SUPPLEMENTARY MATERIAL

A novel amperometric inhibition biosensor based on HRP and gold sononanoparticles immobilized onto Sonogel-Carbon electrode for the determination of sulfides

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Figure S1. Evolution of the UV–Vis absorption spectrum of AuSNPs, over two weeks after the synthesis.

Figure S2. Transmission electron microscope (TEM) image of gold sononanoparticles (AuSNPs).

Figure S3. Size distribution histogram of synthesized gold sononanoparticles.

Figure S4. XRD pattern of dried gold sononanoparticles.

Figure S5. Influence of the pH on the degree of inhibition I (%) of 0.7 μM of Na_2S at the (HRP+PVPy+AuSNPS)/ SNGCE electrode. Experimental conditions: electrolyte, 50 mM of sodium acetate buffer, pH = 6.0, containing 0.1 mM of H_2O_2 and 10 μM of caffeic acid; applied potential, -0.15 V vs. Ag/AgCl.

Figure S6. Effect of substrate concentration on the degree of inhibition I (%) of 0.7 μM of Na₂S at the (HRP+PVPy+AuSNPS)/ SNGCE electrode. Experimental conditions: electrolyte, 50 mM of sodium acetate buffer, pH = 6.0; applied potential, -0.15 V vs. Ag/AgCl.