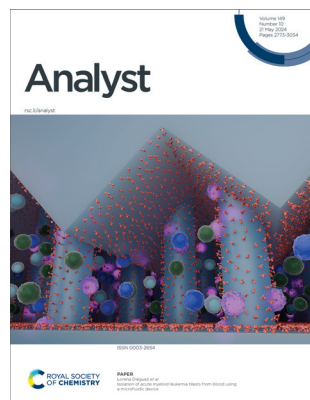


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Cover

See Lorena Diéguez *et al.*, pp. 2812–2825.

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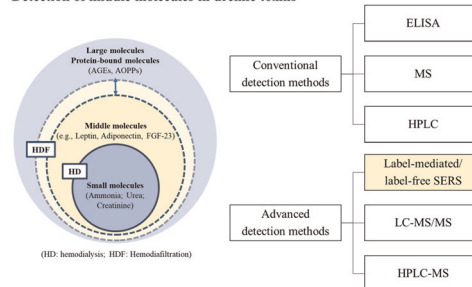
CRITICAL REVIEW

2784

Advances in uremic toxin detection and monitoring in the management of chronic kidney disease progression to end-stage renal disease

Han Lee, Kuan-Hung Liu, Yu-Hsuan Yang, Jiunn-Der Liao,* Bo-shen Lin, Zheng-Zhe Wu, Alice Chinghsuan Chang, Chin-Chung Tseng, Ming-Cheng Wang and Yau-Sheng Tsai

Detection of middle molecules in uremic toxins



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Construction of a novel near-infrared fluorescent Nile blue@MOF nanoprobe for imaging mitochondrial ATP in living cells

Yifan Zhao, Xinfeng Cheng, Minglin Lei, Luyi Zong, Mengying Gao, XianChao Du, Xueguo Liu,* Dongfang Qiu* and Xiaojing Xing*



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Alessandro BUTTE (*Datahow, Switzerland*)

Ralf EISENHUTH (*Bachem, Switzerland*)

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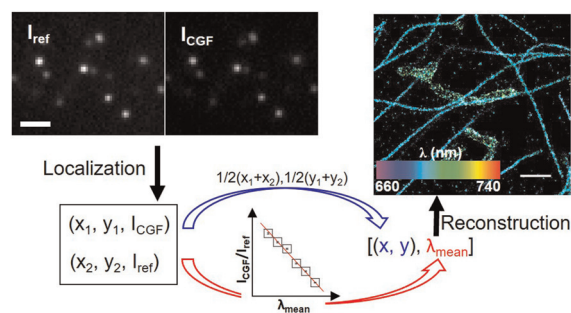
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COMMUNICATIONS

2801

High throughput spectrally resolved super-resolution fluorescence microscopy with improved photon usage

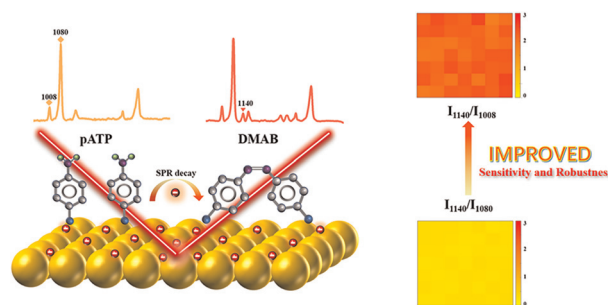
James Ethan Batey, Geun Wan Kim, Meek Yang, Darby Claire Heffer, Elric Dion Pott, Hannah Giang and Bin Dong*



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Internal standard optimization advances sensitivity and robustness of ratiometric detection method

Yuning Jiang, Jiaying Cao, Sen Hu, Tao Cheng, Hanyu Wang, Xiaoyu Guo, Ye Ying, Xinling Liu, Feng Wang, Ying Wen, Yiping Wu* and Haifeng Yang*

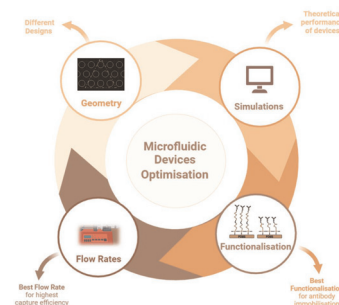


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Isolation of acute myeloid leukemia blasts from blood using a microfluidic device

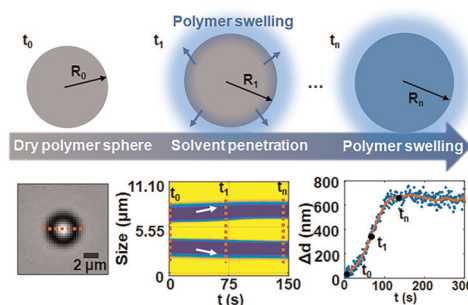
Alexandra Teixeira, Maria Sousa-Silva, Alexandre Chicharo, Kevin Oliveira, André Moura, Adriana Carneiro, Paulina Piai, Hugo Águas, Belém Sampaio-Marques, Isabel Castro, José Mariz, Paula Ludovico, Sara Abalde-Cela and Lorena Diéguez*



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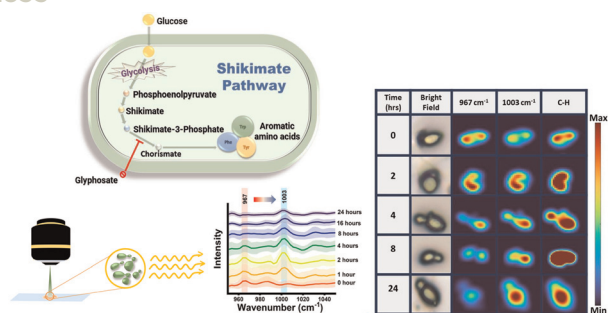
Optical tracking of the heterogeneous solvent diffusion dynamics and swelling kinetics of single polymer microspheres

Xia Zhang, Long Zhao, Jia Gao, Wei Wang and Hui Wang*



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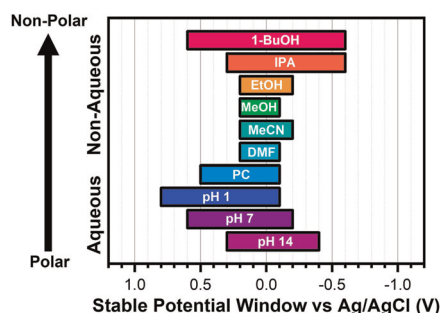
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In situ monitoring of the shikimate pathway: a combinatorial approach of Raman reverse stable isotope probing and hyperspectral imaging

Jiro Karlo, Aryan Gupta and Surya Pratap Singh*

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Spectroelectrochemical determination of thiolate self-assembled monolayer adsorptive stability in aqueous and non-aqueous electrolytes

Abdur-Rahman Siddiqui, Jeanne N'Diaye, Armando Santiago-Carboney, Kristin Martin, Rohit Bhargava and Joaquín Rodríguez-López*

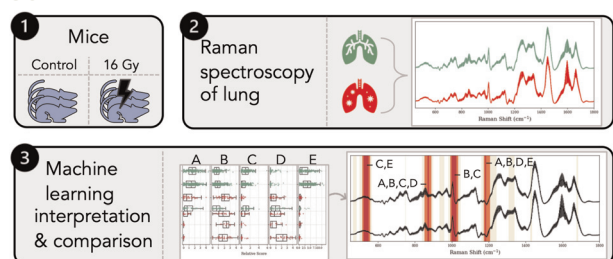
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Maintenance-free antifouling polymeric membrane potentiometric sensors based on self-polishing coatings

Xinyao Wang, Tonghao Liu, Rongning Liang* and Wei Qin*

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Metabolic profiling of murine radiation-induced lung injury with Raman spectroscopy and comparative machine learning

Mitchell Wiebe, Kirsty Milligan, Joan Brewer, Alejandra M. Fuentes, Ramie Ali-Adeeb, Alexandre G. Brolo, Julian J. Lum, Jeffrey L. Andrews, Christina Haston* and Andrew Jirasek*

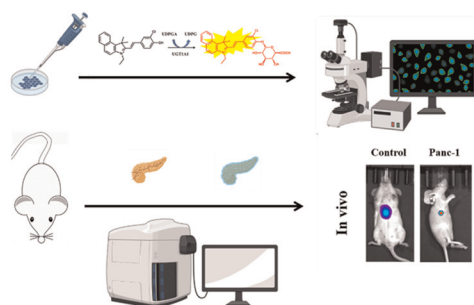


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Detection of uridine diphosphate glucuronosyltransferase 1A1 for pancreatic cancer imaging and treatment via a "turn-on" fluorescent probe

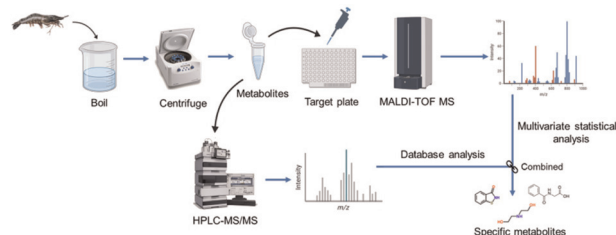
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Impact of the rearing environment on the metabolism of shrimps and tracing the origins and species of shrimps using specific metabolites

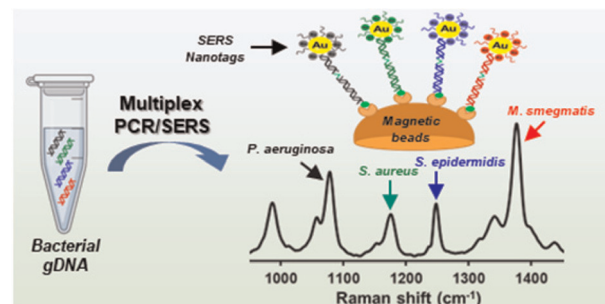
Tongtala Ao, Aolin Liu, Winnie C. Soko and Hongyan Bi*



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Multiplex detection of bacterial pathogens by PCR/SERS assay

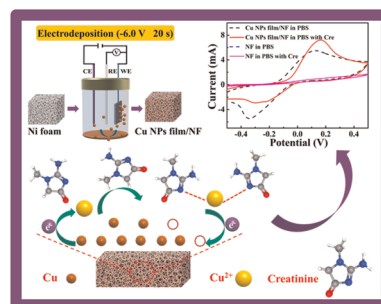
Nana Lyu, Phani Rekha Potluri, Vinoth Kumar Rajendran, Yuling Wang* and Anwar Sunna*



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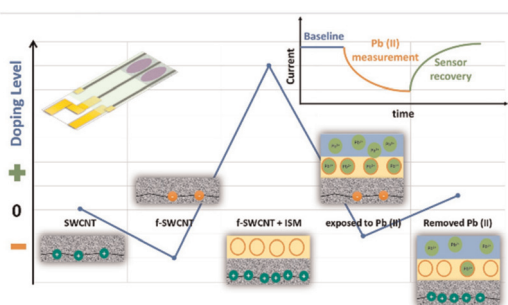
Rapid electrodeposition of Cu nanoparticle film on Ni foam as an integrated 3D free-standing electrode for non-invasive and non-enzymatic creatinine sensing

Hongming Hou, Yifan Liu, Xianglong Li,* Wenbo Liu and Xiaoli Gong



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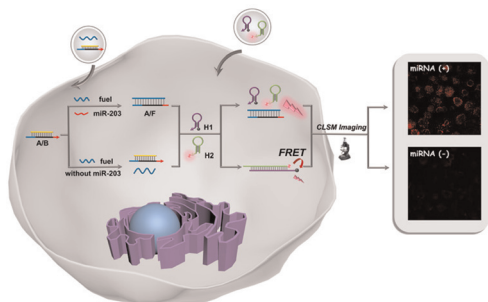
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A highly sensitive ion-selective chemiresistive sensor for online monitoring of lead ions in water

Maryam Darestani-Farahani, Isabella Mendoza Montealegre, Mehraneh Tavakkoli Gilavan, Thomas Kirby, Ponnambalam Ravi Selvaganapathy and Peter Kruse*

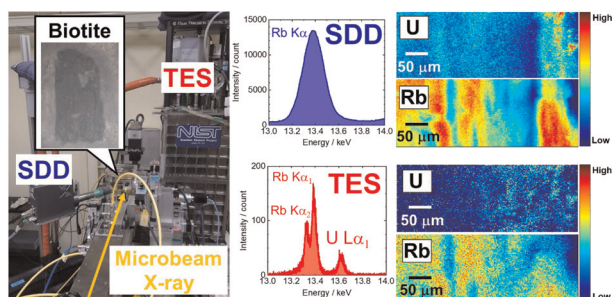
2925



A two-layer circuit cascade-based DNA machine for highly sensitive miRNA imaging in living cells

Lin Yang,* Yan Zang, Peng Liu, Xin Xing and Zhenxin Mou*

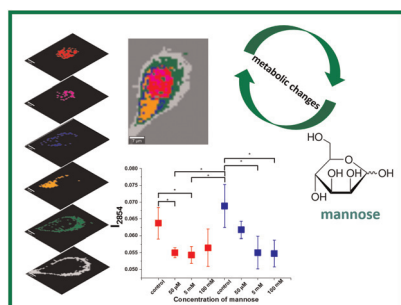
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Application of transition-edge sensors for micro-X-ray fluorescence measurements and micro-X-ray absorption near edge structure spectroscopy: a case study of uranium speciation in biotite obtained from a uranium mine

T. Yomogida,* T. Hashimoto, T. Okumura, S. Yamada, H. Tatsuno, H. Noda, R. Hayakawa, S. Okada, S. Takatori, T. Isobe, T. Hiraki, T. Sato, Y. Toyama, Y. Ichinohe, O. Sekizawa, K. Nitta, Y. Kurihara, S. Fukushima, T. Uruga, Y. Kitatsuji and Y. Takahashi*

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Biochemical changes in lipid and protein metabolism caused by mannose-Raman spectroscopy studies

Monika Kopeć,* Karolina Beton-Mysur and Halina Abramczyk

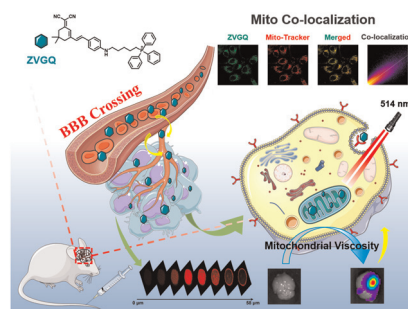


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Real-time monitoring of abnormal mitochondrial viscosity in glioblastoma with a novel mitochondria-targeting fluorescent probe

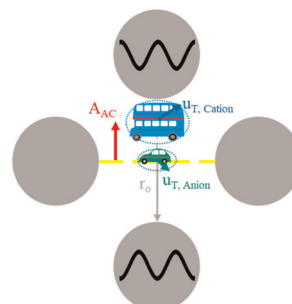
Qing Zhang, Wei Liu, Ling Jiang, Yan-Jun He, Chang-Jian Wu, Shen-Zhen Ren, Bao-Zhong Wang,* Li Liu,* Hai-Liang Zhu* and Zhong-Chang Wang*



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Ion parking in native mass spectrometry

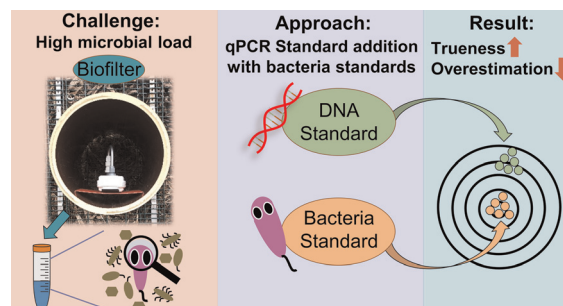
Nicolas J. Pizzala, Jay S. Bhanot, Ian J. Carrick, Eric T. Dziekonski and Scott A. McLuckey*



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Standard addition method for rapid, cultivation-independent quantification of *Legionella pneumophila* cells by qPCR in biotrickling filters

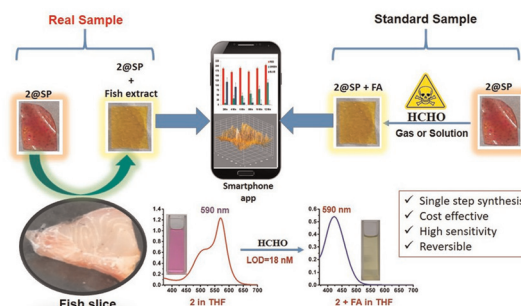
Gerhard Schwaiger, Marco Matt, Philipp Streich, Sarah Bromann, Marcus Clauß, Martin Elsner and Michael Seidel*



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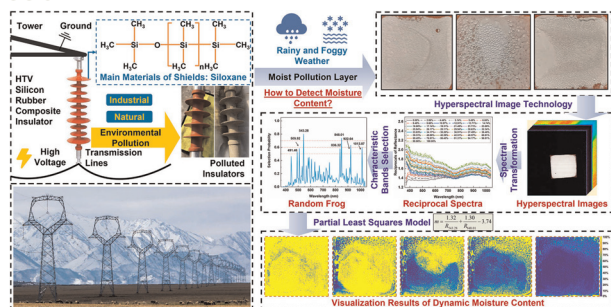
Solution and gaseous phase sensing of formaldehyde with economical triphenylmethane based sensors: a tool to estimate formaldehyde content in stored fish samples

Arobinda Kakoti, Jhorna Borah, Dhruva Jyoti Sonowal, Shrutipriya Devi, Uddit Narayan Hazarika, Surajit Konwer and Prithiviraj Khakhlary*



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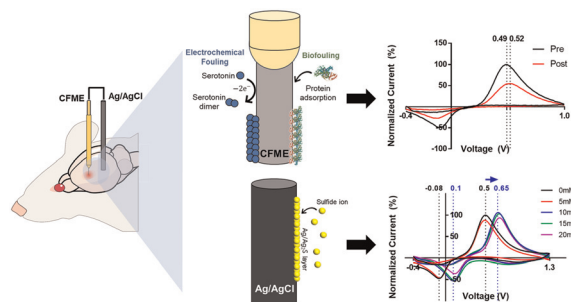
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Tracking moisture contents in the pollution layer on a composite insulator surface using hyperspectral imaging technology

Changjie Xia, Ming Ren,* Runyu Liu, Zhili Tian, Meiyan Song, Ming Dong, Tao Zhang and Jin Miao

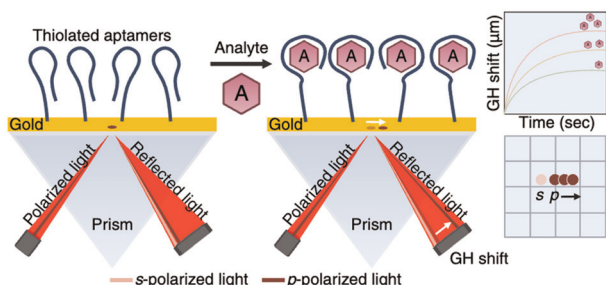
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Understanding the different effects of fouling mechanisms on working and reference electrodes in fast-scan cyclic voltammetry for neurotransmitter detection

Jaehyun Jang, Hyun-U. Cho, Sangmun Hwang, Youngjong Kwak, Haeun Kwon, Michael L. Heien, Kevin E. Bennet, Yoonbae Oh, Hojin Shin, Kendall H. Lee and Dong Pyo Jang*

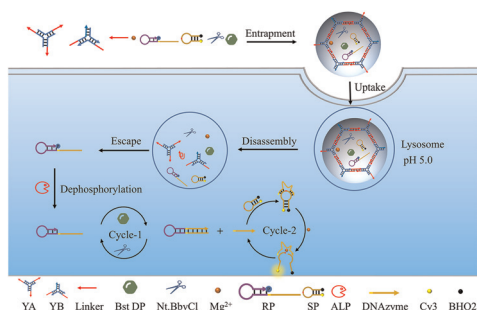
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Enhanced biosensing of tumor necrosis factor- α based on aptamer-functionalized surface plasmon resonance substrate and Goos-Hänchen shift

Kathrine Nygaard Borg, Rodolphe Jaffiol, Yi-Ping Ho* and Shuwen Zeng*

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An acid-responsive DNA hydrogel-mediated cascaded enzymatic nucleic acid amplification system for the sensitive imaging of alkaline phosphatase in living cells

Shaochuan Shi, Ailing Kan, Lu Lu, Weichong Zhao* and Wei Jiang*

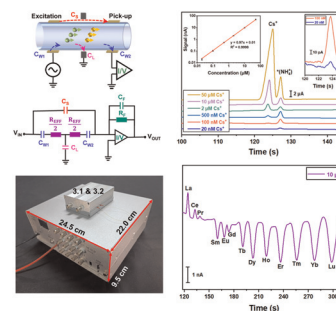


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A compact and high-performance setup of capillary electrophoresis with capacitively coupled contactless conductivity detection (CE-C⁴D)

Lin Li, Yun-Peng Song, Dou-Dou Ren, Tang-Xiu Li, Ming-Hui Gao, Lei Zhou, Zhi-Cong Zeng* and Qi-aosheng Pu*



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Copper(II) phthalocyanine as an electrocatalytic electrode for cathodic detection of urinary tryptophan

Pachanuporn Sunon, Busarakham Ngokpho, Keerakit Kaewket, Suttipong Wannapaiboon and Kamonwad Ngamchuea*

