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 3(6) 885-1078 (2024)



Cover

See Emmanuel Roussakis, Conor L. Evans et al.. pp. 1014-1019. Image reproduced by permission of Juan Pedro Cascales from Sens. Diagn., 2024, 3, 1014.

CRITICAL REVIEWS

893

Advances in electrochemical sensors for real-time glucose monitoring

Md. Harun-Or-Rashid, Most. Nazmin Aktar, Veronica Preda and Noushin Nasiri*



Fluorescence coding techniques for RNA detection

Junren Wang, Qin Xiang,* Haifeng Dong* and Xueji Zhang







Environmental Science journals

One impactful portfolio for every exceptional mind

Harnessing the power of interdisciplinary science to preserve our environment

rsc.li/envsci

Fundamental questions Elemental answers



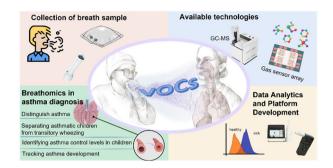
Registered charity number: 207890

CRITICAL REVIEWS

933

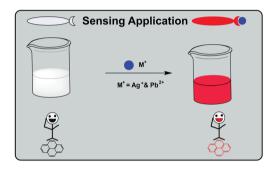
Application of breathomics in pediatric asthma: a review

Lei Chi, Xiaoli Wang, Yuxia Shan, Chonghui Zhu, Ling Leng, Rong Chen, Qing Xie, Zhenze Cui* and Minghui Yang*



Recent developments in pyrene-based fluorescence recognition and imaging of Ag⁺ and Pb²⁺ ions: Synthesis, applications and challenges

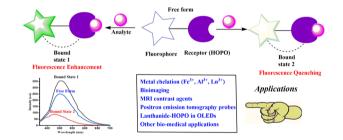
Suvendu Paul,* Prasenjit Barman, Nilanjan Dey and Michael Watkinson*



968

Hydroxypyridinone based chelators: a molecular tool for fluorescence sensing and sensitization

Shalini Singh, Neha Kumari, B. K. Kanungo and Minati Baral*

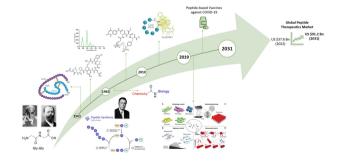


PERSPECTIVE

987

Modified synthetic peptides: from therapeutics to chemosensors

Conor Wynne and Robert B. P. Elmes*



COMMUNICATION

1014

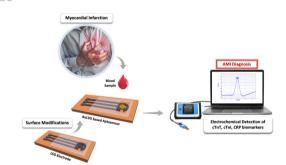
Perfusion system Flow cell #2 Real-time perfusate oxygen tension Flow cell #1 Device #2 Device #1 USB to PC

Versatile, in-line optical oxygen tension sensors for continuous monitoring during ex vivo kidney perfusion

Emmanuel Roussakis.* Juan Pedro Cascales, Dor Yoeli, Alexis Cralley, Avery Goss, Anna Wiatrowski, Maia Carvalho, Hunter B. Moore, Ernest E. Moore, Christene A. Huang and Conor L. Evans*

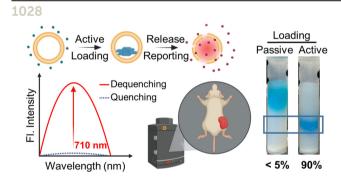
PAPERS

1020



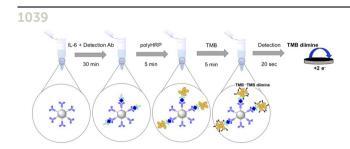
Multiplexed aptasensor for detection of acute myocardial infraction (AMI) biomarkers

Duygu Beduk, Tutku Beduk, Abdellatif Ait Lahcen, Veerappan Mani, Emine Guler Celik, Gamze Iskenderoglu, Ferhat Demirci, Soysal Turhan, Oner Ozdogan, Su Ozgur, Tuncay Goksel, Kutsal Turhan, Khaled Nabil Salama* and Suna Timur*



Active loading of cyanine 5.5 derivatives into liposomes for deep self-quenching and their applications in deep tissue imaging

Chong-Yan Chen, Cheng-Bang Jian, Hua-De Gao, Xu-En Yu, Yuan-Chih Chang, Shwee Khuan Leong, Jiun-Jie Shie* and Hsien-Ming Lee*



Electrochemical immunomagnetic assay for interleukin-6 detection in human plasma

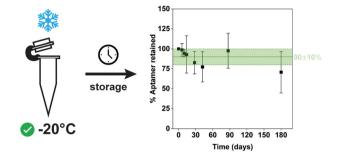
Grace Buckey, Olivia E. Owens, Hannah A. Richards and David E. Cliffel*

PAPERS

1044

Effects of storage conditions on the performance of an electrochemical aptamer-based sensor

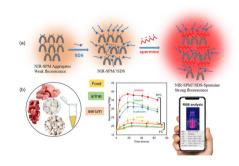
Julia Chung, Adriana Billante, Charlotte Flatebo, Kaylyn K. Leung, Julian Gerson, Nicole Emmons, Tod E. Kippin, Lior Sepunaru and Kevin W. Plaxco*



1051

Red and NIR active dipod-SDS self-assemblies for "turn on" quantification of spermine in serum, urine and food: smart-phone assisted on-site determination of spermine in amine-rich foods

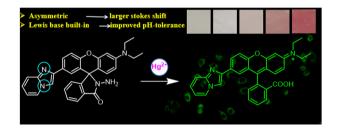
Nancy Singla,* Sukhvinder Dhiman, Manzoor Ahmad, Satwinderjeet Kaur, Prabhpreet Singh and Subodh Kumar*



1062

An imidazo[1,2-a]pyridine-functionalized xanthene fluorescent probe for naked-eye detection of Hg²⁺ and its application in cell imaging and test strips

Xu-Hong Han, Piao Zhao, Meng-Ke Tang, Lei Yang, Qing Wang* and Shu-Sheng Zhang*



Aptamer-functionalized nanopipettes: a promising approach for viral fragment detection via ion current rectification

Shekemi Denuga, Dominik Duleba, Pallavi Dutta, Guerrino Macori, Damion K. Corrigan, Séamus Fanning and Robert P. Johnson*



CORRECTION

1076

Correction: Highly sensitive solid-state nanopore aptasensor based on target-induced strand displacement for okadaic acid detection from shellfish samples

Mohamed Amin Elaguech, Yajie Yin, Yunjiao Wang, Bing Shao,* Chaker Tlili* and Deqiang Wang*