

Supporting Information

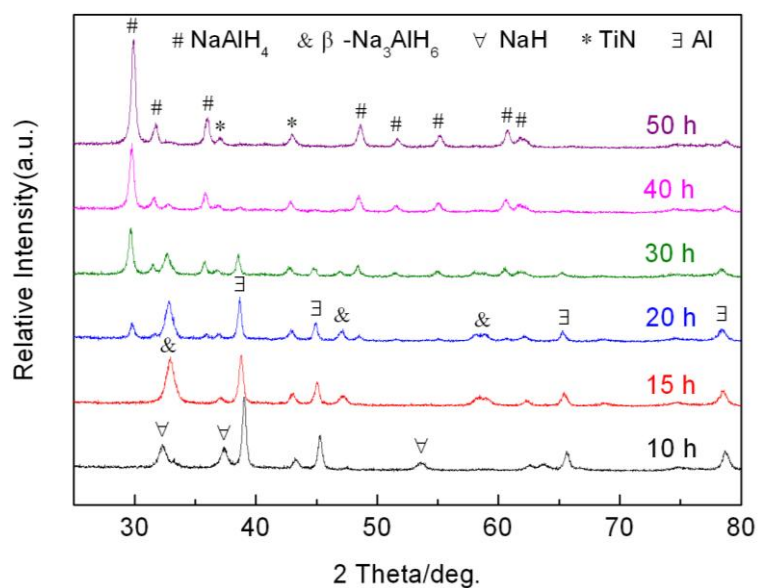


Fig. S1 XRD patterns of the as-synthesized TiN-doped NaAlH_4 at different milling times.

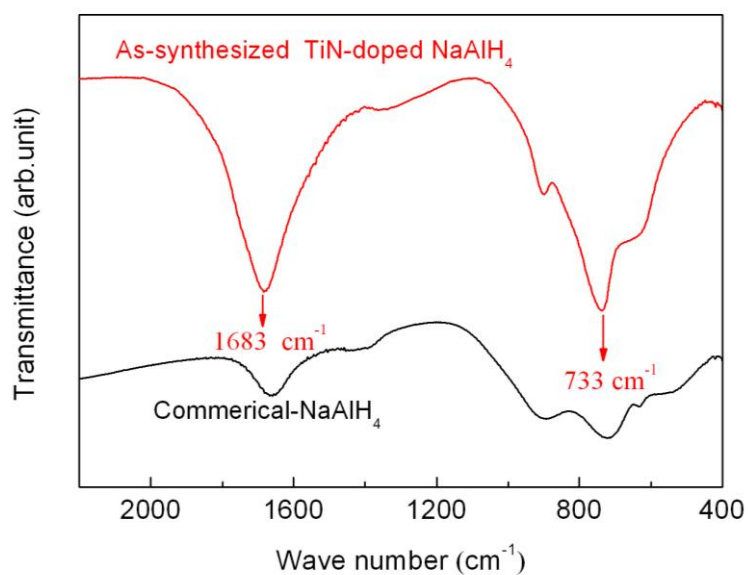


Fig. S2 FTIR spectra of as-synthesized TiN-doped NaAlH_4 and commercial- NaAlH_4 .

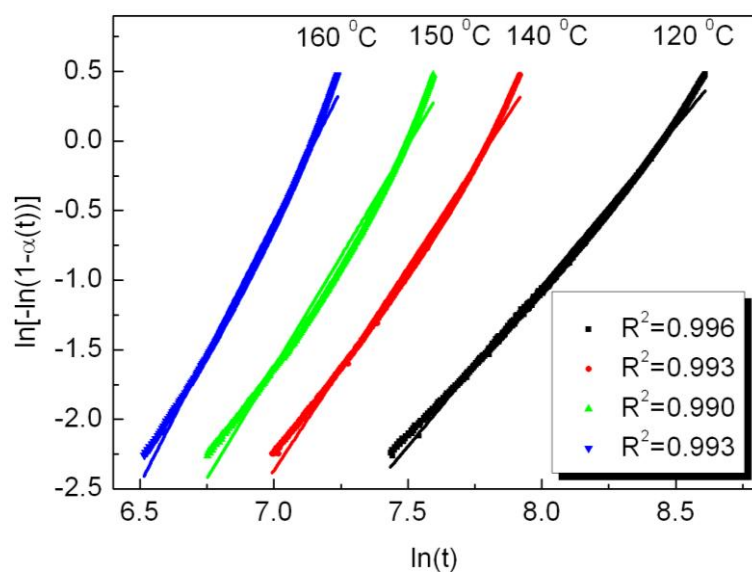


Fig. S3 JMA plots for the first-step isothermal dehydrogenation.

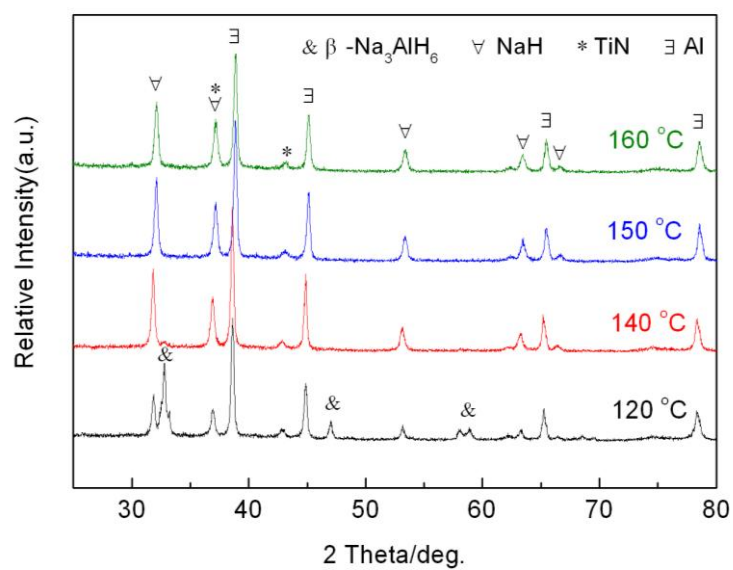


Fig. S4 The dehydrogenated TiN-doped NaAlH₄ sample at different stages.