

Figure S1. The XPS survey spectra of three PtCoNiRu/C samples sintered at 410 °C, 460 °C and 500 °C

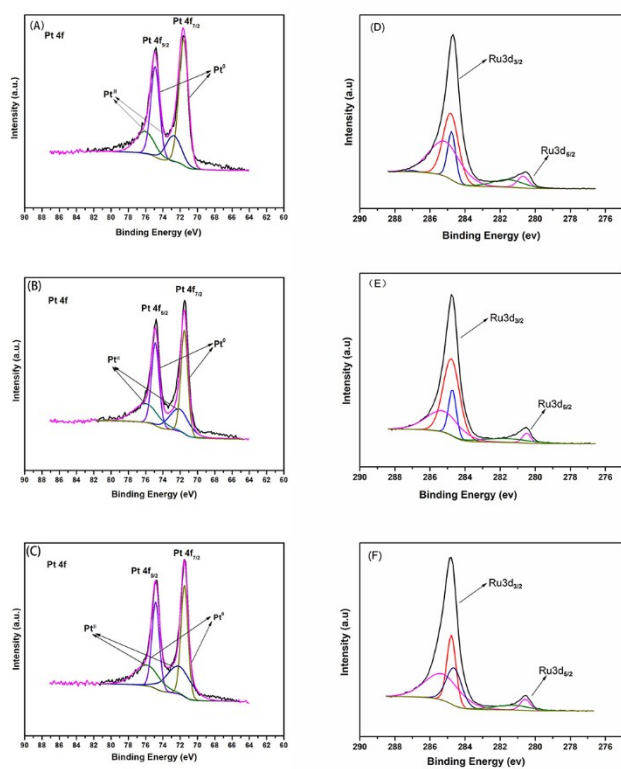


Figure S2. Curve fitting of XPS spectra for Pt4f (A), (B), (C) and Ru3d (D),(E),(F) of three PtCoNiRu/C sintered at 410 °C, 460 °C, 500 °C, respectively

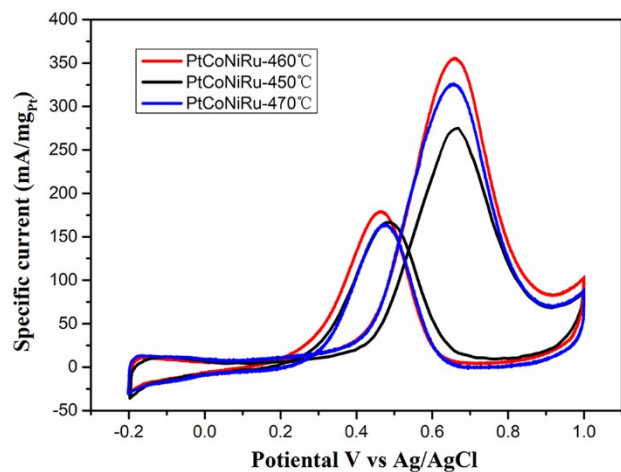


Figure S3. Cyclic voltammograms for methanol electro-oxidation in solution containing 0.5 M H₂SO₄ + 0.5M CH₃OH on PtCoNiRu/C sintered at 450 °C, 460 °C, 470 °C, respectively with the scanning rate of 0.05 V s⁻¹

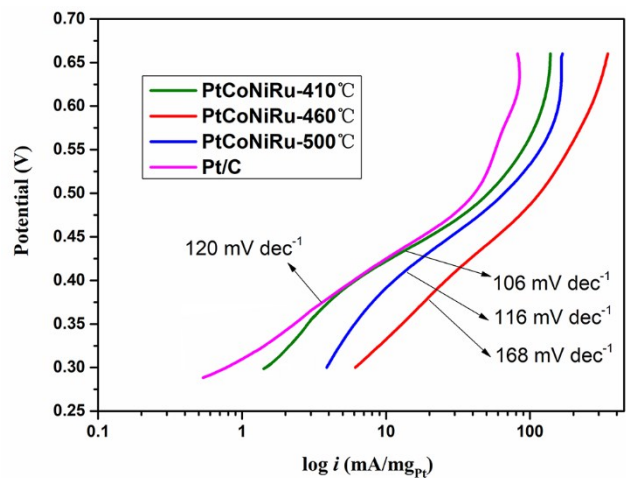


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