Electronic Supplementary Material (ESI) for Nanoscale.

Supporting Information

Building robust architectures of carbon wrapped transition metal nanoparticles toward high-catalytic enhancement of $2LiBH_4$-MgH_2 system for hydrogen storage cycling performances

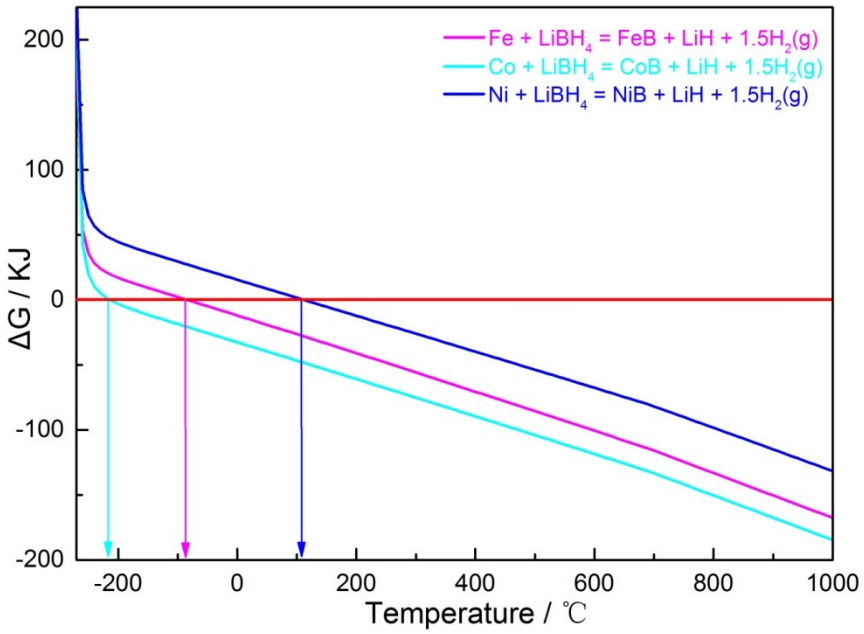

Figure S1 thermodynamic data of reactions between TM and $LiBH_4$.

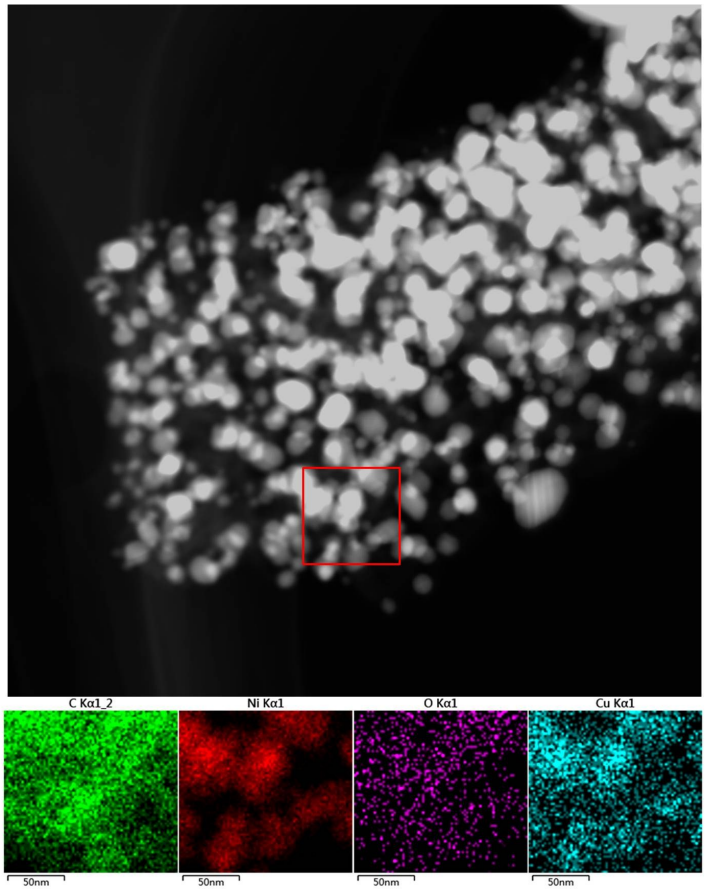

Figure S2 STEM photograph of as-synthesized Ni/C and EDX of mapping data.

It should be mentioned that the Cu and O are derived from the background of copper grid which was used to support the sample during the TEM and EDX mapping measurement.

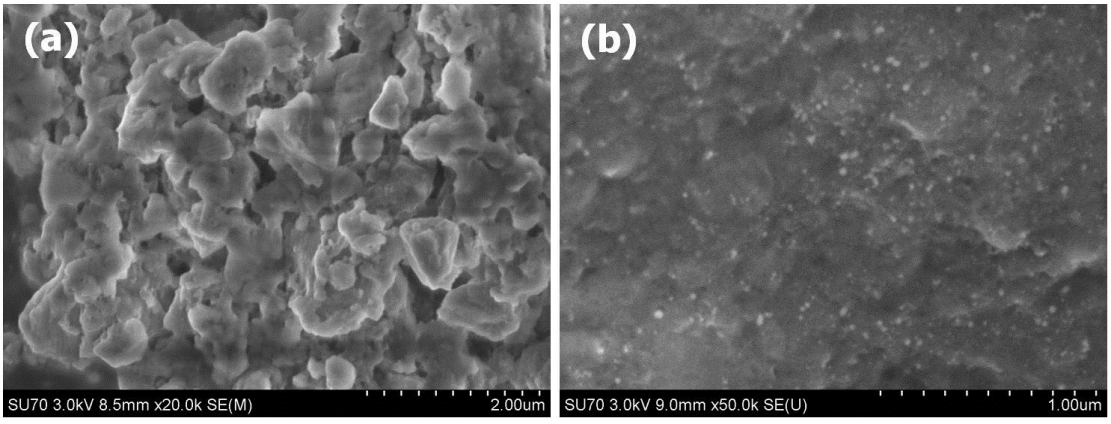

Figure S3 SEM photograph of as-milled $2LiBH_4$-MgH_2 (a) and $2LiBH_4$-MgH_2-Ni/C (b).

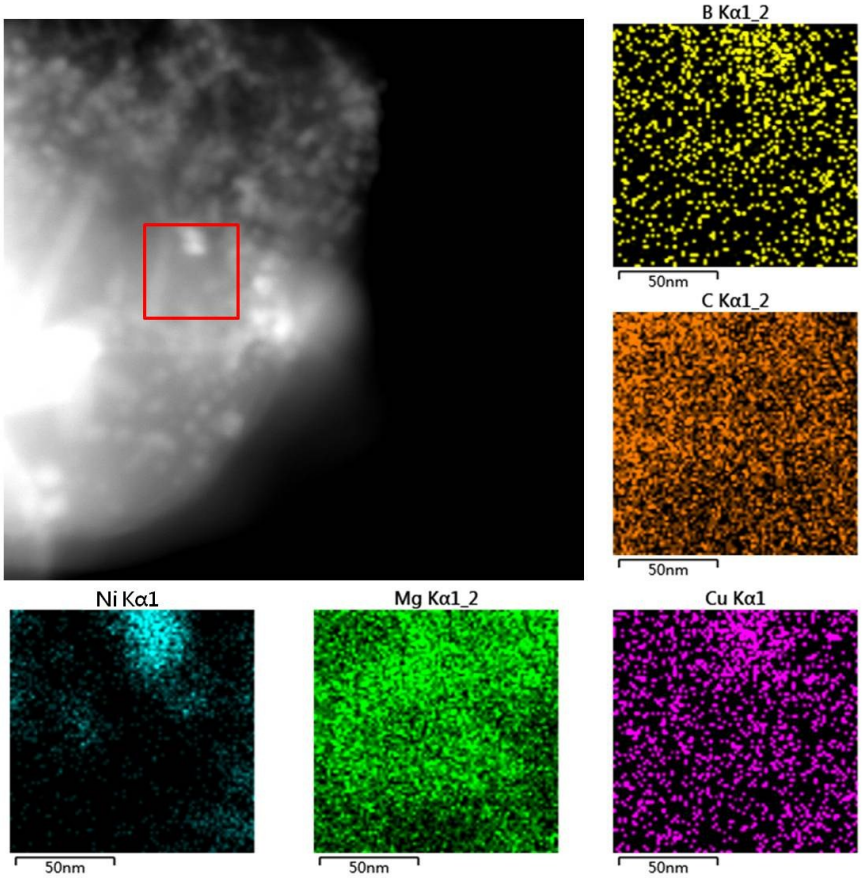

Figure S4 STEM photograph of as-milled $2LiBH_4$-MgH_2-Ni/C and EDX of mapping data.

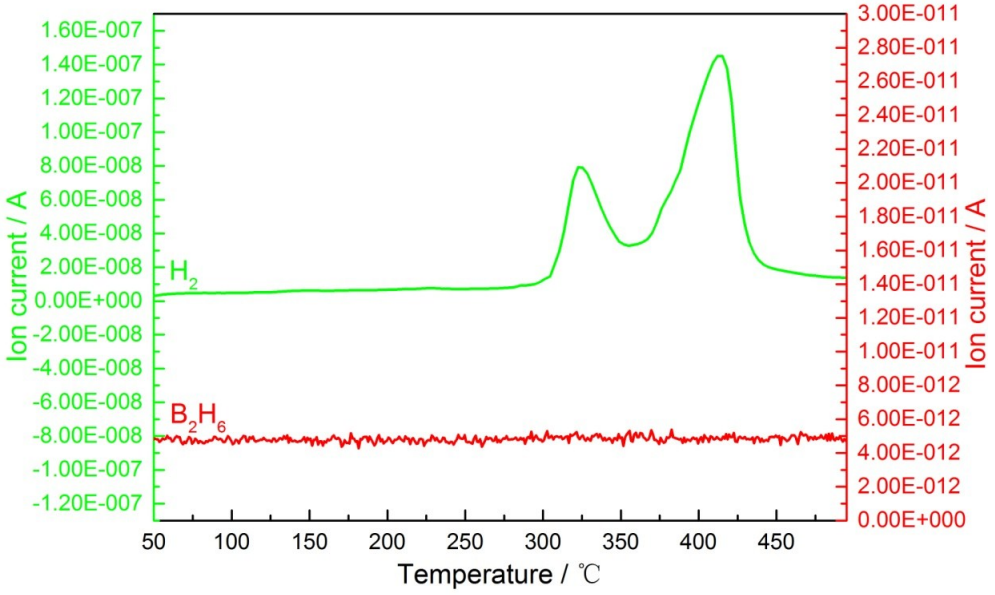

Figure S5 MS profiles of H_2 and B_2H_6 (m/z = 2, 26) for the $2LiBH_4$-MgH_2-Ni/C.

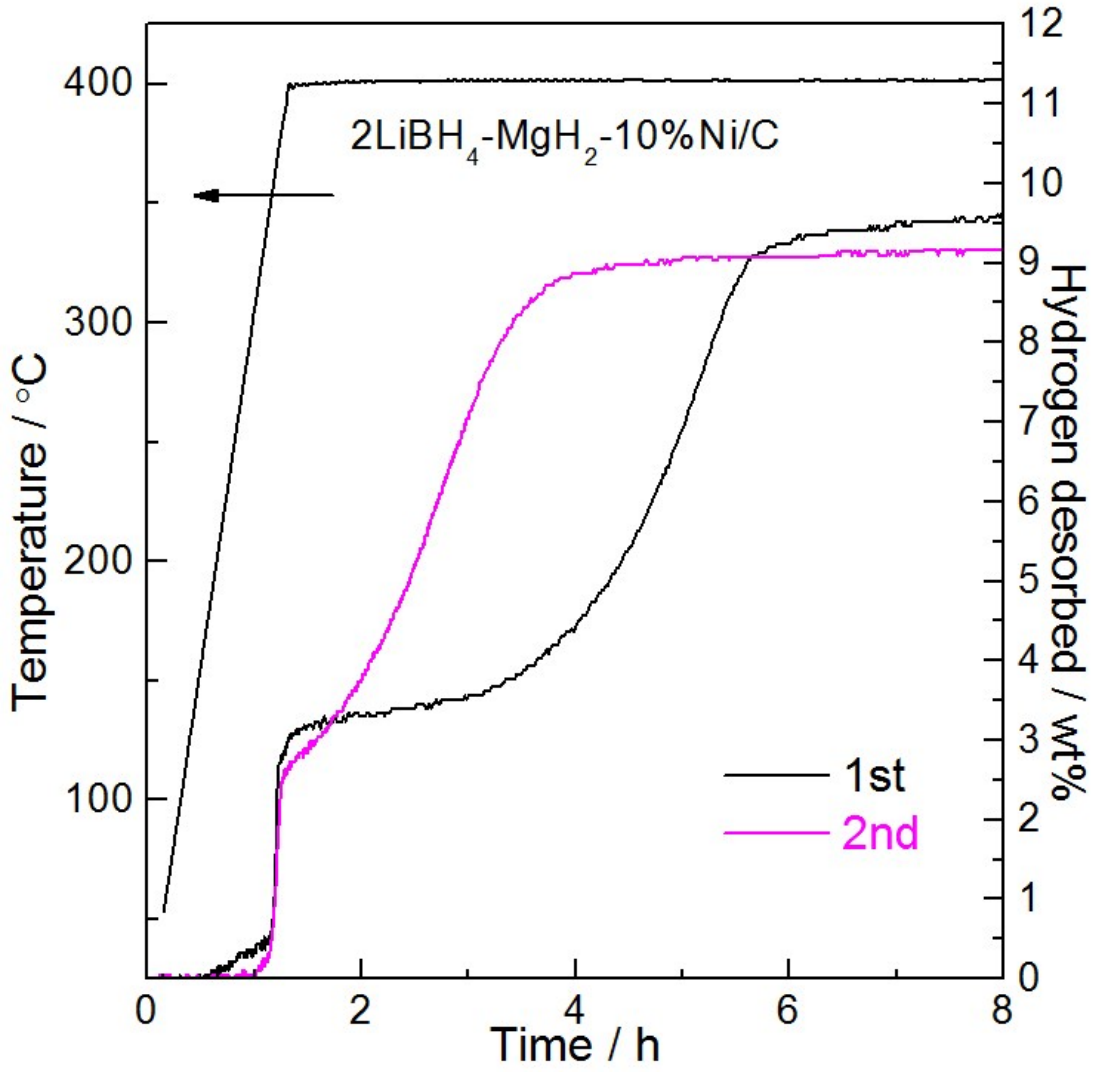

Figure S6 Cycling dehydrogenation curves of $2LiBH_4$-MgH_2 doped with Ni/C.