

Electronic Supplementary Information

**The Role of Ammonia in Promoting Ammonia Borane
Synthesis**

P. Veeraraghavan Ramachandran* and Ameya S. Kulkarni

Herbert C. Brown Center for Borane Research, Department of Chemistry, Purdue University,

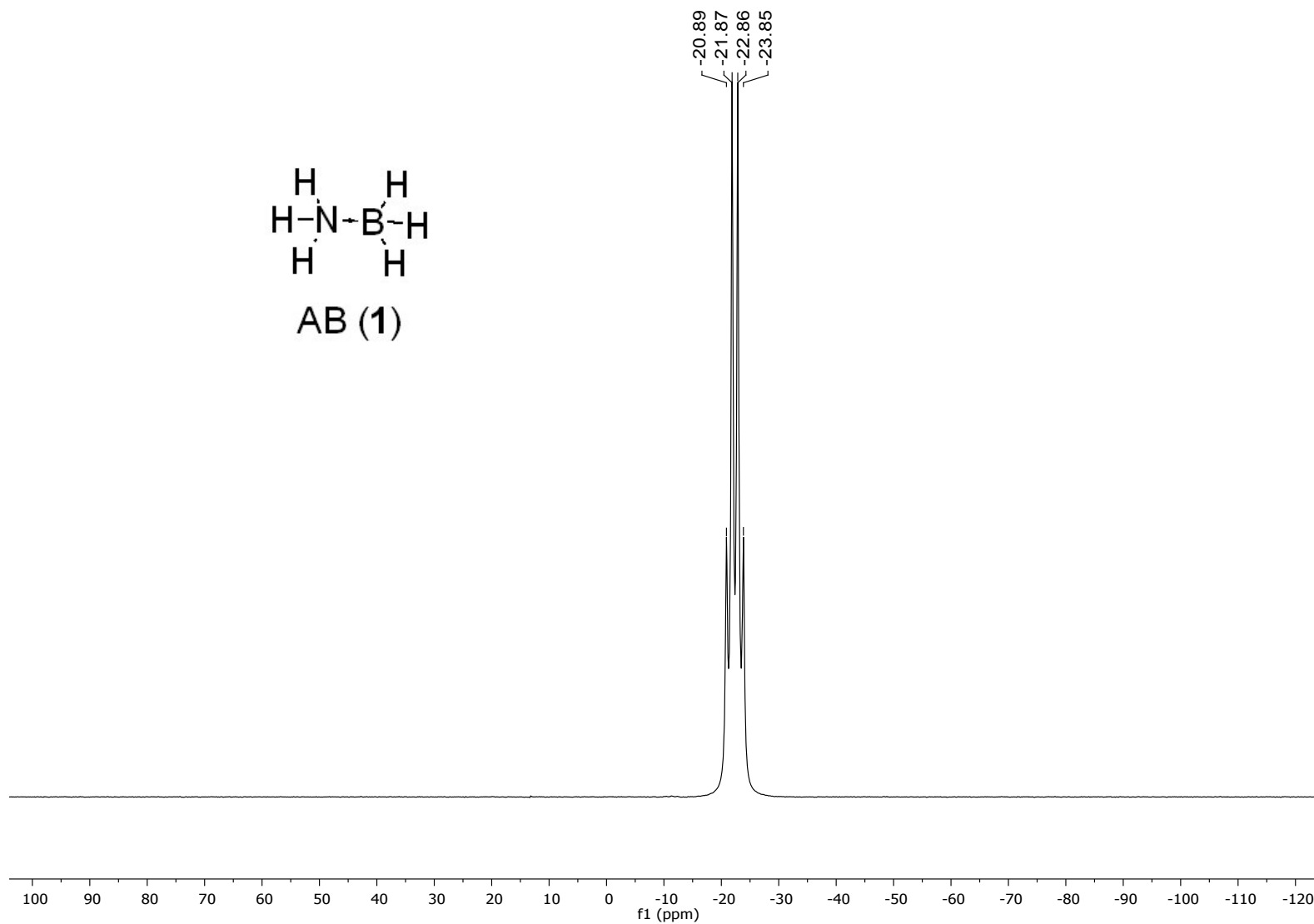
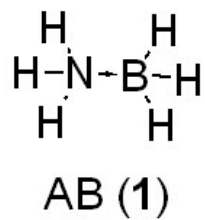
560 Oval Drive, West Lafayette, Indiana 47907-2084

E-mail: chandran@purdue.edu

Table of Contents:

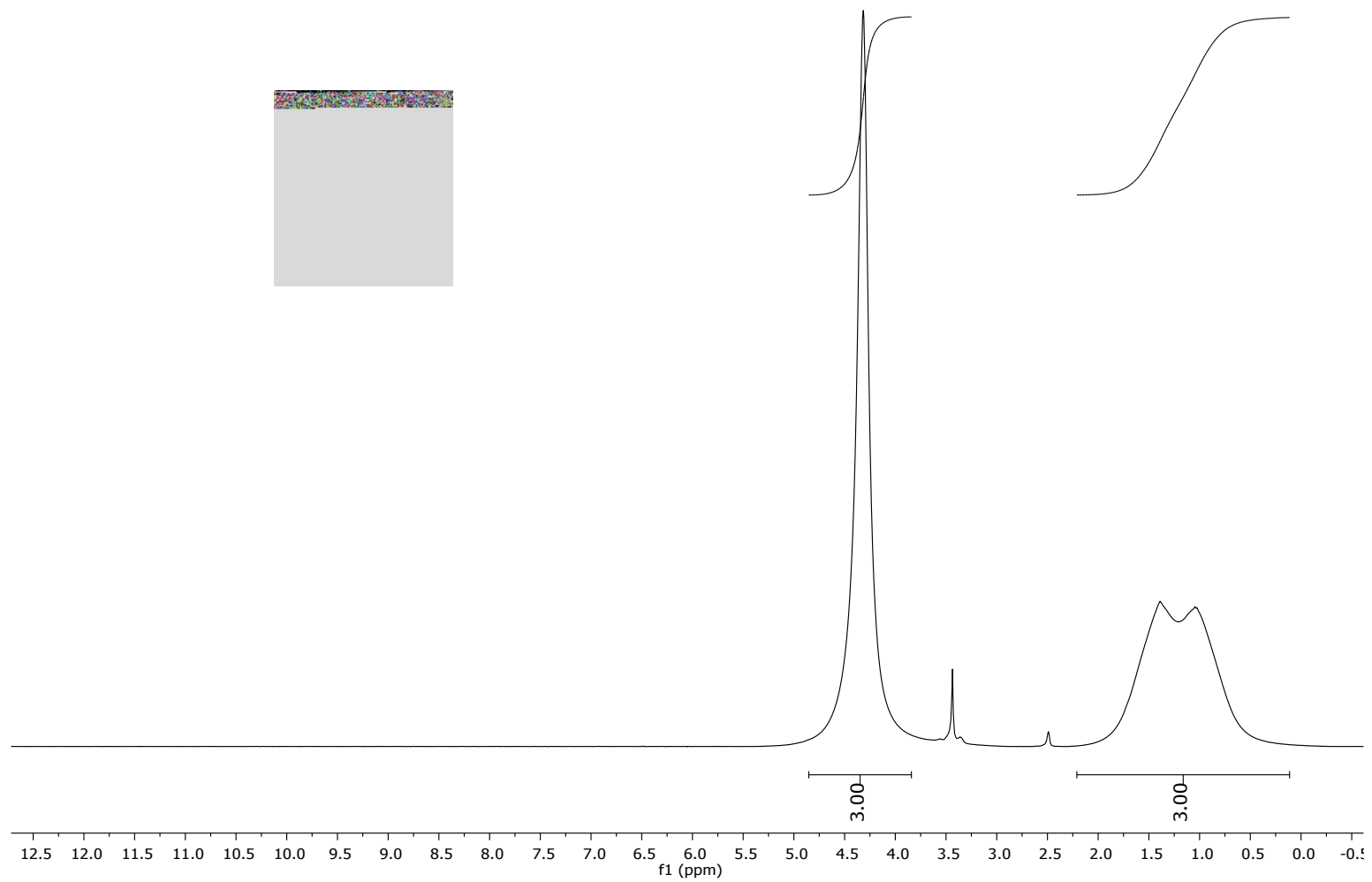
¹¹ B NMR spectra of AB (1)	3
¹ H NMR spectra of AB (1)	4
¹ H NMR spectra of AB from deuterium labelling study	5
¹ H NMR spectra of ND ₃ BH ₃	6
¹ H NMR spectra of product from deuterium labelling study (control experiment)	7
¹¹ B NMR spectra representing results from Table 4	8-19
DSC analysis of AB (1)	20
TG analysis of AB (1)	21

^{11}B NMR spectra of AB (1)

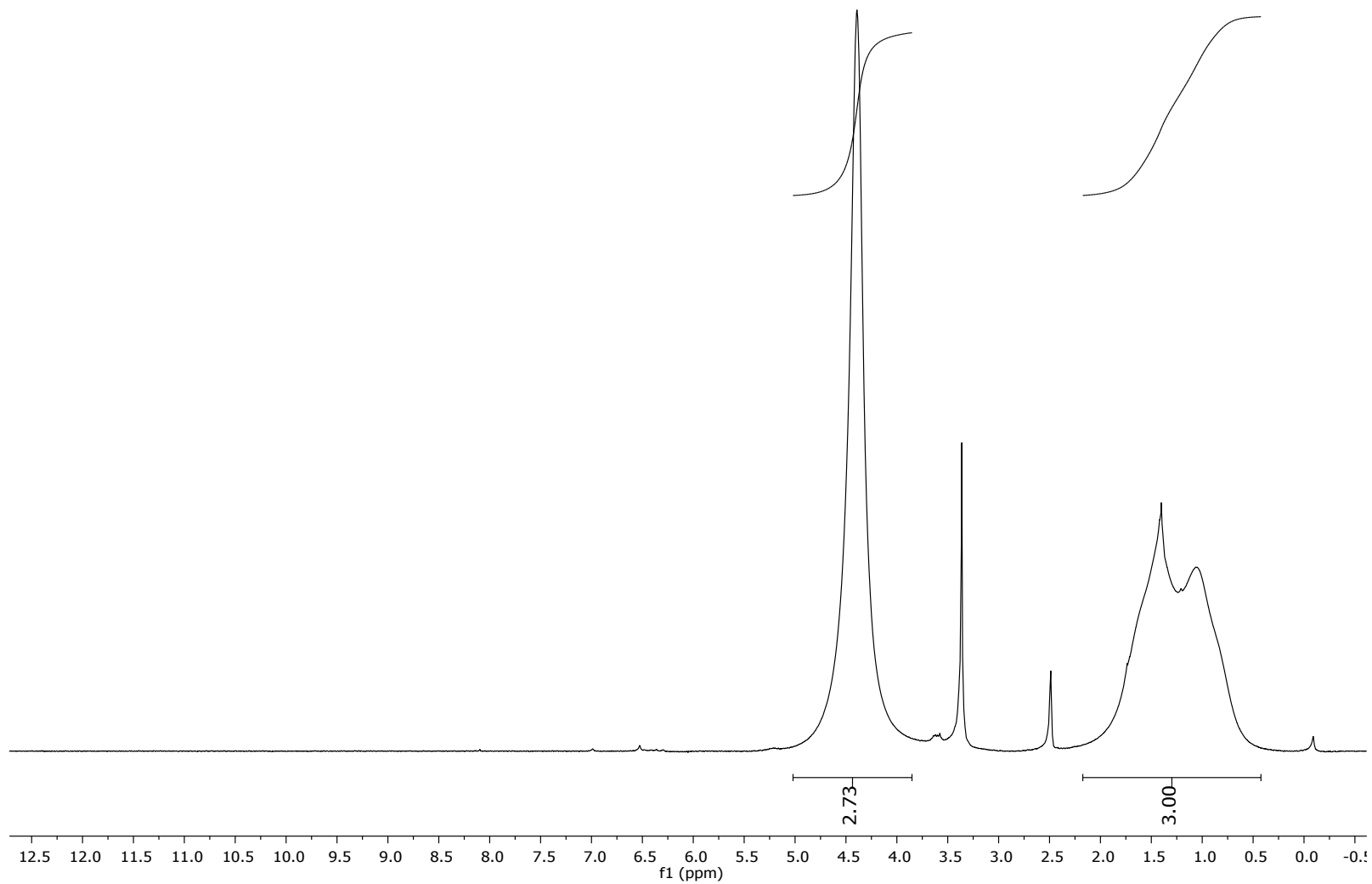


^{11}B NMR (96 MHz, THF) Ammonia Borane (1)

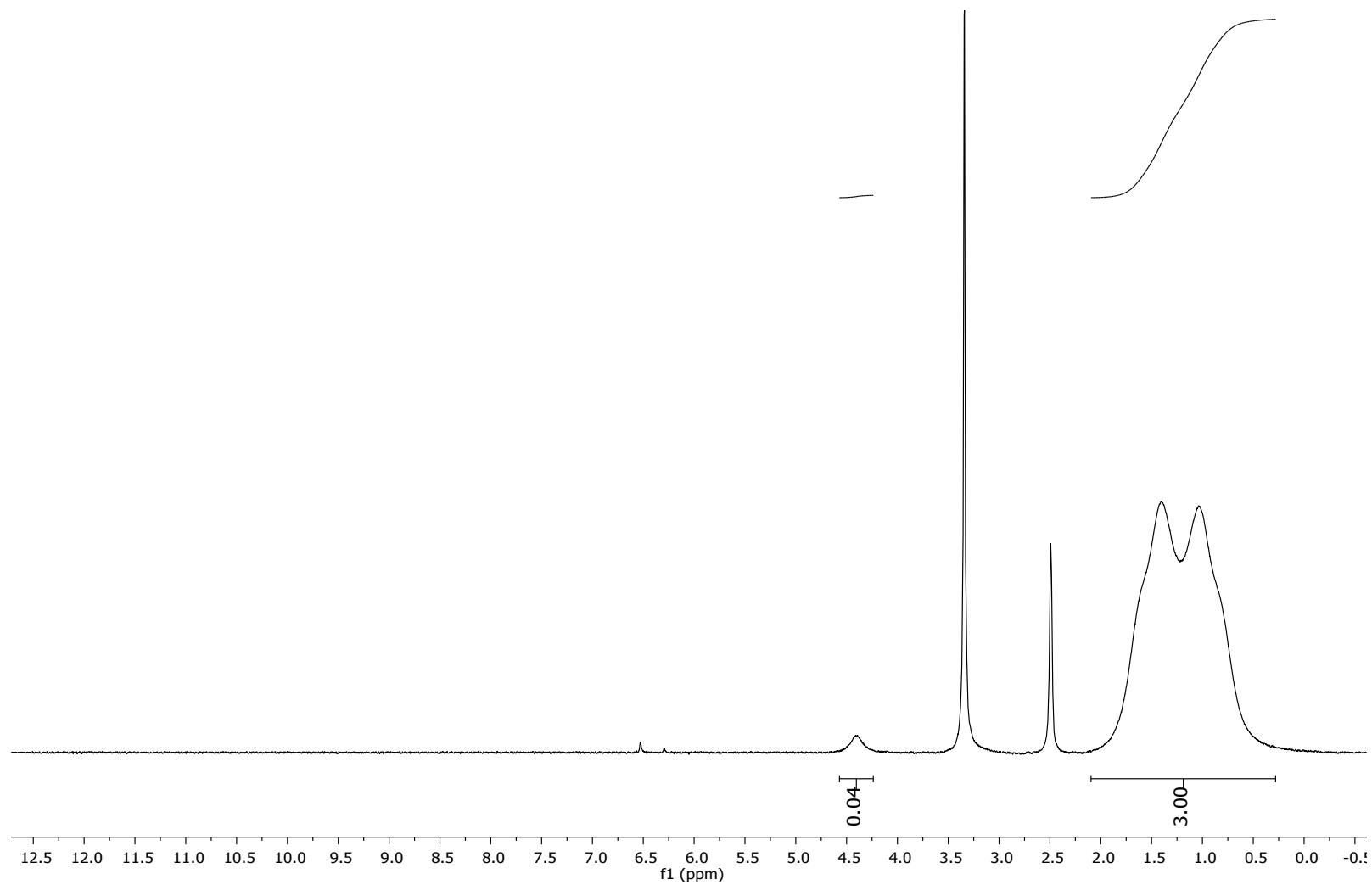
^1H NMR spectra of AB (1)



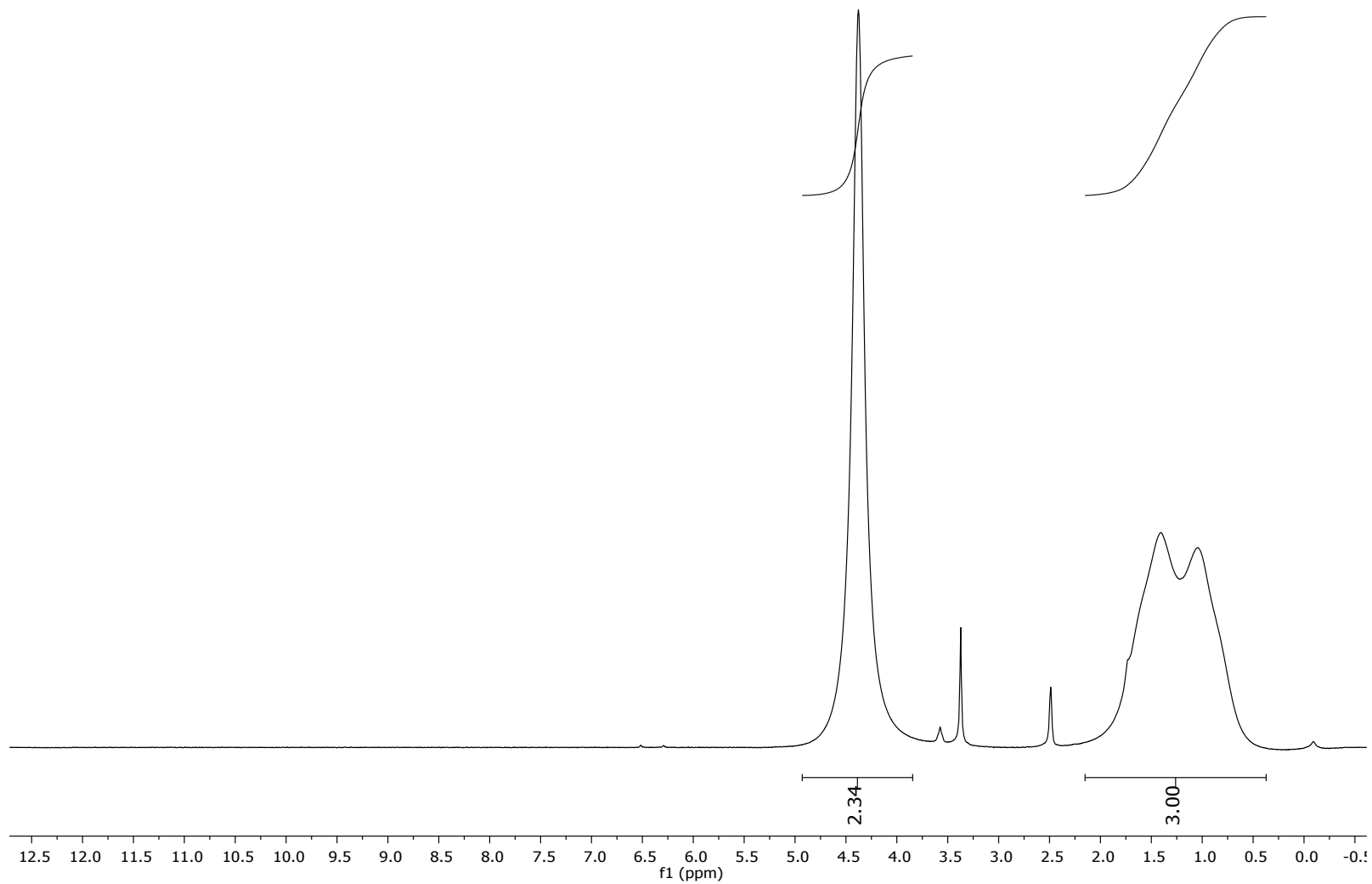
^1H NMR (300 MHz, $\text{DMSO-}d_6$) Ammonia Borane (1)



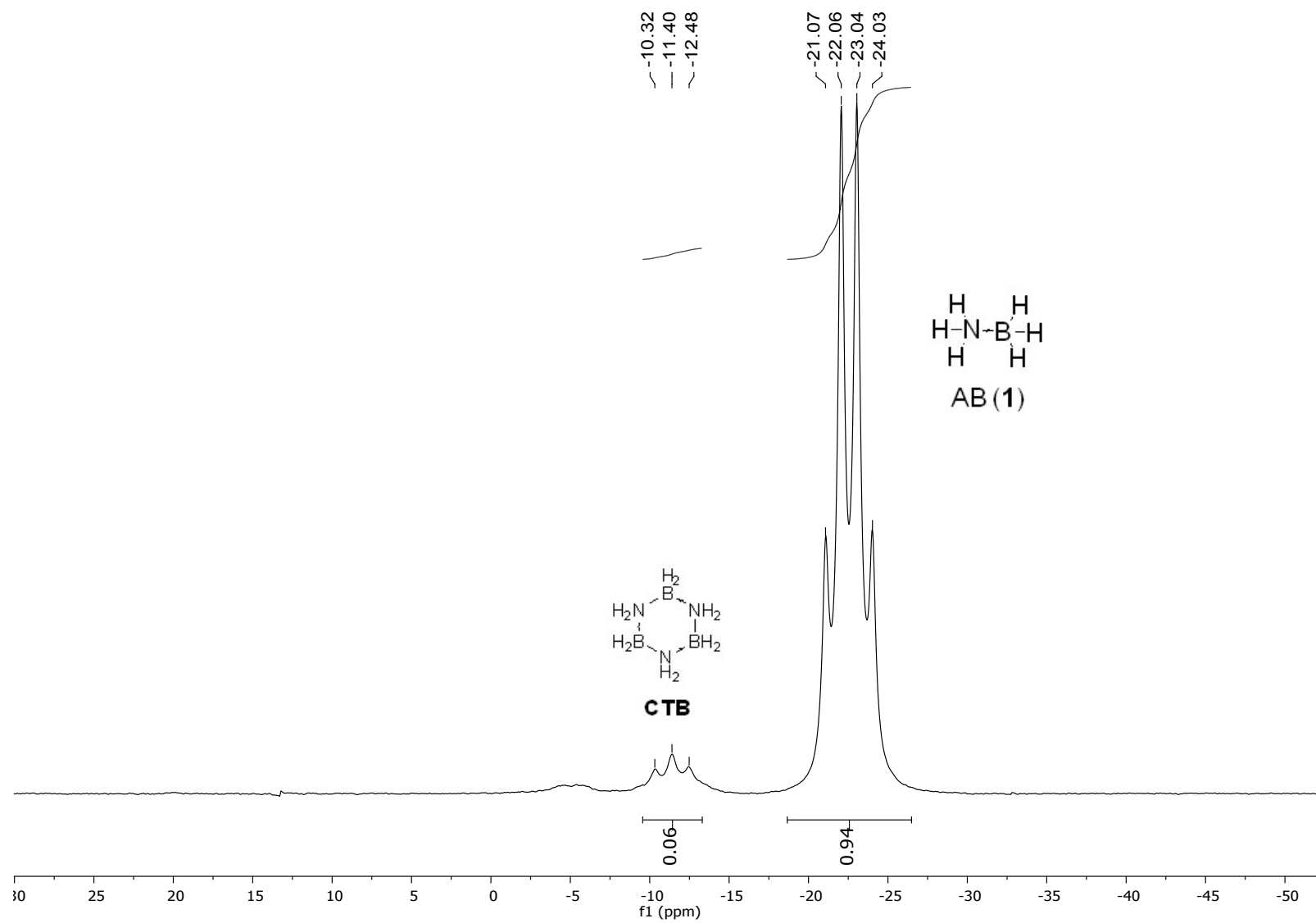
^1H NMR (300 MHz, $\text{DMSO-}d_6$) ammonia borane from deuterium labelling study



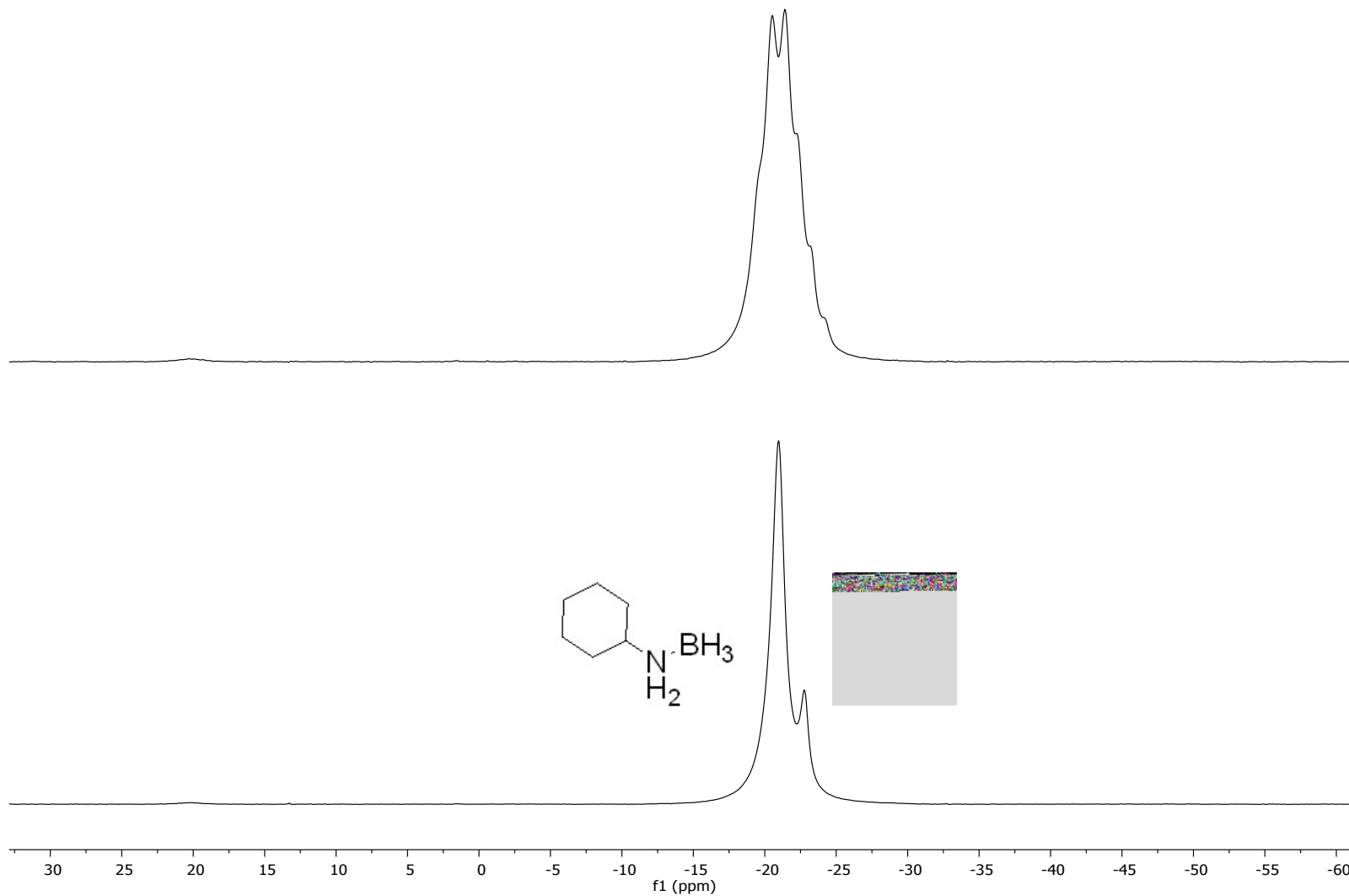
^1H NMR (300 MHz, $\text{DMSO-}d_6$) ND_3BH_3



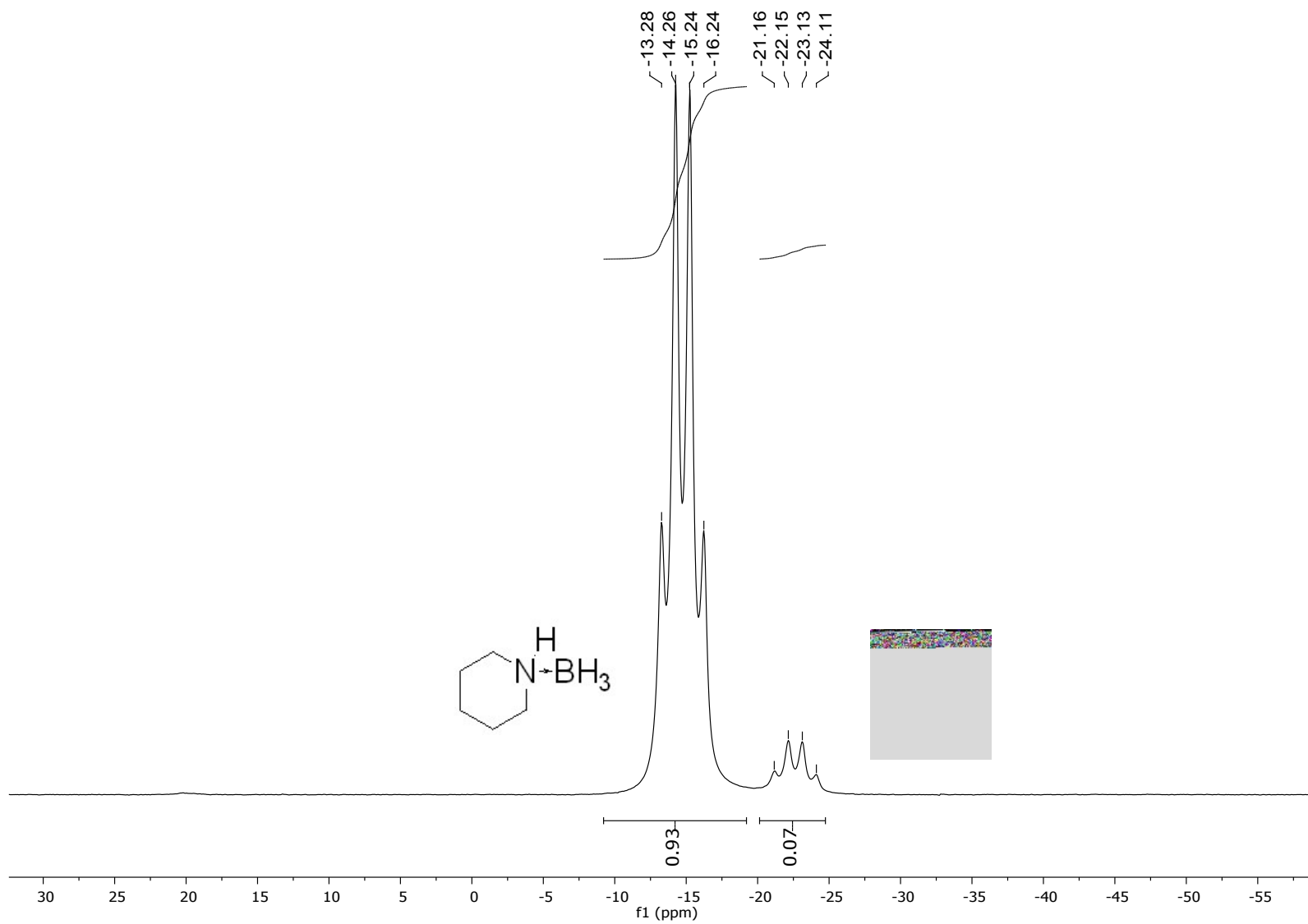
^1H NMR (300 MHz, $\text{DMSO-}d_6$) deuterium labelling (control experiment)



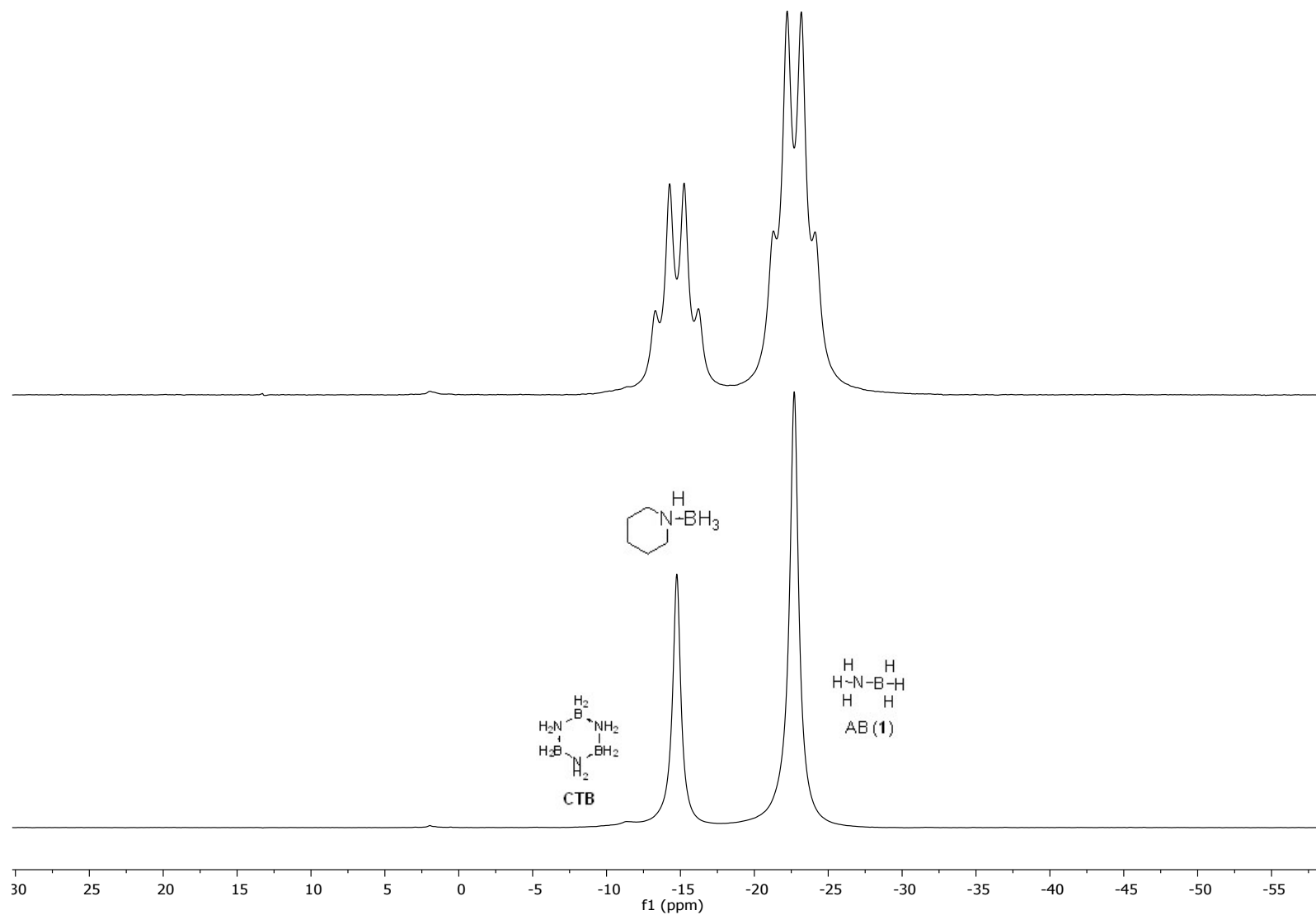
¹¹B NMR (96 MHz, THF) for Table 3, Entry 1



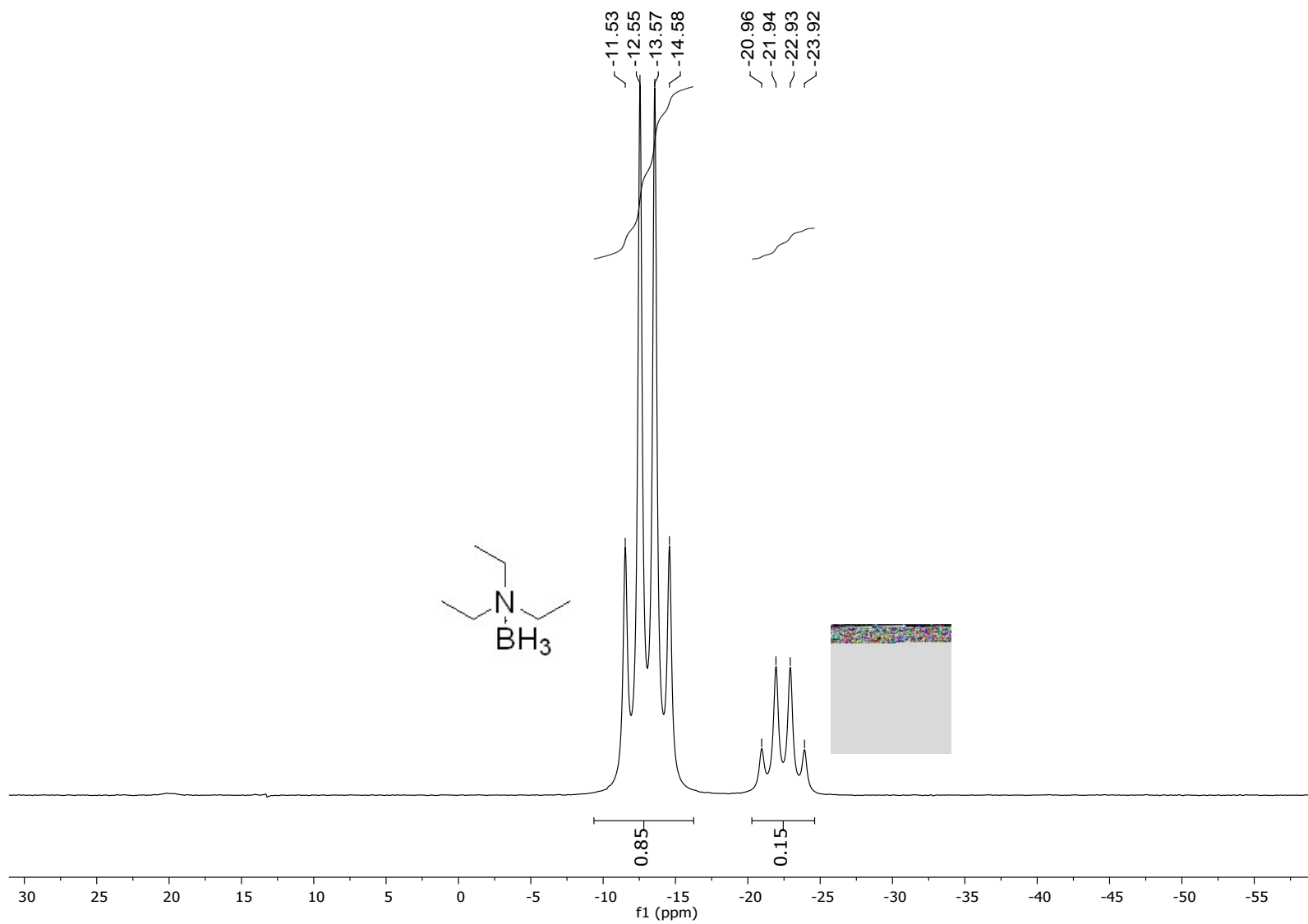
^1H coupled and ^1H decoupled spectra ^{11}B NMR (96 MHz, THF) for Table 3, Entry 2



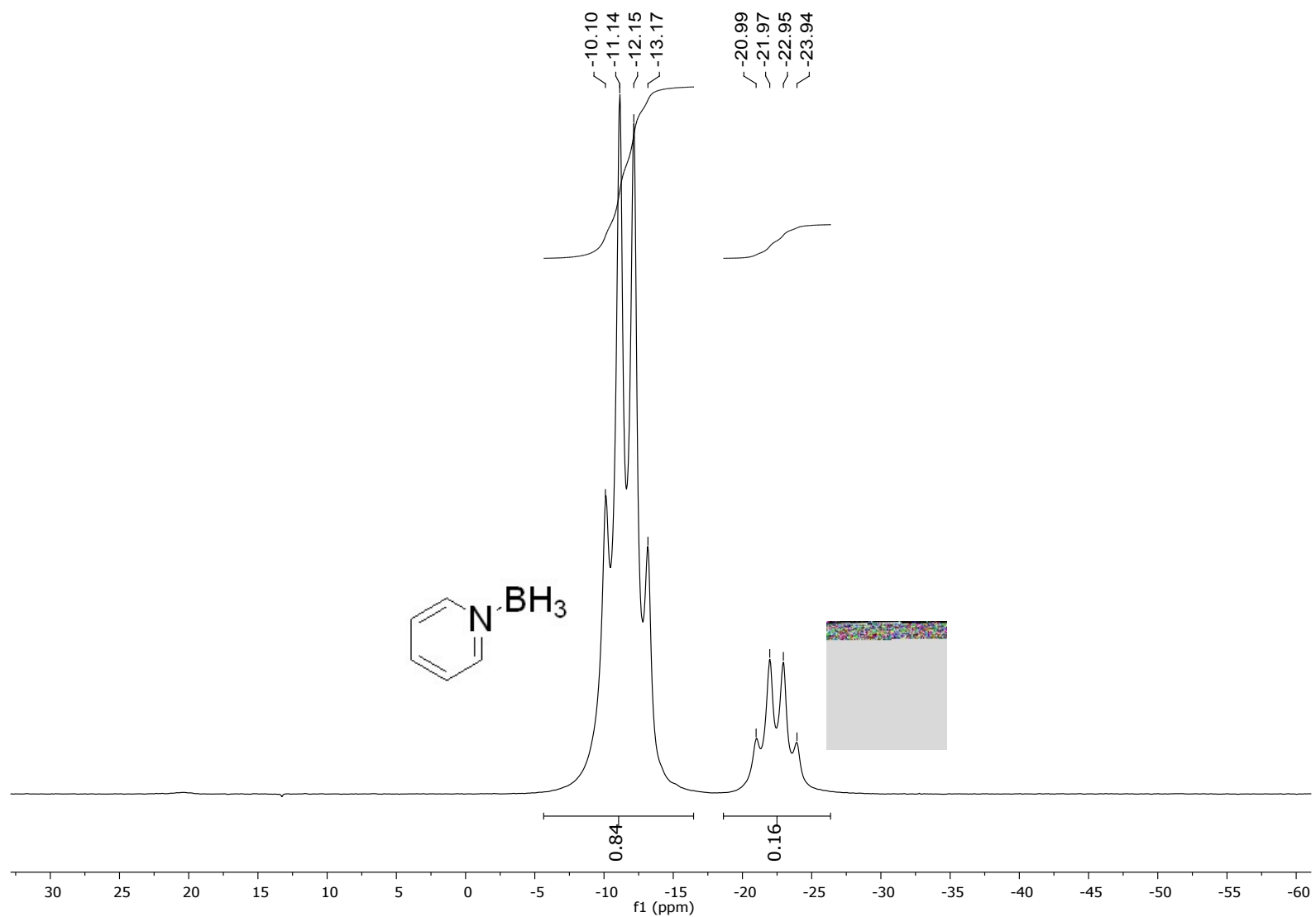
^{11}B NMR (96 MHz, THF) for Table 3, Entry 3



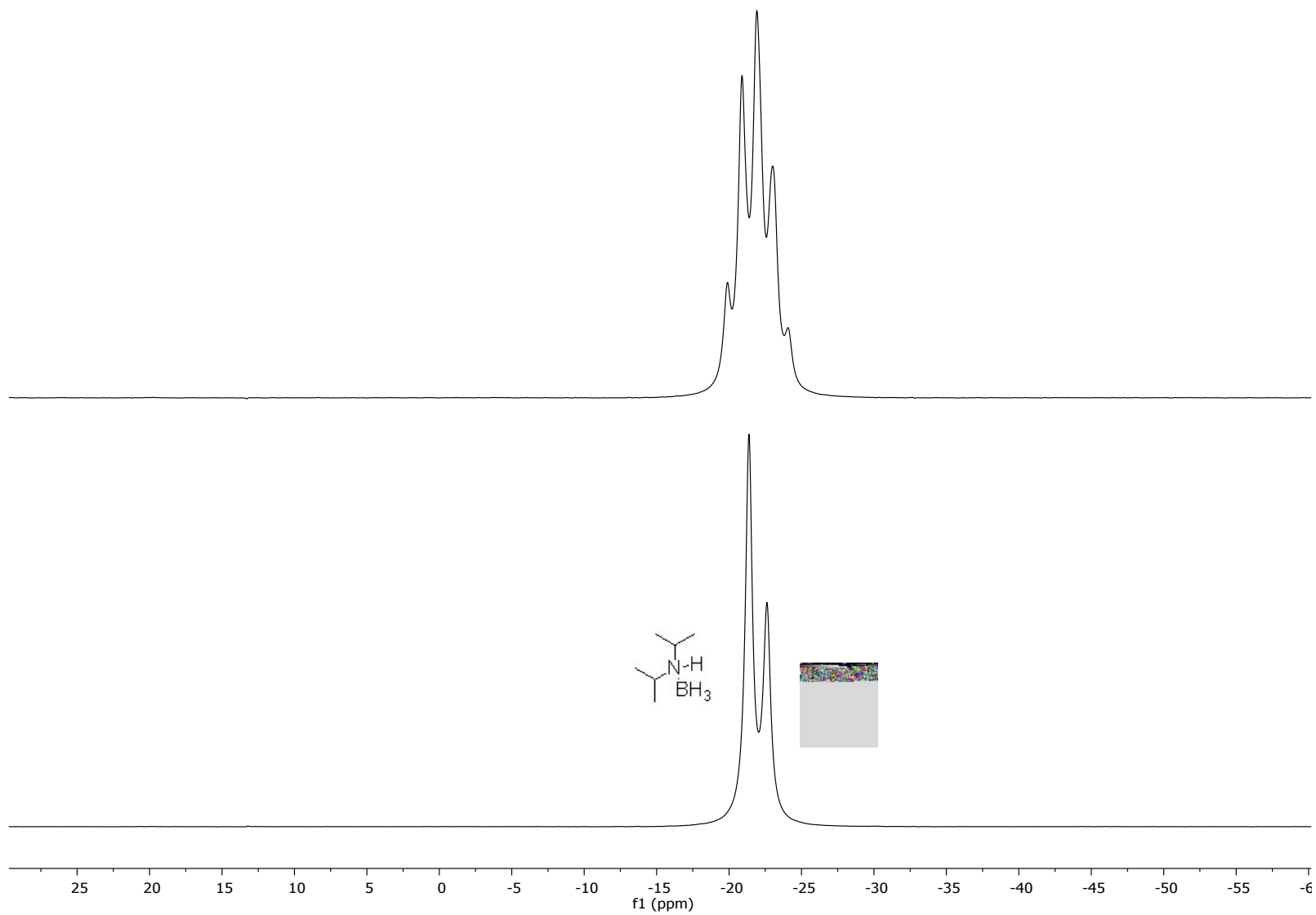
^1H coupled and ^1H decoupled spectra ^{11}B NMR (96 MHz, THF) for Table 3, Entry 4



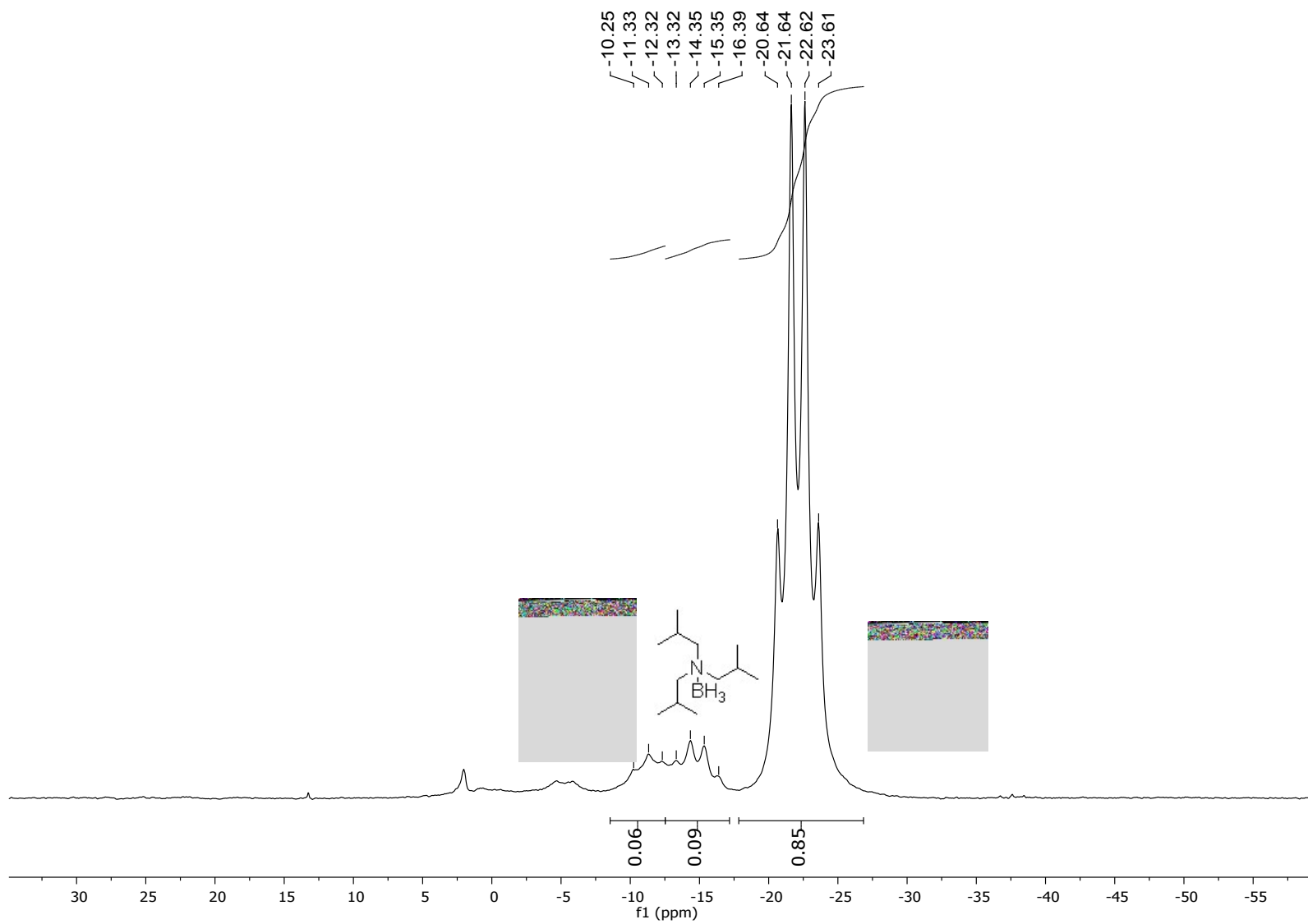
^{11}B NMR (96 MHz, THF) for Table 3, Entry 5



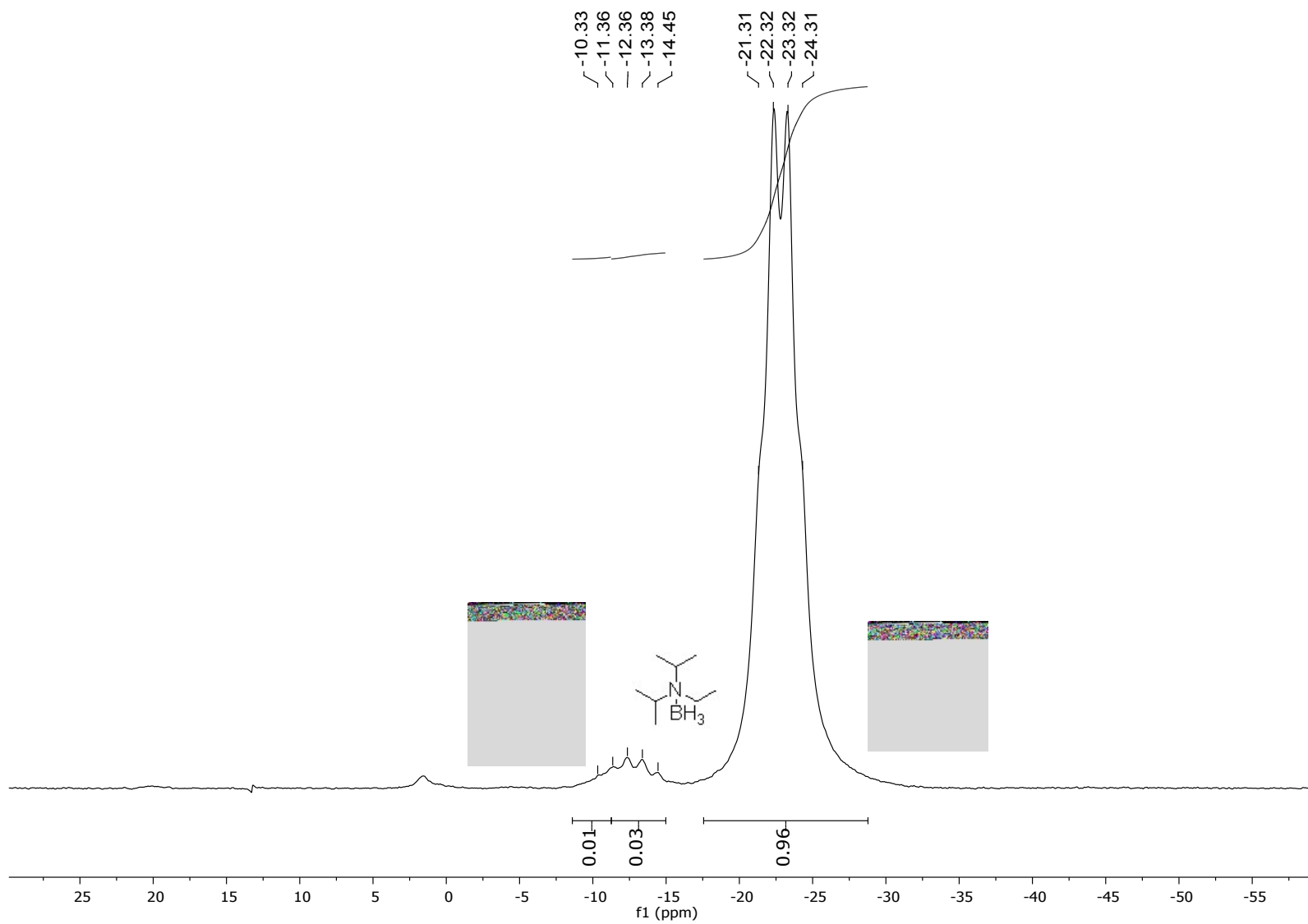
^{11}B NMR (96 MHz, THF) for Table 3, Entry 6



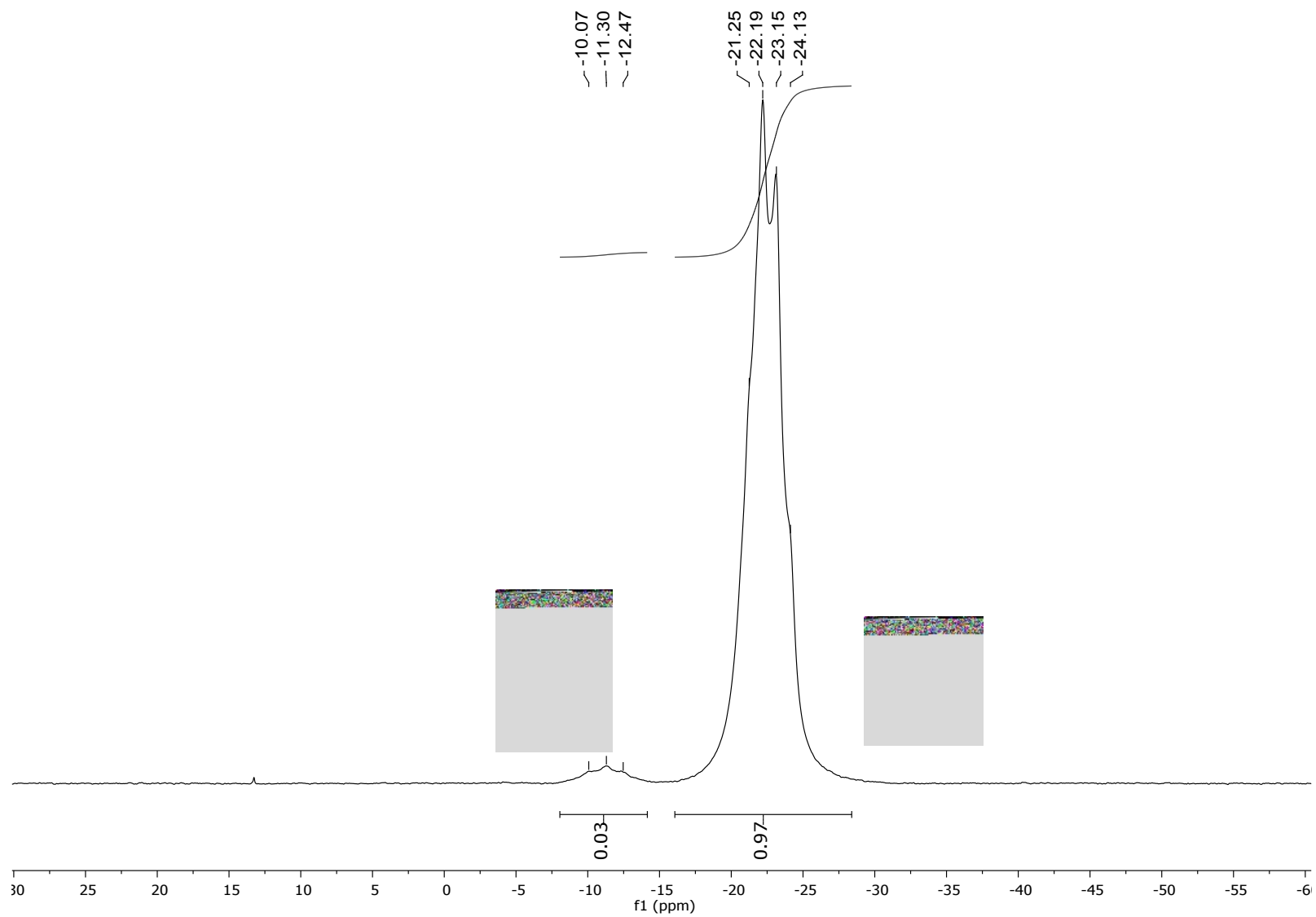
^1H coupled and ^1H decoupled spectra ^{11}B NMR (96 MHz, THF) for Table 3, Entry 7



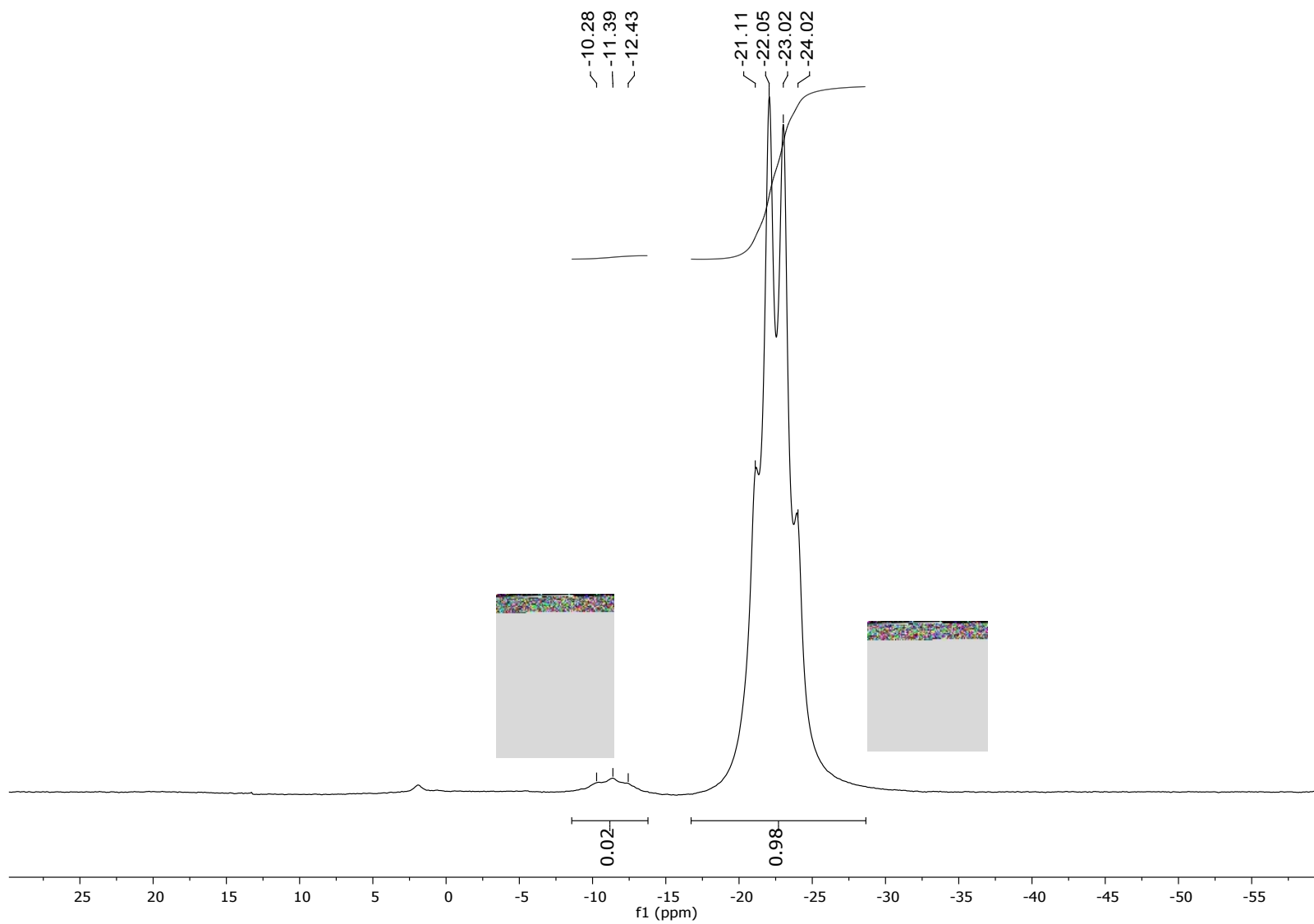
¹¹B NMR (96 MHz, THF) for Table 3, Entry 8



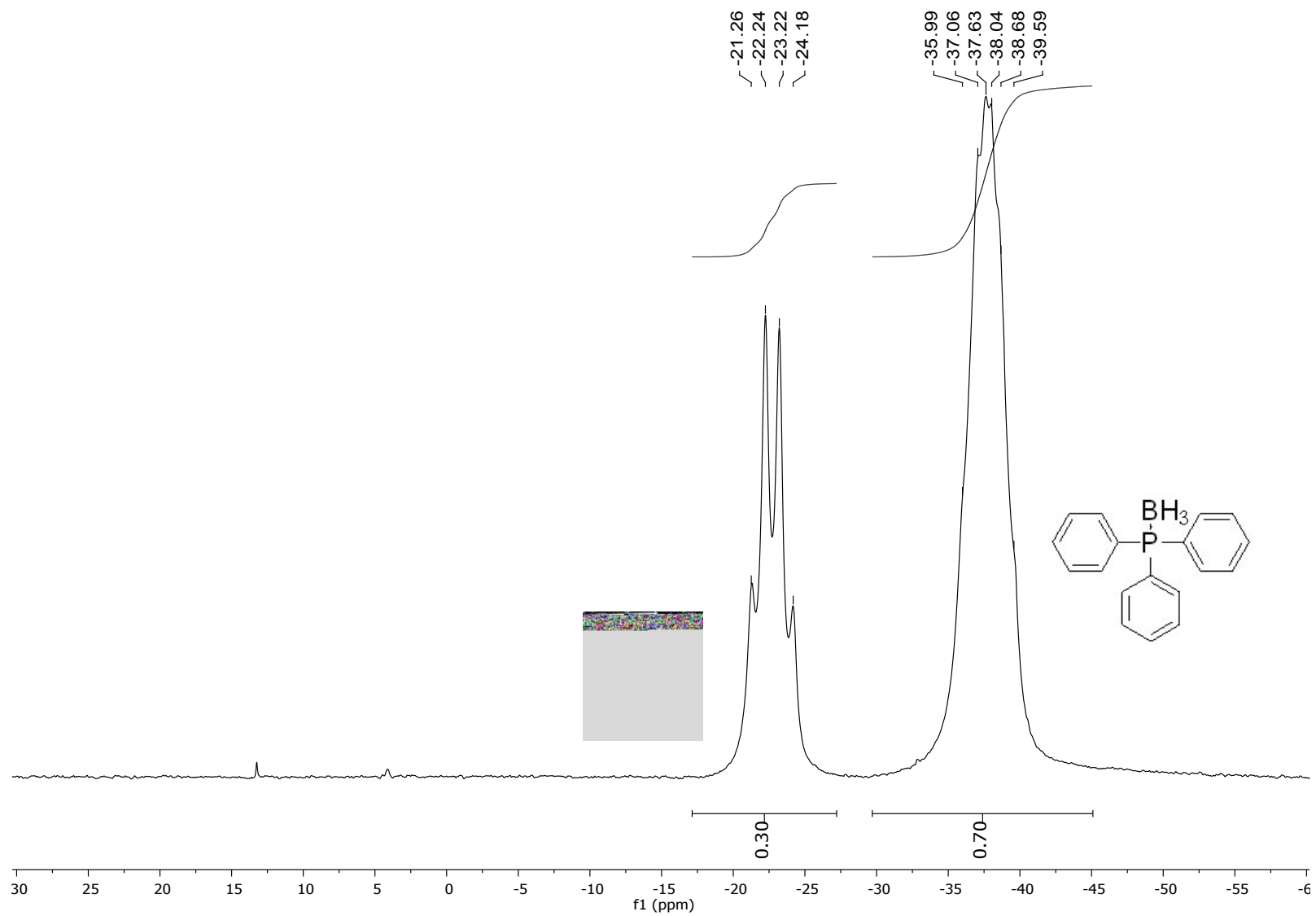
^{11}B NMR (96 MHz, THF) for Table 3, Entry 9



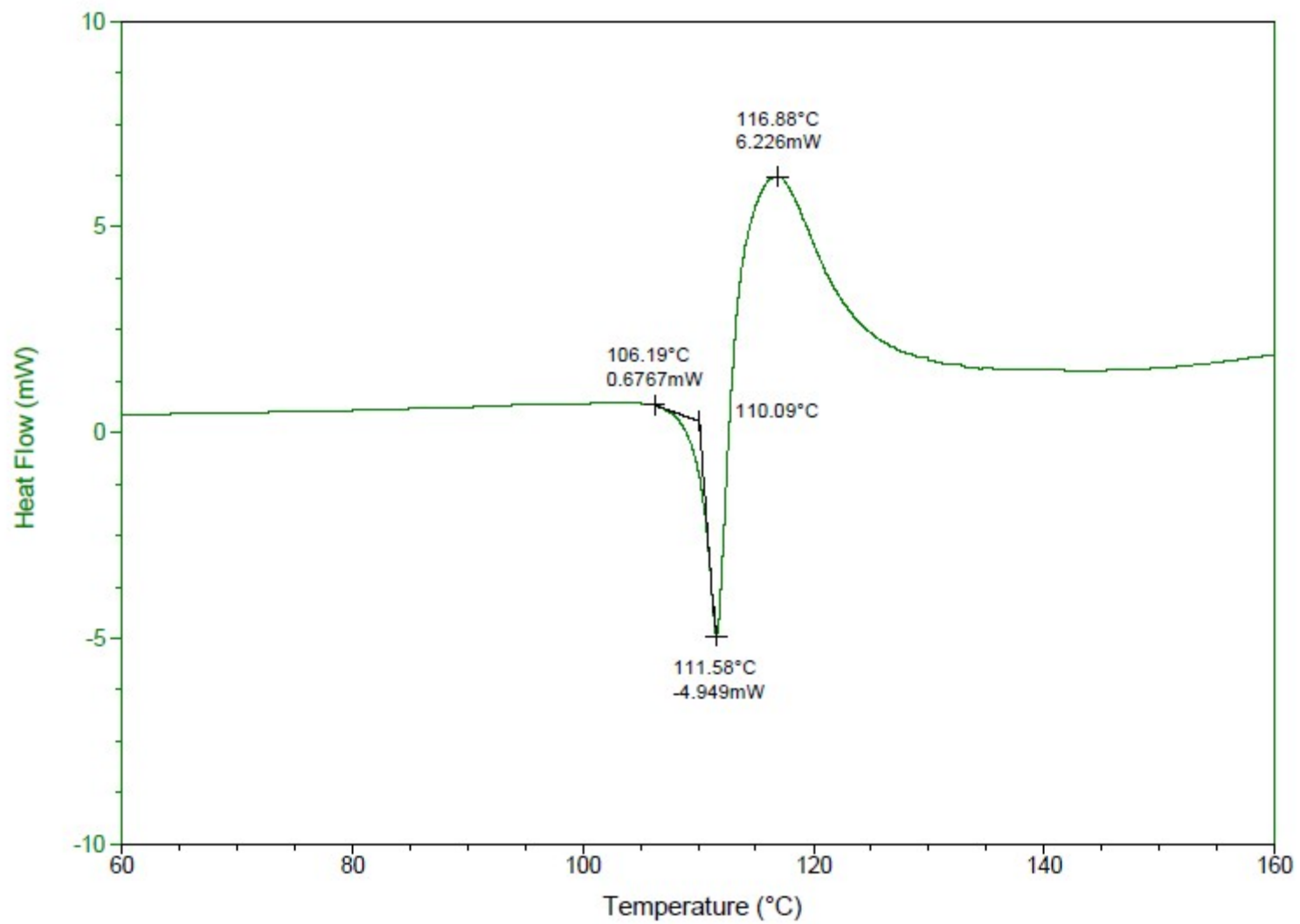
^{11}B NMR (96 MHz, THF) for Table 3, Entry 10



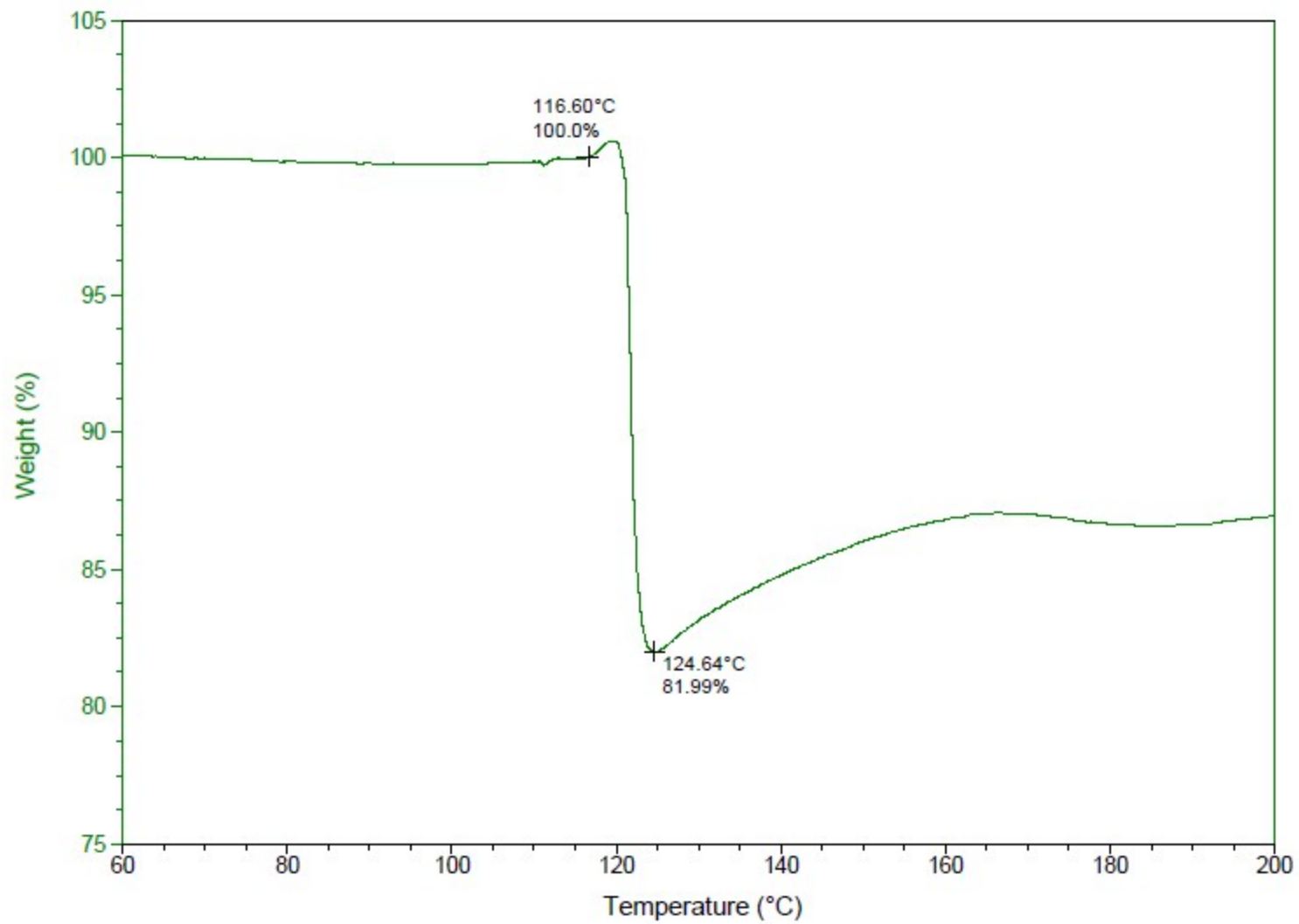
^{11}B NMR (96 MHz, THF) for Table 3, Entry 11



^{11}B NMR (96 MHz, THF) for Table 3, Entry 12



DSC Analysis of AB (1)



TG Analysis of AB (1)