

Supporting information

Steam treatment: a facile and effective process for the removal of PVP from shape-controlled palladium nanoparticles

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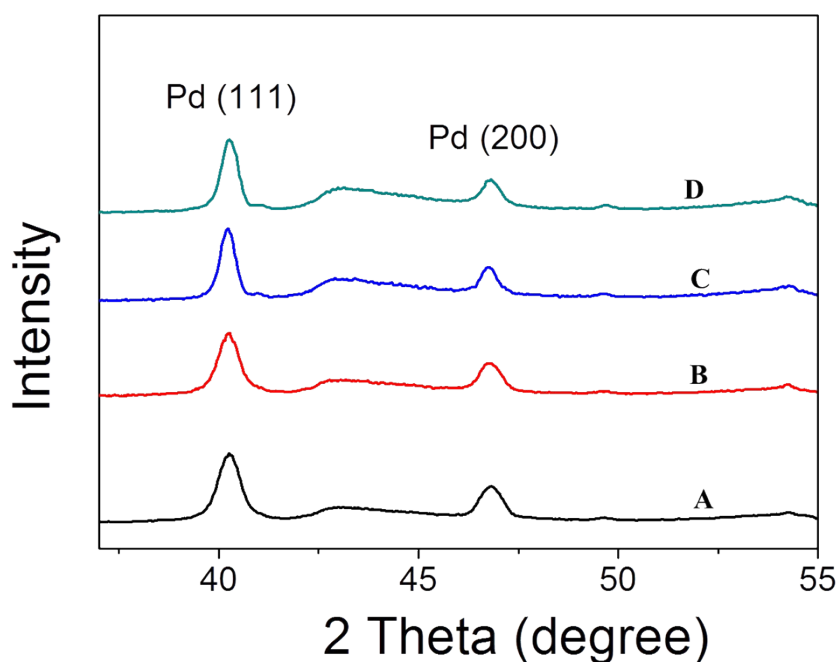


Figure S1. XPD patterns of the (A) PVP-Pd-NCs/CNTs, (B) Clean-Pd-NCs/CNTs (treated by steam at 80°C), (C) PVP-Pd-NOs/CNTs, (D) Clean-Pd-NOs/CNTs (treated by steam at 80°C).

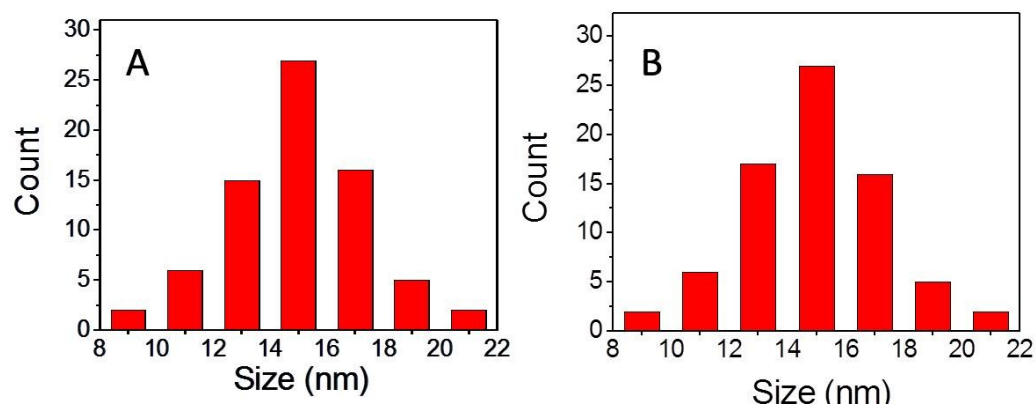


Figure S2. Size distribution of Pd NCs in the (A) PVP-Pd-NCs/CNTs, (B) Clean-Pd-NCs/CNTs (treated by steam at 80°C).

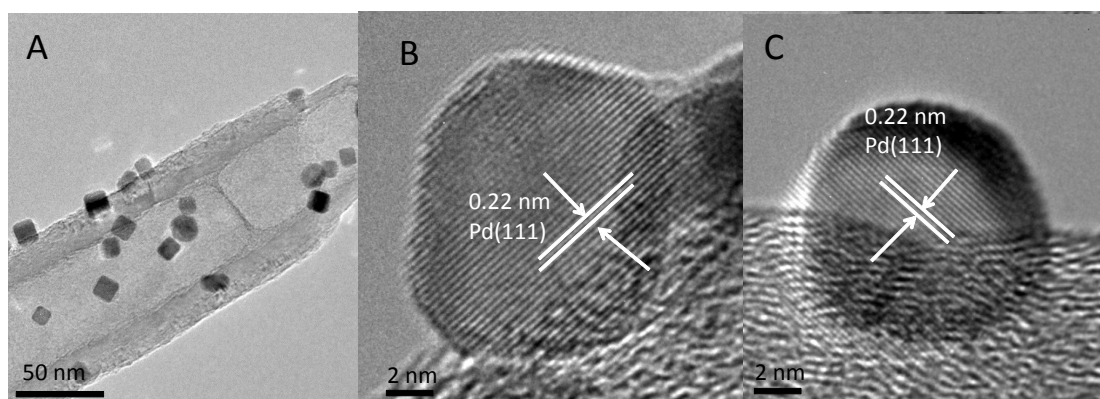


Figure S3. TEM (A) and HRTEM (B, C) images of as prepared PVP-Pd-NCs/CNTs after treating by steam at 100 °C.

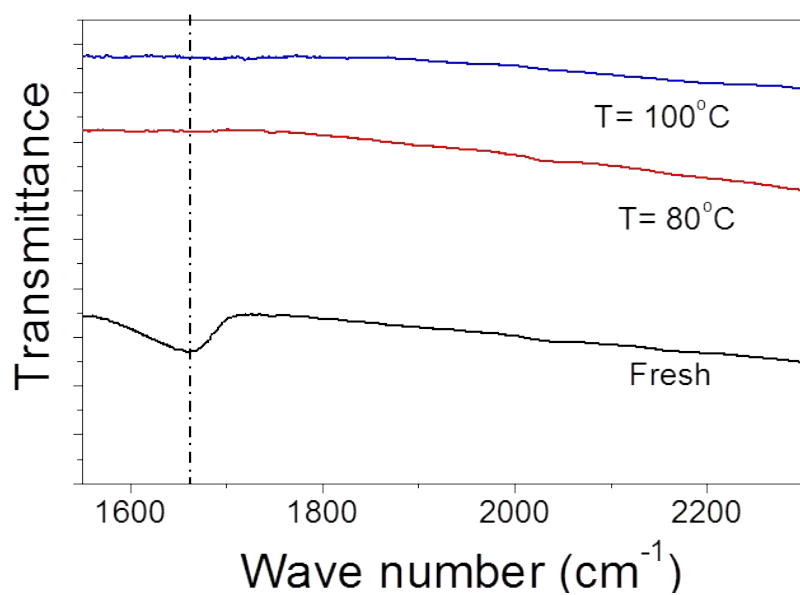


Figure S4. IR spectrum of as-prepared PVP-Pd-NCs/CNTs after treating by steam at different temperatures.

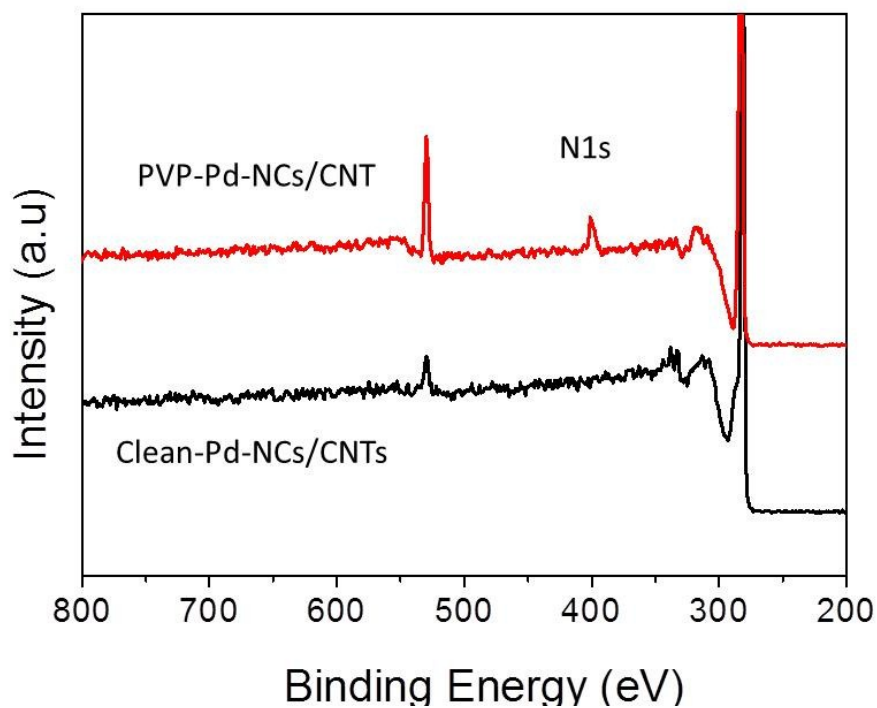


Figure S5. XPS survey scans of the as-prepared PVP-Pd-NCs/CNTs and Clean-Pd-NCs/CNTs treated by steam at 80 °C.

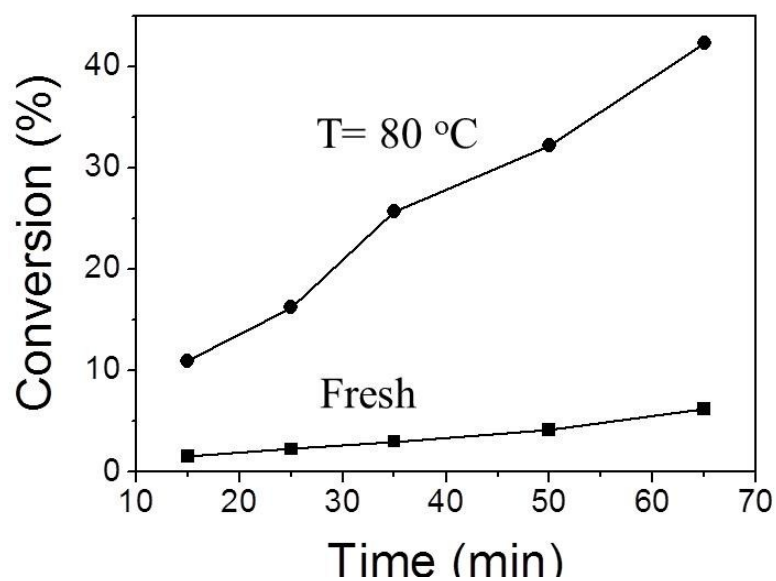


Figure S6. Conversion of bromobenzene in Suzuki coupling reaction for the PVP-Pd-NOs/CNTs and Clean-Pd-NOs/CNTs treated by steam at 80 °C. Reaction condition: 50 °C, bromobenzene (4 mmol), phenylboronic acid (4.8 mmol), K_2CO_3 (8 mmol), 25 ml C_2H_5OH (25ml), H_2O (15 ml), catalysts (15 mg), Pd weight loading (1 wt%).