

Supporting Information

Mechanistic Effects of Blending Formic Acid with Ethanol on Pd activity Towards Formic Acid Oxidation in Acidic Media

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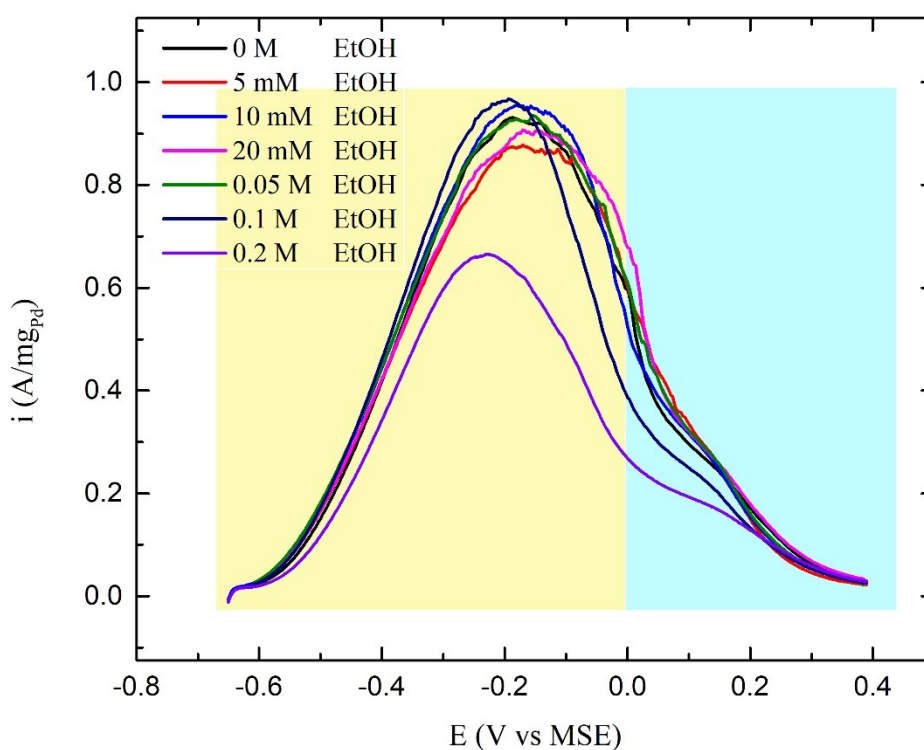


Figure S1: CV curves for FA-0.5 fuel blends with different ethanol concentrations

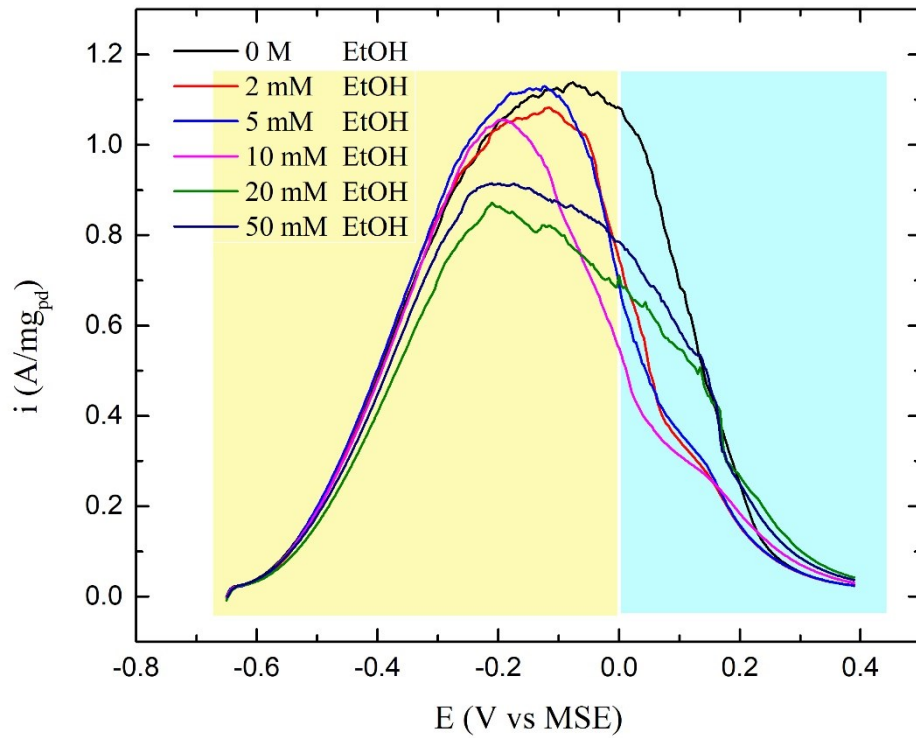


Figure S2: CV curves for FA-1 fuel blends with different ethanol concentrations

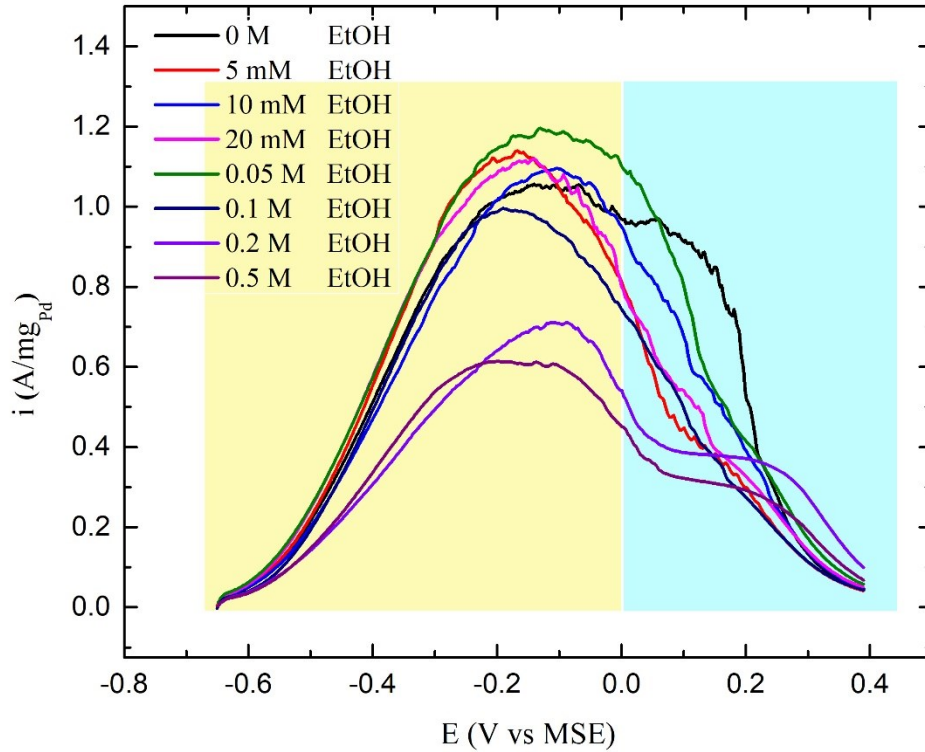


Figure S3: CV curves for FA-2 fuel blends with different ethanol concentrations

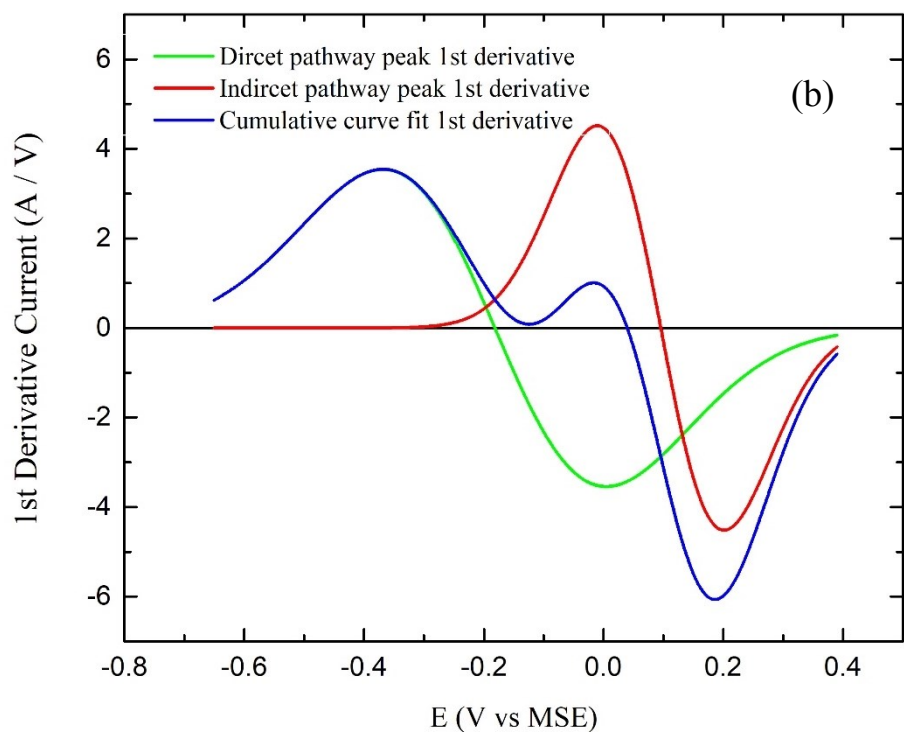
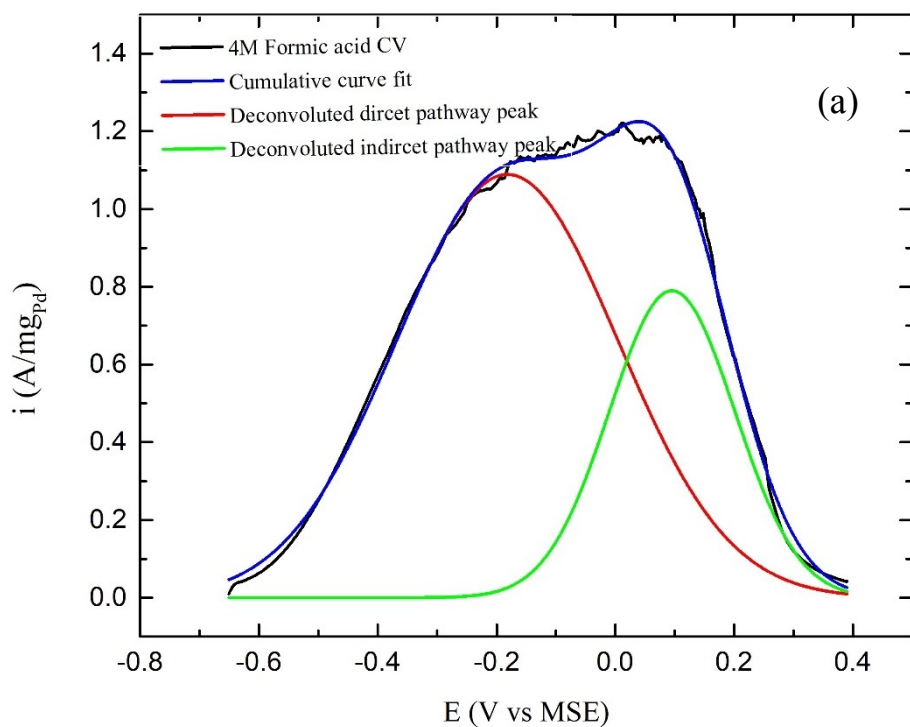


Fig S4: (a) Curve deconvolution of 4M formic acid CV, (b) 1st derivative for the deconvoluted peaks and the cumulative curve fit

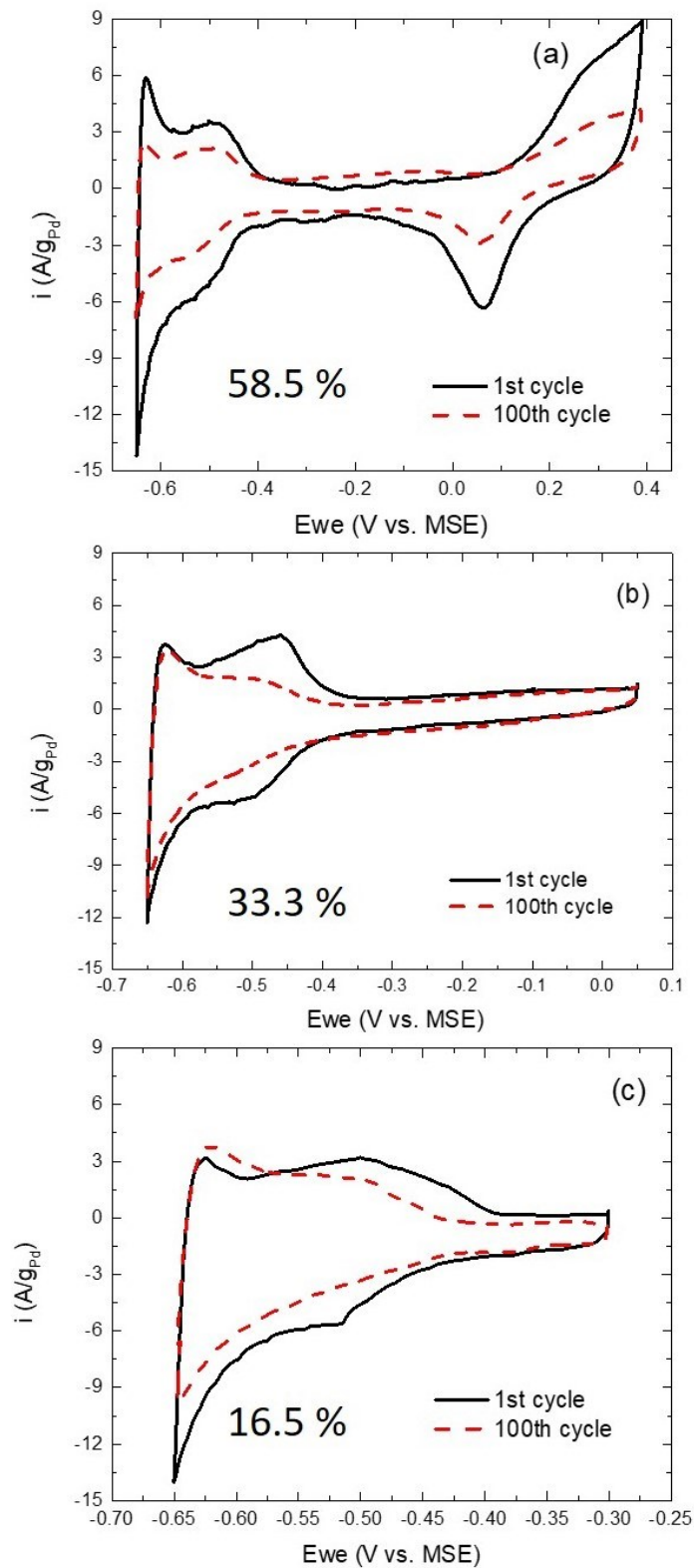


Figure S5: A comparison between the 1st and the 100th CV curves for Pd/C catalyst in 0.1 M H₂SO₄ using (a) 0.39, (b) 0.05, and (c) -0.3 V vs. MSE as the upper potential.

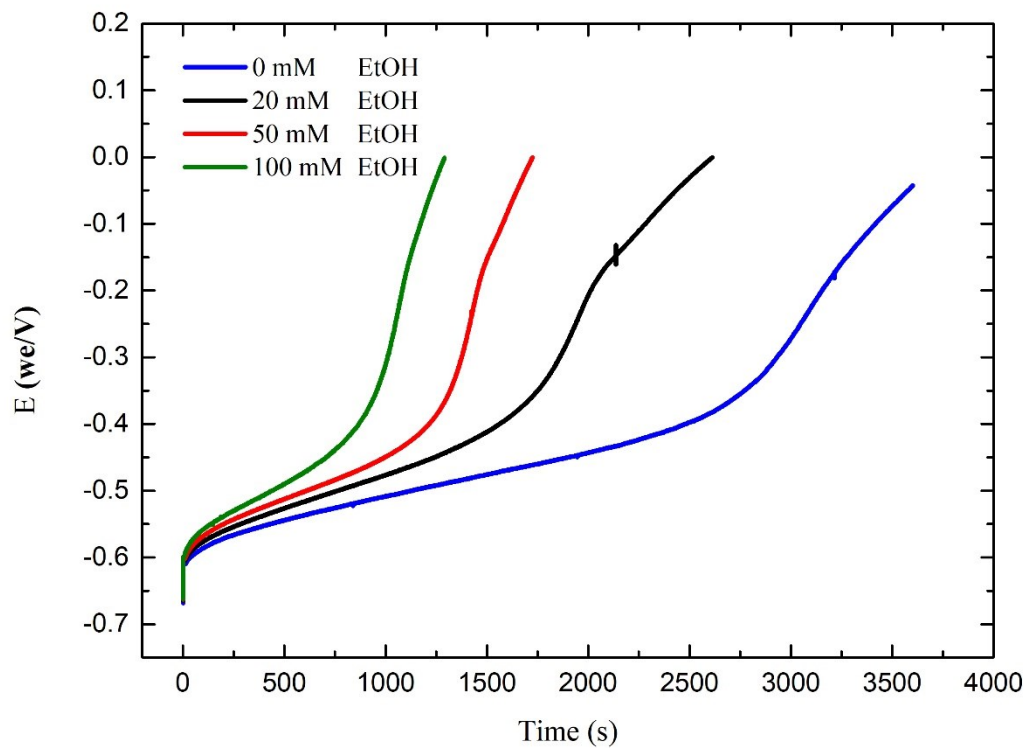


Figure S6: Chronopotentiometry curves of Pd/C (a) at $50 \text{ A/g}_{\text{Pd}}$ measured in $0.1 \text{ M H}_2\text{SO}_4 + 4 \text{ M FA}$ in presence and absence of different concentrations of EtOH.