Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A.

Supporting information

Facile synthesis of highly stable heterogeneous catalysts by entrapping metal nanoparticles within mesoporous carbon

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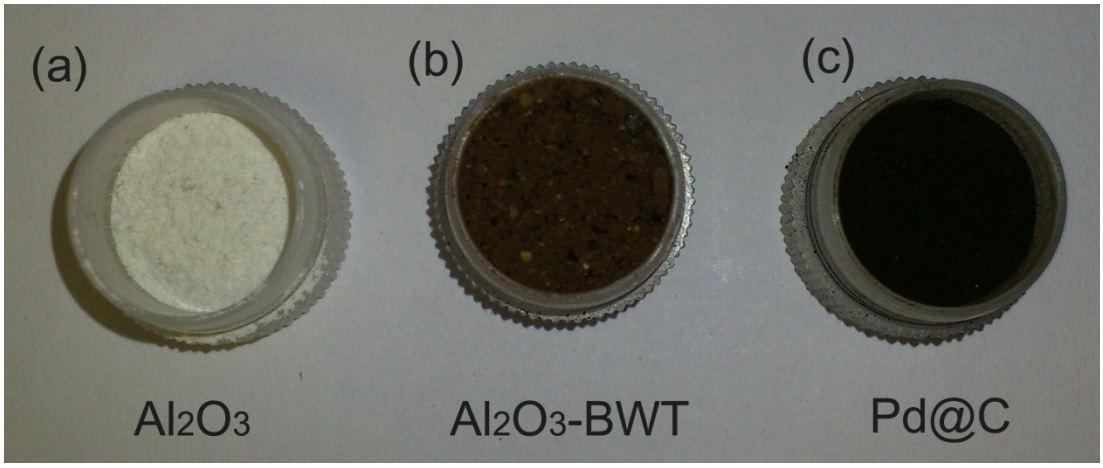
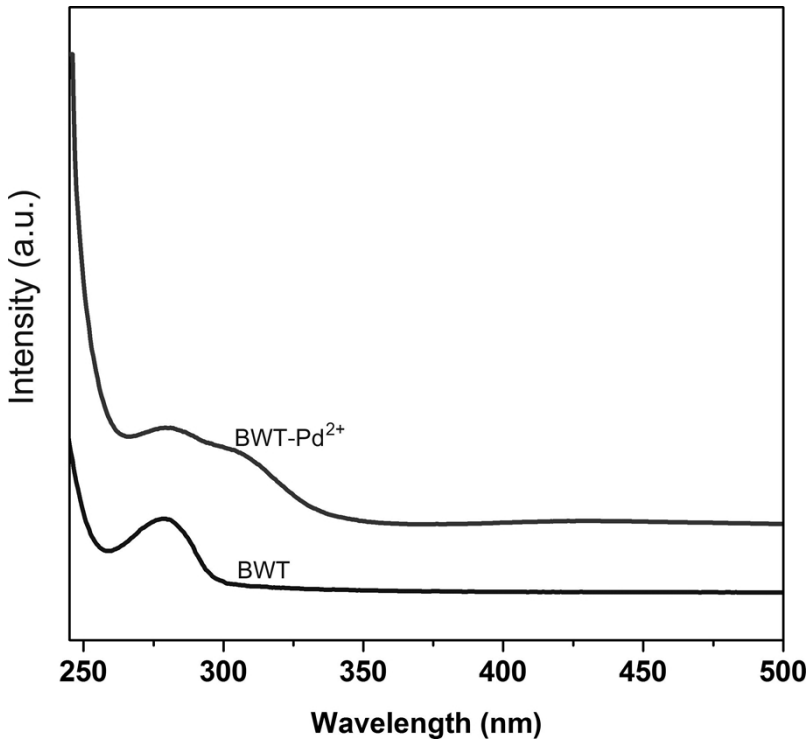
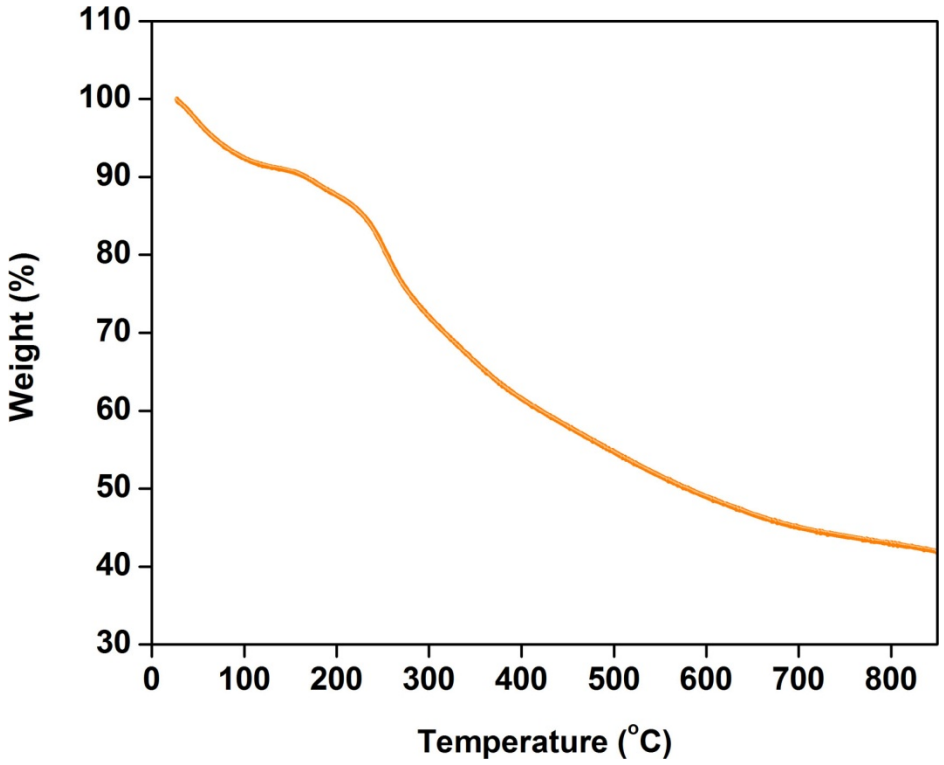


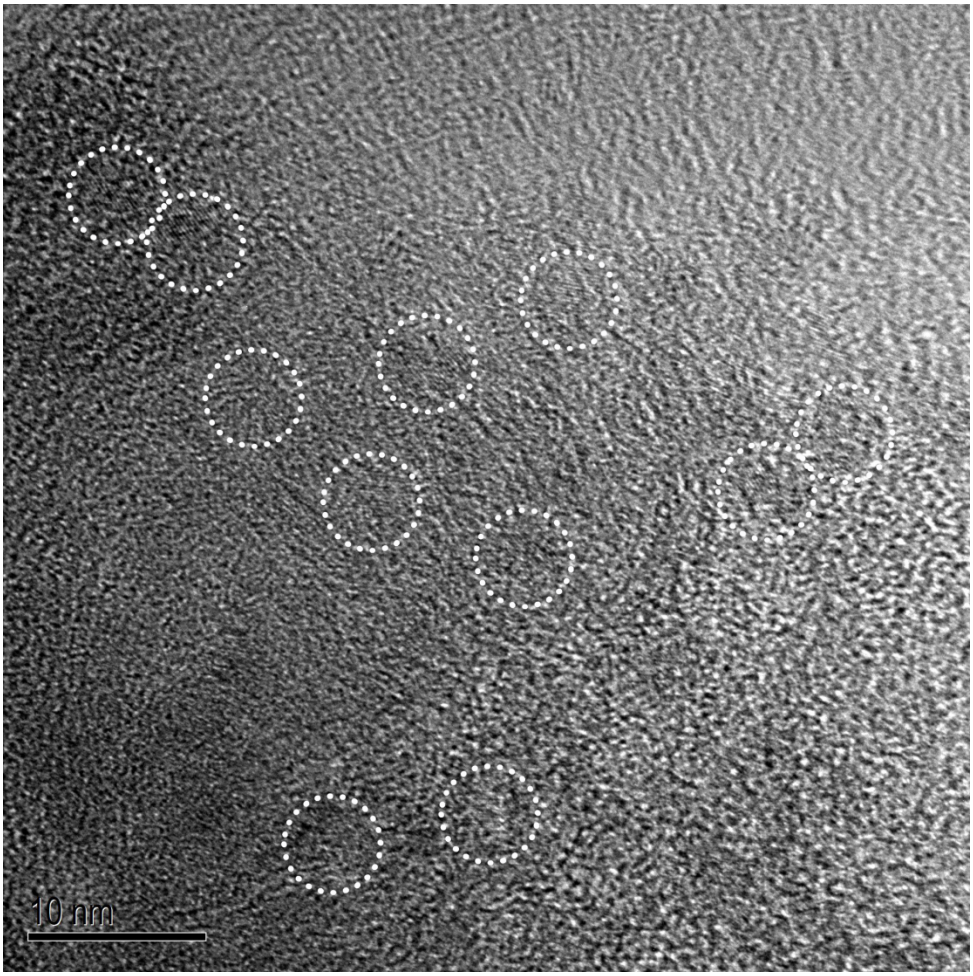
ESI, S1†. The photos of (a) γ-Al_2O_3, (b) Al_2O_3-BWT and (c) Pd@C.



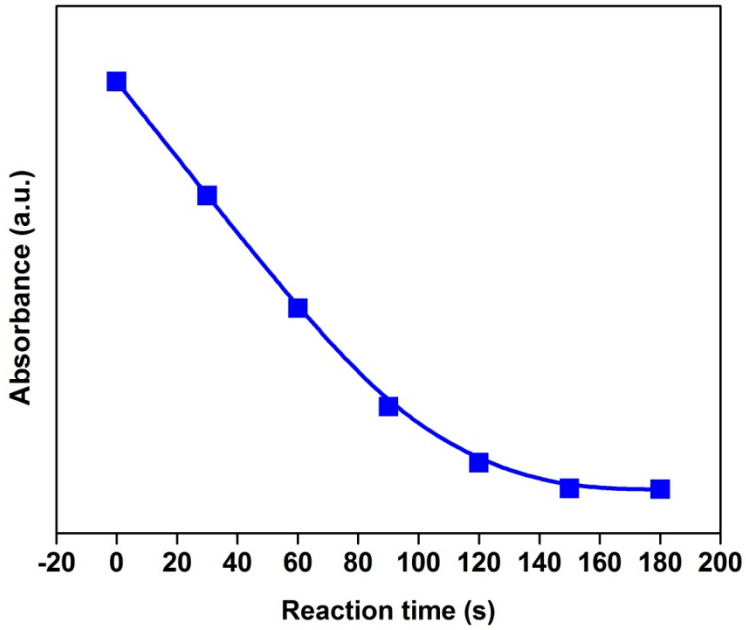
ESI, S2†. UV-vis spectra of BWT and BWT-Pd^{2+}.



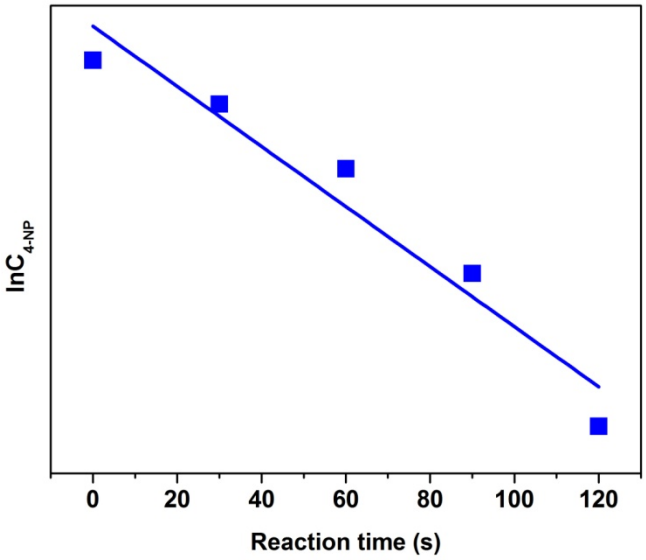
ESI, S3†. TGA of BWT in N_2 flow in the temperature range of 33 -850 °C.



ESI, S4†. TEM image of Pd@C after recycled 10 times.



ESI, S5†. Absorbance of 4-NP at 400 nm vs. reaction time. Reaction conditions: 5 mL of 4-NP aqueous solution (0.13 mM), 5 mg of Pd@C catalyst and 13 mM $NaBH_4$.



ESI, S6†. Plot of $lnC_{4\text{-}NP}$ versus time corresponding to the reduction of 4-NP catalyzed by the Pd@C. Reaction conditions: 5 mL of 4-NP aqueous solution (0.13 mM), 5 mg of Pd@C catalyst and 13 mM $NaBH_4$.