

**A novel bimetallic MOFs combined with gold nanoflakes in electrochemical sensor for  
measuring bisphenol A**

*(Supplementary)*

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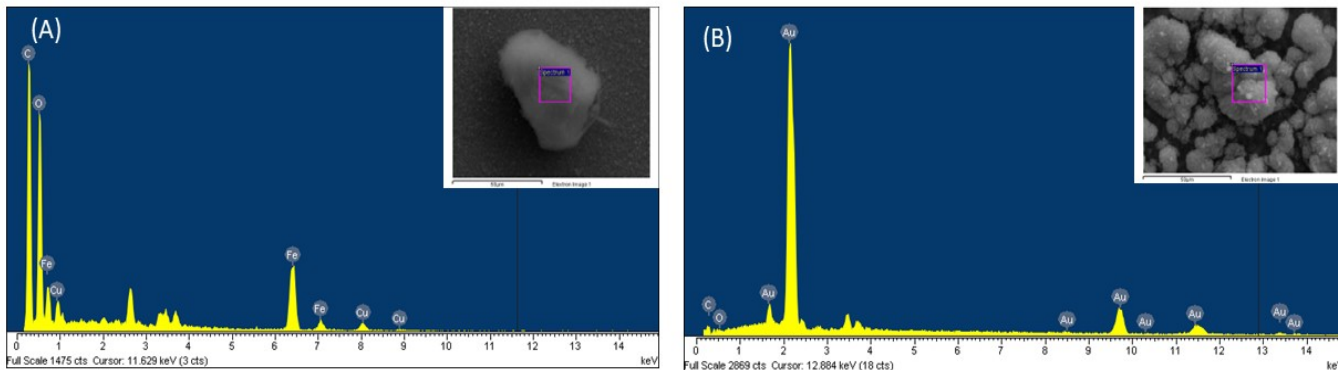
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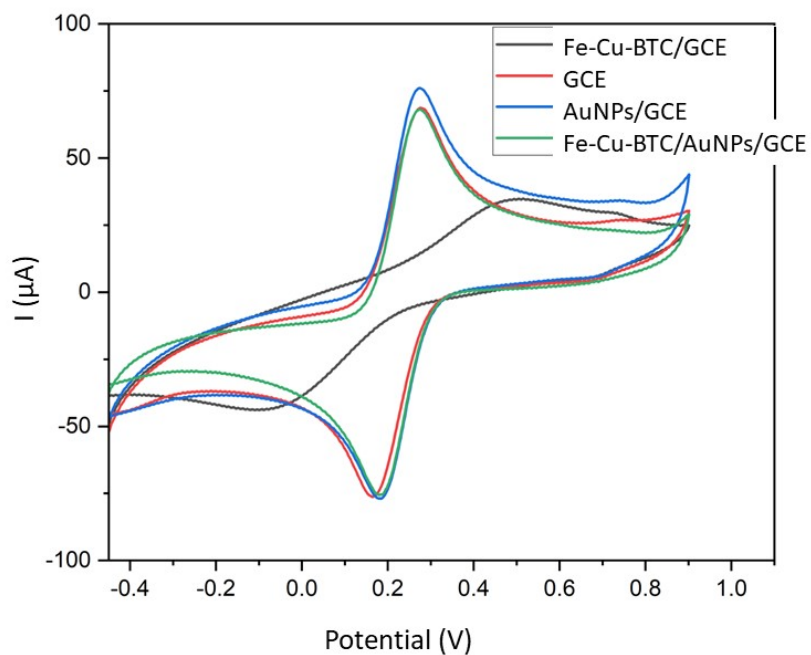
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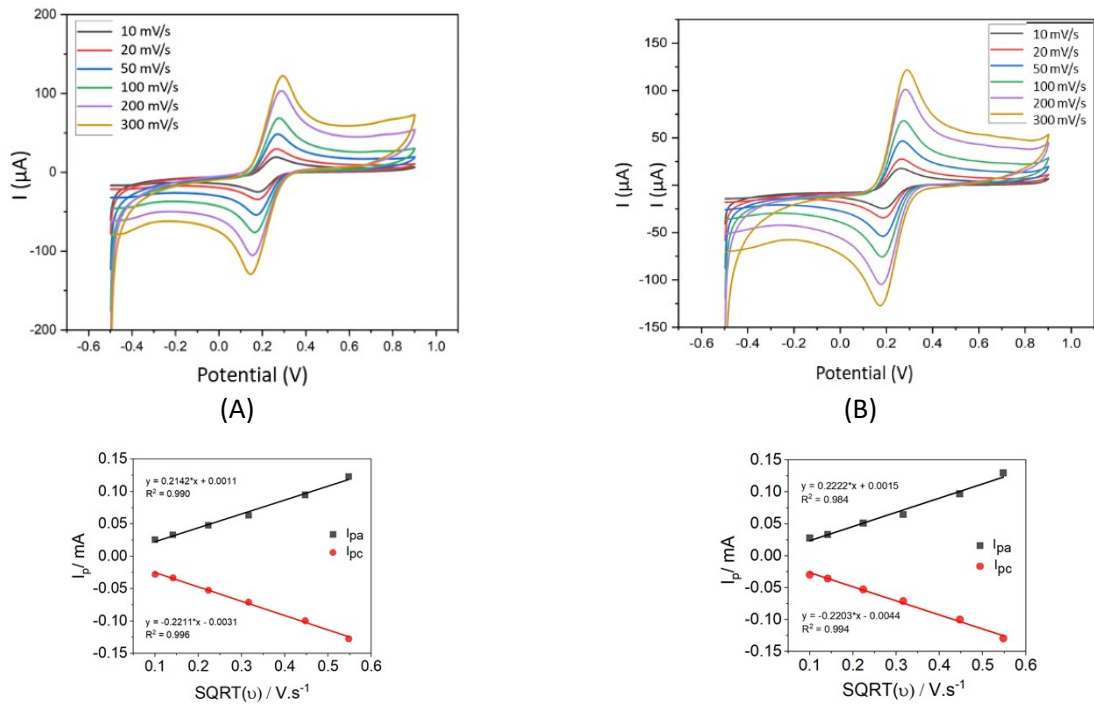
**Fig. S1** EDS spectrum of Fe-Cu-BTC sample



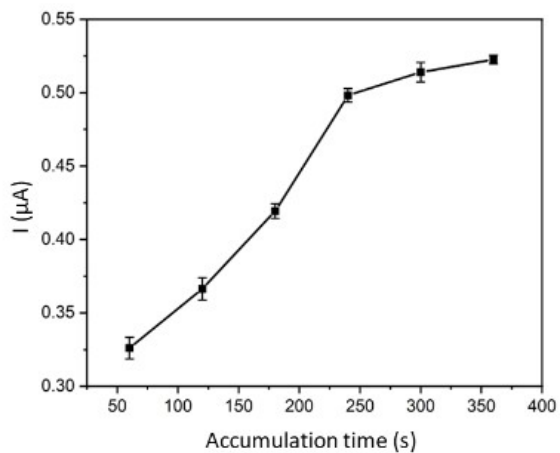
**Fig. S2** EDS spectrum of Fe-Cu-BTC and Fe-Cu-BTC/AuNPs sample on GCE



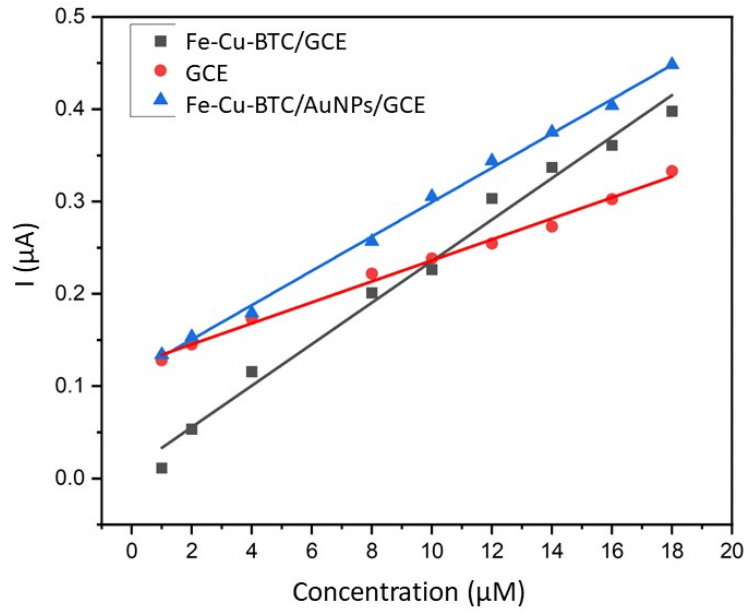
**Fig. S3** CVs of bare GCE, Fe-Cu-BTC/ GCE, AuNPs/GCE and Fe-Cu-BTC/AuNPs/GCE from - 0.3V - 0.9V in  $K_3Fe(CN)_6$  5mM/ PBS 0.1M, pH 7



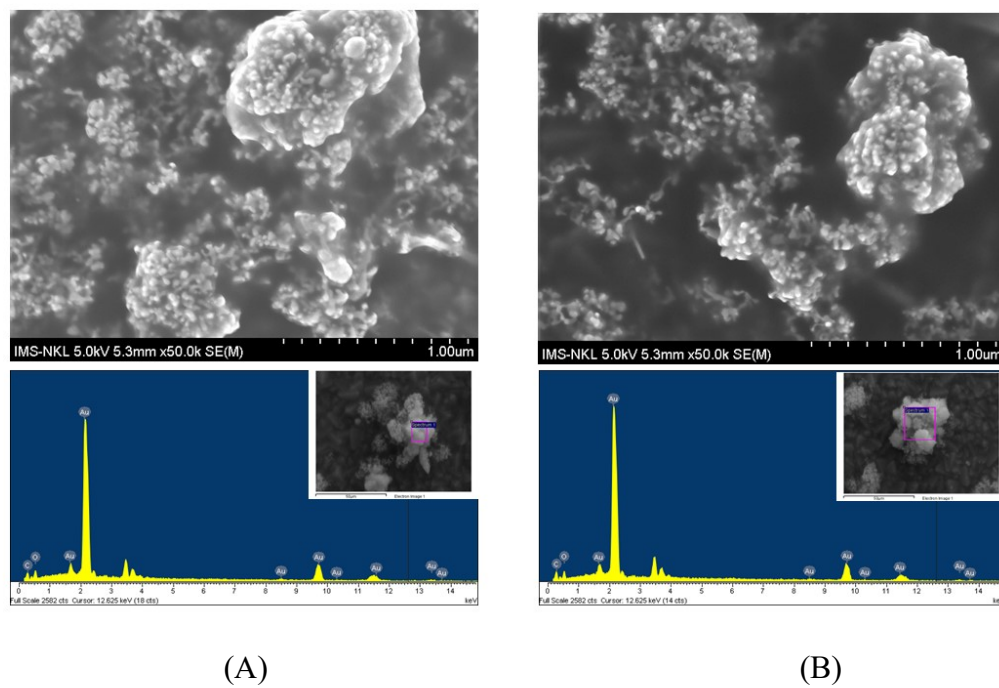
**Fig. S4.** CVs of GCE (A) and Fe-Cu-BTC/AuNPs/GCE (B) in 5mM  $K_3Fe(CN)_6/K_4Fe(CN)_6$  + 0.1M KCl at different scan rates and relationship between  $I_{pa}$ ,  $i_{pc}$  and square roots of scan rates



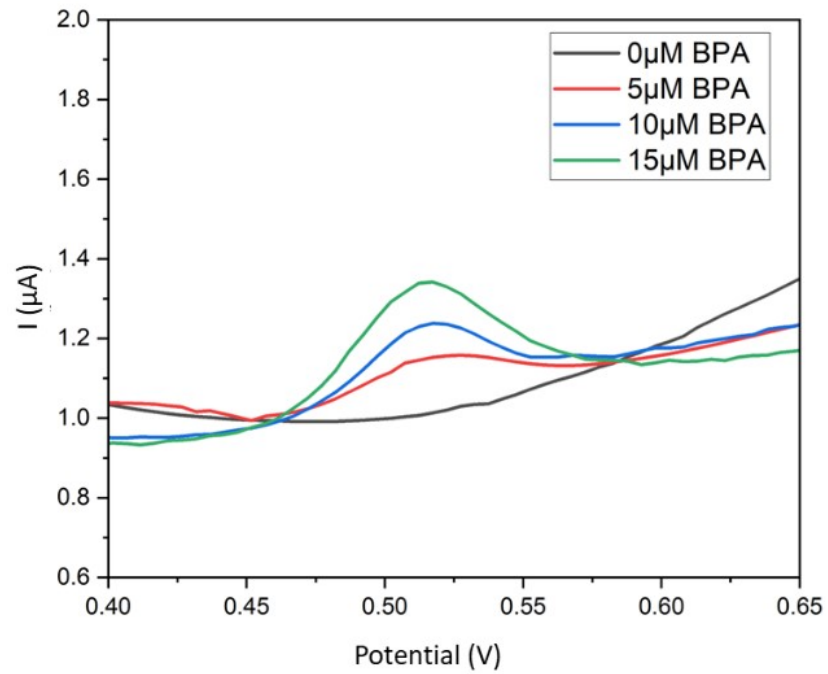
**Fig. S5** Effects of accumulation time of BPA on DPV current



**Fig. S6** The relationship between current concentration recorded on GCE, Fe-Cu-BTC/GCE and Fe-Cu-BTC/AuNPs/GCE



**Fig. S7** The SEM and XRD of the Fe-Cu-BTC/AuNPs composite before (A) and after (B) BPA measurement



**Fig. S8** Voltammograms of sample extracted from rain coat spiked BPA at different concentrations recorded on Fe-Cu-BTC/AuNPs/GCE sensor