

## Supporting Material

### **Adsorption and oxidation of ethanol on colloid-based Pt/C, PtRu/C and Pt<sub>3</sub>Sn/C catalysts: *In-situ* FTIR spectroscopy and on-line DEMS studies**

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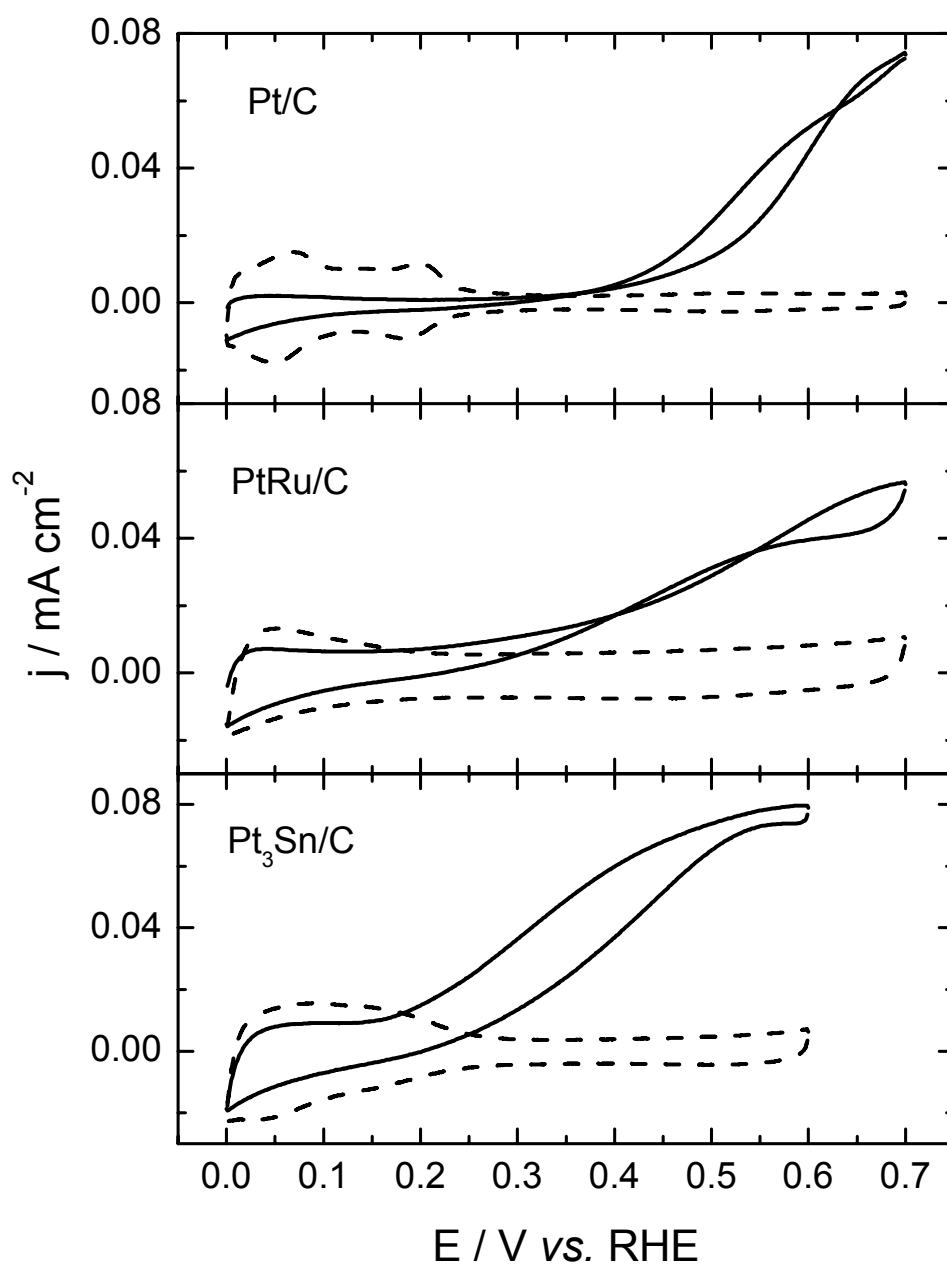


Fig. S1 Potentiodynamic ethanol electrooxidation on (a) Pt/C, (b) PtRu/C, and (c) Pt<sub>3</sub>Sn/C catalysts in 0.1 M H<sub>2</sub>SO<sub>4</sub> (---) and 0.1 M H<sub>2</sub>SO<sub>4</sub> + 0.1 M C<sub>2</sub>H<sub>5</sub>OH (—) solution (scan rate 10 mV s<sup>-1</sup>, catalyst loading: 86 μg cm<sup>-2</sup>).

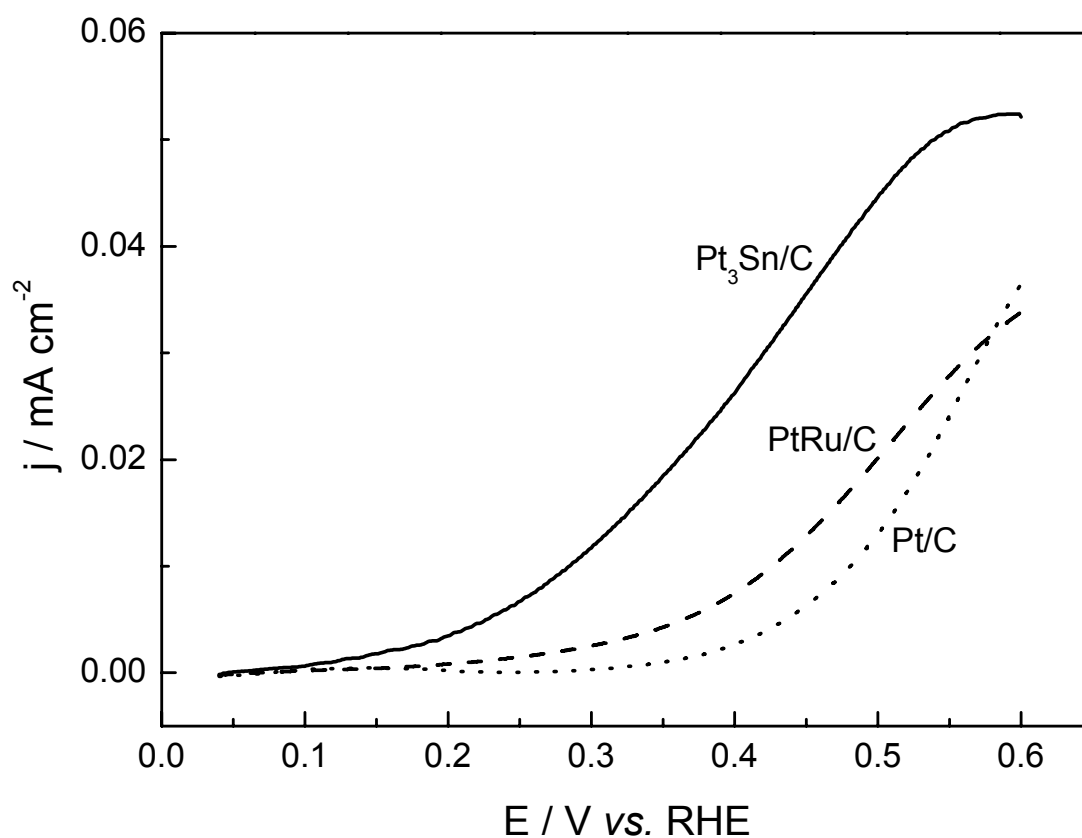


Fig. S2 Polarization curves for ethanol electrooxidation on (a) Pt/C, (b) PtRu/C, and (c) Pt<sub>3</sub>Sn/C catalysts in 0.1 M H<sub>2</sub>SO<sub>4</sub> + 0.1 M C<sub>2</sub>H<sub>5</sub>OH at a scan rate of 1 mV s<sup>-1</sup> (catalyst loading: 86 μg cm<sup>-2</sup>).

