

# Magnetic Bead-Based Electrochemical Immunoassays On-Drop and On-Chip for Procalcitonin Determination: Disposable Tools for Clinical Sepsis Diagnosis

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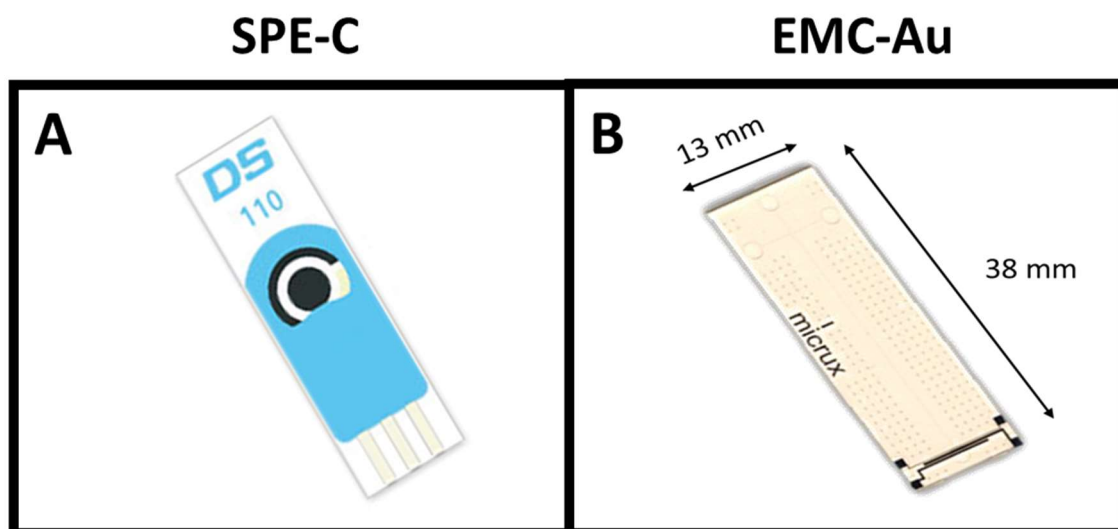
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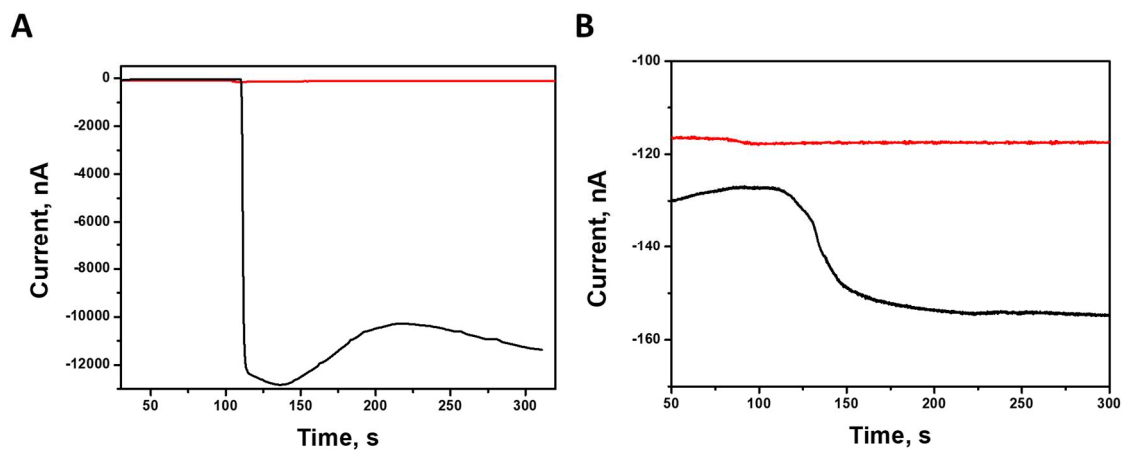
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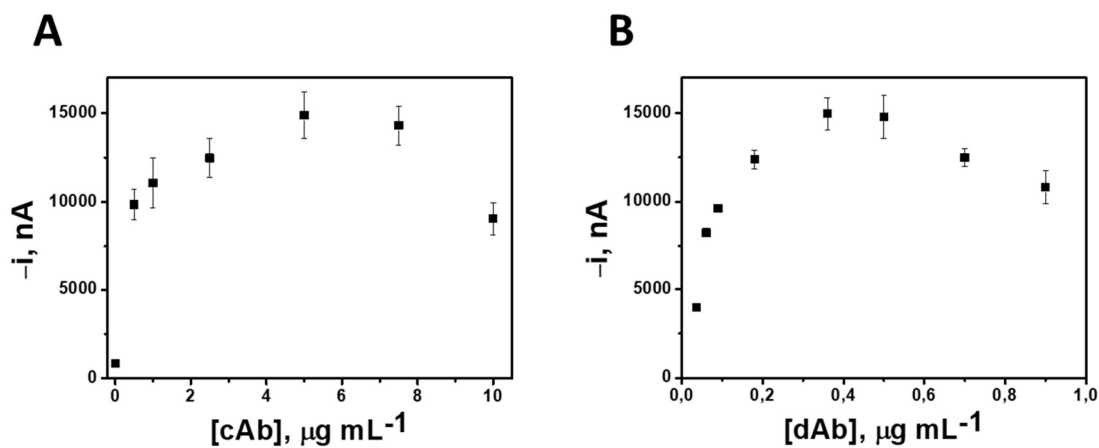
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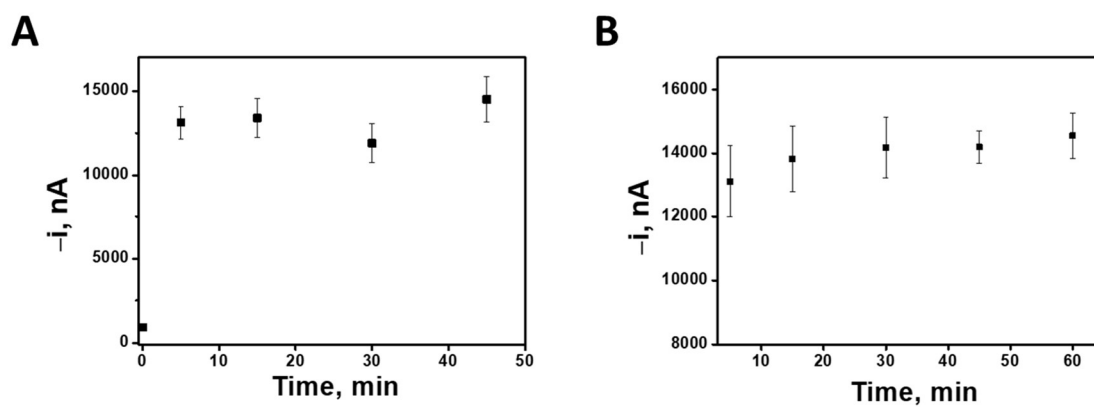
**Figure S1.** Electrochemical devices for immunoassay electrochemical detection: A) disposable SPE-C for *on-drop* approach and B) EMC-Au for *on-chip* approach.



**Figure S2.** Amperometric detection of the mediated reduction of  $\text{H}_2\text{O}_2$  with HQ using *on-drop* (A) and *on-chip* (B) approaches in the **absence** and **presence** of PCT; [PCT] =  $100 \text{ ng mL}^{-1}$  (A),  $0.5 \text{ ng mL}^{-1}$  (B).



**Figure S3.** Current signals obtained for different concentrations of capture antibody (cAb) (A) and detection antibody (dAb) (B) using the *on-drop* SPE-C approach. Conditions: incubation time = 60 minutes each stage; PCT concentration  $1000 \text{ ng mL}^{-1}$ .



**Figure S4.** Current signals obtained for different incubation times in the immobilization of capture antibody (cAb) (A) and binding of detection antibody (dAb) (B) using the *on-drop* SPE-C approach. Conditions: cAb = 5  $\mu\text{g mL}^{-1}$ ; dAb = 0.36  $\mu\text{g mL}^{-1}$ ; PCT concentration 1000  $\text{ng mL}^{-1}$ .