

Electronic Supplementary Information

A General Synthesis of Mesoporous Metal Oxides with Well-dispersed Metal Nanoparticles via a Versatile Sol-Gel Process

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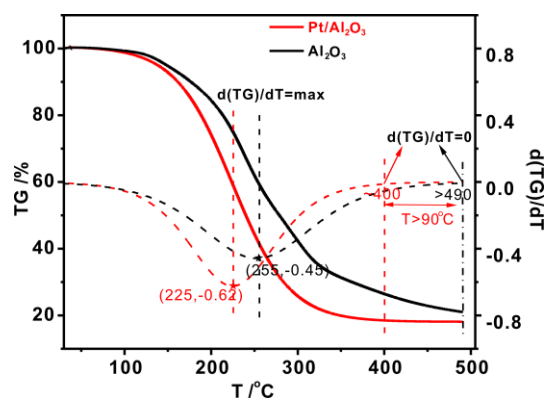


Figure S1. TG analysis and fitting curves of the synthesized membranes (not calcined at 400°C in the muffle furnace) under air flow.

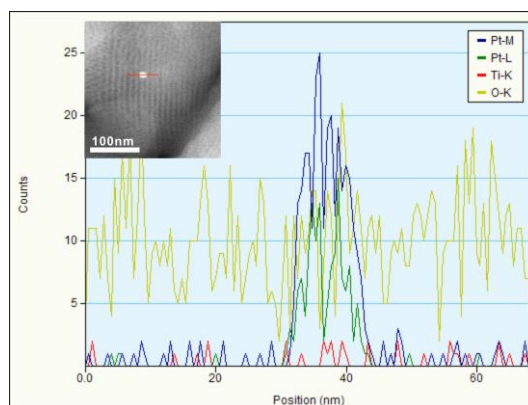


Figure S2. Characterization of 0.7wt% Pt/TiO₂ elemental distribution by STEM-EDX line scanning technique. Inset shows analyzed area and direction analysis. Pt-M, Pt-L, Ti-K and O-K refer to the M, L, K electron shells of the Pt, Ti, O atoms.

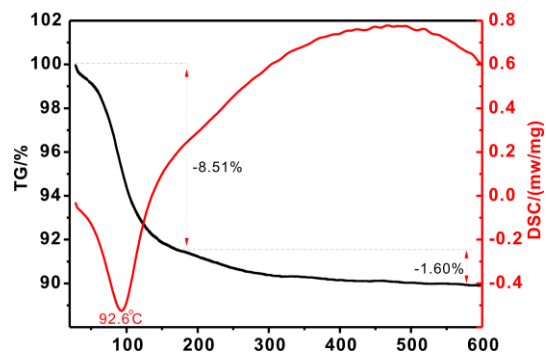


Figure S3. TG-DSC analyses of 0.7wt% Pt/TiO₂ sample calcined at 350°C.

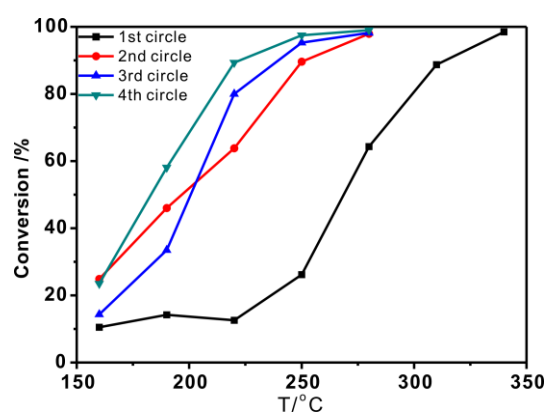


Figure S4. Cycle curves of 0.7wt% Pt/TiO₂ catalytic activity on the n-hexane combustion.

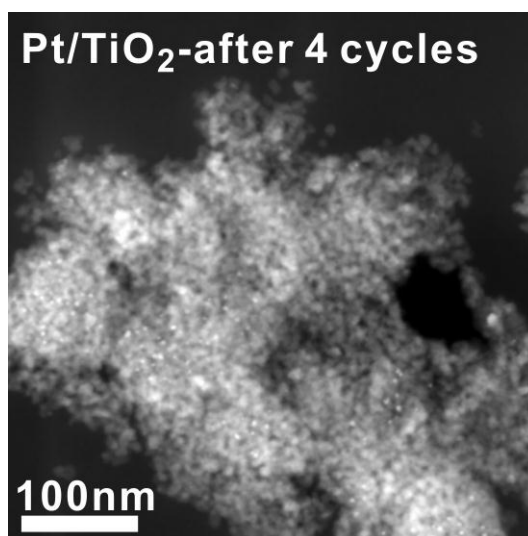


Figure S5. The STEM image of 0.7wt% Pt/TiO₂ after 4 cycles on the n-hexane combustion.

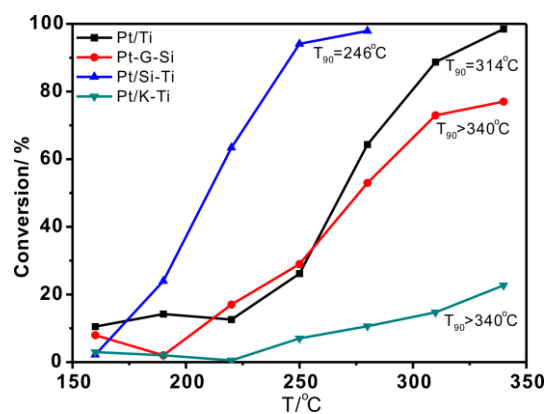


Figure S6. The catalytic activities of PtNPs on different supports on the n-hexane combustion.