, Gangbing Zhu and Yinhui Yi*



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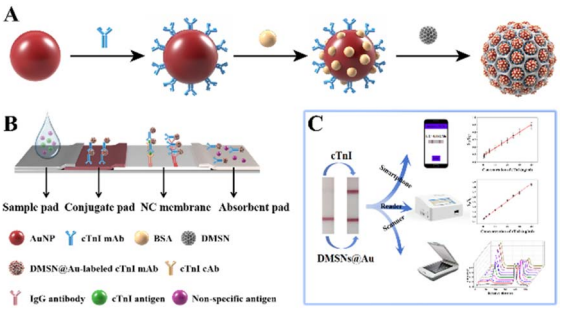

Quantitative and rapid lateral flow immunoassay for cardiac troponin I using dendritic mesoporous silica nanoparticles and gold nanoparticles

Yafei Li, Yu Yao, Qingqing Hua and Jishun Li*

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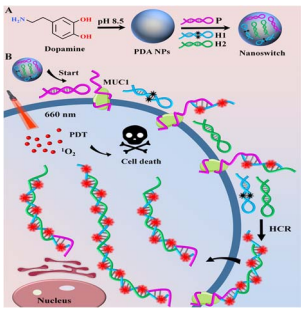

A DNA conformational nanoswitch for amplification of both low-abundance protein imaging in living cells and photodynamic therapy

Mingzhu Fan, Wei Guo, Xinran Li, Huile Fan, Zhihui Luo, Jiayao Xu,* Huakui Huang* and Shulong Wang*

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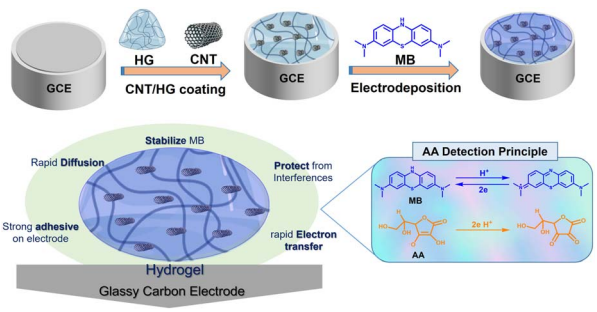

An electrochemical sensor based on electrodeposited methylene blue on a carbon nanotube decorated hydrogel for the detection of ascorbic acid

Linghui Tang, Yufeng Huang, Zhihuan Qian, Jifan Zhao, Yasushi Hasebe, Yan Dong and Yue Wang*

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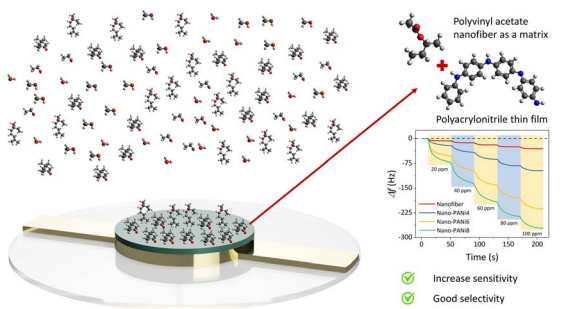

A polyaniline-enhanced quartz crystal microbalance sensor for room-temperature camphor detection

Rizky Aflaha, Muammar Romiz Dzaki, Laila Katriani, Ahmad Hasan As'ari, Chlara Naren Maharani, Agus Kuncaka, Taufik Abdillah Natsir, Aditya Rianjanu, Ruchi Gupta, Kuwat Triyana and Roto Roto*

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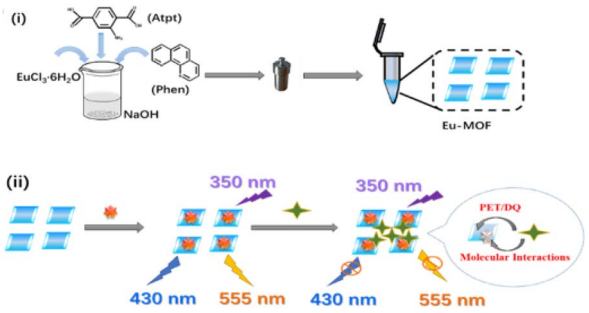
A simple and stable dual-emission fluorescent system based on R6G/Eu-MOF for the rapid and sensitive determination of orientin

Huifeng Xu,* Weihua Huang, Rui Pan, Ronglin Chen, Lili Wang,* Yun Yu, Xihai Li and Xi Zhu*



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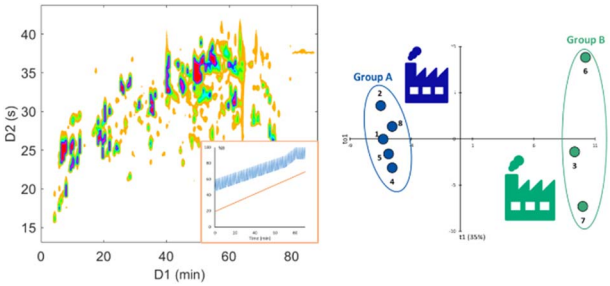
Analysis of alkyl-anthraquinone derivatives from hydrogen peroxide industrial process, using LC × LC-HRMS with shifting gradients

Clémence Giffard, Florent Rouvière, Olivier Falletti, Béatrice Allard-Breton, Laurent Wendlinger, Jean-Michel Bossoutrot and Karine Faure*



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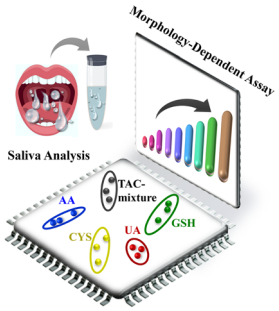
Morphology-dependent nanoplasmonic assay: a powerful signaling platform for multiplexed total antioxidant capacity analysis

Zeinab Feyzollahi, Mahdiye Hassanpoor, Afsaneh Orouji and Mohammad Reza Hormozi-Nezhad*



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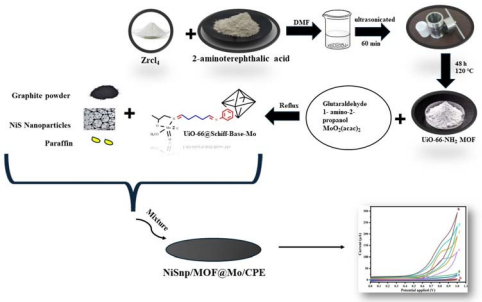
A metal organic framework, UiO-66-NH_2, based on a molybdenum Schiff base complex for the efficient electrochemical determination of diphenoxylate

Samira Saeednia,* Masoud Rezaeinasab,* Parvaneh Iranmanesh and Sobhan Abbasi Razgaleh



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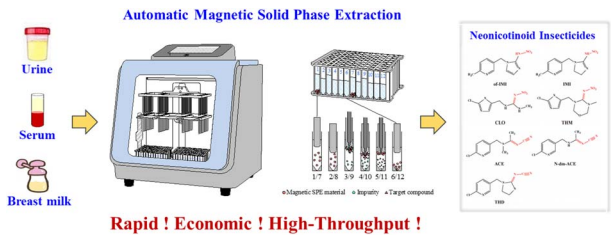

Automatic magnetic solid phase extraction for rapid and high-throughput determination of neonicotinoid insecticides and their metabolites in serum, breast milk and urine samples

Kaiqin Huang, Jing Yi, Guocheng Liu, Yangyang Liu, Kaixin Jiang, Zhuowen Li, Yanji Qu, Meiqing Lin and Shengtao Ma*

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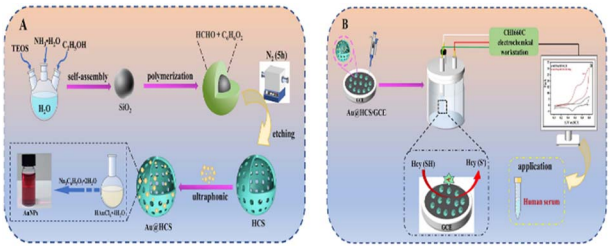

Au nanoparticle-modified hollow carbon spheres as an advanced electrochemical sensing platform for effective detection of homocysteine in human serum

Na Li, Yan Zhang, Dongyu Zhang, Xiaoli Zhang, Ning Wei* and Xiuhui Liu*

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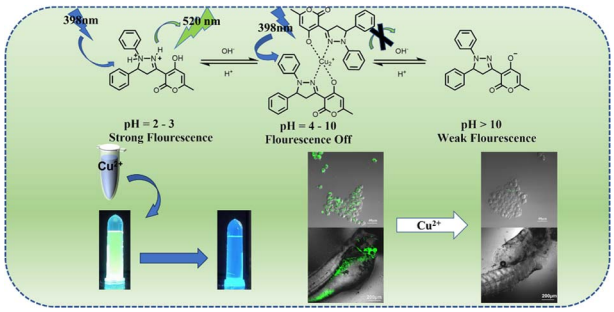

A fluorescent probe based on pyrazoline with significant Stokes shifts for the detection of Cu^{2+} ions and its applications

Yajing Shang,* Xinghu Wu and Haoting Luo

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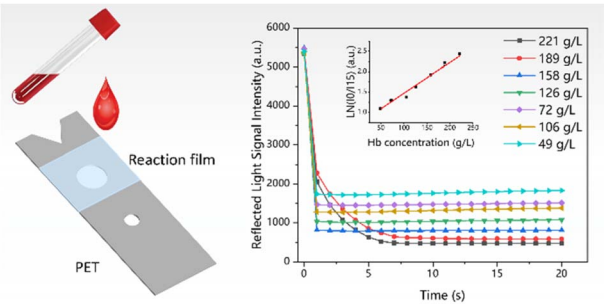

Development and clinical validation of photochemical biosensors for monitoring hemoglobin, blood lipids and uric acid in plateau areas

Bo Yu, Qiuping Li, Wei Zhang, Xiaoyan Xiang, Danzeng Quda, Gasong Zhuoga, Qiong Huang, Jie Cheng,* Jinhong Guo,* Zhijuan Liu* and Li Shi*

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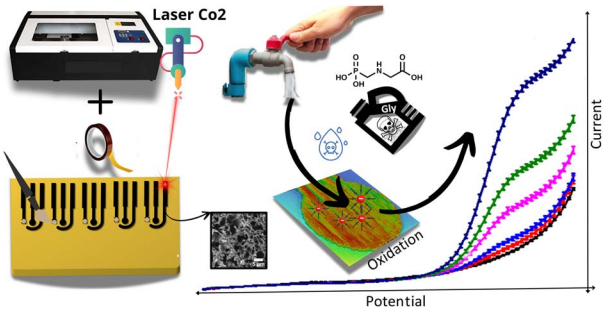
Direct-detection of glyphosate in drinking water *via* a scalable and low-cost laser-induced graphene sensor

Bruno Vasconcellos Lopes, Guilherme Kurz Maron, Mateus Gallucci Masteghin, Raphael Dorneles Caldeira Balboni, S. Ravi P. Silva and Neftali Lenin Villarreal Carreno*



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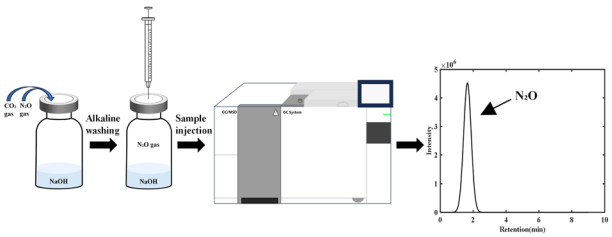
An effective method for detecting nitrous oxide using alkaline washing and GC-MS

Mu Yang, Wenqing Gao,* Liang Ma, Xingyu Chen, Haixing Wang,* Jiancheng Yu* and Keqi Tang



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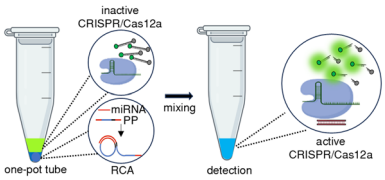
One-pot isothermal CRISPR/Dx system for specific and sensitive detection of microRNA

Xinyu Li, Zhihao Huang, Cia-Hin Lau, Jiaqi Li, Minghai Zou, Weidong Wu, Xiaoqing Chen, Jiahui Li, Yumei Huang, Tao Wang, Yulin Li, Meijing Xu, Xiaojun Huang, Haibao Zhu* and Chunkang Yang*



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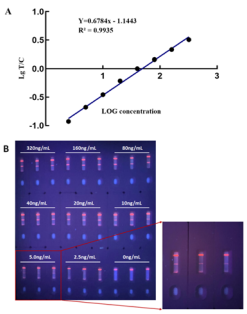
Preliminary establishment and evaluation of a rapid detection method for GII human norovirus based on time-resolved fluorescence chromatography

Kebei Wang, Min Li, Chaofan Yin, Lei Cheng, Fang Li, Lei Zuo, Xiaojun Wang, Xudong Wang and Yunlong Wang*



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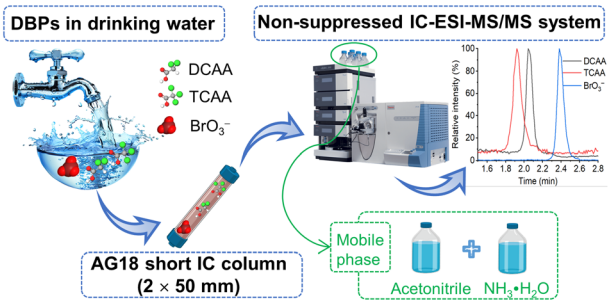

Non-suppressed ion chromatography-tandem electrospray mass spectrometry using a short column for simultaneous analysis of dichloroacetic acid, trichloroacetic acid, and bromate: aqueous ammonia as the eluent additive

Mingguo Peng, Jiali Chen, Shi Cheng,* Huaicheng Zhang, Liangtao Pu, Erdeng Du, Qingfeng Cheng, Yanting Zuo* and Aimin Li

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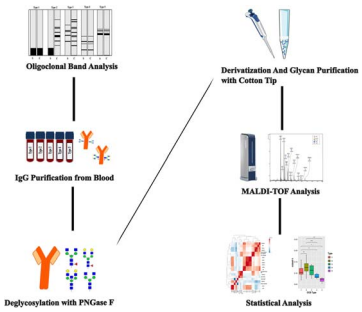

Glycan profiling of multiple sclerosis oligoclonal bands with MALDI-TOF

Furkan Şahin, Zelal Zuhal Kaya, Mustafa Serteser, Hasan Ümit Öztürk* and Ahmet Tarık Baykal*

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