Figure S1  Top:  AB, CDB and BCDB, generated by heating AB in THF at 50 C for 18 hours.  Bottom:  Adding LiH to the above reaction mixture results in Li-CDB and Li-BCDB based on the observed change in chemical shift.
Figure S2 $^7$Li NMR spectra of heating LiH-AB THF suspension at 40°C. Samples were collected a) at the end of 1st induction period, reaction time 50min; b) at the end of 1st desorption step, reaction time 1300min; c) at the end of desorption, reaction time 2000min.
Figure S3 XRD pattern of LiNH$_2$BH$_3$ crystal obtained from LiH-AB THF suspension
Figure S4 Time dependence of the peak areas of LiNH₂BH₃ integrated from Figure 4.
Figure S5 High field solid $^{11}$B NMR spectra of precipitation obtained at the end of hydrogen evolution from LiH-AB THF suspension at 55°C