## Supporting Information

## Pd@Pt core-shell tetrapods as highly active and stable electrocatalysts for the

## oxygen reduction reaction

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**Figure S1.** UV-vis spectra of K<sub>2</sub>PtCl<sub>4</sub>+PVP mixture solution before and after adding Pd tetrapods for 3 h.



Figure S2. Representative large-area SEM image of the Pd@Pt CSNTPs.



Figure S3. Typical TEM image of Pd tetrapods.



Figure S4. XPS survey scan of Pd@Pt CSNTPs.



Figure S5. The mass activities of Pd@Pt CSNTPs and Pt black for the ORR at 0.9 V potential.



Figure S6. EDX spectrum of Pd@Pt CSNTPs before (A) and after (B) ADT.



Figure S7. TEM images of the Pd@Pt CSNTPs before (A) and after (B) ADT.



Figure S8. XRD patterns of Pd@Pt CSNTPs before and after ADT.