Sensors & Diagnostics

rsc.li/sensors

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

ISSN 2635-0998 CODEN SDEIAR 4(10) 817-918 (2025)



Cover See Isao Shitanda et al., pp. 839–845. Image reproduced by permission of Isao Shitanda from Sens. Diagn., 2025,

4, 839.



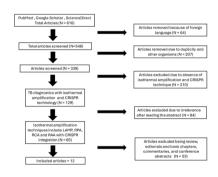
Inside cover See Venkata Suresh Mothika et al., pp. 846–855. Image reproduced by permission of Venkata Suresh Mothika from Sens. Diagn., 2025, 4, 846.

TUTORIAL REVIEW

823

Exploring the diagnostic synergy of isothermal amplification-integrated CRISPR technology for tuberculosis: a systematic review

Ankush Kaushik, Yamini Saini, Zeeshan Fatima, Jitendra Singh* and Saif Hameed*

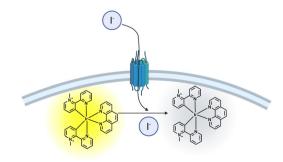


COMMUNICATION

833

Development of a selective-iodide indicator for livecell imaging and evaluation of CFTR activity

Jared Morse, Prasanna Ganesh, Kathrine Cowart, Gabriella Ballestas, Fung Kit Tang and Kaho Leung*





EES Catalysis



Exceptional research on energy and environmental catalysis

Open to everyone. Impactful for all

rsc.li/EESCatalysis

Fundamental questions Elemental answers

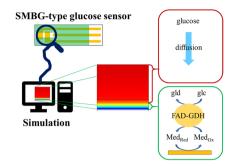
Registered charity number: 207890

PAPERS

839

Insights into the performance-determining aspects of electrochemical biosensor strips by diffusion profile visualization using finite element method simulation

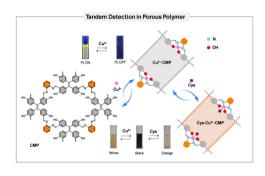
Isao Shitanda,* Masaki Mizuno, Noya Loew, Hikari Watanabe, Masayuki Itagaki and Seiya Tsujimura



846

Reversible dual-mode detection of Cu²⁺ and tandem capture of cysteine using a salphen-conjugated microporous polymer

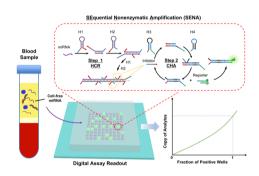
Nilojyoti Sahoo, Atul Kapoor, Monika Yadav, Saurabh Kumar Rajput and Venkata Suresh Mothika*



856

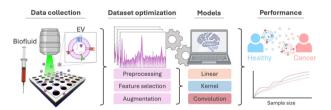
A digital nonenzymatic nucleic acid amplification assay for ultrasensitive detection of cell-free microRNA in human serum

Tao Yu, Aditi Dey Poonam, Amy Halbing, Shengwei Zhang, Yingmiao Liu, Zheng Li, William Marx, Andrew B. Nixon and Qingshan Wei*



Evaluation of machine learning and deep learning models for the classification of a single extracellular vesicles spectral library

C. del Real Mata, Y. Lu, M. Jalali, A. Bocan, M. Khatami, L. Montermini, J. McCormack-Ilersich, W. W. Reisner, L. Garzia, J. Rak, D. Bzdok and S. Mahshid*



PAPERS

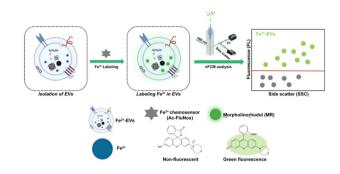
884



Deciphering target-binding selectivity of waste printed circuit board-derived carbon nanozymes for pyrophosphate sensing

Kai-Yu Zheng, Jia-Wei Kuo, Cheng-Yan Yeh, Yang-Wei Lin and Chong-You Chen*

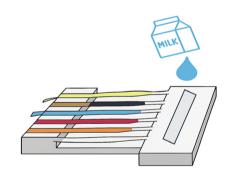
895



Detection of ferrous ions in extracellular vesicles at the single-particle level by nano-flow cytometry

Zuzhe Kang, Chenxi Liu, JunYan Chen, Qiujin Wu, Yunyun Hu, Haonan Di and Xiaomei Yan*

902



Portable paper-based microfluidic device for rapid on-site screening of milk adulterants

Anushka, Aditya Bandopadhyay* and Prasanta Kumar Das