

*Supporting Information***Gold/Platinum Nanosponges for Electrocatalytic Oxidation of Methanol**

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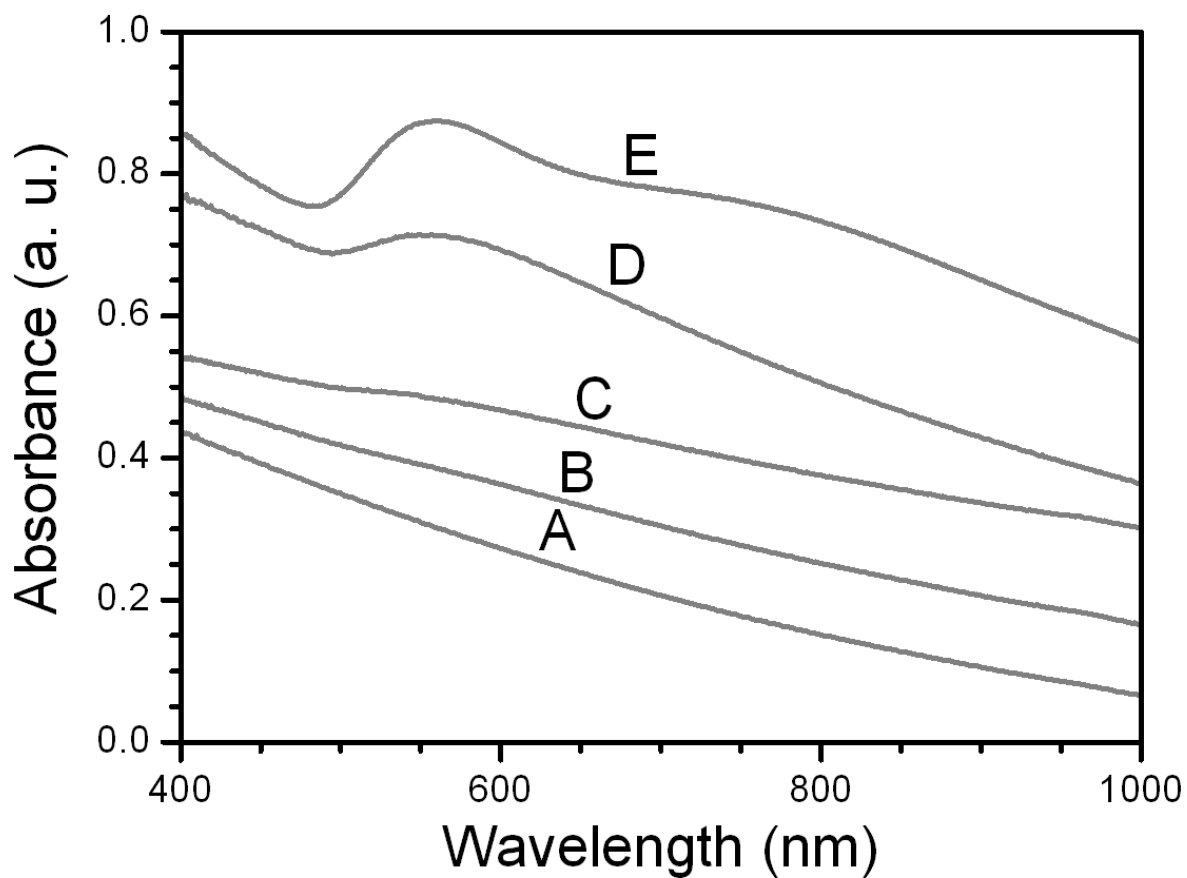


Fig. S1 UV-Vis absorption spectra of the (A) Pt, (B) Au_{0.1}/Pt, (C) Au_{0.3}/Pt, (D) Au_{0.5}/Pt, and (E) Au_{0.8}/Pt nanosponges.

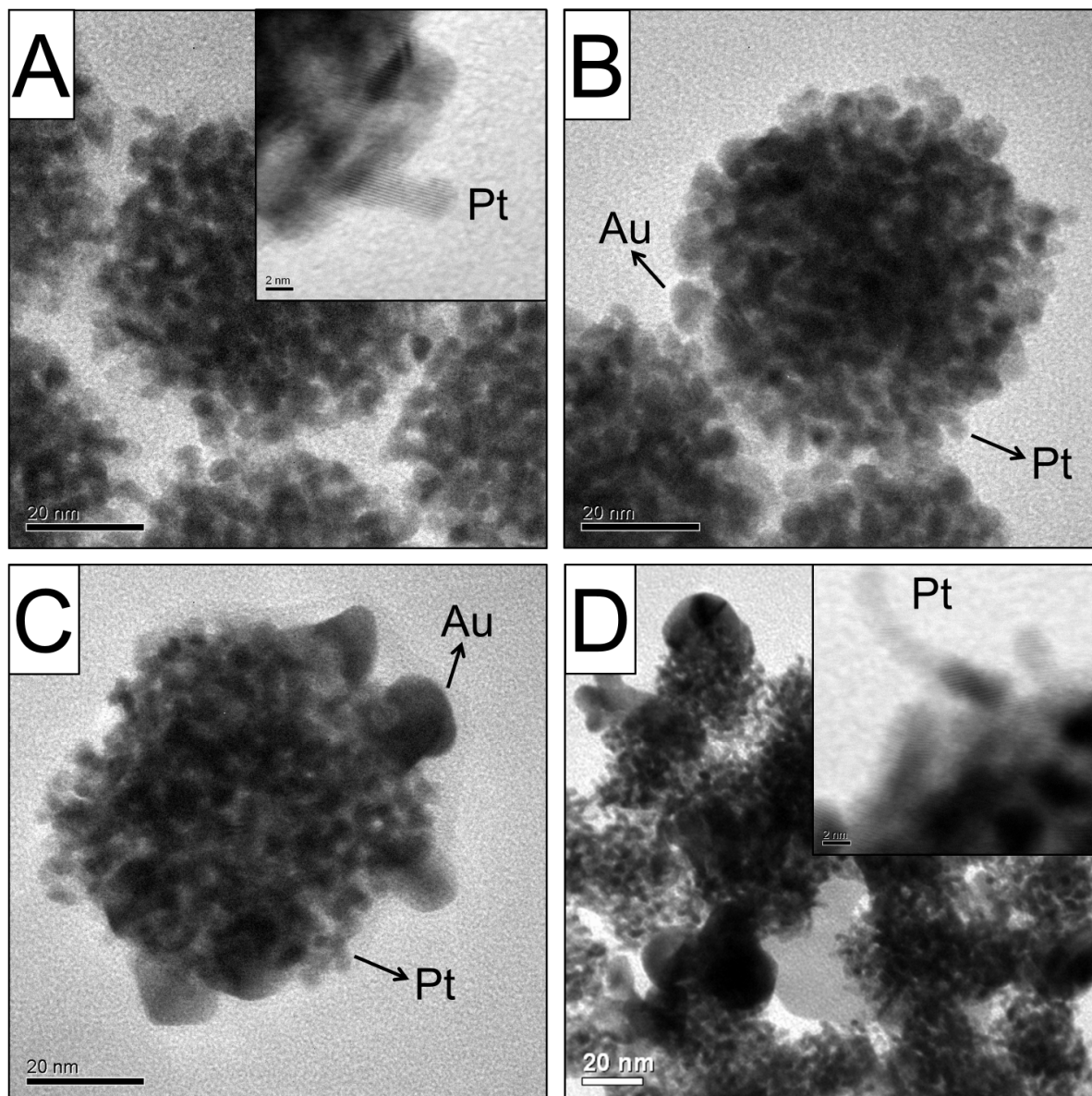


Fig. S2 Magnified TEM and high-resolution (HR) TEM images of samples obtained from the reactions of Pt nanosponges with NaAuCl_4 at the concentrations of (A) 0.1, (B) 0.5, (C) 1.0, and (D) 2.0 mM. HRTEM images of $\text{Au}_{0.1}/\text{Pt}$ and $\text{Au}_{0.8}/\text{Pt}$ nanosponges (insets to A and D) display that there were no core/shell structures on the Au/Pt nanosponges.

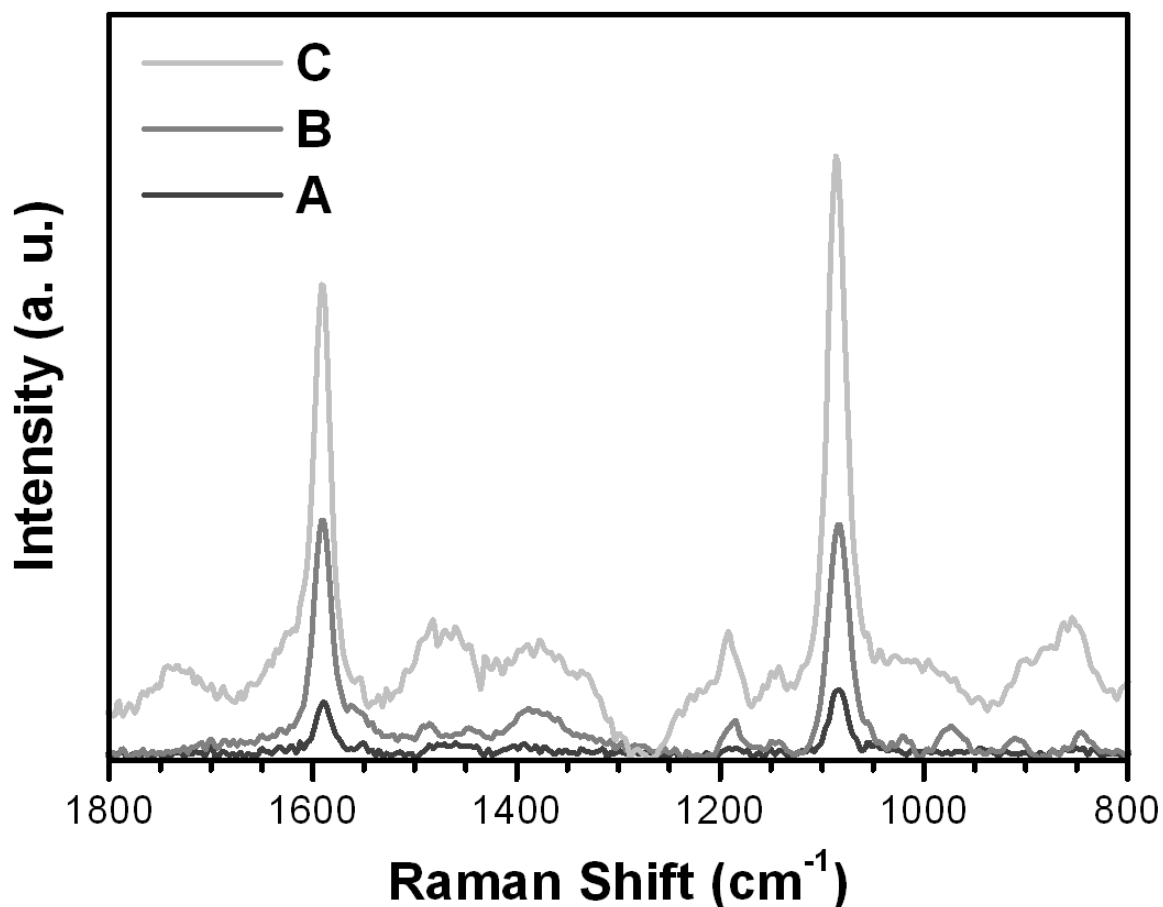


Fig. S3 (A) SERS spectra of 4-mercaptobenzoic acid (4-MBA) molecules adsorbed onto (A) Pt nanosponges, (B) Au_{0.3}/Pt nanosponges, and (C) Au_{0.8}/Pt nanosponges; the concentrations of 4-MBA were 10, 1, and 0.1 μM in (A), (B), and (C), respectively. The enhancement factors increased upon increasing the content of Au. The Au_{0.8}/Pt nanosponges provided a maximum enhancement factor (1.3×10^6).