

Supporting Information for

Disentangling Catalytic Activity at Terrace and Step Sites on Selectively Ru-Modified Well-Ordered Pt Surfaces Probed by CO Electro-oxidation

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Voltammetric Cycles of Ru-modified Pt Stepped Surfaces

Figure SI 1 depicts cyclic voltammetries for ruthenium deposition at tree coverage on Pt(554) and Pt(332).

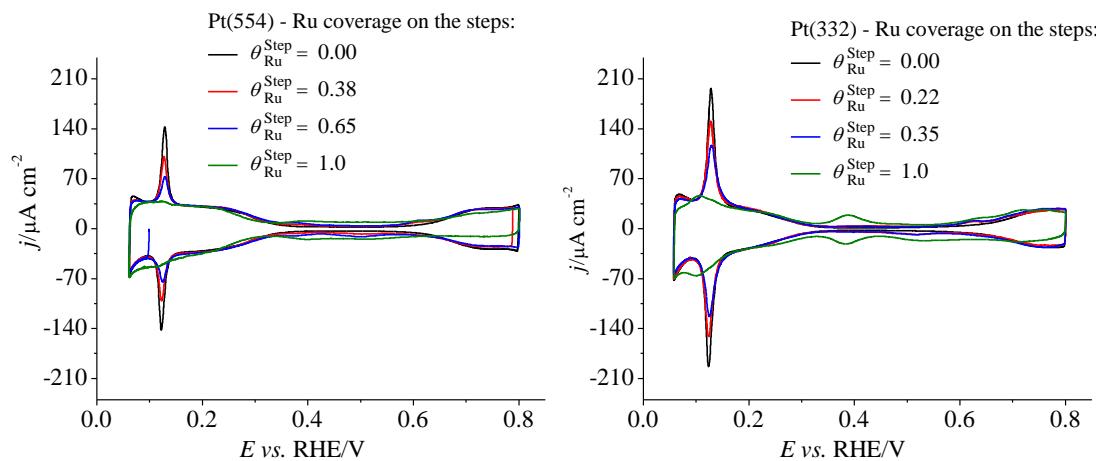


Figure SI 1. Cyclic voltammetries of two stepped Pt electrodes before and after selective modifications of their steps by Ru. Data recorded at 0.05 V s^{-1} in 0.1 M HClO_4 .

Voltammetric Cycles for CO stripping on Ru-modified Pt Stepped Surfaces

Figure SI 2 shows cyclic voltammetries corresponding to the CO adlayer oxidation on three Ru-modified stepped Pt surfaces. It can be seen that onset of CO oxidation is lower for highest step density $\rho(hkl)$, which follows the order: $\rho(331) > \rho(332) > \rho(554)$.

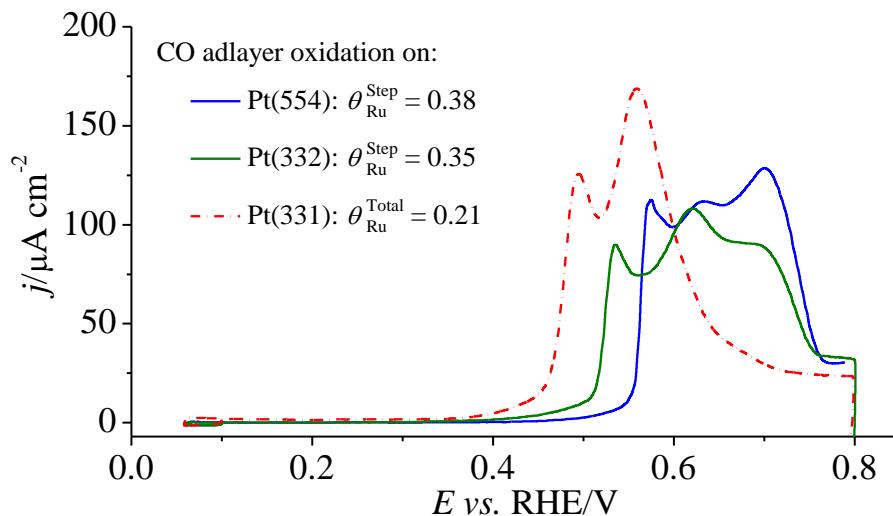


Figure SI 2. Comparison between three voltammetric profiles of CO oxidation on Pt(554), Pt(332) and Pt(331) with their steps modified by Ru at similar coverages. Data recorded in 0.1 M HClO₄ at 0.05 V s⁻¹.