Supporting Information

L-lysine-assisted fabrication of $Pd_xPt_{1-x}/Ni(OH)_2$ ($0 \leq x \leq 1$) hybrids with composition-dependent catalytic properties

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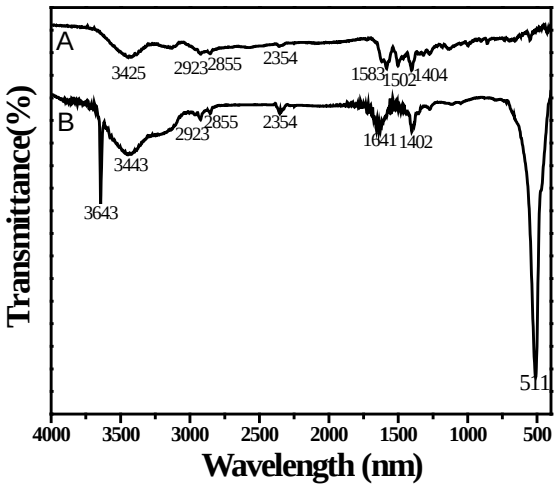

Figure S1. IR spectra of (A) L-lysine and (B) the as-made L-lysine modified $Ni(OH)_2$.

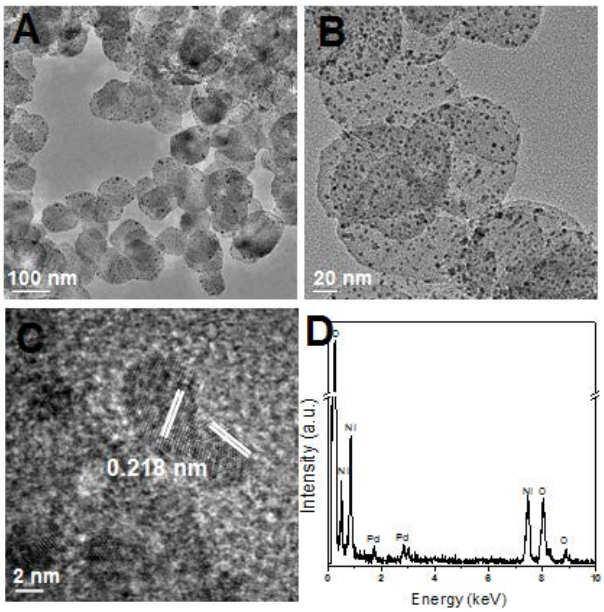

Figure S2. (A, B) TEM images; (C) HRTEM image; and (D) EDX analysis of $Pd/Ni(OH)_2$.

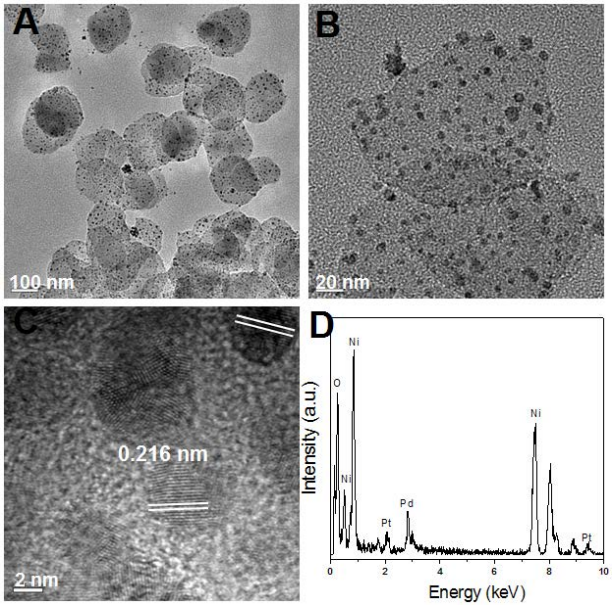

Figure S3. (A, B) TEM images; (C) HRTEM image; and (D) EDX analysis of $Pd_{0.7}Pt_{0.3}/Ni(OH)_2$.

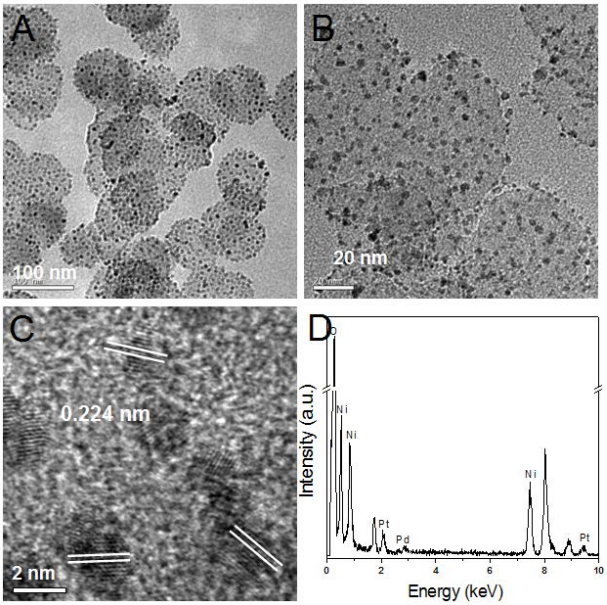

Figure S4. (A, B) TEM images; (C) HRTEM image; and (D) EDX analysis of $Pd_{0.3}Pt_{0.7}/Ni(OH)_2$.

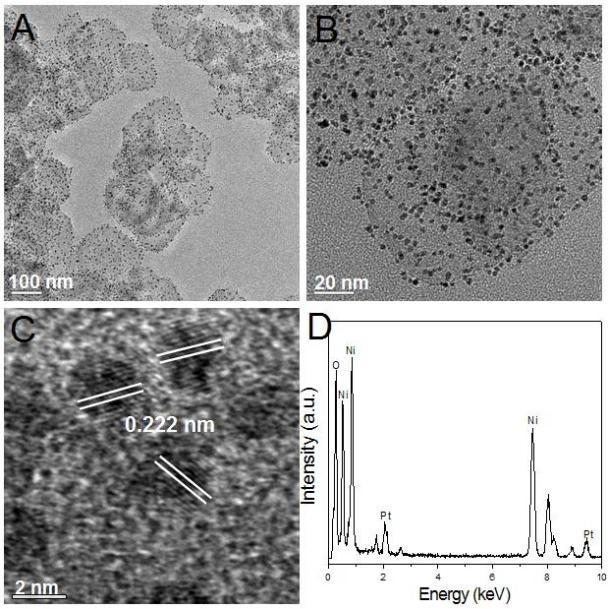

Figure S5. (A, B) TEM images; (C) HRTEM image; and (D) EDX analysis of $Pt/Ni(OH)_2$.

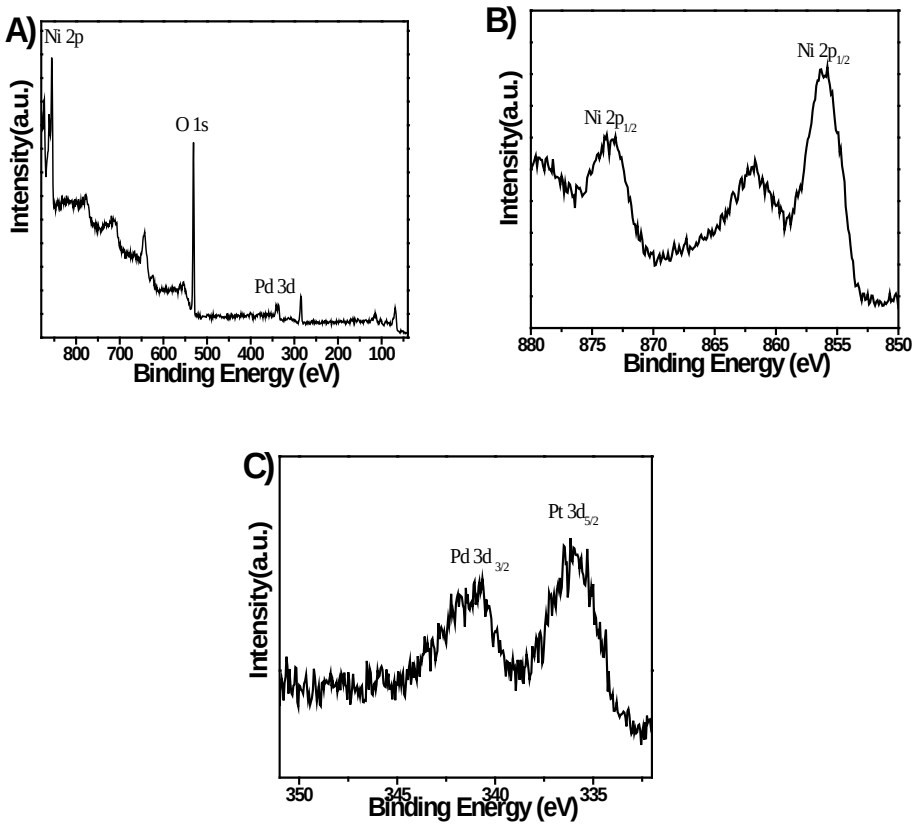

Figure S6. XPS analysis of Pd/Ni$(OH)_2$.

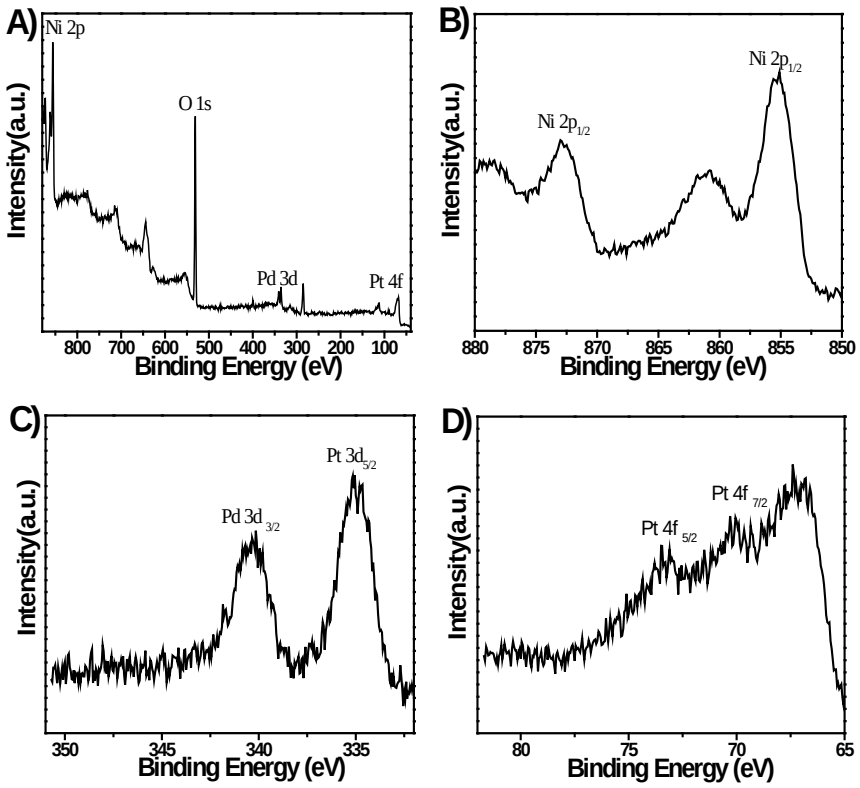

Figure S7. XPS analysis of $Pd_{0.7}Pt_{0.3}/Ni(OH)_2$.

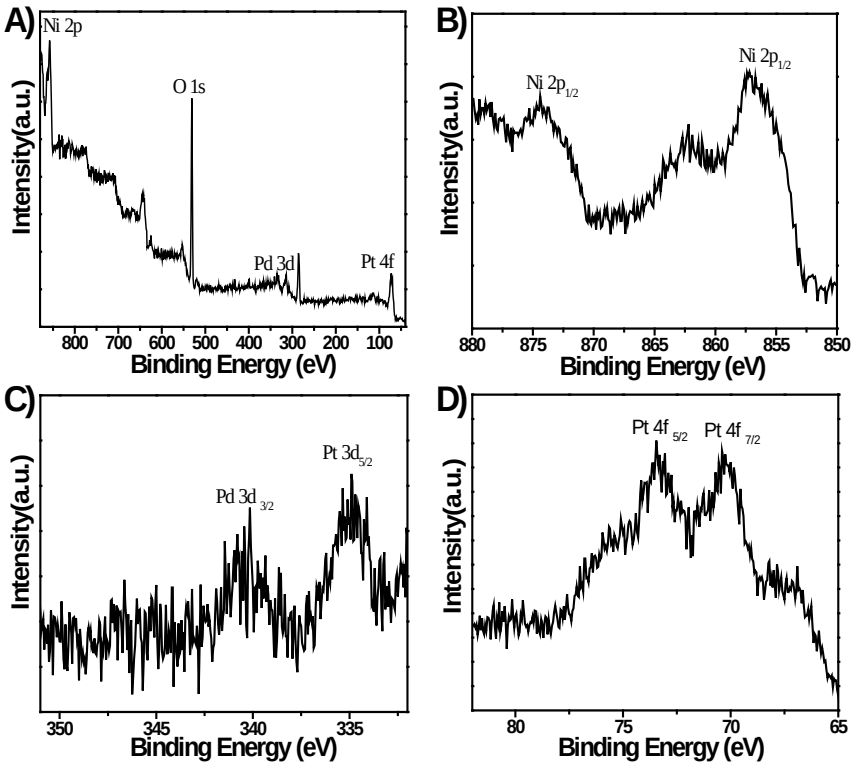

Figure S8. XPS analysis of $Pd_{0.3}Pt_{0.7}/Ni(OH)_2$.

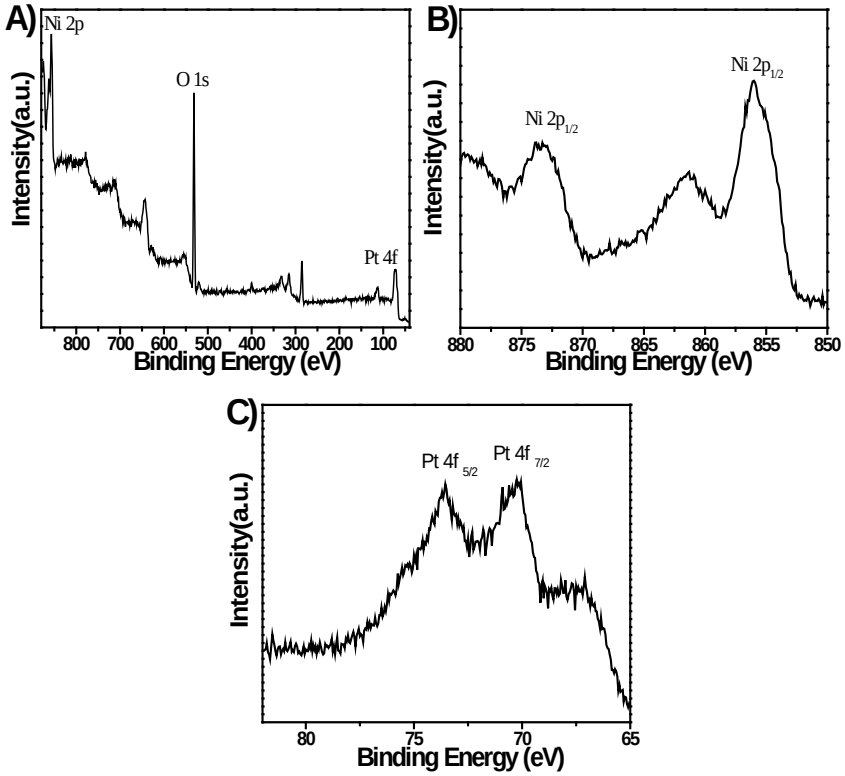

Figure S9. XPS analysis of Pt/$Ni(OH)_2$.

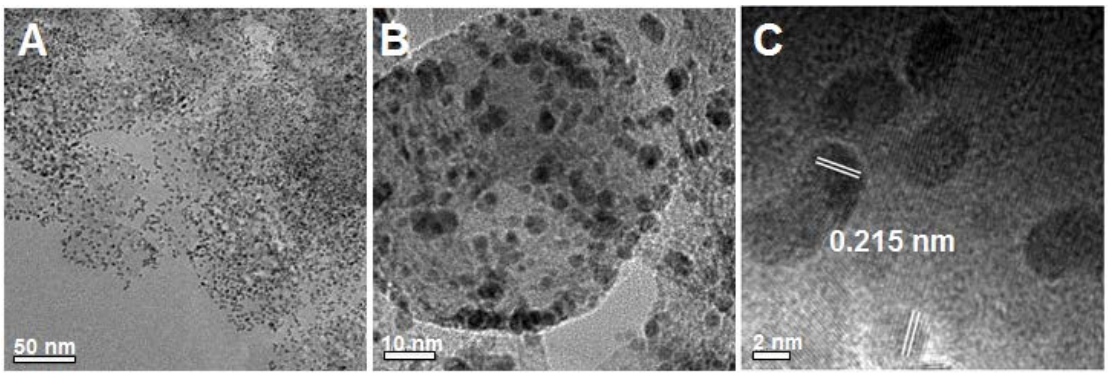

Figure S10. (A, B) TEM images; (C) HRTEM image of $Pd_{0.5}Pt_{0.5}/Ni(OH)_2$ after ten cycling tests.

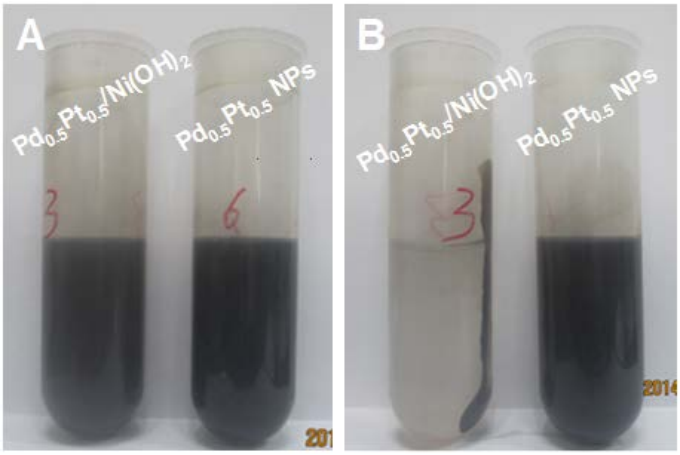

Figure S11 ~~S10~~. Photos of the samples: (A) before and (B) after centrifugation.