

Supplementary Information for

Conductive 3D Sponge for Affordable and Highly-efficient Water Purification

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Supporting Information: 8 figures.



Figure S1. Digital pictures of commercial polyurethane sponges used in the present work.



Figure S2. Digital picture of the filtration setup and filtration device.

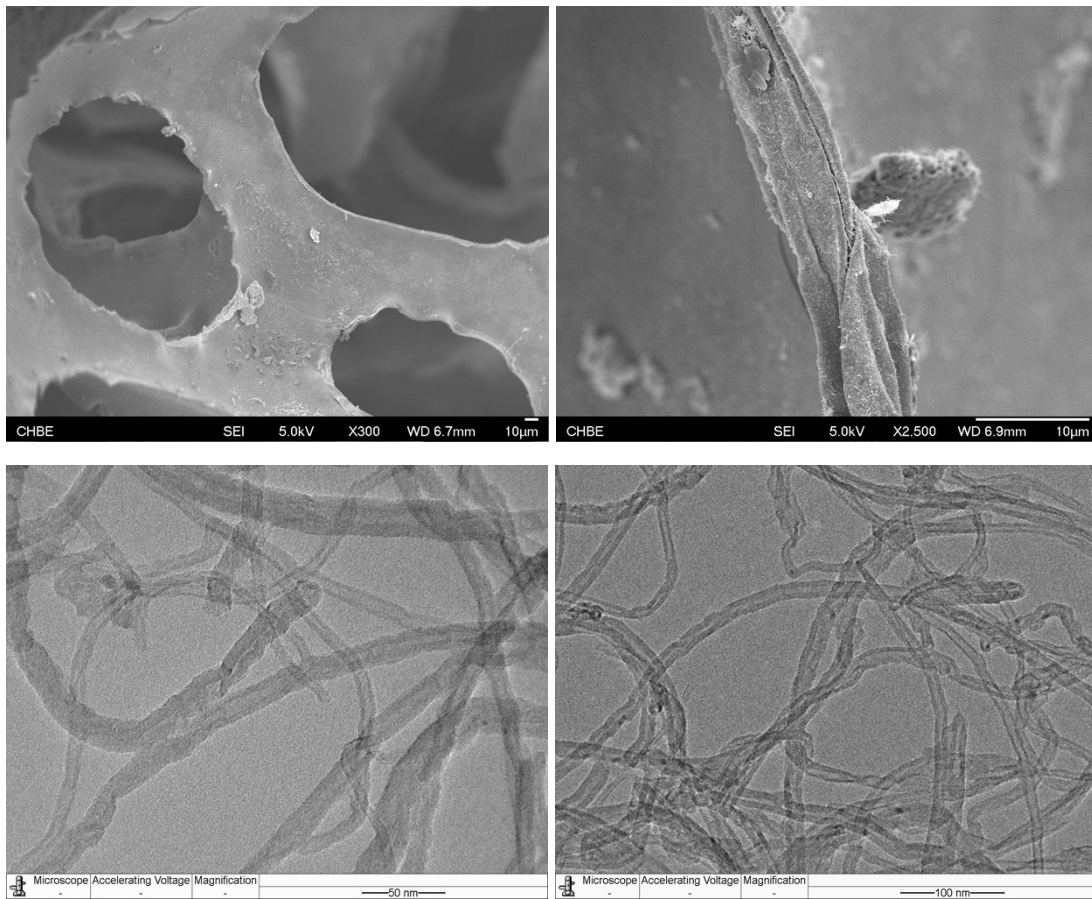


Figure S3. (a, b) FESEM images of the CNT sponge and (c,d) TEM images of the CNT.

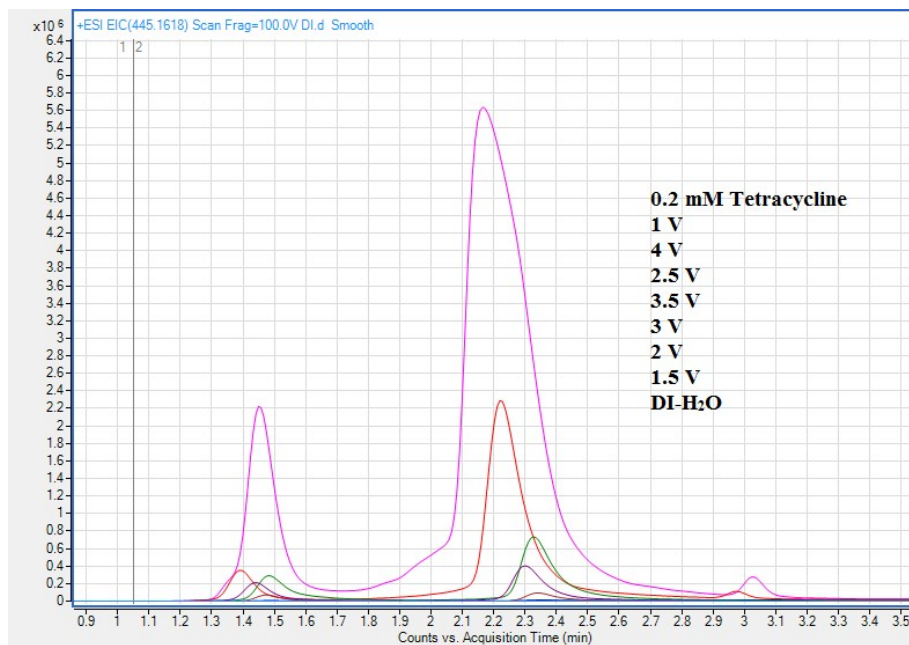


Figure S4. The extracted ion chromatogram of m/z 445.162 of the influent tetracycline and effluent samples.

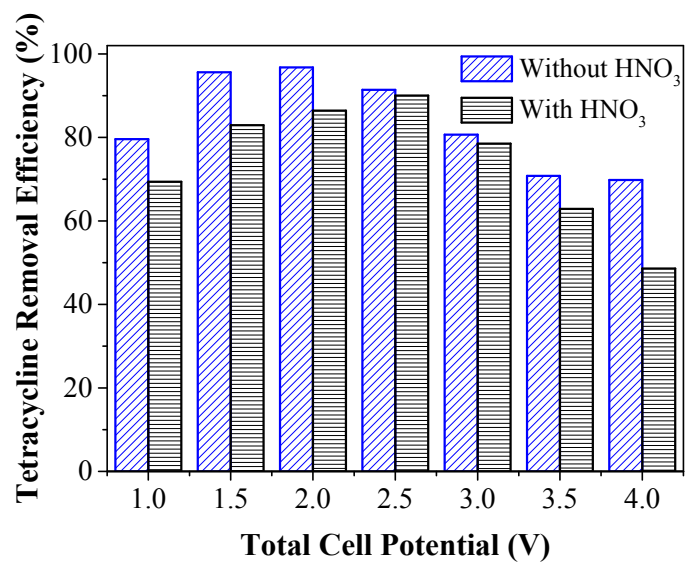


Figure S5. Effect of HNO₃ treatment on tetracycline removal efficiency as a function of total cell potential.

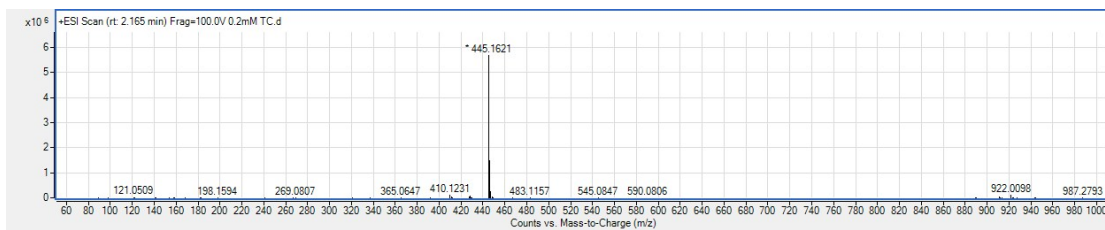


Figure S6. The MS spectra of TC effluent sample showing the presence of $m/z = +445.162$, $m/z = +365.065$ and $m/z = +269.0807$.

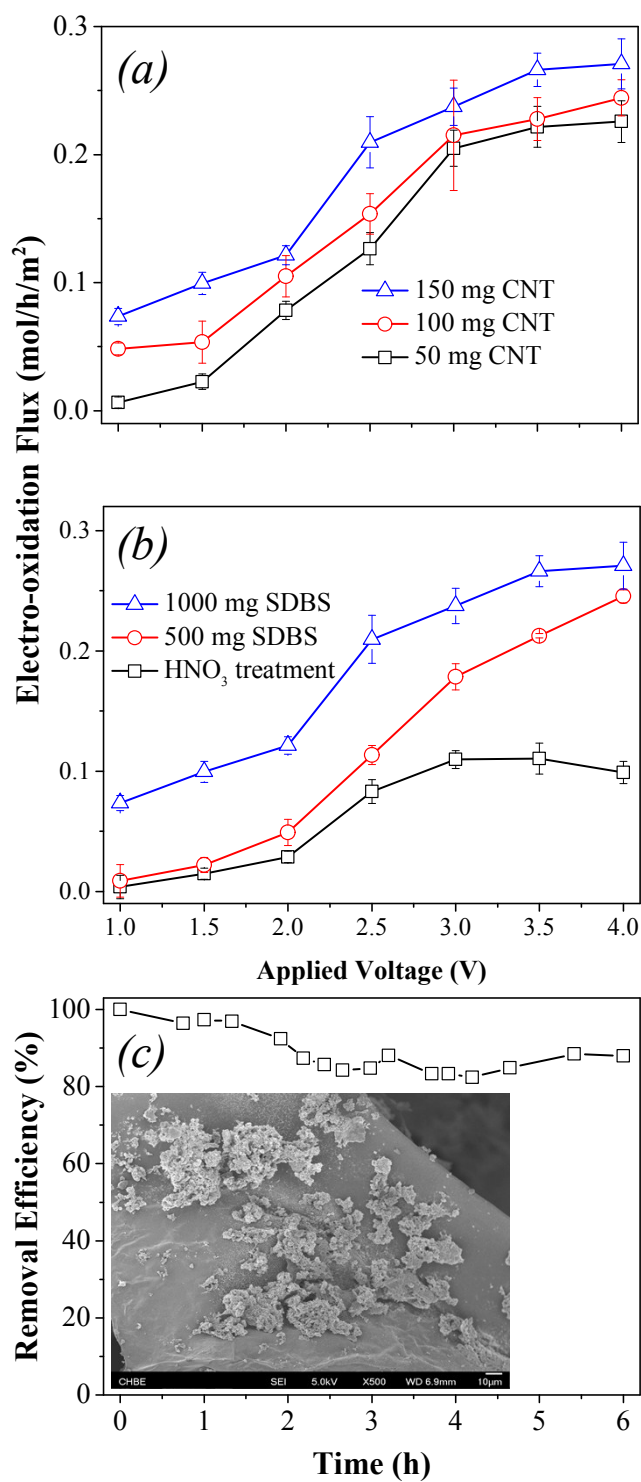


Figure S7. Effect of CNT loading (a) and SDBS concentration (b) on the removal of methyl orange by the CNT sponge sample. The removal efficiency of methyl orange as a function of time. Inset shows the FESEM image of the CNT sponge after 6 h continuous operation showing the presence of precipitates.

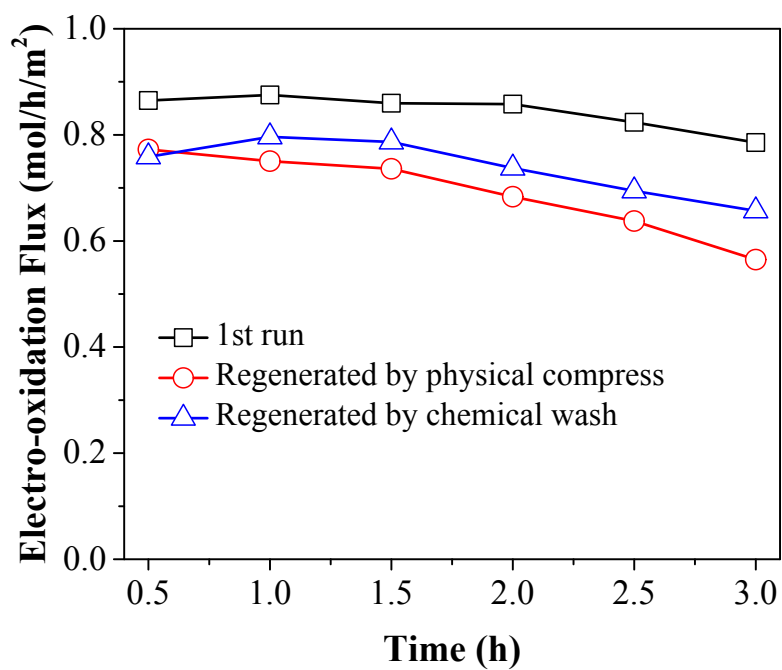


Figure S8. Comparison of two regeneration methods for TC electro-oxidation by the CNT sponge.