

Supplementary Information for  
**Controllable synthesis of three-dimensional nitrogen-doped  
hierarchical porous carbon and its application in detection  
for lead**

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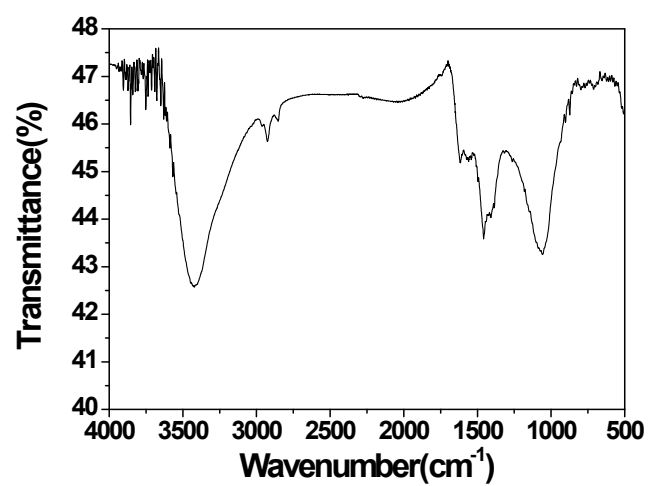


Fig. S1 FT-IR of the N-HPC

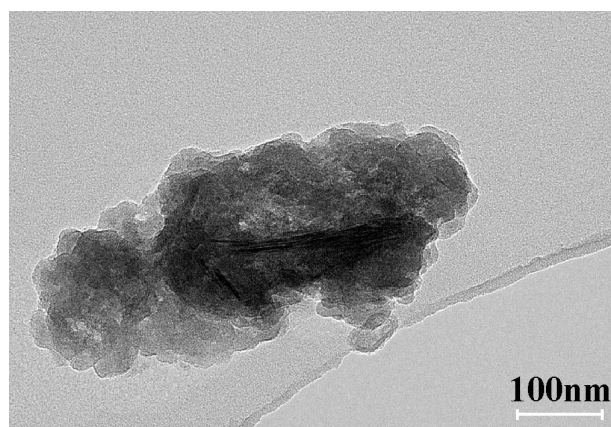


Fig. S2. TEM of N-HPC

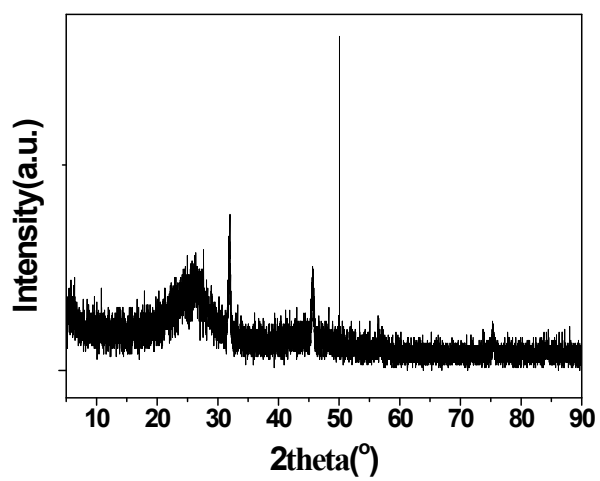
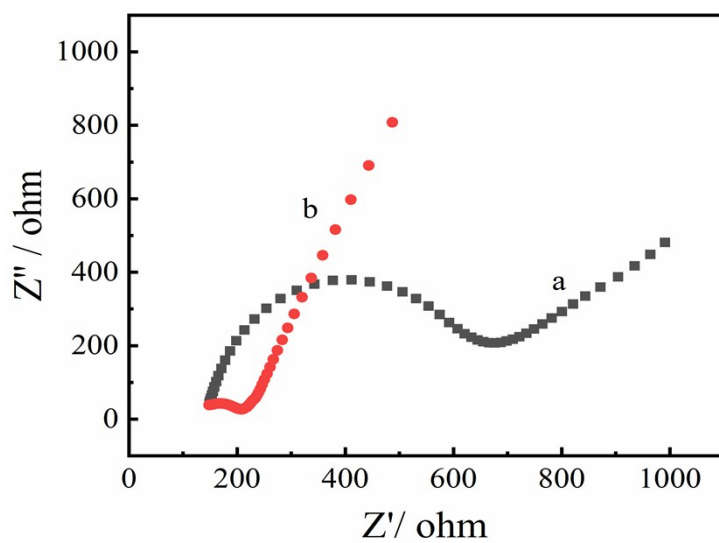
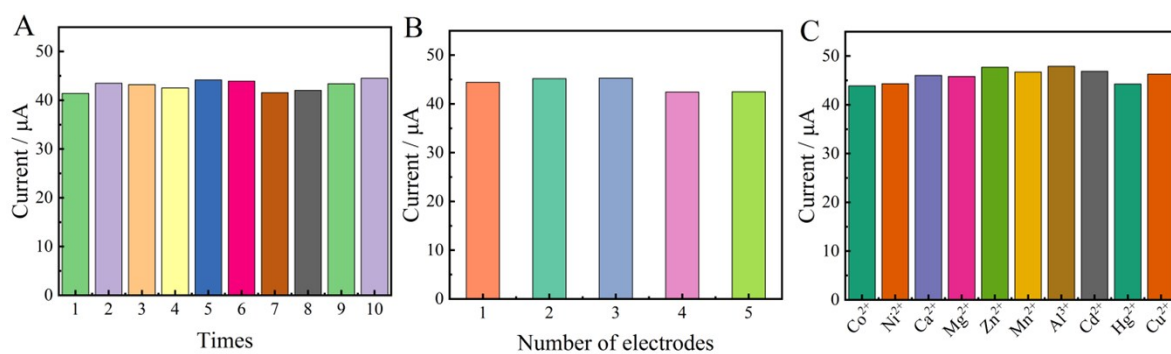


Fig. S3. XRD pattern of the N-HPC



**Fig. S4.** Nyquist plots at bare GCE (a) and N-HPC/GCE (b) and in a solution of 5 mM  $[\text{Fe}_3(\text{CN})_6]$  and 0.1 M KCl with the frequencies from 0.1 to 10000 Hz; Potential: 0.25 V; Amplitude: 0.005 V.



**Fig.S5** The repeatability (A), reproducibility (B) and (C) interferences of N-HPC/GCE