Supplementary Material

Evaluation of Novel Chalcone-Thiosemicarbazones Derivatives as Potential Anti-*Leishmania amazonensis* Agents and its HSA binding studies

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Some Representative Spectra

Figure S1. IR spectrum of 1,3-diphenylprop-2-en-1-one thiosemicarbazone (**5a**)

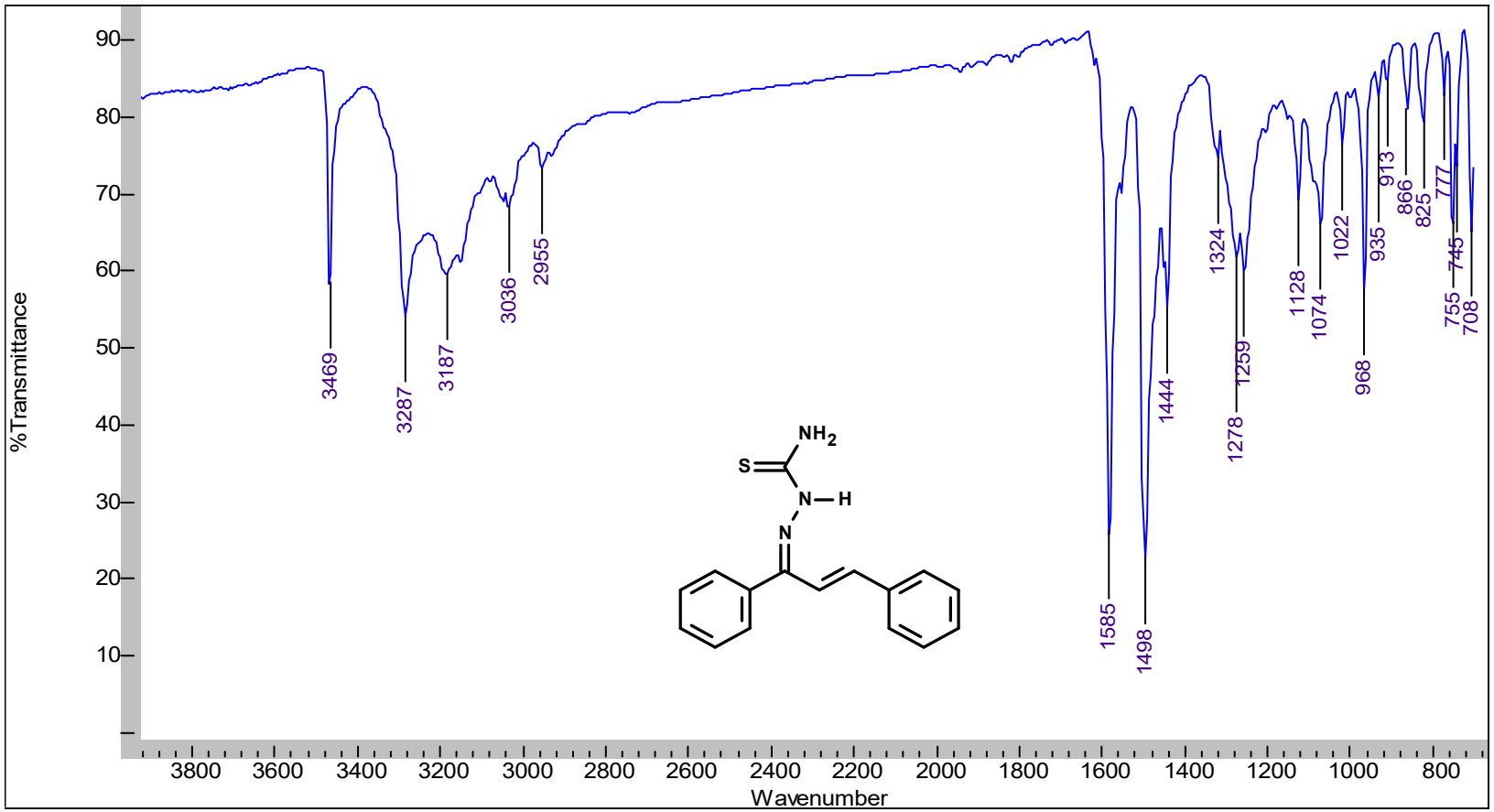

Figure 2. ^{1}H NMR spectrum of 1,3-diphenylprop-2-en-1-ona thiosemicarbazone (**5a**).

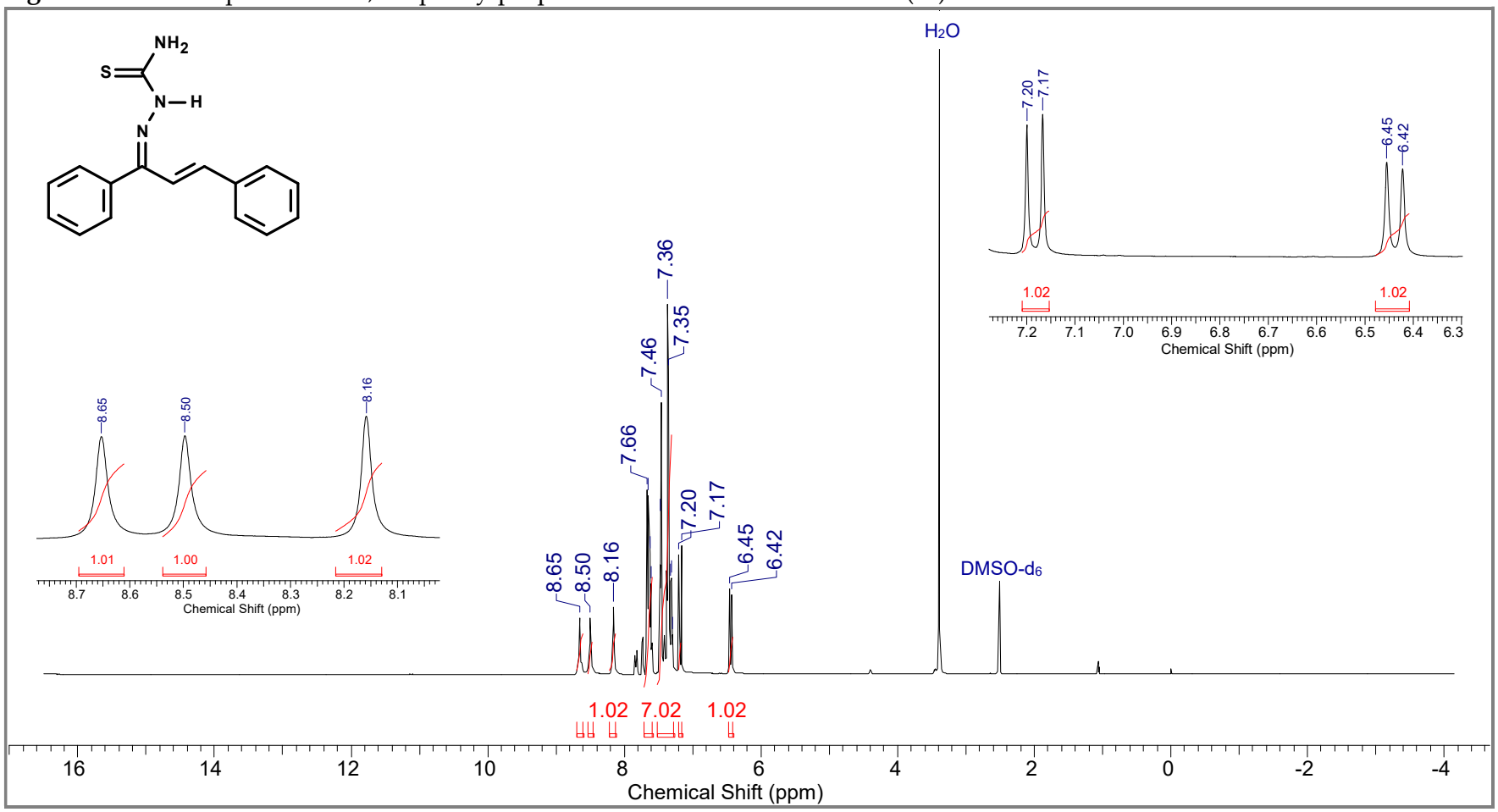

Figure S3. ^{13}C NMR spectrum of 1,3-diphenylprop-2-en-1-one thiosemicarbazone (**5a**)

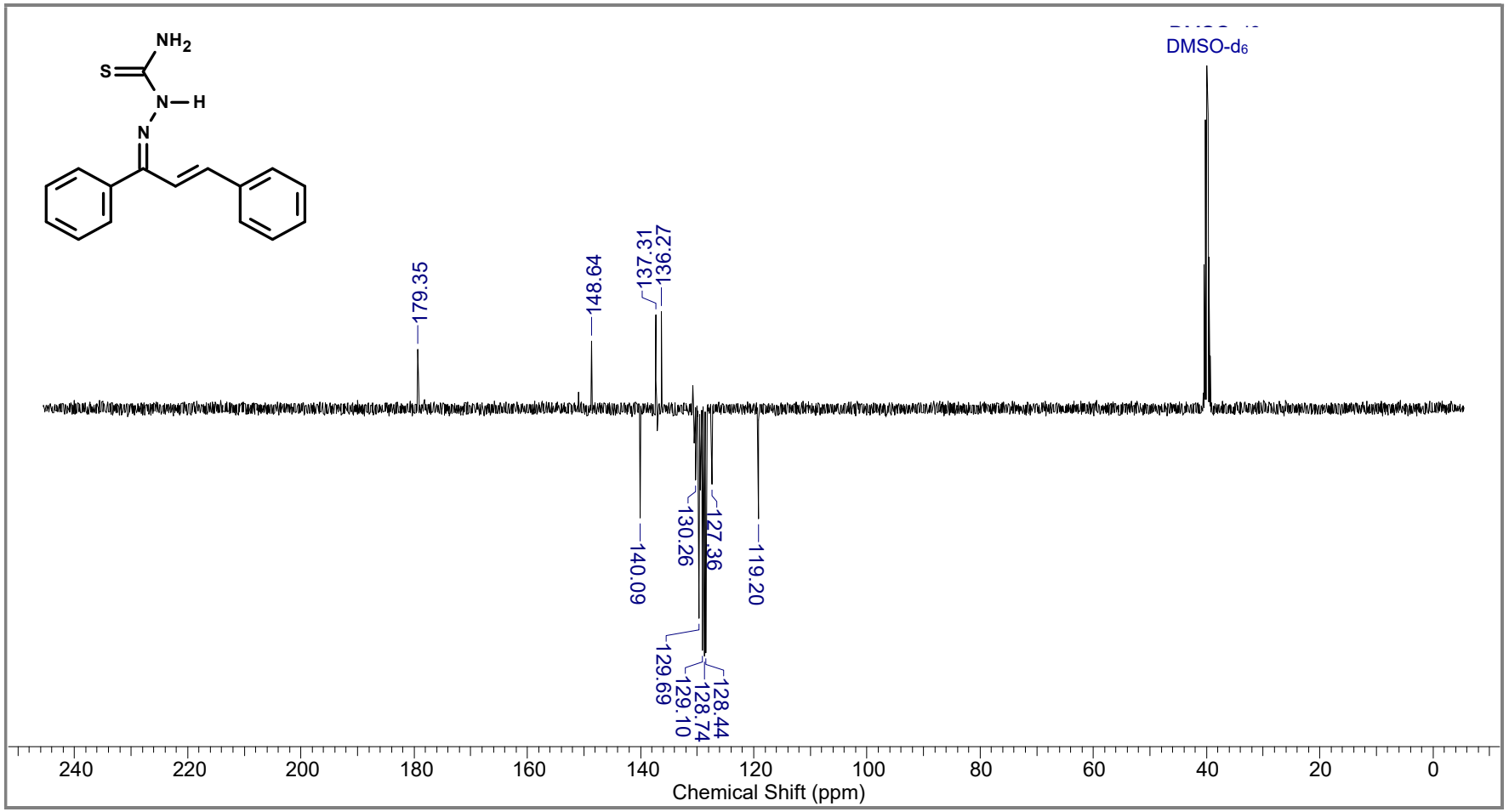

Figure S4. IR spectrum of 3-(4′-methylphenyl)-1-phenylprop-2-en-1-one thiosemicarbazone (**5b**)

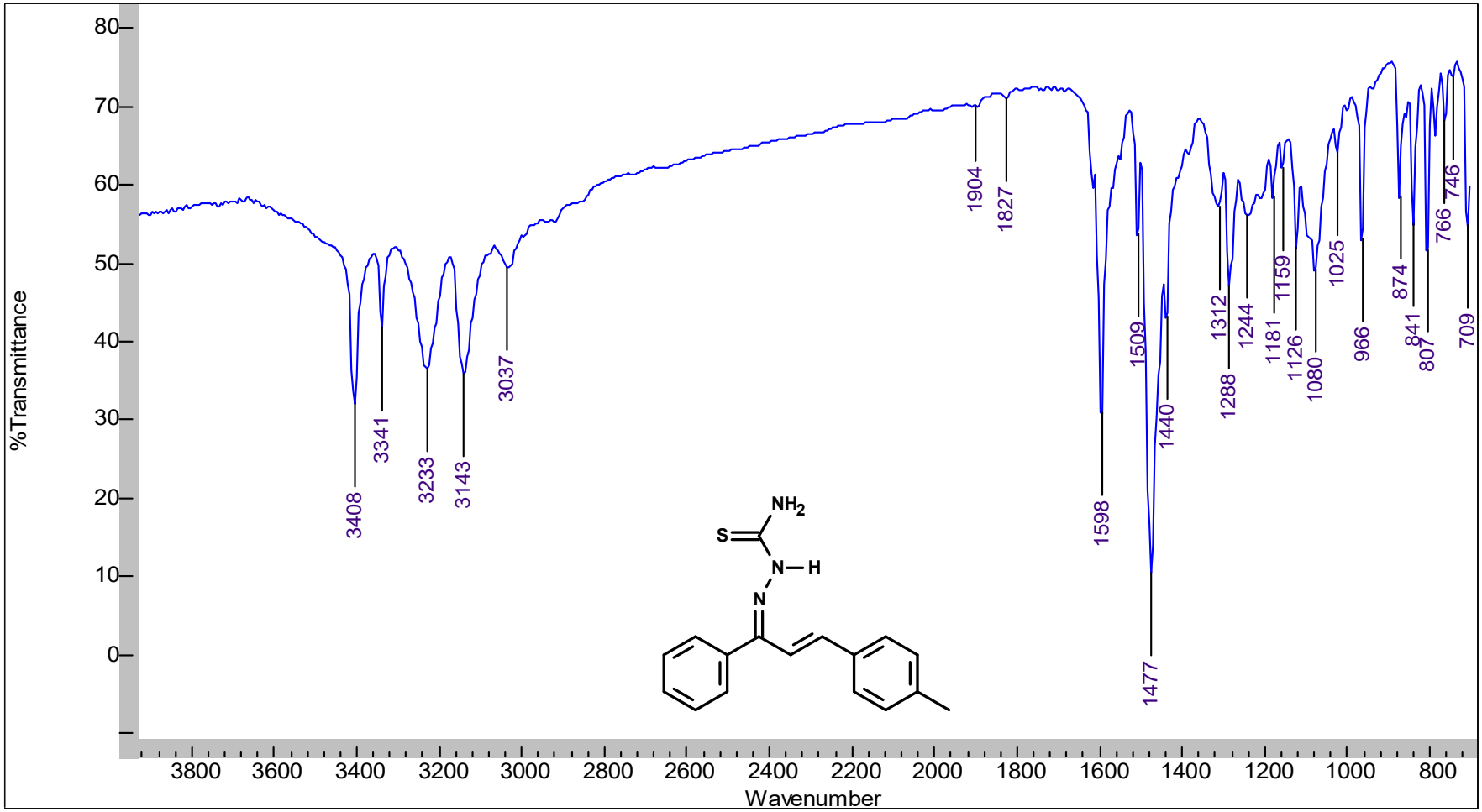

Figure S5. ^{13}C NMR-DEPTQ spectrum of 3-(4′-methylphenyl)-1-phenylprop-2-en-1-one thiosemicarbazone (**5b**)

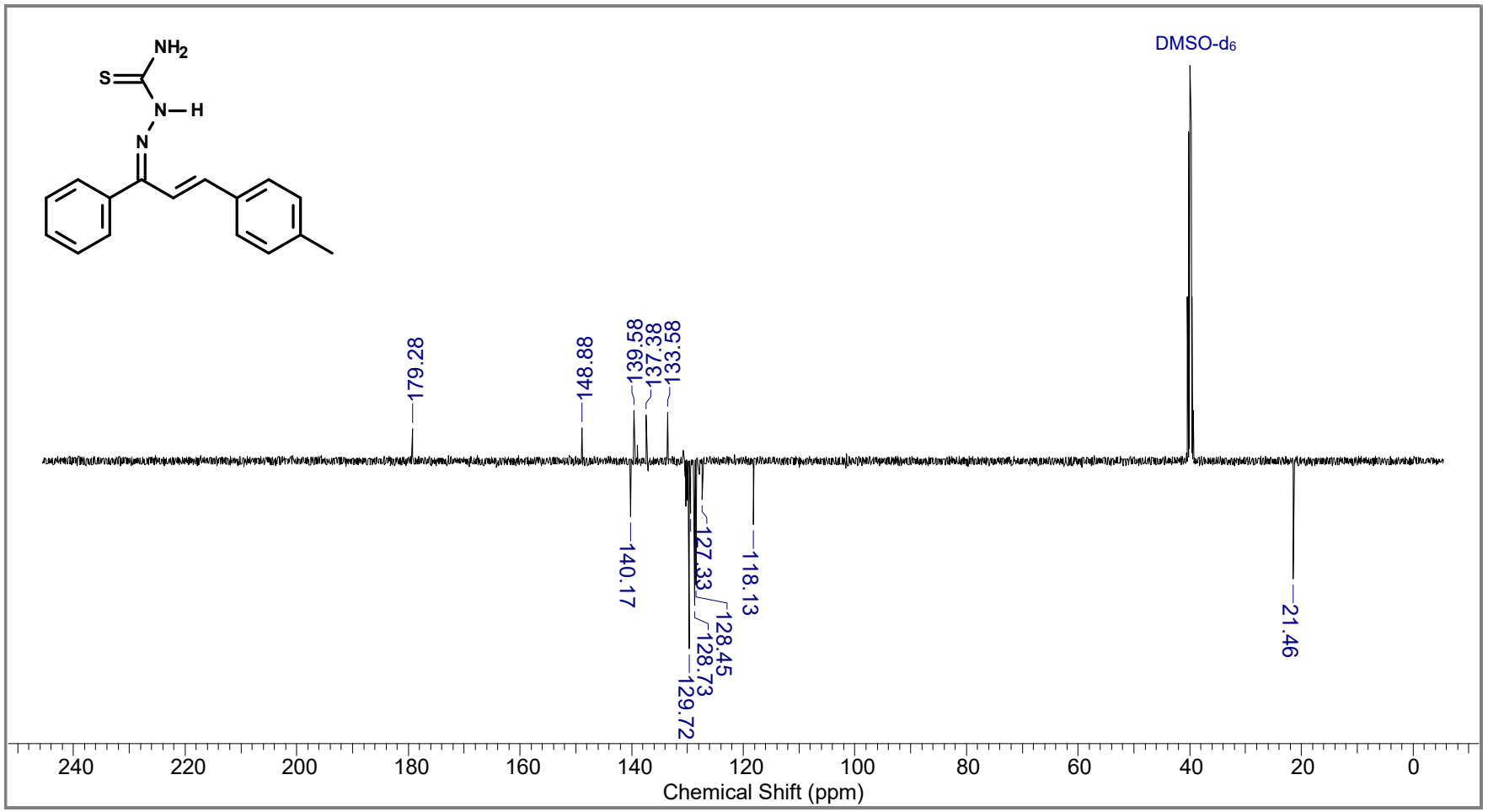

Figure S6. IR spectrum of 3-(4′-cianophenyl)-1-phenylprop-2-en-1-one thiosemicarbazone (**5c**)

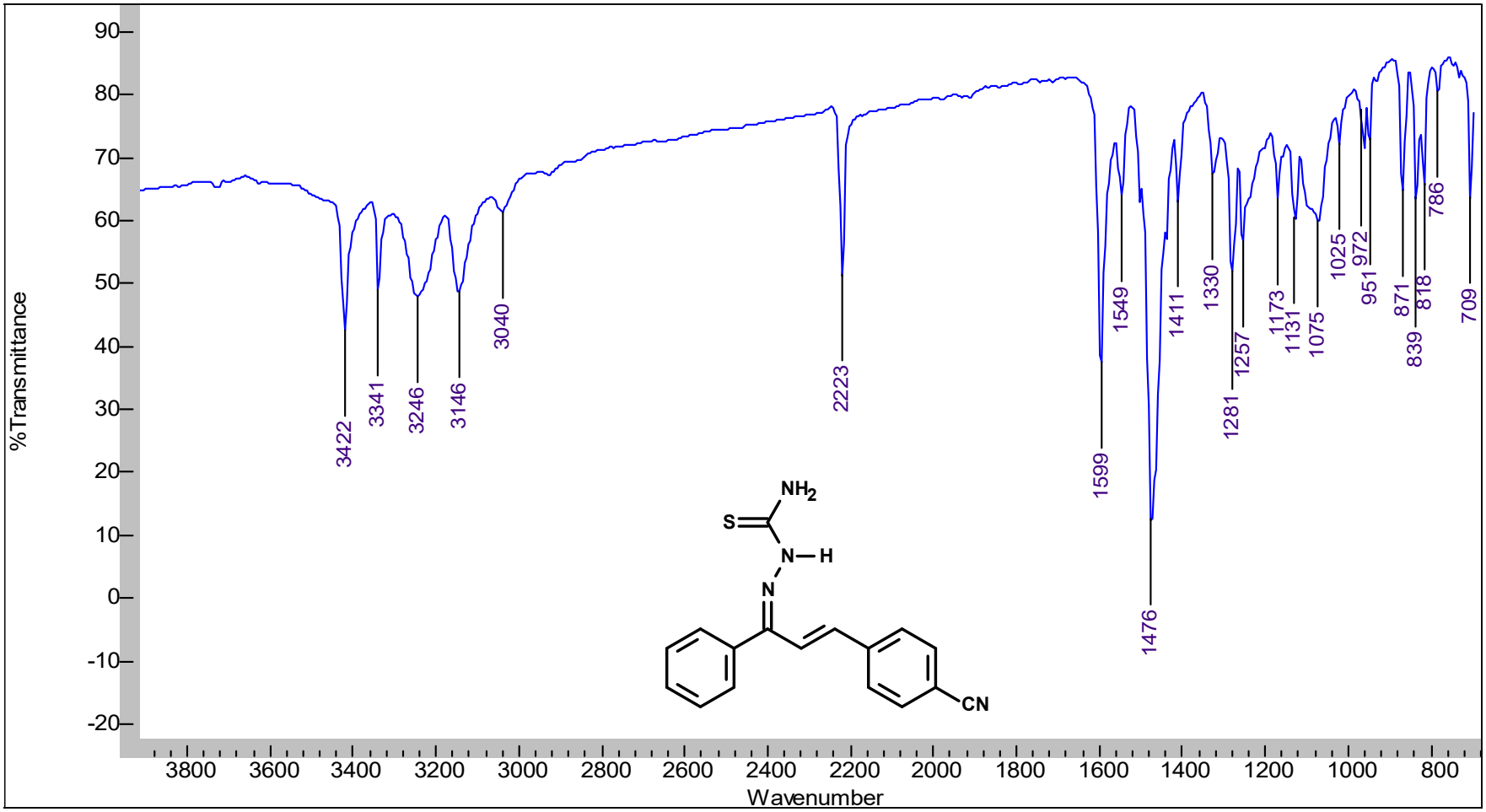

Figure S7. ^{1}H NMR spectrum of 3-(4′-cianophenyl)-1-phenylprop-2-en-1-one thiosemicarbazone (**5c**)

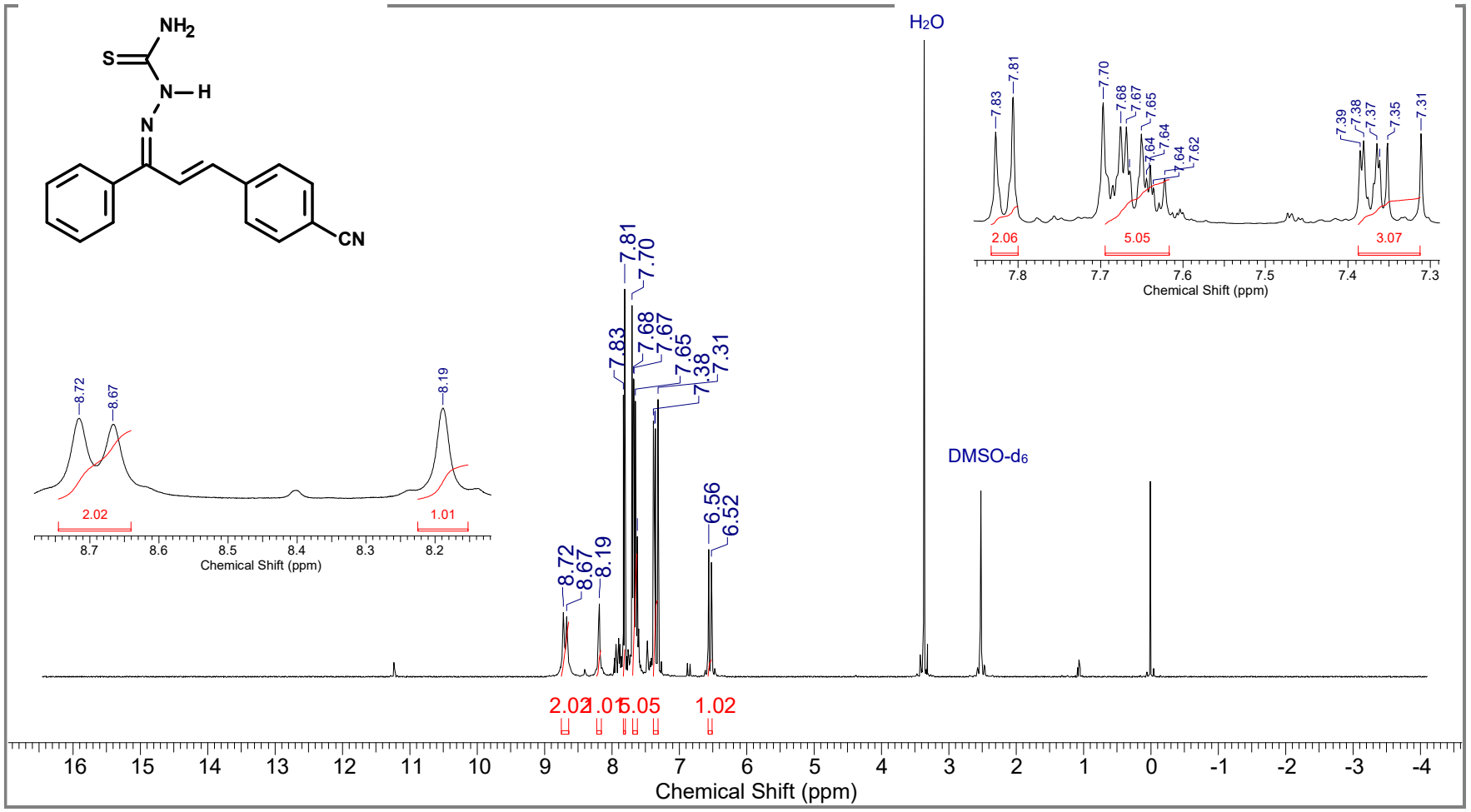

Figure S8. ^{13}C NMR-DEPTQ spectrum of 3-(4′-cianophenyl)-1-phenylprop-2-en-1-one thiosemicarbazone (**5c**)

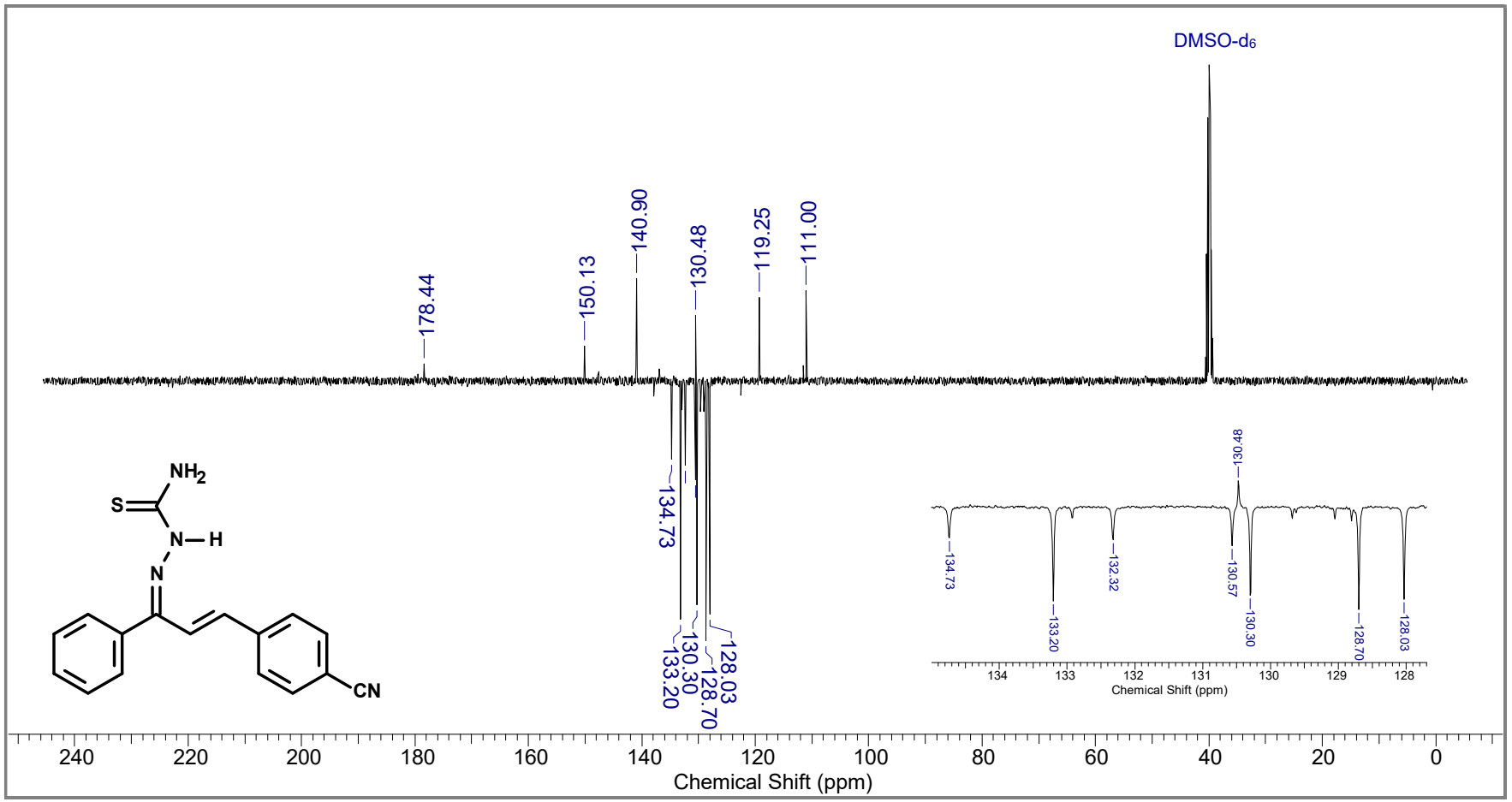

Figure S9. IR spectrum of 3-(4′-fluorphenyl)-1-phenylprop-2-en-1-one thiosemicarbazone (**5d**)

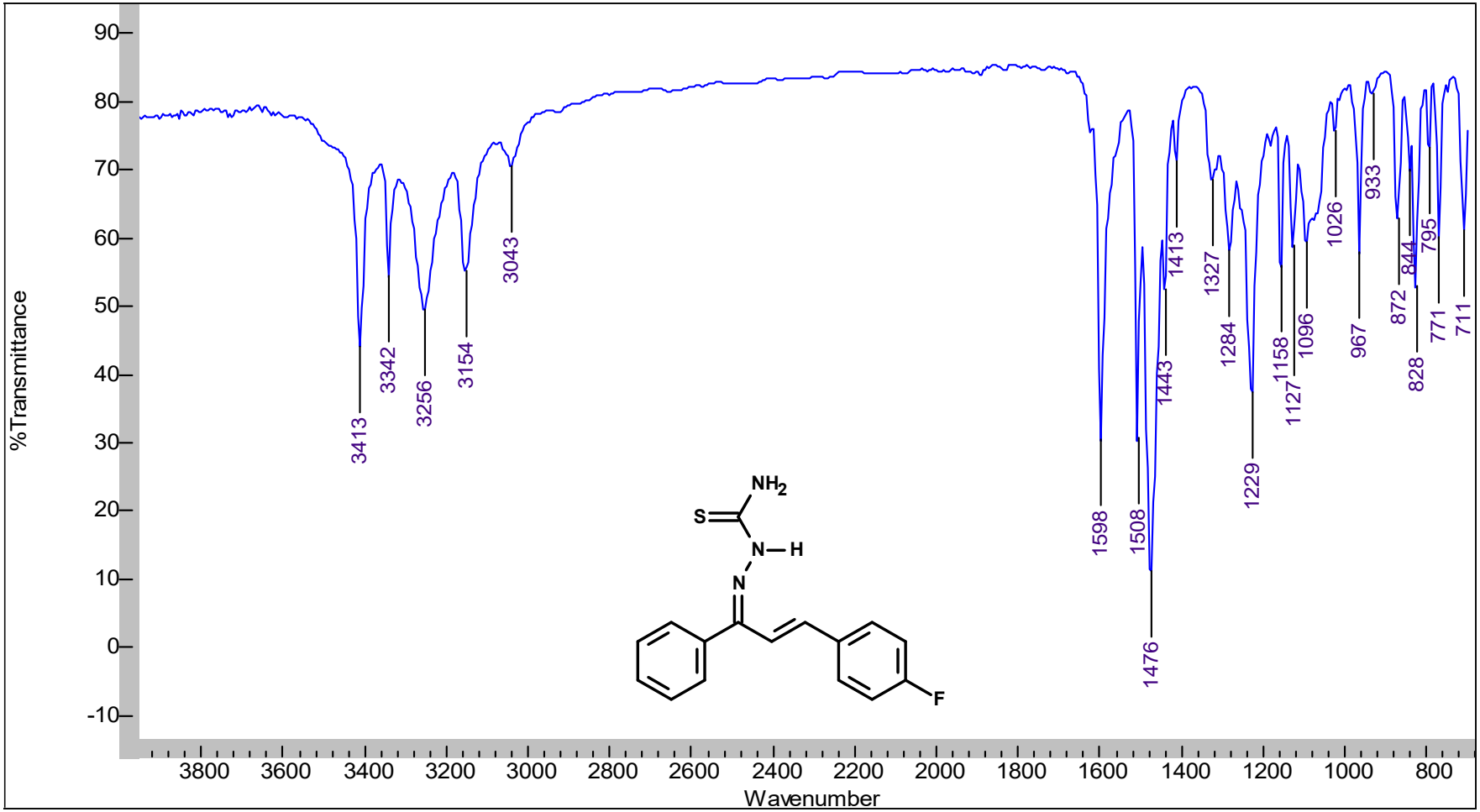

Figure S10. ^{1}H NMR spectrum of 3-(4′-fluorphenyl)-1-phenylprop-2-en-1-one thiosemicarbazone (**5d**)

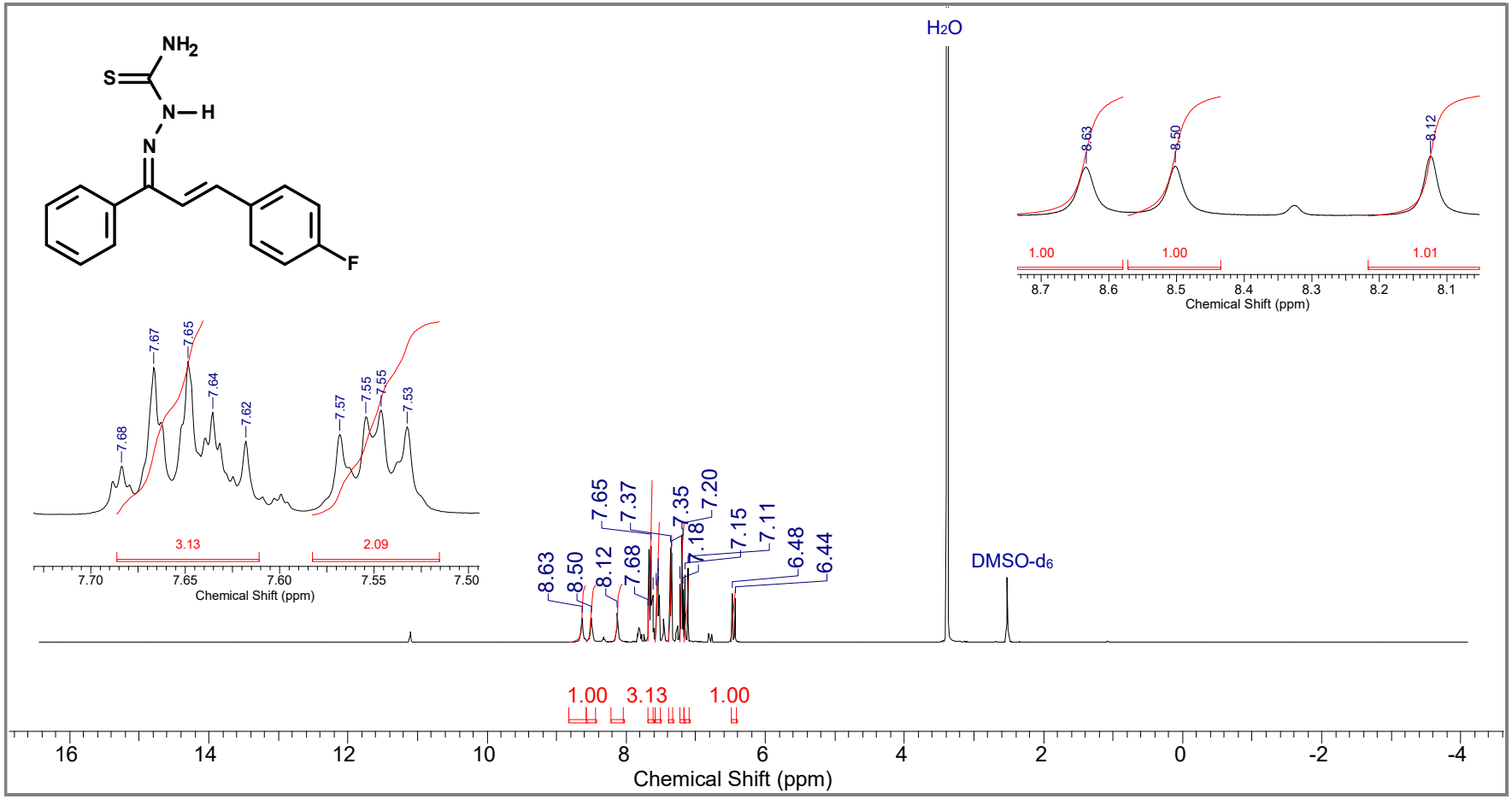

Figure S11. ^{13}C NMR-DEPTQ spectrum of 3-(4′-fluorphenyl)-1-phenylprop-2-en-1-one thiosemicarbazone (**5d**)

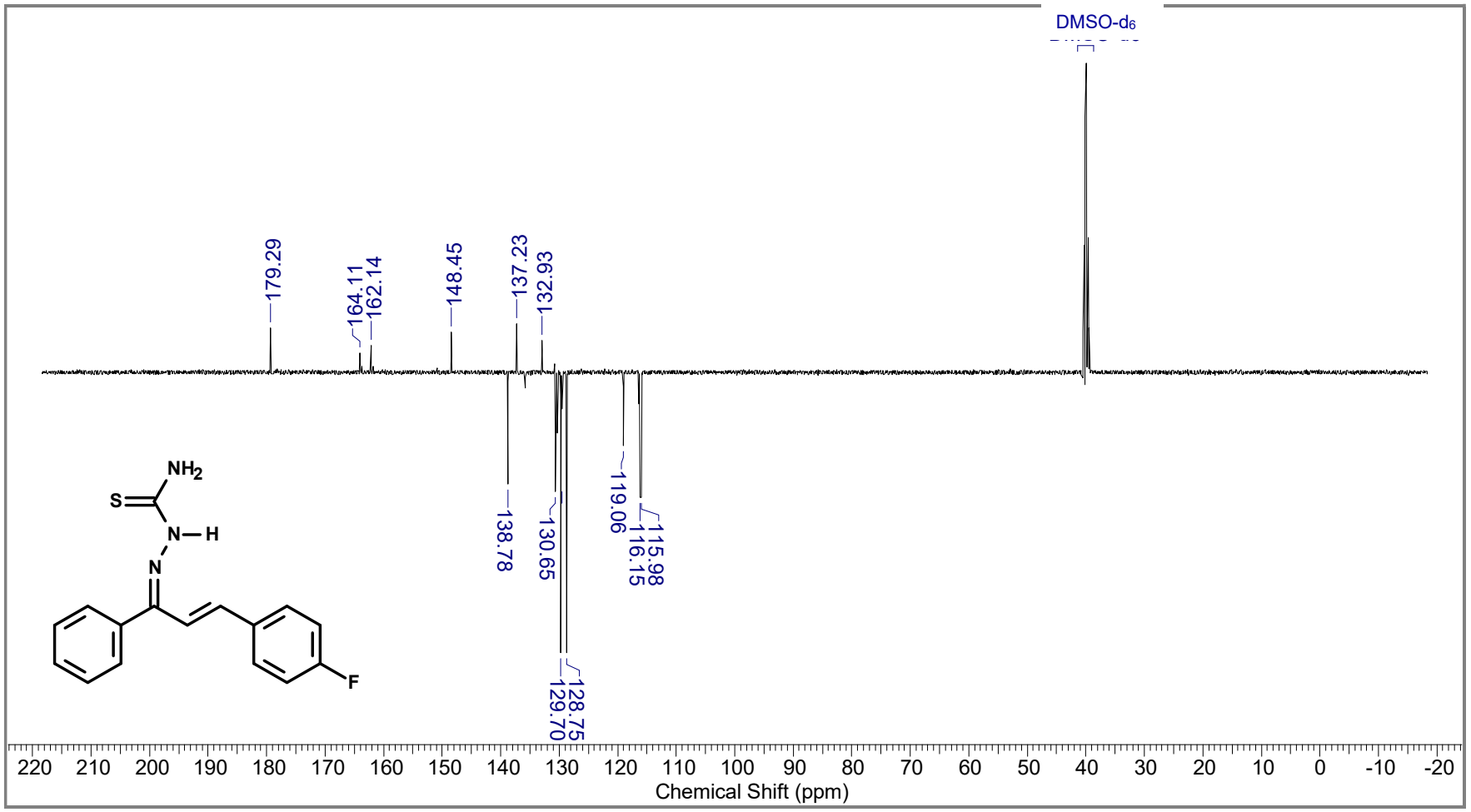

Figure S12. IR spectrum of 3-(4′-clorophenyl)-1-phenylprop-2-en-1-one thiosemicarbazone (**5e**)

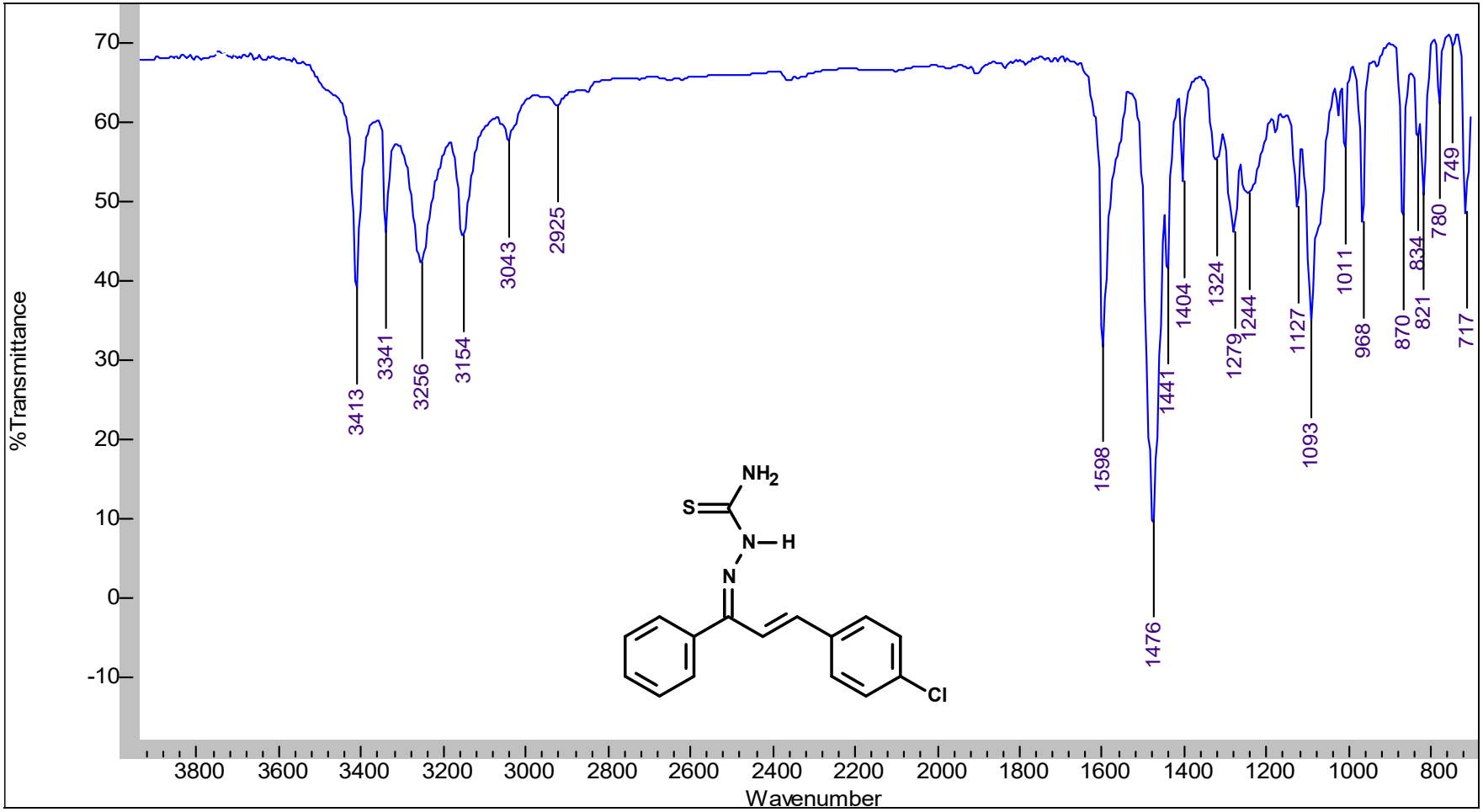

Figure S13. ^{1}H NMR spectrum of 3-(4′-clorophenyl)-1-phenylprop-2-en-1-one thiosemicarbazone (**5e**)

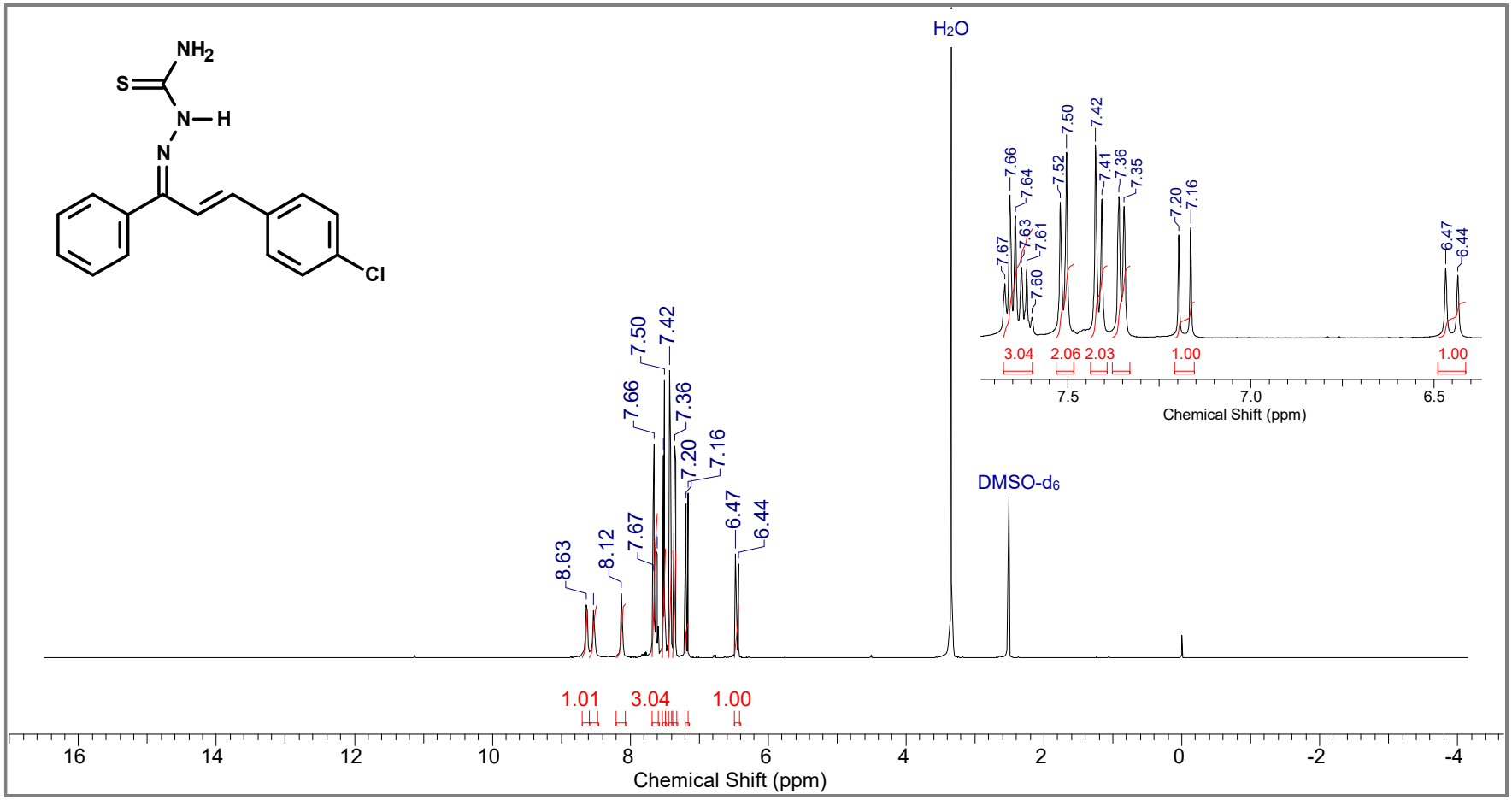

Figure S14. ^{13}C NMR-DEPTQ spectrum of 3-(4′-clorophenyl)-1-phenylprop-2-en-1-one thiosemicarbazone (**5e**)

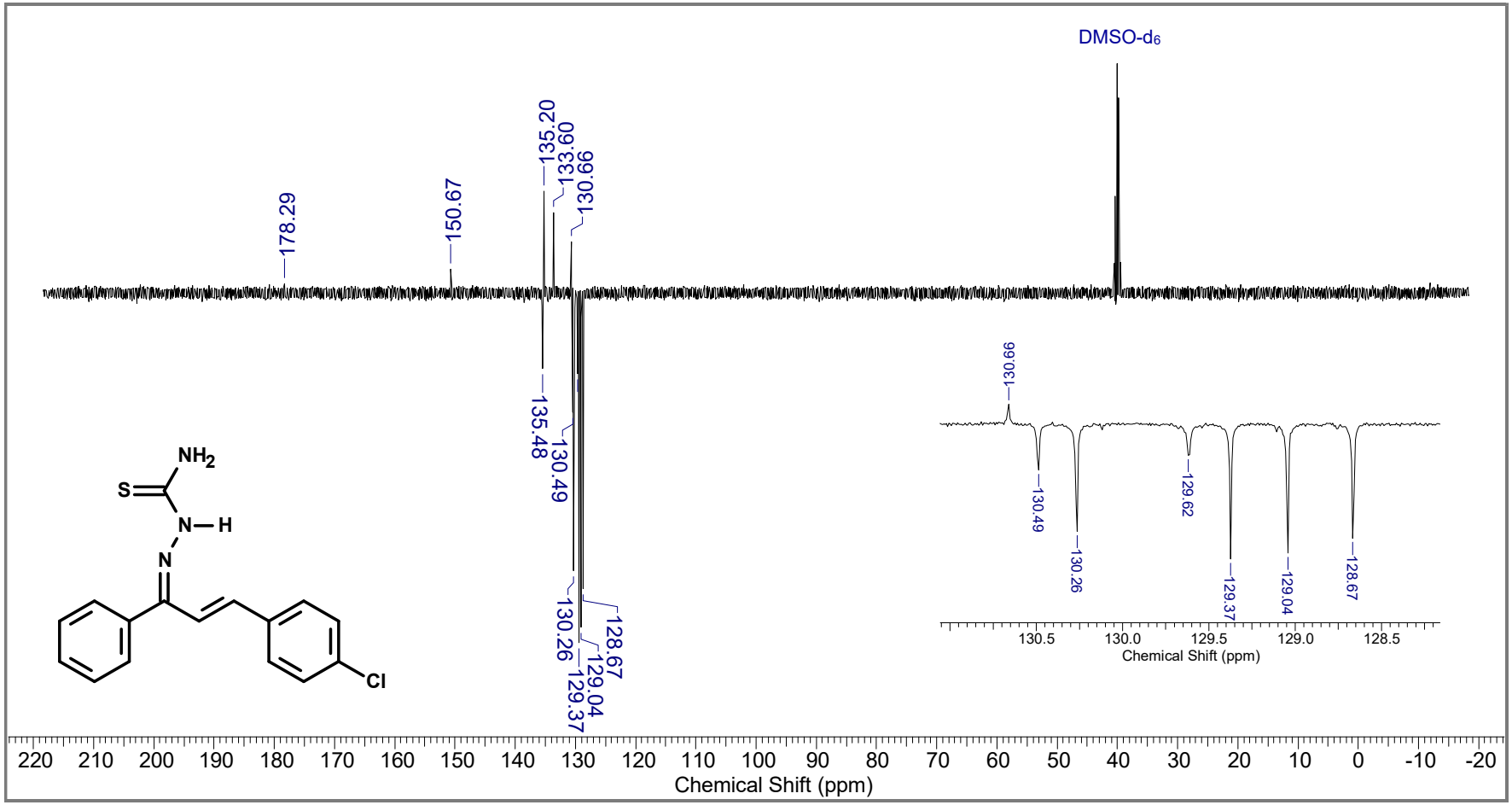

Figure S15. IR spectrum of 3-(4′-bromophenyl)-1-phenylprop-2-en-1-one thiosemicarbazone (**5f**)

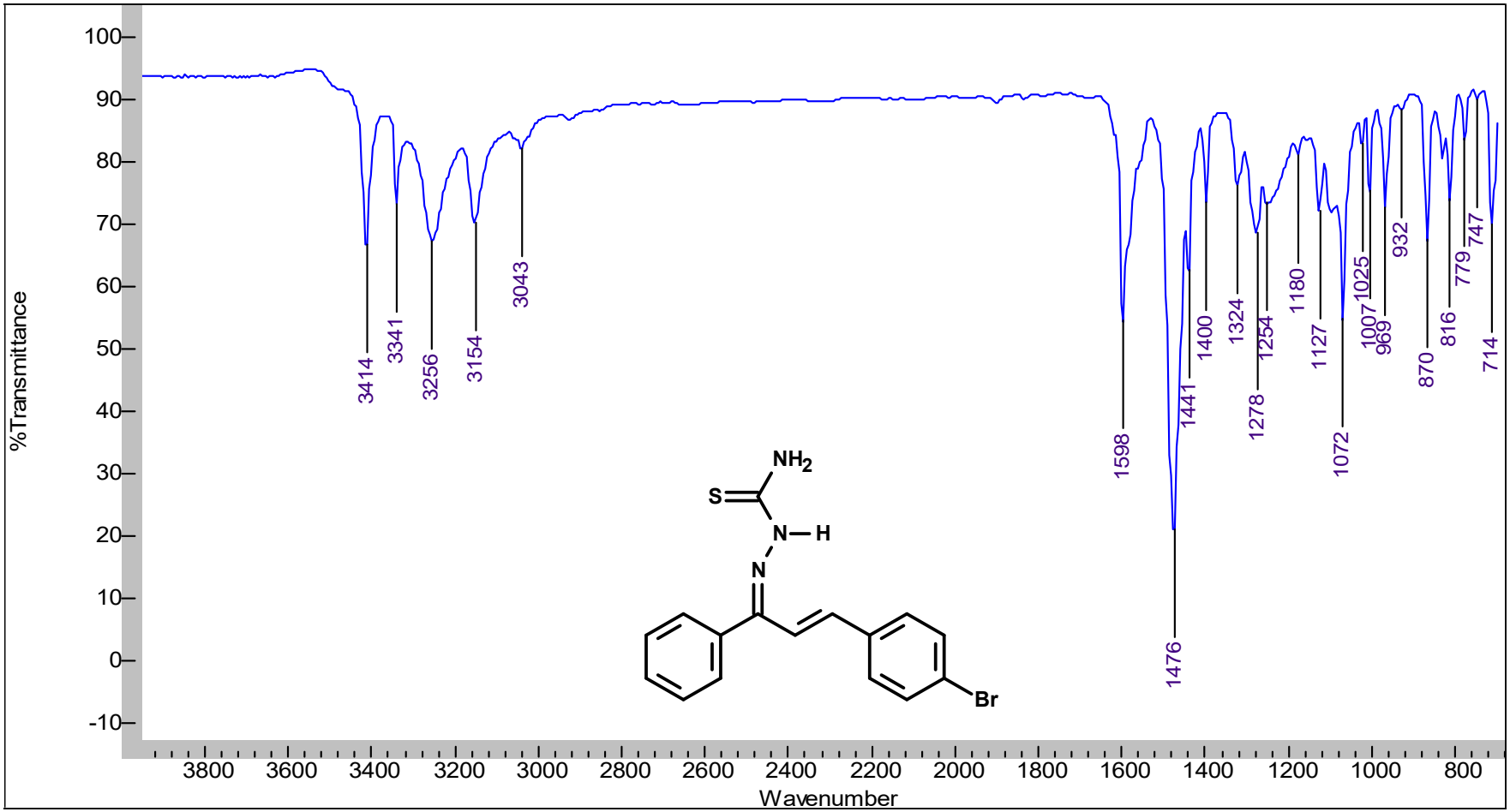

Figure S16. ^{1}H NMR spectrum of 3-(4′-bromophenyl)-1-phenylprop-2-en-1-one thiosemicarbazone (**5f**)

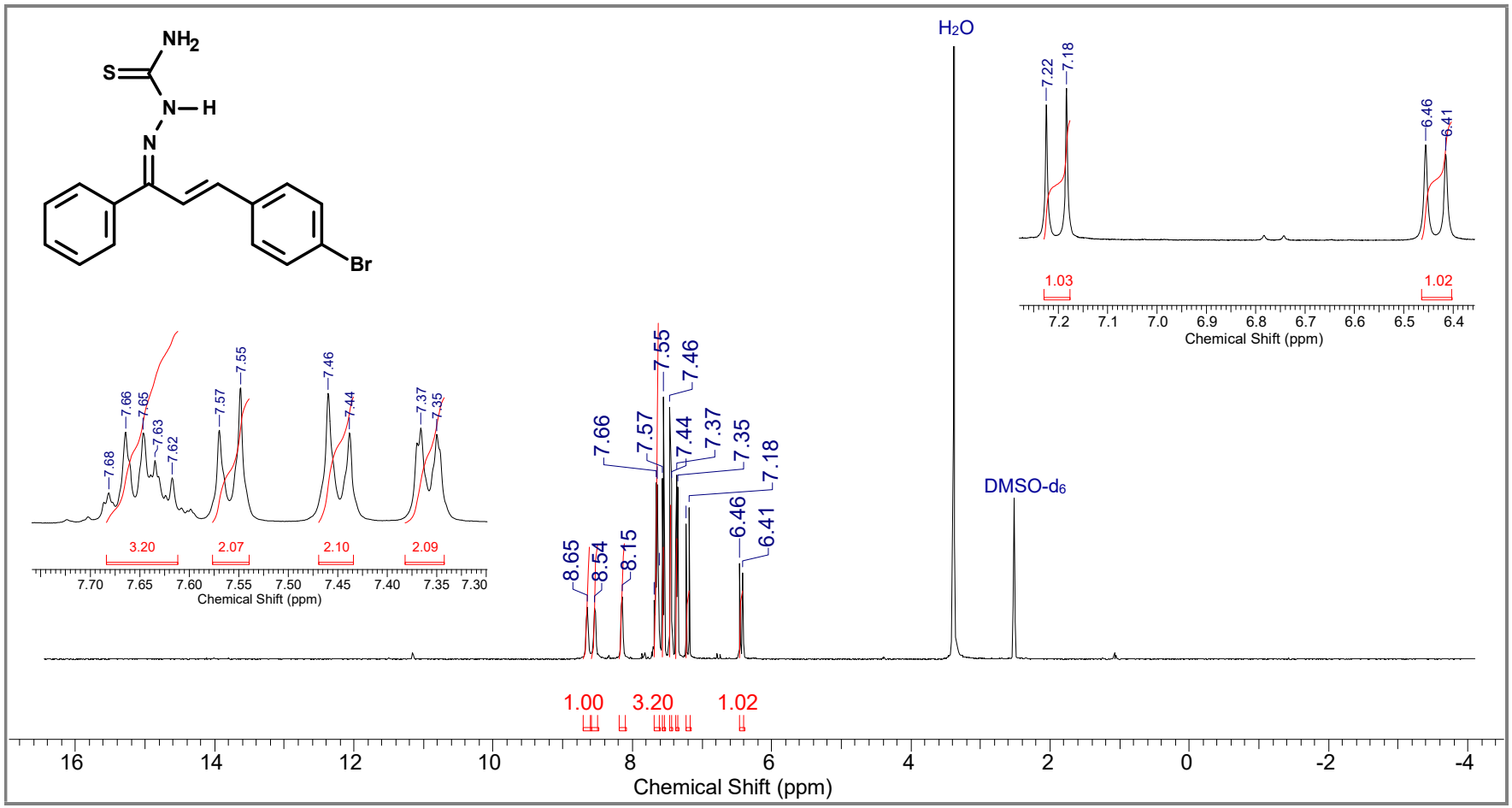

Figure S17. ^{13}C NMR-DEPTQ spectrum of 3-(4′-bromophenyl)-1-phenylprop-2-en-1-one thiosemicarbazone (**5f**)

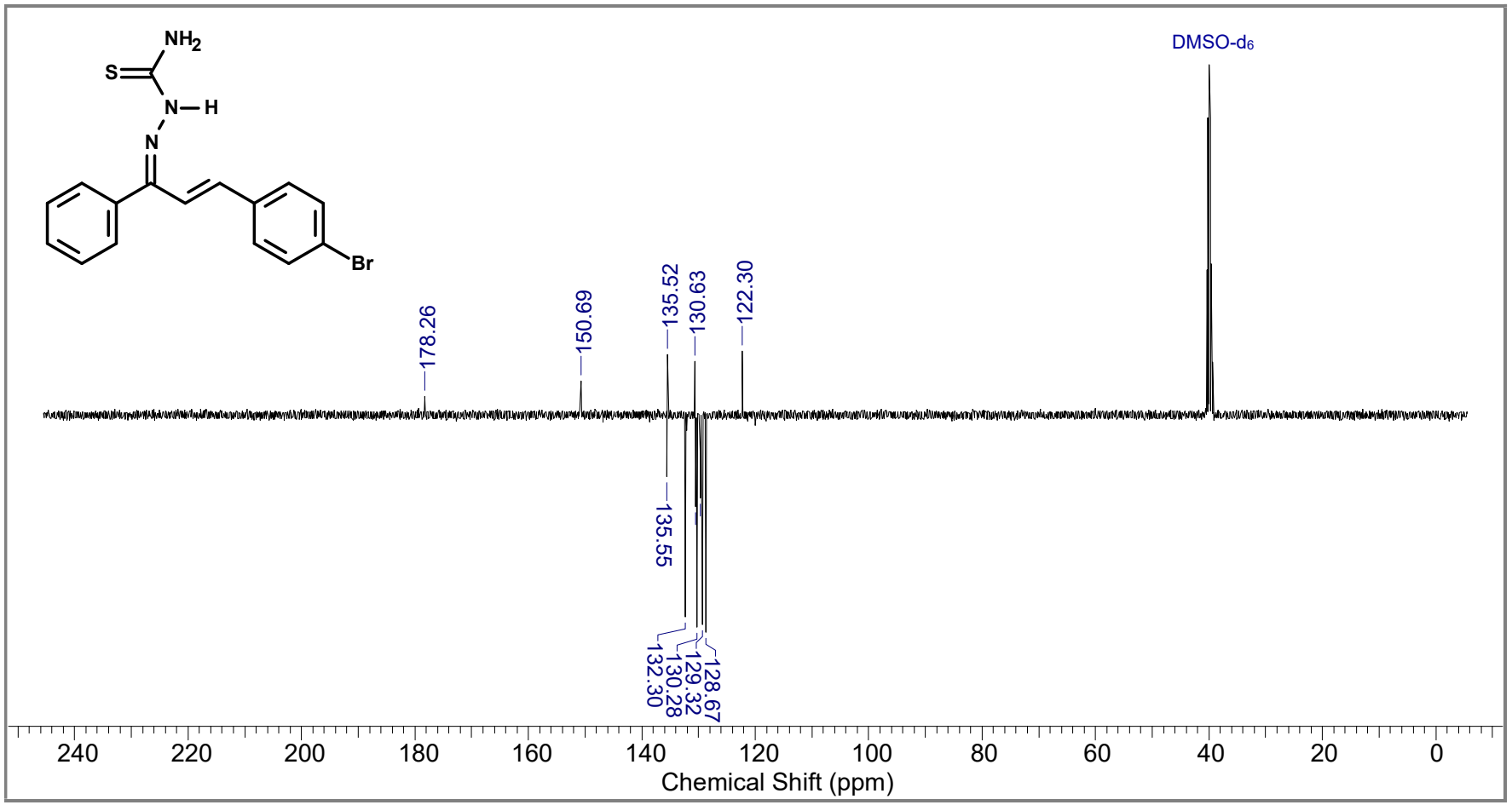

Figure S18. IR spectrum of 3-(4′-nitrophenyl)-1-phenylprop-2-en-1-one thiosemicarbazone (**5g**)

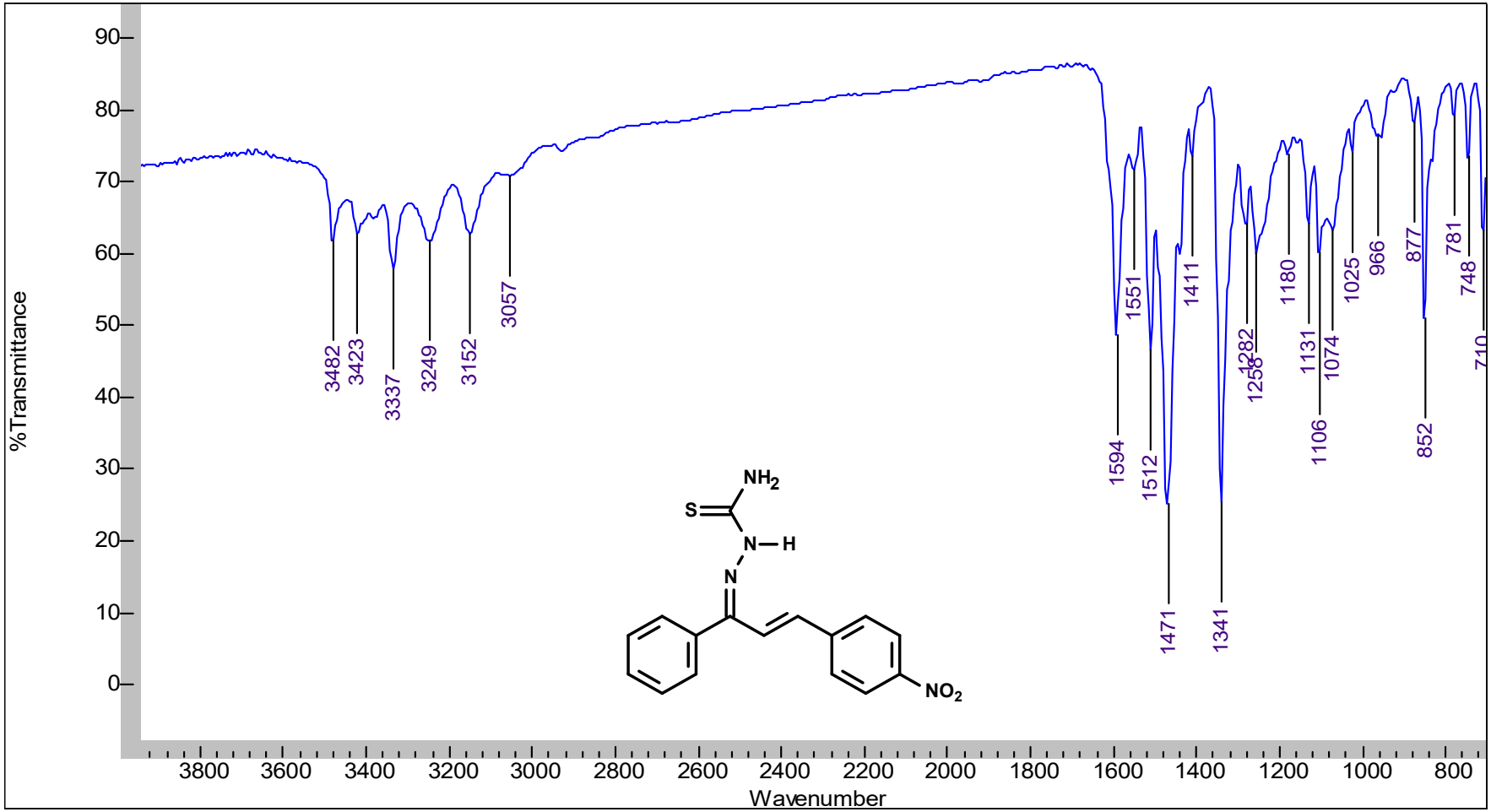

Figure S19. ^{13}C NMR-DEPTQ spectrum of 3-(4′-nitrophenyl)-1-phenylprop-2-en-1-one thiosemicarbazone (**5g**)

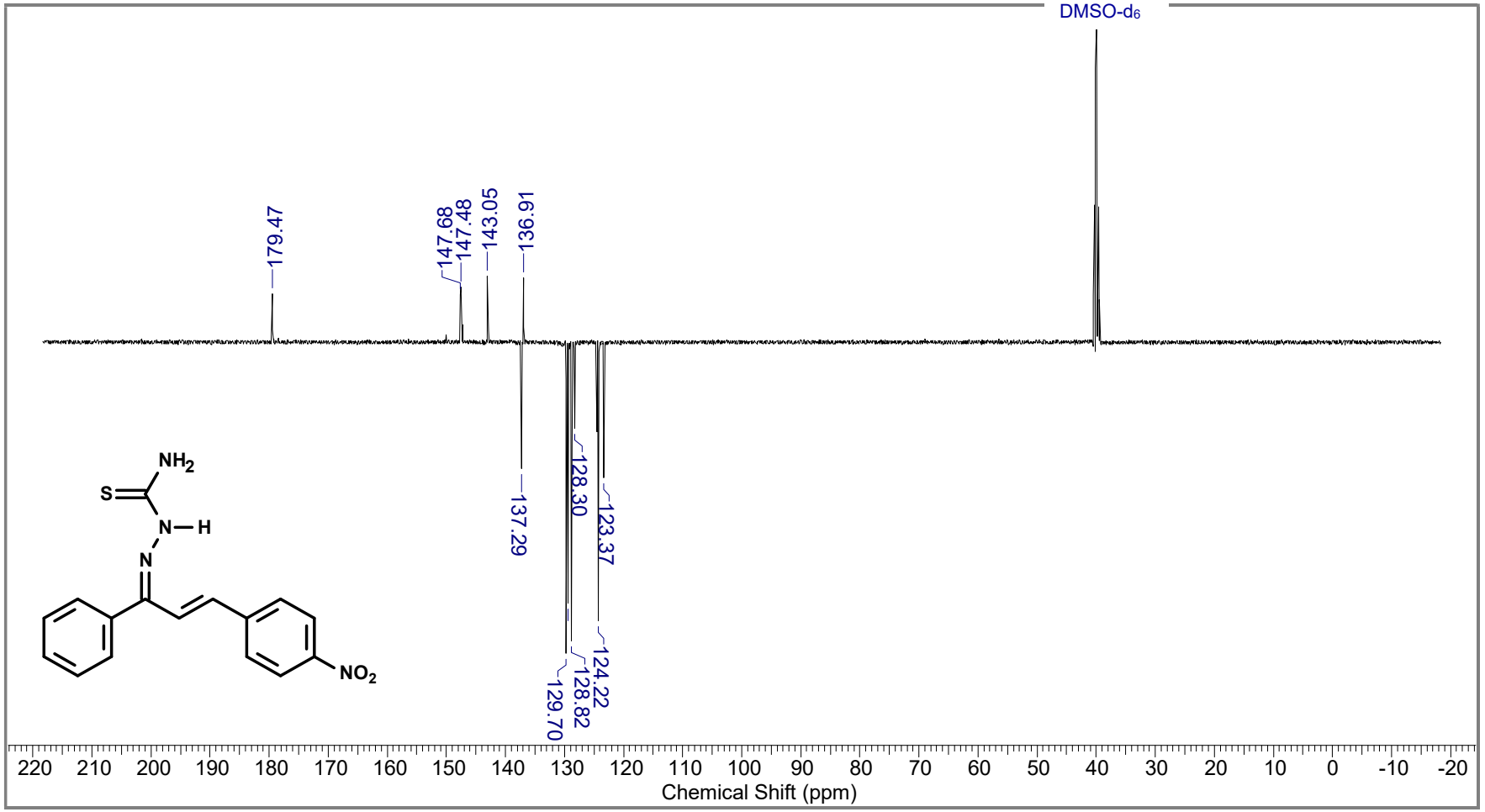

Figure S20. Double logarithmic plots for the interaction between HSA:**5e** at 289K, 296K, 303K, and 310K.

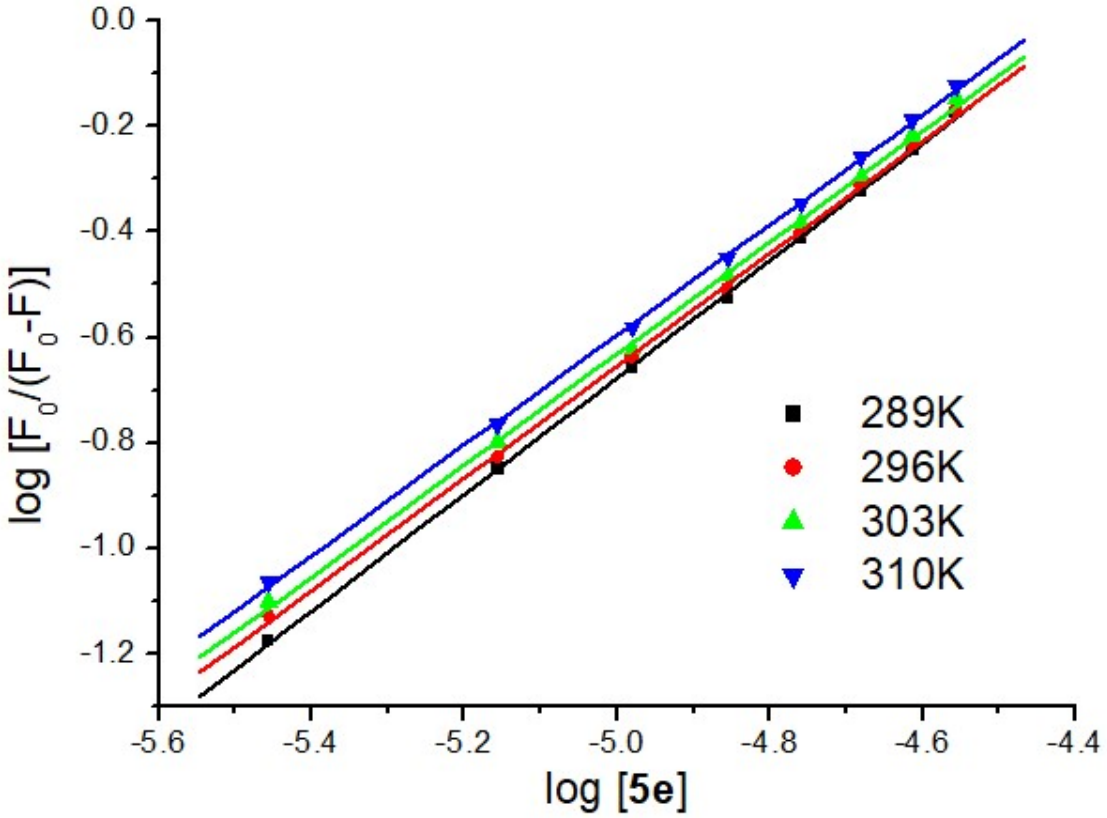

Figure S21. Van't Hoff plot for the interaction between HSA:**5e** at four different temperatures.