Electronic Supplementary Material for PCCP

Supplementary data

CoPt Nanoparticles and Their Catalytic Properties in Electrooxidation of CO and CH_3OH Studied by *In Situ* FTIRS

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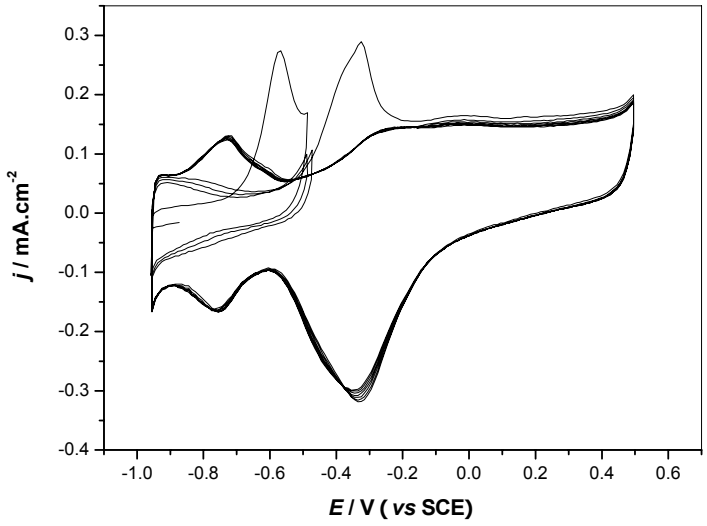

Fig. S1 CVs of adsorbed CO oxidation on CoPt/GC, 0.1M NaOH solution, scan rate 50 $mV \cdot s^{-1}$.

After CO adsorption in saturation on CoPt/GC and complete removal of CO in solution by bubbling N_2, the electrode potential was cycled firstly between -0.96 and ca. -0.48V (near the splitting of two oxidation peak) for three times, in which the pre-peak has been disappeared completely from CV. The electrode potential is then scanned to 0.50 V, illustrating that the following-peak is still remained in the CV.

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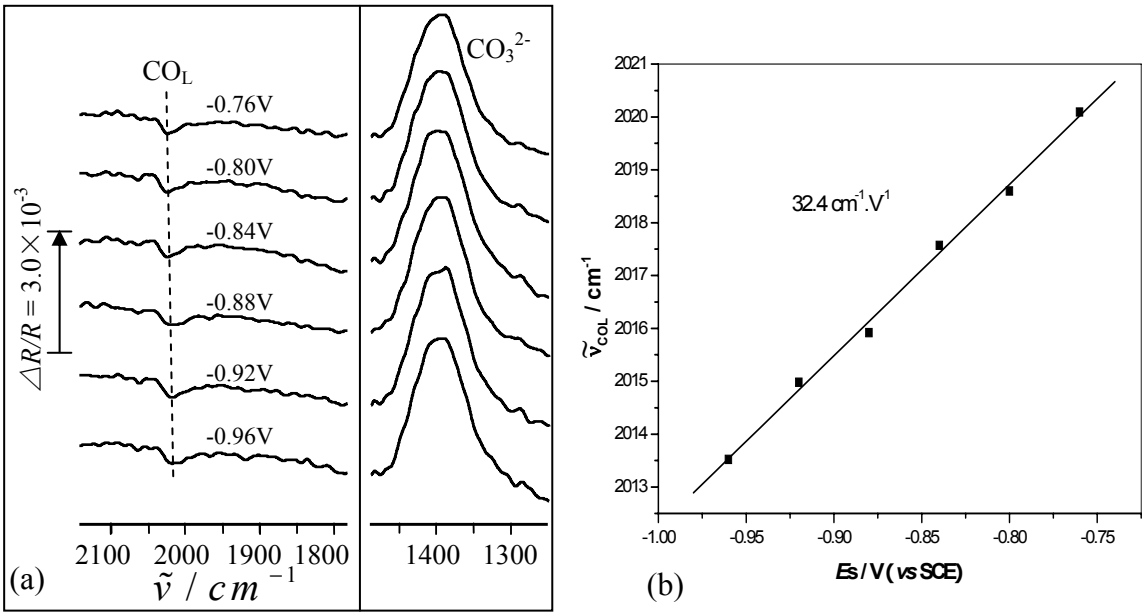

Fig. S2 (a) MSFTIR spectra of CO adsorbed in saturation on surface of bulk Pt (a polycrystalline Pt rod of 5 mm in diameter sealed into a Teflon holder), E_S = -0.96 ~ -0.76 V, E_R = -0.3 V, 0.1 M NaOH solution; (b) Variation of $\tilde{\nu}_{COL}$ with E_S.

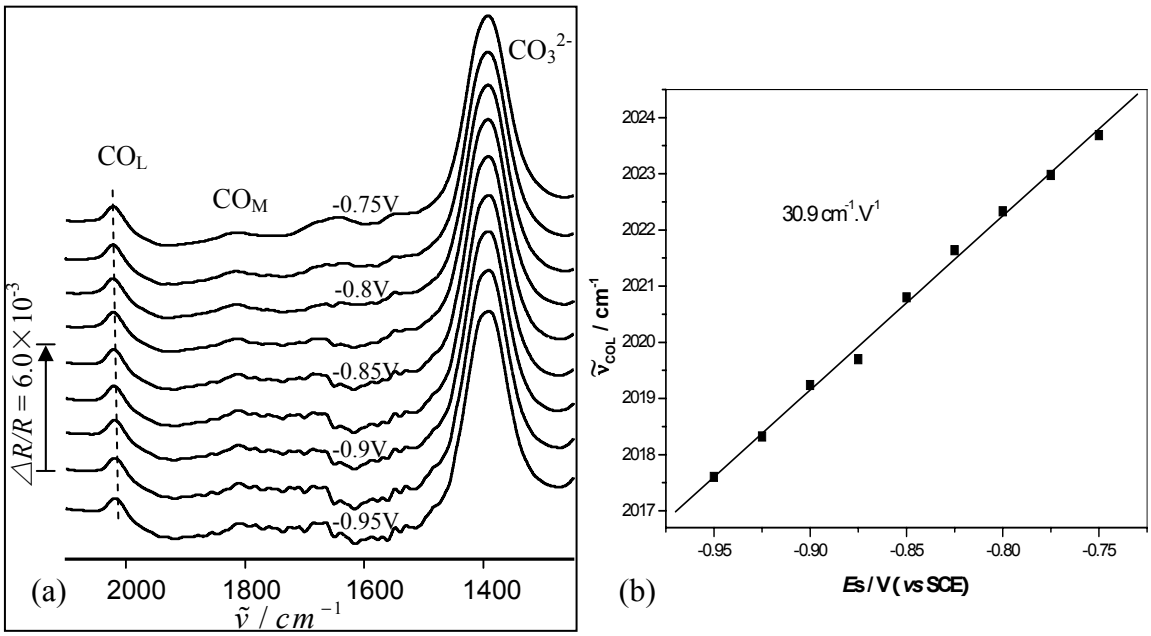

Fig. S3 (a) MSFTIR spectra of CO adsorbed in saturation on Pt/GC, E_S = -0.95 ~ -0.75 V, E_R = -0.3 V, 0.1 M NaOH solution; (b) Variation of $\tilde{v}_{COL}$ with E_S