

Electronic Supplementary Information

Porous ternary PtPdCu alloy with spherical network structure for electrocatalytic methanol oxidation

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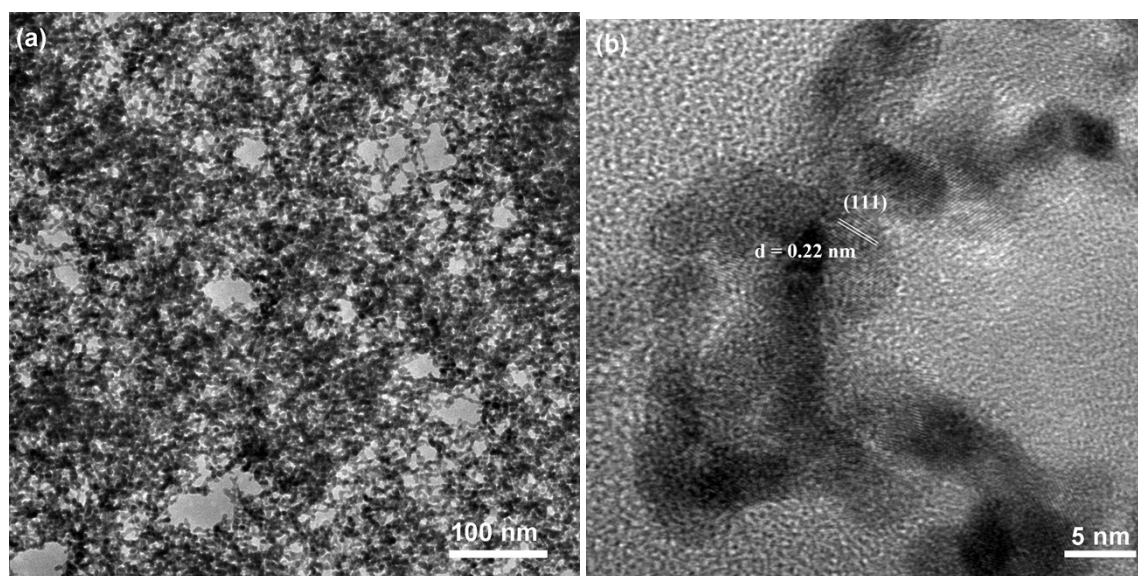


Fig. S1 (a) TEM and (b) HRTEM image of Pt₅PdCu₅ NSs

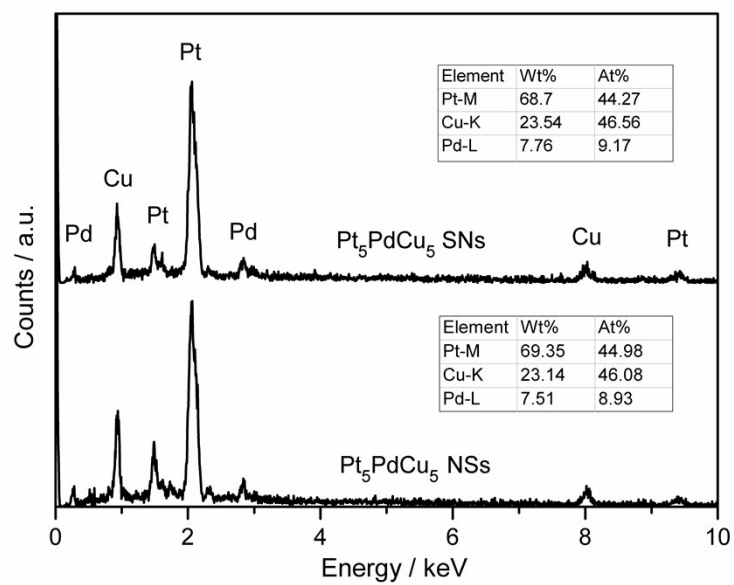


Fig. S2 EDS spectra of Pt₅PdCu₅ SNs and Pt₅PdCu₅ NSs.

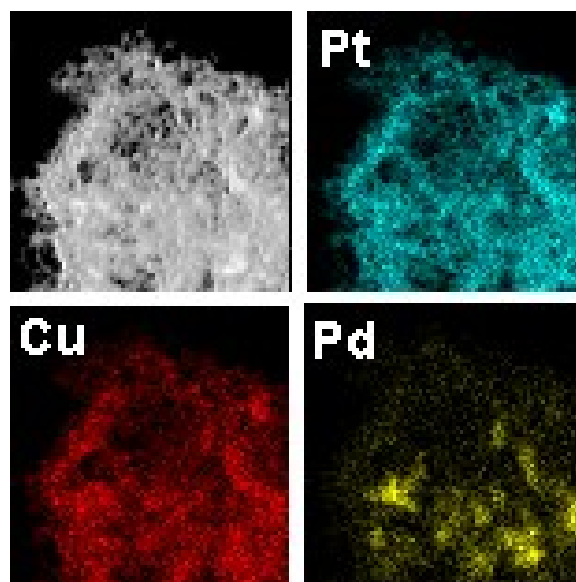


Fig. S3 HAADF-STEM image and EDS mapping images of Pt₅PdCu₅ SNs.

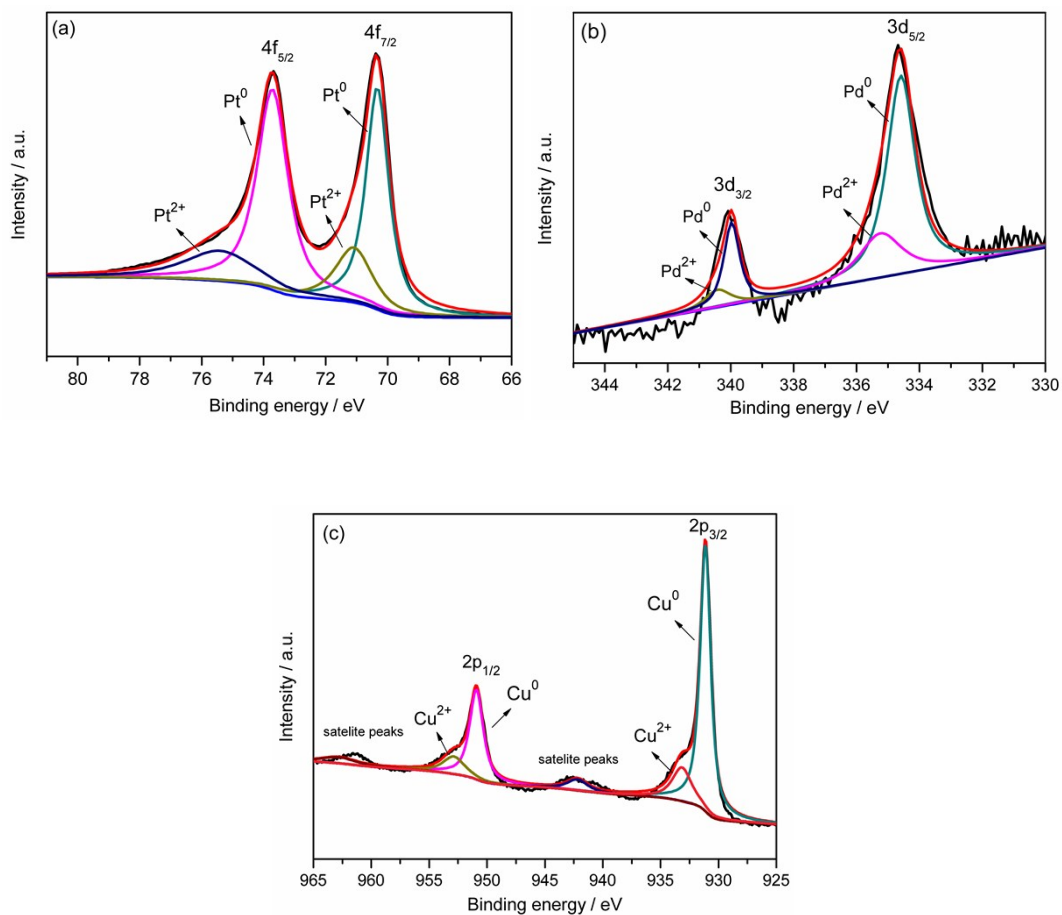


Fig. S4 XPS spectra of the deconvoluted (a) Pt 4f, (b) Pd 3d and (c) Cu 2p peaks for Pt₅PdCu₅ NSs.

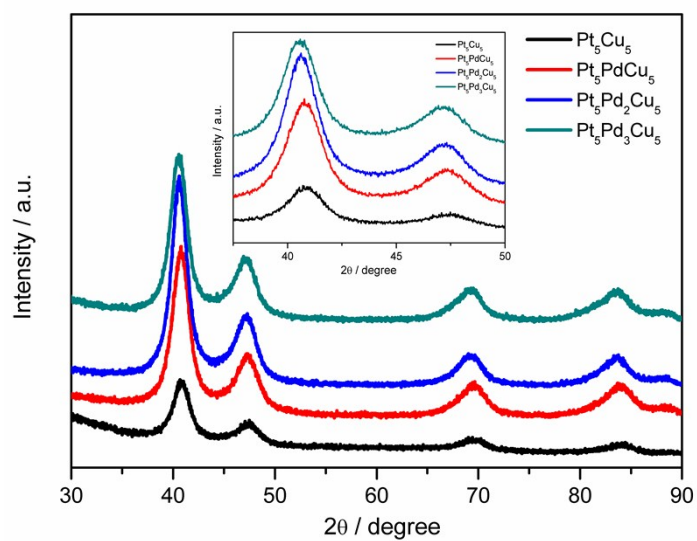


Fig. S5 XRD patterns of alloy samples with different compositions.

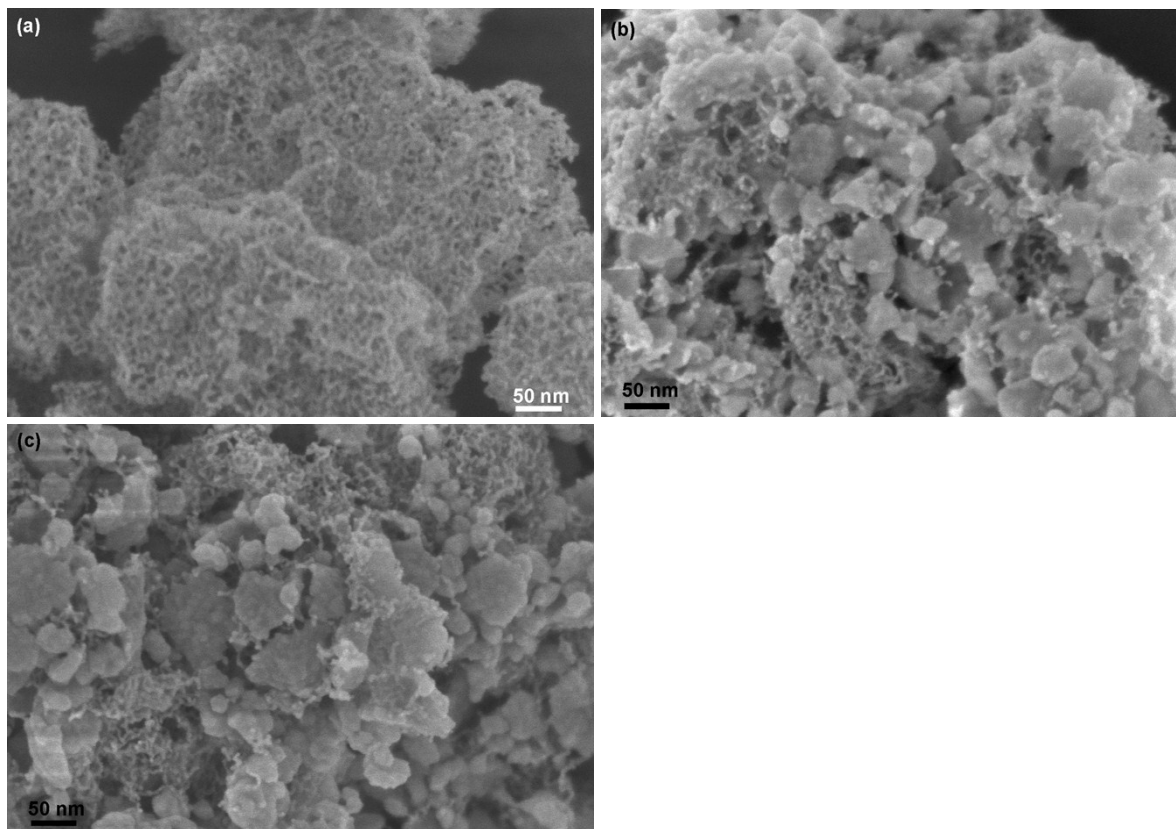


Fig. S6 SEM images of (a) Pt_5Cu_5 , (b) $\text{Pt}_5\text{Pd}_2\text{Cu}_5$ and (c) $\text{Pt}_5\text{Pd}_3\text{Cu}_5$.

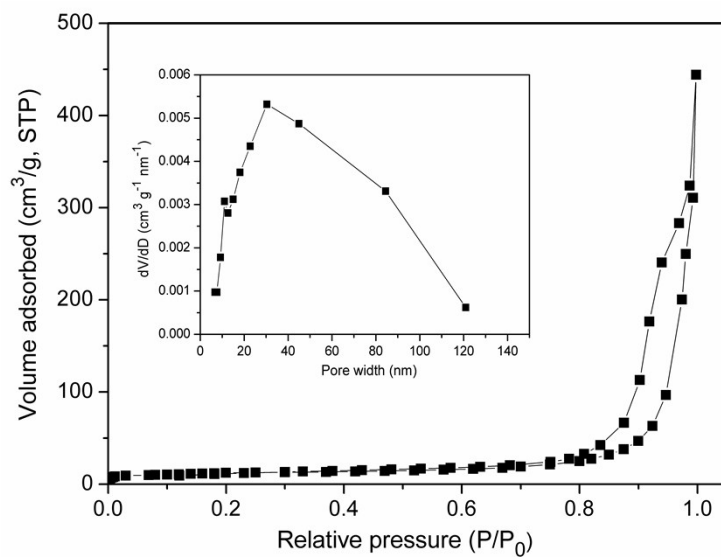


Fig. S7 N_2 adsorption-desorption isotherms and (insert) pore size distribution curves of Pt_5Cu_5 .

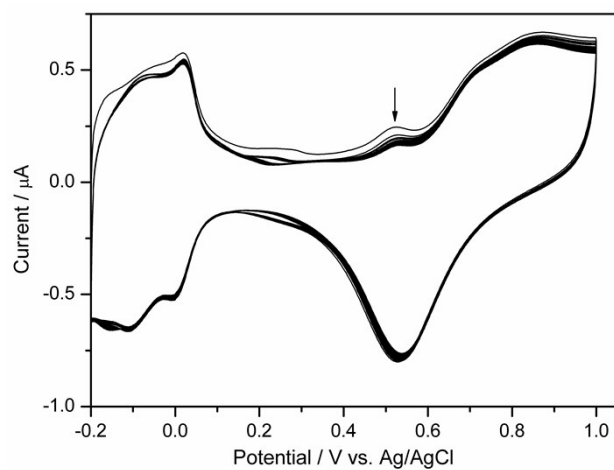


Fig. S8 CV curves of Pt₅PdCu₅ NSs recorded during the first 20 cycles at scan rate of 50 mV s⁻¹.

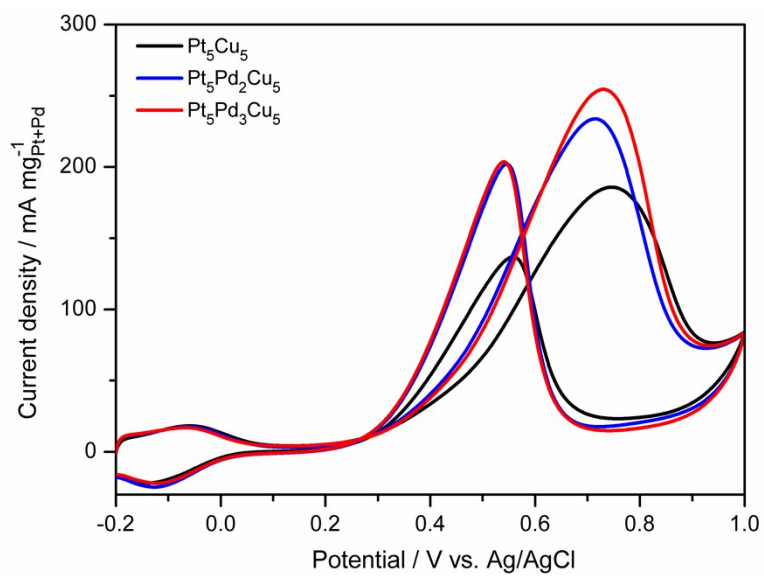


Fig. S9 CV curves measured in 0.5 M H₂SO₄ + 0.5 M CH₃OH at scan rate of 50 mV s⁻¹.