-Supporting information-

An Electrochemical Sensor Based on Gold and Bismuth Bimetallic Nanoparticles Decorated L-Cysteine Functionalized Graphene Oxide Nanocomposites for Sensitive Detection of Iron Ions in Water Samples

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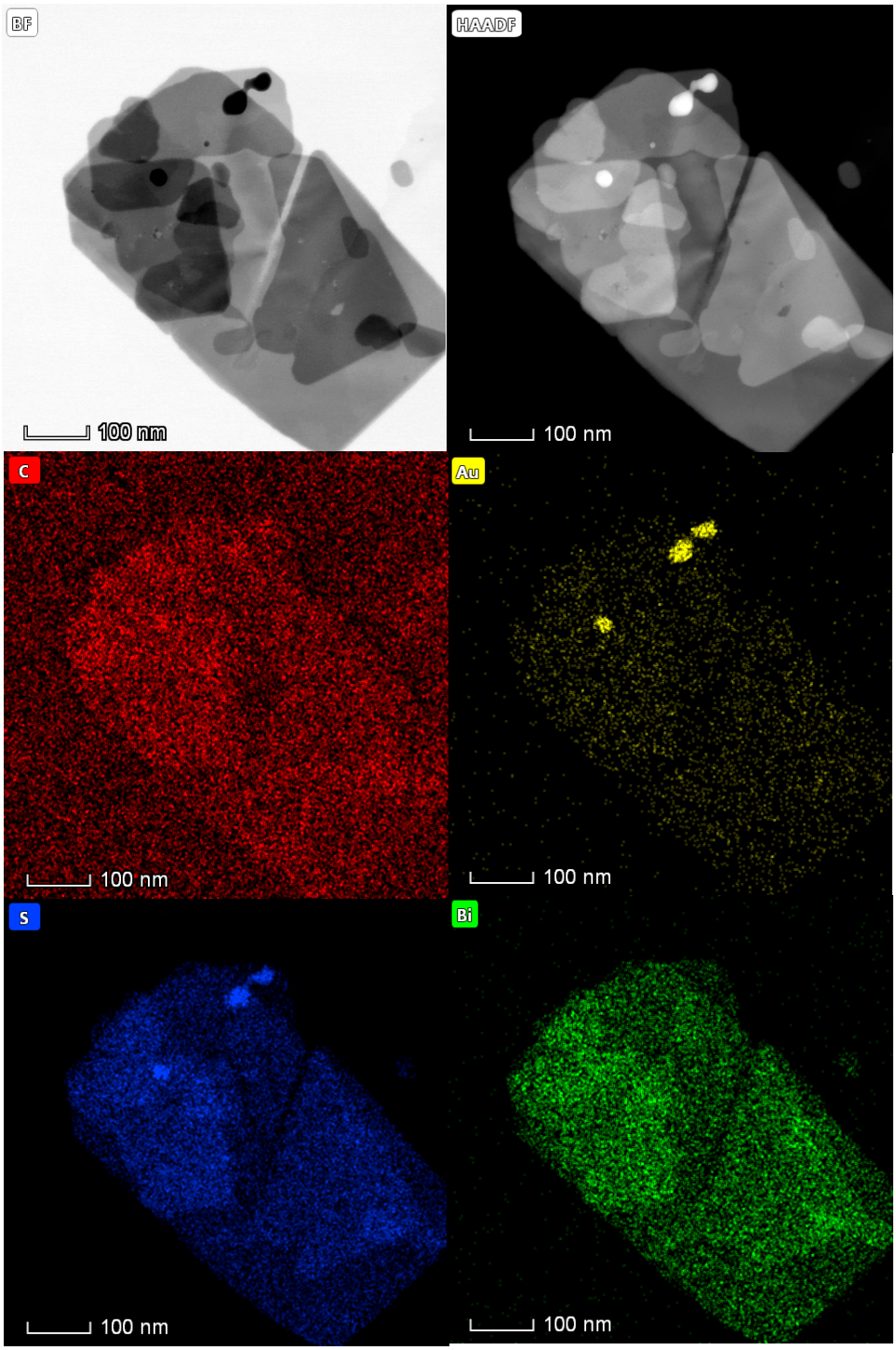

Figure S1. Elemental mapping of C, Au, S, and Bi element distribution, respectively.

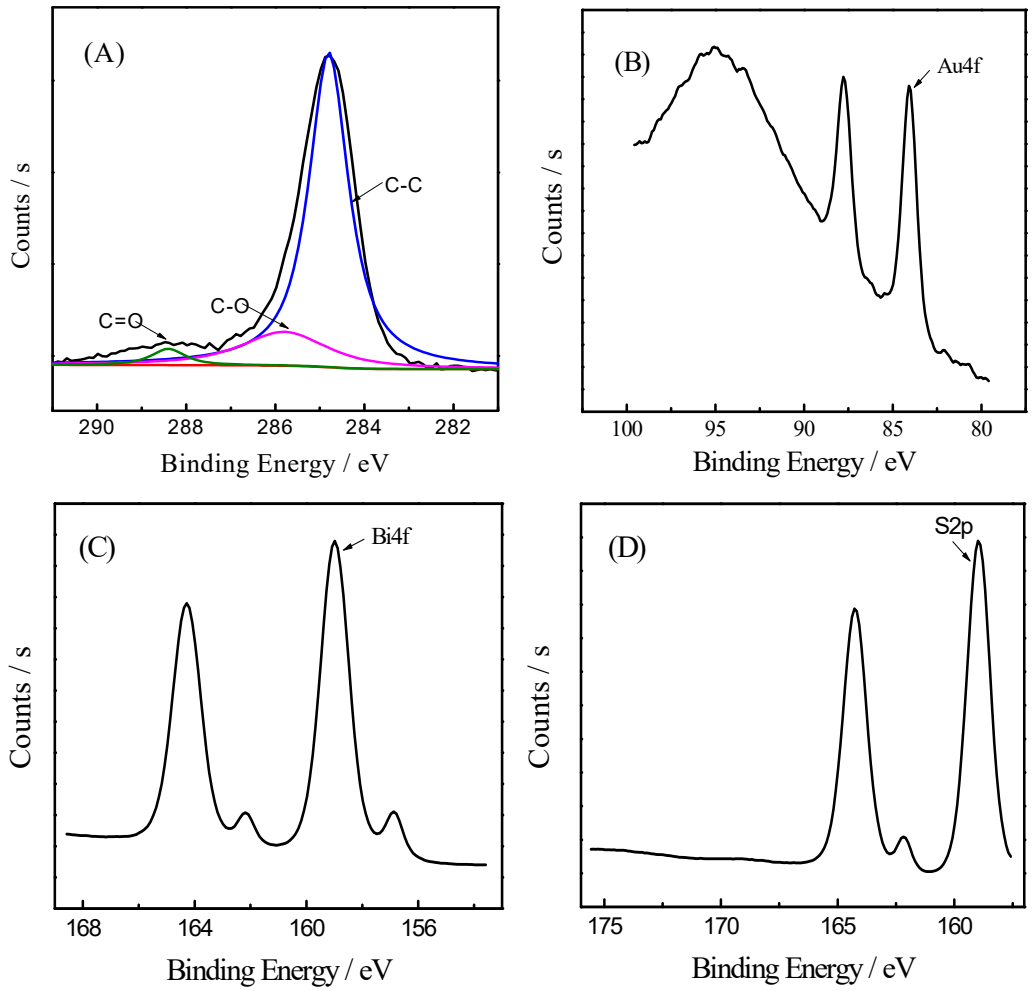

Figure S2. XPS survey spectrum of (**A**) C1s (**B**) Au4f (**C**) Bi4f and (**D**) S2p.

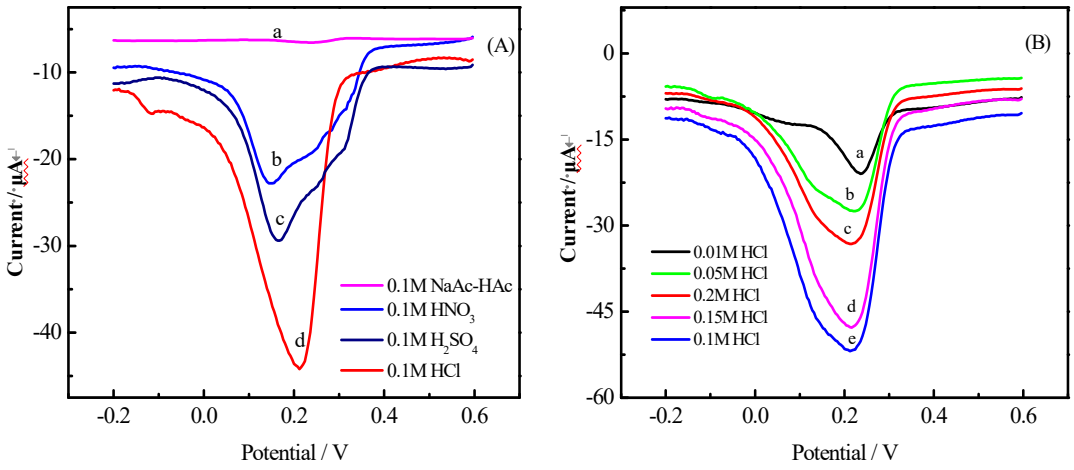

Figure S3. (**A**) SWV measurements of 5 μM Fe(III) at Au-BiNPs/SH-GO/GCE in different electrolytes. 0.1 M HAc-NaAc (a), 0.1 M HNO_3 (b), 0.1 M H_2SO_4 (c) and 0.1 M HCl (d)； (**B**) Effect of the concentration of HCl solution on the peak of Fe(III) at Au-BiNPs/SH-GO/GCE.