Analyst

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Cover
See Lei Zhao, Shifeng Wang, Chengyin Shen *et al.*, pp. 2782–2791.

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EDITORIAL

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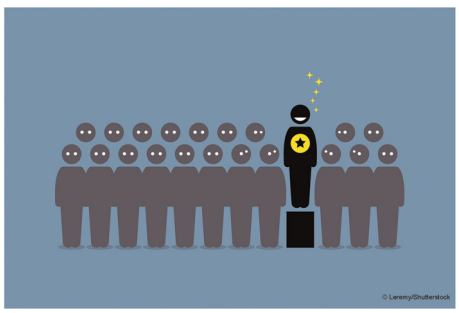
Outstanding Reviewers for *Analyst* in 2024

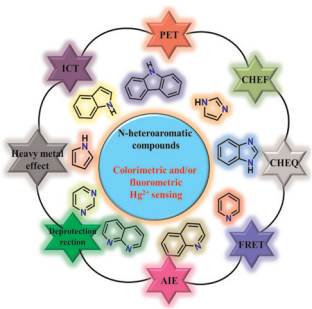


CRITICAL REVIEW

2725

Small molecular N-heteroaromatic-based optical sensing of noxious Hg^{2+} ions: comprehensive insights into recent advancements, existing challenges, and future perspectives

Kingshuk Debsharma, Sunanda Dey, Basudeb Dutta and Swapan Dey*



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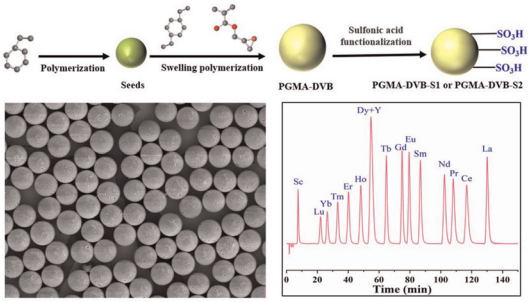
COMMUNICATION

2776

Two-step seed swelling polymerization to prepare poly(glycidyl methacrylate-divinylbenzene) microspheres and their sulfonation for chromatographic separation of rare earth elements

Chen Shen, Yuqing Wei, Shuaishuai Wang, Hongwei Zhao, Qifang He and Hongdeng Qiu*



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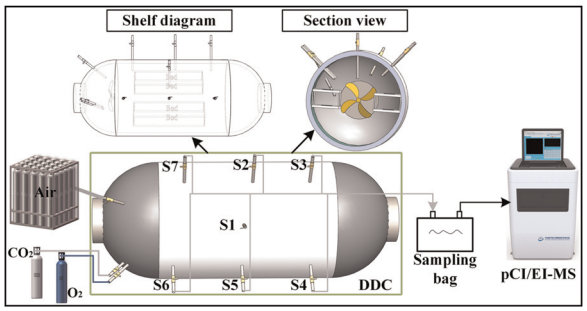
Rapid detection of multiple gas mixtures and evaluation of harmful gas removal efficiency in a deck decompression chamber using dynamic switching mass spectrometry

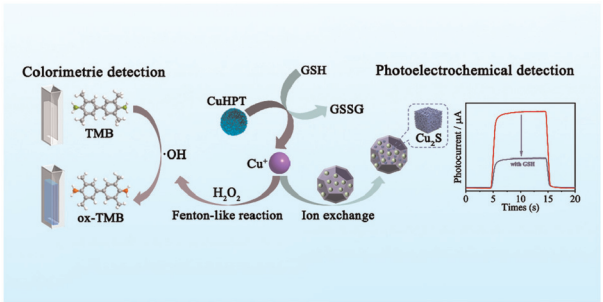
Qu Liang, Pingxiao Liu, Lei Zhao,* Xuejun Wang, Jun Zou, Xun Bao, Qiangling Zhang, Wei Xu, Xue Zou, Shifeng Wang,* Chaoqun Huang, Chengyin Shen* and Yannan Chu



2792

Dual-mode colorimetric/photoelectrochemical sensing platform derived from the decomposition of CuHPT for glutathione detection

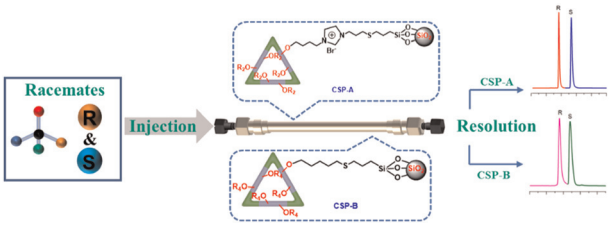
Haotian Xue and Xianwen Kan*



2800

Preparation of novel chiral stationary phases based on a chiral trianglsalen macrocycle by thiol-ene click chemistry for enantioseparation in high-performance liquid chromatography

Jia-Lei Wu, Hua-Can Zhang, Li-Qin Yu, Sheng-Ming Xie, Jun-Hui Zhang,* Bang-Jin Wang* and Li-Ming Yuan*



PAPERS

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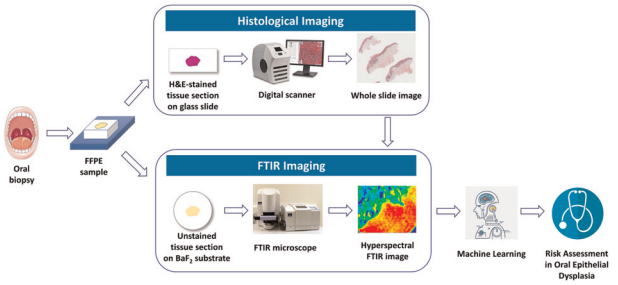

FTIR-based machine learning for prediction of malignant transformation in oral epithelial dysplasia

Rong Wang,* Roya Sabzian, Tanya M. Gibson and Yong Wang

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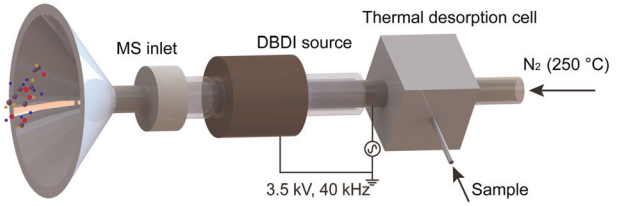

Identification of plasticizers using thermal desorption dielectric barrier discharge ionization mass spectrometry

Qiao Lu, Xiaokang Guan, Xue You and Renato Zenobi*

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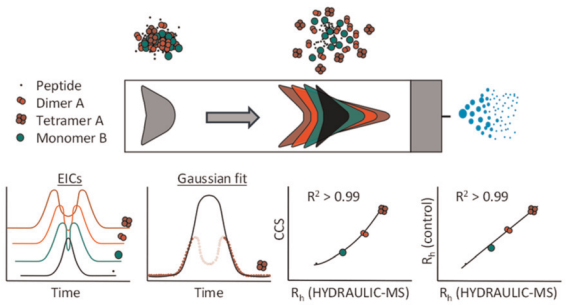

Measuring the hydrodynamic radii of peptides and proteins with an unmodified LC-ESI-MS instrument operating in a Taylor dispersion regime

Jonathan Eisert, Edvaldo Vasconcelos Soares Maciel, Henrik Jensen and Frederik Lermyte*

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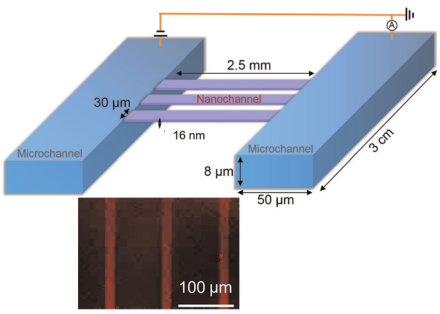

Surface charge regulation mediates anomalous ion transport in silica nanochannels

Kaushik K. Rangharajan and Shaurya Prakash*

PAPERS

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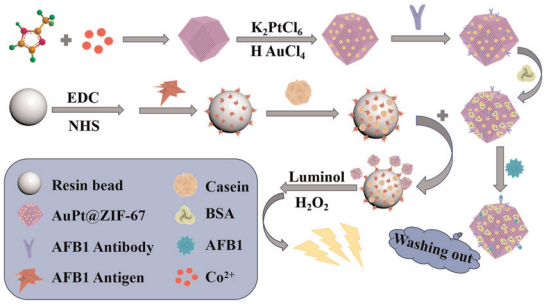
Preparation of AuPt@ZIF-67 nanomaterials and their application in a flow injection chemiluminescence immunoassay

Yufeng Zhou, Longyue Wang, Xiao Mei, Jingjing Xi,* Kang Wu* and Jianguo Li*



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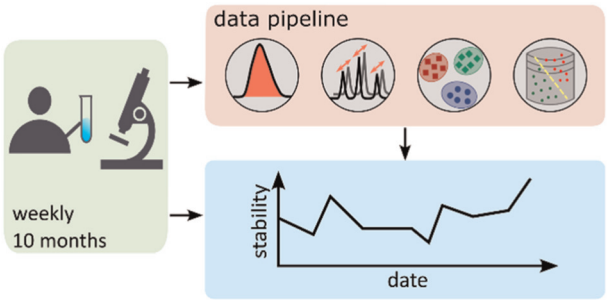
Long-term device stability for Raman spectroscopy

Shuxia Guo,* Anuradha Ramoji, Aikaterini Pistiki, Hulya Yilmaz, Uwe Glaser, David L. Vasquez-Pinzon, Iwan W. Schie, Ute Neugebauer, Anja Silge, Jürgen Popp and Thomas Bocklitz



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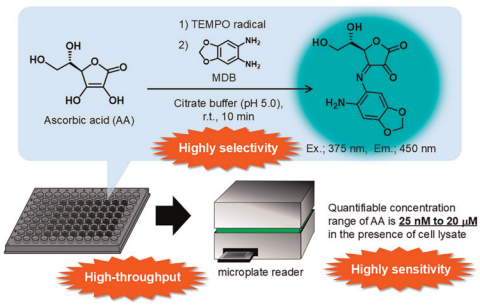
Development of a highly sensitive, highly selective and high-throughput method for determination of total ascorbic acid

Takeru Koga, Aina Yoshida, Mayuko Tomisawa, Mitsuhiro Nakamura and Akihiro Tai*



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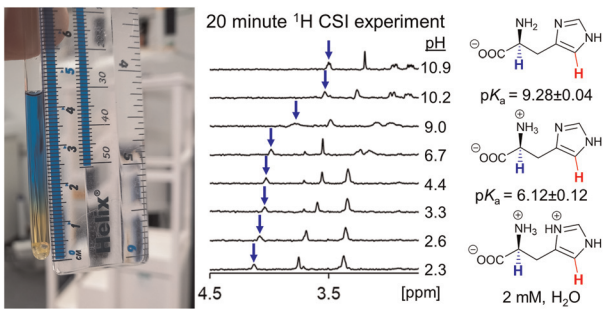
Programmable wide-range pH gradients for NMR titrations: application to antibody–drug conjugate linker group modifications

Matthew Wallace,* James M. Sharpe, Krzysztof Baj, Michael Ngwube, Jenny Thirlway, Patrick L. Kerigan Higgs, G. Richard Stephenson, Jonathan A. Iggo, Thomas E. Storr and Christopher J. Richards*



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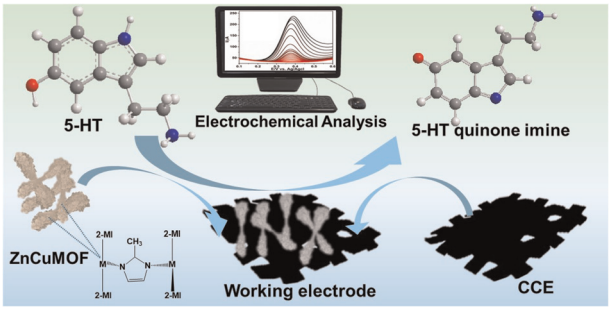

Fabrication of Zn–Cu bimetallic MOF-based flexible electrodes for serotonin detection in serum

Mekala Veerapandian, Murugesan Chandran, Barkavi Dhanasekaran, Saravanan Govindaraju* and Kyusik Yun*

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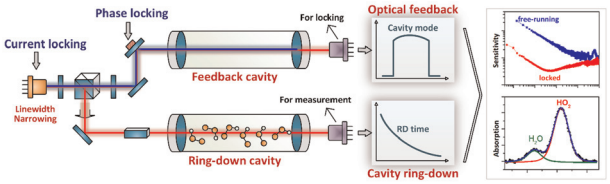
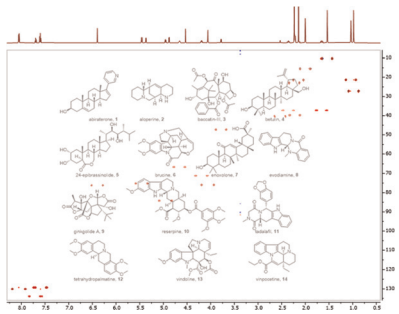


High-sensitivity cavity ring-down spectroscopy for hydroperoxyl radical measurement based on a tunable narrow-linewidth laser using linear cavity optical feedback

Yang Chen, Weixiong Zhao,* Bo Fang,* Nana Yang, Nuo Chen and Weijun Zhang

2901



A validated experimental NMR parameter dataset of organic molecules to assist benchmarking of 3D structure determination methods

Claire L. Dickson,* Sadia Mohammed, Lyrelle S. L. Jones, Duncan J. Crick, Wojciech Augustyniak, Michael Beaumont, Jan-Christoph Westerman, Sarah Henshaw, Steven T. Johnston, Charles D. Blundell, Martin Watson, Zoltan Takacs and Craig P. Butts*

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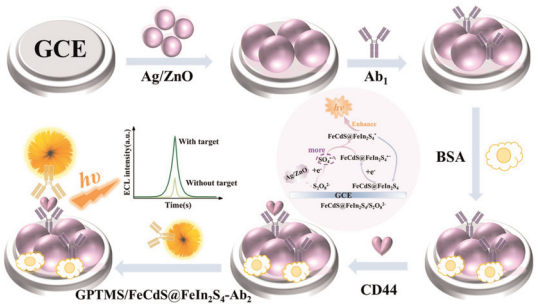

Electrochemiluminescence sensor based on Ag/ZnO nanomaterial-enhanced GPTMS/ $FeCdS@FeIn_2S_4$ for sensitive analysis of CD44

Fengdi Li, Yun Wang, Xianpeng Liao, Kailong Liu, Lihua Hu,* Hongmin Ma, Dan Wu and Qin Wei*

PAPERS

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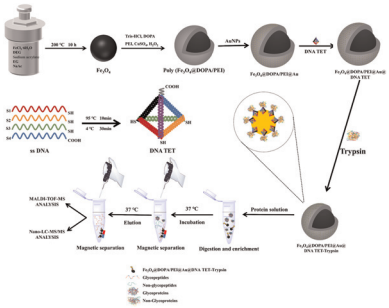
A DNA tetrahedron-inspired magnetic hybrid with regular distribution of trypsin for ultra-fast digestion of proteins and glycoproteomics analysis

Jiahui Lai, Danni Wang, Xiuqin Sheng, Chuan-Fan Ding* and Yinghua Yan*



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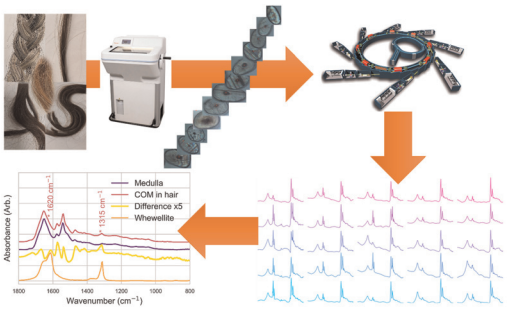
The first observation of calcium oxalate accumulation in human hair

Sandt Christophe* and Borondics Ferenc



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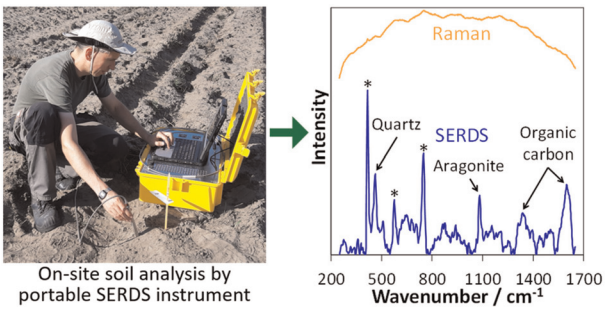
Qualitative and quantitative soil characterization on an agricultural field using a portable shifted excitation Raman difference spectroscopy instrument

Kay Sowoidnich,* Stefan Pätzold, Markus Ostermann, Bernd Sumpf and Martin Maiwald



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A portable turbidity-based sensor constructed *via* inhibition of lipase activity for point-of-use testing of dichlorvos pesticides

Jingyi Qiu, Xinyu Xiao, Yiting Ou, Lei Han* and Shi Gang Liu*