Supporting Information

Manipulating the hydrogen evolution pathway on composition-tunable CuNi nanoalloys

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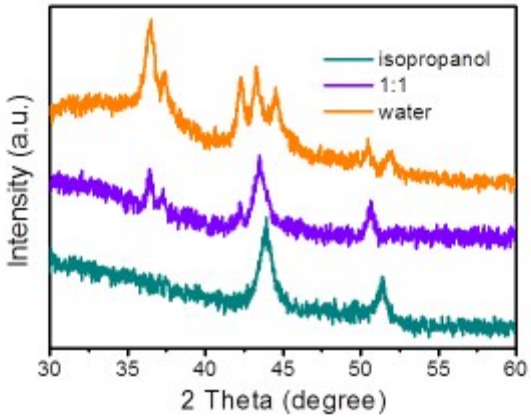

Fig. S1. XRD patterns of the products prepared by laser ablation of the $Cu_{50}Ni_{50}$ target in isopropanol, deionized water and the 50% isopropanol aqueous solution.

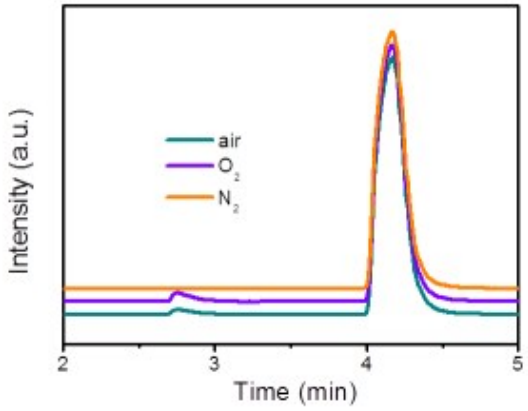

Fig. S2. GC-MS analyses of the isopropanol solutions after 5-h laser ablation exposing to air, O_2 and N_2, respectively.

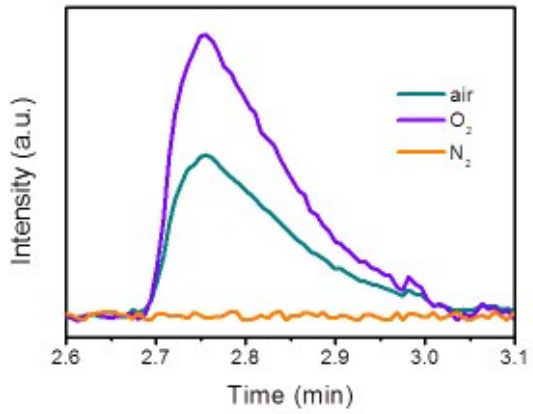

Fig. S3. The magnifications of the region between 2.6 to 3.1 min of the GC-MS spectra in Figure S2.

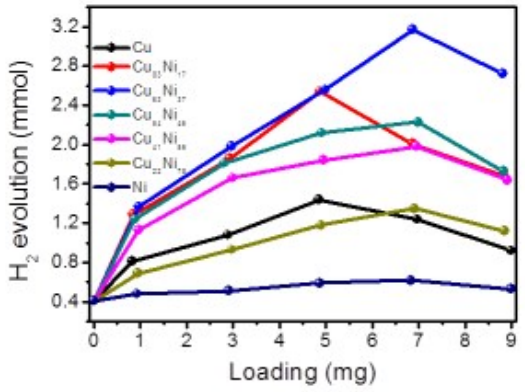

Fig. S4. H_2 evolution amounts of the systems using CuNi nanoalloys with different compositions and loadings as cocatalysts.

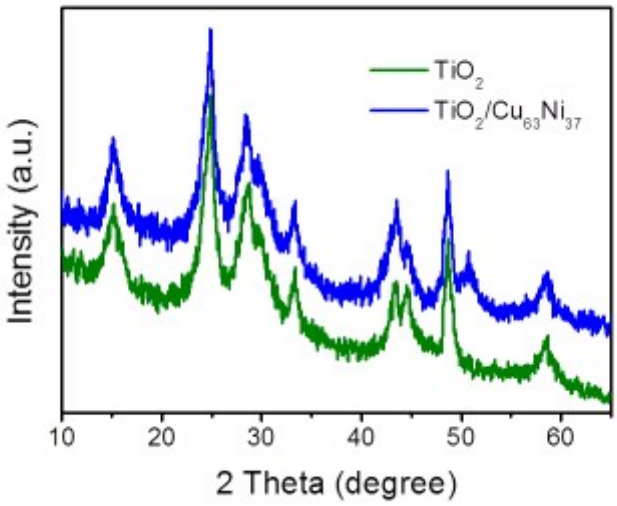

Fig. S5. XRD patterns of the TiO_2 and $TiO_2/Cu_{63}Ni_{37}$ nanocrystals.

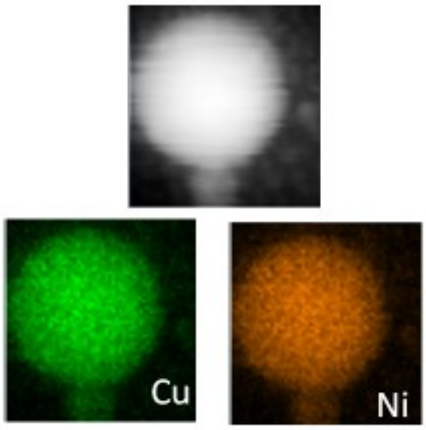

Fig. S6. EDX elemental mapping of an individual $Cu_{63}Ni_{37}$ NP.

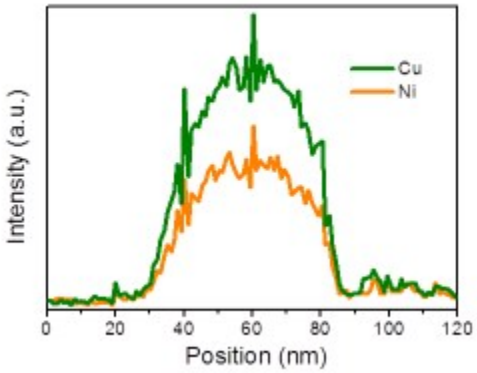

Fig. S7. Compositional line-scanning profile of Cu and Ni elements of the $Cu_{63}Ni_{37}$ NP.

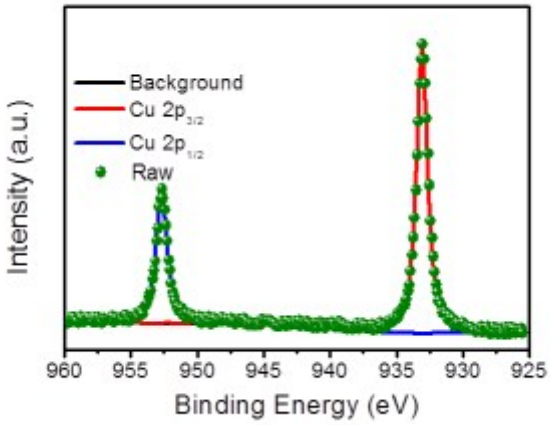

Fig. S8. Cu 2p XPS spectrum of the $Cu_{63}Ni_{37}$ NPs.

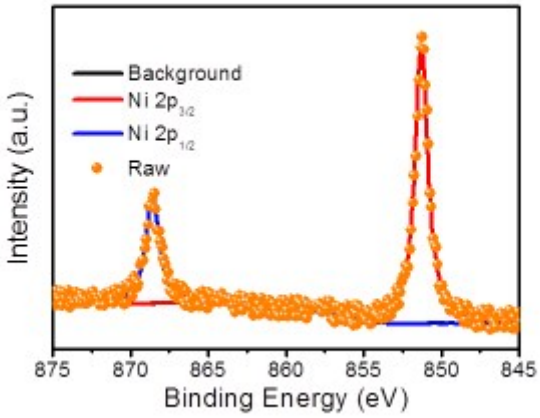

Fig. S9. Ni 2p XPS spectrum of the $Cu_{63}Ni_{37}$ NPs.