

# Sensors & Diagnostics

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## IN THIS ISSUE

ISSN 2635-0998 CODEN SDEIAR 2(6) 1325-1660 (2023)



**Cover**  
See Andrew J. Steckl *et al.*, pp. 1460–1468.  
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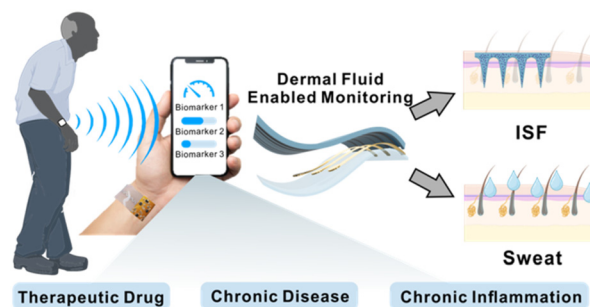
**Inside cover**  
See Jie Zheng *et al.*, pp. 1469–1482.  
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## CRITICAL REVIEWS

1335

### Dermal-fluid-enabled detection platforms for non-invasive ambulatory monitoring

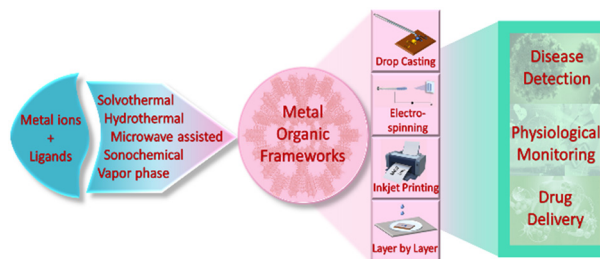
Asmita Veronica, Yanan Li, Yue Li, I-Ming Hsing and Hnin Yin Yin Nyein\*



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### Advancing healthcare applications: wearable sensors utilizing metal-organic frameworks

P. N. Blessy Rebecca, D. Durgalakshmi, S. Balakumar and R. Ajay Rakkesh\*



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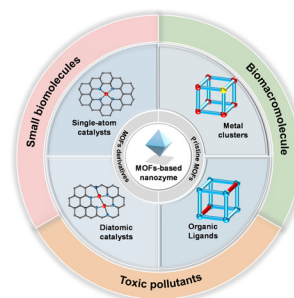


## CRITICAL REVIEWS

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### Tuning atomic-scale sites in metal–organic framework-based nanozymes for sensitive biosensing

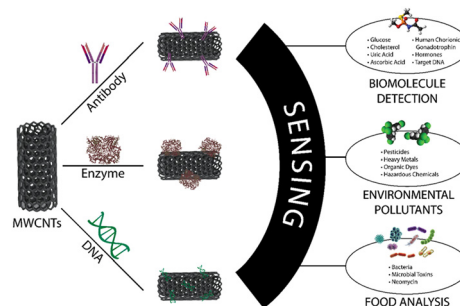
Yating Wen, Weiqing Xu, Liuyong Hu, Miao Xu, Wenling Gu,\* Hongcheng Sun and Chengzhou Zhu\*



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### Bioengineered multi-walled carbon nanotube (MWCNT) based biosensors and applications thereof

Sandeep Kumar, H. K. Sidhu, Ashok K. Paul, Neha Bhardwaj, Neeraj S. Thakur\* and Akash Deep\*

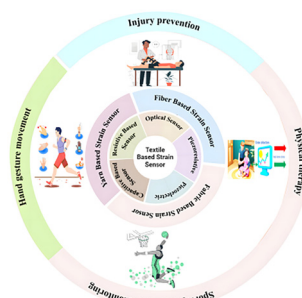


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### The technology of wearable flexible textile-based strain sensors for monitoring multiple human motions: construction, patterning and performance

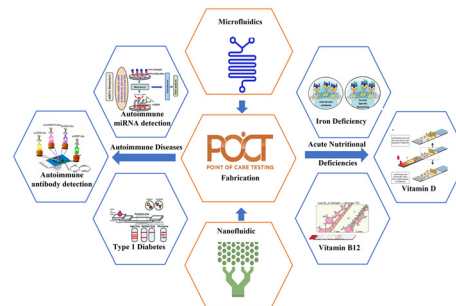
Liza Liza, Md Homaune Kabir, Liang Jiang,\* Stephen Jerrams and Shaojuan Chen\*



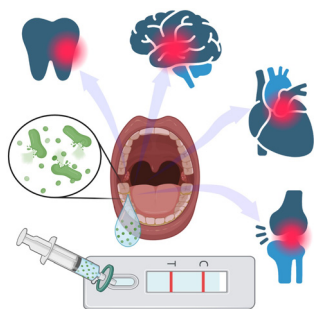
1437

### Integrated microfluidic devices for point-of-care detection of bio-analytes and disease

Prateechee Padma Behera, Natish Kumar, Monika Kumari, Sumit Kumar, Pranab Kumar Mondal and Ravi Kumar Arun\*



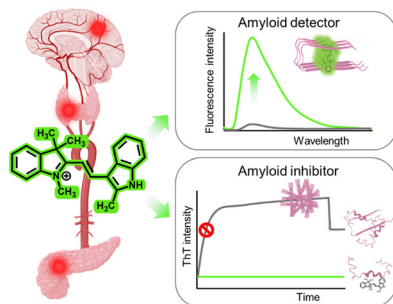
1460



### Salivary endotoxin detection using combined mono/polyclonal antibody-based sandwich-type lateral flow immunoassay device

Daewoo Han, Sancai Xie and Andrew J. Steckl\*

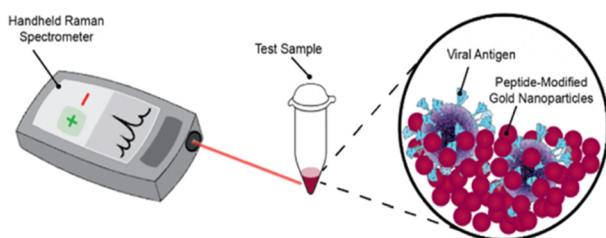
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### Multi-target amyloid probing and inhibition using basic orange fluorescence

Yijing Tang, Dong Zhang, Xiong Gong and Jie Zheng\*

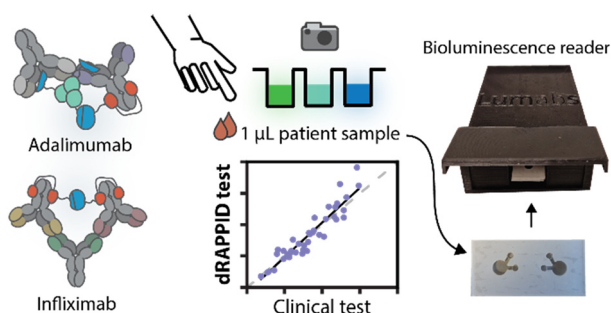
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### From the lab to the field: handheld surface enhanced Raman spectroscopy (SERS) detection of viral proteins

Taylor D. Payne, Stephen J. Klaw, Tengyue Jian, Qunzhao Wang, Sang Hoon Kim, Ronit Freeman\* and Zachary D. Schultz\*

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### Point-of-care therapeutic drug monitoring of tumour necrosis factor- $\alpha$ inhibitors using a single step immunoassay

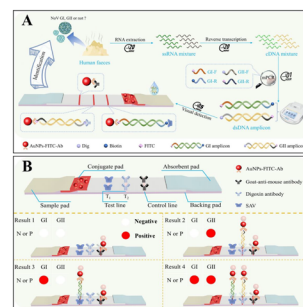
Eva A. van Aalen, Ivar R. de Vries, Eva T. L. Hanckmann, Jeannot R. F. Stevens, Thomas R. Romagnoli, Luc J. J. Derijks, Maarten A. C. Broeren and Maarten Merx\*



1501

### Simultaneous on-site visual identification of norovirus GI and GII genogroups with point-of-care molecular lateral flow strip

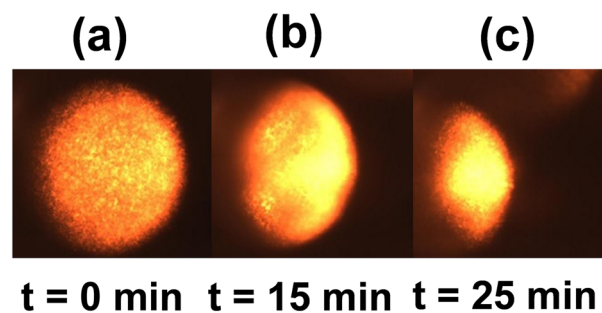
Ziwen Zong, Xianzhuo Meng, Weiwei Li, Jianguo Xu, Junling Yu, Xinxin Wang, Peng Wang, Guodong Liu, Yong Sun\* and Wei Chen\*



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### Machine learning based microfluidic sensing device for viscosity measurements

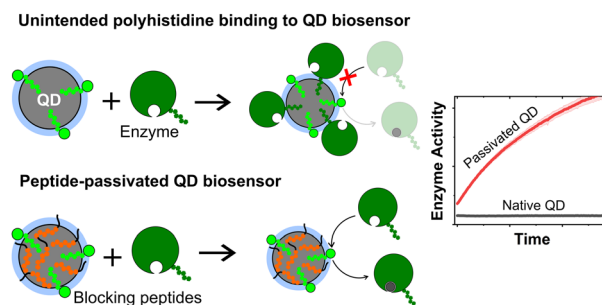
Adil Mustafa,\* Daniyal Haider, Arnab Barua, Melikhan Tanyeri,\* Ahmet Erten and Ozlem Yalcin\*



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### Passivating quantum dots against histag-displaying enzymes using blocking peptides: salient considerations for self-assembling quantum dot biosensors

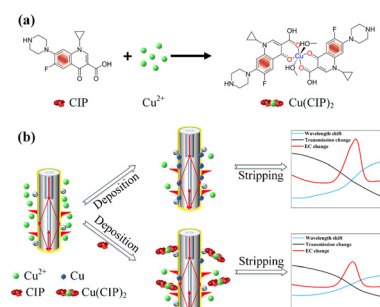
Christopher M. Green,\* David A. Hastman, Kimihiro Susumu, Joseph Spangler, David A. Stenger, Igor L. Medintz and Sebastián A. Díaz\*



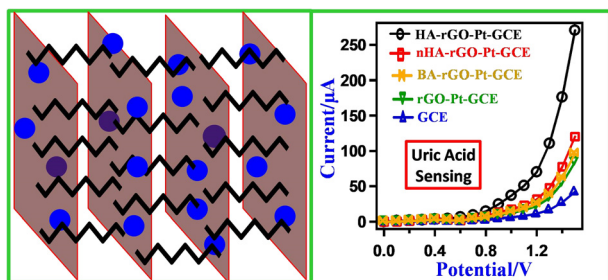
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### Optical & electrochemical fiber-optic sensor: *in situ* detection of antibiotics with fM detection limit

Xiaoling Peng, Bo Peng, Xicheng Wang, Zhicong Ren, Zhiyong Yang, Lei Liu, Jiahai Li, Liang Chen, Daotong You, Jianqing Li,\* Minghui Du\* and Tuan Guo\*



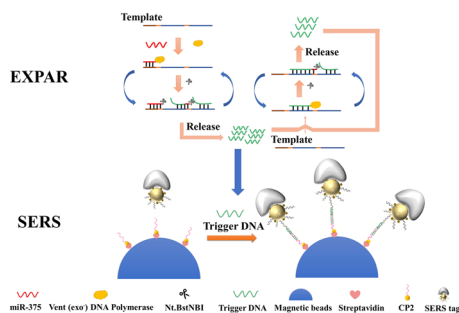
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### Enhancement of functional surface and molecular dynamics at Pt-rGO by spacer 1,6-hexanediamine for precise detection of biomolecules: uric acid as a specimen

Mohammad Razaul Karim,\* Mohammad Jayed, Md. Zakariya Rahman Laskar, Md Murshed Bhuyan, Md. Saidul Islam, Shinya Hayami and Mohammed M. Rahman

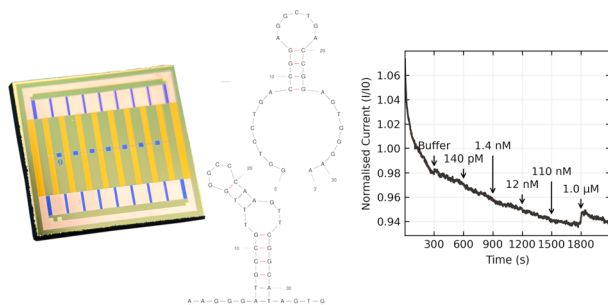
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### EXPAR and Au-Ag mushroom-shaped SERS probe assisted detection of exosomal miR-375 in prostate cancer

Chenxiao Tang, Zhipeng Huang, Huixiang Li, Ren Zhang, Guopeng Yu, Jilie Kong, Hui Chen\* and Wenhao Weng\*

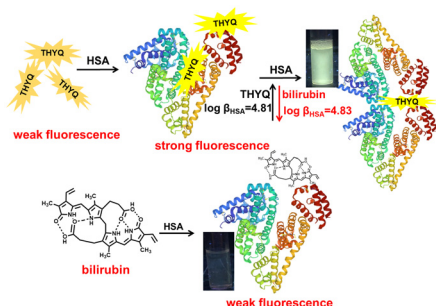
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### A comparison between oestradiol aptamers as receptors in CNT FET biosensors

Erica Cassie, Hamish Dunham, Erica Happe, Hong Phan T. Nguyen, Janet L. Pitman and Natalie O. V. Plank\*

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### Efficient detection of bilirubin in human serum through a displacement approach

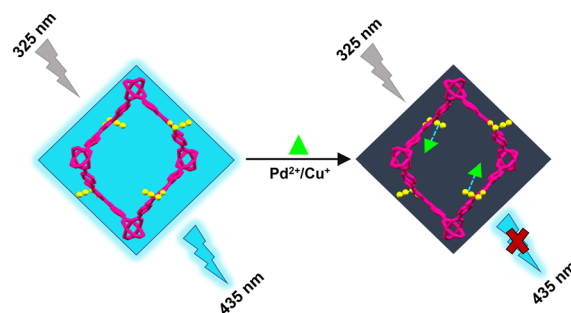
Nancy Singla, Manzoor Ahmad, Vishal Mahajan, Prabhpreet Singh and Subodh Kumar\*



1585

### A Zn-MOF functionalized with alkyne groups: ultrasensitive detection of $\text{Cu}^+$ and $\text{Pd}^{2+}$ ions in aqueous medium

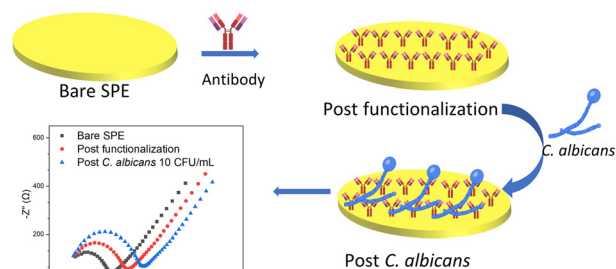
Aashish, Ruchika Gupta and Rajeev Gupta\*



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### Rapid detection of *Candida albicans* in urine by an Electrochemical Impedance Spectroscopy (EIS)-based biosensor

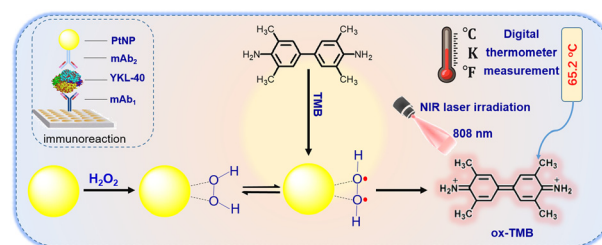
Tina D'Aponte, Maria De Luca, Nikola Sakač, Martina Schibeci, Angela Arciello, Emanuela Roscetto, Maria Rosaria Catania, Vincenzo Iannotti, Raffaele Velotta and Bartolomeo Della Ventura\*



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### Platinum nanozyme-mediated temperature sensor for sensitive photothermal immunoassay of YKL-40 under near-infrared light

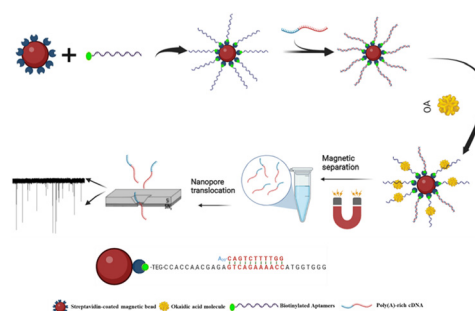
Shaoyang Yu, Qiaohong Ke, Fan Cai, Sisi Gong, Rongfu Huang and Chunmei Fan\*



1612

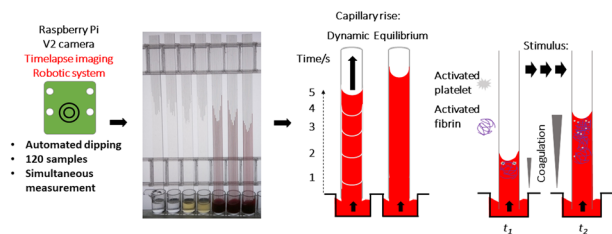
### Highly sensitive solid-state nanopore aptasensor based on target-induced strand displacement for okadaic acid detection from shellfish samples

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



## PAPERS

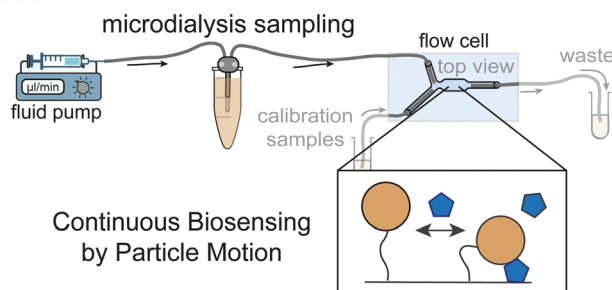
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### Time- and distance-resolved robotic imaging of fluid flow in vertical microfluidic strips: a new technique for quantitative, multiparameter measurement of global haemostasis

Rüya Meltem Sarıyer, Kirandeep Gill, Sarah H. Needs, Daniel Hodge, Nuno M. Reis, Chris I. Jones and Alexander D. Edwards\*

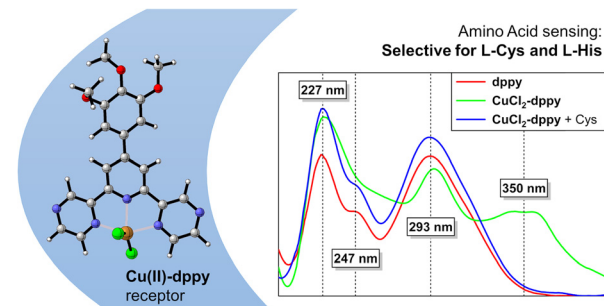
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### Integrated sampling-and-sensing using microdialysis and biosensing by particle motion for continuous cortisol monitoring

Laura van Smeden, Arthur M. de Jong and Menno W. J. Prins\*

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### A simple copper(II) dppy-based receptor for sensing of L-cysteine and L-histidine in aqueous acetonitrile medium

Dipankar Das, Aritra Roy, Sourav Sutradhar, Felipe Fantuzzi\* and Biswa Nath Ghosh\*

## CORRECTION

1658

### Correction: Chemiresistive sensor for breath frequency and ammonia concentration in exhaled gas over a PVA/PANI/CC composite film

Sandeep Kumar, Chandra Shekhar Kushwaha, Pratibha Singh, Kritika Kanojia and Saroj Kr Shukla\*

