

Supporting Information

Benoxazolone-based Ionic Liquid Catalyzed C-S Bond Construction to Synthesis of Benzothiazoles from 2-aminothiophenols and CO₂ at Ambient Conditions

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This file includes:

1. ¹H and ¹³C NMR spectra of the as-synthesized ILs, Figure S1-S5.
2. ¹H and ¹³C NMR spectra of the products, Figure S6-S13.

1. ^1H and ^{13}C NMR spectra of as-synthesized ILs, Figure S1-S5

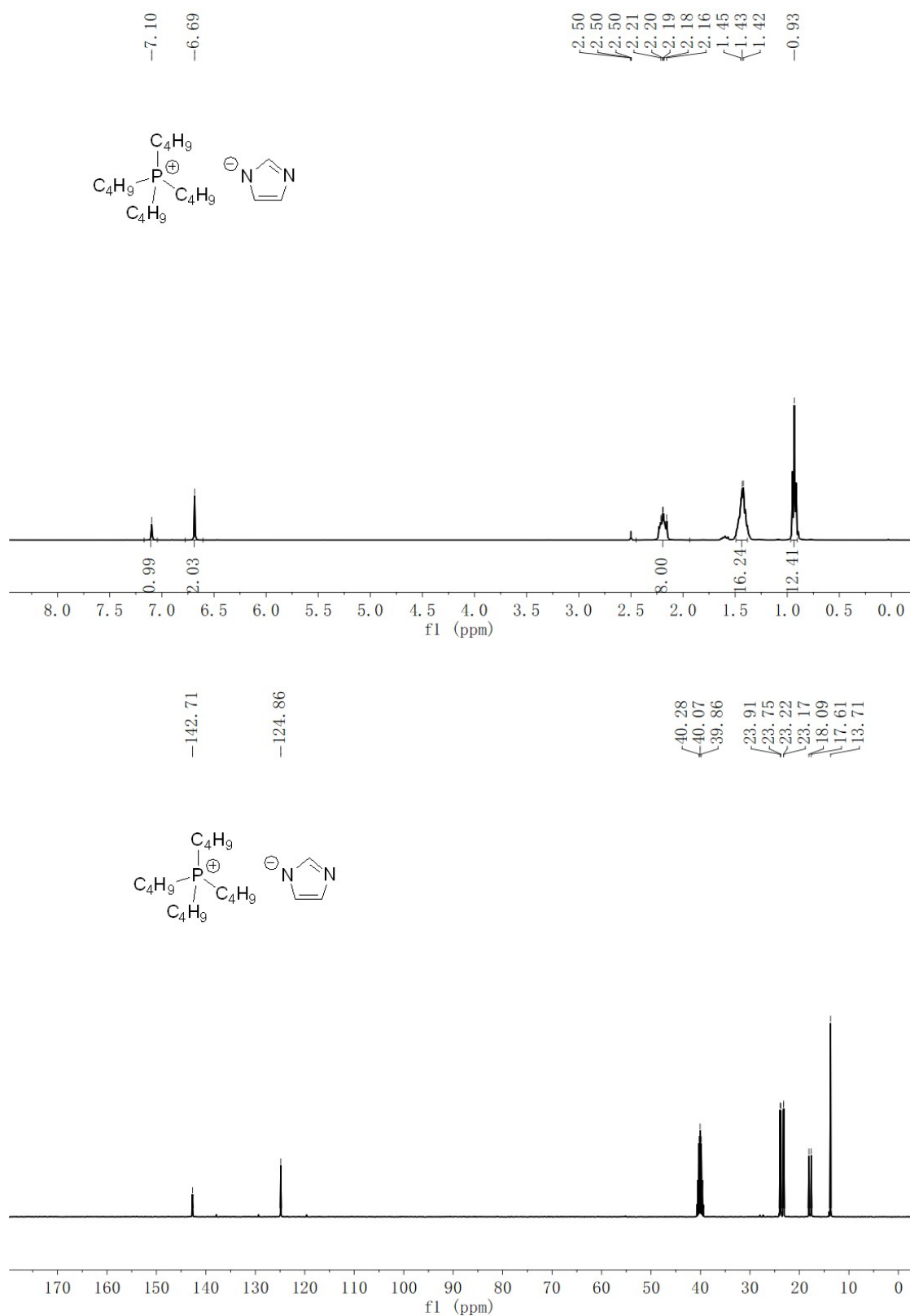


Figure S1. ^1H NMR and ^{13}C NMR spectra of $[\text{P}_{4444}][\text{Im}]$

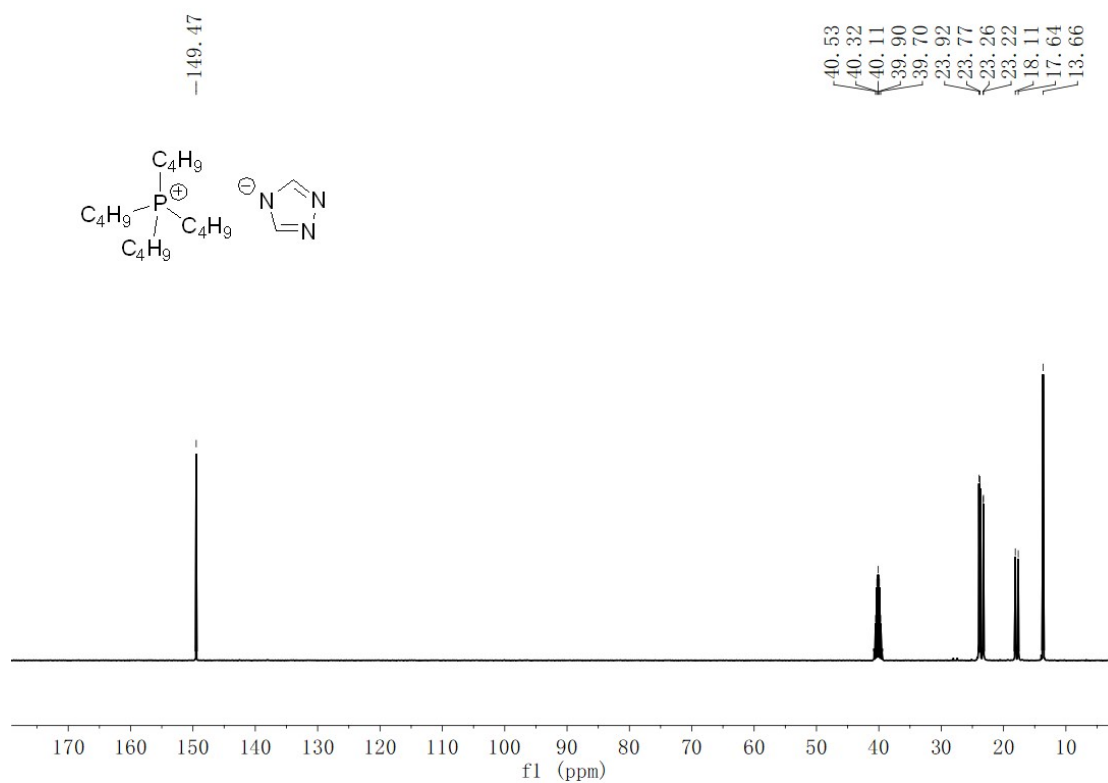
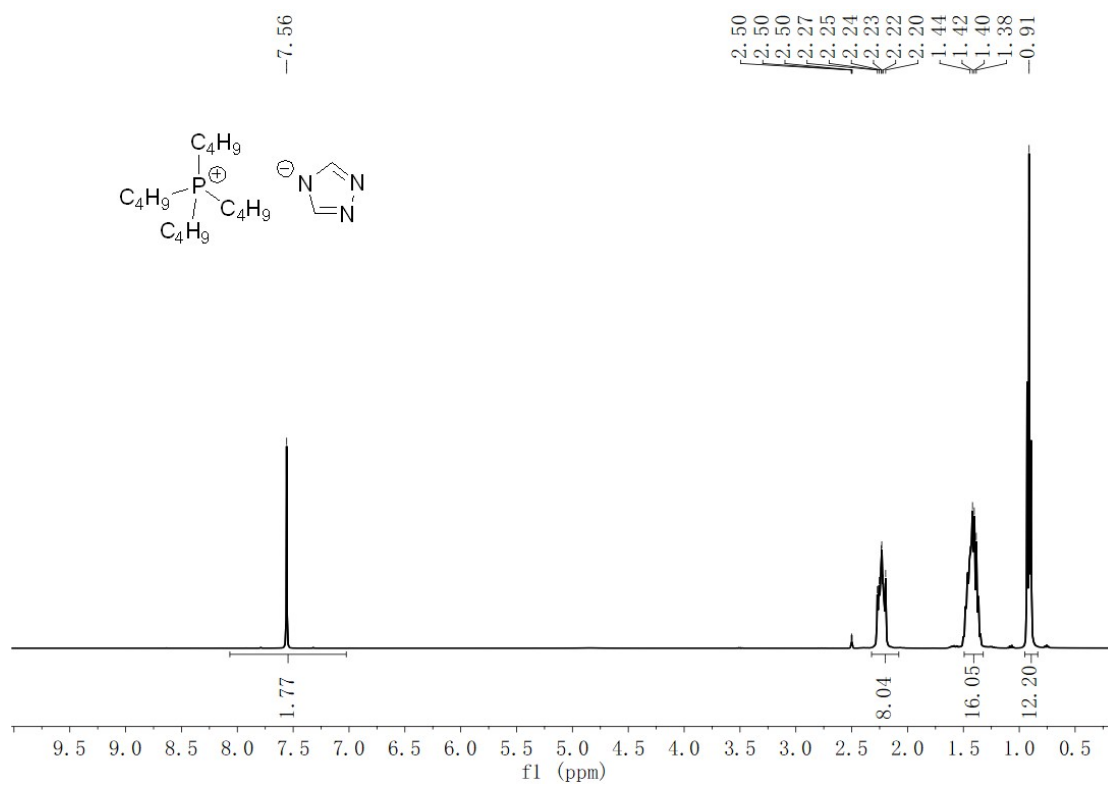


Figure S2. ¹H NMR and ¹³C NMR spectra of [P₄₄₄₄][Triz]

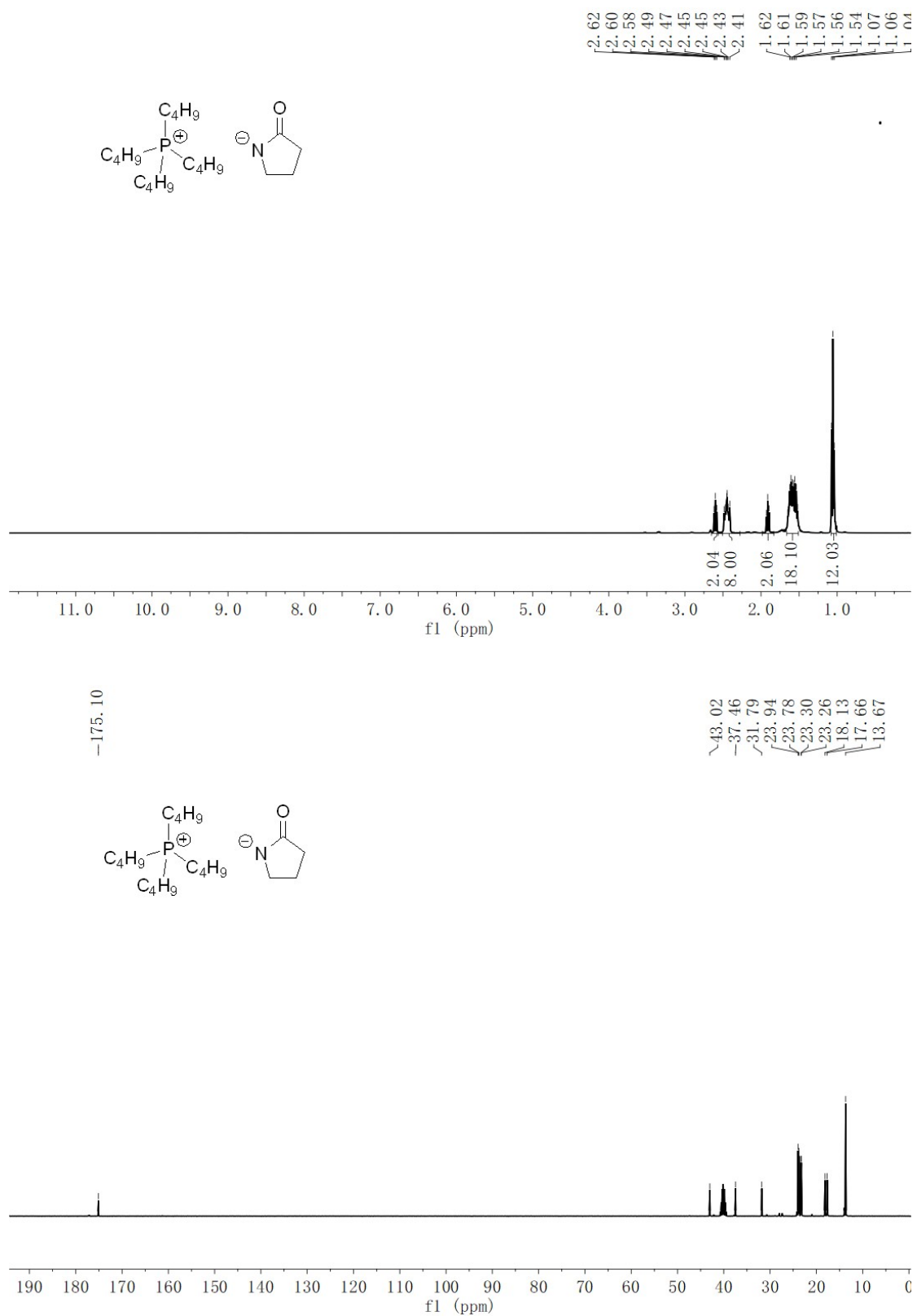


Figure S3. ¹H NMR and ¹³C NMR spectra of [P₄₄₄₄][Pyrr]

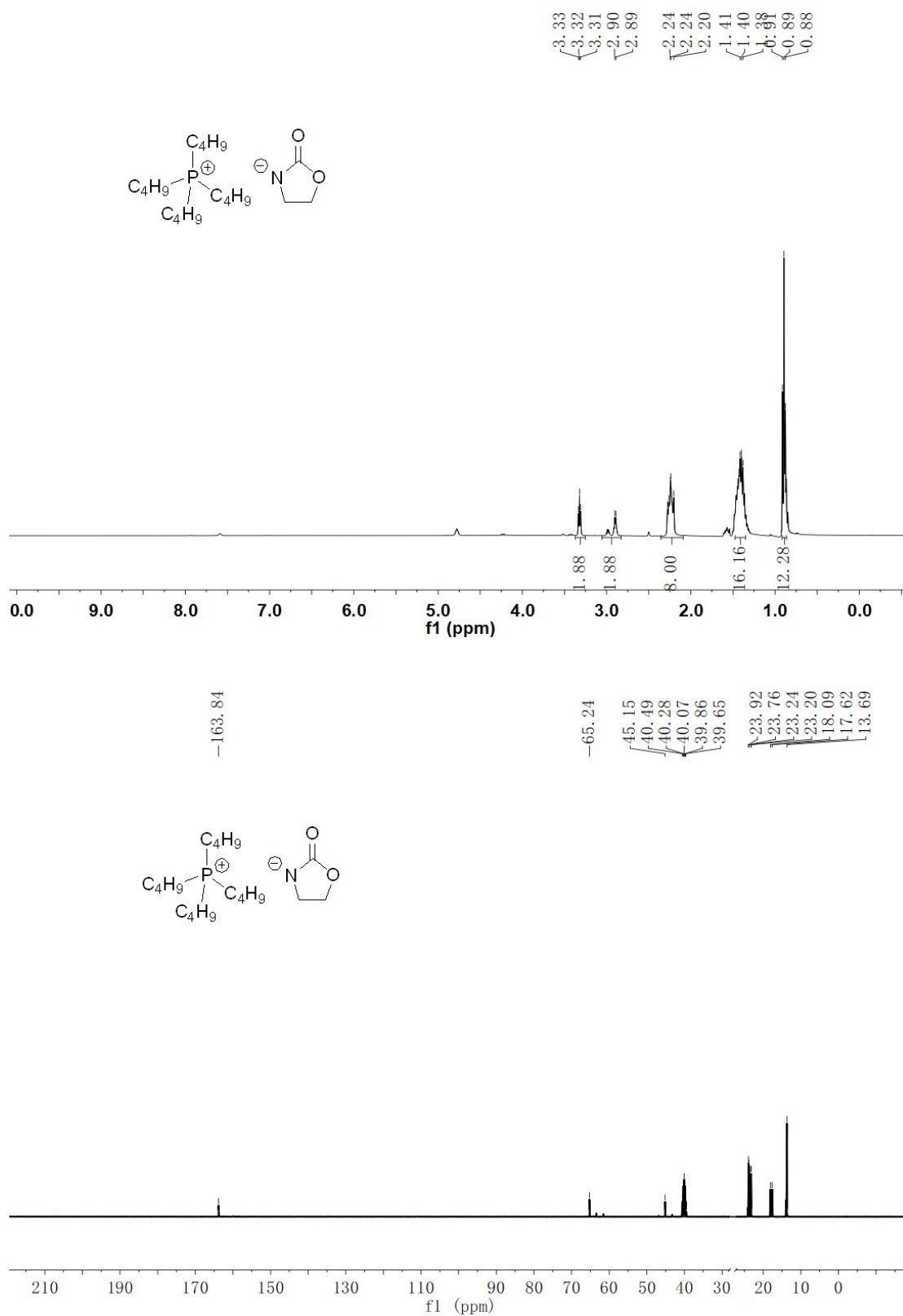


Figure S4. 1H NMR and ^{13}C NMR spectra of $[P_{4444}][Oxa]$

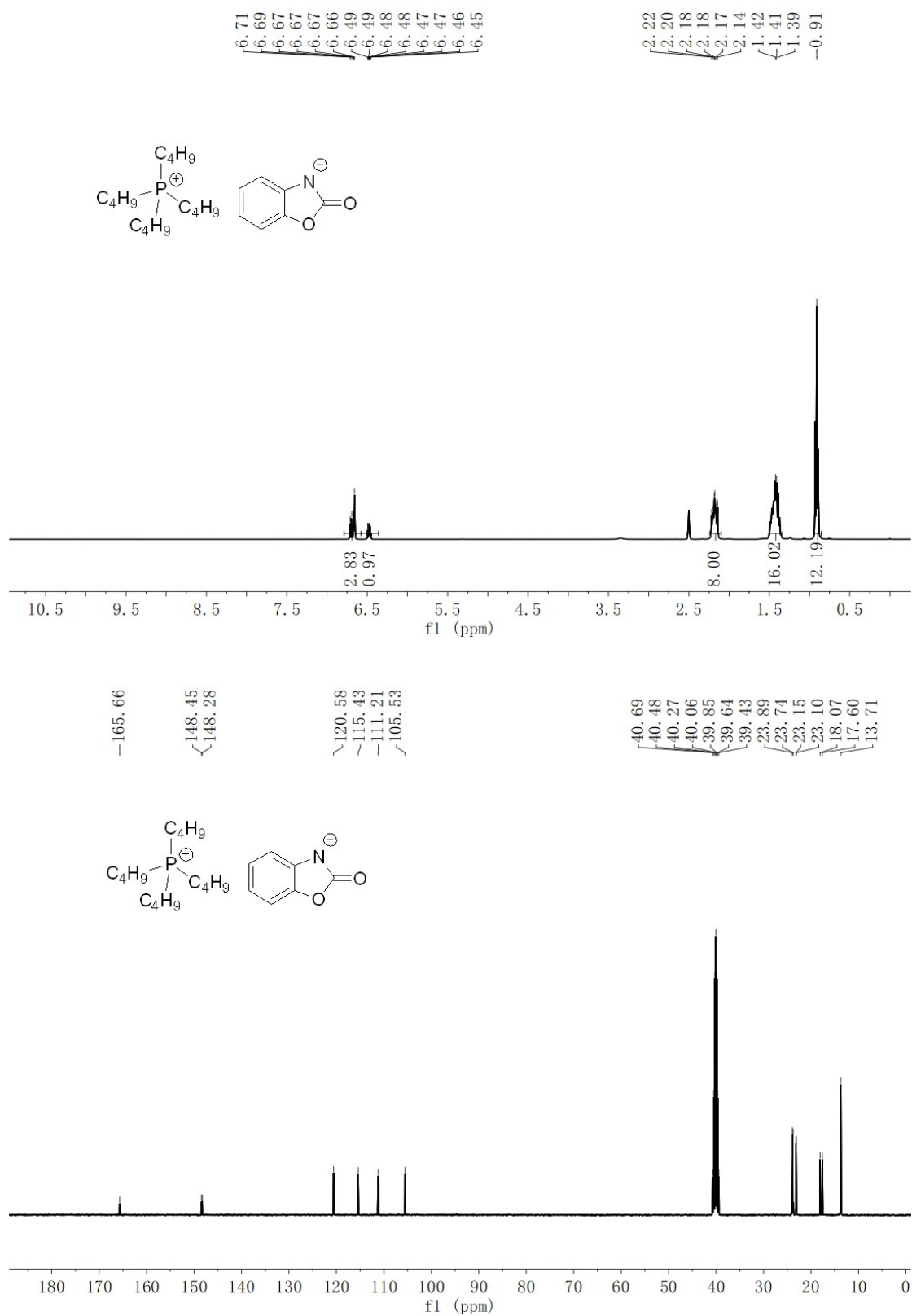


Figure S5. ¹H NMR and ¹³C NMR spectra of [P₄₄₄₄][Benoxa]

2. ^1H and ^{13}C NMR spectra of the products, Figure S6-S13

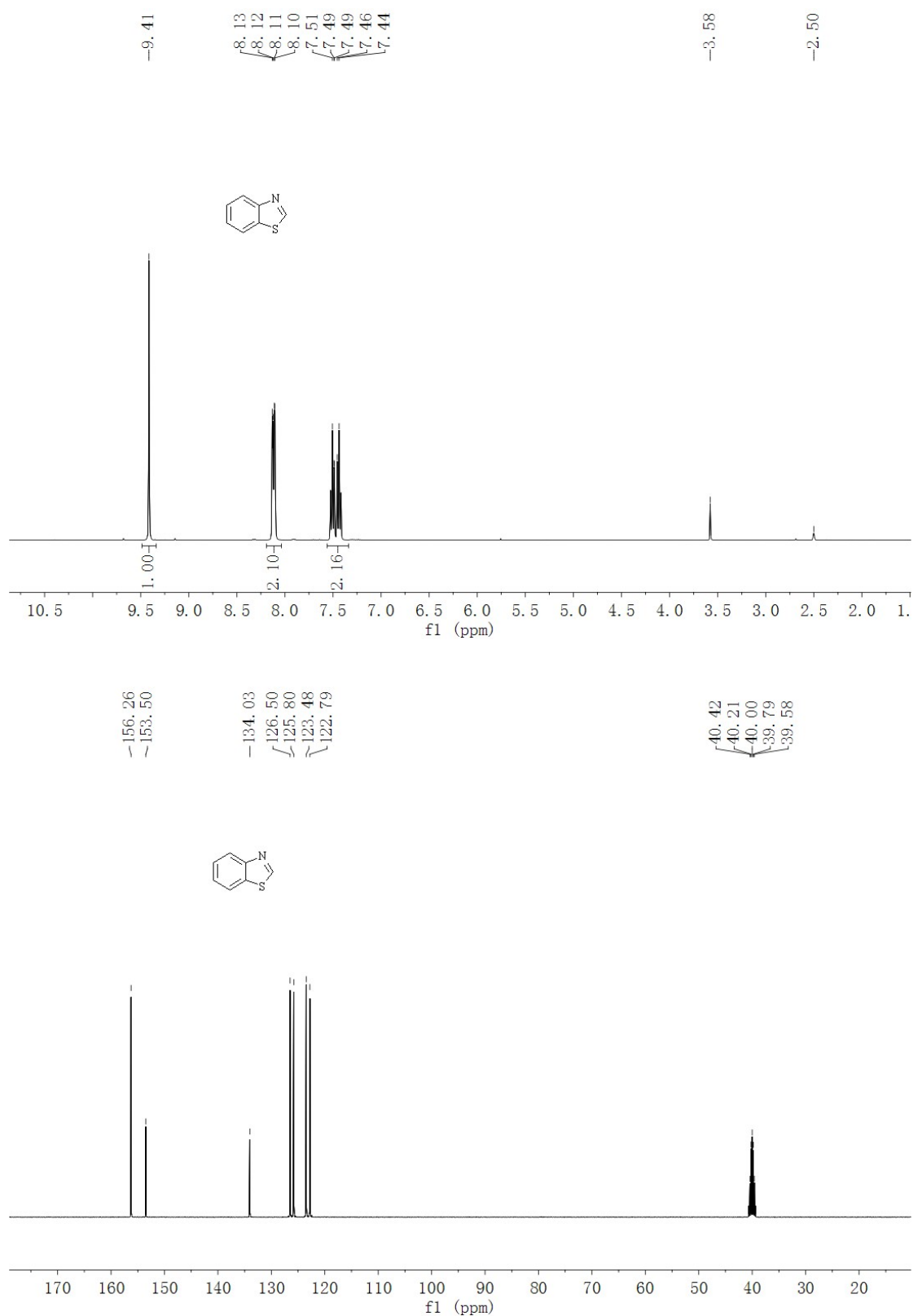


Figure S6. ^1H NMR and ^{13}C NMR spectra of benzothiazole

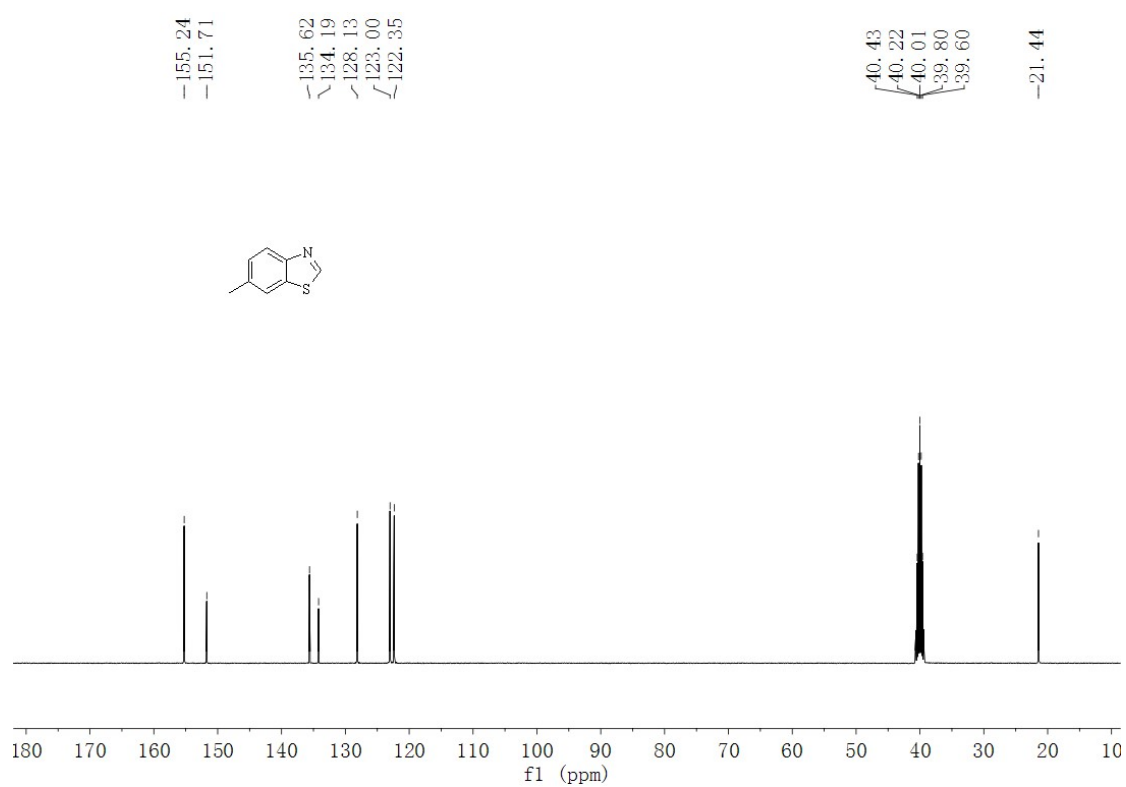
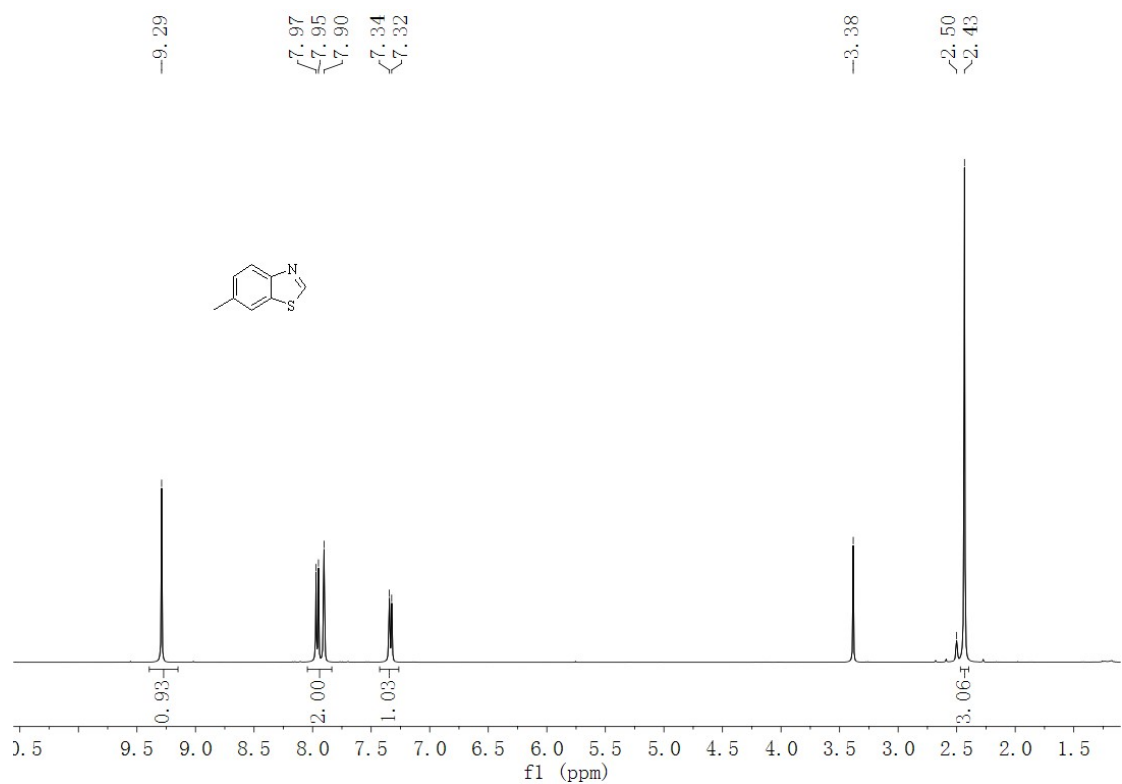


Figure S7. ¹H NMR and ¹³C NMR spectra of 5-methylbenzothiazole

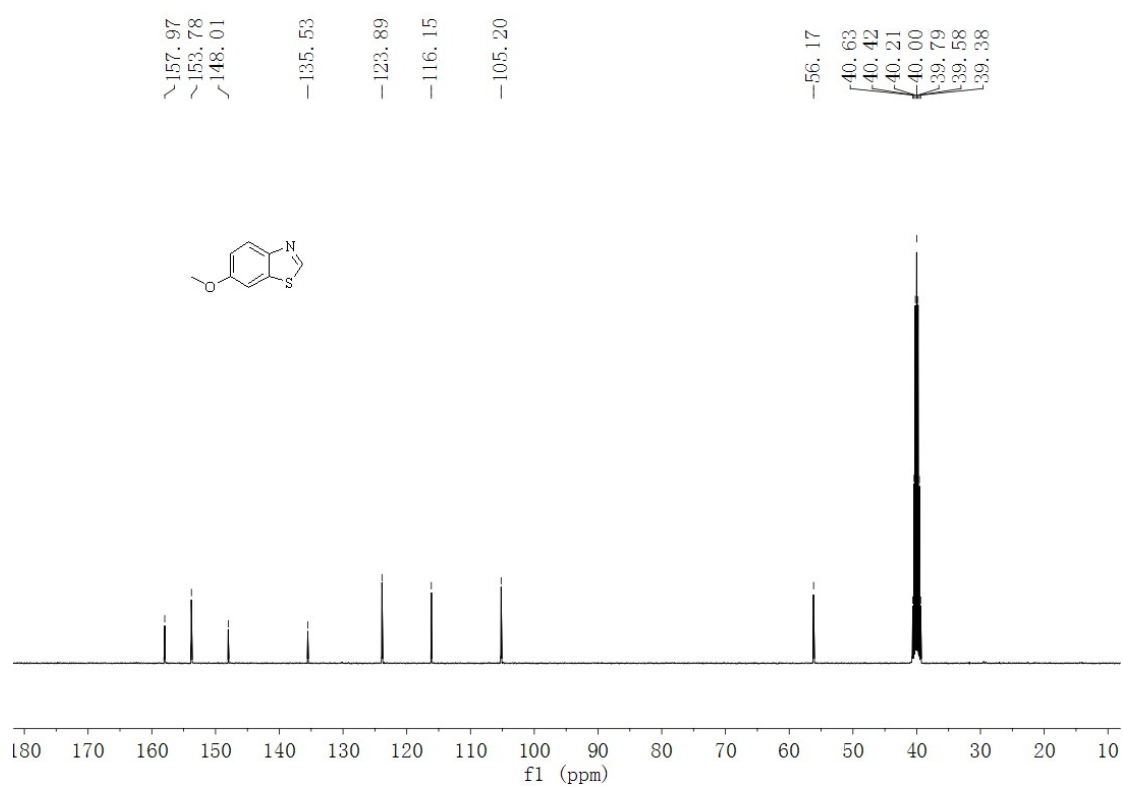
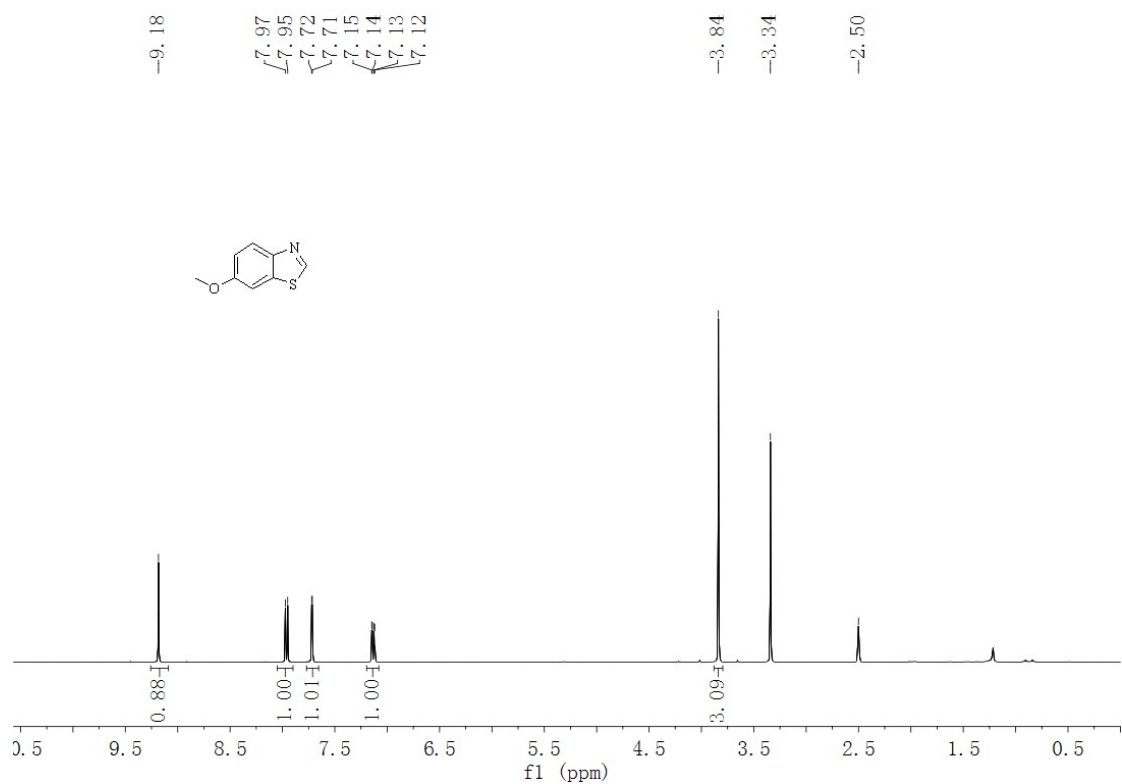


Figure S8. ¹H NMR and ¹³C NMR spectra of 5-methoxybenzothiazole

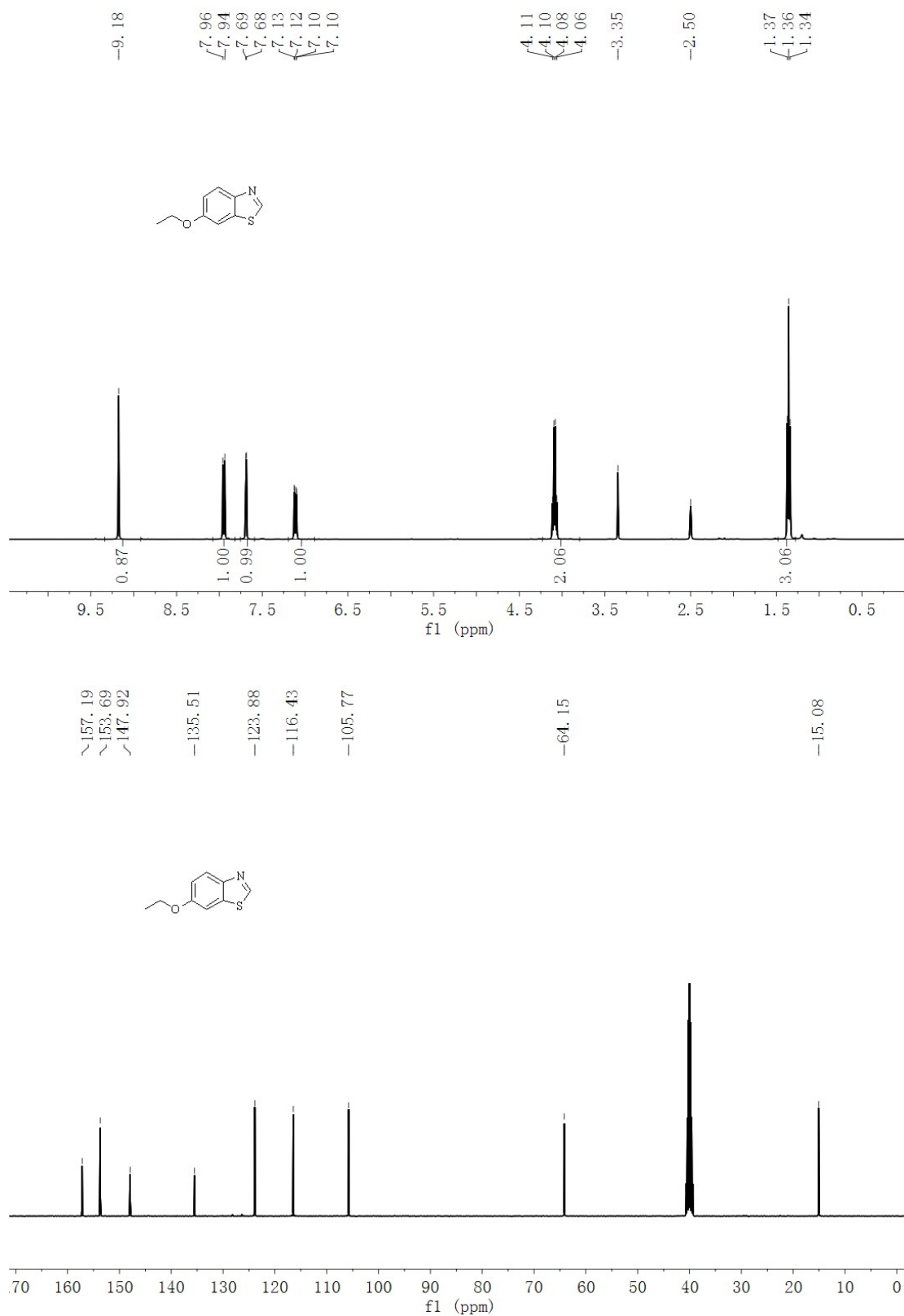


Figure S9. ¹H NMR and ¹³C NMR spectra of 5-ethoxybenzothiazole

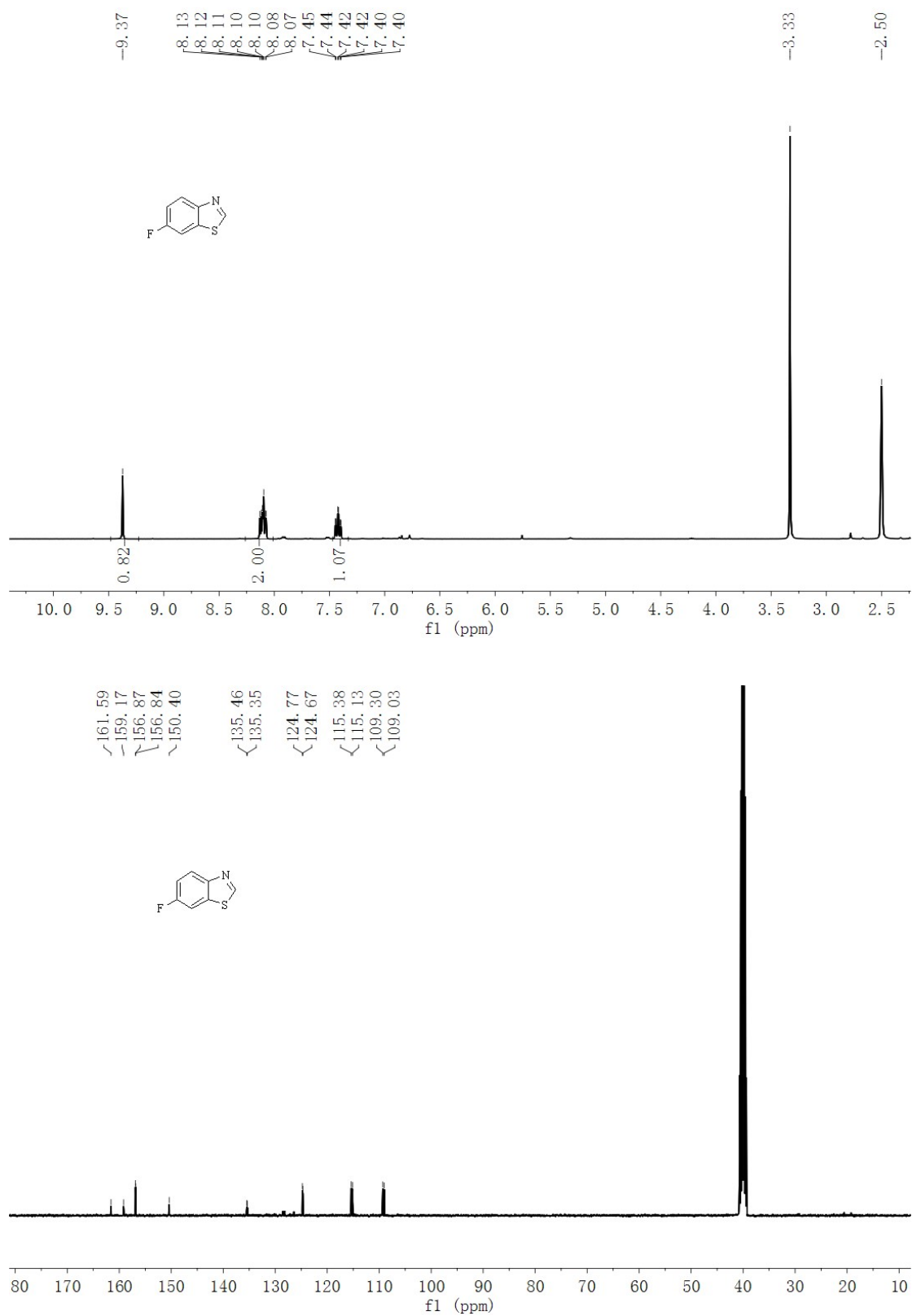


Figure S10. ¹H NMR and ¹³C NMR spectra of 5-fluorobenzothiazole

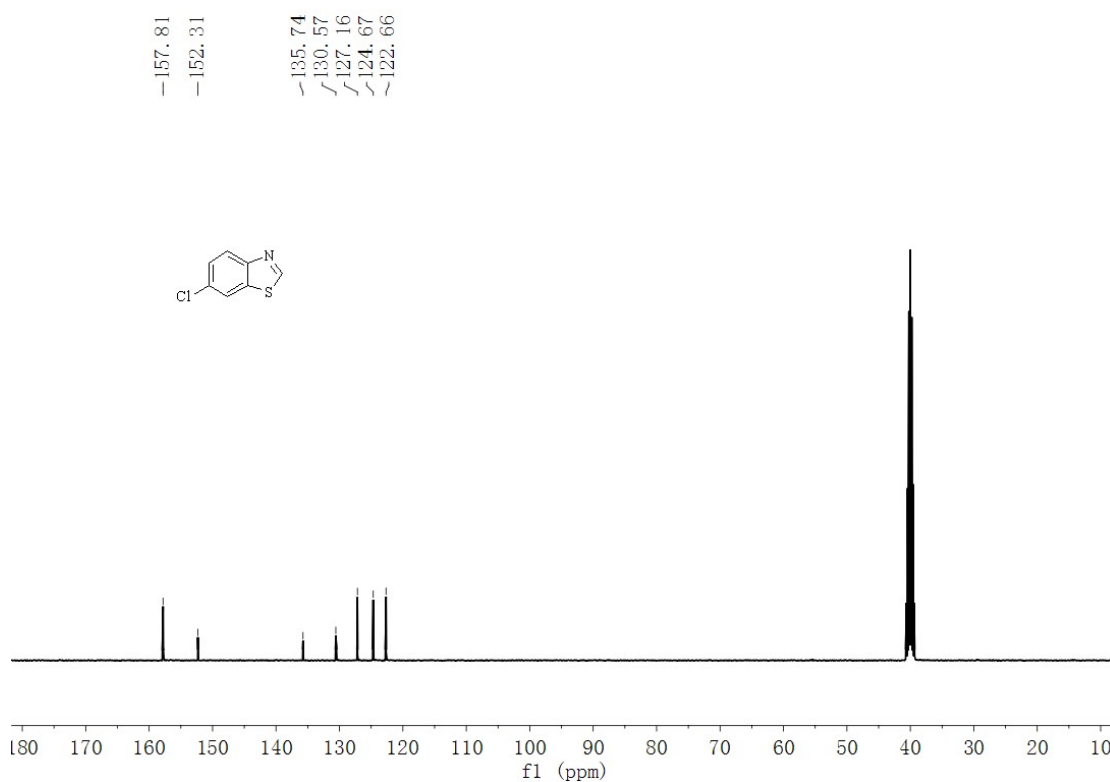
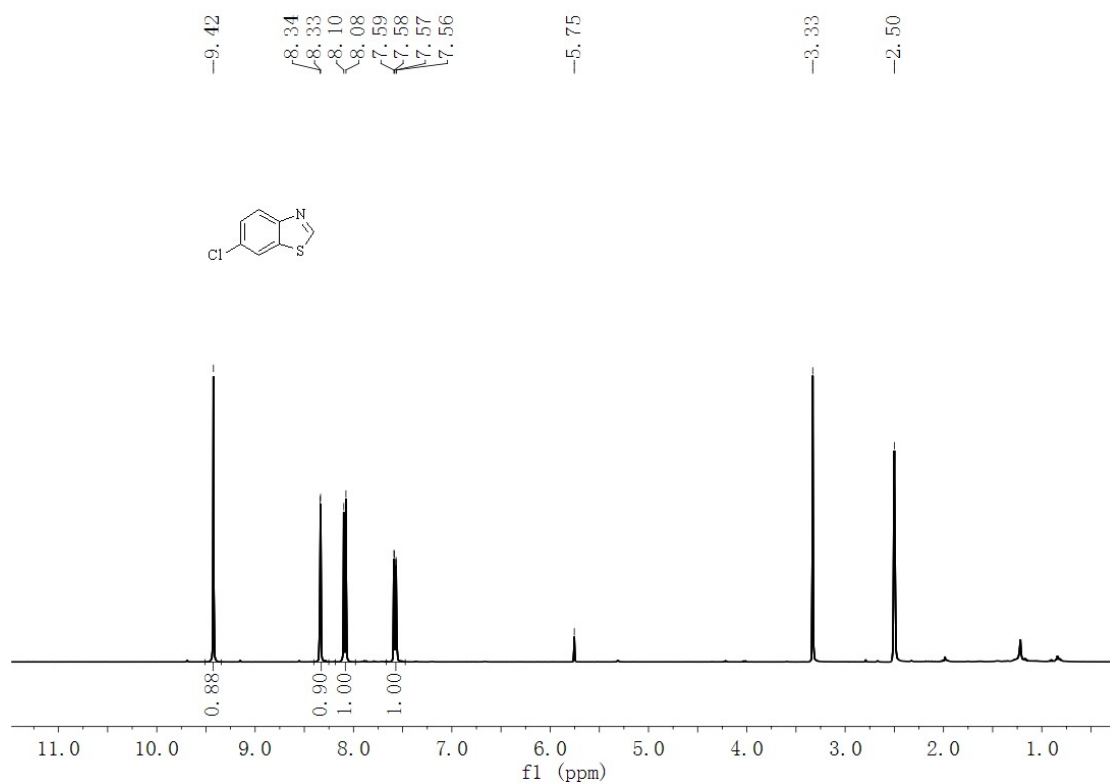


Figure S11. ^1H NMR and ^{13}C NMR spectra of 5-chlorobenzothiazole

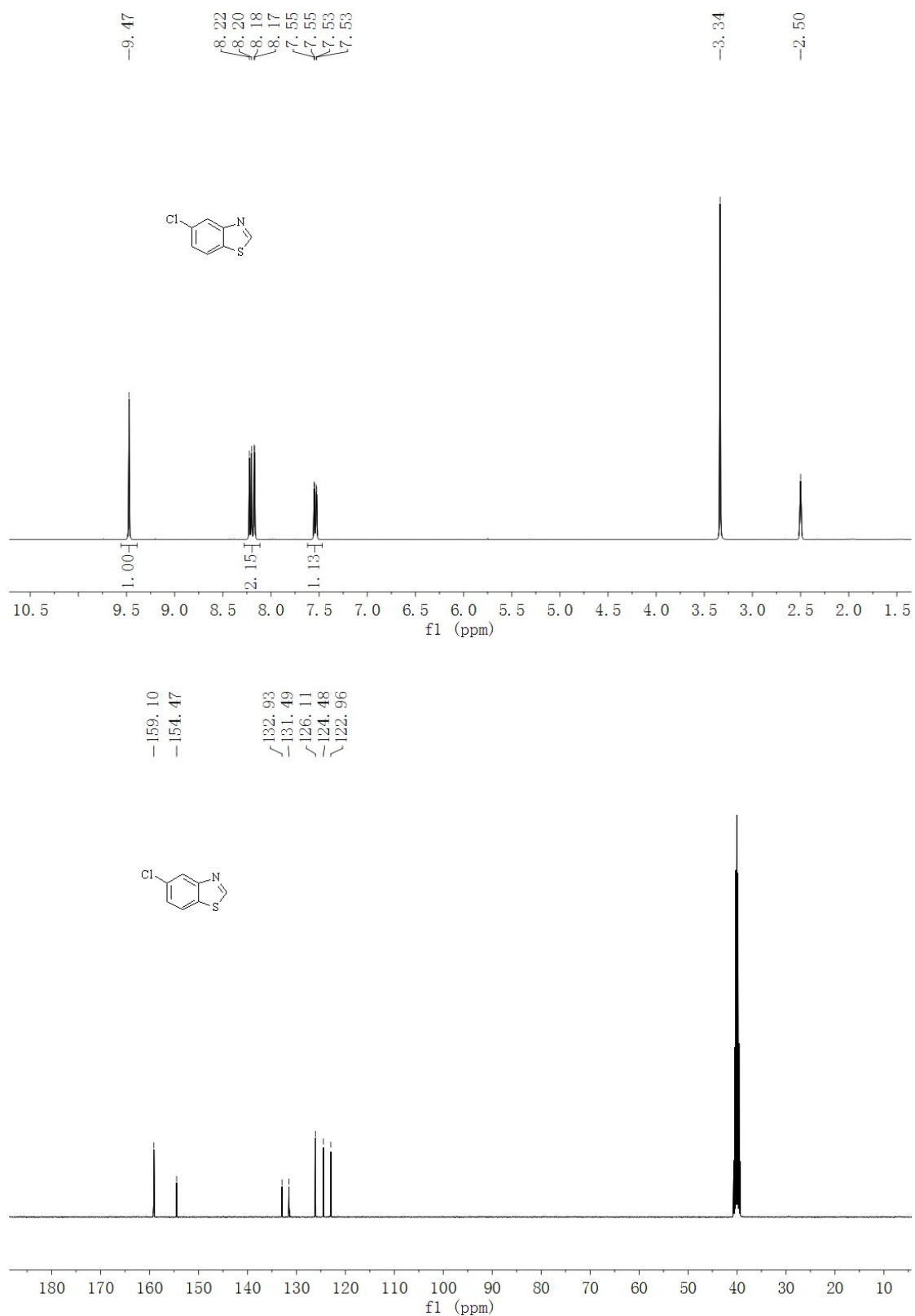


Figure S12. ¹H NMR and ¹³C NMR spectra of 6-chlorobenzothiazole

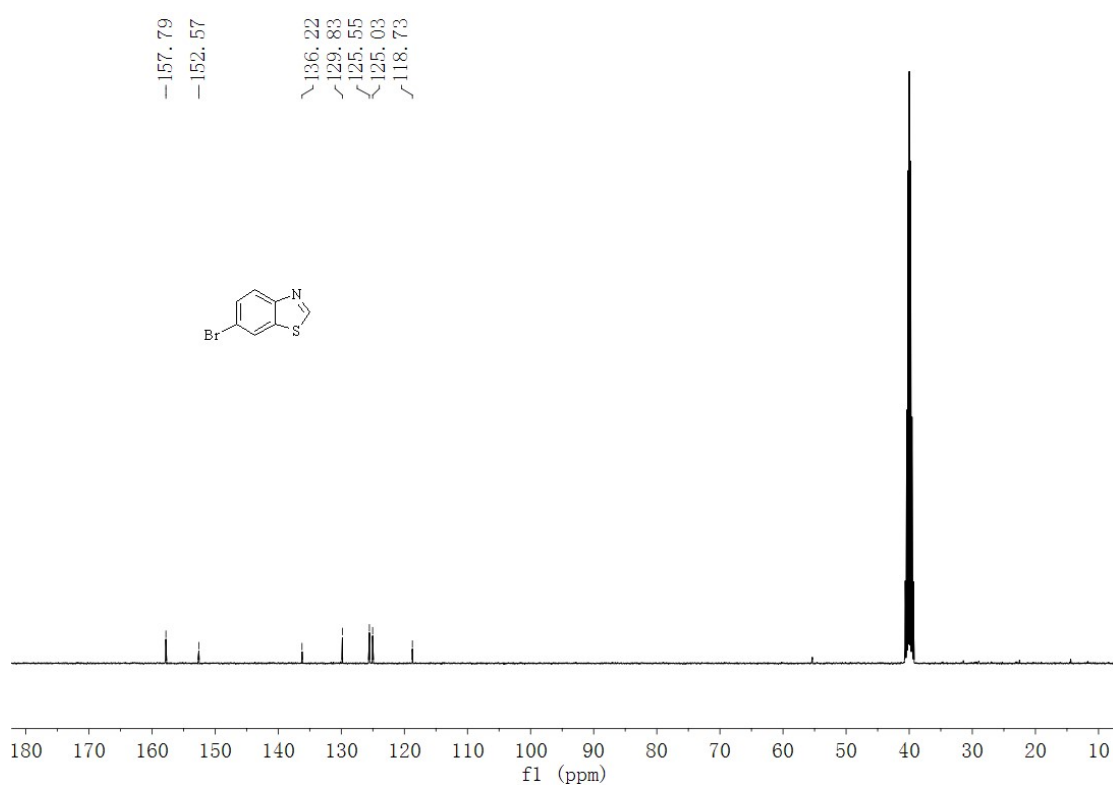
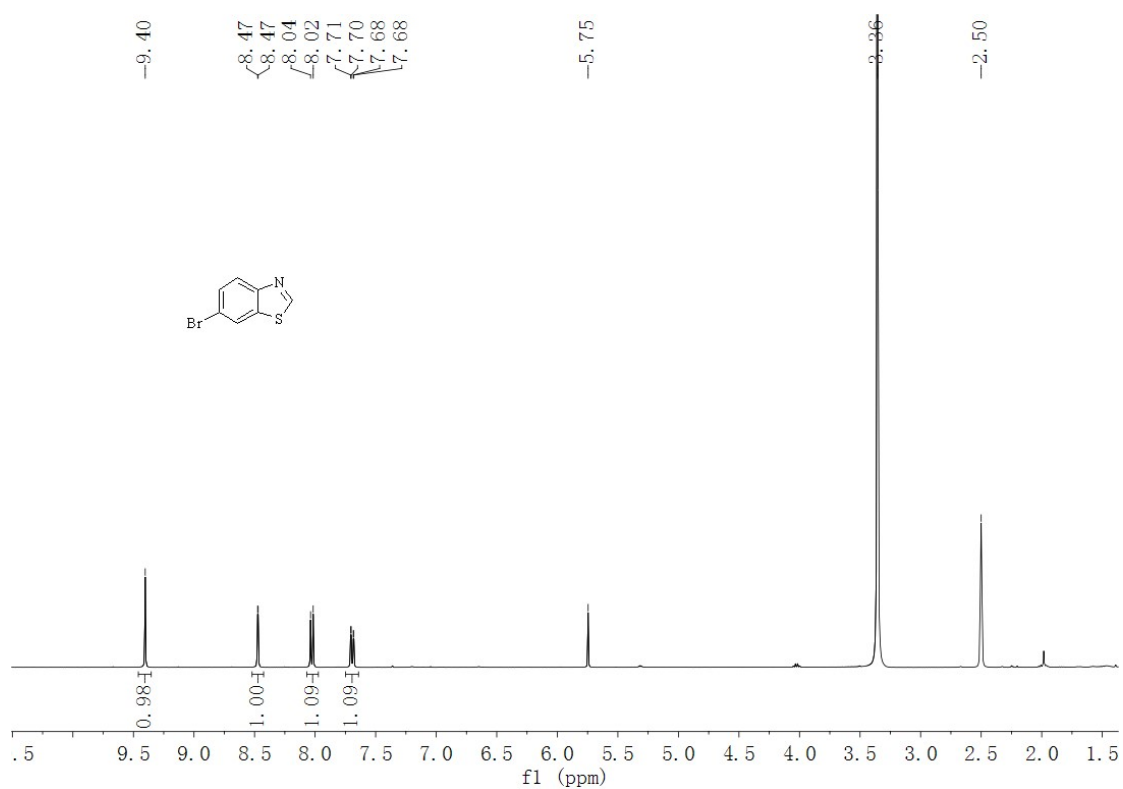


Figure S13. ^1H NMR and ^{13}C NMR spectra of 5-bromobenzothiazole