Electronic Supplementary Material (ESI) for Environmental Science: Nano.

Electrochemical DNA sensing strategy based on strengthening electronic conduction and signal amplifier carrierof nanoAu/MCN composited nanomaterials for sensitive lead detection

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FIGURE LEGENDS:

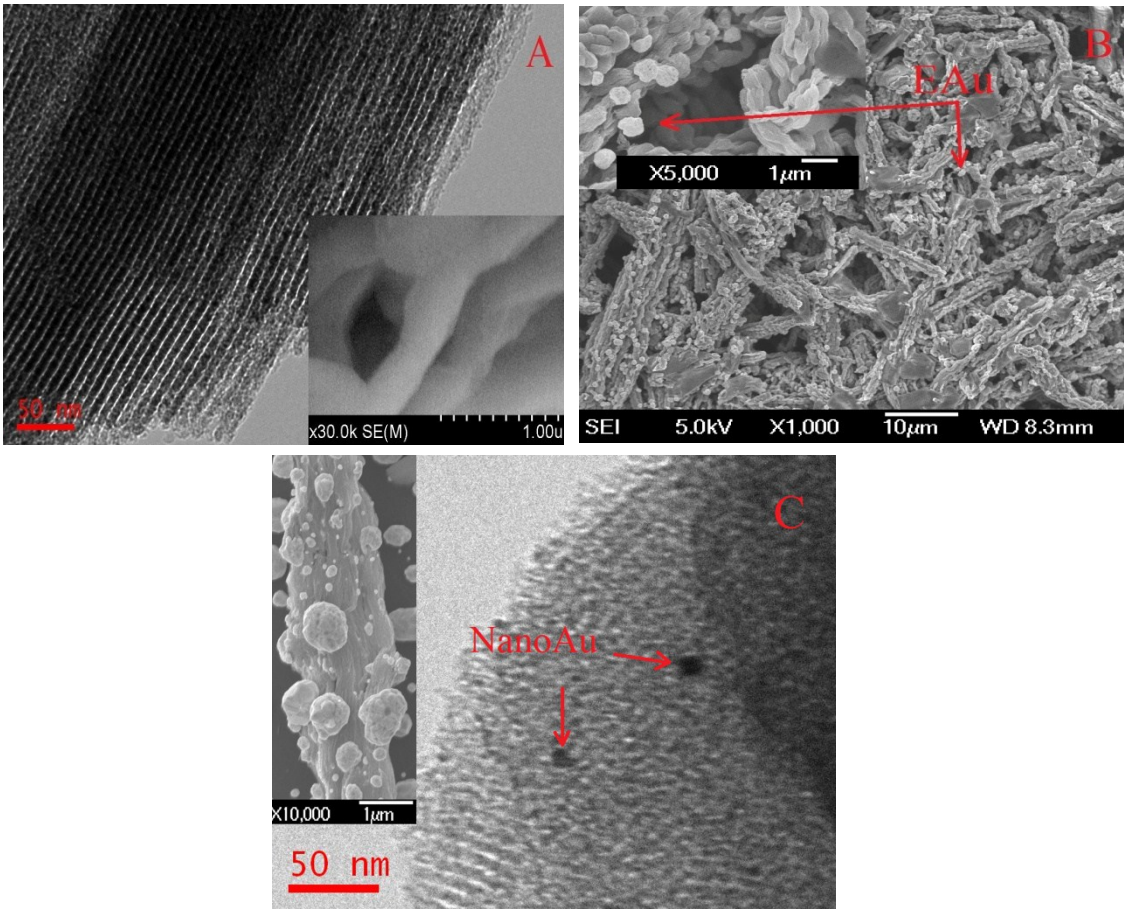
Figure S1. Morphology of the nanomaterial: (A) MCN (TEM and SEM), (B) EAu (SEM), (C) nanoAu/MCN (TEM and SEM).

Figure S2. Nitrogen adsorption–desorption isotherms and the corresponding pore distribution curves of MCN.

Figure S3. Cyclic voltammograms of bare, MCN, EAu/MCN, DNA/EAu/MCN modified electrode in 10 mM KCl solution containing 5.0 mM ferricyanide at a scan rate of 50 mV/s.

Figure S4. The MB current signals on the modified electrode at electrodeposition EAu times (A); Pb^{2+} reaction times (B); the current signals in different pH solution(C); S1 was hydrolyzed temperature (D), upon exposure to 1.0×10^{-12} M Pb^{2+} in 10 mM Tris-HCl with 10.0 mM KCl. The bars represent the standard deviations of the mean values (n=3).

Figure S5. The MB adsorption condition of nanoAu/MCN: (A) pH, (B) ion, (C) temperature, (D) reaction time in 10 mM Tris-HCl with 10.0 mM KCl. The bars represent the standard deviations of the mean values (n=3).



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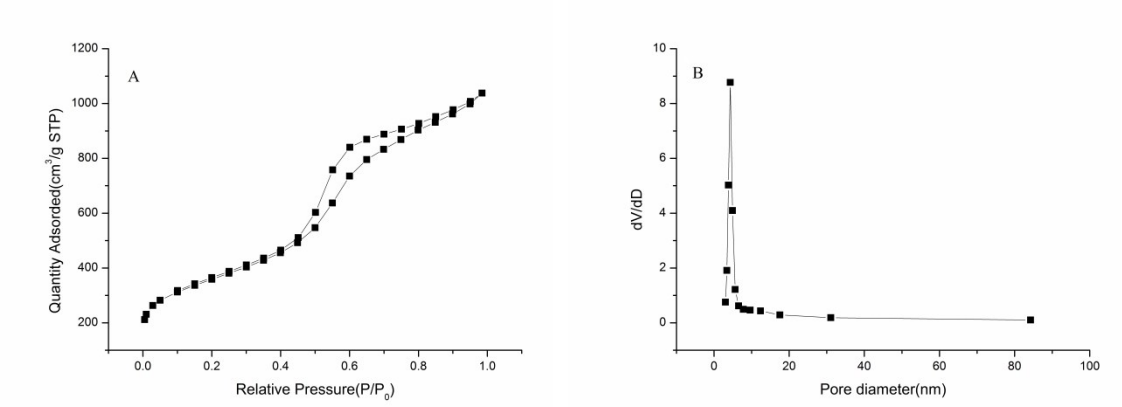

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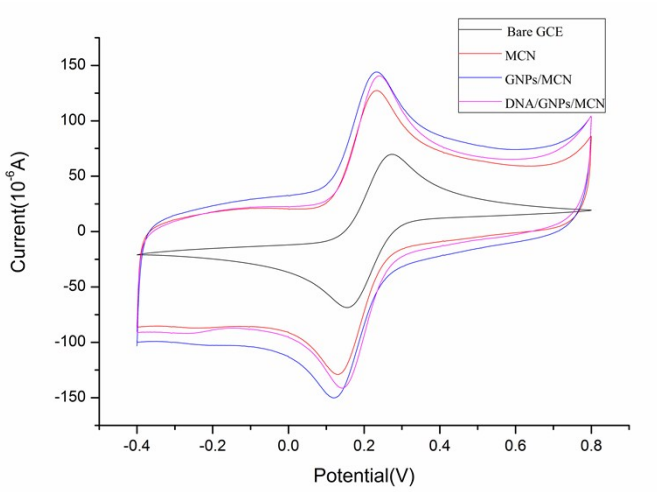

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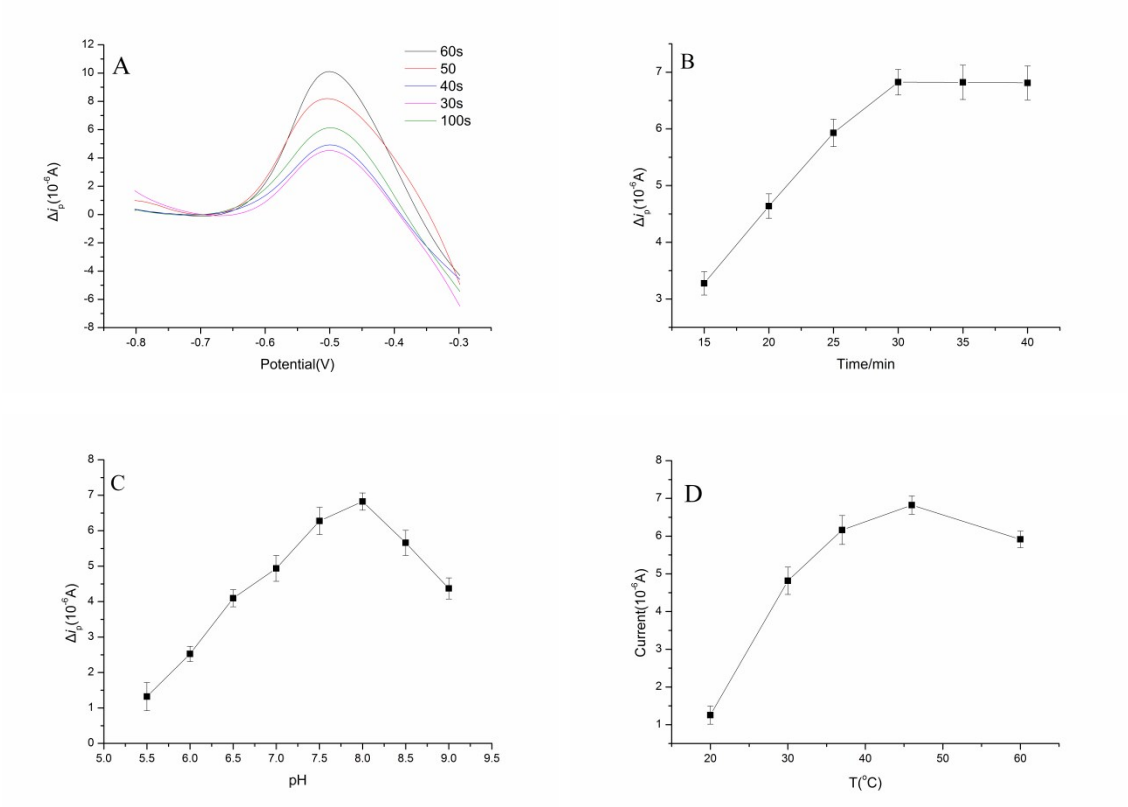

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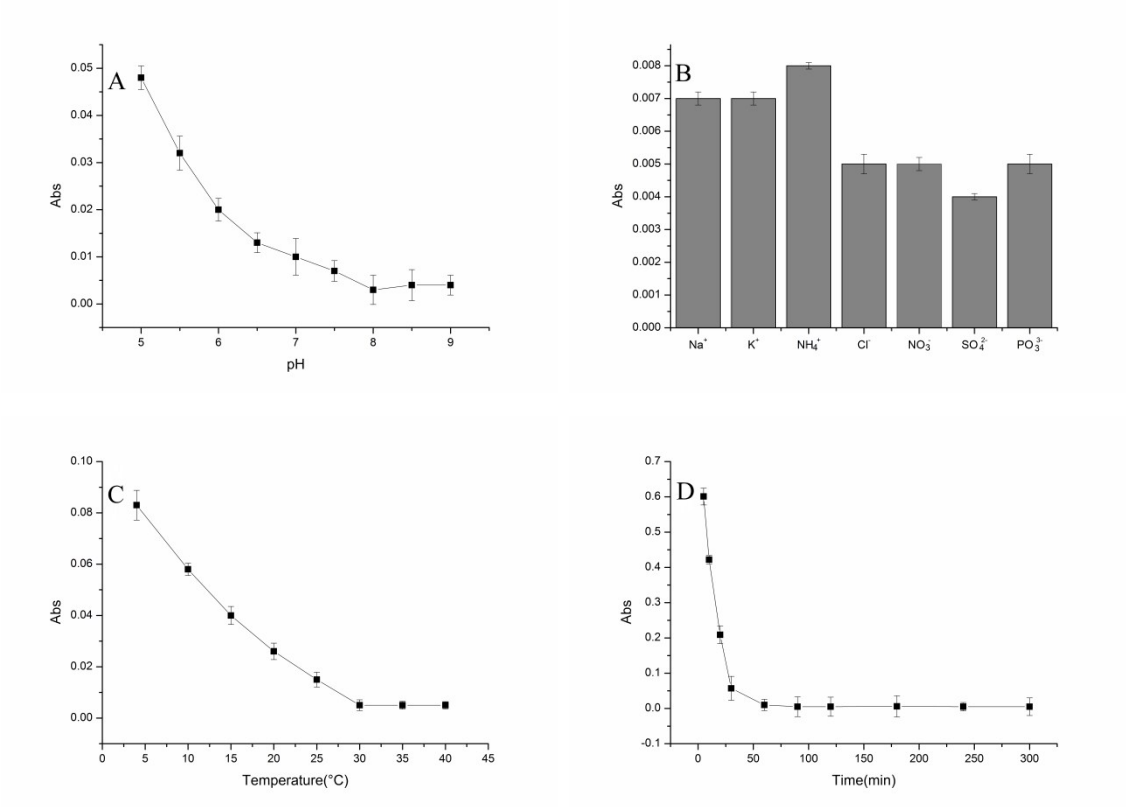

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