

## Supporting information

# Eutectic phenomenon of $\text{LiNH}_2\text{-KH}$ composite in $\text{MH-NH}_3$ hydrogen storage system

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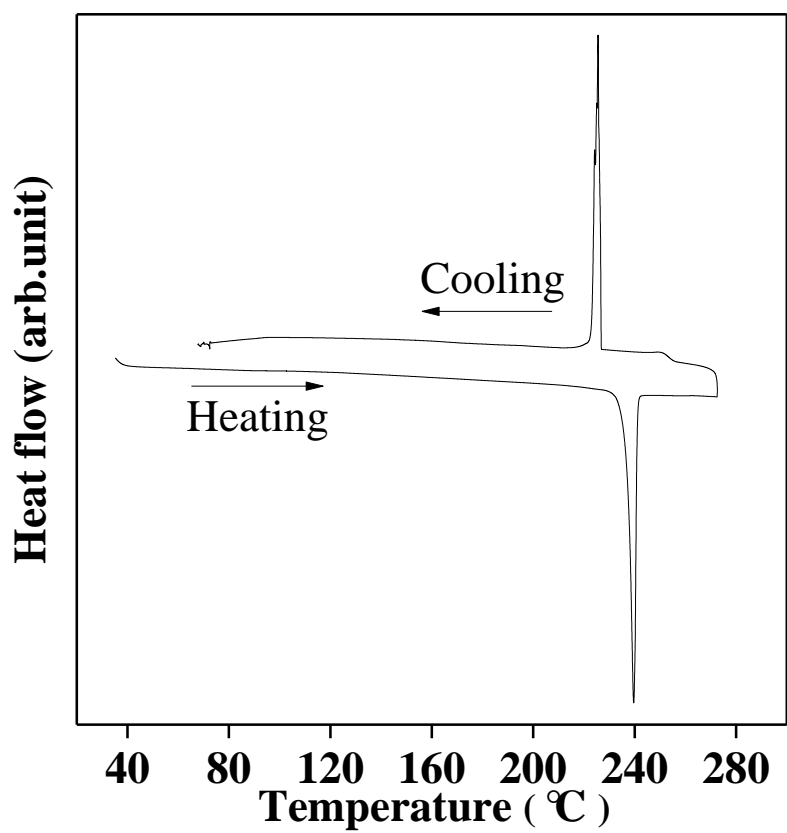


Fig. S1 DSC profile of the reaction product after the hydrogenation of complex  $\text{LiK}(\text{NH}_2)_2$  at 160 °C. The DSC was performed under 0.5 MPa  $\text{H}_2$  atmosphere in closed condition by heating up to 270 °C at 5 °C/min of heating rate.

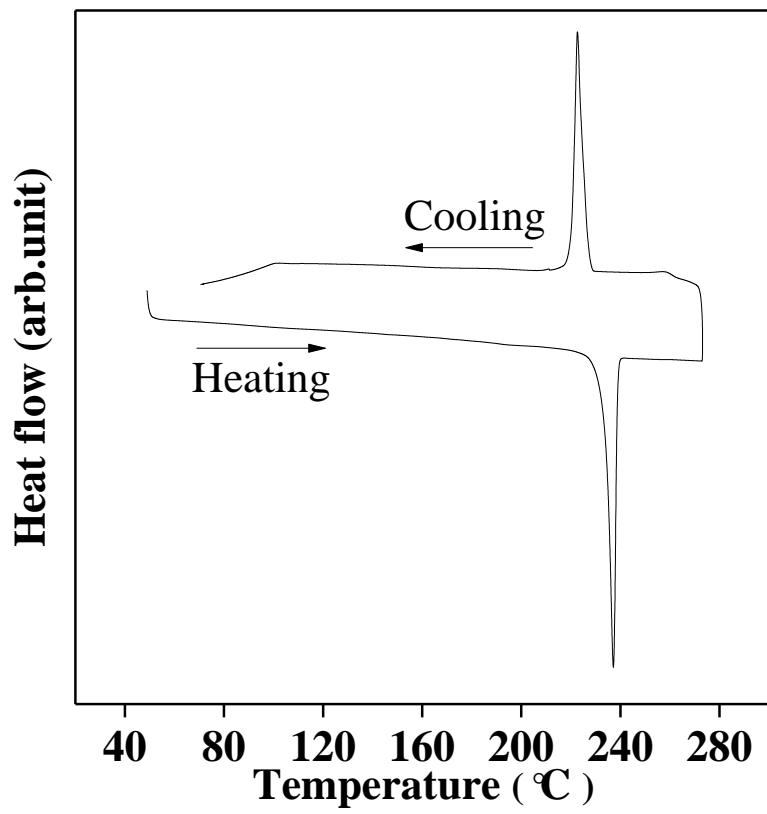


Fig. S2 DSC profile of the ball-milled mixture of LiNH<sub>2</sub> and KH. The DSC was performed under 2.0 MPa H<sub>2</sub> atmosphere in closed condition by heating up to 270 °C at 5 °C/min of heating rate.