Electronic Supporting Information

Trimetallic PtAuNi Alloy Nanoparticles as an Efficient Electrocatalyst for Methanol Electrooxidation Reaction

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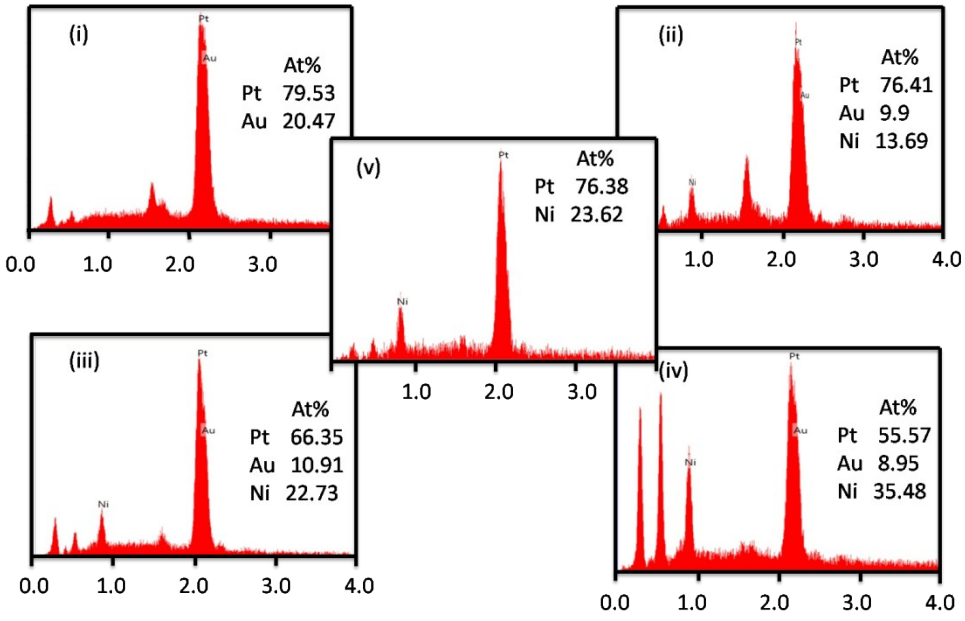

Fig S1. EDX spectra of alloy NPs solvothermally synthesized at 200°C for 72 h. (i) $Pt_{80}Au_{20,}$ (ii) $Pt_{76}Au_{10}Ni_{14}$, (iii) $Pt_{66}Au_{11}Ni_{23}$, (iv) $Pt_{55}Au_{9}Ni_{35}$, (v) $Pt_{76}Ni_{24}$ NPs. The X-axis and Y-axis title of all above EDX spectra are Counts and Energy (keV), respectively.

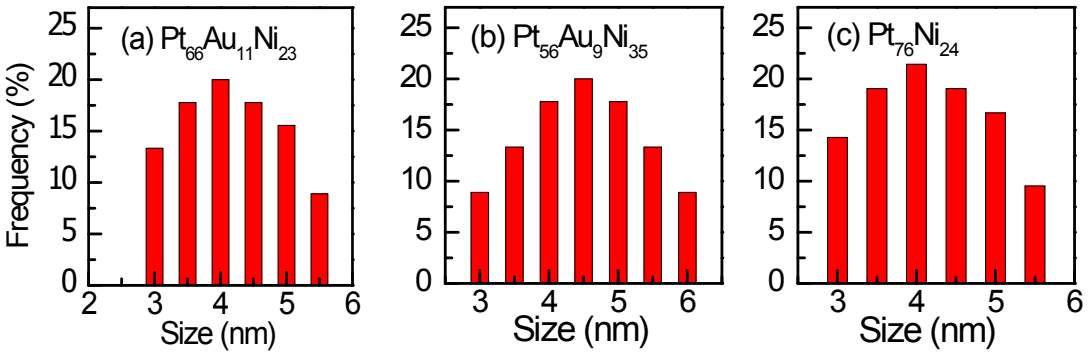

Fig S2. Histograms on the particle size of (a) $Pt_{66}Au_{11}Ni_{23}$, (b) $Pt_{56}Au_9Ni_{35}$, and (c) $Pt_{76}Ni_{24}$ NPs.

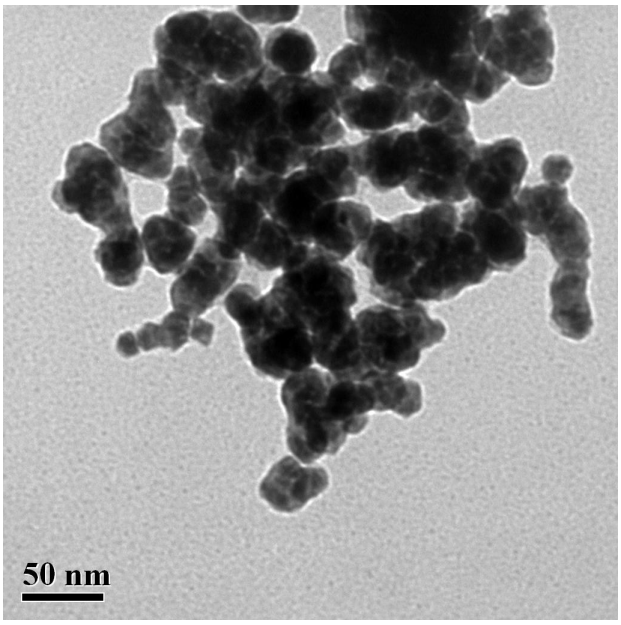

Fig S3. TEM image of $Pt_{66}Au_{11}Ni_{23}$ NPs synthesized using the same procedure without adding PVP.

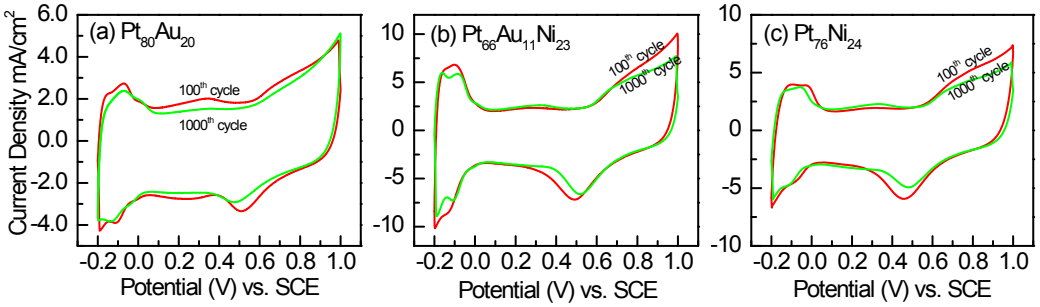

Fig S4. CVs of (a) $Pt_{80}Au_{20}$, (b) $Pt_{66}Au_{11}Ni_{23}$, and (c) $Pt_{76}Ni_{24}$ NPs at its 100th and 1000th cycles in 0.5 M H_2SO_4.