

Sensors & Diagnostics

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Cover

See Shalini Prasad *et al.*, pp. 723–735.
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EDITORIAL

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Introduction to “Lateral Flow Assays: Methods and Applications”

Jing Wang,* Jiangjiang Zhang and Yanmin Ju

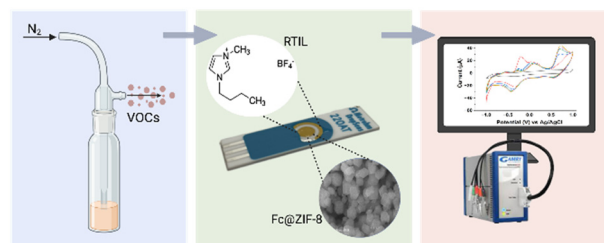


PAPERS

723

Fc@ZeNose platform for the detection of four physiologically relevant breath biomarkers: a case study using ethanol, isopropanol, acetic acid, and acetone

Nikini Subawickrama Mallika Widanaarachchige, Anirban Paul, Sriram Muthukumar and Shalini Prasad*





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Holographic hydrogel bandage sensor for continual monitoring of wound healing

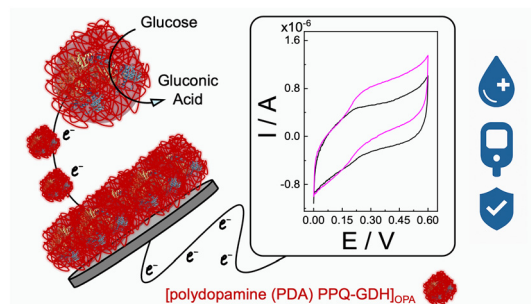
Yihan Zhang, Yubing Hu, Zhenkang Zhu, Yunuen Montelongo, Yanting Liu, Shihabuddeen Waqar, Yoon Soo Park, Leon CZ Chan, Nan Jiang and Ali K. Yetisen*



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One-pot assembling pyrroloquinoline quinone glucose dehydrogenase with polydopamine to overcome the reproducibility issues of layer-by-layer electrode development

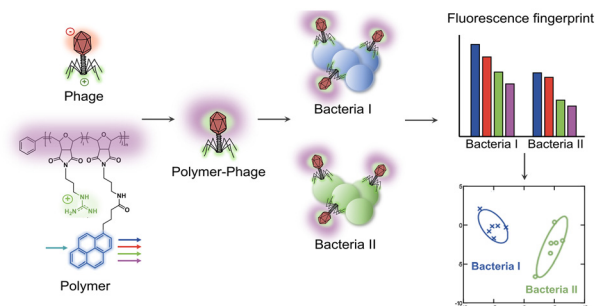
Alessandra Cimino, Shixin Wang, Verdiana Marchianò, Angelo Tricase, Angela Stefanachi, Eleonora Macchia, Blanca Cassano, Luisa Torsi, Xiaoming Zhang* and Paolo Bollella*



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Array-based polymer-phage biosensors for detection and differentiation of bacteria

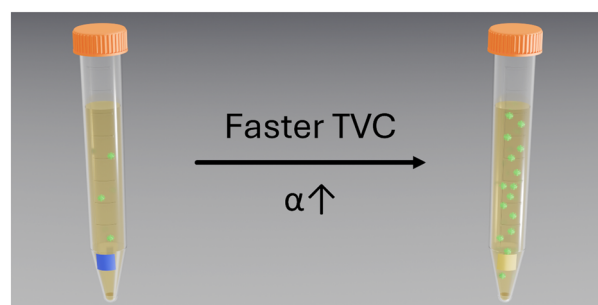
Enkhlin Ochirbat, Junwhee Yang, Aritra Nath Chattopadhyay, Jungmi Park, Mingdi Jiang, Jan Paczesny* and Vincent M. Rotello*



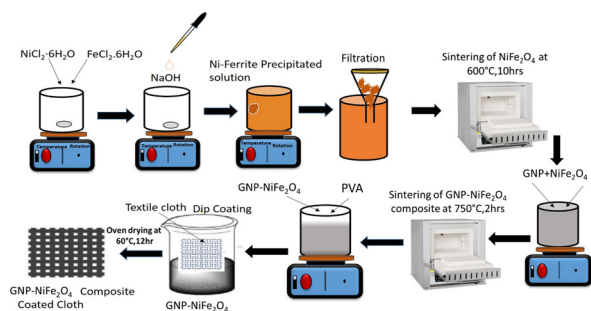
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CO₂-sensitive inks for the rapid measurement of total viable count (TVC) using micro-respirometry

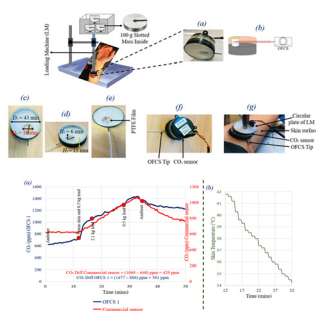
Sean Cross, Christopher O'Rourke and Andrew Mills*



Aqrab ul Ahmad,* Saima Qureshi,* Mitar Simić,
Hafiz Abdul Mannan, Sonam Goyal,
Francis Leonard Deepak and Goran M. Stojanović



Nadia Afroze, Serhiy Korposh,* Ricardo Correia,
Peter R. Worsley, Barrie R. Hayes-Gill, Seung-Woo Lee
and Stephen P. Morgan



The schematic diagram illustrates the proposed electrochemical sensor for methotrexate detection. It is divided into three main parts:

- Electrode Preparation:** The first part shows the preparation of the $\text{NiMn}_2\text{O}_3/\text{CNT-GCE}$ electrode. A porous NiMn_2O_3 structure is shown being deposited onto a carbon paste electrode (CPE) surface.
- Detection of Methotrexate:** The second part shows the detection of methotrexate in biofluids. Methotrexate molecules (represented by a ball-and-stick model) are shown interacting with the electrode surface. A red arrow indicates the detection process.
- Cyclic Voltammograms:** The third part shows the cyclic voltammograms (CVs) recorded for the detection of methotrexate. The plot shows Current (μA) versus Potential (V vs. Ag/AgCl). The potential range is from 0.6 to 1.2 V. The current range is from 0 to 25 μA . The CVs are recorded for different concentrations of methotrexate: 0.05 μM (blue curve) and 3.0 μM (red curve). The inset shows the CVs for 0.05 μM and 3.0 μM methotrexate.

Nasir Abbas and Tae Hyun Kim*