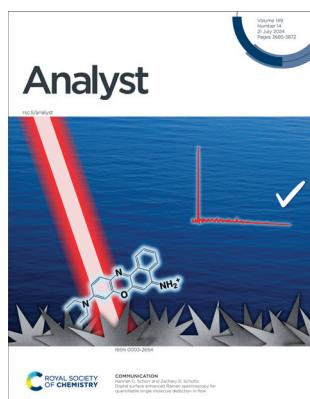


IN THIS ISSUE

ISSN 0003-2654 CODEN ANALAO 149(14) 3685–3872 (2024)



Cover

See Hannah C. Schorr and Zachary D. Schultz,
pp. 3711–3715.

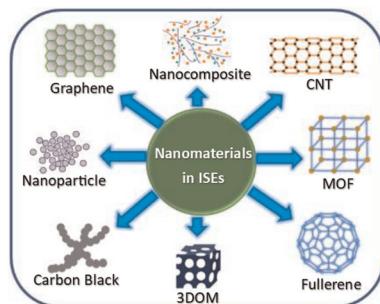
Image reproduced by
permission of Hannah Schorr
from *Analyst*, 2024, **149**, 3711.

CRITICAL REVIEW

3694

Recent advances in nanomaterial-based solid-contact ion-selective electrodes

Seyed Oveis Mirabootalebi and Yang Liu*

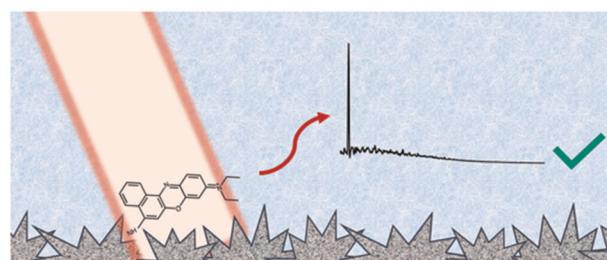


COMMUNICATIONS

3711

Digital surface enhanced Raman spectroscopy for quantifiable single molecule detection in flow

Hannah C. Schorr and Zachary D. Schultz*



Advance your career in science

with professional recognition that showcases your **experience, expertise and dedication**

Stand out from the crowd

Prove your commitment to attaining excellence in your field

Gain the recognition you deserve

Achieve a professional qualification that inspires confidence and trust

Unlock your career potential

Apply for our professional registers (RSci, RSciTech) or chartered status (CChem, CSci, CEnv)

Apply now
rsc.li/professional-development

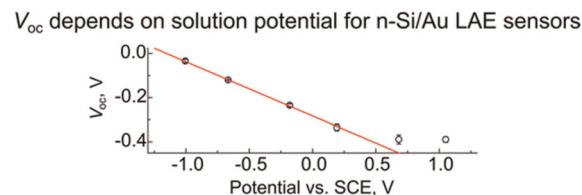
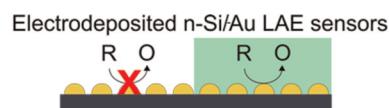


COMMUNICATIONS

3716

Characterizing and understanding the photovoltage in n-Si/Au light-addressable electrochemical sensors

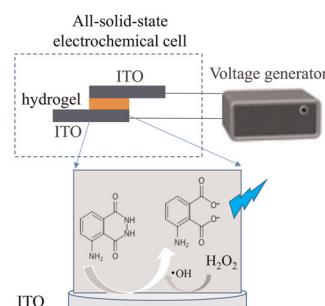
Armeen Hussain, Kayla Mancini, Yousef Khatib and Glen D. O'Neil*



3721

Visual electrochemiluminescence from an all-solid-state electrochemical cell

Wenlong Wang, Haiyu Fang, Yufei Deng, Dechen Jiang and Danjun Fang*

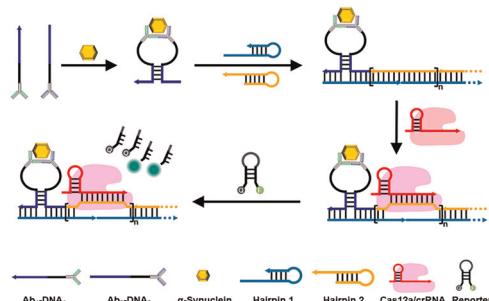


PAPERS

3725

A binding-triggered hybridization chain reaction cascade multi-site activated CRISPR/Cas12a signal amplification strategy for sensitive detection of α -synuclein

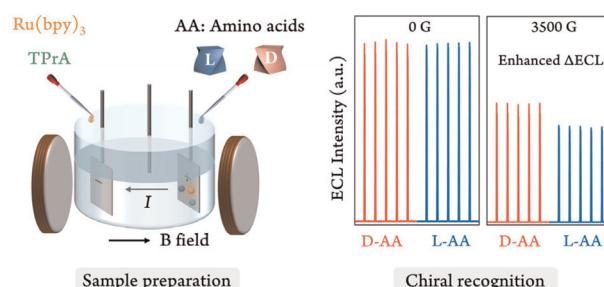
Zhenzhuo Wan, Jiahao Lu, Lu Lu, Weichong Zhao* and Wei Jiang*



3732

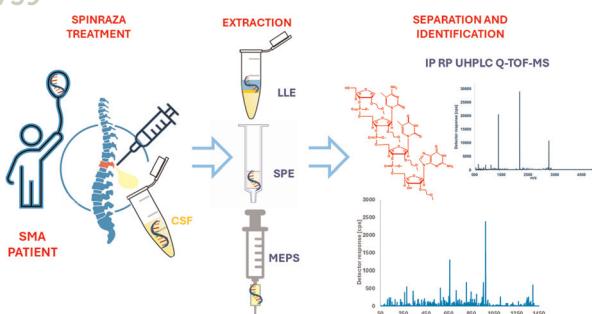
Magneto-electrochemical method for chiral recognition of amino acid enantiomers

Yueqian Jia, Wubin Wu, Rui Chen, Hong Wang, Chuang Zhang, Lili Chen* and Jiannian Yao*



PAPERS

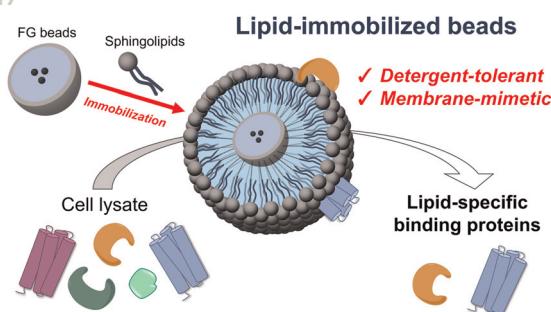
3739



Study of nusinersen metabolites in the cerebrospinal fluid of children with spinal muscular atrophy using ultra-high-performance liquid chromatography coupled with quadrupole-time-of-flight mass spectrometry

Sylwia Studzińska,* Oliwia Błachowicz, Szymon Bocian, Oktawia Kalisz, Aleksandra Jaworska, Jakub Szymarek and Maria Mazurkiewicz-Bełdzińska

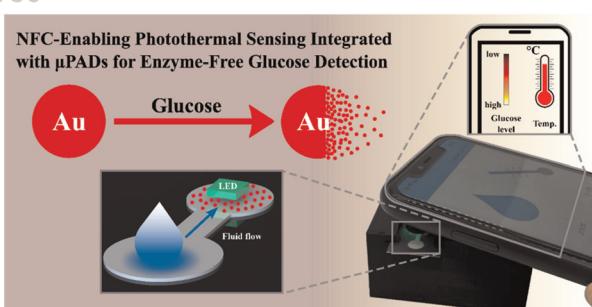
3747



Identification of lipid-specific proteins with high-density lipid-immobilized beads

Masayuki Morito, Hiroki Yasuda, Takaaki Matsufuji, Masanao Kinoshita and Nobuaki Matsumori*

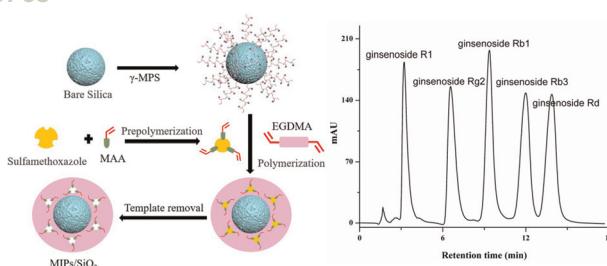
3756



NFC-enabled photothermal-based microfluidic paper analytical device for glucose detection

Kawin Khachornsakkul,* Ruben Del-Rio-Ruiz, Cihan Asci and Sameer Sonkusale*

3765



Molecularly imprinted polymer-coated silica microbeads for high-performance liquid chromatography

Wenpu Wu, Cuichi Yu, Lei Sui, Hui Xu,* Jinhua Li, Na Zhou, Lingxin Chen* and Zhihua Song*

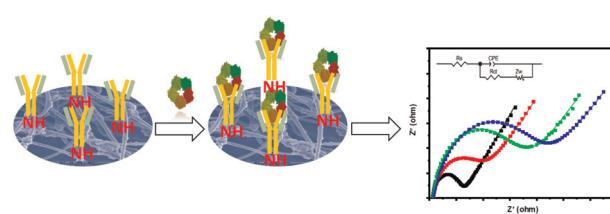


PAPERS

3773

Ultrasensitive electrochemical immunosensor for the detection of C-reactive protein antigen

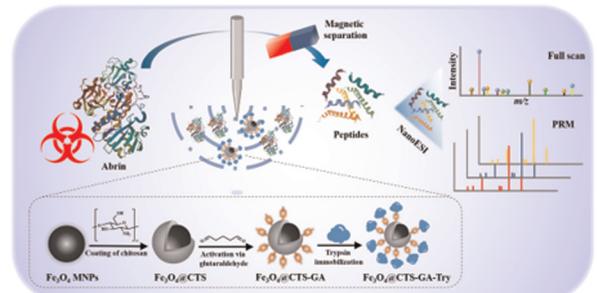
Okoroike C. Ozoemena, Emmanuel Boateng and Aicheng Chen*



3783

Ultrafast protein digestion using an immobilized enzyme reactor following high-resolution mass spectrometry analysis for rapid identification of abrin toxin

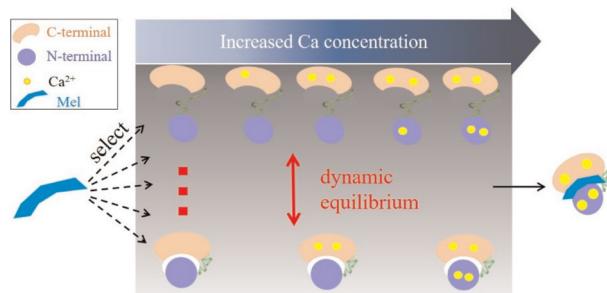
Meng Chen, Baoqiang Li, Wenlu Wei, Zhongyao Zhang, Lin Zhang, Cuiping Li* and Qibin Huang*



3793

Mobility capillary electrophoresis–native mass spectrometry reveals the dynamic conformational equilibrium of calmodulin and its complexes

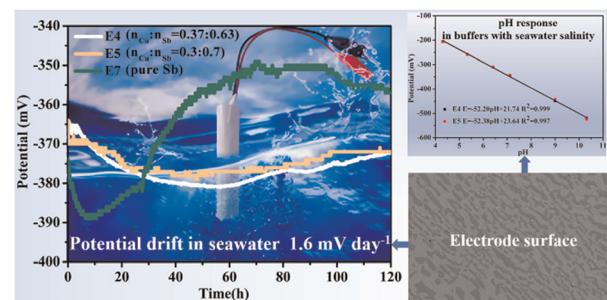
Yi Zhao, Wenjing Zhang, Jie Hong, Lei Yang, Yuanyuan Wang, Feng Qu* and Wei Xu*



3803

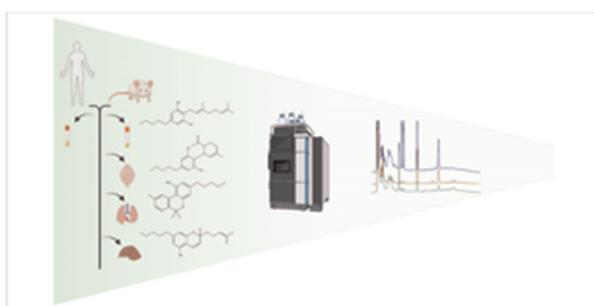
Preparation and application of a Cu-doped antimony electrode to improve the performance of pH measurement in seawater

Zhen Li, Li Zong,* Tao Xu, Caiyun Zhang and Chao Liu*



PAPERS

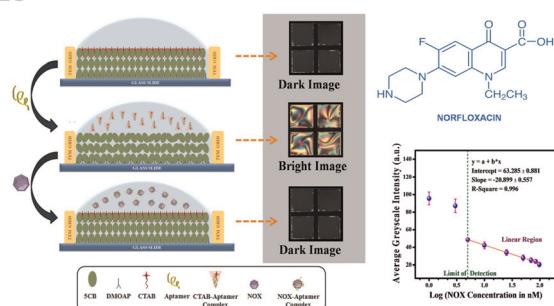
3815



Development and validation of an HPLC-DAD method for the quantification of cannabigerol, cannabidiol, cannabinol and cannabichromene in human plasma and mouse matrices

Andreia Carona, Joana Bicker, Carla Fonseca, Maria da Graça Campos, Amílcar Falcão and Ana Fortuna*

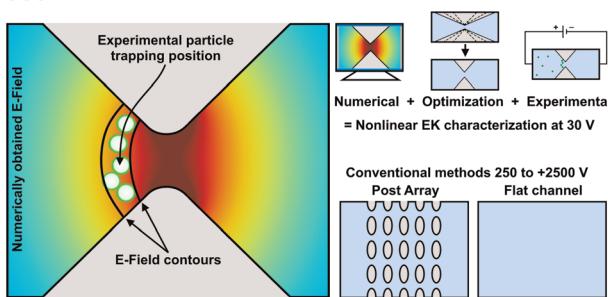
3828



Label-free liquid crystal-based optical detection of norfloxacin using an aptamer recognition probe in soil and lake water

Sayani Das, Soma Sil, Santanu Kumar Pal, Przemysław Kula and Susanta Sinha Roy*

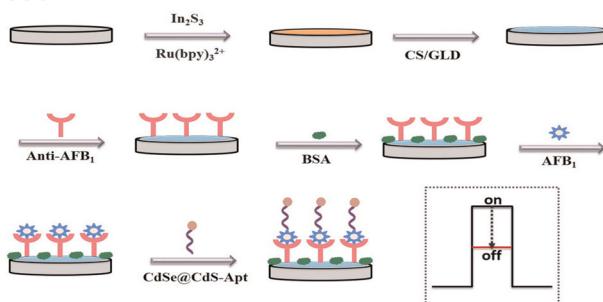
3839



Enabling the characterization of the nonlinear electrokinetic properties of particles using low voltage

J. Martin de los Santos-Ramirez, Carlos A. Mendiola-Escobedo, Jose M. Cotera-Sarabia, Roberto C. Gallo-Villanueva, Rodrigo Martinez-Duarte* and Victor H. Perez-Gonzalez*

3850



A sandwich-type photoelectrochemical biosensor based on $\text{Ru}(\text{bpy})_3^{2+}$ sensitized In_2S_3 for aflatoxin B₁ detection

Si-Zhe Chen, Jing-Shuai Chen, Xing-Pei Liu,* Chang-Jie Mao* and Bao-Kang Jin

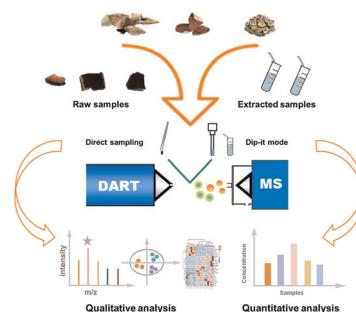


PAPERS

3857

Rapid analysis of bioactive compounds from citrus samples by direct analysis in real-time mass spectrometry combined with chemometrics

Xingyu Wang, Yilin Chen, Yanqiao Xie, Yamin Liu, Linhong Fan, Linnan Li,* Zhengtao Wang and Li Yang*



3865

Optical control of nanobody-mediated protein activity modulation with a photocleavable fluorescent protein

Mizuki Endo, Saki Tomizawa, Qiaoyue Kuang and Takeaki Ozawa*

