Supporting Information

The diameter-controlled synthesis of polyaniline microtubes and their electrocatalytic oxidation of ascorbic acid

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Fig S1. EIS of the PANI microtube modified electrode with different diameters: (1) 0.63; (2)1.01; (3) 1.43; (4) 1.92 and (5) 2.93 μ m.



Fig S2. The structural characterization of the PANI microtube with diameter 1.43 μm: (A) FTIR spectrum and (B) UV–Vis spectrum of PANI microtube with (1) or without (2) 0.1 M AA; (C) XRD pattern; (D) XPS spectrum (the inset: the N1s core-level spectrum).



Fig S3. The current response of the PANI microtube modified electrode (the diameter is $1.43 \mu m$) for detecting 0.1 mM AA at various conditions: (A) the volume of PANI solution; (B) the scanning working potential; (C) pH of the test solution.



Fig S4. The reusability and the reversibility of the PANI microtube modified electrode was demonstrated by separately measuring its current intensities when it was exposed to five cycles of 0.1M HCl with and without 0.1mM AA, respectively.



Fig S5. Cyclic voltammograms of PANI microtube modified electrode in 0.1 M HCl in the presence of different concentration of AA form 10^{-5} M to 10^{-2} M.