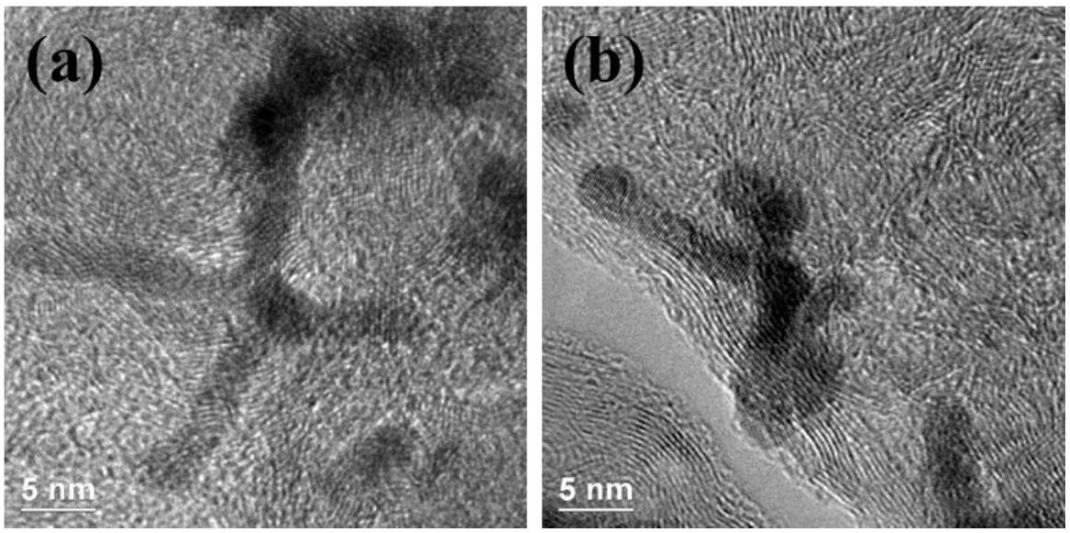

Figure S1 TEM micrographs of the Pt-Rh synthesized nanowires.

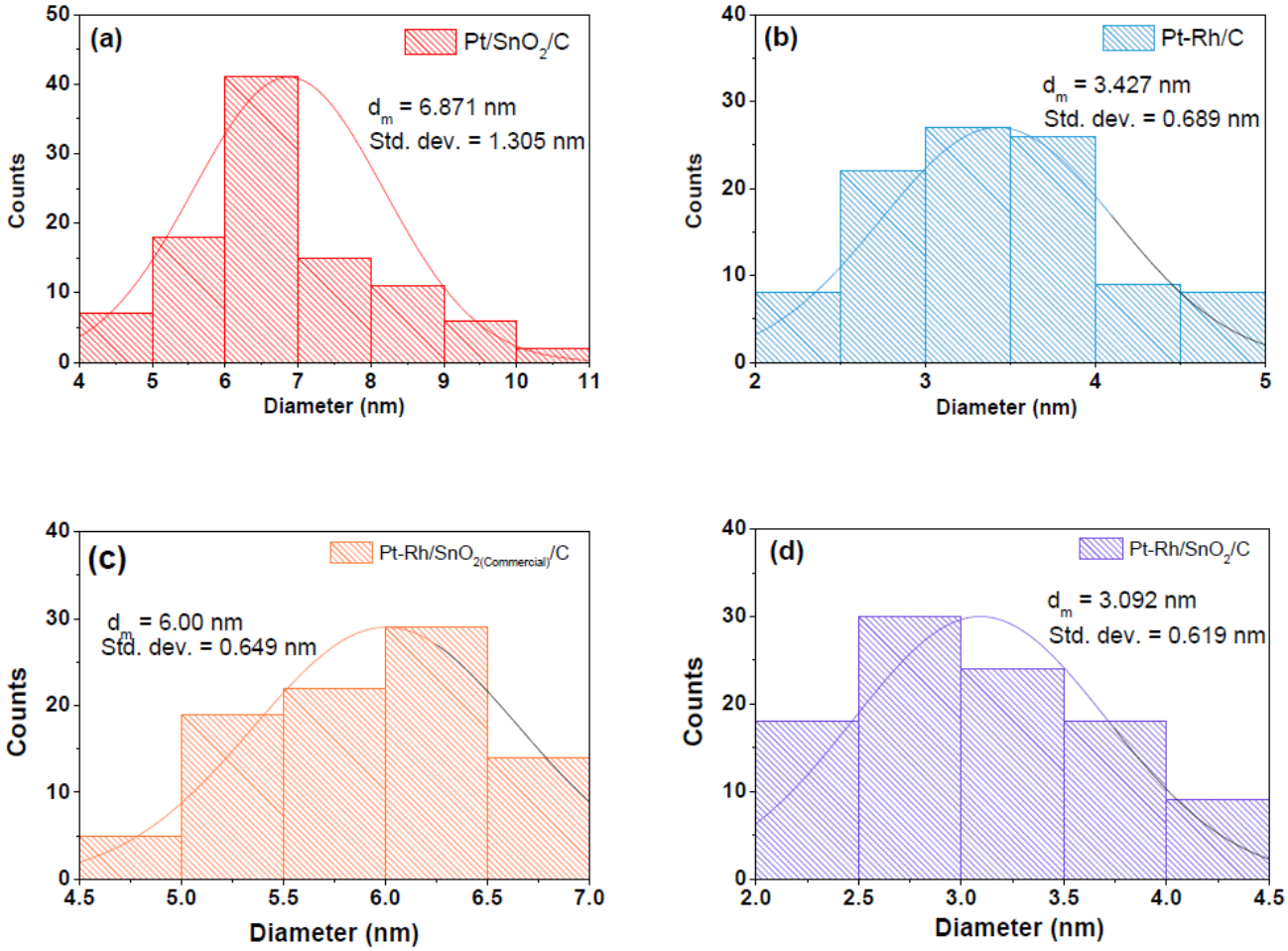

Figure S2 Histograms of the average particle size distribution for (a) $Pt/SnO_2/C$, (b) Pt-Rh/C, (c) $Pt\text{-}Rh/SnO_{2(Commercial)}/C$, and (d) $Pt\text{-}Rh/SnO_2/C$ catalysts.

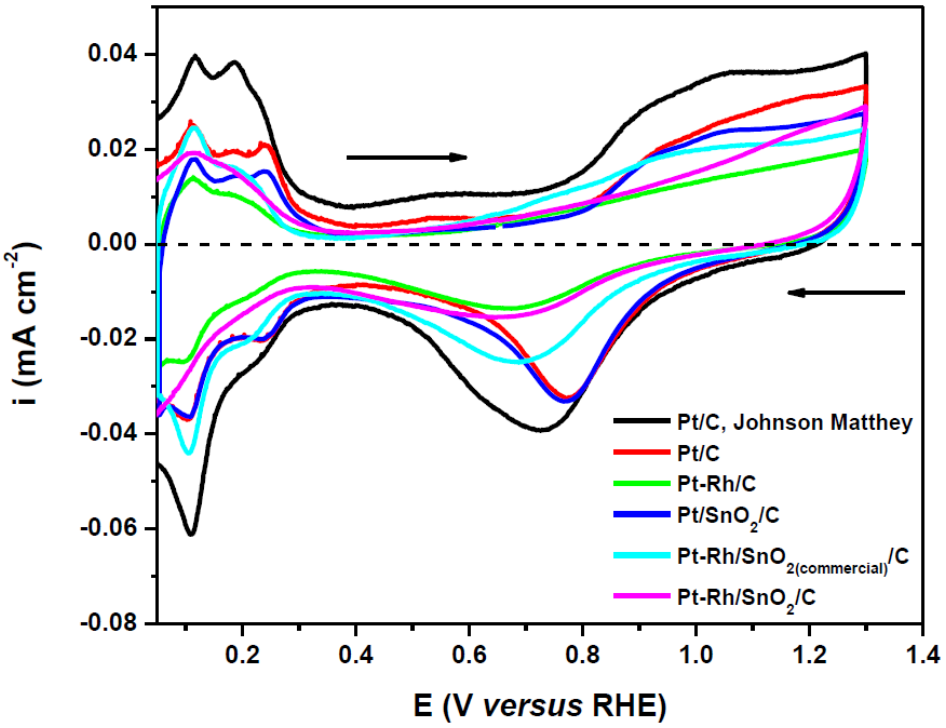

Figure S3 Cyclic voltammograms (second cycle) recorded in 0.5 mol L^{-1} H_2SO_4 for the Pt/C Johnson Matthey, Pt/C, Pt/SnO_2/C, Pt-Rh/C, Pt-Rh/$SnO_{2(commercial)}$/C and Pt-Rh/SnO_2/C catalysts. υ = 20 mV s^{-1} and T = 25°C.

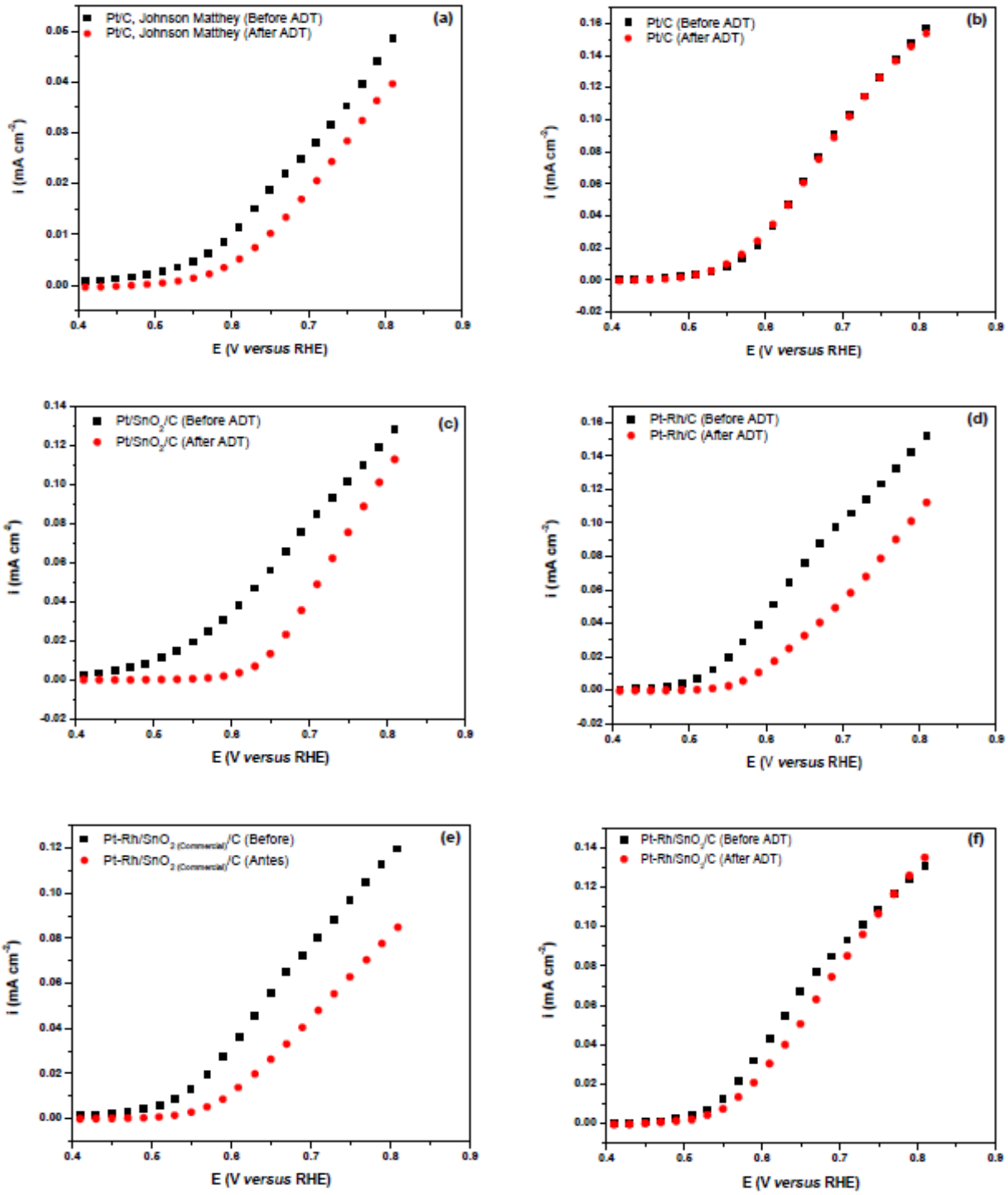

Figure S4 Comparison of the steady-state polarization curves voltammograms before (black) and after (red) the ADT for (a) Pt/C Johnson Matthey, (b) Pt/C, (c) $Pt/SnO_2/C$, (d)Pt-Rh/C, (e) $Pt\text{-}Rh/SnO_{2(Commercial)}/C$ and (f) $Pt\text{-}Rh/SnO_2/C$ catalysts. Steady-state polarization curves were measured in N_2-saturated 0.5 mol L^{-1} H_2SO_4 electrolyte solution at 25°C at 1 mV s^{-1}.