

Article

# A Microfluidic Platform with an Embedded Miniaturized Electrochemical Sensor for On-Chip Plasma Extraction Followed by In Situ High-Sensitivity C-Reactive Protein (hs-CRP) Detection

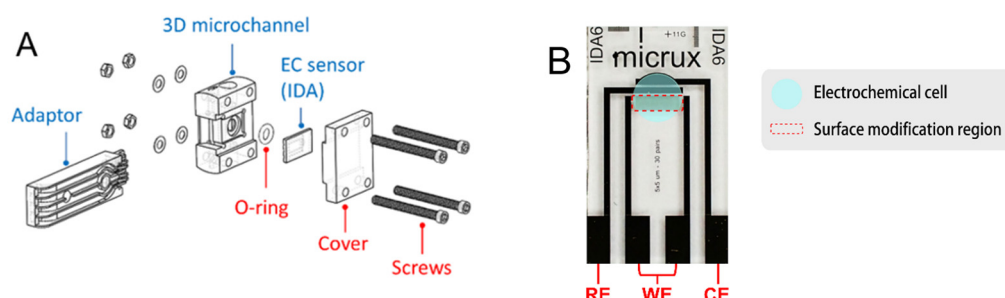
Zhi-Xuan Lai <sup>1</sup>, Chia-Chien Wu <sup>1</sup> and Nien-Tsu Huang <sup>1,2,\*</sup>

<sup>1</sup> Graduation Institute of Biomedical Electronics and Bioinformatics, National Taiwan University, Taipei 10617, Taiwan

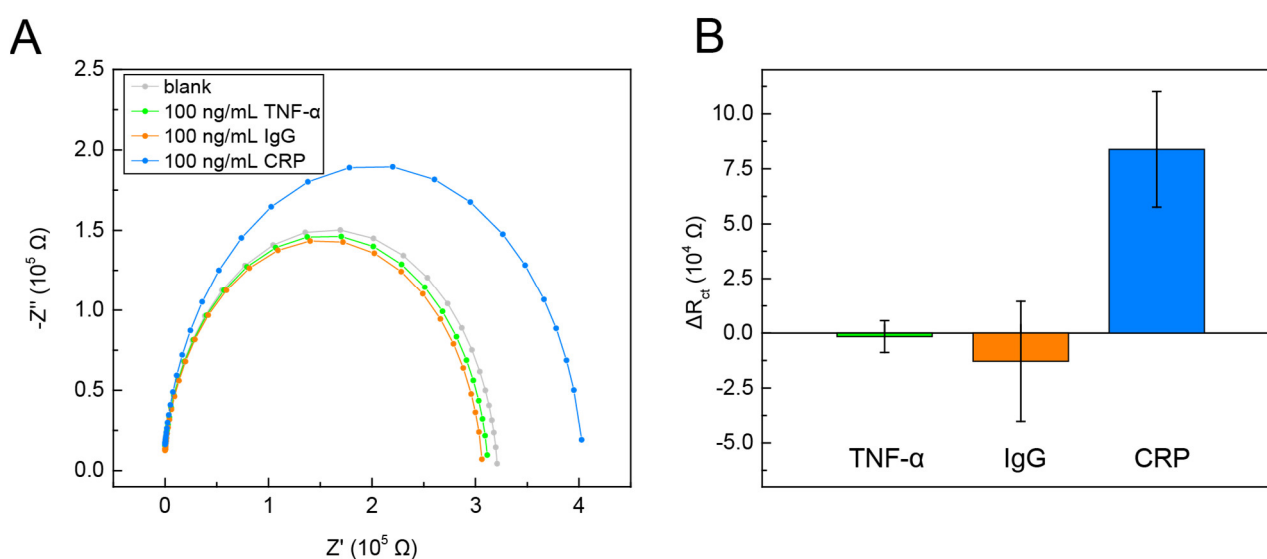
<sup>2</sup> Department of Electrical Engineering, National Taiwan University, Taipei 10617, Taiwan

\* Correspondence: nthuang@ntu.edu.tw

## Electronic supplementary information (ESI)



**Figure S1.** (A) An exploded view of the 3D microchannel with an embedded EC sensor. (B) A photo of the EC sensor with the three-electrode layout. WE, CE, and RE denote the working, counter, and reference electrodes, respectively.



**Figure S2.** The EC sensor specificity test: (A) the Nyquist plots of the EIS measurements, and (B) the  $\Delta R_{ct}$  values ( $n = 3$ ) of CRP, IgG, and TNF- $\alpha$ .