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Self-Templated Synthesis of Hierarchical Mesoporous SnO_2 Nanosheets for Selective CO_2 Reduction

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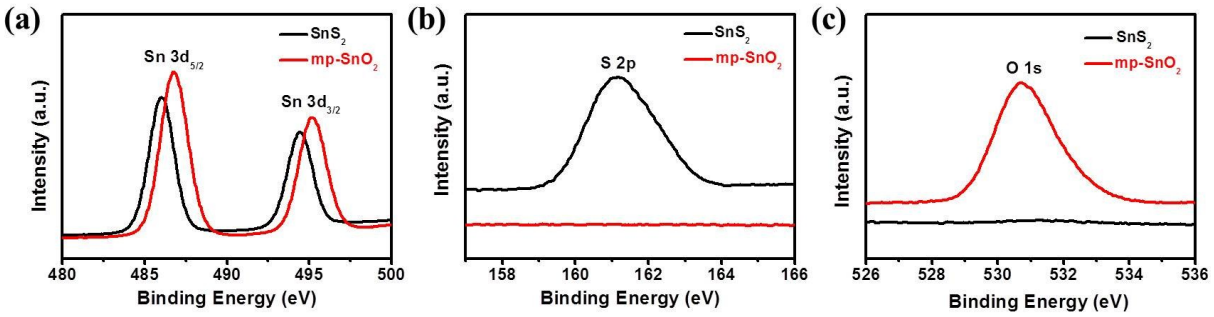

Fig. S1 (a) Sn 3d, (b) S 2p and (c) O 1s XPS spectra of SnS_2 and mp-SnO_2.

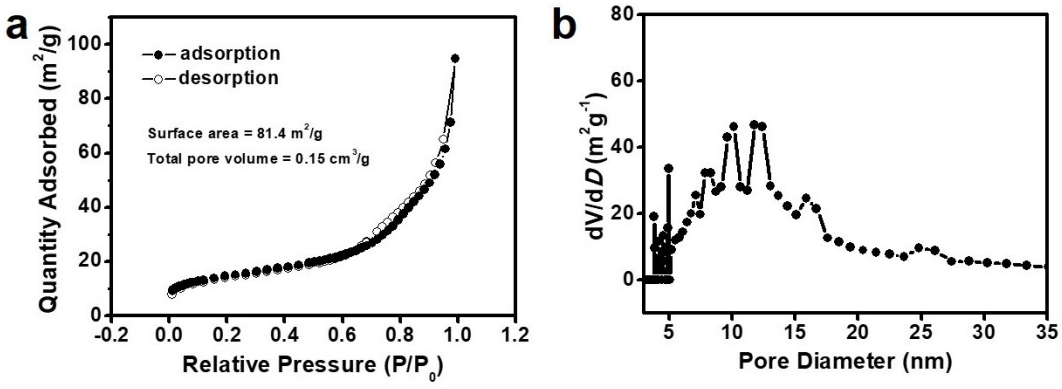

Fig. S2 (a) N_2 adsorption–desorption isotherm and (b) corresponding pore size distribution curve of of mp-SnO_2.

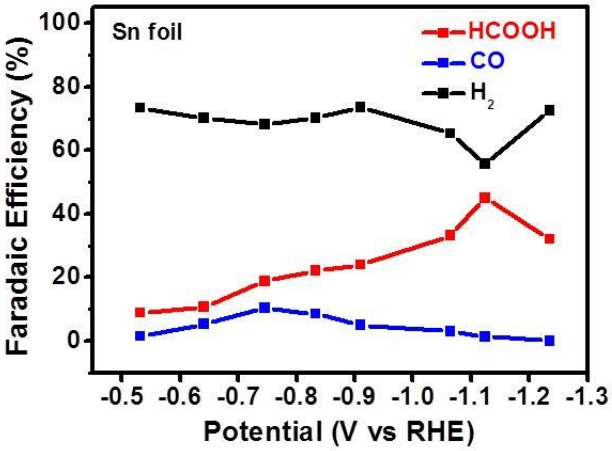

Fig. S3 Potential-dependent Faradaic efficiencies of formate, CO or H_2 on commercial Sn foil in CO_2-saturated 0.5 M $NaHCO_3$.

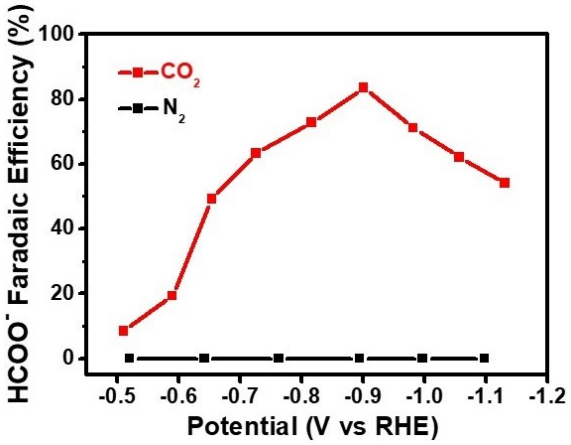

Fig. S4 Formate partial current density on mp-SnO_2 in CO_2- or N_2-saturated 0.5 M $NaHCO_3$.

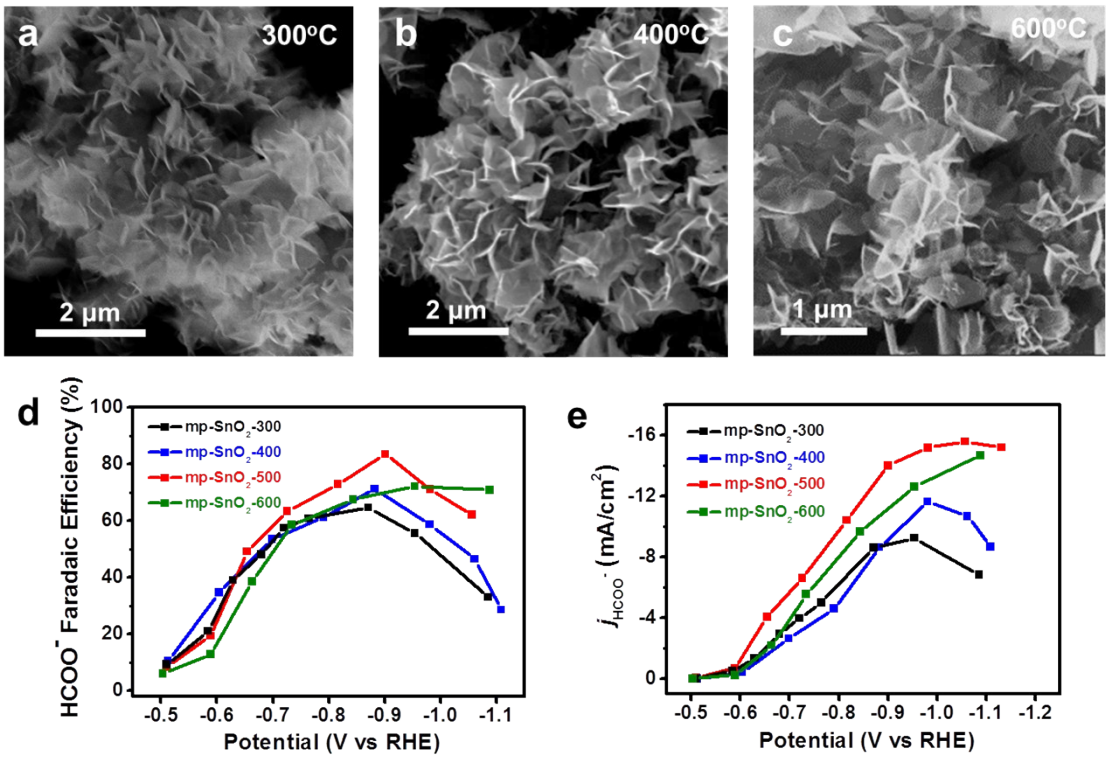

Fig. S5 (a-c) SEM images, (d) formate Faradaic efficiency and (e) formate partial current density of SnO_2 samples calcined at temperatures as indicated.

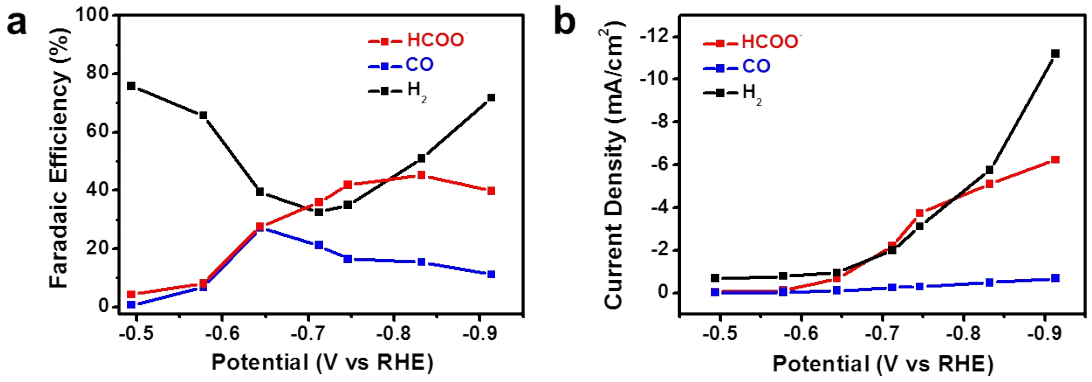

Fig. S6 (a) Potential-dependent Faradaic efficiencies and (b) partial current densities for CO, H_2 and $HCOO^-$ on as-prepared SnS_2.