

Thermolysis and solid state NMR studies of NaB_3H_8 , $\text{NH}_3\text{B}_3\text{H}_7$ and $\text{NH}_4\text{B}_3\text{H}_8$

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Supporting Information

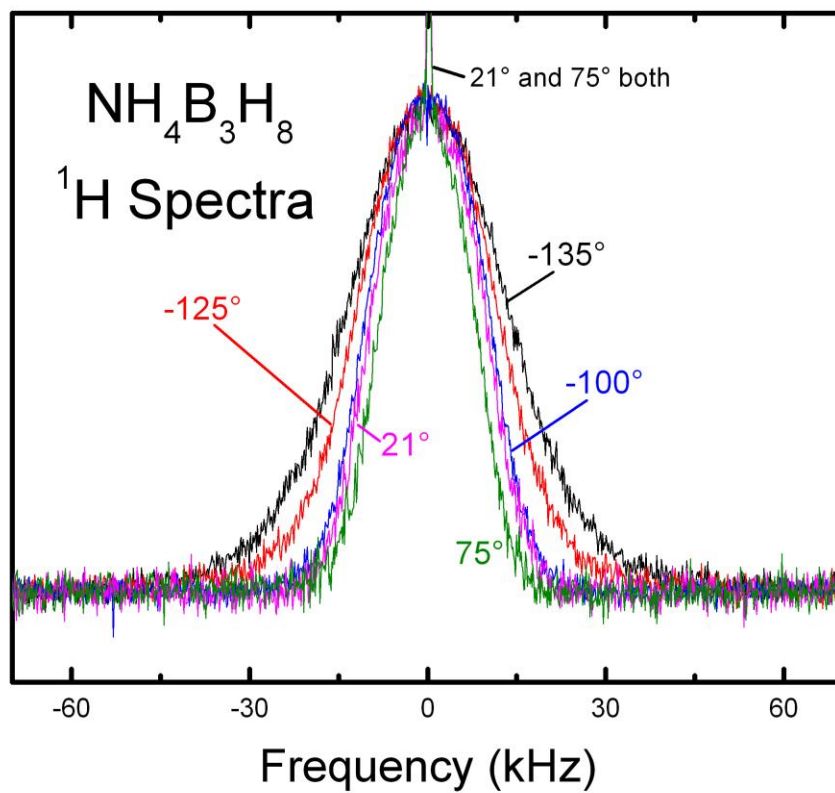


Figure S1: Hydrogen NMR spectra of $\text{NH}_4\text{B}_3\text{H}_8$.

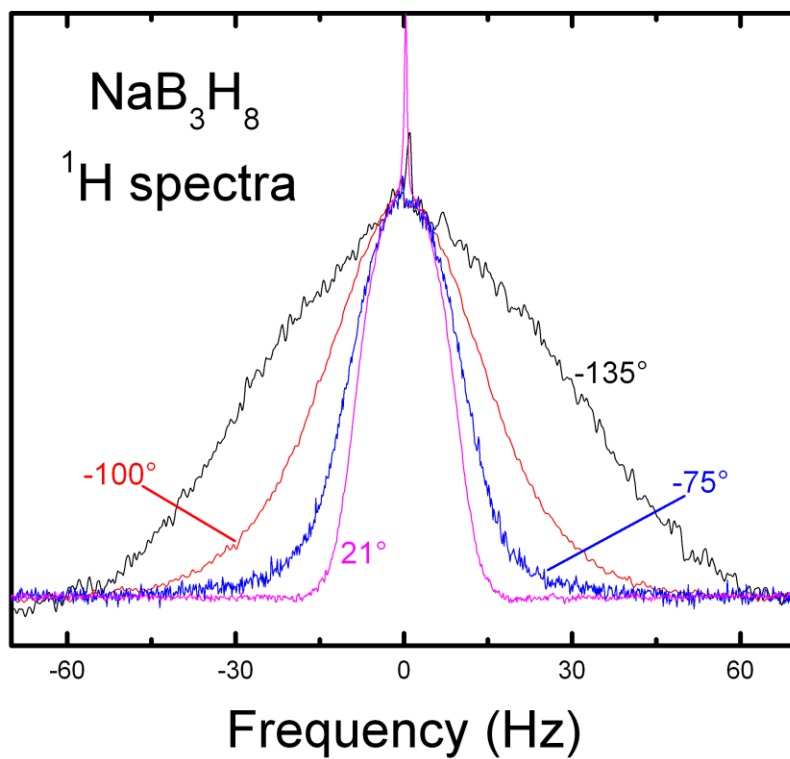


Figure S2: Hydrogen NMR spectra of NaB_3H_8 .

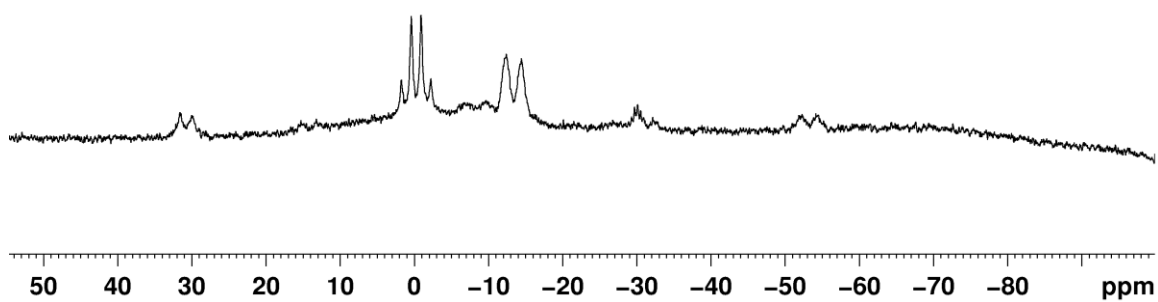


Figure S3: ^{11}B NMR spectrum of gaseous decomposition products from $\text{NH}_4\text{B}_3\text{H}_8$ /silica mixture dissolved in THF. B_2H_6 (exists as $\text{THF}\cdot\text{BH}_3$, δ 0 ppm); B_5H_9 (δ -13.9, -53.8 ppm); $\text{B}_3\text{N}_3\text{H}_6$ (δ 30.8 ppm), and B_2NH_7 (δ -27.5 ppm) were detected.

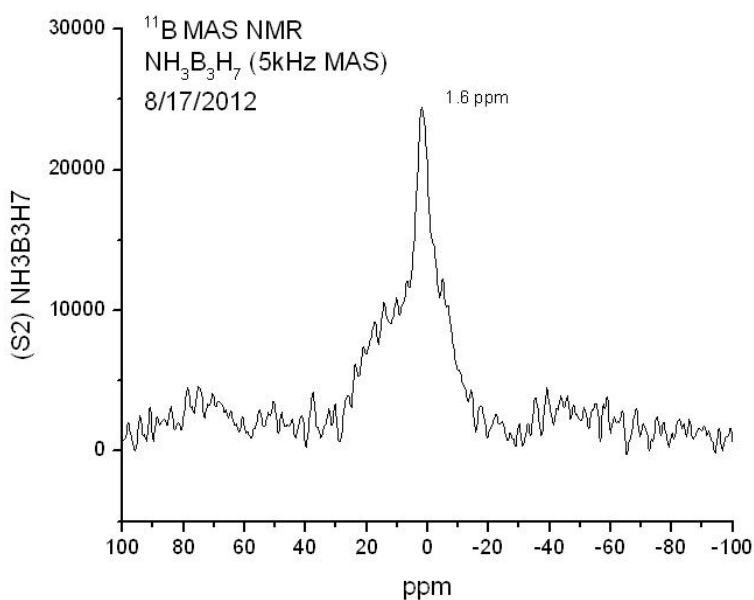


Figure S4: ¹¹B NMR spectrum of solid residue after the decomposition of NH₃B₃H₇. The peak at δ 1.6 ppm is associated with B(OH)₄⁻.

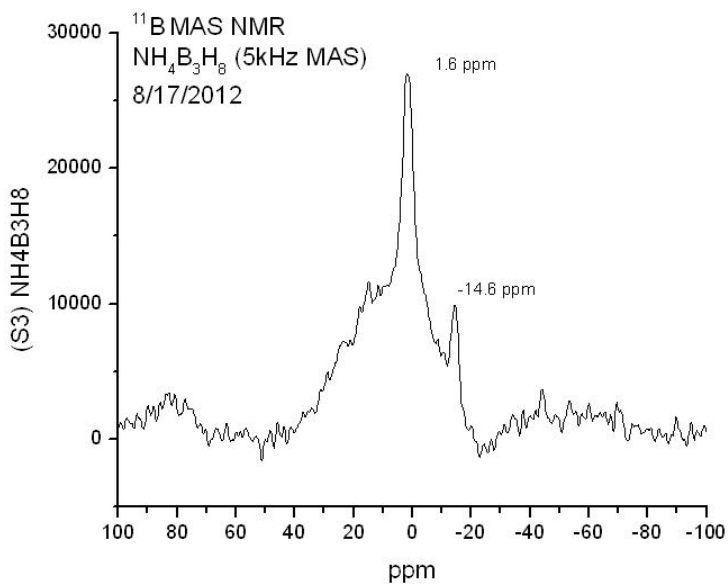


Figure S5: ¹¹B NMR spectrum of solid residue after the decomposition of NH₄B₃H₈. The peak at δ -14.6 ppm is associated with B₁₂H₁₂²⁻, and δ 1.6 ppm is associated with B(OH)₄⁻.