Supplementary Information

Generalized and high temperature synthesis of a series of crystalline mesoporous metal oxides based nanocomposites with enhanced catalytic activities for benzene combustion

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Supporting figure captions

Figure S1 Wide angle XRD patterns of crystalline mesoporous (a) Cr_2O_3, (b) $Ce_{0.5}Zr_{0.5}O_2$, (c) SnO_2 (d) ZrO_2, (e) CeO_2, (f) TiO_2, and (g) Al_2O_3.

Figure S2 N_2 isotherms of crystalline mesoporous (a) ZrO_2, (b) TiO_2, (c) $Ce_{0.5}Zr_{0.5}O_2$, (d) Fe_2O_3, (e) Cr_2O_3 and (f) SnO_2. The The isotherm for (a)-(e) are offset by 400, 300, 200, 100 and 50 m^2/g, respectively along the vertical axis for clarity.

Figure S3 TEM images of (A-C) 10%MnO_x/P4VP-CeO_2 and (D-F) 0.2%Pt/10%MnO_x/P4VP-CeO_2.

Figure S4 Small angle XRD patterns of (a) P4VP-CeO_2, (b) 10%MnO_x/P4VP-CeO_2, and (c) 0.2%Pt/10%MnO_x/P4VP-CeO_2.

Figure S5 Pt_{4f} XPS spectrum of 0.2%PtO_x/10%MnO_x/P4VP-CeO_2.

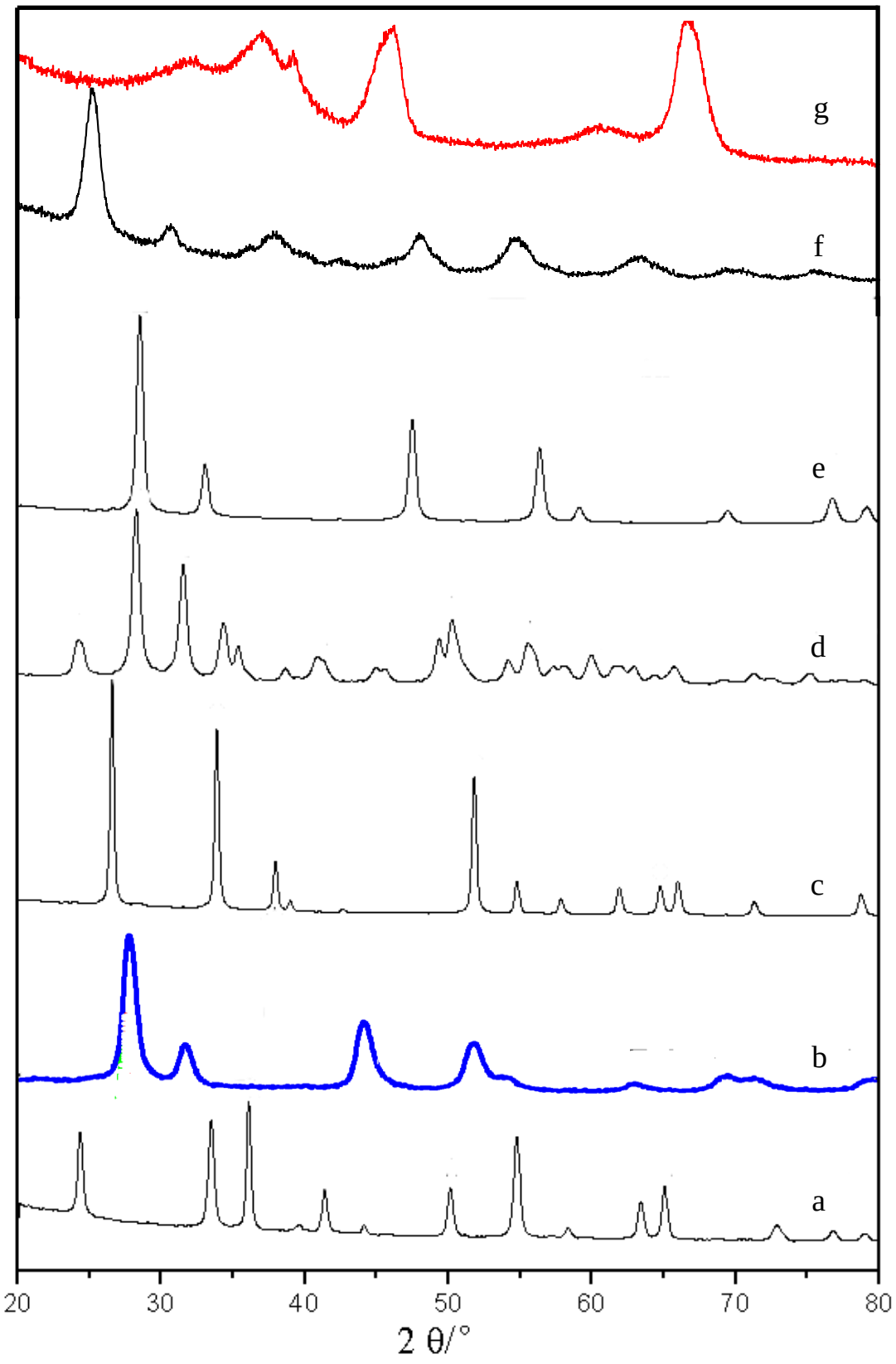

Figure S1

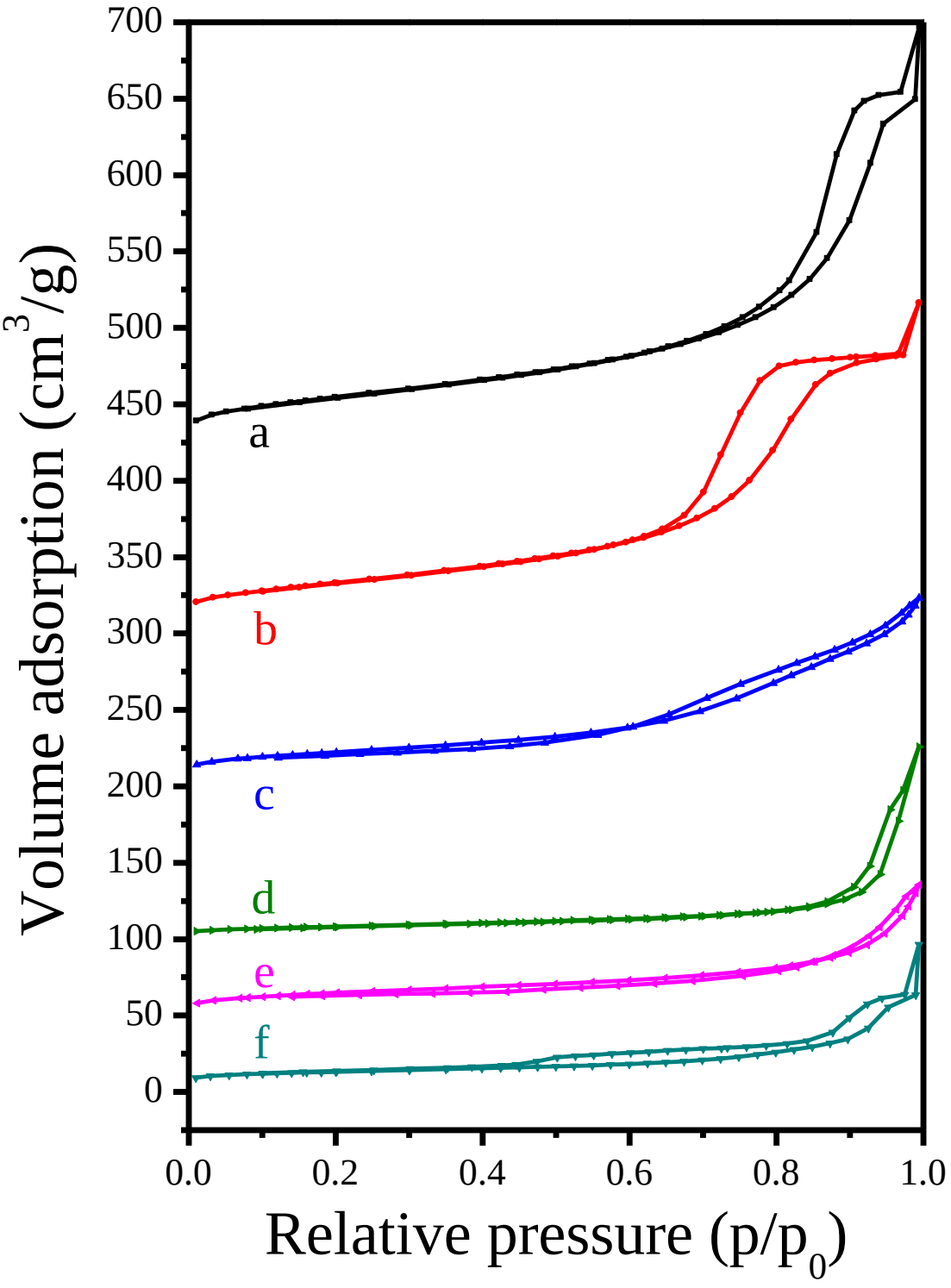

Figure S2

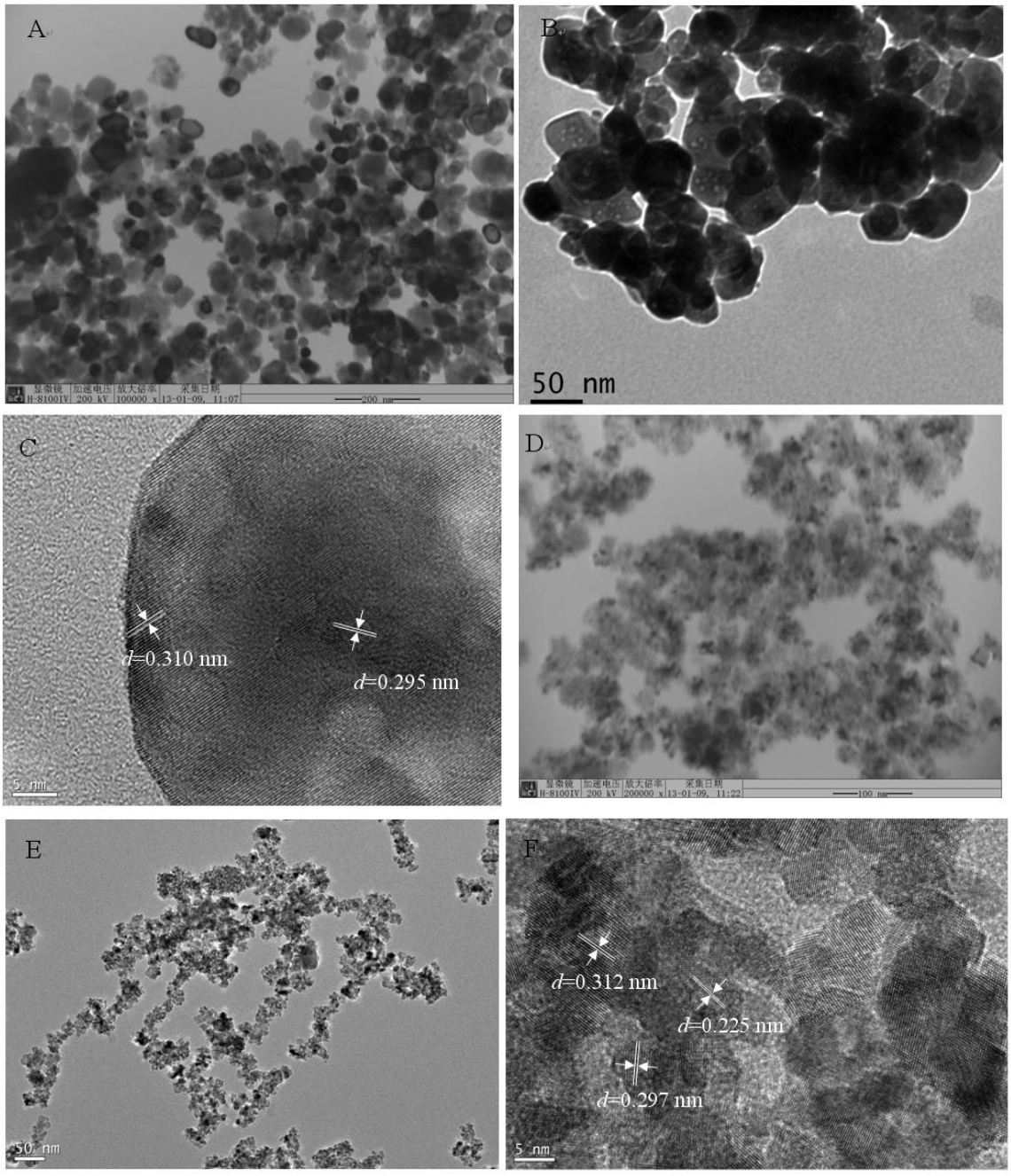

Figure S3

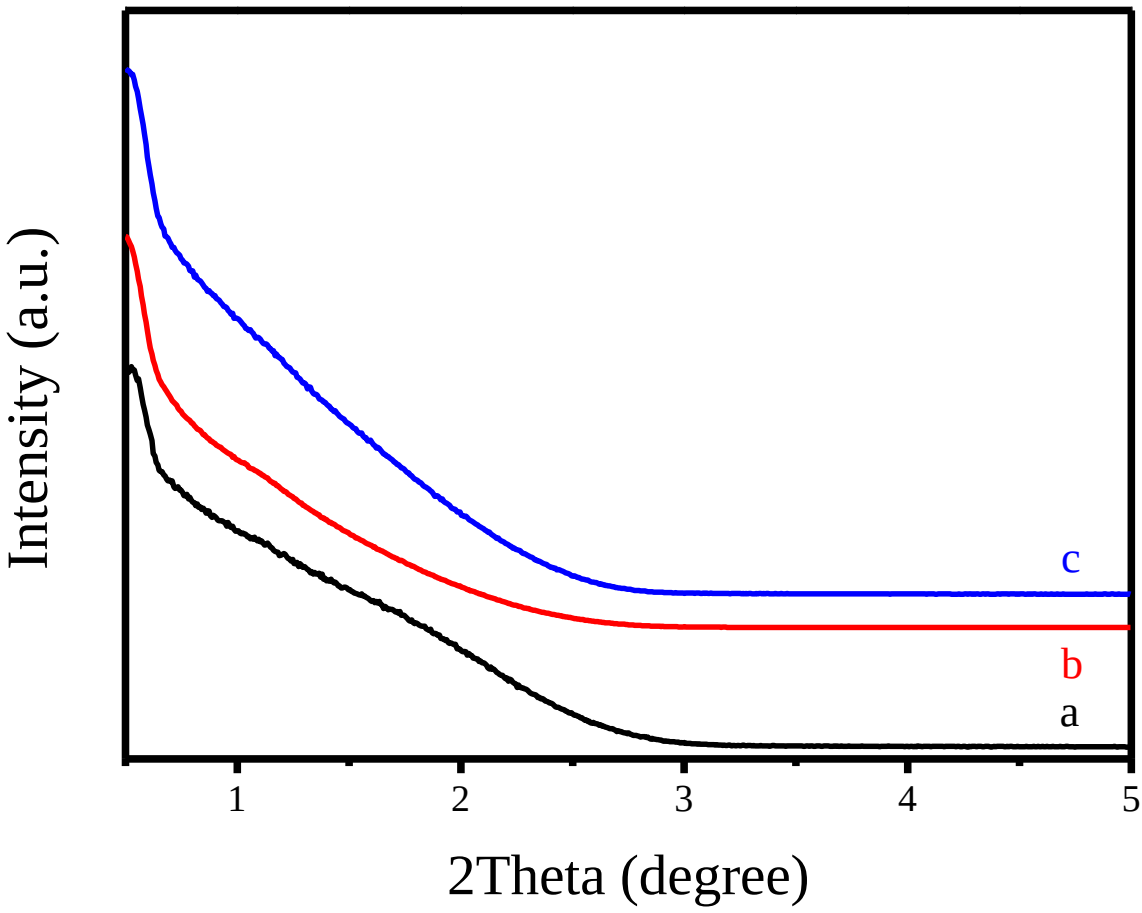

Figure S4

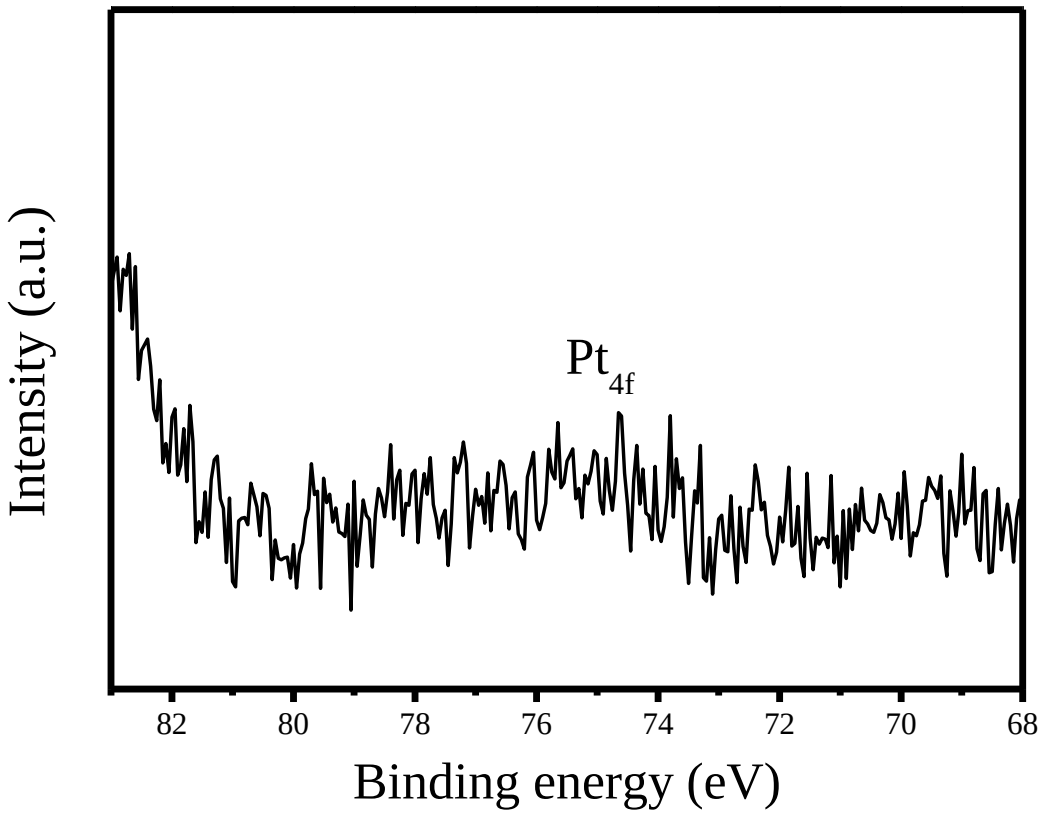

Figure S5