Supporting Information

Electrochemical molecularly imprinted microfluidic paper- based chip for detection of inflammatory biomarkers IL-6 and PCT

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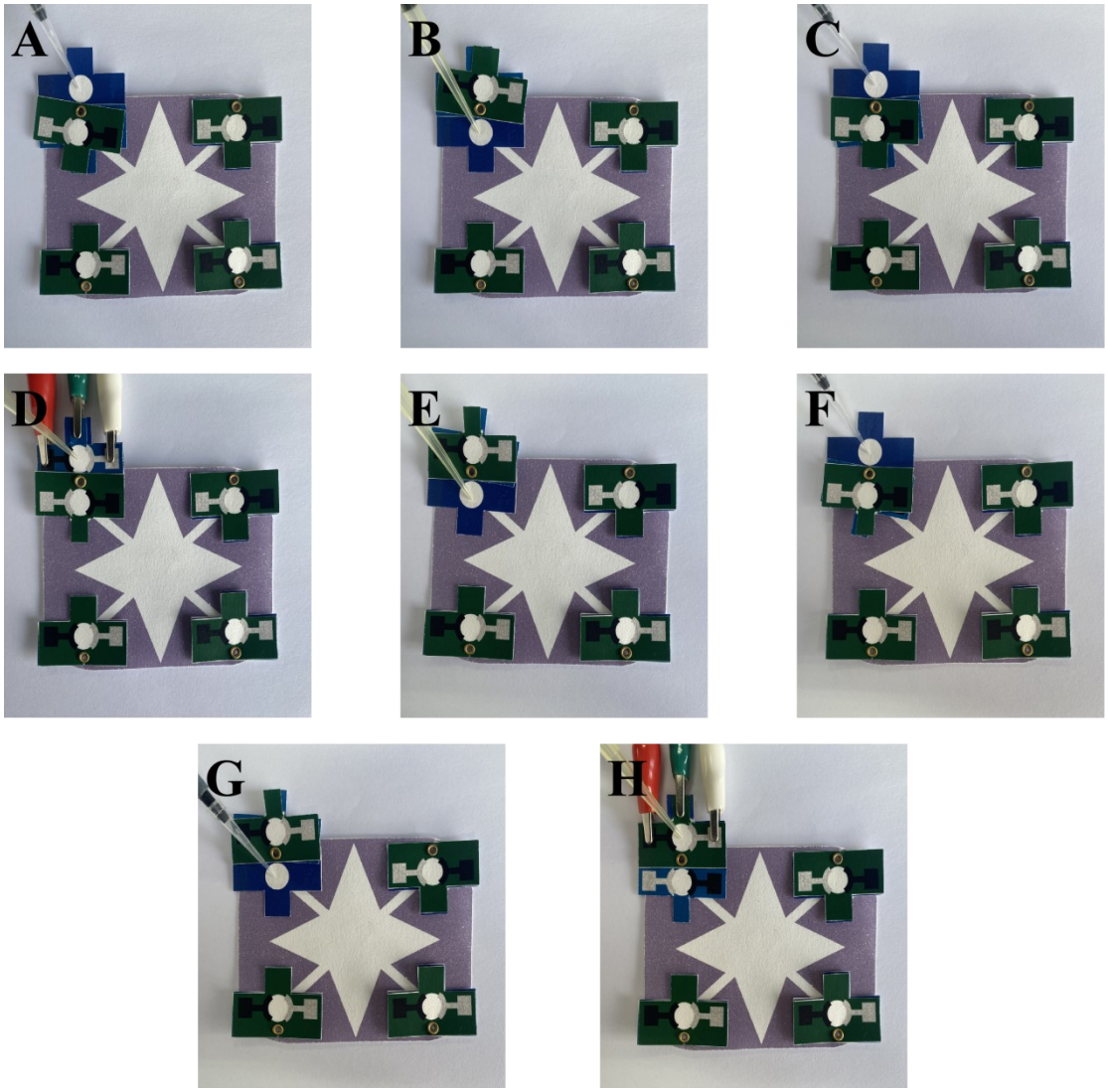

Figure S1. MIP-ePADs actual operation (A) Add conductive materials (GO, chitosan, glutaraldehyde) to the working electrode pool. (B) Rotate the working electrode pool to the top of the cleaning pool and clean it with DD water. (C) Rotate the working electrode part to the position shown in the figure, and add the template protein to the working electrode pool. (D) Rotate the reference/counter electrode part (synthesis part) onto the working electrode pool, add dopamine and perform electropolymerization. (E) Rotate the working electrode pool to the top of the cleaning pool, and use buffer to elute the template protein. (F) Rotate the working electrode part to the position shown

in the figure, and add different concentrations of the test solution to the working electrode pool. (G) Rotate the working electrode pool to the top of the cleaning pool and wash with PBS (10mM, pH=7.4). (H) Rotate the reference/counter electrode part (detection part) onto the working electrode pool and add 15 μL $[Fe(CN)_6]^{3-/4-}$ for DPV test.

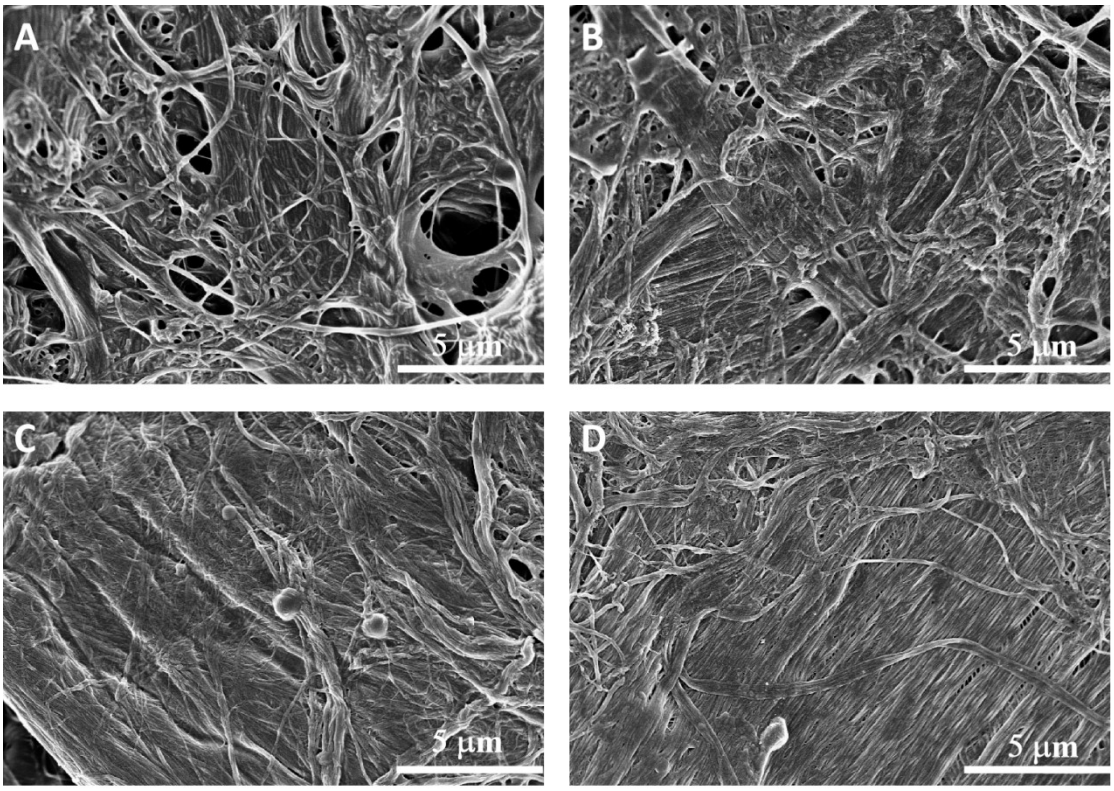

Figure S2. SEM pictures of MIP-ePADs using IL-6 template (A) is a bare paper electrode, (B) is 5 cycles of electropolymerization, (C) is 15 cycles of electropolymerization, and (D) is 20 cycles of electropolymerization)