

Supplementary Information

Figure S1. Optical image of a bended carbon electrode, indicating high mechanical flexibility and robustness of both sides of the electrode.



Figure S2. TEM image of tip area of CNT on all-carbon electrode.

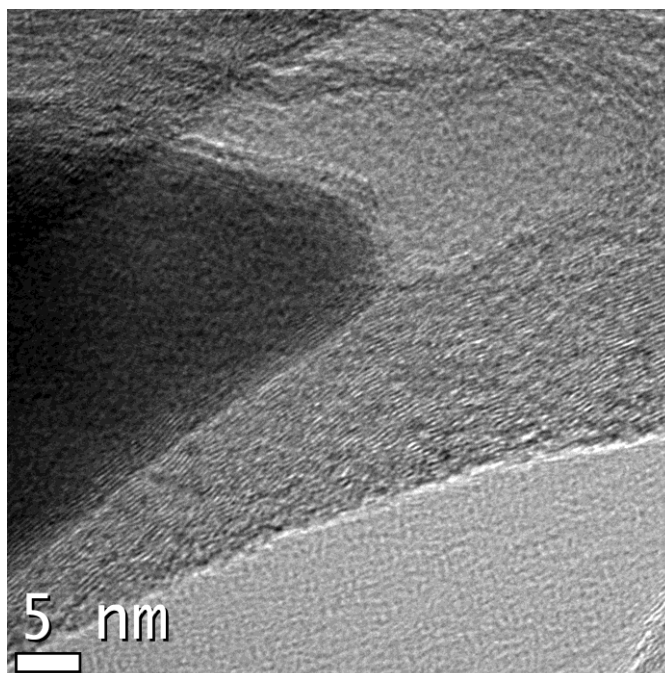


Figure S3. Rolling method of all-carbon electrode.

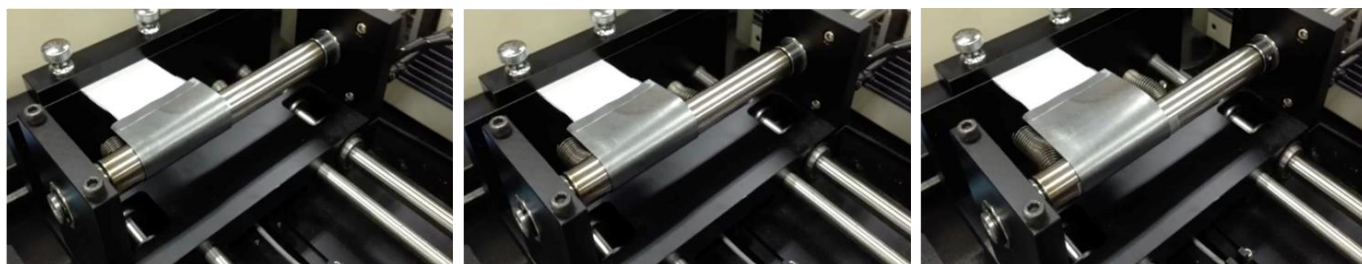


Figure S4. Cyclic voltammograms of (a) the graphite foil and (b) all-carbon electrode before rolling cycles in 1.0 mM $\text{K}_3\text{Fe}(\text{CN})_6$ in DI water with addition of 0.1 M KCl at potential scan rates ranging from 10 to 200 mV/s. The corresponding peak current dependence on the square root of scan rate in (c) the graphite foil and (d) all-carbon electrode before rolling cycles.

