Fe$_3$O$_4$/PANI/MnO$_2$ Core-Shell Hybrids as Advanced Adsorbents for Heavy Metal Ions

Jian Zhang, Jie Han,* Minggui Wang, Rong Guo*

School of Chemistry and Chemical Engineering, Yangzhou University, Yangzhou, Jiangsu, 225002, P. R. China. E-mail: hanjie@yzu.edu.cn; guorong@yzu.edu.cn
Figure S1. TEM images of (A) Fe₃O₄/PANI(0.5), (B) Fe₃O₄/PANI(1), (C) Fe₃O₄/PANI(1.5) and (D) Fe₃O₄/PANI(2).
Figure S2. The weight percentage of Fe$_3$O$_4$/PANI and Fe$_3$O$_4$/PANI/MnO$_2$ core-shell hybrids as determined from energy dispersive spectroscopy data.

Figure S3. (A) N$_2$ sorption isotherms and (B) pore size distributions of Fe$_3$O$_4$, Fe$_3$O$_4$/PANI, and Fe$_3$O$_4$/PANI/MnO$_2$. 