

Supporting materials for

Triple Layered Core-Shell ZVI@Carbon@Polyaniline Composites Enhanced Electron Utilization in Cr(VI) Reduction

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Thermogravimetric Analysis (TGA) of the ZVI@C@PANI was showed Fig. S1. It was conducted under the air condition (TGA, TA instruments, Q-500) with a heating rate of 10 °C/min and an air flow rate of 60 mL/min from 25 to 800 °C. Thus the C and PANI were decomposed to CO₂, and ZVI was oxidized to Fe₂O₃. After being calcinated, just the Fe₂O₃ was remained in the solid. ~55 wt% was remained in the solid, which indicated that Fe₂O₃ accounted for ~55 wt%. Then the proportion of ZVI can be calculated to be 39.79 wt.%.

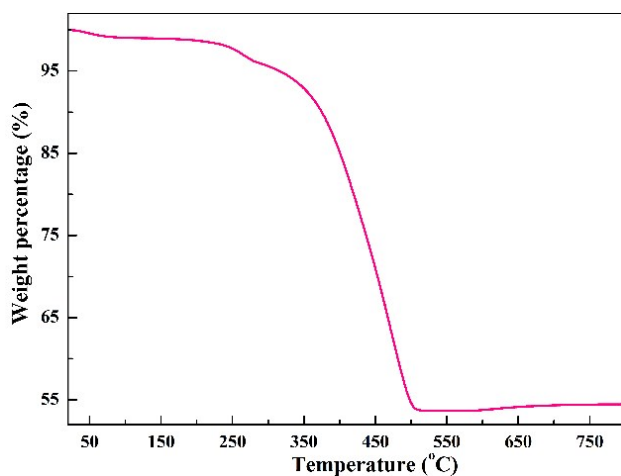


Fig. S1. TGA curve of synthesized ZVI@C@PANI nanospheres.

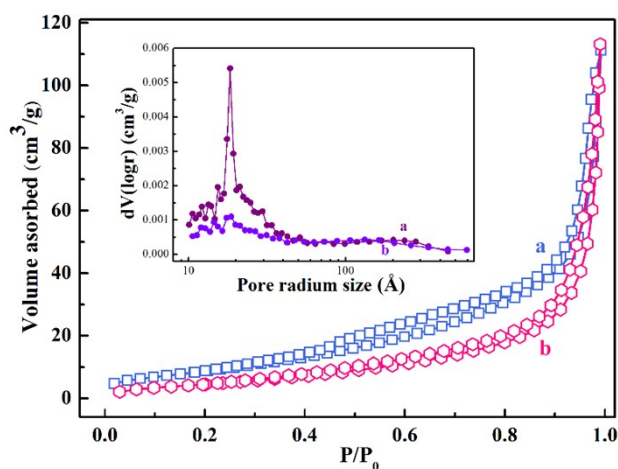


Fig. S2 N₂ adsorption-desorption isotherms and pore size distribution (inserted) of (a) ZVI@C and (b) ZVI@C@PANI.

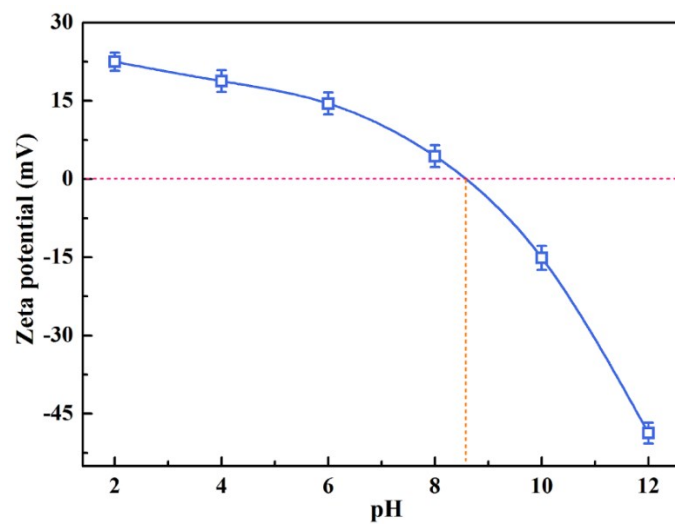


Fig. S3 Zeta potential of ZVI@C@PANI.

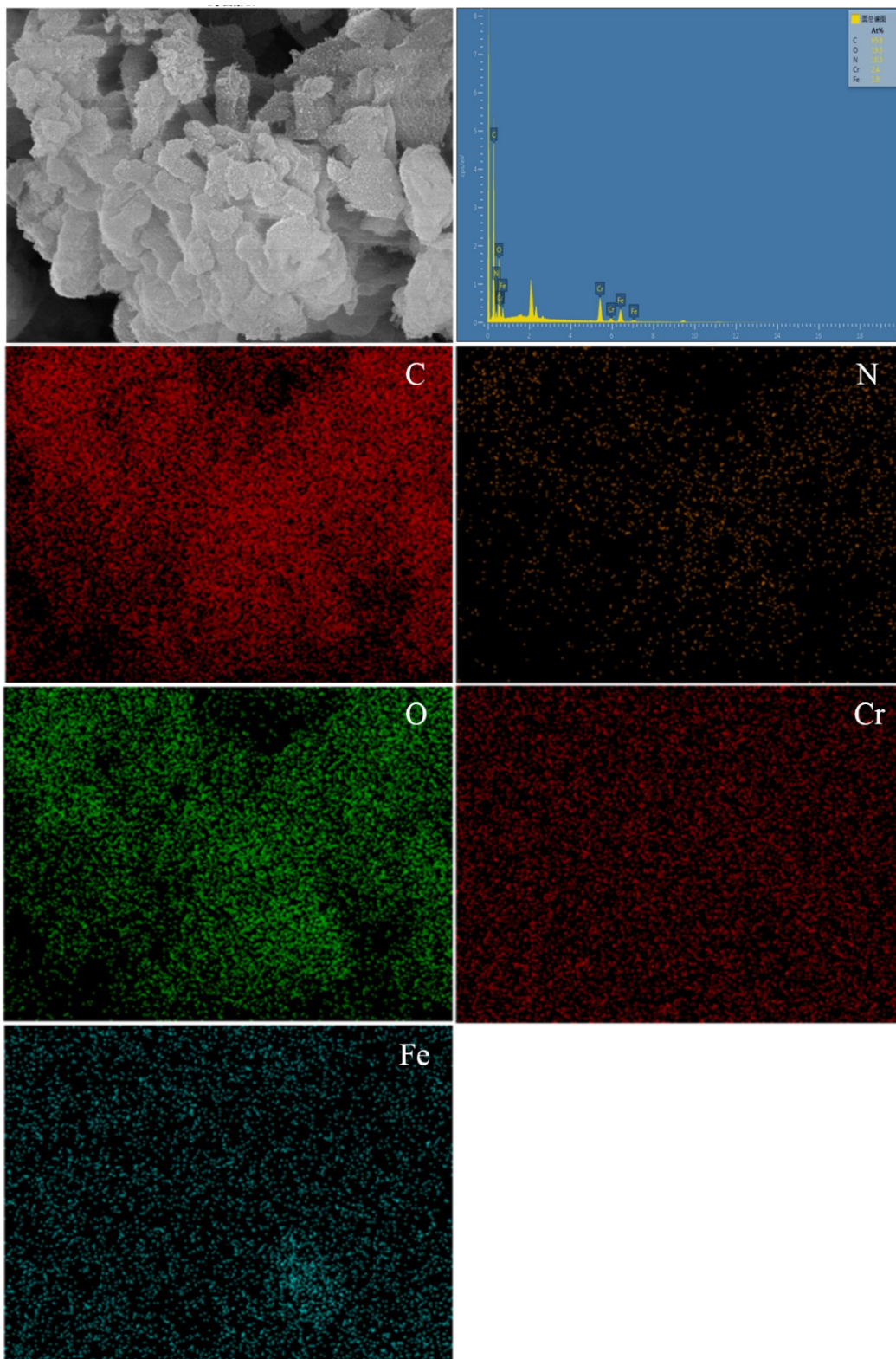


Fig. S4 EDX elements mapping of the ZVI@C@PANI after treating the Cr(VI).