

Figure S1 I-V curves of the fuel cell with different treatments (Without treatment: the fuel cell based on the Co-OH-CO₃-PdPt electrode without acid leaching; Activation: the "without treatment" cell activated at low current density for 24h and then N₂ purge; Co-OH-CO₃-PdPt: the fuel cell based on the Co-OH-CO₃-PdPt electrode with acid leaching)

(Testing condition: active area 1 cm²; 65°C; gas flow rate of H₂/O₂ was 15/70 sccm min⁻¹; H₂/O₂ gases were externally humidified at dew point temperature of 65°C, respectively. Pt and Pd loading are 43 and 24 µg cm⁻²).

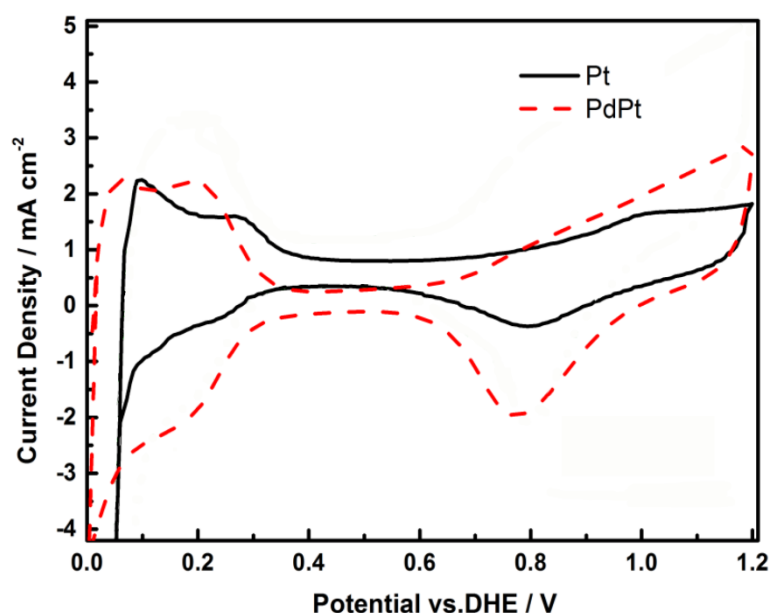


Figure S2 the CV curves of the UTCL based on Co-OH-CO₃-Pt and Co-OH-CO₃-PdPt electrodes.

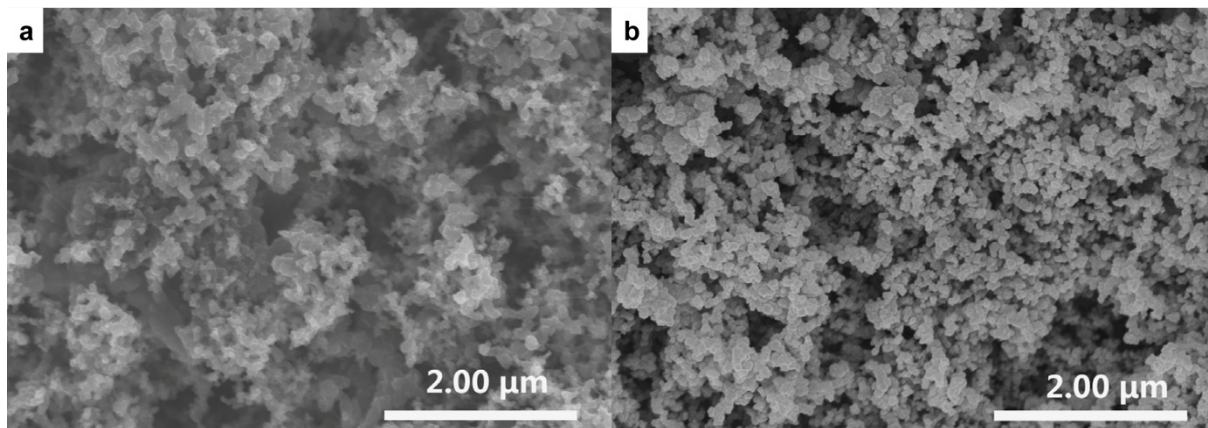


Figure S3 SEM images of the GDL (a) and GDL-Pt (b).

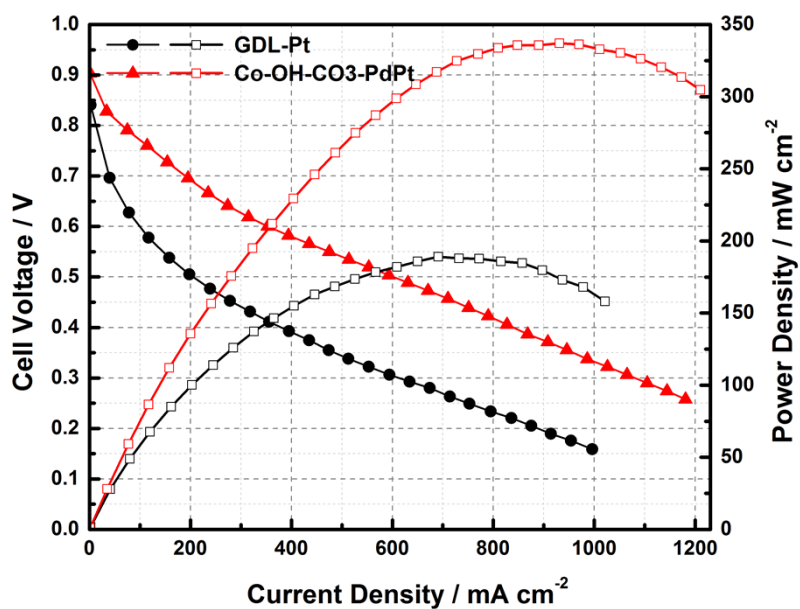


Figure S4 I-V curves of the catalyst layer based on Co-OH-CO₃-PdPt and GDL-Pt electrodes.