

Electronic Supplementary Information

**Concentration-dependent Platinum Nanoassemblies with
Morphology-control Electroactive and High Durability for Direct
Methanol Fuel Cells**

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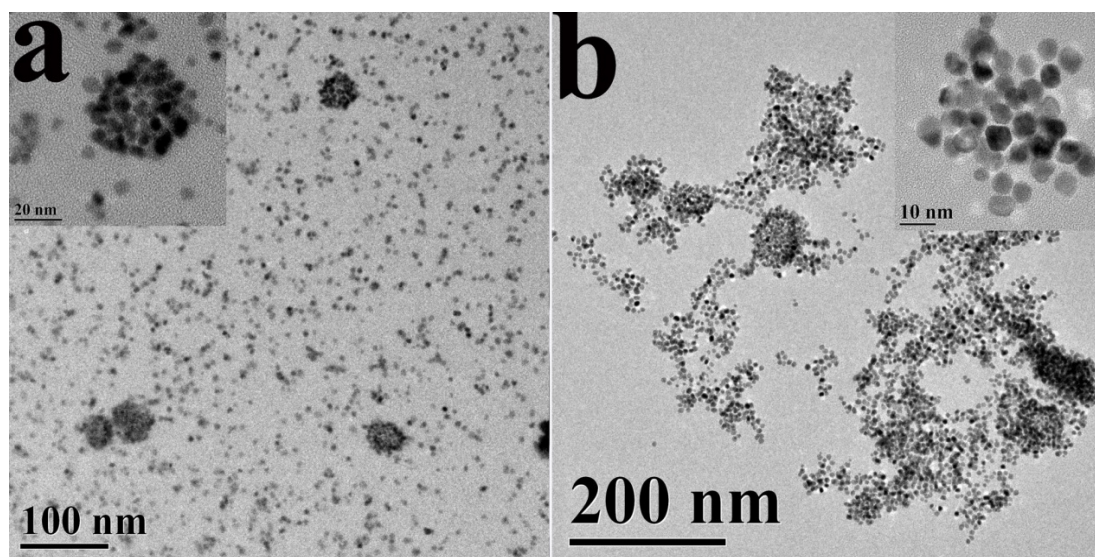


Fig. S1 TEM images of as-obtained Pt nanostructures in typical synthesis for (a) 36h and (b) 60h.

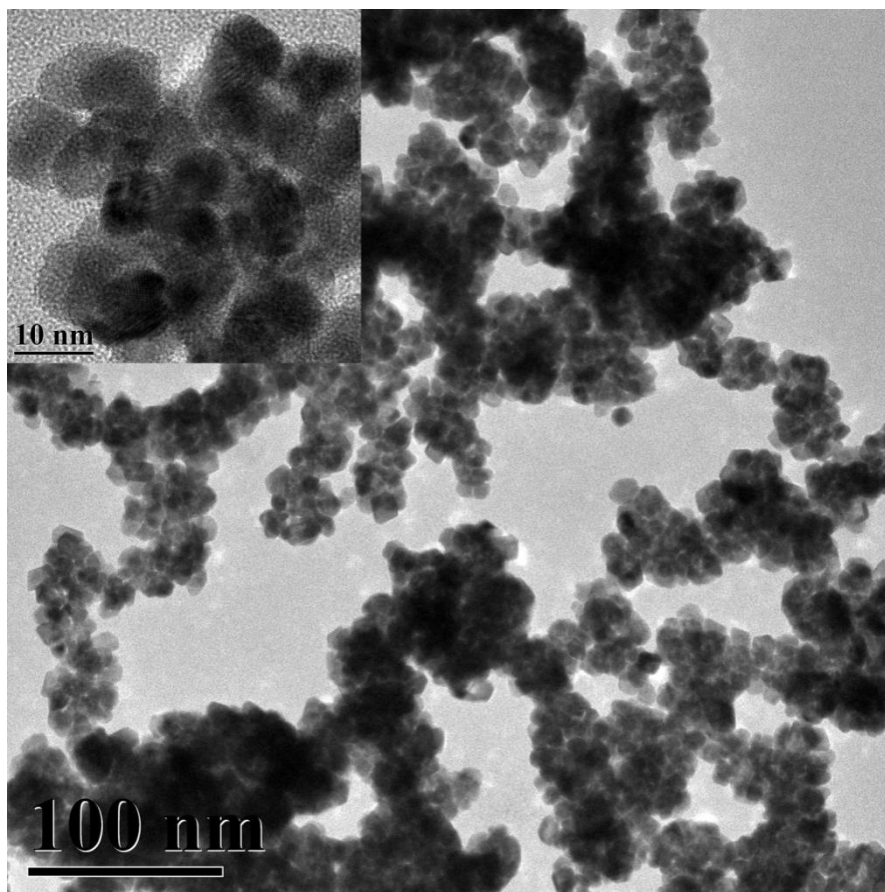


Fig. S2 TEM and HRTEM(insets) images of of as-obtained Pt nanostructures in typical synthesis without PVP.

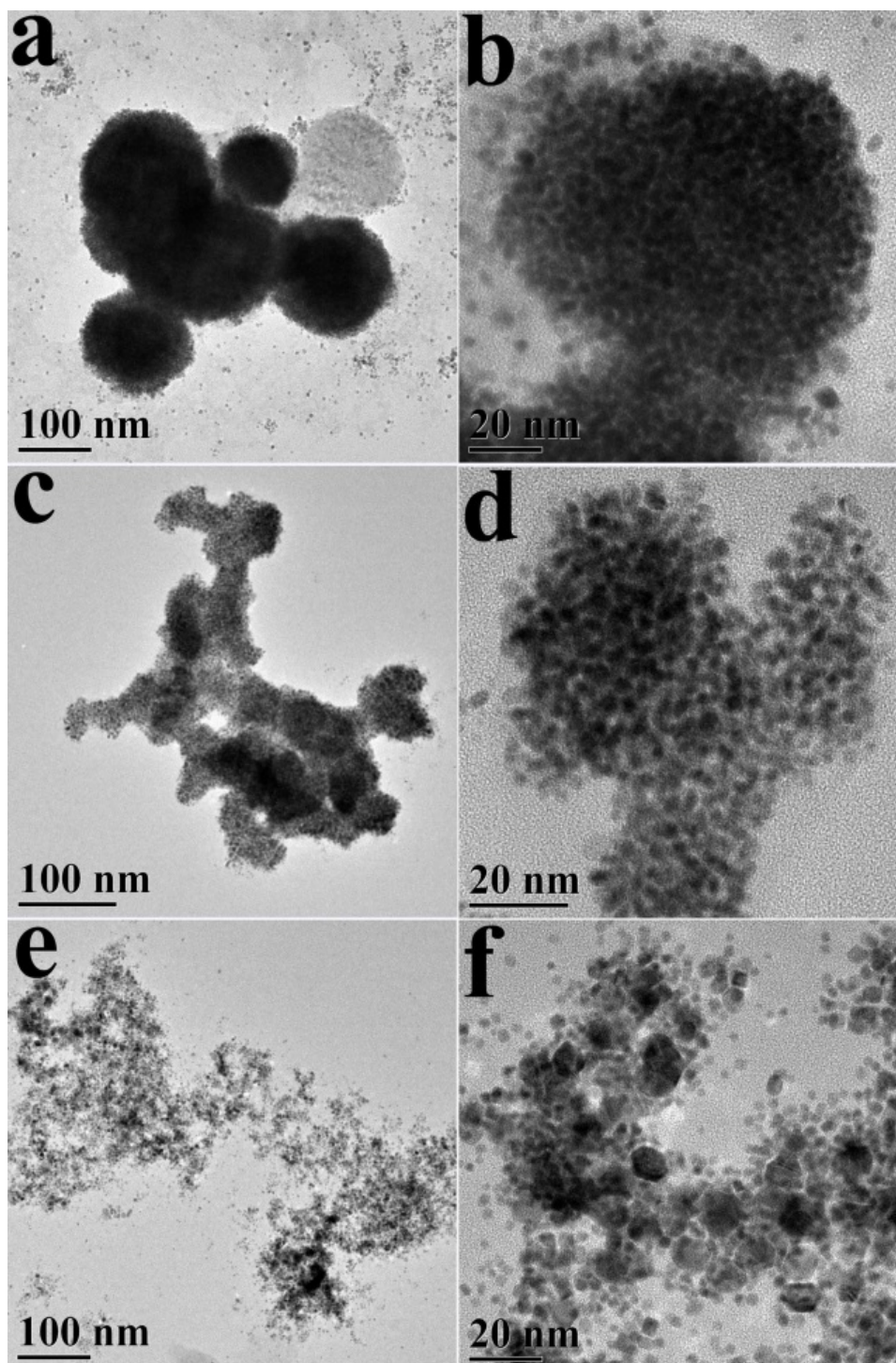


Fig. S3 TEM images of Pt nanostructures synthesized in typical synthesis with the substitution for water of toluene (a-b), cyclohexane (c-d), DMF (e-f).

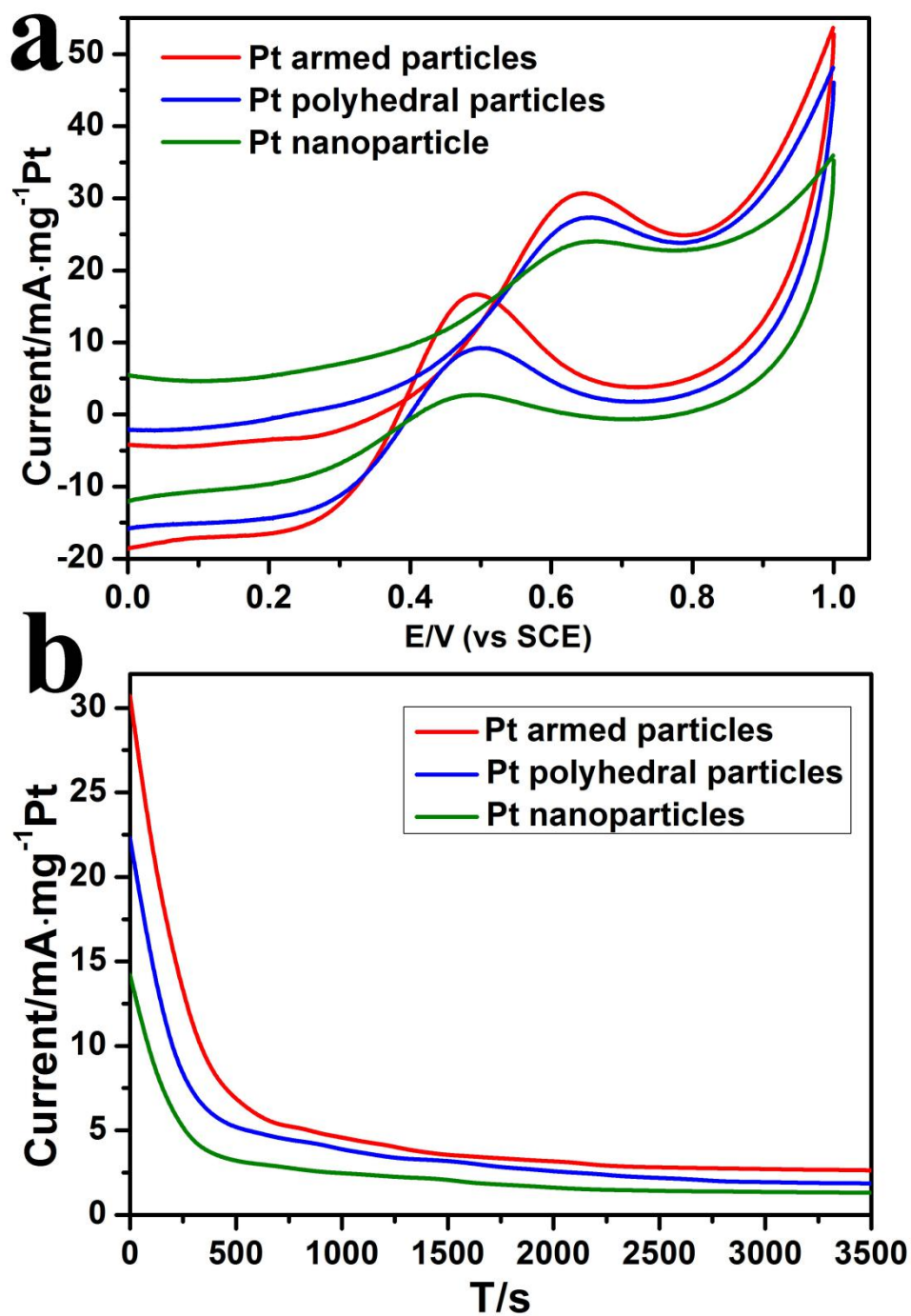


Fig. S4 Cyclic voltammograms (a) and chronoamperometric curves at 0.65 V (b) in 0.5 M H₂SO₄ + 0.5 M methanol of electrodes prepared by monodispersed Pt nanoparticles with different shapes as shown in Fig. 7.

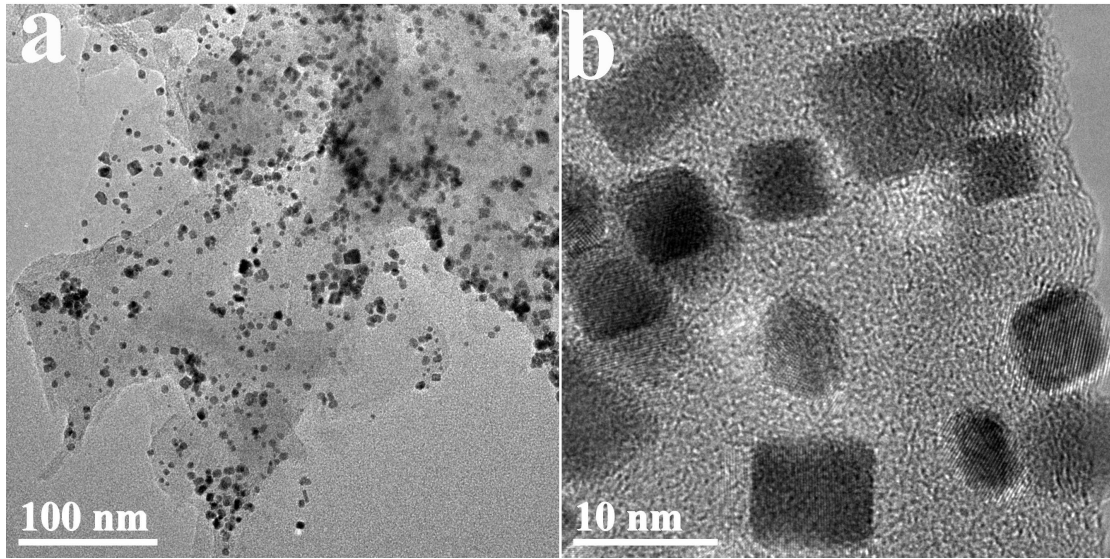


Fig. S5 TEM images of Pt NA-d electrode after 3500s in the process of methanol electro-oxidation measured at 0.5 M H_2SO_4 containing 0.5 M CH_3OH solution at 0.65 V.