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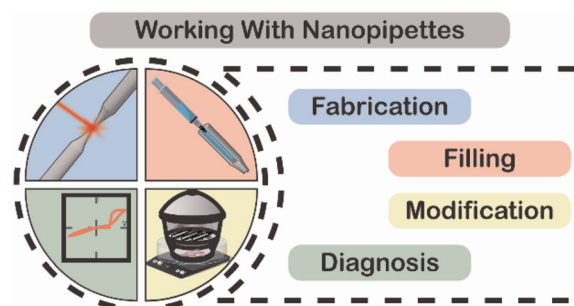
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Haitao Yu from *Analyst*,
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A practical guide to working with nanopipettes

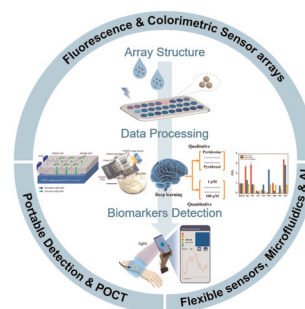
Dominik Duleba, Adria Martínez-Aviñó and
Robert P. Johnson*



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Recent advances in fluorescence-colorimetric sensor arrays and their applications in biomedical fields

Liuwen Shao, Jiannan Liu, Xinxin Chen and
Wenxiang Xiao*



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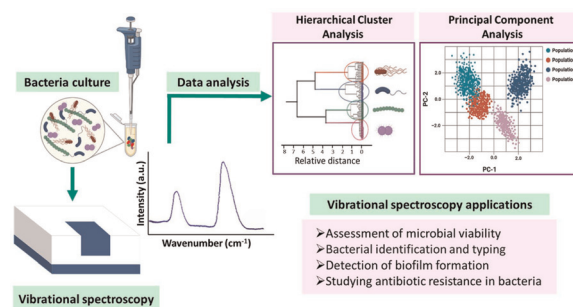
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TUTORIAL REVIEWS

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Vibrational spectroscopy combined with chemometric approaches in bacterial studies: a review of recent advances and applications

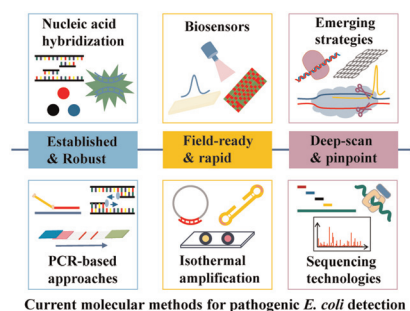
Maryam Kazemi, Arash Mahboubi, Reza Jahani* and Hamid Reza Moghimi*



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Advances in gene-targeted diagnostics for pathogenic *Escherichia coli*

Linlin Zhuang, Jiansen Gong, Mengling Zhu, Ying Zhao, Xue Lian, Chuang Zhou, Xia Cao, Yu Zhang* and Qiuping Shen*

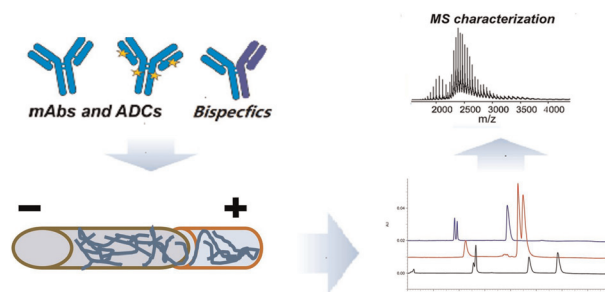


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Recent advances and applications of capillary electrophoresis-sodium dodecyl sulfate for characterization and fragment identification of monoclonal antibodies and their derivatives

Yalan Yang, Meng Li, Gangling Xu, Yongbo Ni, Luyun Guo and Chuanfei Yu*

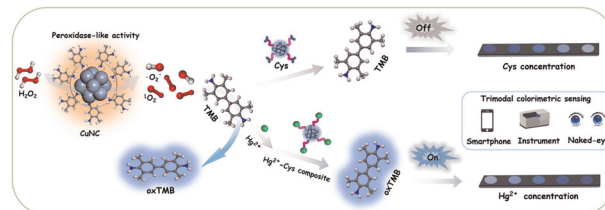


COMMUNICATIONS

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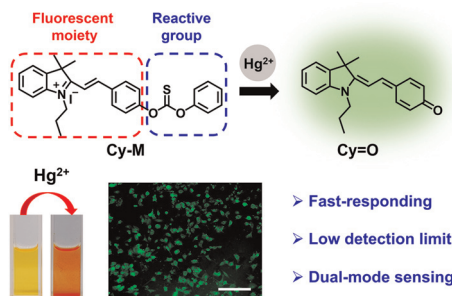
A valence-state-defect-mediated copper nanocluster nanozyme with high peroxidase-like activity for multimodal colorimetric detection of mercury(II)

Zhong-Xia Wang,* Peng Shan, Ze-Yu Sun, Weijie Ding, Fen-Ying Kong, Heng-Ye Li and Wei Wang*



COMMUNICATIONS

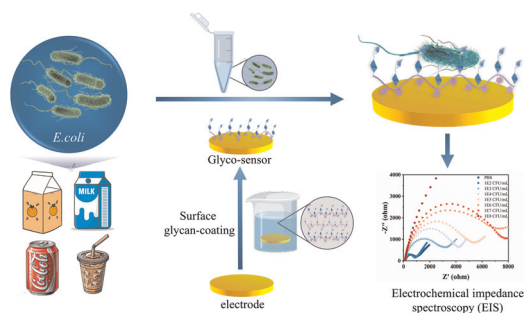
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A fast-responding dual-mode probe for colorimetric and turn-on fluorescence sensing of mercury(II) in water and living cells

Yanxin Wu, Huiyuan Wang, Kai Wei, Chendong Ji* and Meizhen Yin*

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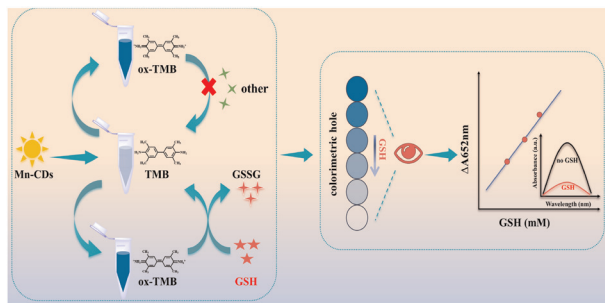


Protection-free fabrication of glycopolymer-decorated electrodes for label-free electrochemical detection of pathogenic bacteria

Lucen Li, Qinhan Chen, Aobin Han, Qiaolin Guo, Minghui Wang, Wei Song,* Jing Lin* and Gefei Li*

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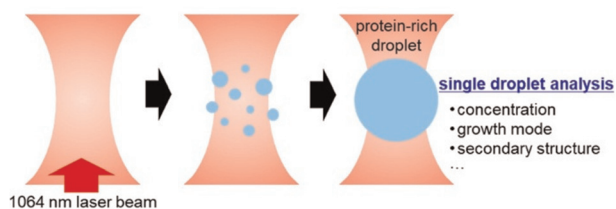


H_2O_2 -free colorimetric sensing platform of Mn-doped carbon dots with oxidase-mimetic activity for the detection of glutathione in liver disease serum

Lin Bo, Lili Jiang, Zhaogui Deng, Minmin Xu, Yifei Liu, Hui Zhang, Xianwei Zuo* and Haitao Yu*

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Optical tweezers for controlling LLPS



Microanalysis of a single droplet produced by optical tweezers in an aqueous solution of bovine serum albumin

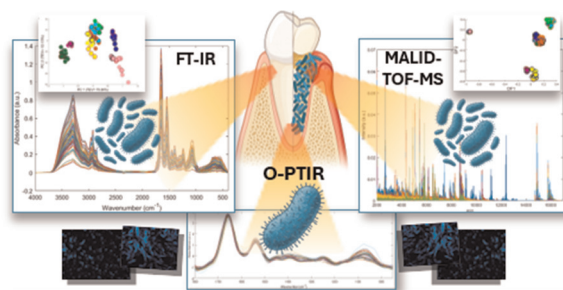
Ayana Takayanagi, Yasuyuki Tsuboi and Ken-ichi Yuyama*



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Metabolic fingerprinting of periodontal bacteria: a multi-scale mass spectrometry and vibrational spectroscopy approach

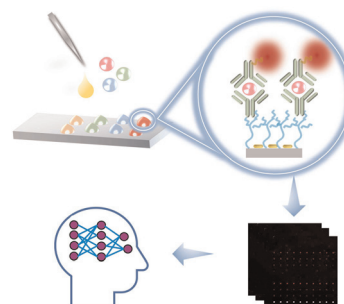
Jawaher Albahri, Daniel Smaje, Yun Xu, Steven Robinson, Heather Allison, Kathryn A. Whitehead and Howbeer Muhamadali*



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Development of liquid biopsy for screening colorectal cancer through the combination of an antibody microarray-based metal-enhanced sandwich immunofluorescent assay of cytokines with machine learning

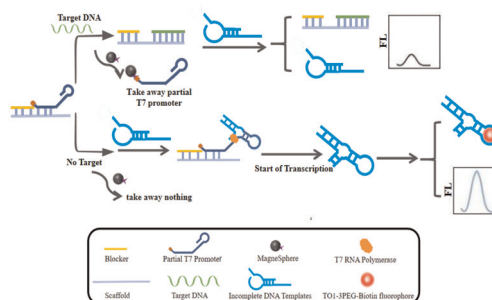
Wanyu Zhang, Shasha Li, Xudong Sun and Zhenxin Wang*



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A fluorescence biosensor based on a cell-free transcription system for species-specific DNA sequence detection and seahorse product identification

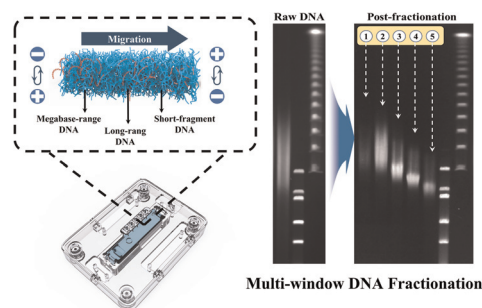
Linyue Tang, Qian Xie, Ming Chen, Cuiying Lin,* Fang Luo, Zhongqin Li* and Zhenyu Lin*



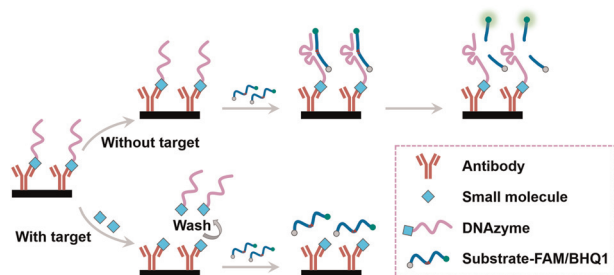
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Integrated microfluidic platform for programmable multi-window DNA fractionation and *in situ* recovery

Dongliang Li, Chunlei Yang, Leiyang Xu, Tao Zeng, Xiao Shi, Quanxin Yun,* Yuliang Dong* and Yuning Zhang*



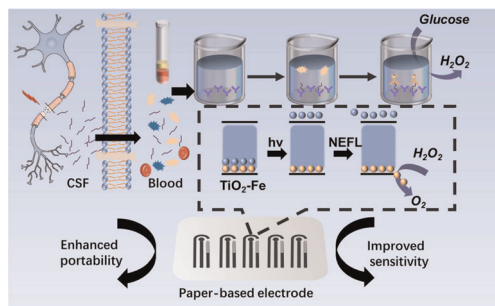
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A DNAzyme amplifier-based immunoassay for small molecule detection

Han Pang and Qiang Zhao*

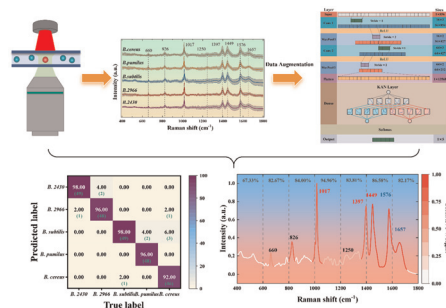
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Transition metal doping boosting paper-based photoelectrochemical immunosensing for neurofilament light chain protein detection

Cheng-Hua Xu, An-Yang Tao, Mei-Qing Meng, Xi-Le Zhang, Cheng Fang, Feng-Zao Chen* and De-Man Han*

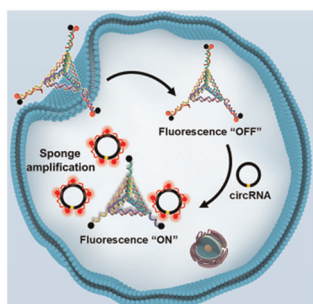
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Boosting living *Bacillus* spore identification: Kolmogorov–Arnold network-guided convolutional neural network combined with laser tweezers Raman spectroscopy

Yifan Sun, Xiao Peng, Fusheng Du, Lin He, Yuan Lu,* Yufeng Yuan* and Junle Qu

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Sensitive detection and accurate bioimaging of circRNA based on sponge amplification using a DNA tetrahedral nanoprobe

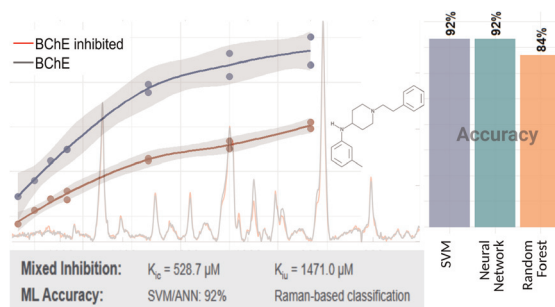
Gege Xie, Shengrong Yu,* Rong Feng, Jingwen Chen, Yiming Wang, Haorong Liu, Yong-Xiang Wu,* Shengjia Yu* and Keqi Tang*



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Characterizing DPPM inhibition of butyrylcholinesterase: integrated enzymatic kinetics and Raman spectroscopy with chemometric analysis

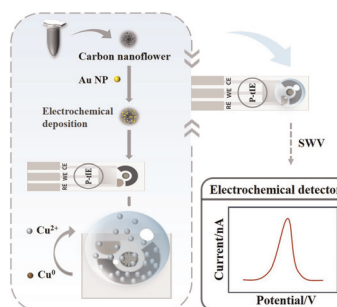
Aubrey Barney, Ashley Newland, Abraham Olayeri, Jan Halánek and Lenka Halámková*



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Electrochemical determination of copper in seawater based on a patch-type integrated electrode modified with gold nanoparticle-decorated carbon nanoflowers

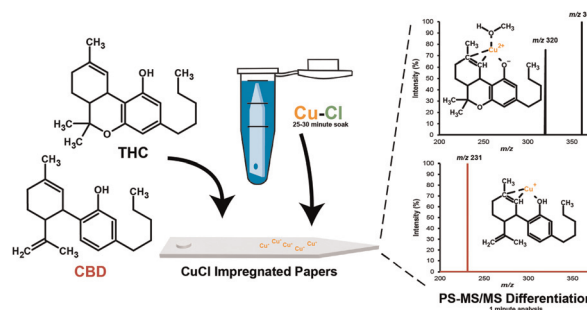
Shengjie Chu, Fei Pan, Yuxuan Zhang, Haitao Han,* Dawei Pan and Xueping Hu*



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Computational and design of experiment strategies to improve differentiation and quantitation of trace-level cannabinoids by copper cationization paper spray mass spectrometry

Jindar N. S. Sbotto and Chris G. Gill*



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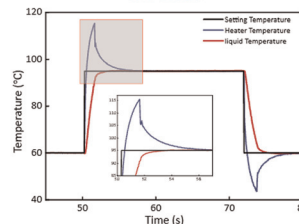
A reagent-centred thermal control system driven by a cascade temperature control algorithm for high-speed PCR

Yuheng Luo, Wangyang Hu, Jiajia Wu, Baoce Sun, Gang Jin* and Qiang Xu*

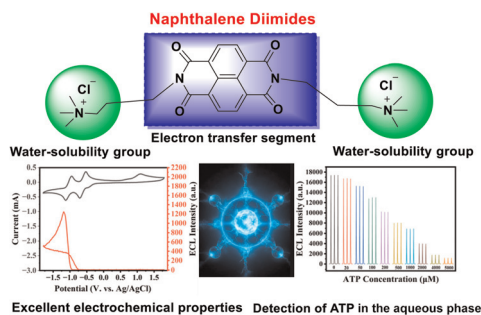
Conventional PCR
~60min



Reagent-Centred Control
~4.4 min



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Dramatically enhancing electrochemiluminescence performance in the aqueous phase using naphthalene diimides with excellent electron-transfer capability and water solubility

Dalong Xu, Yuqi Wang, Mingxiu Tian, Liuxiang Chen and Zhengang Han*

CORRECTIONS

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Correction: Synchrotron-based infrared microspectroscopy unveils the biomolecular response of healthy and tumour cell lines to neon minibeam radiation therapy

R. González-Vegas, O. Seksek, A. Bertho, J. Bergs, R. Hirayama, T. Inaniwa, N. Matsufuji, T. Shimokawa, Y. Prezado, I. Yousef and I. Martínez-Rovira*

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Correction: High-sensitivity SpectroChip-integrated LFIA platform for rapid point-of-care quantification of cardiovascular biomarkers

Cheng-Hao Ko* and Wei-Yi Kong

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Correction: Highly-selective and sensitive plasmon-enhanced fluorescence sensor of aflatoxins

Tetyana Sergeyeva,* Daria Yarynka, Vitaly Lytvyn, Petro Demydov, Andriy Lopatynskiy, Yevgeny Stepanenko, Oleksandr Brovko, Anatoliy Pinchuk and Volodymyr Chegel*

