

Supplementary Information

## **Destabilization of LiBH<sub>4</sub> dehydrogenation through H<sup>+</sup>-H<sup>-</sup> interactions by cooperating with alkali metal hydroxides**

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### Supplementary Information

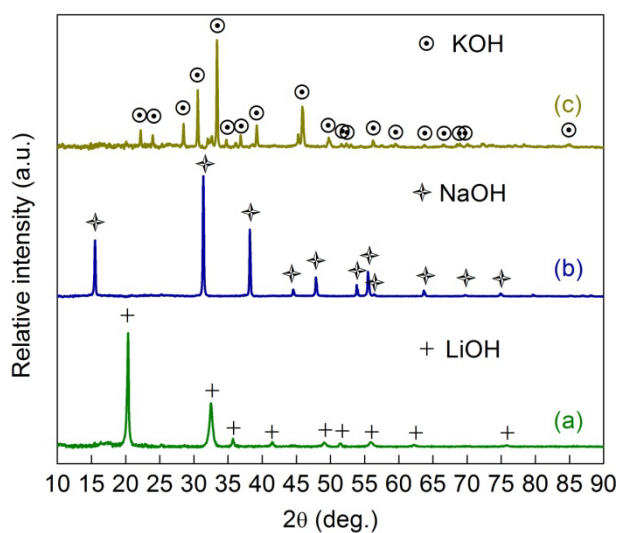


Figure S1 XRD patterns of ball-milled (a): LiOH, (b): NaOH, (c): KOH.

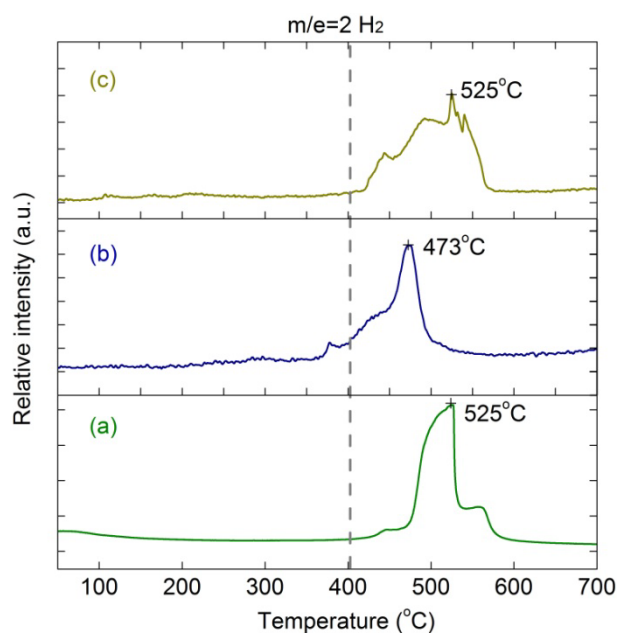


Figure S2 TPD-MS results of ball-milled (a): LiOH, (b): NaOH, (c): KOH. Hydrogen was liberated from hydroxides at elevated temperatures  $> 400$  °C.