

Supplementary Materials: Supporting Materials: Synthesis of Stereodiblock Polybutadiene Using $\text{Cp}^*\text{Nd}(\text{BH}_4)_2(\text{thf})_2$ as a Catalyst

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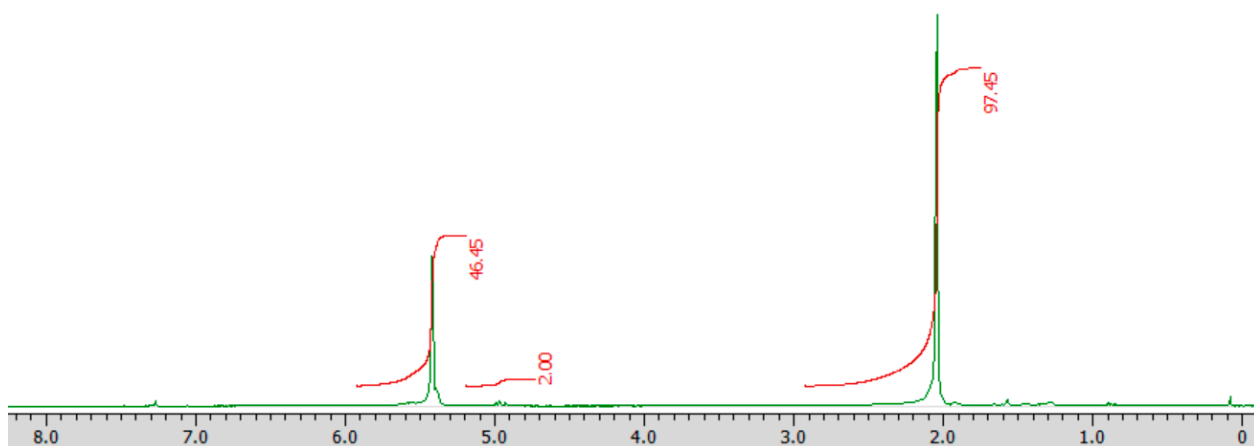


Figure S1. ^1H NMR spectrum of polybutadiene obtained in Table 1, Run 1 (500 MHz, in CDCl_3).

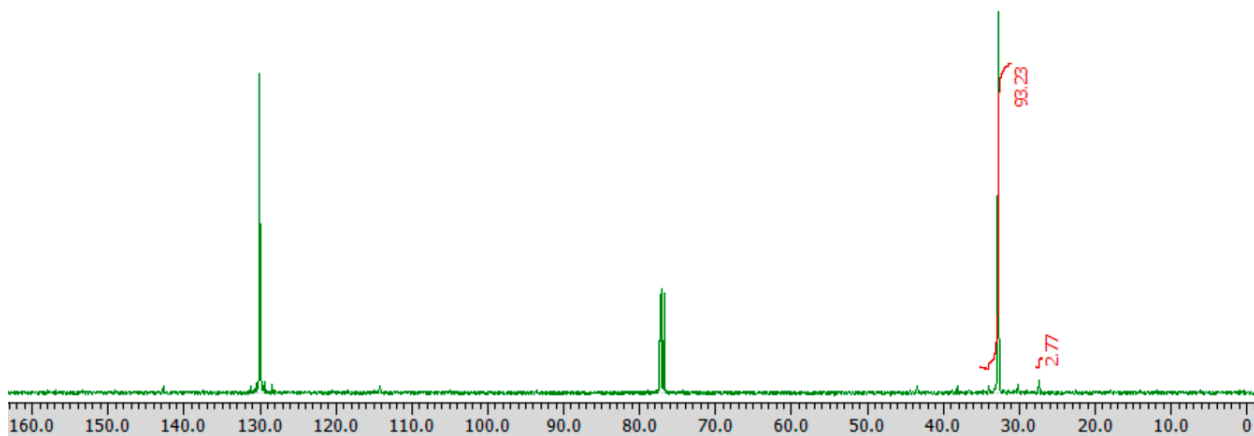


Figure S2. ^{13}C NMR spectrum of polybutadiene obtained in Table 1, Run 1 (125 MHz, in CDCl_3).

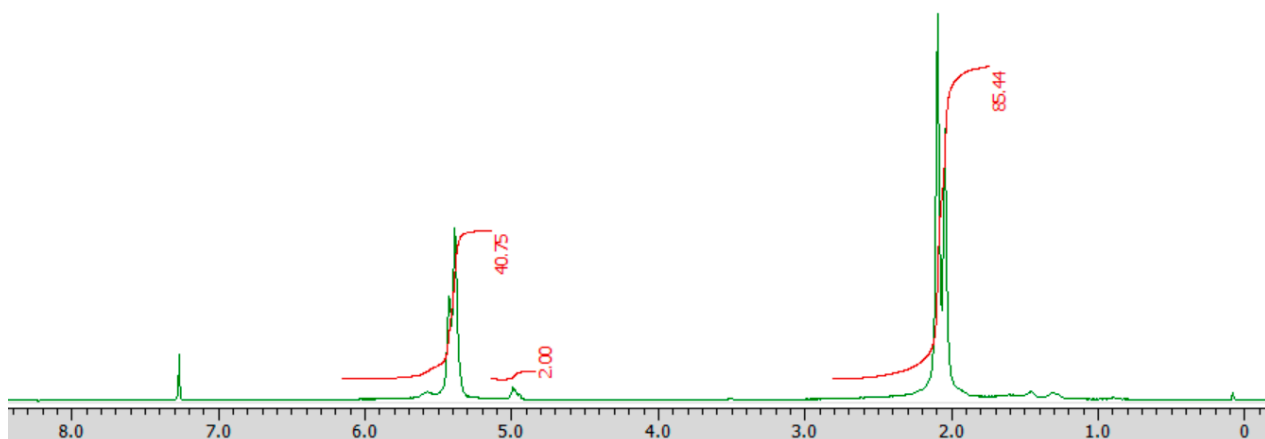


Figure S3. ^1H NMR spectrum of polybutadiene obtained in Table 1, Run 2 (500 MHz, in CDCl_3).

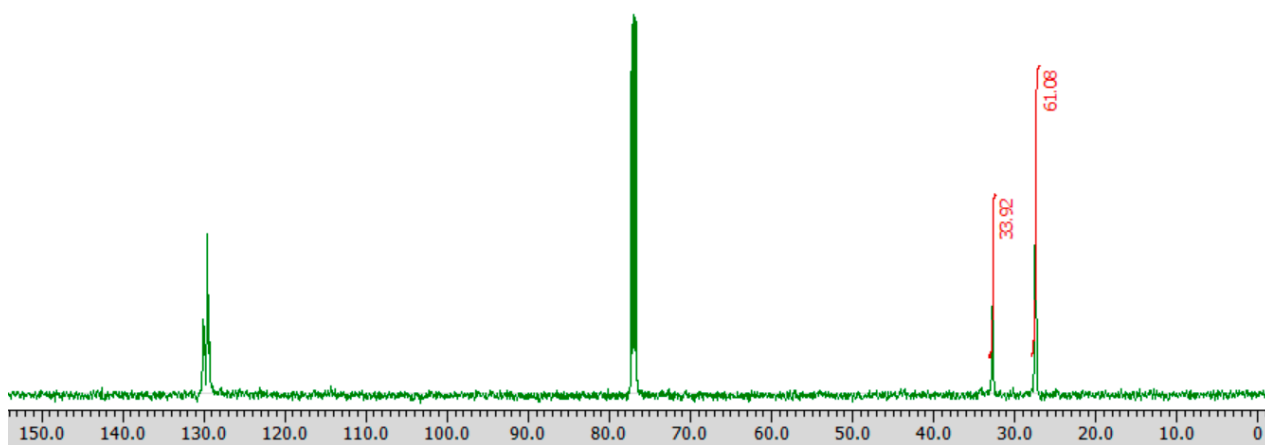


Figure S4. ^{13}C NMR spectrum of polybutadiene obtained in Table 1, Run 2 (125 MHz, in CDCl_3).

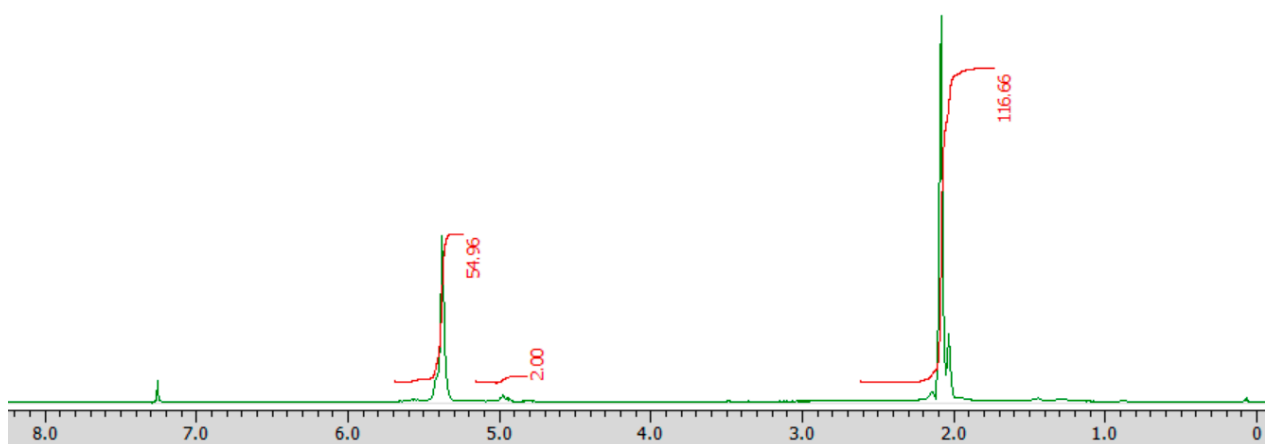


Figure S5. ^1H NMR spectrum of polybutadiene obtained in Table 1, Run 3 (500 MHz, in CDCl_3).

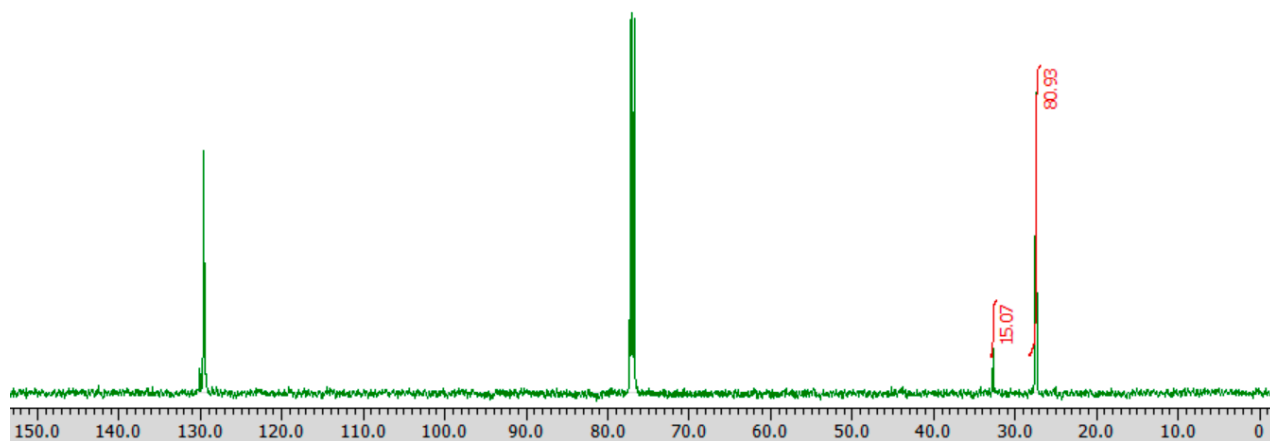


Figure S6. ^{13}C NMR spectrum of polybutadiene obtained in Table 1, Run 3 (125 MHz, in CDCl_3).

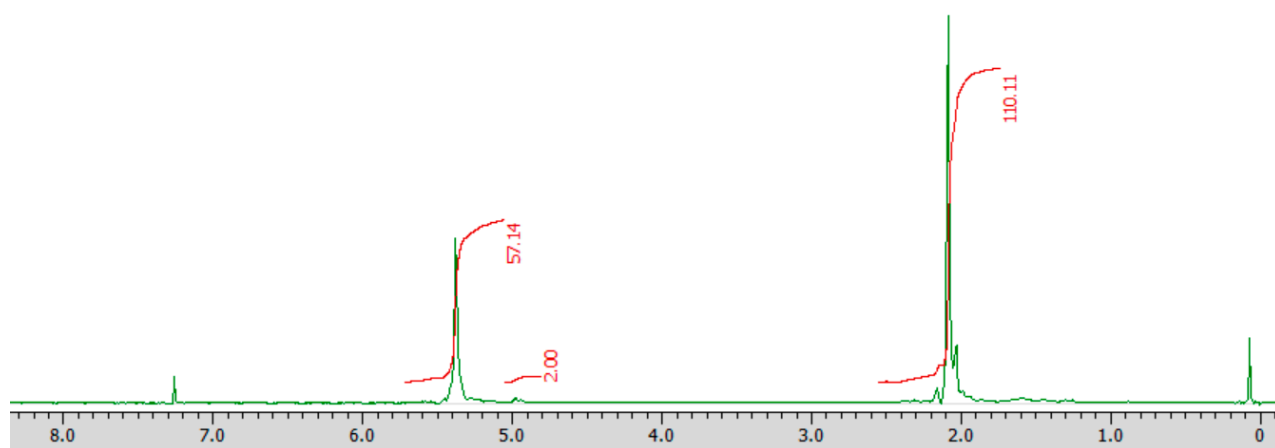


Figure S7. ^1H NMR spectrum of polybutadiene obtained in Table 1, Run 4 (500 MHz, in CDCl_3).

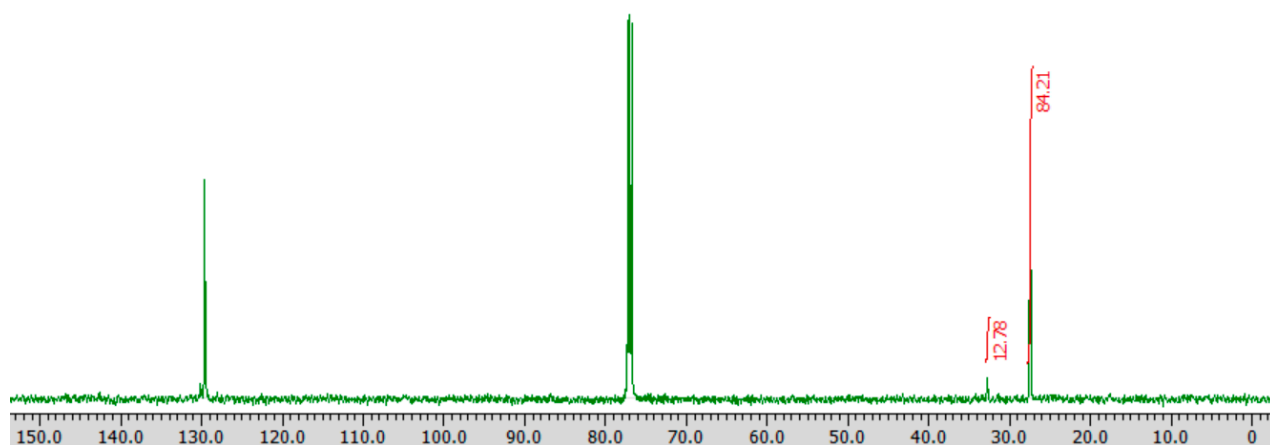


Figure S8. ^{13}C NMR spectrum of polybutadiene obtained in Table 1, Run 4 (125 MHz, in CDCl_3).

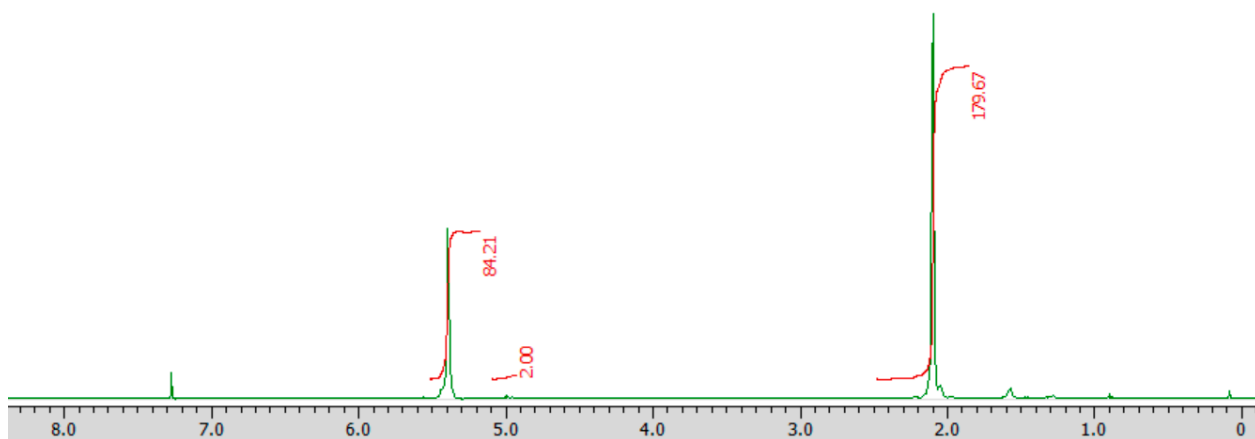


Figure S9. ¹H NMR spectrum of polybutadiene obtained in Table 1, Run 5 (500 MHz, in CDCl₃).

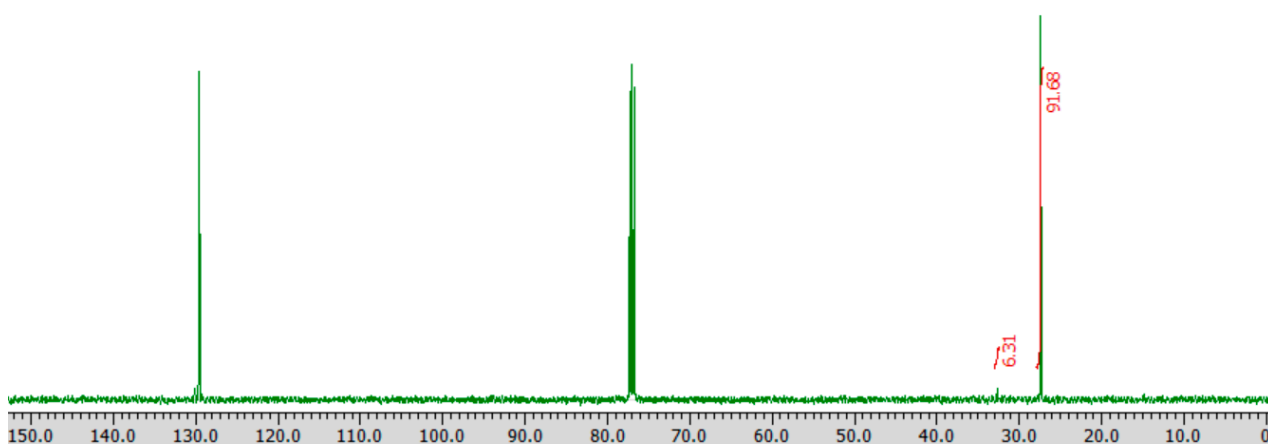


Figure S10. ¹³C NMR spectrum of polybutadiene obtained in Table 1, Run 5 (125 MHz, in CDCl₃).

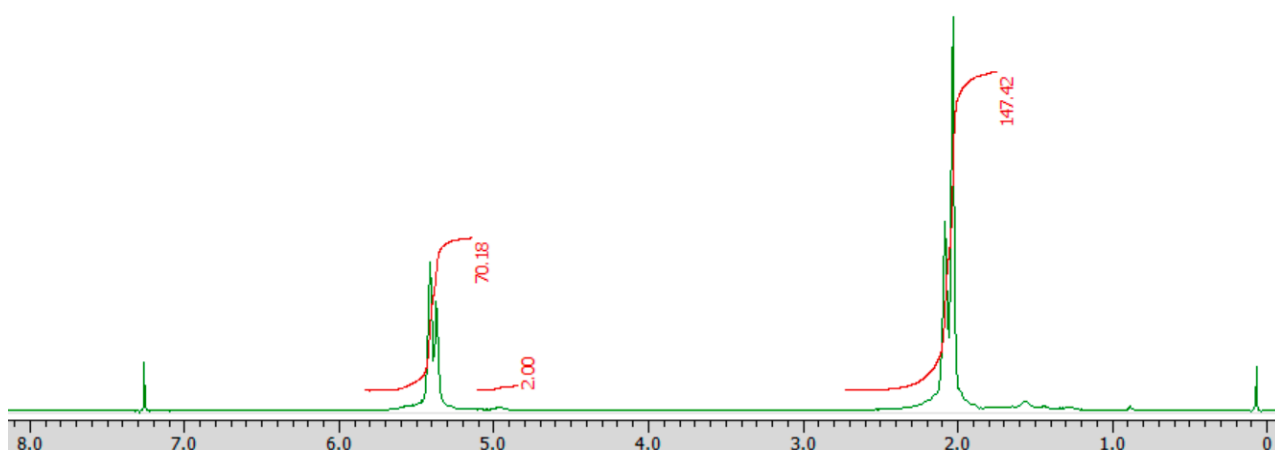


Figure S11. ¹H NMR spectrum of polybutadiene obtained in Table 1, Run 6 (500 MHz, in CDCl₃).

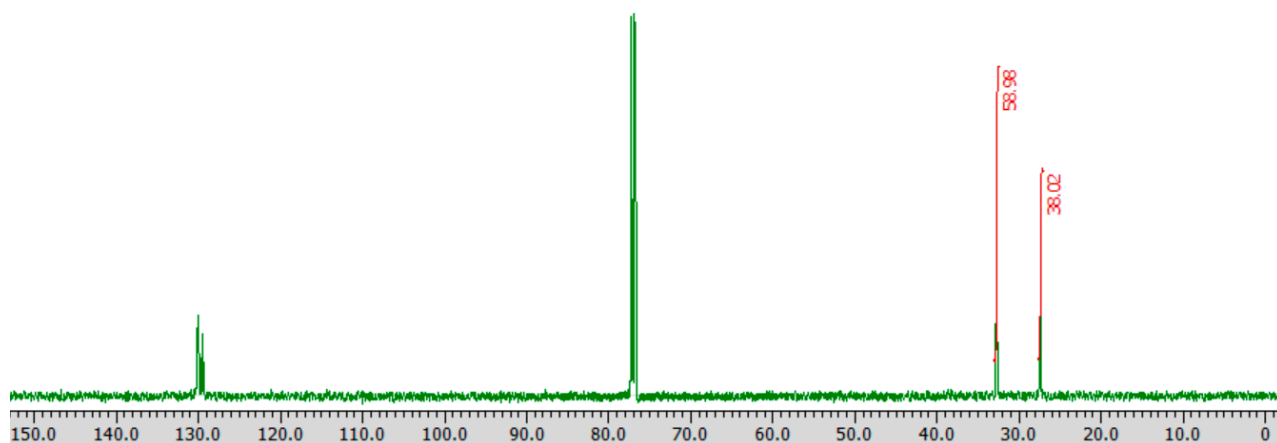


Figure S12. ^{13}C NMR spectrum of polybutadiene obtained in Table 1, Run 6 (125 MHz, in CDCl_3).

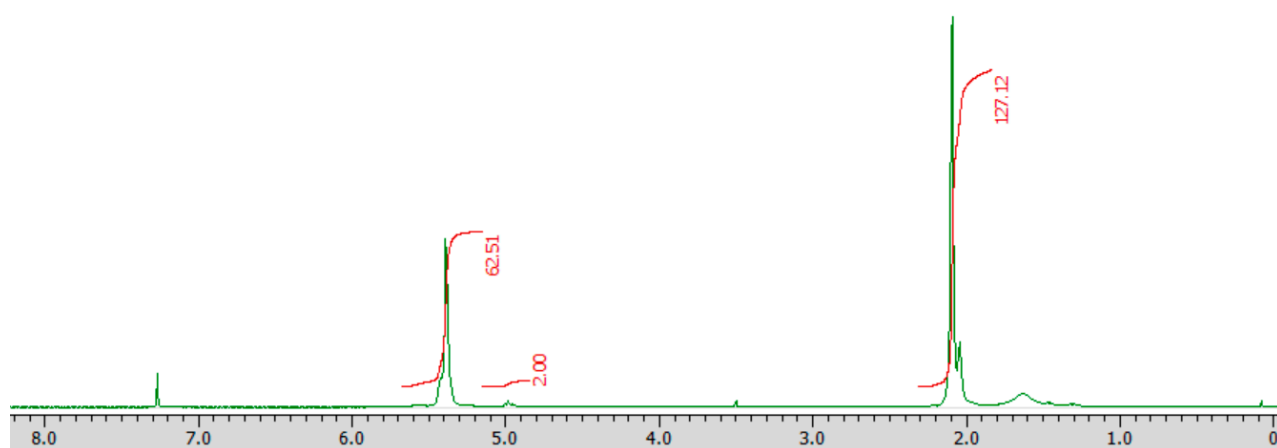


Figure S13. ^1H NMR spectrum of polybutadiene obtained in Table 2, Run 7 (500 MHz, in CDCl_3).

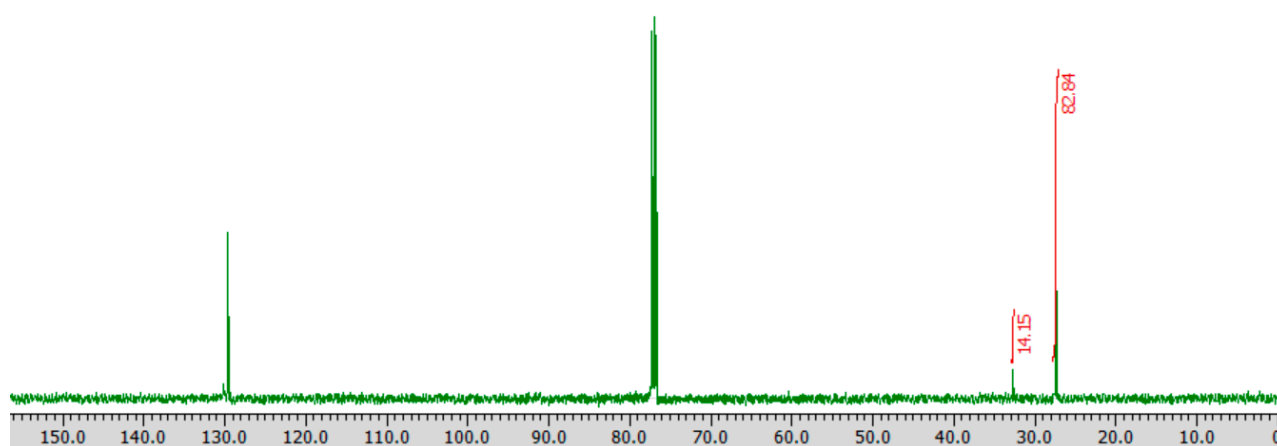


Figure S14. ^{13}C NMR spectrum of polybutadiene obtained in Table 2, Run 7 (125 MHz, in CDCl_3).

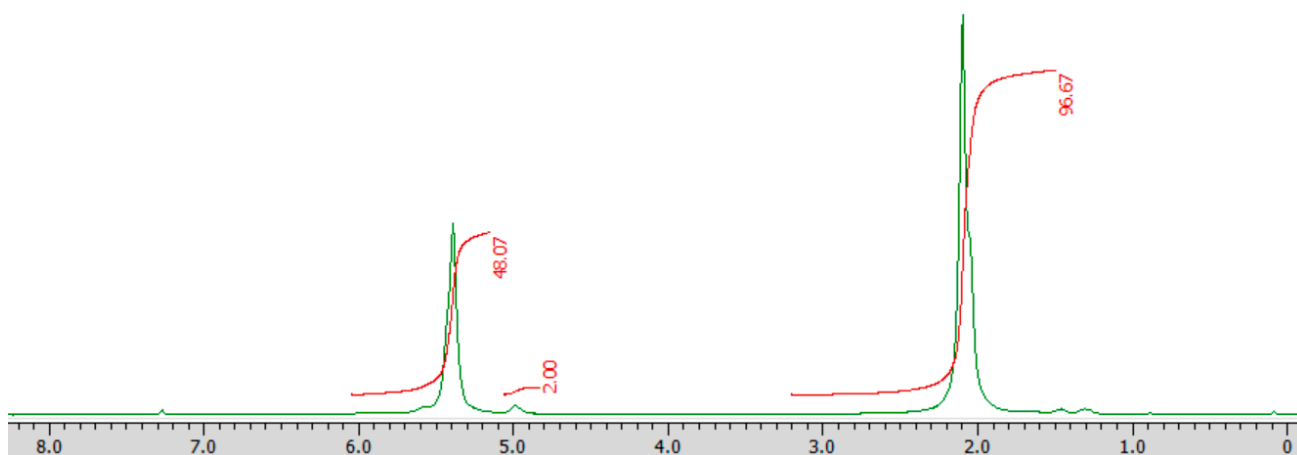


Figure S15. ^1H NMR spectrum of polybutadiene obtained in Table 2, Run 9 (500 MHz, in CDCl_3).

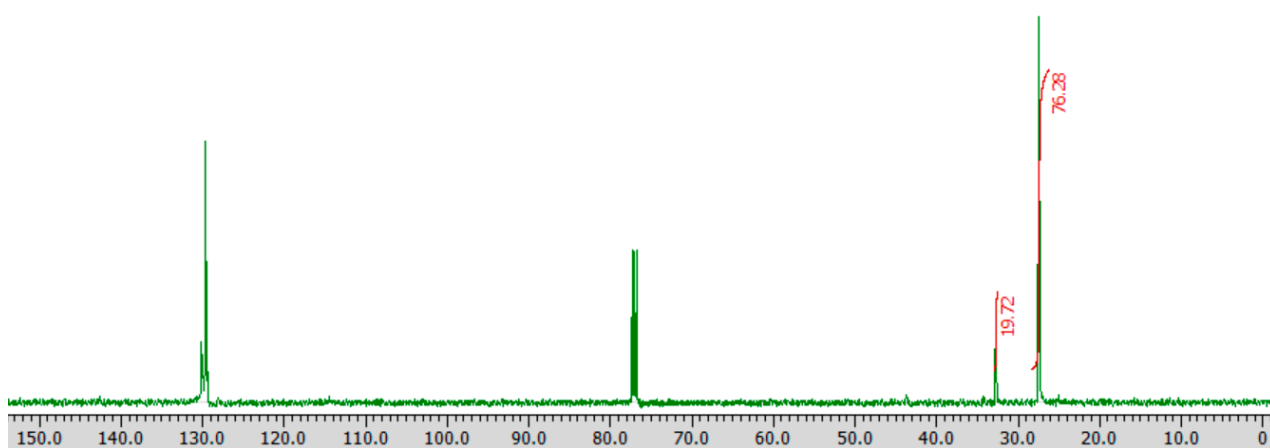


Figure S16. ^{13}C NMR spectrum of polybutadiene obtained in Table 2, Run 9 (125 MHz, in CDCl_3).

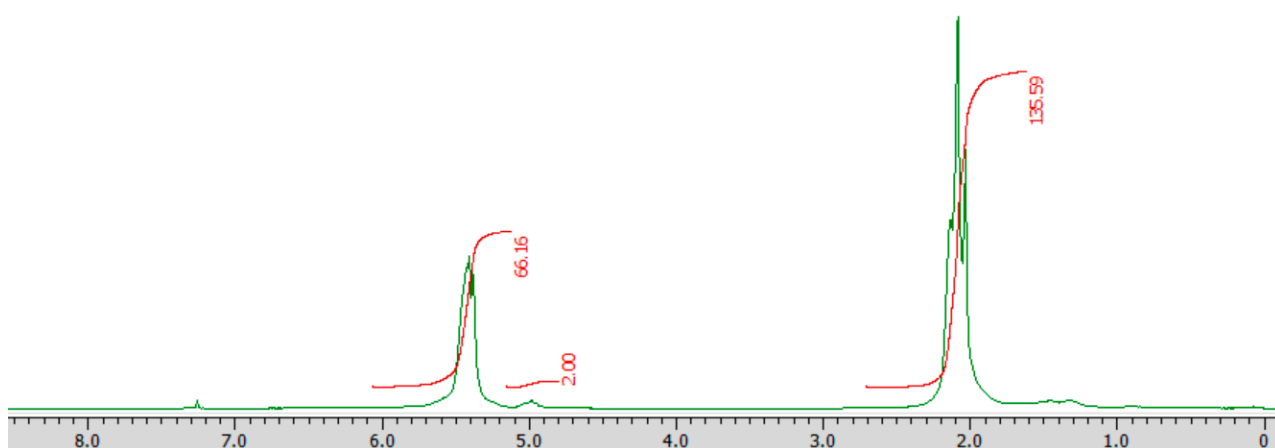


Figure S17. ^1H NMR spectrum of stereoblock polybutadiene (500 MHz, in CDCl_3).

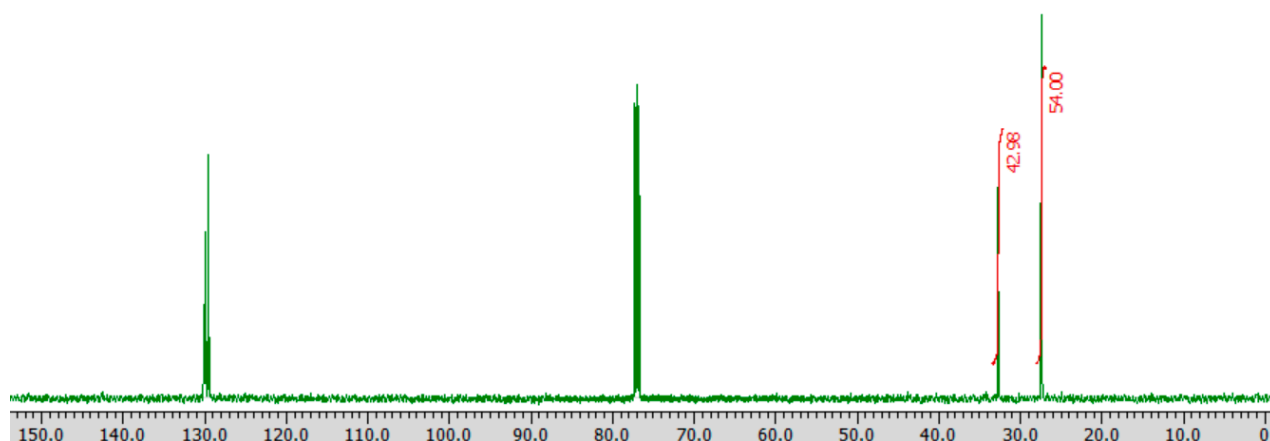


Figure S18. ^{13}C NMR spectrum of stereoblock polybutadiene (125 MHz, in CDCl_3).

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