

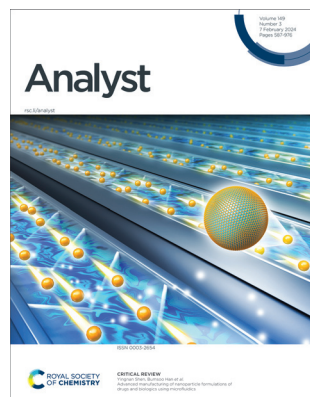
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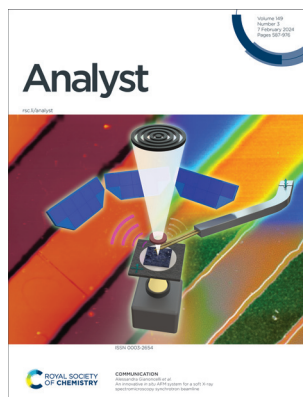
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Cover

See Yingnan Shen, Bumsoo Han *et al.*, pp. 614–637.

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Inside cover

See Alessandra Gianoncelli *et al.*, pp. 700–706.

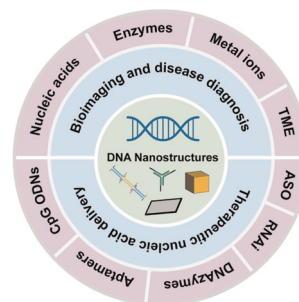
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MINIREVIEW

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DNA nanotechnology-based nucleic acid delivery systems for bioimaging and disease treatment

Zhaorong Sun, Yingjie Ren, Wenjun Zhu, Yuliang Xiao and Han Wu*

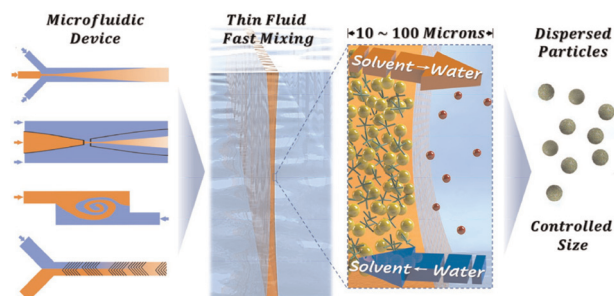


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Advanced manufacturing of nanoparticle formulations of drugs and biologics using microfluidics

Yingnan Shen,* Hogeong Gwak and Bumsoo Han*



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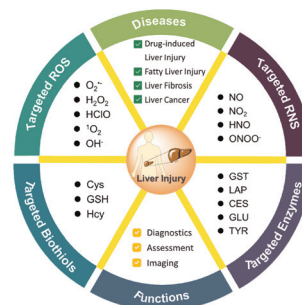
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CRITICAL REVIEWS

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Activatable fluorescent probes for early diagnosis and evaluation of liver injury

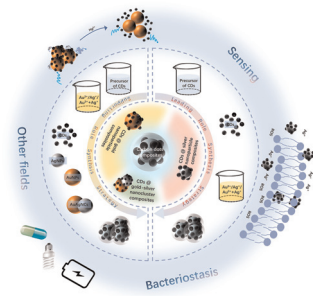
Pengxu Lin, Shali Jiang, Ting Liu, Xiaomin Yuan, Kun Luo, Can Xie, Xiongjie Zhao and Liyi Zhou*



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Carbon dots@noble metal nanoparticle composites: research progress report

Xuejing Wang, Renyin Zhang, Xiaoyu Ma, Zhihua Xu, Mingze Ma, Tieying Zhang, Yu Ma and Feng Shi*

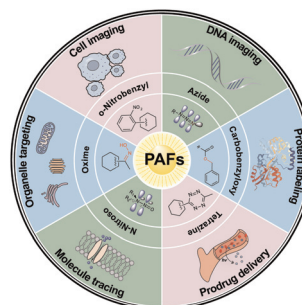


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Shedding light on cellular dynamics: the progress in developing photoactivated fluorophores

Huihui Wei, Mingli Xie, Min Chen, Qinhong Jiang, Tenghui Wang and Panfei Xing*

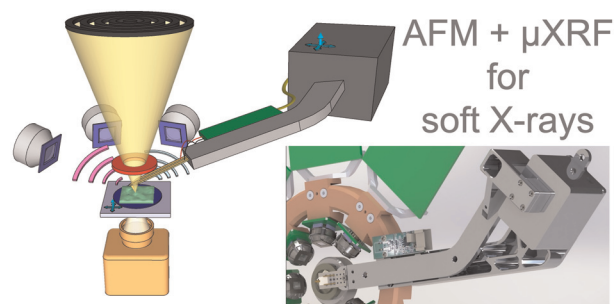


COMMUNICATIONS

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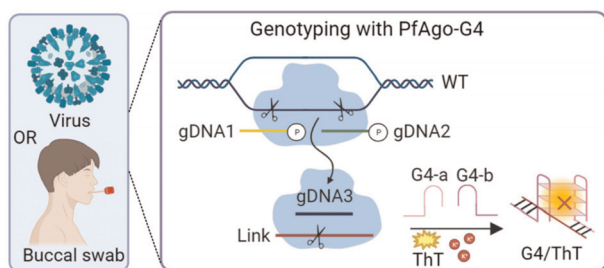
An innovative *in situ* AFM system for a soft X-ray spectromicroscopy synchrotron beamline

Aljoša Hafner, Luca Costa, George Kourousias, Valentina Bonanni, Milan Žižić, Andrea Stolfi, Benjamin Bazi, Laszlo Vincze and Alessandra Gianoncelli*



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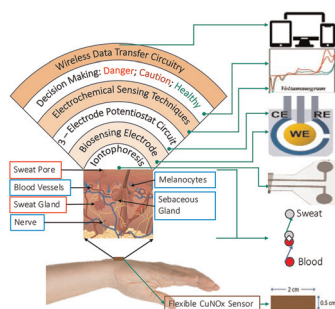


Split G-quadruplex based PfAgo sensing platform for nucleotide mutation discrimination and human genotyping

Yan Zhang, Bin Gong, Yanan Lin, Yuedong Zhu, Gaoxing Su* and Yanyan Yu*

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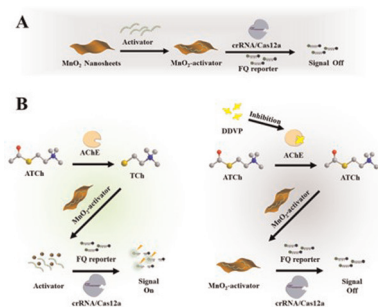
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High performance nonenzymatic electrochemical sensors via thermally grown Cu native oxides (CuNOx) towards sweat glucose monitoring

Maksud M. Alam and Matiar M. R. Howlader*

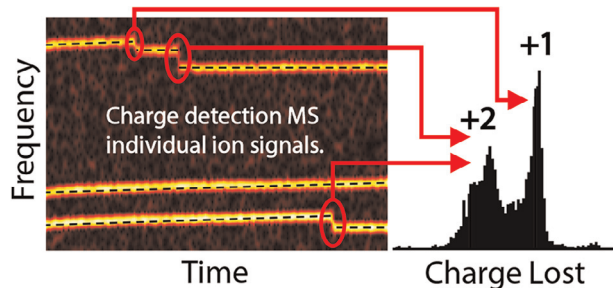
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A MnO₂ nanosheet-mediated CRISPR/Cas12a system for the detection of organophosphorus pesticides in environmental water

Hao-Ming Yu, Guo-Xi Liang, Hui-Yi Wang, Xiao-Min Hang, Hong-Hong Wang, Jia-Xin Peng and Li Wang*

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Ion emission from 1–10 MDa salt clusters: individual charge state resolution with charge detection mass spectrometry

Matthew S. McPartlan, Conner C. Harper, Emeline Hanozin and Evan R. Williams*

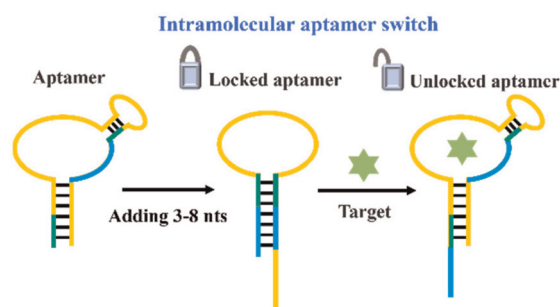


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Intramolecular aptamer switches

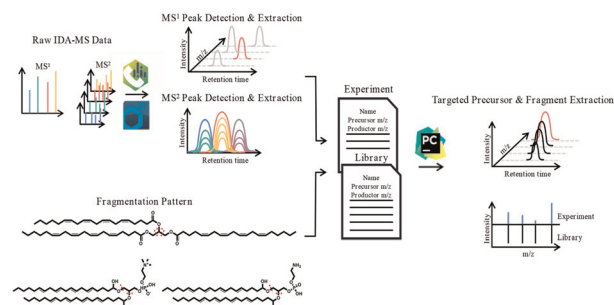
Lu Shi, Yan Jin* and Juewen Liu*



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SpecLipIDA: a pseudotargeted lipidomics approach for polyunsaturated fatty acids in milk

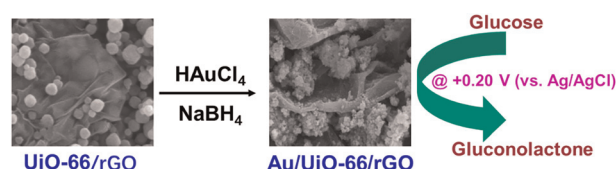
Jingnan Lei, Yuan He, Shuang Zhu, Jiachen Shi, Chin-Ping Tan, Yuanfa Liu and Yong-Jiang Xu*



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Au nanoparticle-embellished UiO-66 on reduced graphene oxide as a non-enzymatic electrocatalyst at a remarkably low oxidation potential for glucose oxidation and sensing

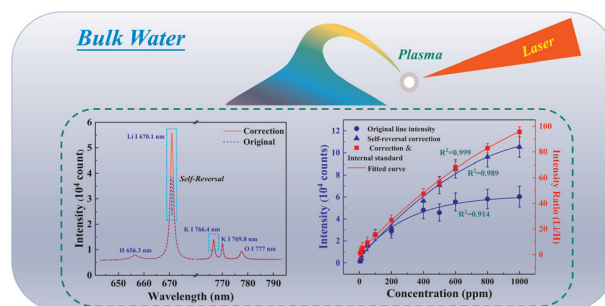
Rongqiu Yan, Qiongfang Zhou, Hui Xie and Chenghong Lei*



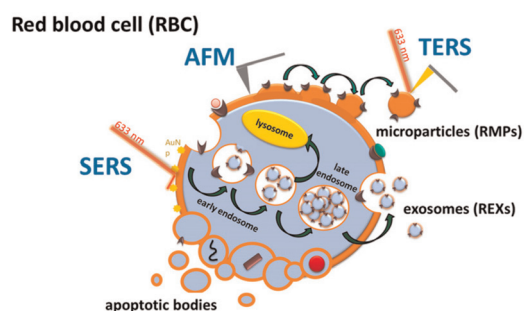
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Performance improvement of underwater LIBS qualitative and quantitative analysis by irradiating with long nanosecond pulses

Yongqiu Zheng, Deyue Ban, Nan Li,* Jiaojian Song,* Jiaxu Zhang, Yifan Luo, Jinge Guan, Chengfei Zhang and Chenyang Xue



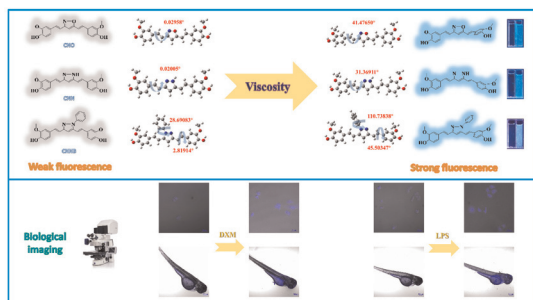
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Surface-enhanced Raman scattering (SERS) and tip-enhanced Raman scattering (TERS) in label-free characterization of erythrocyte membranes and extracellular vesicles at the nano-scale and molecular level

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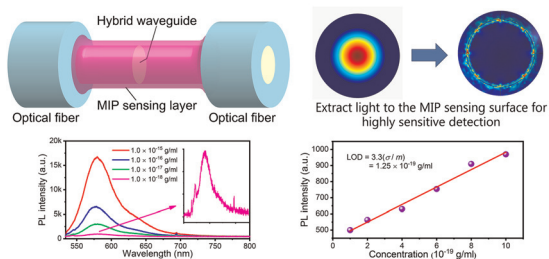
Rational design and comparison of three curcumin-based fluorescent probes for viscosity detection in living cells and zebrafish

Wenhao Du, Yue Gu, Xin Zhou, Zhonglong Wang* and Shifa Wang*

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Molecularly Imprinted Polymer-Coated Hybrid Optical Waveguide for Sub-aM Sensing

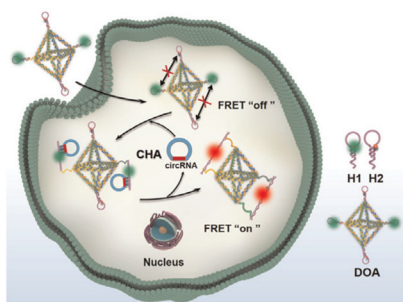
Yingying Xu, Yingtao Zhou, Hong Luo, Hao Li, Tiancheng Ni, Gongjie Xu, Okihito Sugihara, Jingya Xie, and Bin Cai



Molecularly imprinted polymer-coated hybrid optical waveguides for sub-aM fluorescence sensing

Yingying Xu, Yingtao Zhou, Hong Luo, Hao Li, Tiancheng Ni, Gongjie Xu, Okihito Sugihara, Jingya Xie and Bin Cai*

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A DNA octahedral amplifier for endogenous circRNA detection and bioimaging in living cells and its biomarker study

Rong Feng, Shengrong Yu,* Zhiling Qian, Yiming Wang, Gege Xie, Bingqian Li, Jingwen Chen, Yong-Xiang Wu* and Keqi Tang*

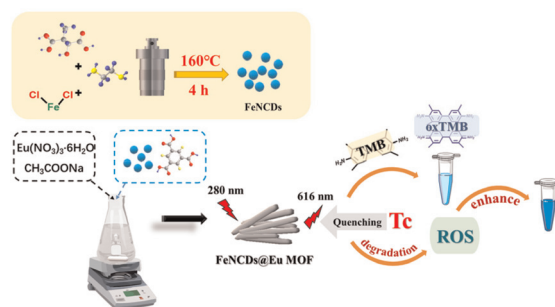


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Eu MOF-enhanced FeNCD nanozymes for fluorescence and highly sensitive colorimetric detection of tetracycline

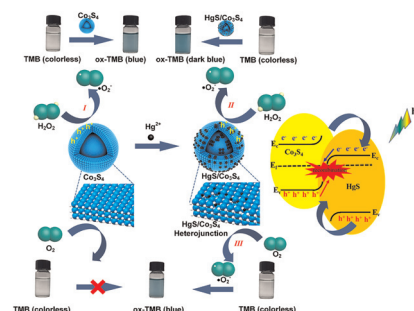
Cheng Chen, Jing Li, Fang Luo, Zhenyu Lin, Jian Wang, Tao Zhang,* Aiwen Huang* and Bin Qiu*



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In situ Hg²⁺ improved the peroxidase-like activity and triggered "ON" the oxidase-like activity of yolk-shell Co₃S₄ microspheres for the detection of Hg²⁺

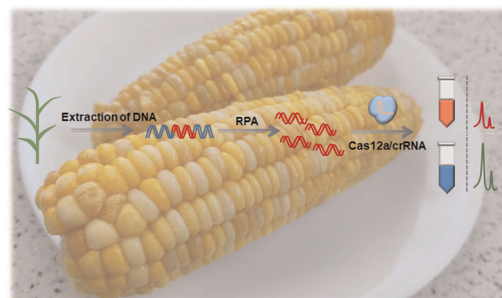
Kang Qin, Ying Chu, Chang Xu, Guijiang Li, Xixi Zhu, Gaochao Fan, Zhongdong Yang* and Qingyun Liu*



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Sensitive detection of genetically modified maize based on a CRISPR/Cas12a system

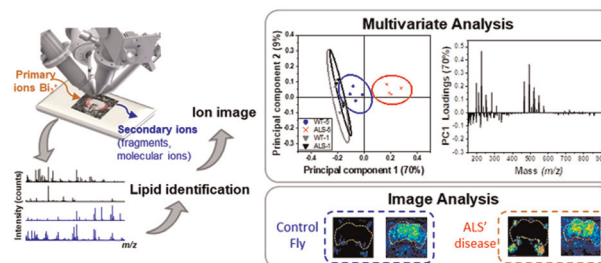
Huimin Wang, Ailing Su, Jingjing Chang, Xiangguo Liu,* Chongyang Liang and Shuping Xu*



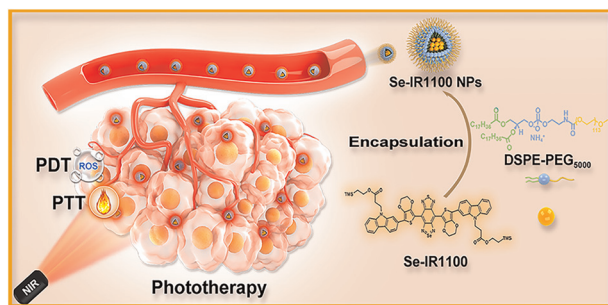
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Monitoring lipid alterations in *Drosophila* heads in an amyotrophic lateral sclerosis model with time-of-flight secondary ion mass spectrometry

Minh Uyen Thi Le, Jeong Hyang Park, Jin Gyeong Son, Hyun Kyung Shon, Sunho Joh, Chang Geon Chung, Jae Ho Cho, Alexander Pirkl, Sung Bae Lee* and Tae Geol Lee*



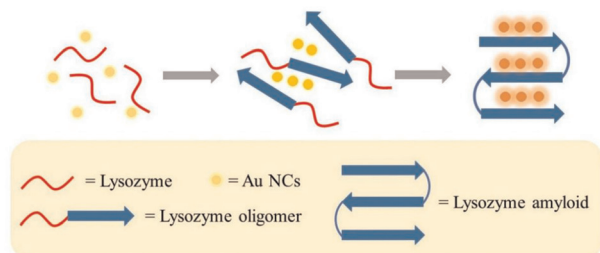
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A selenium-based NIR-II photosensitizer for a highly effective and safe phototherapy plan

Xiangqian Zhang, Chonglu Li, Xiaofang Guan, Yu Chen, Qingqing Zhou, Huili Feng, Yun Deng, Cheng Fu, Ganzhen Deng,* Junrong Li* and Shuang Liu*

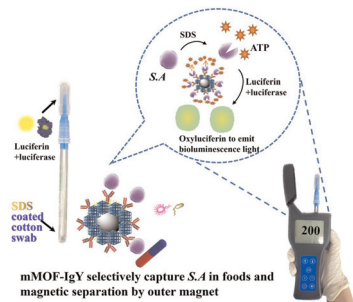
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Aggregation of gold nanoclusters in amyloid fibers: a luminescence assay for amyloid fibrillation detection and inhibitor screening

Yilin Deng, Ying Guo and Yaodong Zhang*

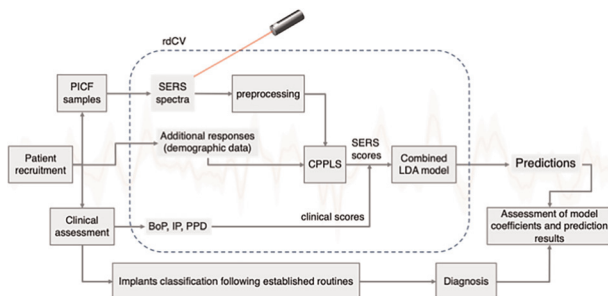
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Bioluminescence assay for rapid detection of live *Staphylococcus aureus* based on the enrichment of egg yolk antibody modified magnetic metal organic framework immunobeads

Mengli Zeng, Renjie Zhou, Tingting He, Fanling Hu, Weiyue Liu,* Ning Gan* and Shaoning Yu

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Spectroscopic insights into peri-implant mucositis and peri-implantitis: unveiling peri-implant crevicular fluid profiles using surface enhanced Raman scattering

Stefano Fornasaro,* Antonio Rapani, Federica Farina, Marigona Ibishi, Giulia Pisoni, Claudio Stacchi, Valter Sergo, Alois Bonifacio, Roberto Di Lenarda and Federico Berton



Is the stability of folates in dried blood microsamples sufficient to perform home-sampling studies?

Re-injection off-axis integrated cavity output spectroscopy for the simultaneous detection of N₂O, H₂O and CO with a mid-infrared QCL laser

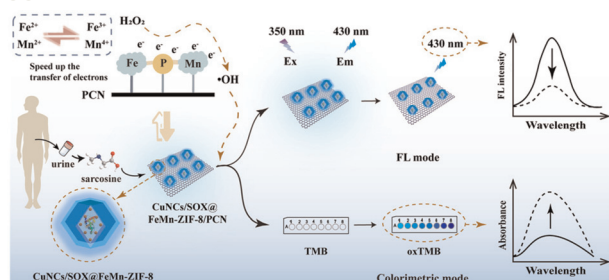
A perylene diimide electrochemical probe with persulfate as a signal enhancer for dopamine sensing

The diagram illustrates the catalytic mechanism of the (TMPDI)⁻/K₂S₂O₈/DA system. It shows three stages of the catalytic cycle on a surface. In the first stage, (TMPDI)⁻ is reduced to (TMPDI)^{•-} by K₂S₂O₈, which is then oxidized back to (TMPDI)⁻ by DA, producing S₂O₈²⁻ and SO₄^{•-}. In the second stage, S₂O₈²⁻ is reduced to SO₄^{•-} by (TMPDI)^{•-}, which is then oxidized back to (TMPDI)⁻ by DA, producing SO₄²⁻ and DA^{•+}. In the third stage, DA^{•+} is oxidized to DA by (TMPDI)^{•-}, which is then oxidized back to (TMPDI)⁻ by DA, producing DA^{•+} and (TMPDI)^{•-}. The diagram also shows the competitive consumption of S₂O₈²⁻ by DA, leading to DA^{•+} and EC reduction, and the blocking of EC by (TMPDI)^{•-}.

Hydroxyl-functionalized pillar[5]arene with high separation performance for gas chromatography

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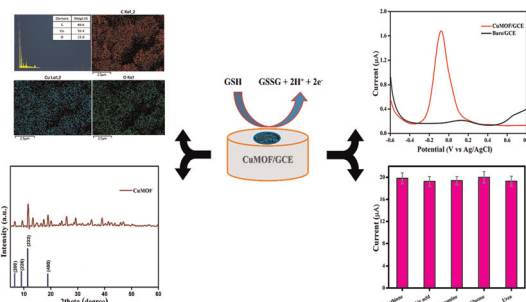
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Fluorescence and colorimetric dual-mode multienzyme cascade nanoplatfrom based on CuNCs/FeMn-ZIF-8/PCN for detection of sarcosine

Yu Wu, Chenxi Ke, Zichen Song, Hongda Zhu, Huiling Guo, Hongmei Sun and Mingxing Liu*

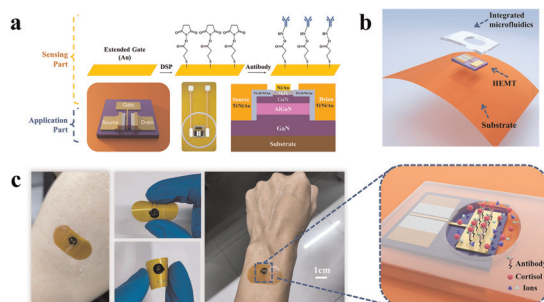
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A copper metal-organic framework-based electrochemical sensor for identification of glutathione in pharmaceutical samples

Reshma Kaimal, Aashutosh Dube, Abdullah Al Souwaileh, Jerry J. Wu and Sambandam Anandan*

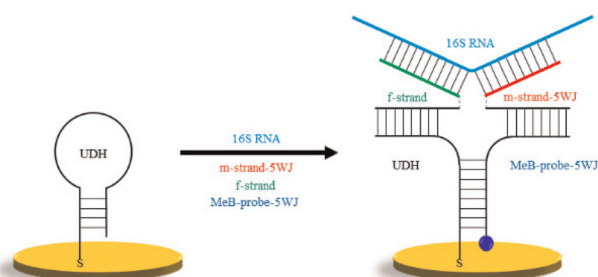
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An integrated wearable sticker based on extended-gate AlGaIn/GaN high electron mobility transistors for real-time cortisol detection in human sweat

Boxuan Xu, Hui Chang, Guo Yang, Zhan Xu, Jun Li,* Zhiqi Gu* and Jiadong Li*

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DNA nanotechnology for nucleic acid analysis: sensing of nucleic acids with DNA junction-probes

Marcos V. Foguel, Victor Zamora, Julio Ojeda, Mark Reed, Alexander Bennett, Percy Calvo-Marzal, Yulia V. Gerasimova, Dmitry Kolpashchikov* and Karin Y. Chumbimuni-Torres*

