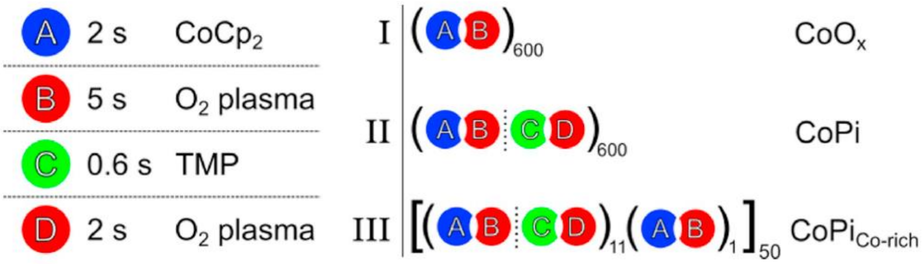
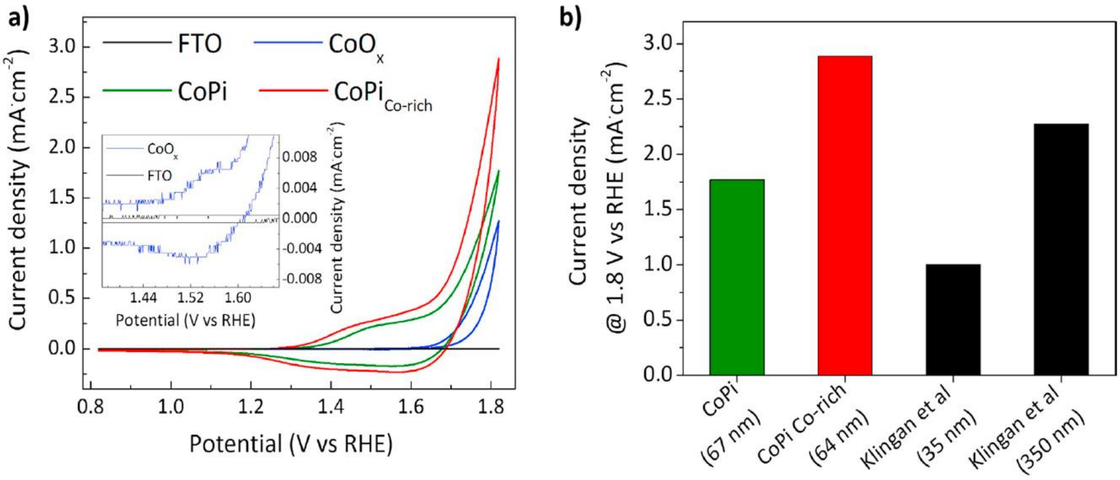
Supporting Information



Scheme of the dosing times adopted for the ALD processes of cobalt oxide, CoPi and Co-rich CoPi. Each step of the process is self-limiting and the dosing times are in the saturation region.



a)Cyclic voltammetry of cobalt oxide, CoPi and Co-rich CoPi thin films after 200 scans at 10 mV/s in KPi buffer 0.1 M (ph= 8) after iR correction. Inset: detail of the oxidative/reductive wave for cobalt oxide and FTO, taken as references. b) Comparison of the current density values of ALD CoPi and Co-rich CoPi at 1.8 V vs. RHE with electro-deposited CoPi [Klingan *et al*.].