

Fig. S1

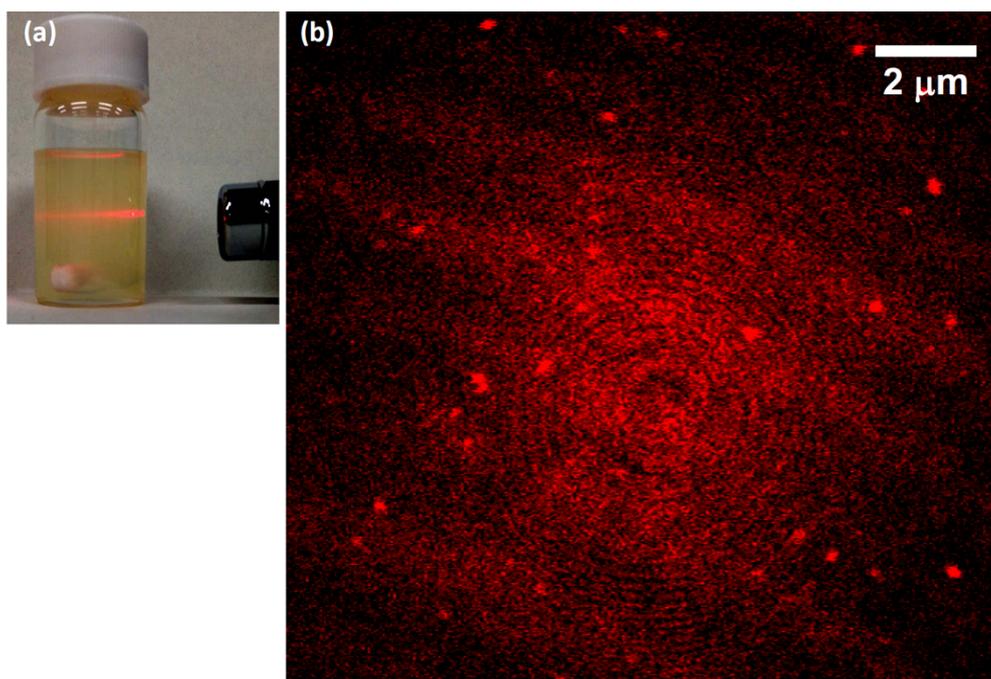


Fig. S1 (a) Photograph and (b) confocal laser scanning microscopic image of PS-*b*-PVP-*b*-PEO micelle solution.

Fig. S2

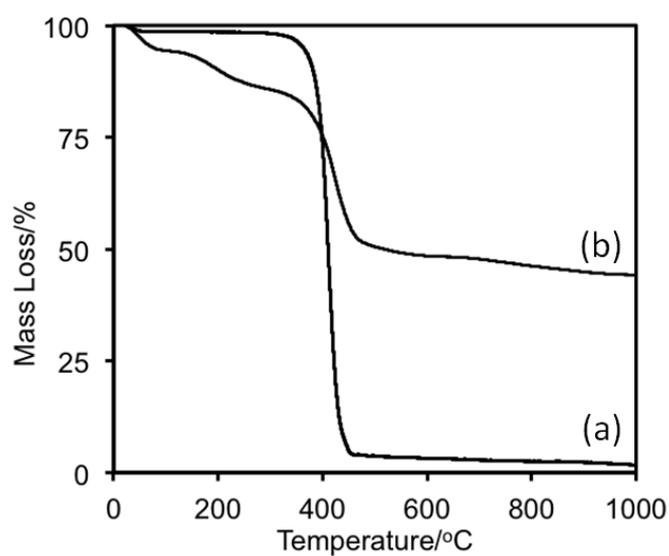


Fig. S2 Thermogravimetric (TG) analysis of (a) PS-*b*-PVP-*b*-PEO polymer and (b) Pt/SiO₂/PS-*b*-PVP-*b*-PEO nanocomposites, showing that the PS-*b*-PVP-*b*-PEO template is completely burned out at around 500 °C in N₂ medium.

Fig. S3

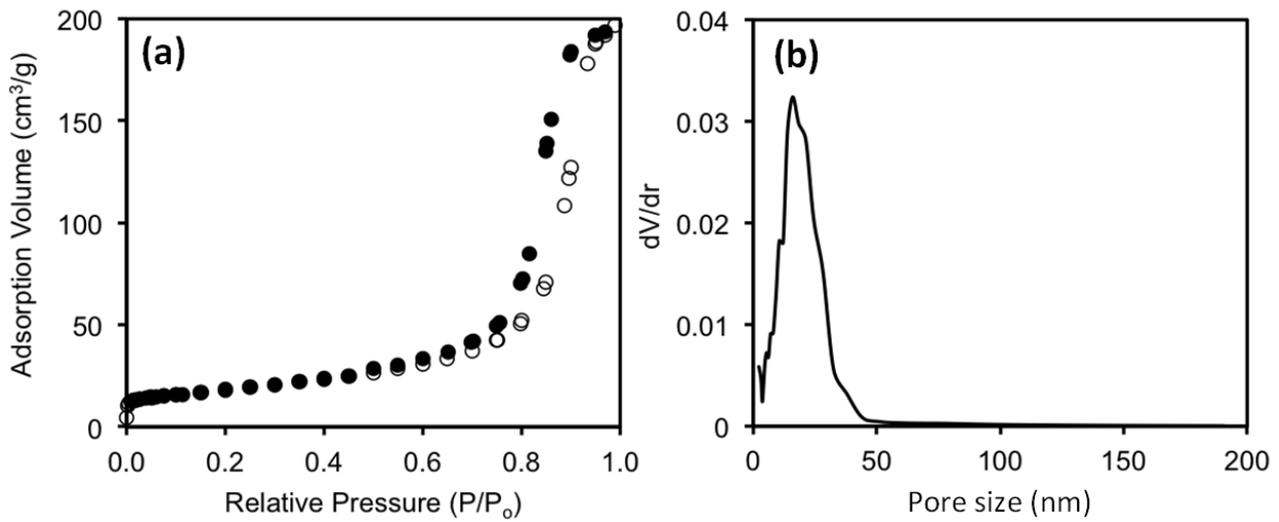


Fig. S3 (a) Nitrogen adsorption-desorption isotherm and (b) pore size distribution of Pt-decorated mesoporous silica.

Fig. S4

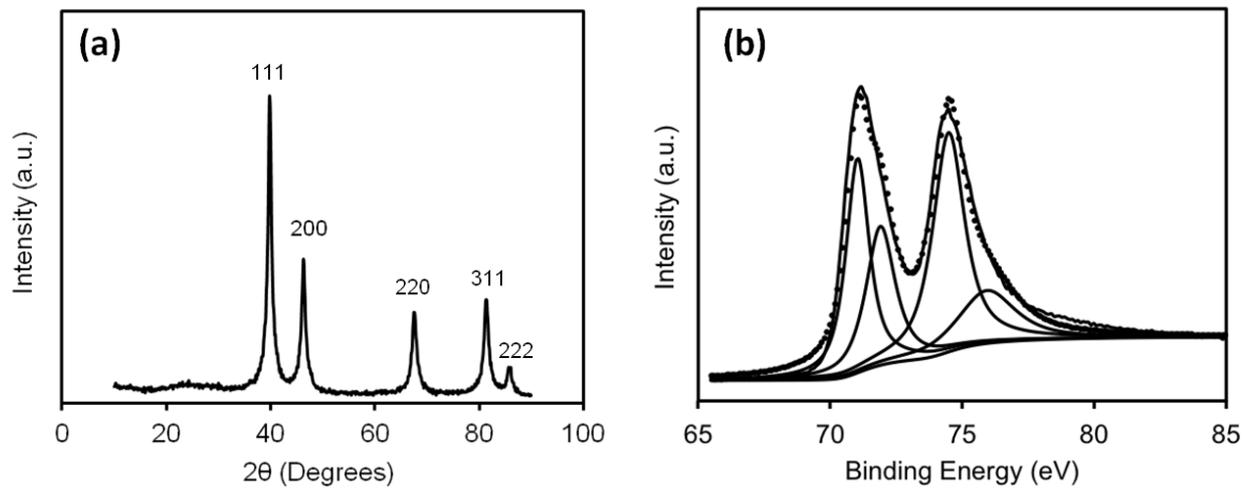


Fig. S4 (a) Wide-angle XRD pattern and (b) XPS spectrum of Pt-decorated mesoporous silica.

Fig. S5

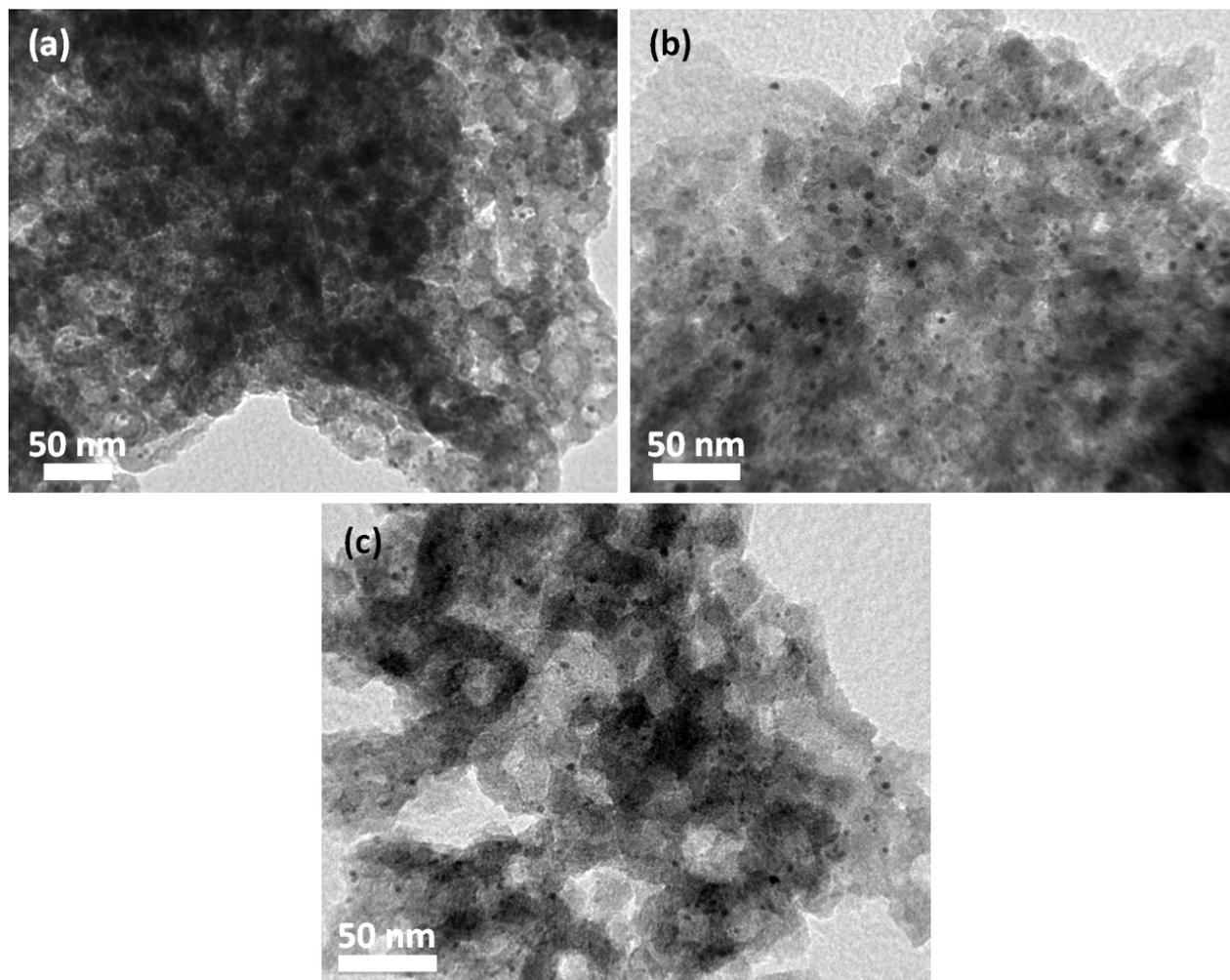


Fig. S5 (a-c) TEM image of Pt-decorated mesoporous SiO₂ after calcination at 300 °C in air for 5 hours. This temperature is far greater than the temperature of the reaction condition (150 °C) for CO oxidation test. The thermal agglomeration or leaching of the catalytic centers at high temperatures is not observed.

Fig. S6

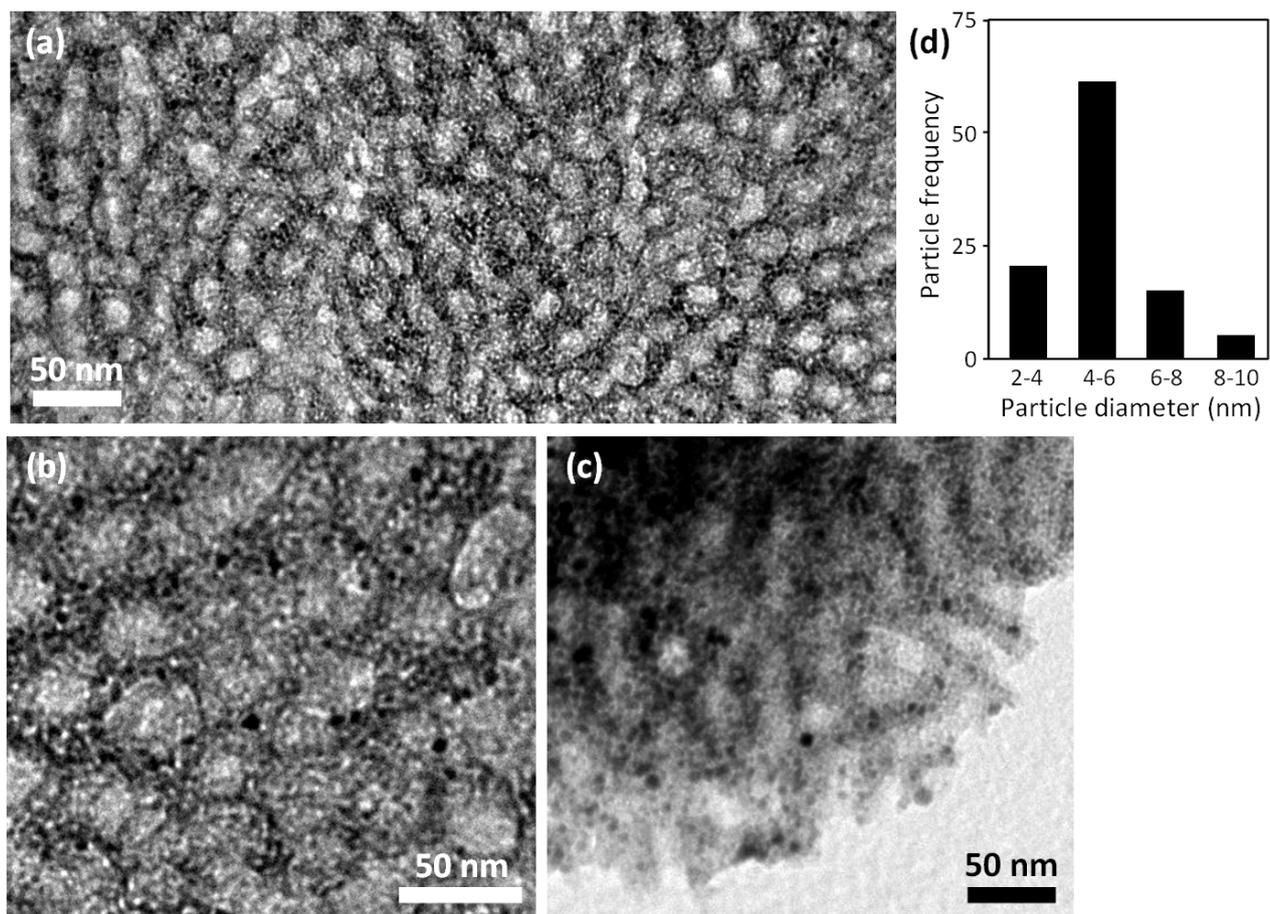


Fig. S6 (a and b) Low- and (c) high-magnified TEM images of Pt-decorated mesoporous alumina and (d) particle size distribution of Pt nanoparticles deposited inside the mesopores.