

Supporting Information

Amorphous Ni₃MnB Nanoparticles Facilitate Low-Temperature Hydrogen

Desorption from LiBH₄ Solid-State Hydrogen Storage

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Table S1

Figure.S1 to S7

Table S1. ICP test results of the Ni₃MnB sample

Sample Number	Element Name	Dilution factor (f)	Elemental content of the sample(mg/kg)	Sample elemental content
Ni ₃ MnB	Ni	1000	633266.06	63.3266%
Ni ₃ MnB	Mn	10	6096.07	0.6096%

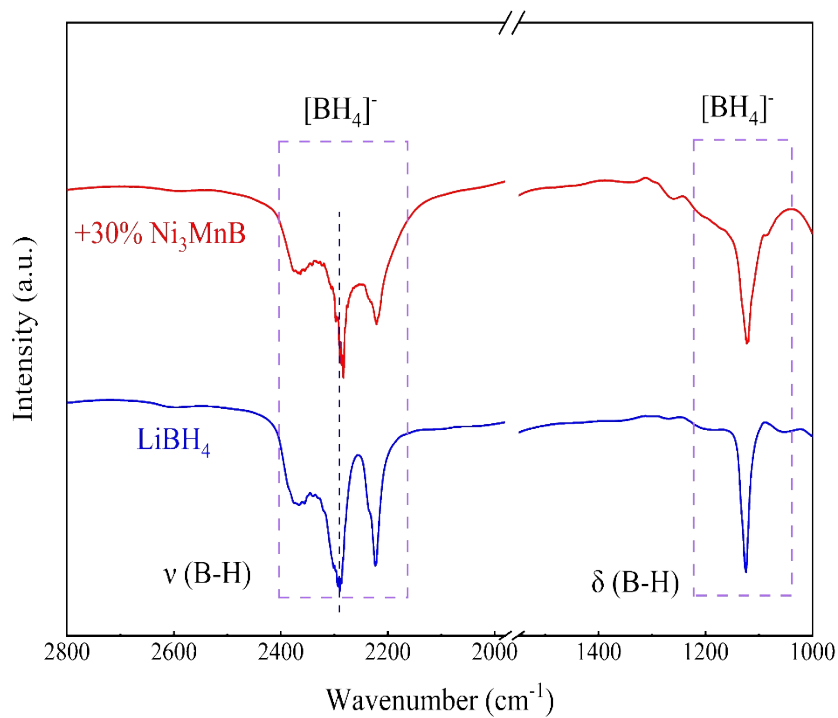


Fig. S1. FT-IR spectra of pure LiBH_4 and the $\text{LiBH}_4 + 30 \text{ wt}\% \text{ Ni}_3\text{MnB}$ composite at room temperature.

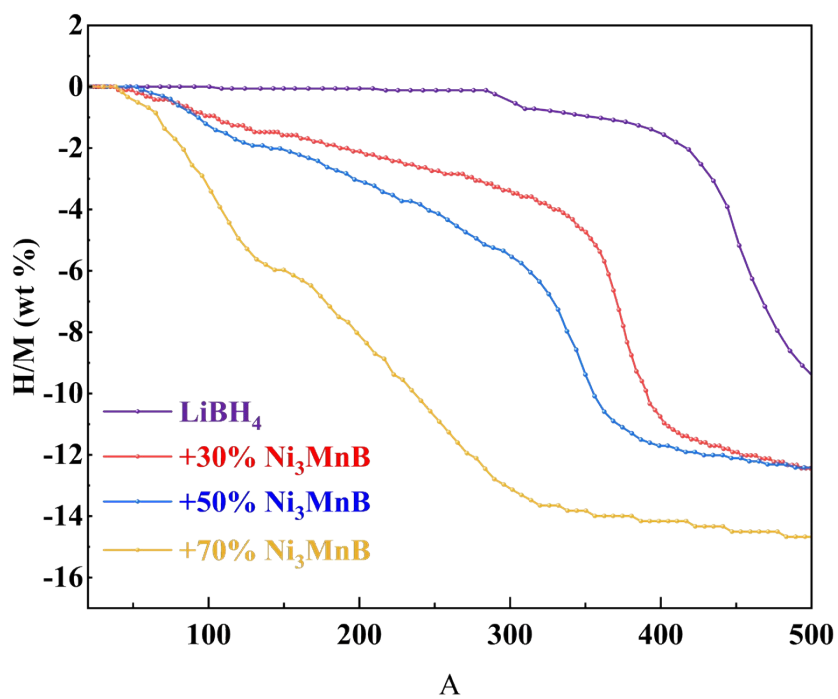


Fig. S2. Hydrogen release curves calculated based on the actual LiBH_4 content for different doping levels.

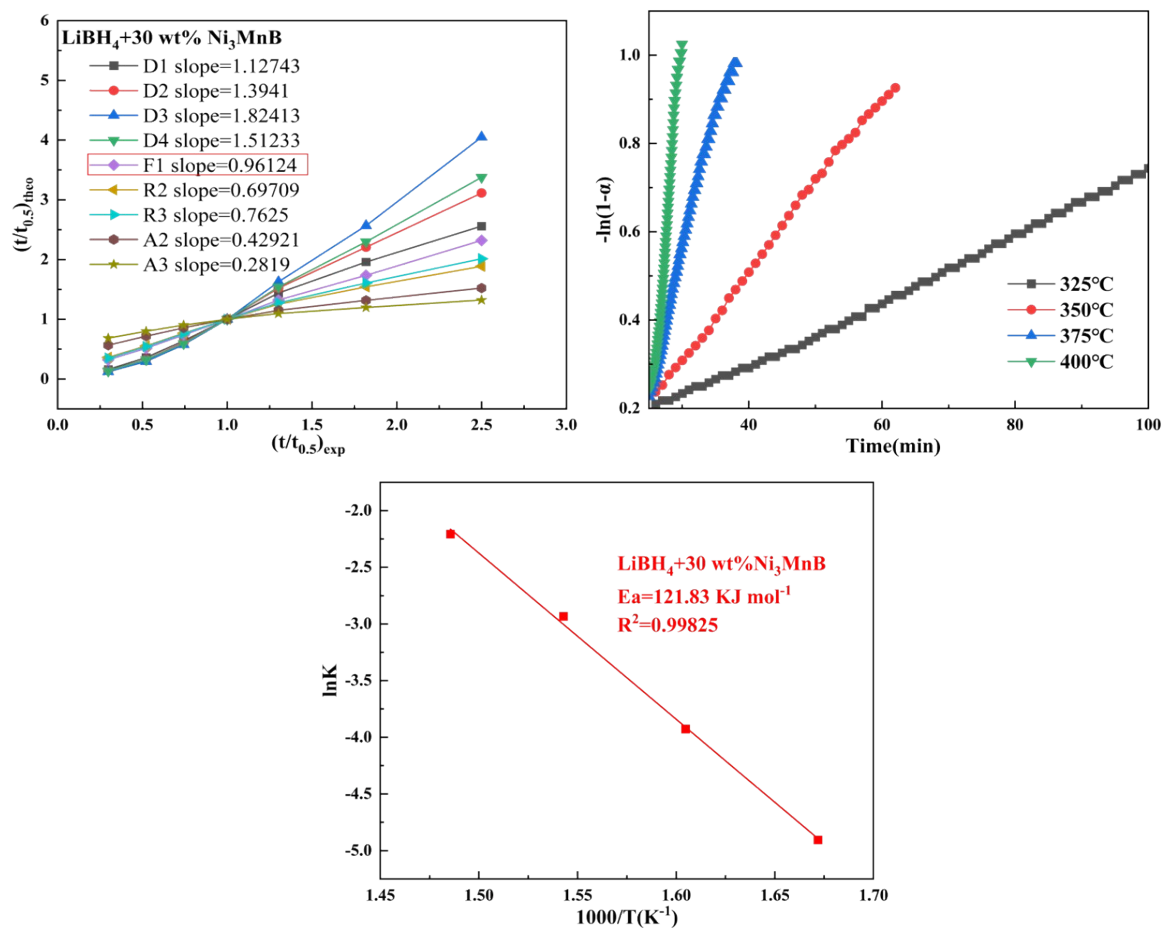


Fig S3. Kinetic behavior of LiBH₄ + 30 wt% Ni₃MnB.

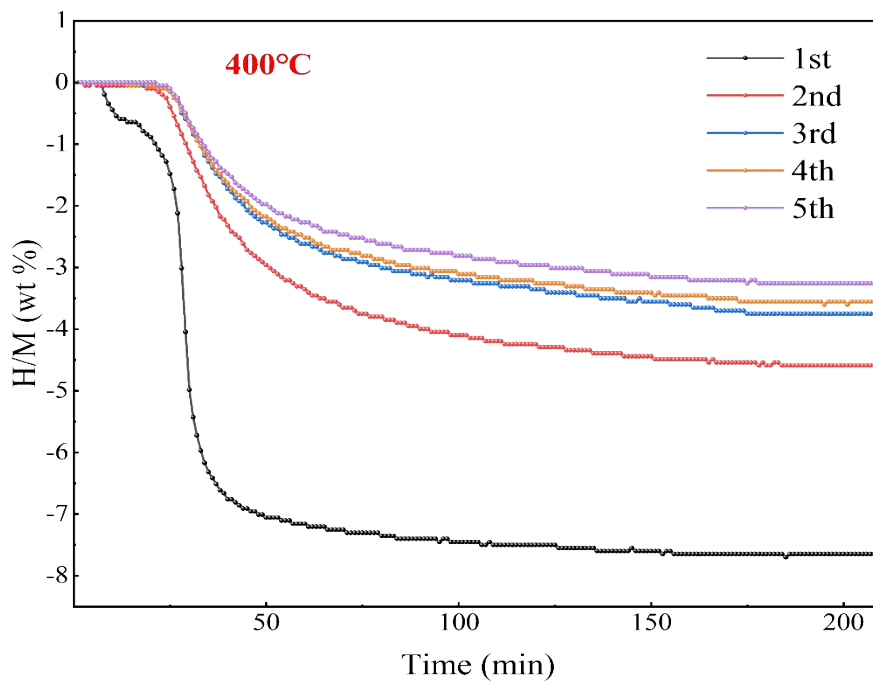


Fig S4. Cycling performance of LiBH₄ + 30 wt% Ni₃MnB.

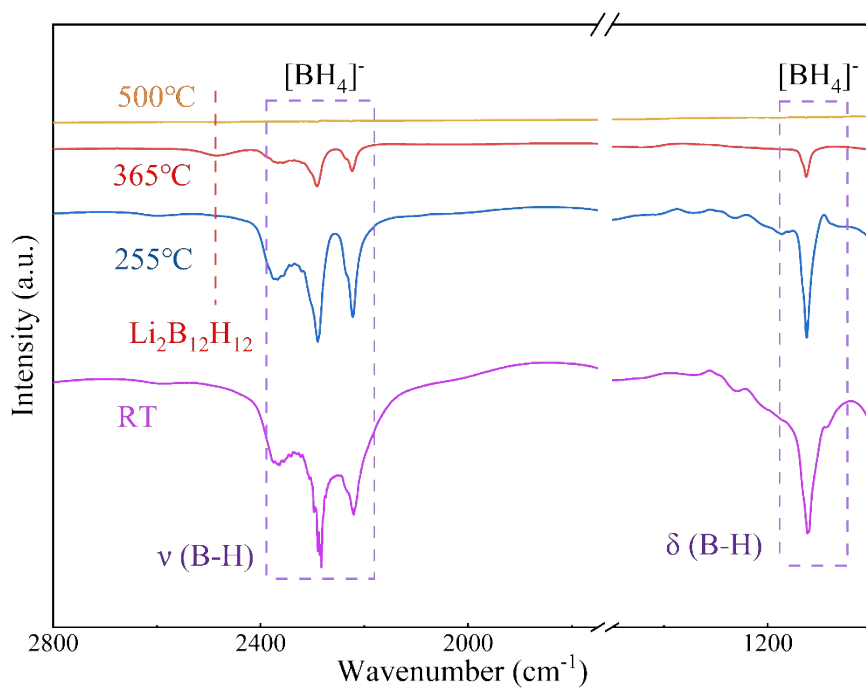


Fig.S5 FT-IR spectra of LiBH₄+ 30 wt% Ni₃MnB in the hydrogen-releasing state at different temperature stages.

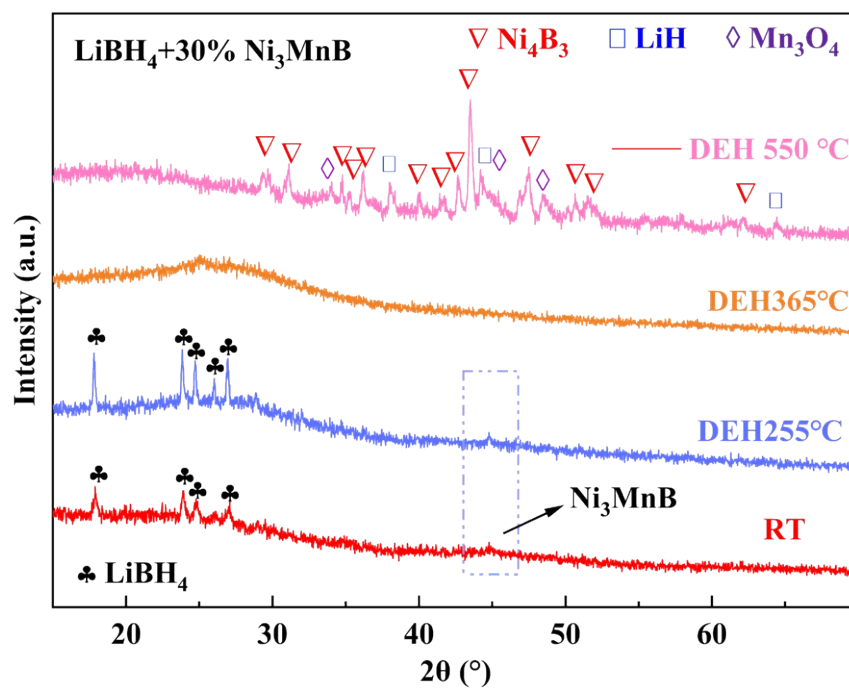


Fig.S6 XRD patterns of $\text{LiBH}_4 + 30 \text{ wt}\% \text{Ni}_3\text{MnB}$ in the hydrogen-releasing state at different temperature stages.

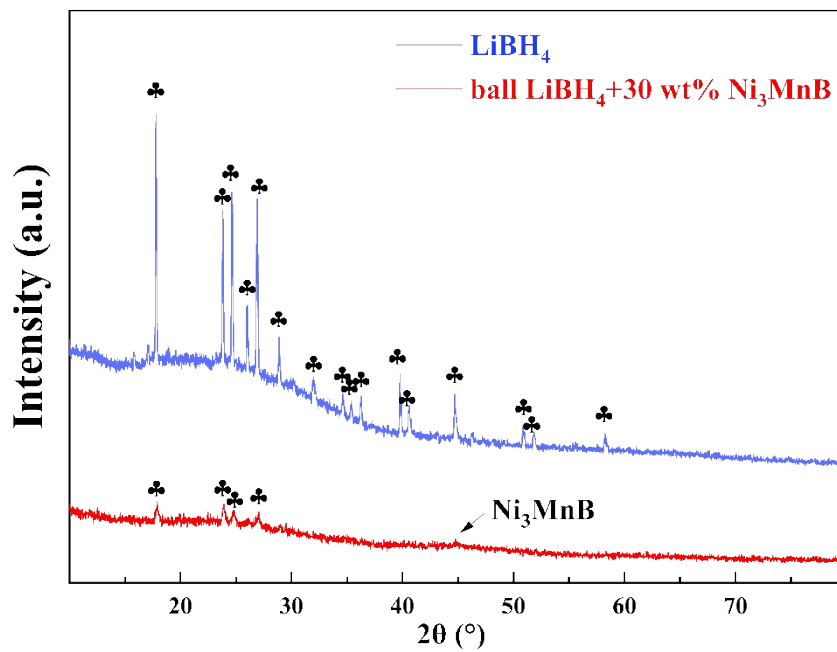


Fig.S7 XRD patterns of LiBH_4 and ball-milled $\text{LiBH}_4 + 30 \text{ wt}\% \text{Ni}_3\text{MnB}$.