

**Supporting information section:**

**S1.** Blank cyclic voltammograms of Pt(111) (a), Pt(110) (b), Pt(100) (c), Pt(554) (d) and Pt(553) (e) in 0.5 M  $\text{H}_2\text{SO}_4$  (solid line) and 0.5 M  $\text{HClO}_4$  (dashed line) at a scan rate of  $50 \text{ mV}\cdot\text{s}^{-1}$ .

