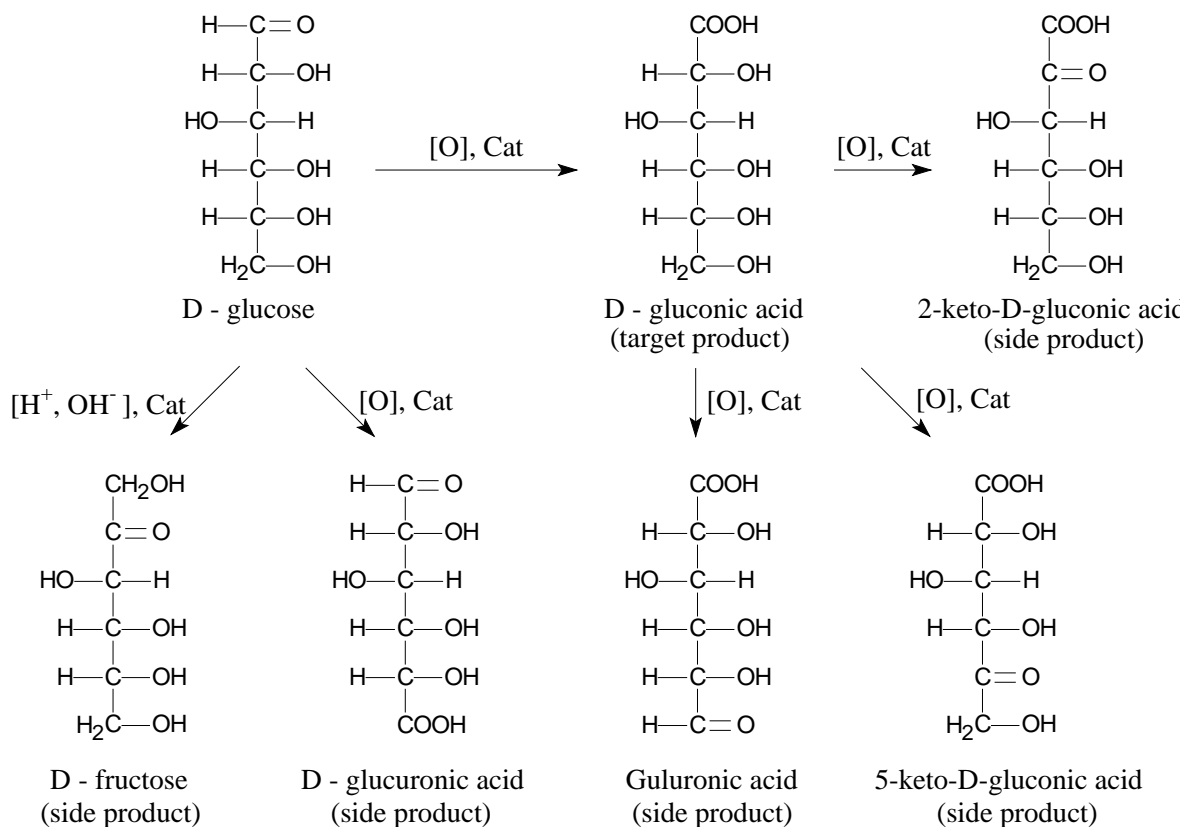


Electronic Supplementary Information

Pd(II) Nanoparticles in Porous Polystyrene: Factors Influencing the Nanoparticle Size and Catalytic Properties

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Catalytic reaction



Scheme S1. Direct catalytic D-glucose oxidation and possible side products (lower level).

Incorporation of Na_2PdCl_4 in HPS

In a typical procedure, 22.8 mg (0.078 mmol) of Na_2PdCl_4 (98%, Sigma-Aldrich) was dissolved in a solvent mixture consisting of THF, water and methanol in the ratio 5:1:1, to which 0.5 g of HPS was added. The suspension was continuously stirred for 10 min so that the solution could be absorbed by the polymer, which was then dried at 75 °C for 1 h. The sample was then washed with deionized water three times and dried at 75 °C under vacuum and stored under nitrogen.

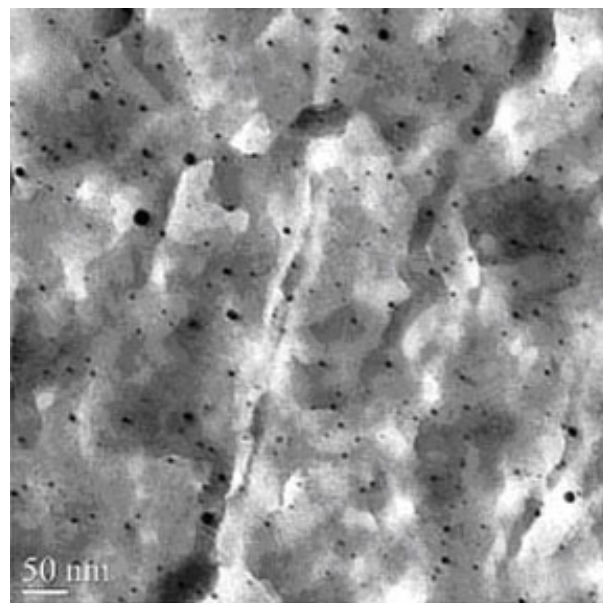
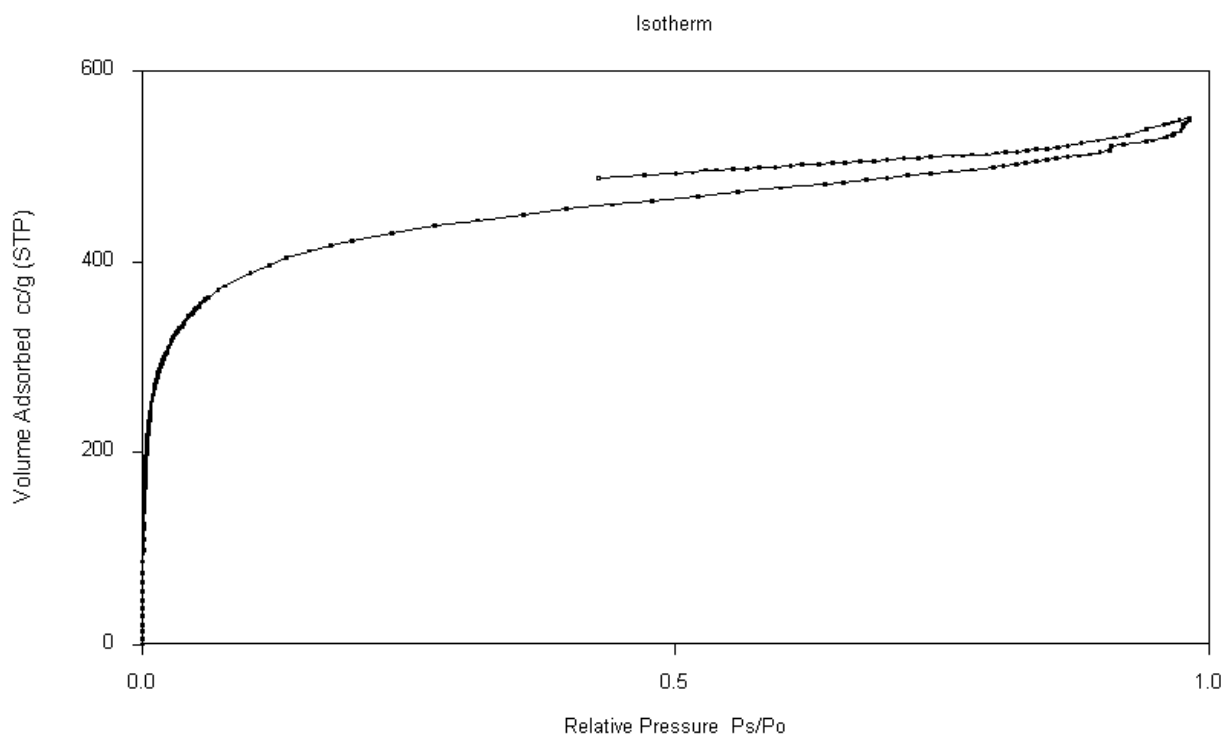
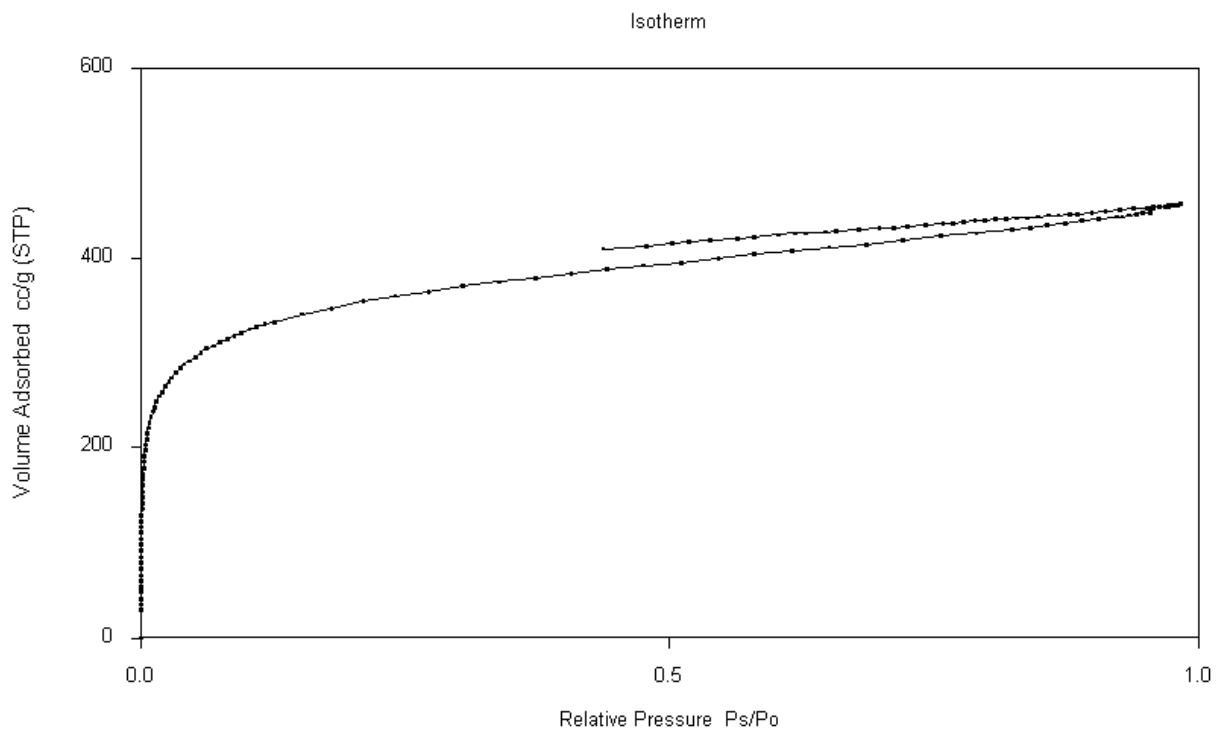


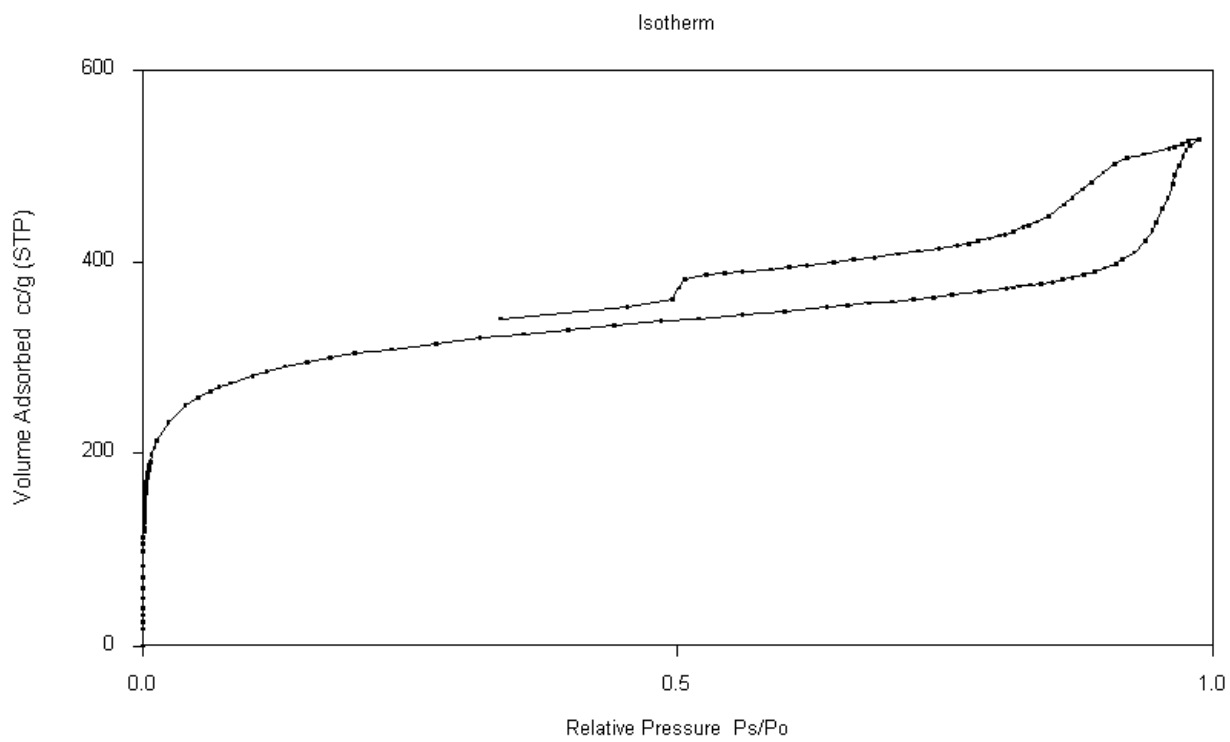
Figure S1. TEM image of HPS impregnated with Na_2PdCl_4 .



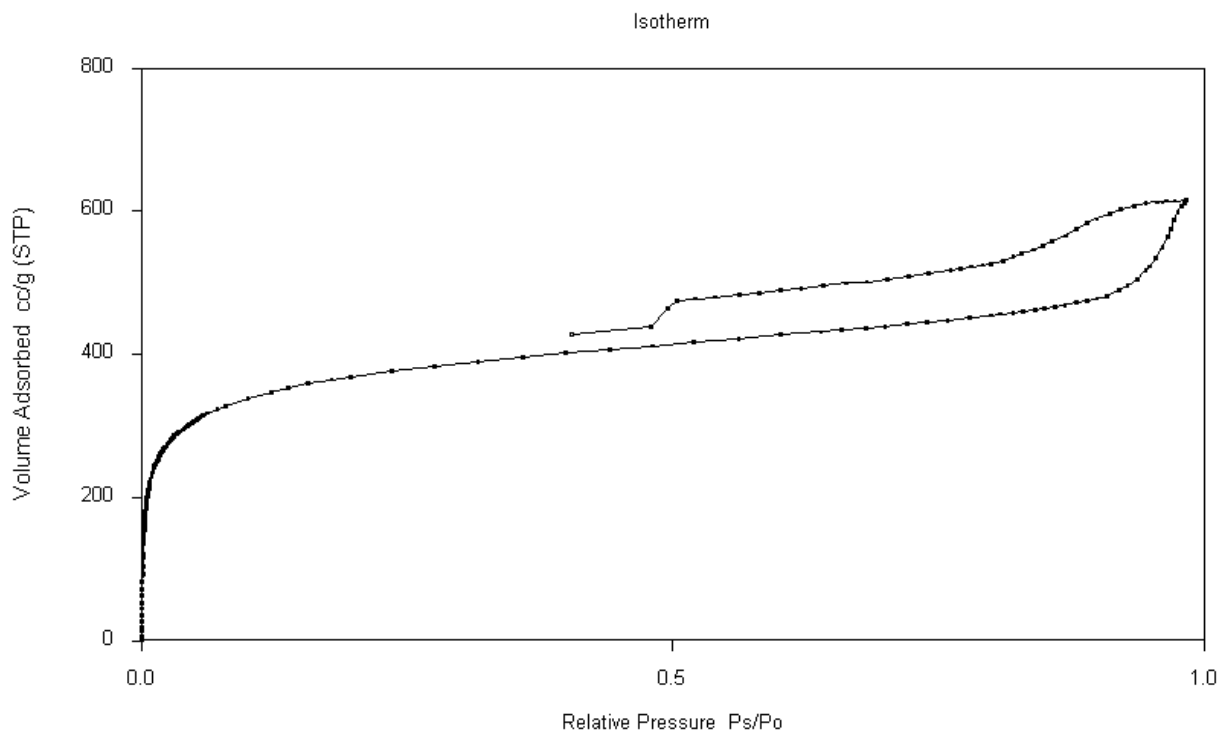
a



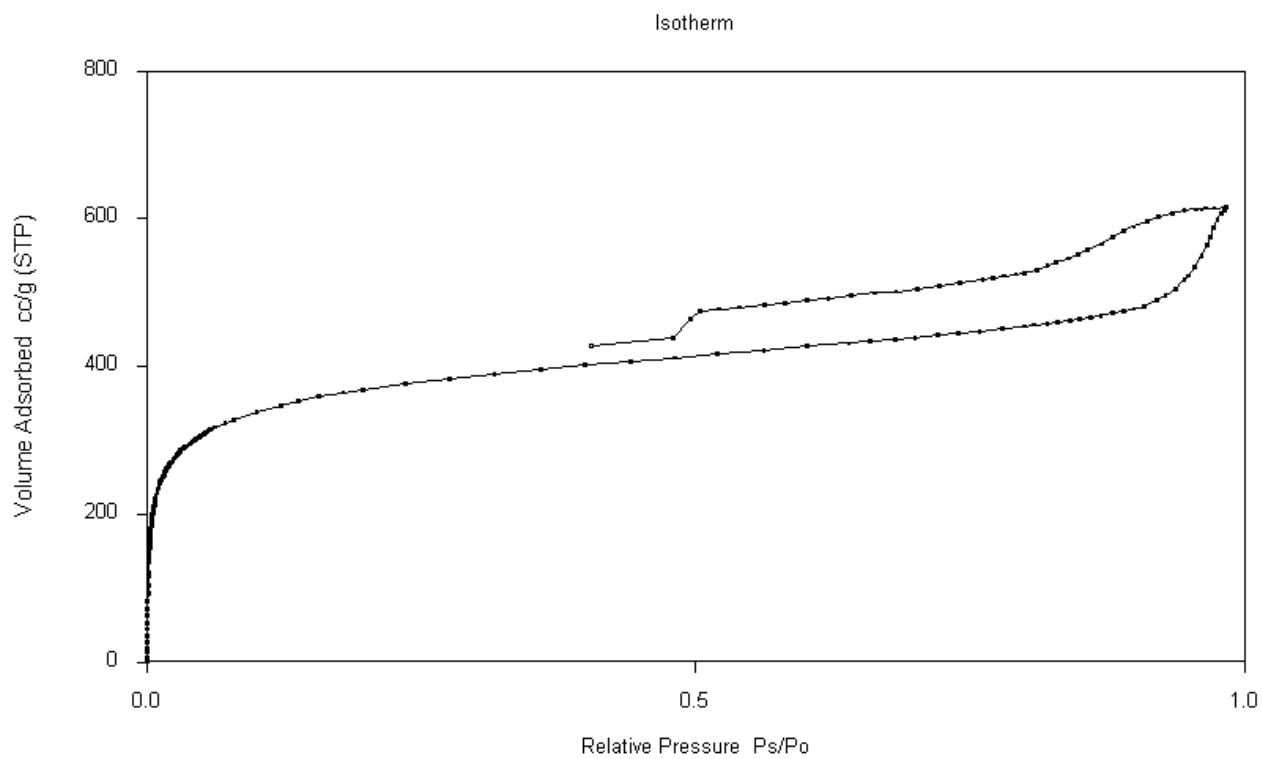
b



c



d



e

Figure S2. N₂ adsorption-desorption isotherms of HPS (a), HPS-Pd1 (b), HPS-Pd2 (c), HPS-Pd3 (d), and HPS-Pd4 (e). Mismatch of adsorption and desorption isotherms is due to significant presence of micropores.¹

(1) Sing, K. S. W.; Everett, D. H.; Haul, R. A. W.; Moscou, L.; Pierotti, R. A.; Rouquerol, J.; Siemieniewska, T. In *Handbook of Heterogeneous Catalysis*; 2nd ed.; Ertl, G., Knözinger, H., Schüth, F., Weitkamp, J., Eds.; Wiley-VCH Verlag GmbH & Co: Weinheim, 2008; Vol. 2, p 1217.