

## Supporting information for:

# Single Crystalline Pt Nanotubes with Superior Electrocatalytic Stability

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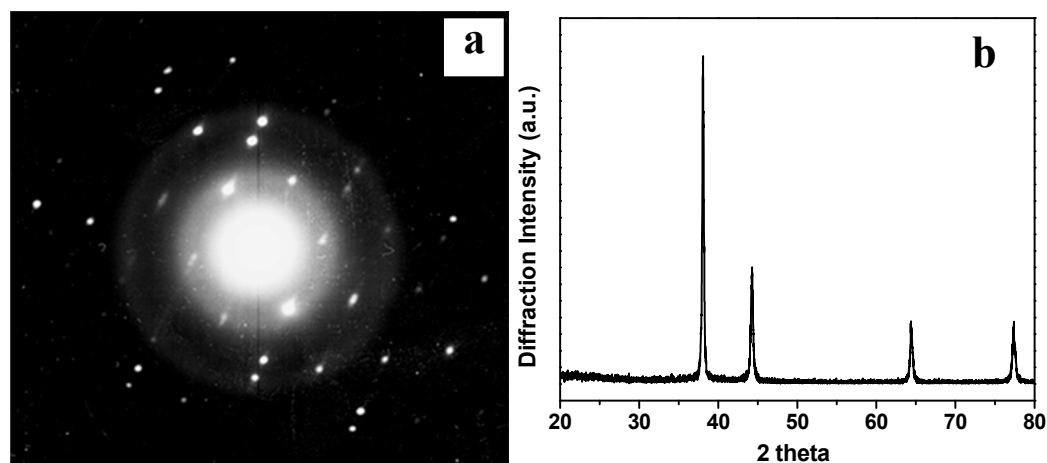


Figure S1. Selected area electron diffraction (SEAD) and XRD patterns of Ag nanowires.

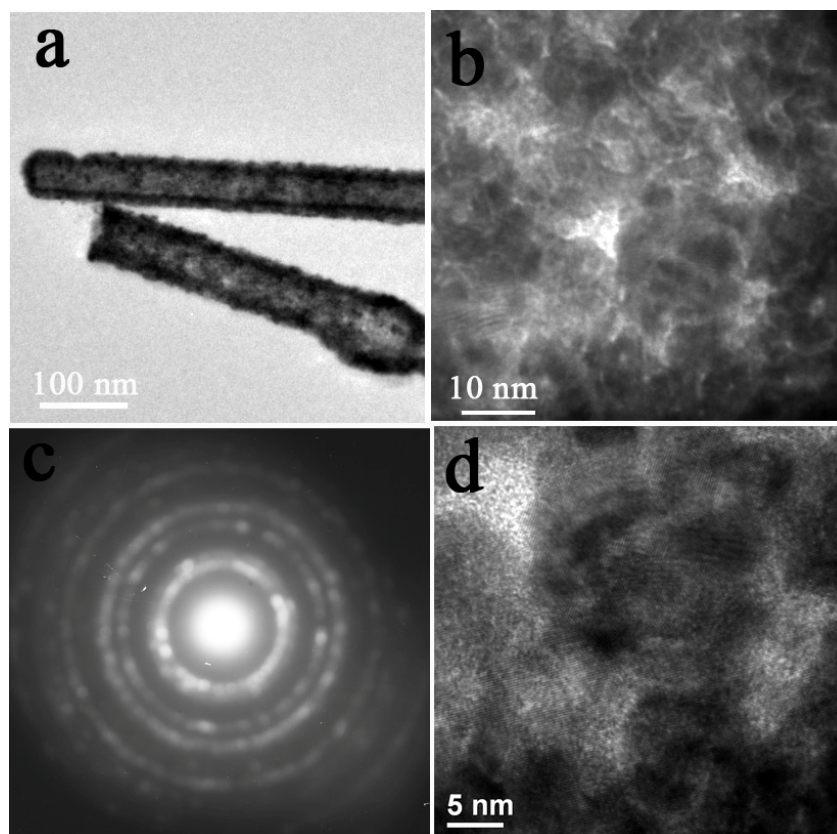


Figure S2. TEM images (a, b), SEAD (c) and HRTEM (d) image of the P-PtNTs.

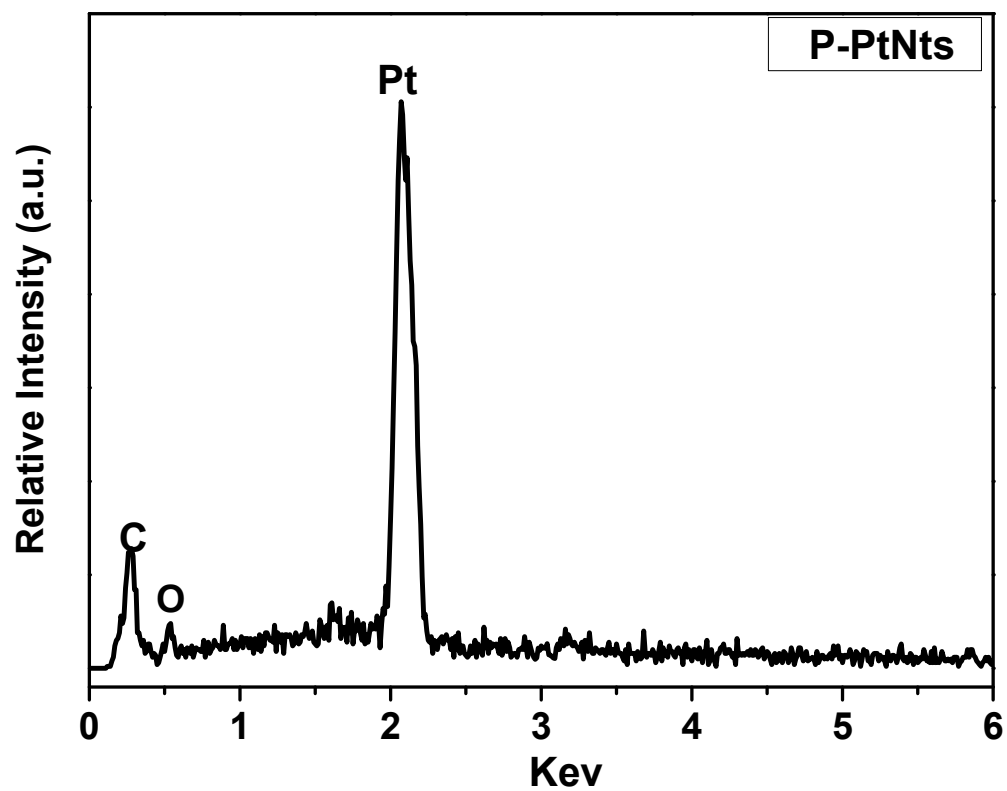


Figure S3. EDS pattern of the P-PtNTs.

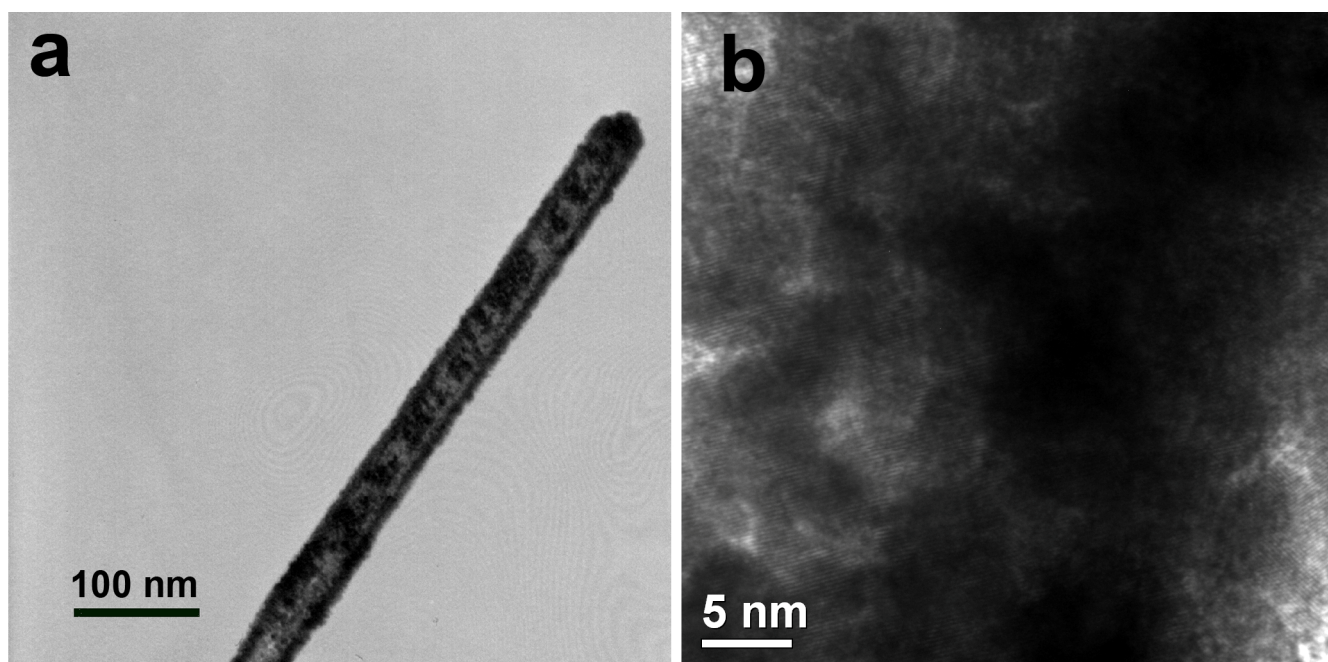


Figure S4. TEM (a) and HRTEM (b) images of the PtNTs samples after hydrothermal treatment of P-PtNTs for 3 hours.

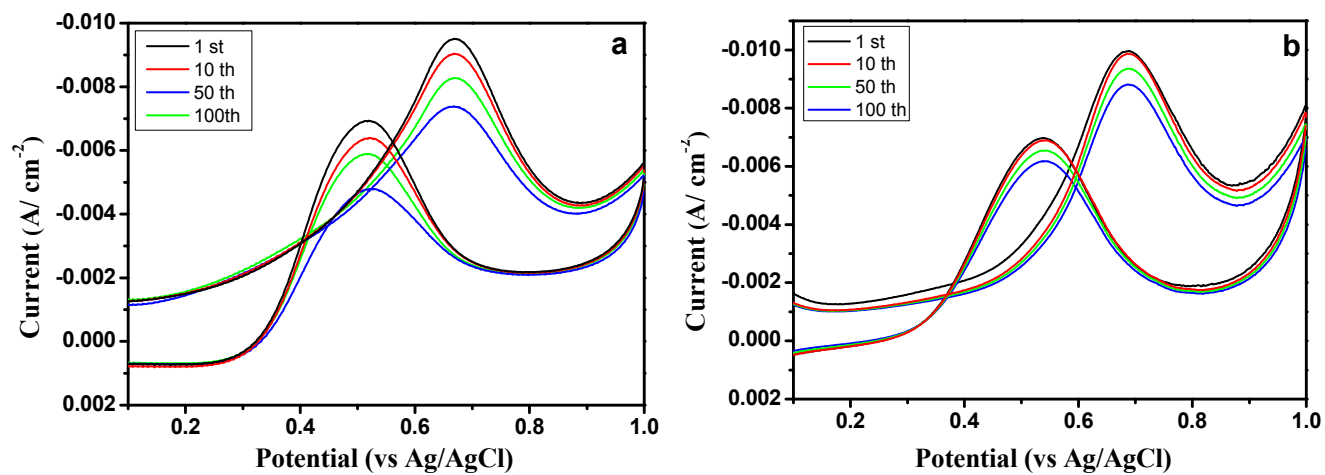


Figure S5. The 1st, 10th, 50th and 100th CVs curve of the P-PtNTs (a) and S-PtNTs (b) in  $\text{N}_2$  saturated 0.5 M

$\text{H}_2\text{SO}_4$  solution with 0.5 M  $\text{CH}_3\text{OH}$ , scan rate: 50 mV/s.

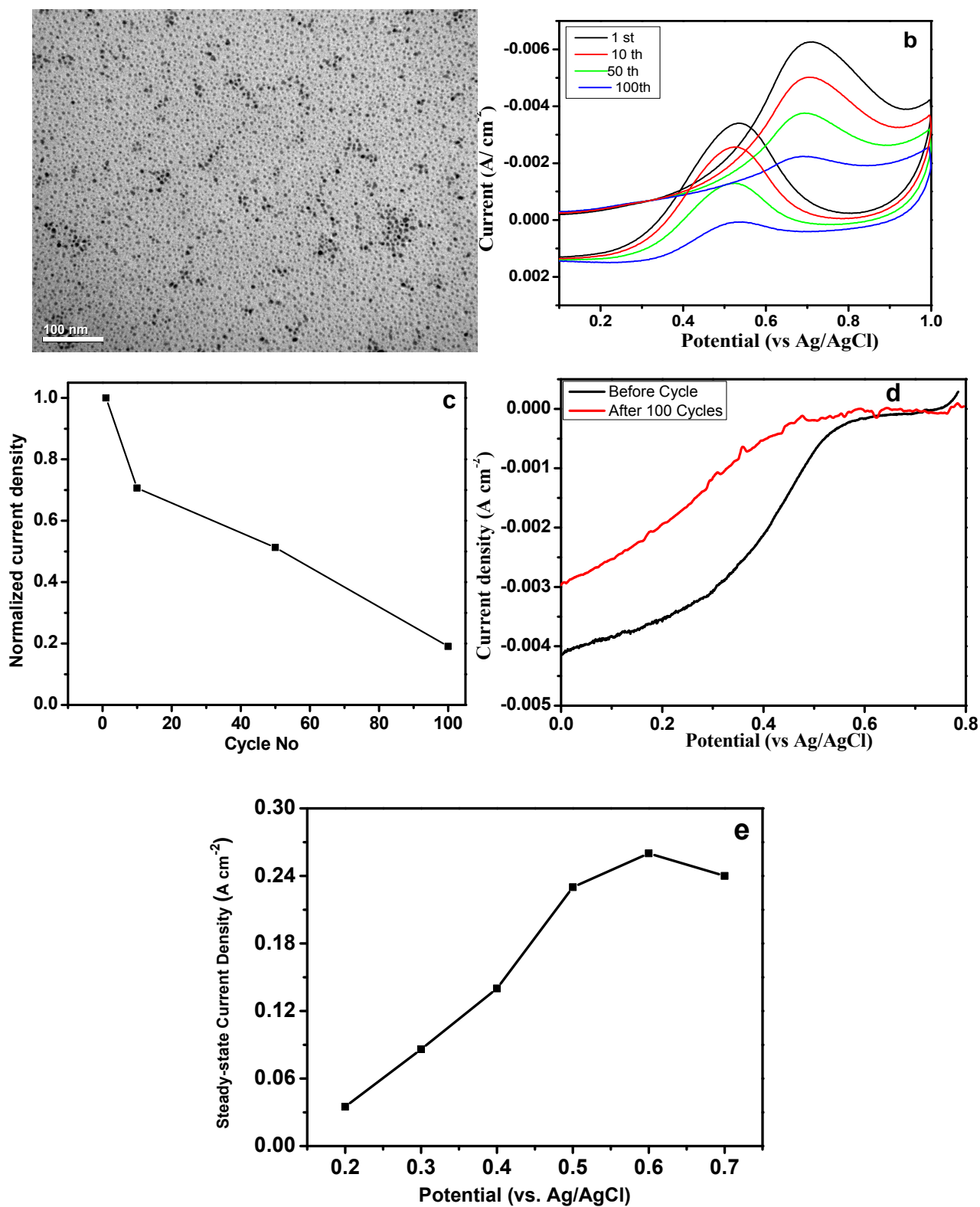


Figure S6. TEM image of the Pt nanoparticles (a); The 1st, 10th, 50th and 100th CVs curve of the Pt nanoparticles in N<sub>2</sub> saturated 0.5 M H<sub>2</sub>SO<sub>4</sub> with 0.5 M CH<sub>3</sub>OH, scan rate: 50 mV/s (b); Stability of the Pt nanoparticles within cycles in 0.5 M H<sub>2</sub>SO<sub>4</sub> with 0.5 M CH<sub>3</sub>OH (c); The linear-sweep

voltammograms in O<sub>2</sub>-saturated 0.5 M H<sub>2</sub>SO<sub>4</sub> with 1600 rpm and a scan rate of 5 mV s<sup>-1</sup> on the Pt nanoparticles electrode before and after 100 CVs cycles. CVs range: 0 ~ 1.0 V, scan rate, 0.1 V/s (d). Potential-dependent steady-state current recorded at 3000 s at Pt nanoparticles in N<sub>2</sub> saturated 0.5 M H<sub>2</sub>SO<sub>4</sub> containing 0.5 M CH<sub>3</sub>OH (e).