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Analytical Methods

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Cover
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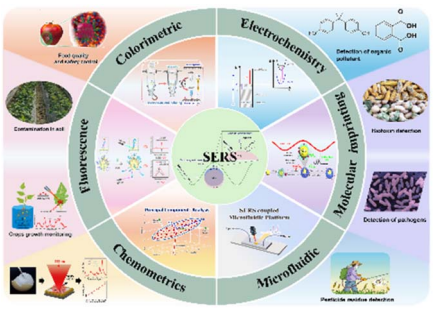
CRITICAL REVIEW

3083

Sensing technology empowering food safety: research progress of SERS-assisted multimodal biosensing toward food hazard factors

Jiaqian Liu, Xiaowei Huang, Xinai Zhang,* Yuerong Feng, Zhecong Yuan, Shujie Gao, Zhihua Li, Hany S. El-Mesery, Jiyong Shi* and Xiaobo Zou*

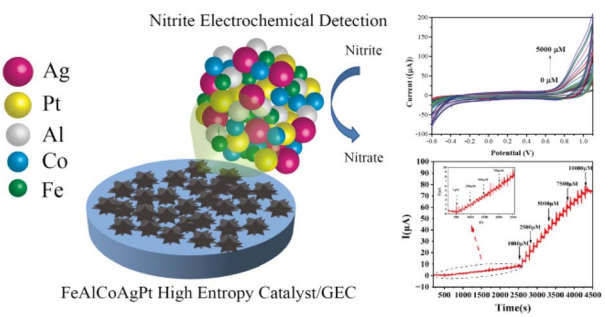


COMMUNICATIONS

3111

High-entropy Ag,Pt-based catalyst toward exceptionally high-performance and stable electrochemical detection of nitrite

Lan Li, Chao Ding* and Wenye Zha



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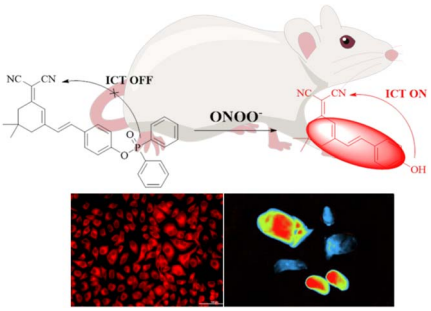
COMMUNICATIONS

3118

A novel near-infrared fluorescent probe for peroxynitrite imaging in cellular and organ injury

Zhifei Zhang, Yang Zhang, Huayu Wang and Chunpo Ge*



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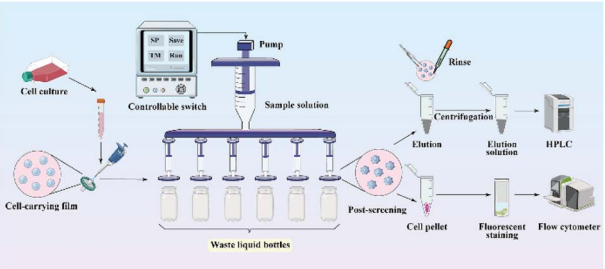
Multichannel microperfusion cell-capture system for screening anticancer active ingredients in traditional Chinese medicine formulas

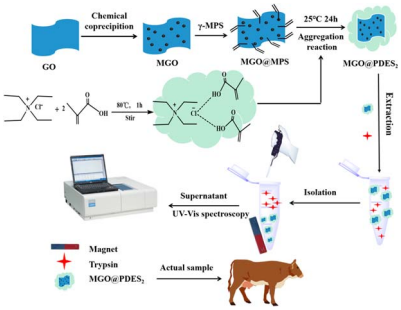
Doudou Xu, Yi Tian, Dan Tie, Shuang Hu, Rongrong Xing* and Xuan Chen*



3132

Novel poly-deep eutectic solvent-functionalized magnetic graphene oxide nanomaterials for high-performance solid-phase extraction of trypsin

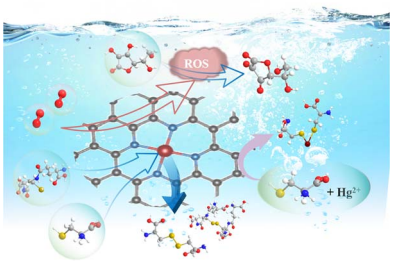
Jing Chen,* Xiyan He and Yuzhi Wang*



3145

Fe–N–C oxidase-mimicking nanozymes for discrimination of antioxidants and detection of Hg^{2+}

Shushu Chu, Mingyuan Xia, Peng Xu, Xueli Zhang, Wendong Liu* and Yizhong Lu*



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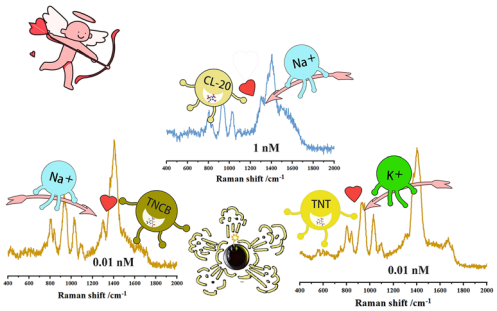

SERS and DFT studies of highly sensitive detection of trace nitro-explosives assisted by alkali ions

Qirui Zou, Yuyao Chen, Jiahui Wang, Xiuwei Fan, Ao Zhang, Bowen Liu* and Zhongwei Liu*

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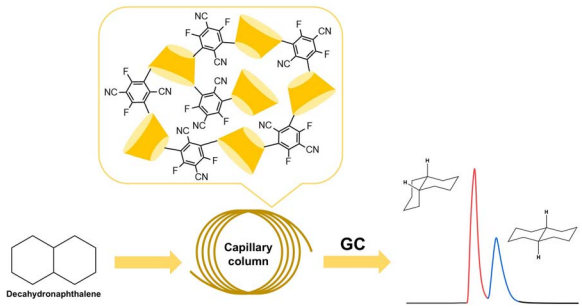

Novel derivatized cyclodextrin as a stationary phase in gas chromatography for separating chiral and achiral compounds

Wenlanqi Du, Jia Jia,* Yinghong Zhao, Ailing Ning, Nan Chen, Rongfu Huang and Jin Luo

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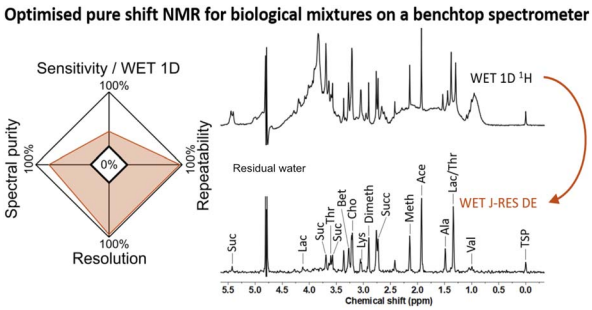

Evaluation of pure shift NMR methods for the analysis of complex metabolite mixtures with a benchtop NMR spectrometer

Joris Mandral, Simon Roques, Jean-Nicolas Dumez, Patrick Giraudeau* and Jonathan Farjon*

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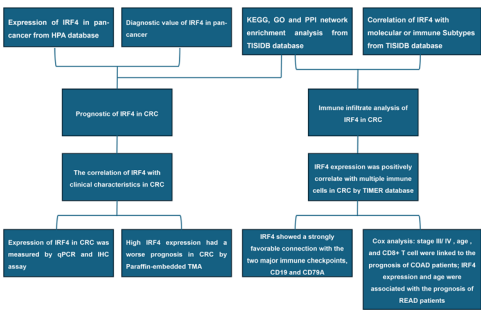

IRF4 as a molecular biomarker in pan-cancer through multiple omics integrative analysis

Yiqing Tan, Yiping Yang, Mingjun Zhang, Ni Li, Lei Hu, Mingyou Deng, Yin Xiao, Yingying Wang, Fuhua Tian* and Ran Sun*

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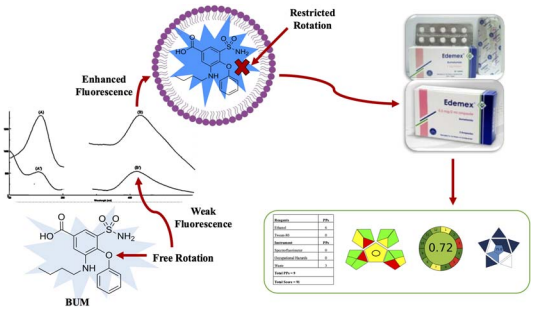
Micellar media effect on the ultrasensitive quantitation of a diuretic medication at nano-scale levels with environmentally benign impact

Samah Abo El Abass,* Manal A. Alossaimi, Abdulmalik S. A. Altamimi and Asmaa Kamal El-Deen



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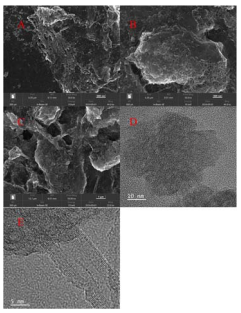
Sensitive detection of H_2O_2 based on a MWCNTs/Ti_3C_2 nanocomposite-modified electrode

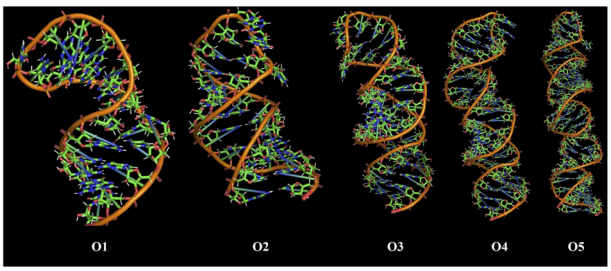
Wei Liu,* Hongfang Li, Deming Li, Xiaoting Liu, Lei Liu, Zhiyong Zhu, Haoyu Hao, Qiongyao Zeng* and Yanhua Sun*



3220

A multi-loop aptamer-based fluorescent aptasensor for enhanced detection of 17β-estradiol

Pakawat Kongpreecha, Arnon Buntha, Pattama Tongdee, Pinwen Peter Chiou and Sineenat Siri*



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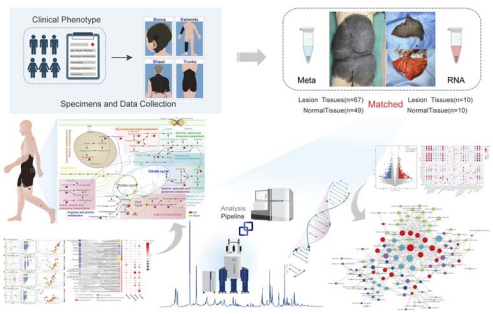
Understanding metabolic characteristics and molecular mechanisms of large to giant congenital melanocytic nevi: implications for melanoma risk and therapeutic targets

Ge Song, Tao Dai, Yongqiang Ren, Yajie Chang, Pengfei Guo, Zhanwei Wang, Guiping Shen* and Jianghua Feng*



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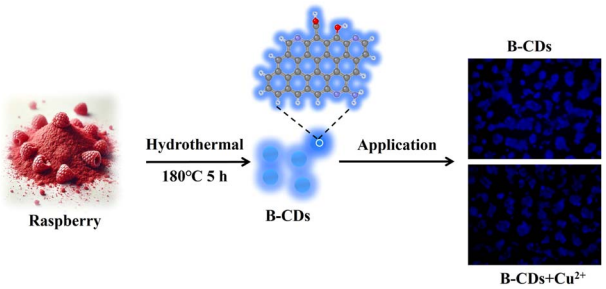

Raspberry-derived carbon dots for specific detection of intracellular copper ions

Yalan Xu, Yiwei Liu, Liping Feng, Xiaoli Sun,* Muhua Wang, Yueyi Xia, Luoxing Yang and Junjie Yuwang

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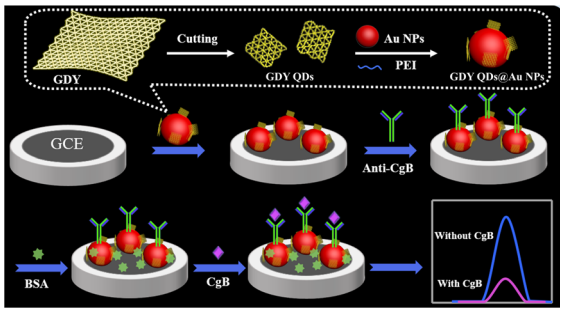

Electrochemiluminescence immunosensor for the sensitive detection of the pancreatic neuroendocrine tumor biomarker chromogranin B based on graphdiyne quantum dots

Yunfan Zhou, Min Guo, Yuanliang Li, Huangying Tan,* Xu Chen* and Wensheng Yang

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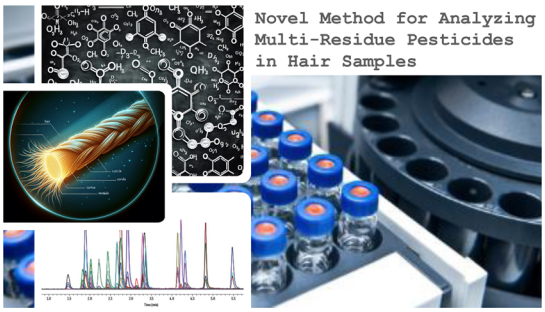

New methodology for extracting pesticides from hair samples for subsequent chromatographic analysis

Luana Conte Crocoli,* Taiza Fontana Cappeletti, Erica Somensi Vescovi, Rafael Menck de Almeida and Sidnei Moura*

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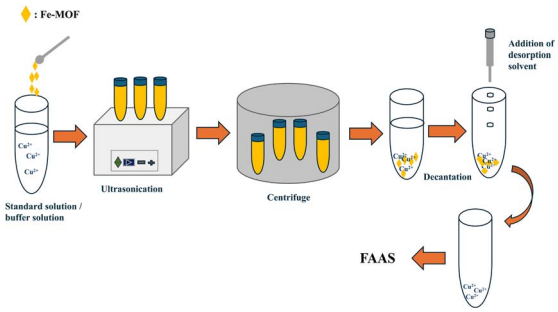

Development of an iron-metal organic Framework-based dispersive solid phase extraction coupled with flame atomic absorption spectrophotometry for the accurate and sensitive determination of copper in lion's claw tea samples

Zeynep Tekin Semerci, K. Übra Karakebap, Devrim Nur Karaman, Eylül Yilmaz, Gamze Dalgiç Bozyiğit, Elif Öztürk ER and Sezgin Bakirdere*

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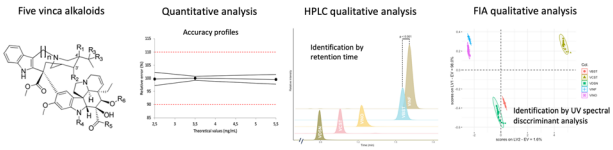
Rapid quantification and classification of five vinca alkaloids used in cancer therapy by flow injection analysis with UV detection and chemometrics

Eric Caudron, Cécile Boughanem, Marion Berge, Jehanne Saidi, Antoine Dowek* and Laetitia Minh Mai Lê



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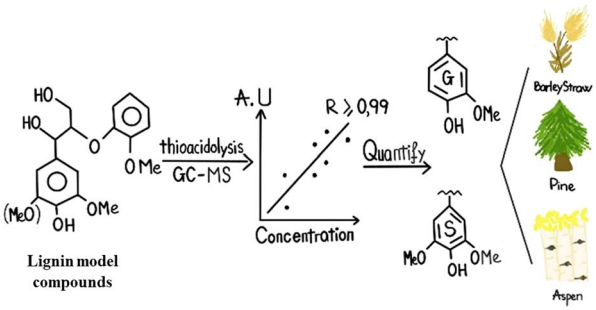
Utilization of phenolic lignin dimer models for the quantification of monolignols in biomass and in its derived organosolv lignins *via* thioacidolysis and GC-MS analysis

T. Tran Ho,* Olivia-Stella Salm, Tiit Lukk and Maria Kulp



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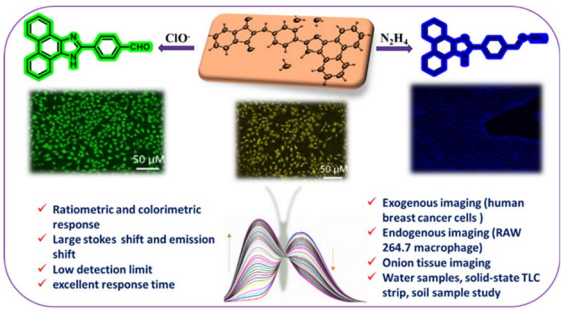
A dual-responsive ratiometric fluorescent probe for the detection of hypochlorite and hydrazine in environmental samples, live cells, and plant tissues

Dipanjan Banik, Shilpita Banerjee, Satyajit Halder, Rajdeep Ganguly, Anirban Karak, Pintu Ghosh, Kuladip Jana and Ajit Kumar Mahapatra*



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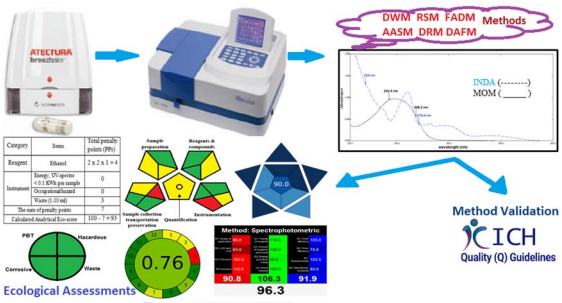
Masterful ecofriendly maintainable spectrophotometric techniques for considering indacaterol acetate and mometasone furoate: full evaluation and comparison of their greenness, whiteness, and blueness profiles

Selvia Maged Adly,* Hany Hunter Monir, Safa'a Mohamed Riad and Mohamed Ahmed Elsayed



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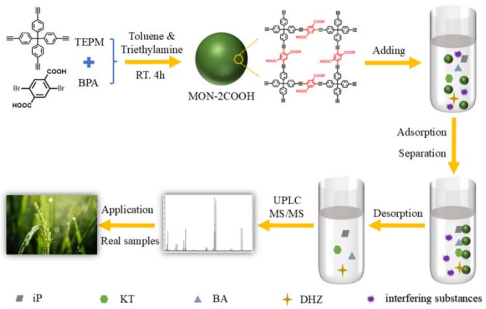

Effective extraction of trace cytokinins in plants based on a carboxyl functionalized microporous organic network

Li Chen, Tao Yu, Le Huang, Qiaomei Lu,* Wenmin Zhang and Lan Zhang*

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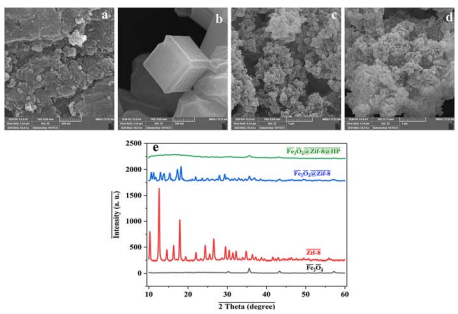

Development of magnetic dispersive solid phase extraction of Cd(II) ions from dairy products using an Fe_3O_4@ZIF-8@IIP nanocomposite sorbent

Zohreh Saeedi, Saeed Mohammad Sorouraddin,* Mir Ali Farajzadeh and Mohammad Reza Afshar Mogaddam

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