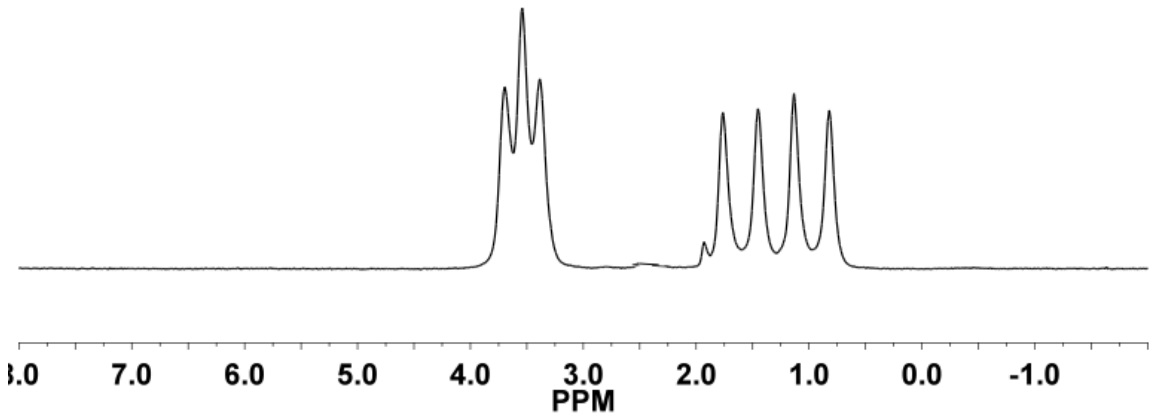

Figure 1S. ^{1}H NMR (300 MHz) of synthesized AB in *d*-MeCN. Ref. to MeCN, 1.94 ppm. $J_{B\text{-}H}$ = 94 Hz, $J_{N\text{-}H}$ = 45 Hz.

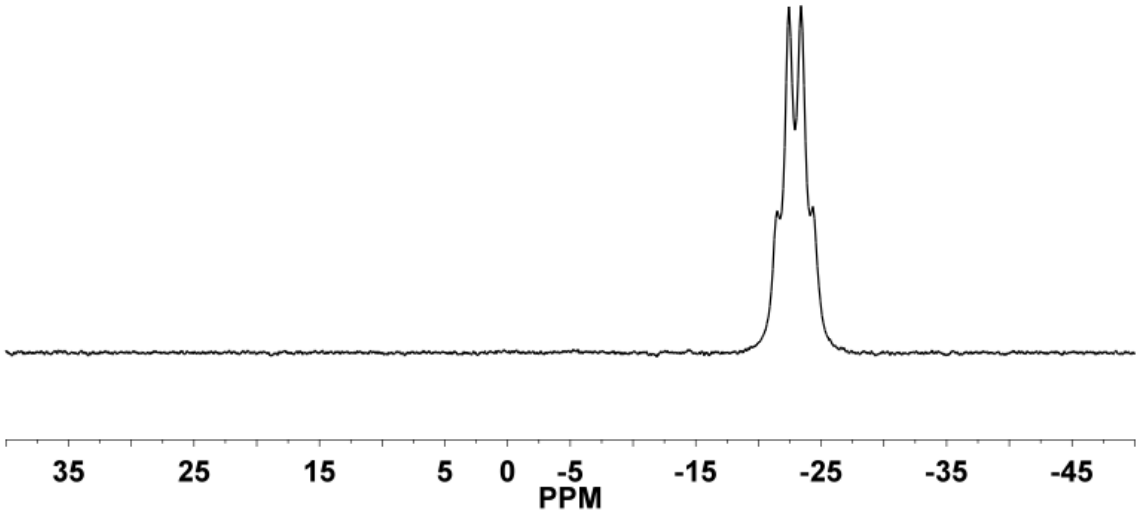

Figure 2S. ^{11}B NMR (7 Tesla Boron) of synthesized AB in MeCN. Ref to BF_3:OEt_2, 0 ppm. J_{B-H} = 94 Hz.

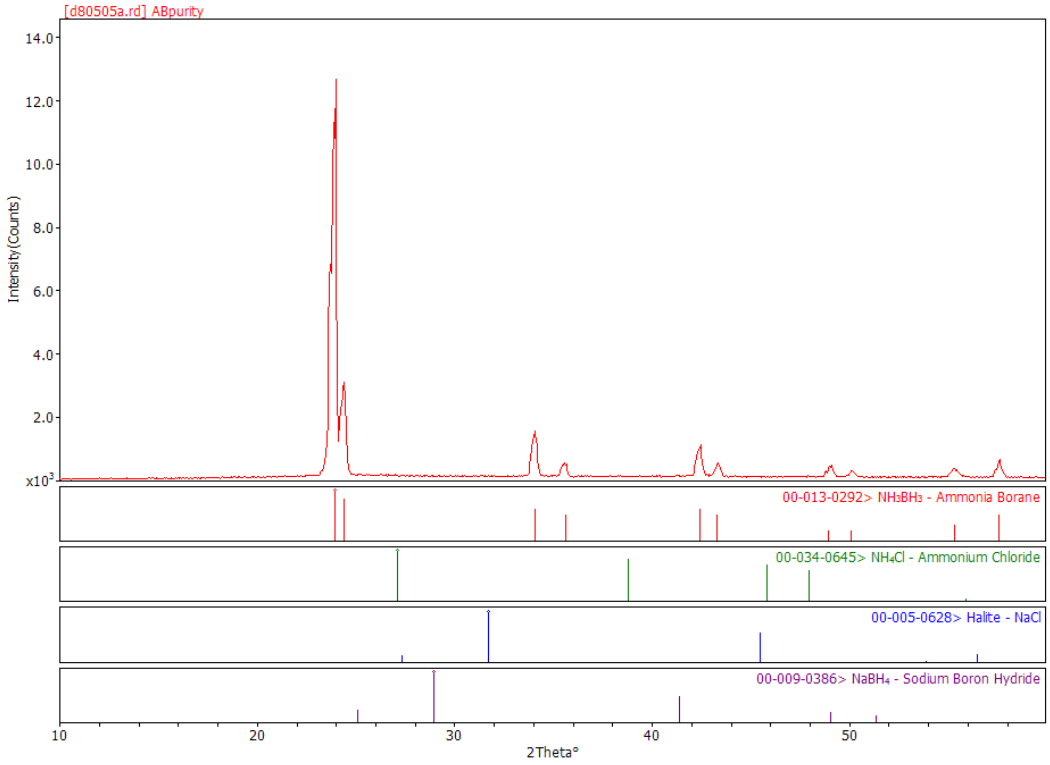

Figure 3S. XRD of synthesized AB

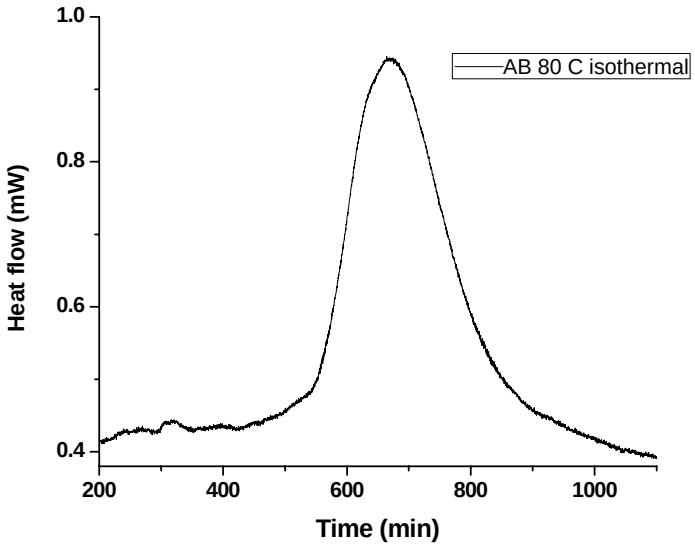

Figure 4S. Isothermal DSC for Ammonia borane at 80 ºC.

Instrument settings (Calvet C80): Argon atmosphere, $T_{initial}$ = 30 ºC, hold 30 minutes, ramp at 1 ºC/min to 80 ºC, hold isothermal at T_{final} = 80 ºC for 18 hours. The sample shows an induction period of ca. 380 minutes at 80 ºC.

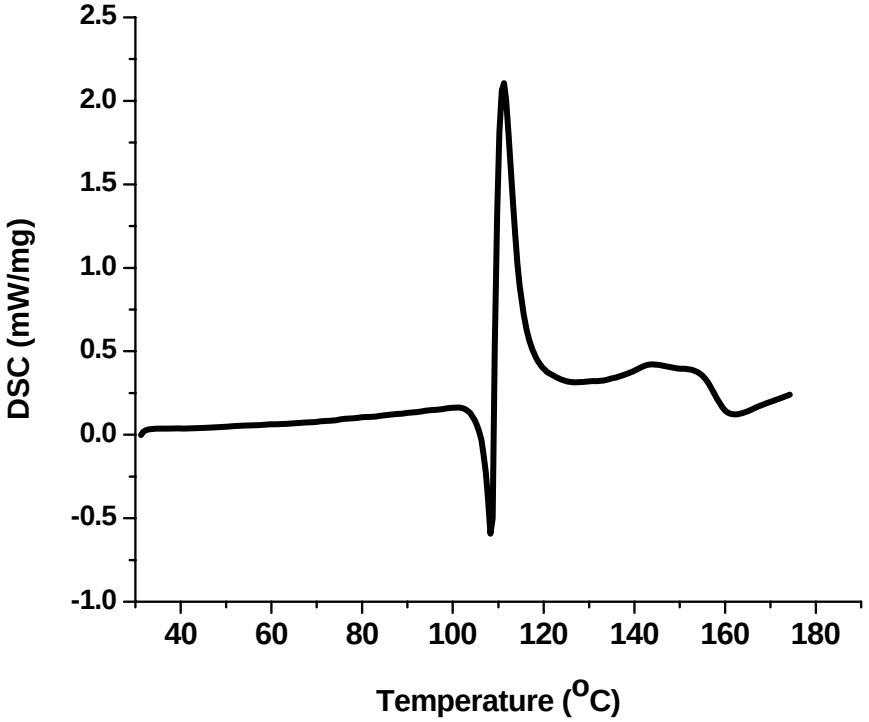

Figure 5S. Ramp DSC experiment for Ammonia borane at 30-180 ºC.

Instrument settings (Netzsch STA449): Argon atmosphere, $T_{initial}$ = 30 ºC, ramp at 1 ºC/min to 180 ºC. The sample shows an endothermic melting transition at 107.5 ºC followed by an exothermic decomposition.