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Sensors & Diagnostics

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Cover
See Vagner Bezerra dos Santos, Carlos D. Garcia *et al.*, pp. 1467–1475.
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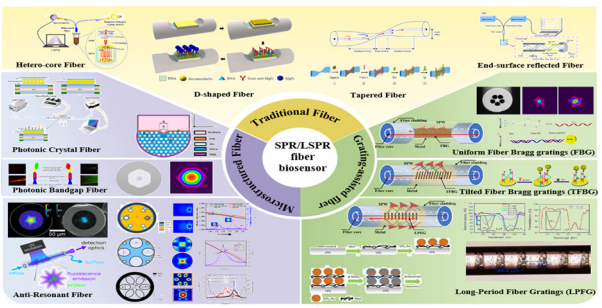
CRITICAL REVIEWS

1369

Recent advances of optical fiber biosensors based on surface plasmon resonance: sensing principles, structures, and prospects

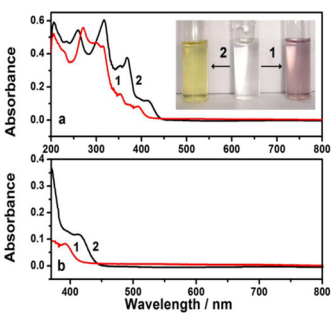
Jingwei Lv, Jianxin Wang, Lin Yang, Wei Liu, Haihao Fu, Paul K. Chu and Chao Liu*



1392

Optimization of solvents, electrolytes, and mediators for polyindole-based electrochemical sensors

P. C. Pandey,* Atul Kumar Tiwari and Roger J. Narayan*



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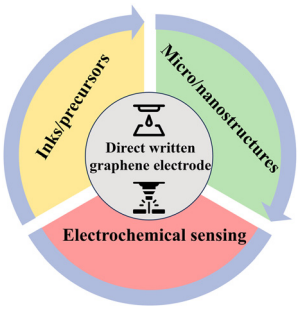
CRITICAL REVIEWS

1406

Direct writing of graphene electrodes for point-of-care electrochemical sensing applications

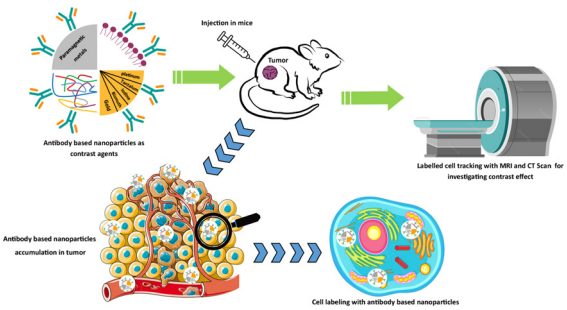
Lei Zhao,* Andrew Piper,* Giulio Rosati* and Arben Merkoçi*



1428

Antibody conjugates as CT/MRI Theranostics for diagnosis of cancers: a review of recent trends and advances

Saba Abaei, Ali Tarighatnia, Asghar Mesbahi and Ayuob Aghanejad*

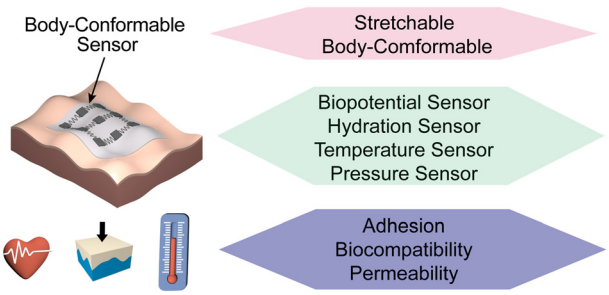


PERSPECTIVE

1442

Stretchable and body-conformable physical sensors for emerging wearable technology

Yong Lin, Weijie Qiu and Desheng Kong*

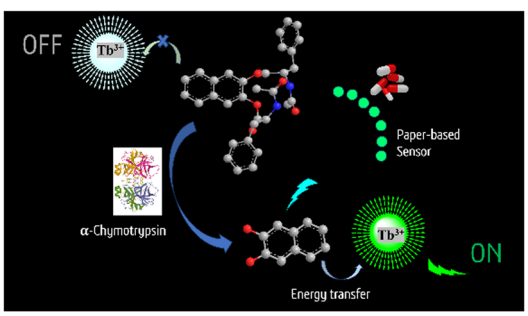


COMMUNICATIONS

1456

Paper-based sensing of pancreatic-cancer biomarker α-chymotrypsin through turn-on lanthanide-luminescence

Ananya Biswas and Uday Maitra*



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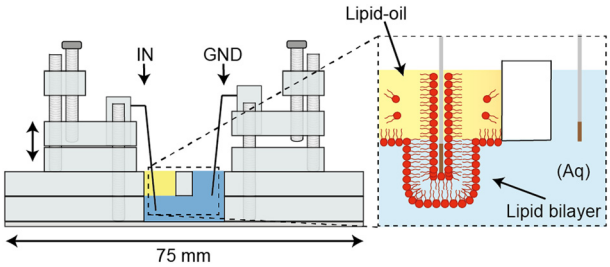
COMMUNICATIONS

1461



A handheld laser-cut device for the size-controlled assembly and electrical characterisation of lipid bilayers

Ji Huang, Yuval Elani and Mark S. Friddin*

PAPERS

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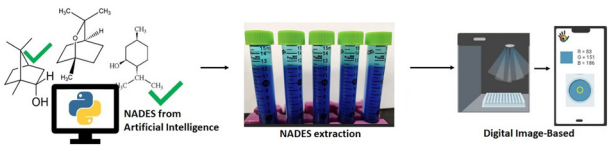
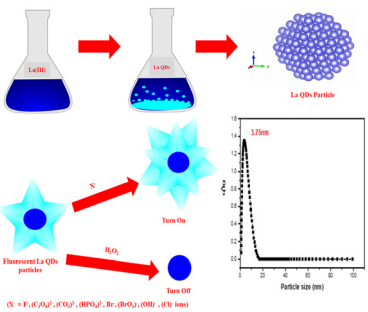


Detection of surfactants using a hydrophobic natural deep eutectic solvent and smartphone

Vagner Bezerra dos Santos,* Lucas B. Ayres, Helayne Santos de Sousa, Carlos D. Garcia* and Willian Toito Suarez

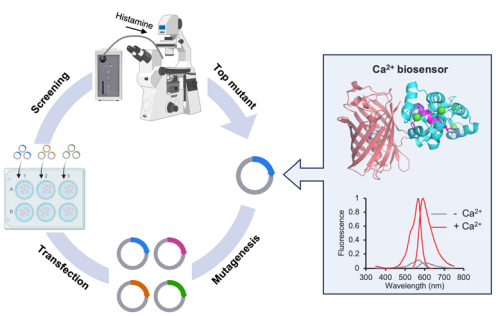
1476



Synthesis and characterization of La QDs: sensors for anions and H_2O_2

Amit Sahoo and Achyuta N. Acharya*

1494



An automated screening platform for improving the responsiveness of genetically encoded Ca^{2+} biosensors in mammalian cells

Yufeng Zhao,* Yi Shen, Teodor Veres and Robert E. Campbell*

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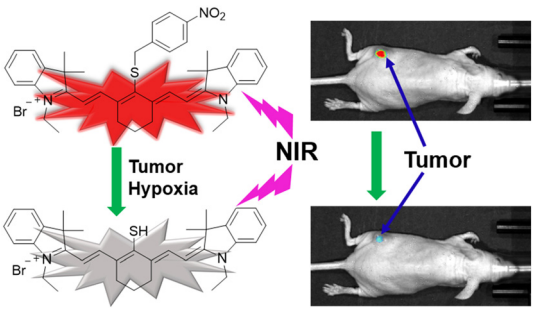
1505

A nitroreductase-sensitive near-IR fluorescent biosensor for detecting tumor hypoxia *in vivo*

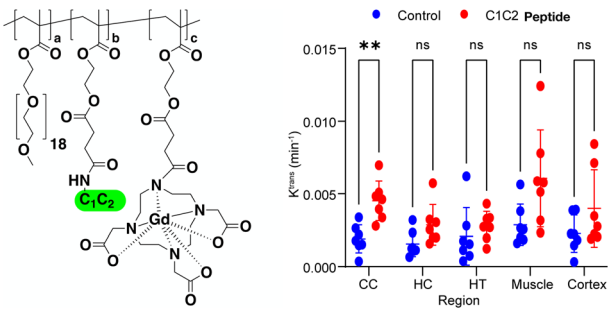
Safiya Nisar and Binglin Sui*



1513

Optimized gadolinium-DO3A loading in RAFT-polymerized copolymers for superior MR imaging of aging blood–brain barrier

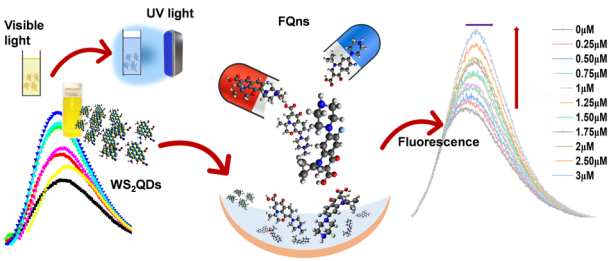
Hunter A. Miller, Aaron Priester, Evan T. Curtis, Krista Hilmas, Ashleigh Abbott, Forrest M. Kievit and Anthony J. Convertine*



1522

Highly efficient WS_2 QD-based non-enzymatic fluorescent biosensor for ofloxacin and ciprofloxacin monitoring in aquatic media

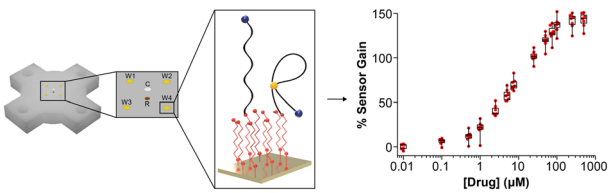
Sunayana Bora* and Chandan Upadhyay



1533

3D-printed electrochemical cells for multi-point aptamer-based drug measurements

John Mack, Raygan Murray, Kenedi Lynch and Netzahualcóyotl Arroyo-Currás*



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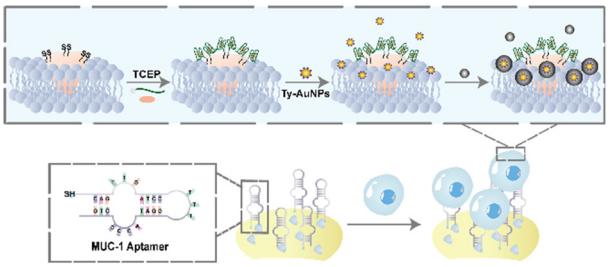
1542



Electrochemical detection of tumor cells based on proximity labelling-assisted multiple signal amplification

Guozhang Zhou, Fei Zhou, Xiaomeng Yu, Daiyuan Zhou, Jiaqi Wang, Bing Bo,* Ya Cao* and Jing Zhao*

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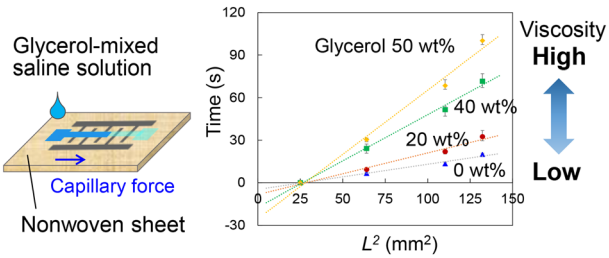

Nonwoven-fabric-based microfluidic devices for solution viscosity measurements

Mayumi Otoba Uno,* Mariko Omori and Kenji Sakamoto

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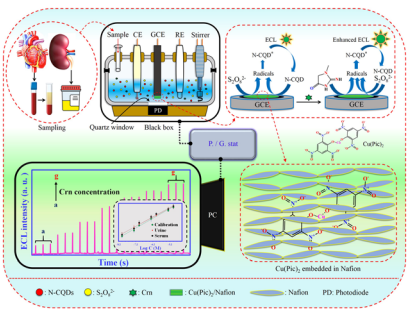

A fast and highly selective ECL creatinine sensor for diagnosis of chronic kidney disease

Hosein Afshary and Mandana Amiri*

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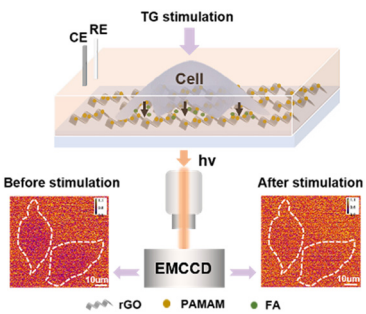

***In situ* interface reaction-enabled electrochemiluminescence imaging for single-cell formaldehyde release analysis**

Juanhua Zhou and Yang Liu*

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