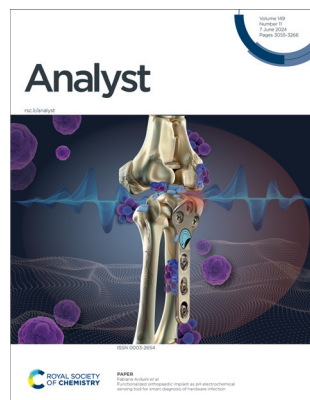


IN THIS ISSUE

ISSN 0003-2654 CODEN ANALAO 149(11) 3055–3266 (2024)



Cover

See Fabiana Arduini *et al.*, pp. 3085–3096.

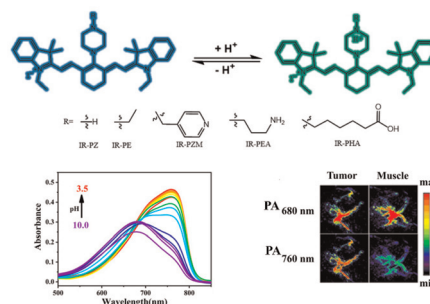
Image reproduced by permission of Luca Fiore from *Analyst*, 2024, **149**, 3085.

COMMUNICATIONS

3064

Preparation of near-infrared photoacoustic imaging and photothermal treatment agent for cancer using a modifiable acid-triggered molecular platform

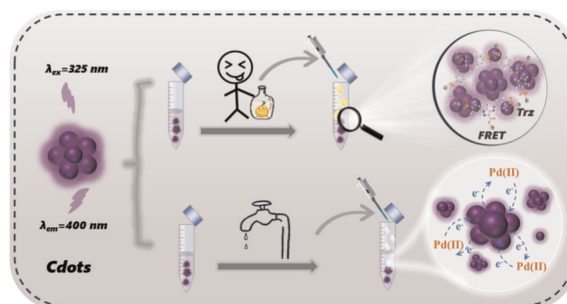
Xiaoming Liu, Chunbai Xiang, Yalin Lv, Jingjing Xiang, Gongcheng Ma, Changzhong Li, Yan Hu, Chunlei Guo, Hua Sun,* Lintao Cai* and Ping Gong*



3073

Preparation and utilization of carbon dots as a nanoprobe for sensitive detection of tartrazine and palladium(II)

Kai-Qi Liu, Zhong-Xia Wang,* Feng Li, Heng-Ye Li and Wei Wang*



Royal Society of Chemistry approved training courses

Explore your options.
Develop your skills.
Discover learning
that suits you.

**Courses in the classroom,
the lab, or online**

Find something for every
stage of your professional
development. Search our
database by:

- subject area
- location
- event type
- skill level

Members **get at least 10% off**

Visit rsc.li/cpd-training

**SAVE
10%**

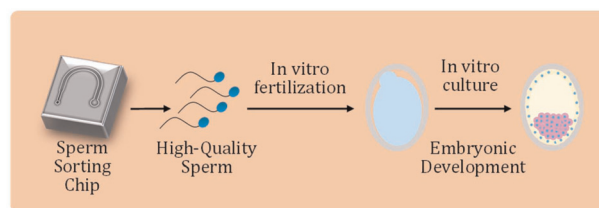


COMMUNICATIONS

3078

Embryonic development through *in vitro* fertilization using high-quality bovine sperm separated in a biomimetic cervix environment

Do Gyeong Byeun, Dongwon Kim, Jin Hee Park, Manhee Lee* and Jung Kyu Choi*



PAPERS

3085

Functionalized orthopaedic implant as pH electrochemical sensing tool for smart diagnosis of hardware infection

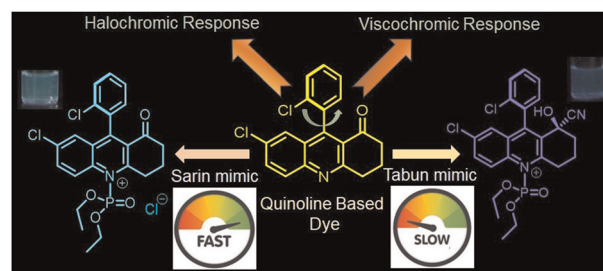
Luca Fiore, Vincenzo Mazzaracchio, Christian Gosti, Leonardo Duranti, Raffaele Vitiello, Giulio Maccauro and Fabiana Arduini*



3097

Discerning toxic nerve gas agents via a distinguishable 'turn-on' fluorescence response: multi-stimuli responsive quinoline derivatives in action

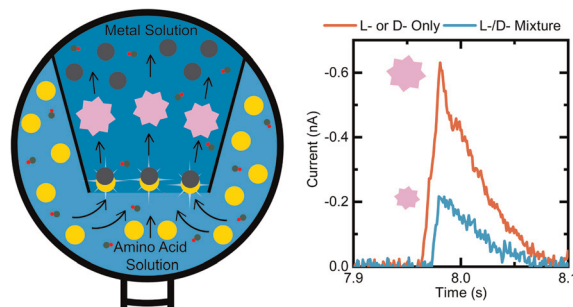
Sourav Mondal, Bandarupalli Krishna, Sounak Roy and Nilanjan Dey*



3108

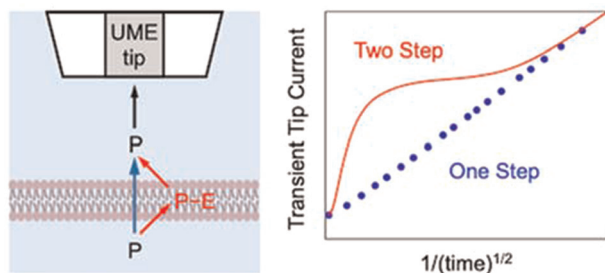
Resistive pulse analysis of chiral amino acids utilizing metal–amino acid crystallization differences

Blake Stringer, Alexandra Schmeltzer, C. Hyun Ryu, Hang Ren and Long Luo*



PAPERS

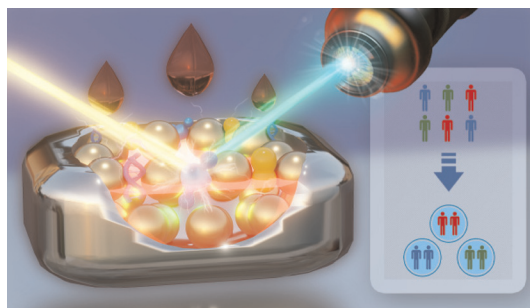
3115



Transient theory for scanning electrochemical microscopy of biological membrane transport: uncovering membrane–permeant interactions

Siao-Han Huang and Shigeru Amemiya*

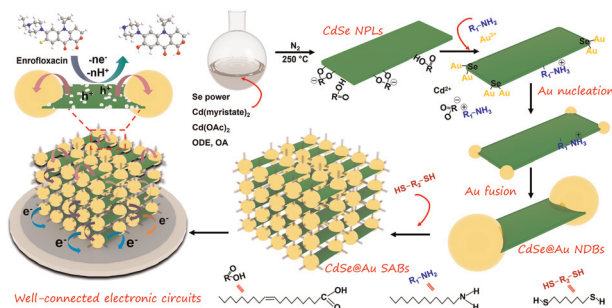
3123



Photonic–plasmonic resonator for SERS biodetection

Zheng Tian and Zhonghai Zhang*

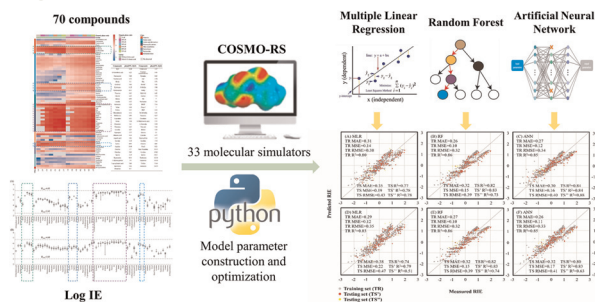
3131



Anisotropic growth of gold anchors on CdSe semiconductor quantum platelets for self-assembled architectures with well-connected electronic circuits for the electrochemical detection of enrofloxacin

Yue Cao, Shengyan Wang, Huan Li, Yan-Yan Gao, Mei Li, Hua Wang, Wenlei Zhu* and Yang Zhou*

3140



Prediction of mass spectrometry ionization efficiency based on COSMO-RS and machine learning algorithms

Cheng-Zhen Nie, Hao Liu, Xu-Hui Huang, Da-Yong Zhou, Xu-Song Wang and Lei Qin*

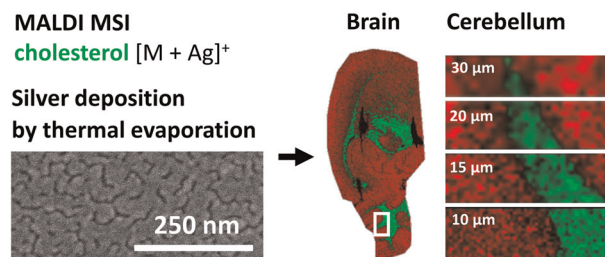


PAPERS

3152

Thermal evaporation as sample preparation for silver-assisted laser desorption/ionization mass spectrometry imaging of cholesterol in amyloid tissues

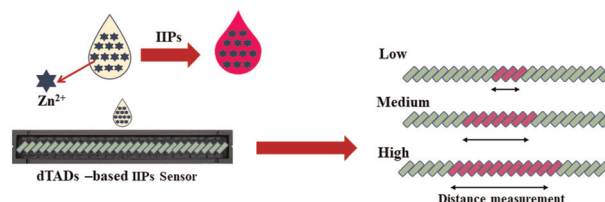
Štěpán Strnad, Vladimír Vrkoslav,* Anna Mengr, Ondřej Fabián, Jiří Rybáček, Miloš Kubánek, Vojtěch Melenovský, Lenka Maletínská and Josef Cvačka



3161

Simple distance-based thread analytical device integrated with ion imprinted polymer for Zn²⁺ quantification in human urine samples

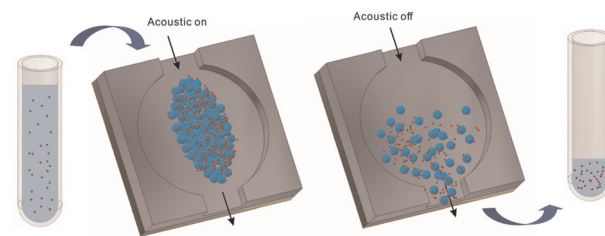
Lita Chheang,* Kawin Khachornsakul,* Ruben Del-Rio-Ruiz, Wenxin Zeng, Nisakorn Thongkon, Sudtida Pliankarom Thanasupsin and Sameer Sonkusale*



3169

Small extracellular vesicles' enrichment from biological fluids using an acoustic trap

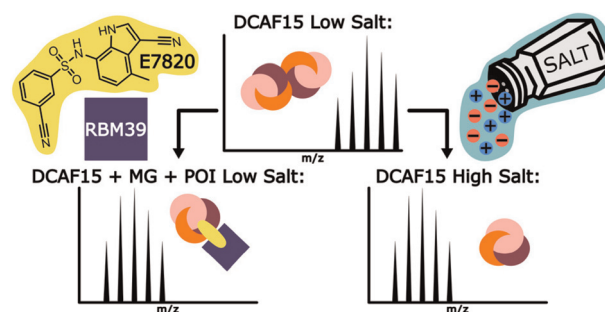
Mengli Chen, Zhiguo Pei, Yao Wang, Feifei Song, Jinfeng Zhong, Ce Wang* and Yuting Ma*



3178

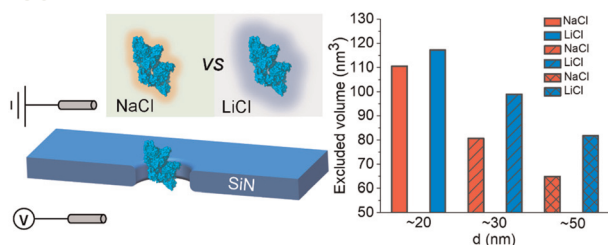
Native mass spectrometry of complexes formed by molecular glues reveals stoichiometric rearrangement of E3 ligases

Cara Jackson and Rebecca Beveridge*



PAPERS

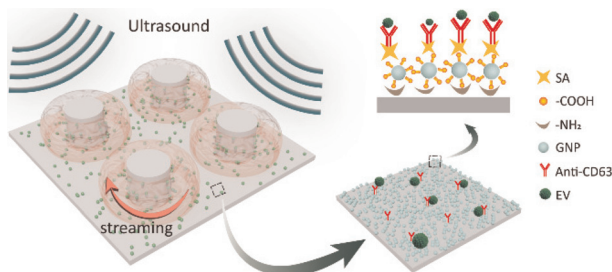
3186



Analysis of the effect of cations on protein conformational stability using solid-state nanopores

Libo Zhu,* Hongwen Wu, Zhengyuan Xu, Lanying Guo and Jinsong Zhao*

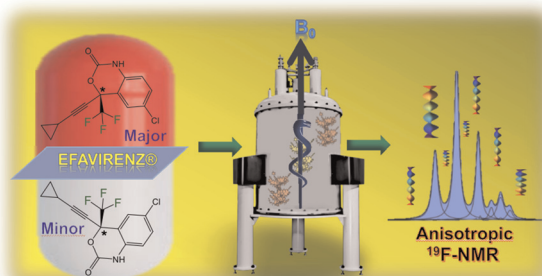
3195



Enhanced immune capture of extracellular vesicles with gelatin nanoparticles and acoustic mixing

Yiqian Mao, Juan Li, Jingxing Li, Cuicui Su, Kaixiang Long, Daojiang Li, Zhao Ding* and Shishang Guo*

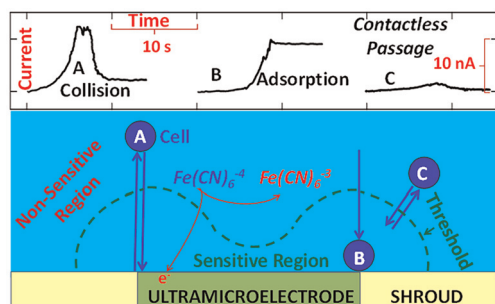
3204



Potential and performance of anisotropic ^{19}F NMR for the enantiomeric analysis of fluorinated chiral active pharmaceutical ingredients

Boris Gouilleux,* François-Marie Moussallieh and Philippe Lesot*

3214



Average collision velocity of single yeast cells during electrochemically induced impacts

John A. Lutkenhaus, Junaid U. Ahmed, Mehedi Hasan, Derek C. Prosser and Julio C. Alvarez*

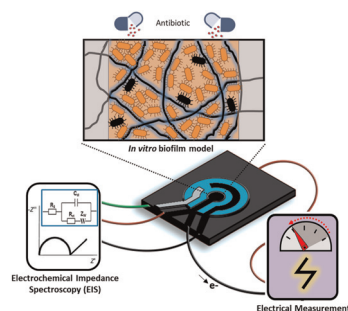


PAPERS

3224

Combined electrical-electrochemical phenotypic profiling of antibiotic susceptibility of *in vitro* biofilm models

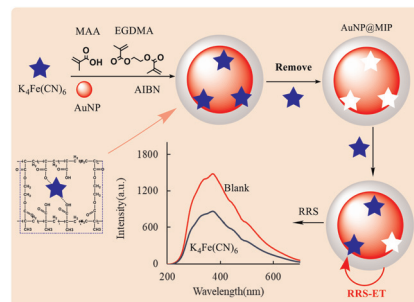
Zahra Rafiee, Maryam Rezaie and Seokheun Choi*



3236

Rapid and selective RRS determination of ferrocyanide with a nanogold surface molecularly imprinted polymethacrylic acid probe

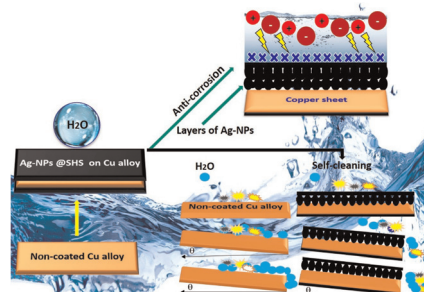
Yumei Li, Yue Liu, Aihui Liang* and Zhiliang Jiang*



3245

Fabrication of a sustainable superhydrophobic surface of Ag-NPs@SA on copper alloy for corrosion resistance, photocatalysis, and simulated distribution of Ag atoms

Noor Hassan,* Zeeshan Ajmal, Sun Liang heng,* Khaled Fahmi Fawy, Sajid Mahmood, Fazila Mushtaq, Munirah D. Albaqami, Saikh Mohammad, Raziqa Tur Rasool and Ghulam Abbas Ashraf*



CORRECTION

3263

Correction: 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 Qiaosheng Pu*

