Synthesis of 2-Substituted Quinolines from 2-Aminostyryl Ketones Using Iodide as a Catalyst

So Young Lee,[†] Jiye Jeon,[†] and Cheol-Hong Cheon*

Department of Chemistry, Korea University, 145 Anam-ro, Seongbuk-gu, Seoul 02841, Republic of Korea

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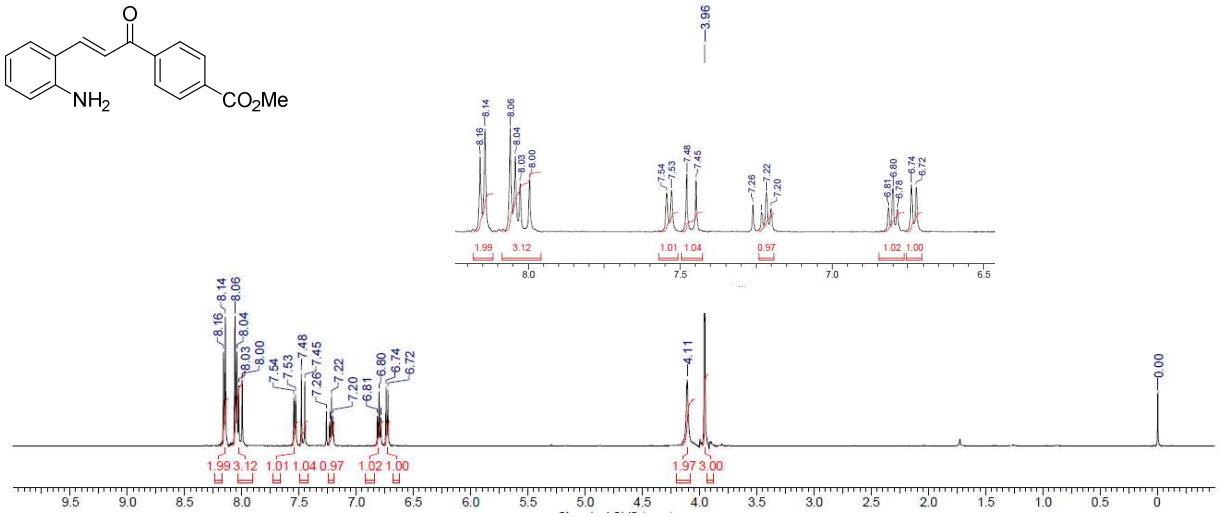
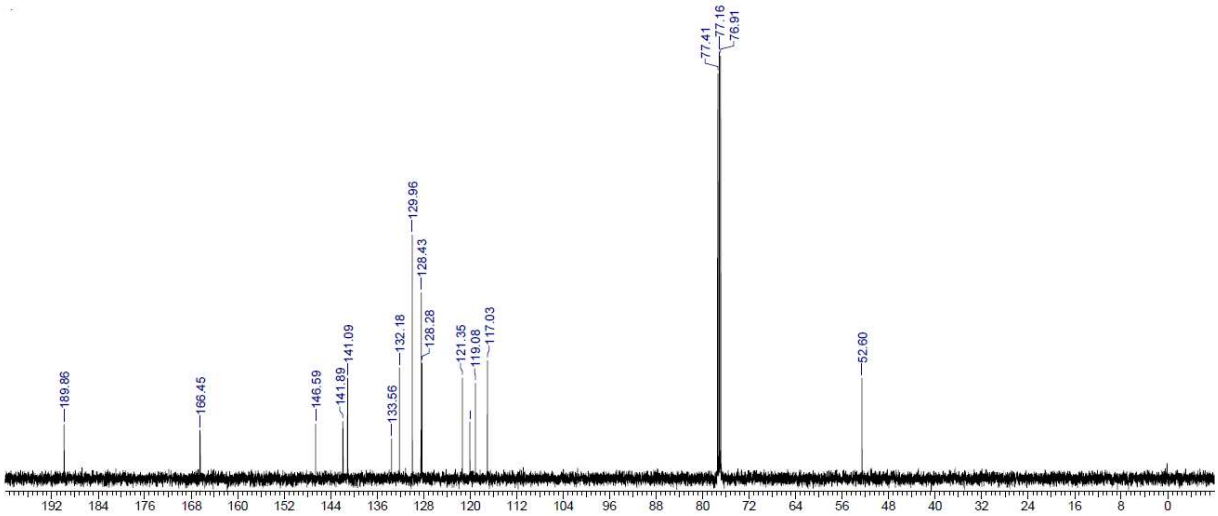
1. Spectroscopic Data of 2-Aminostyryl Ketones 2

1-1. NMR Spectra of (*E*)-2-Aminophenylstyryl 4-Methoxycarbonylphenyl Ketone (**2g**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

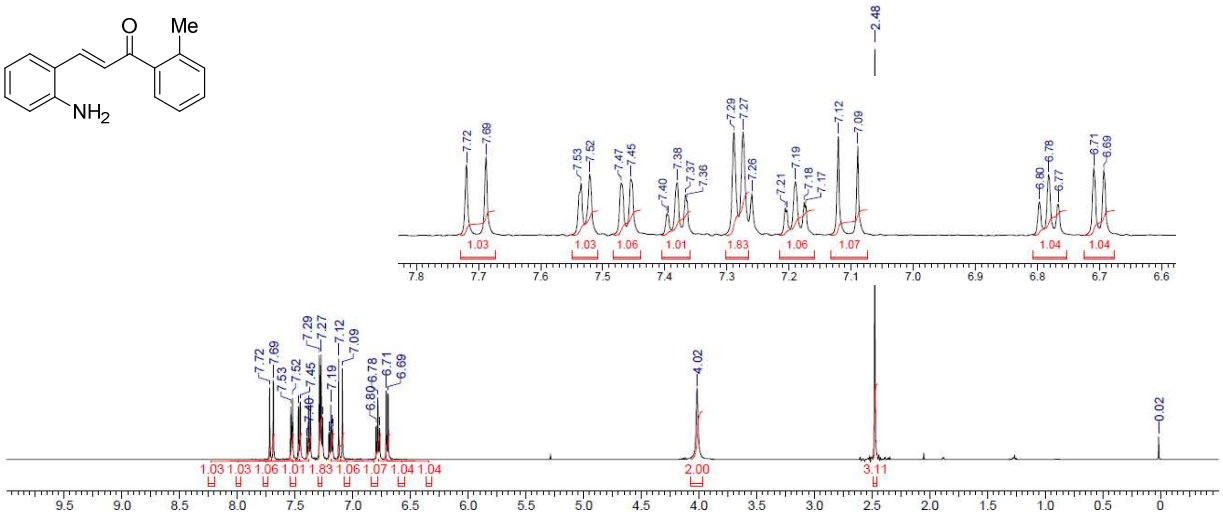


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

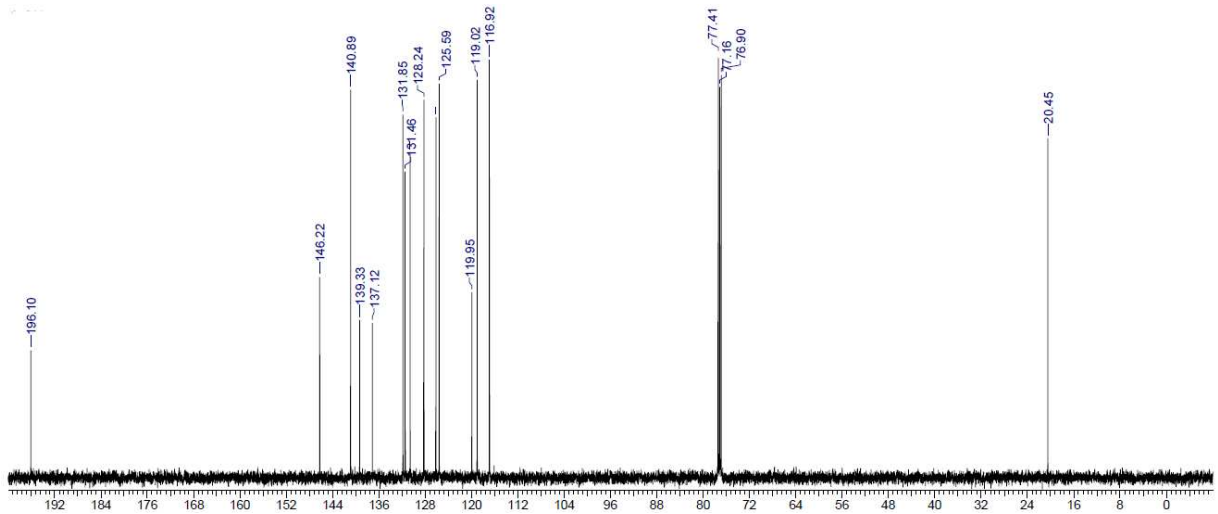


1-2. NMR Spectra of (*E*)-2-Aminophenylstyryl 2-Methylphenyl Ketone (**2h**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

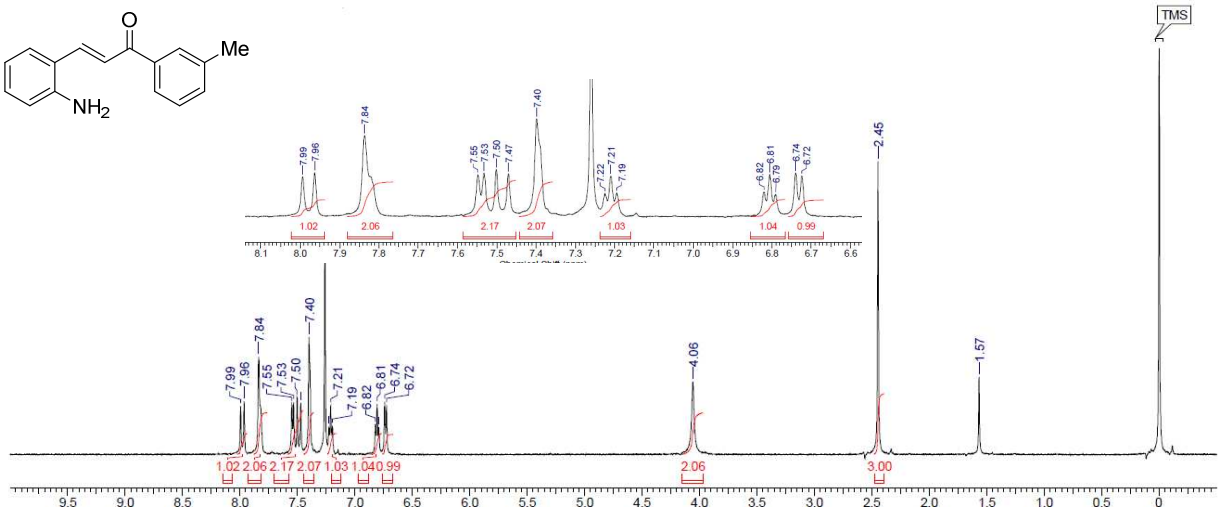


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

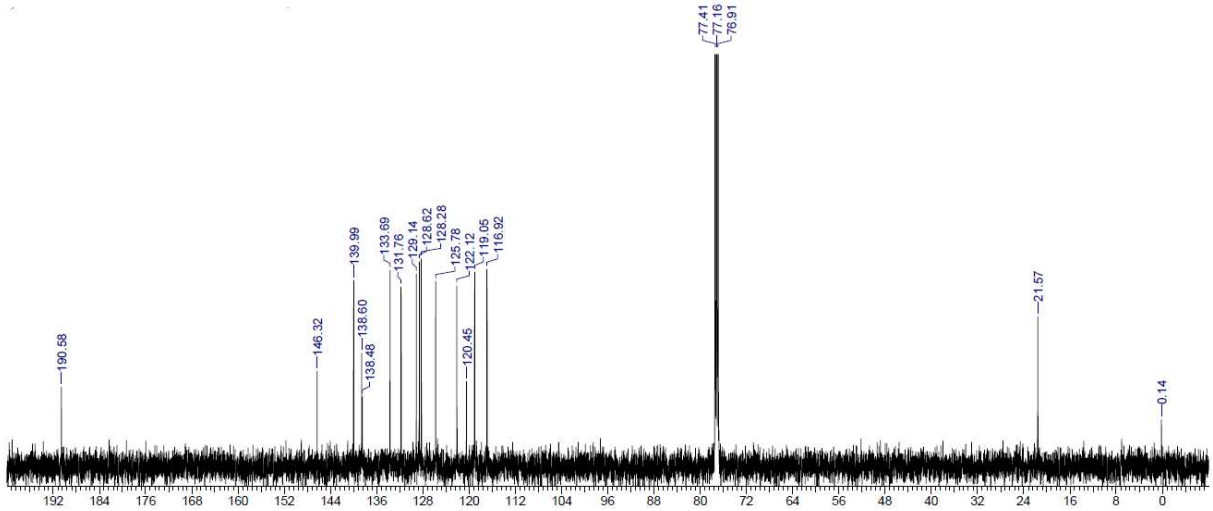


1-3. NMR Spectra of (*E*)-2-Aminophenylstyryl 3-Methylphenyl Ketone (**2i**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

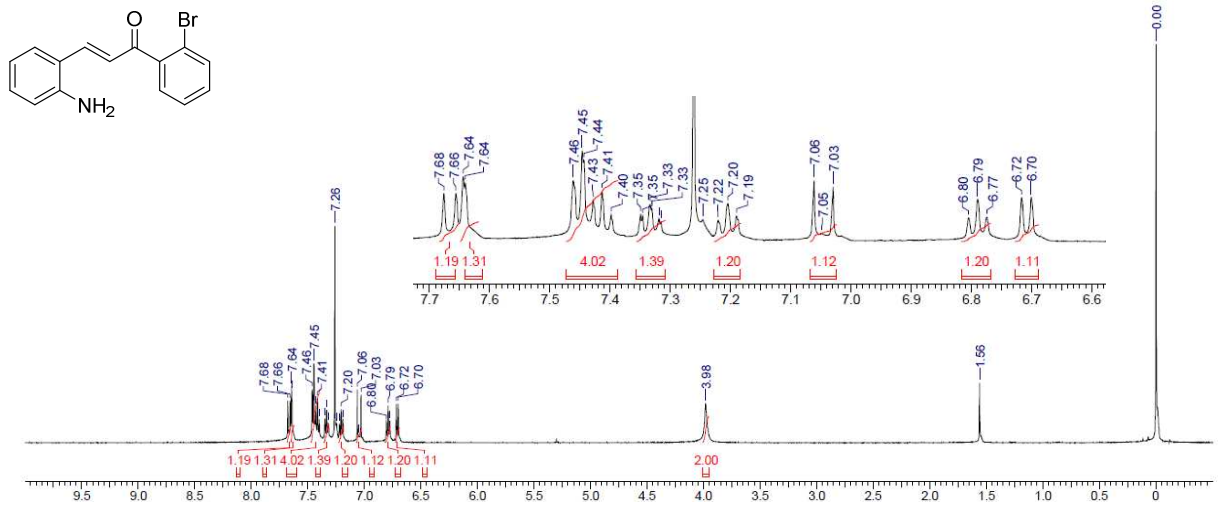


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

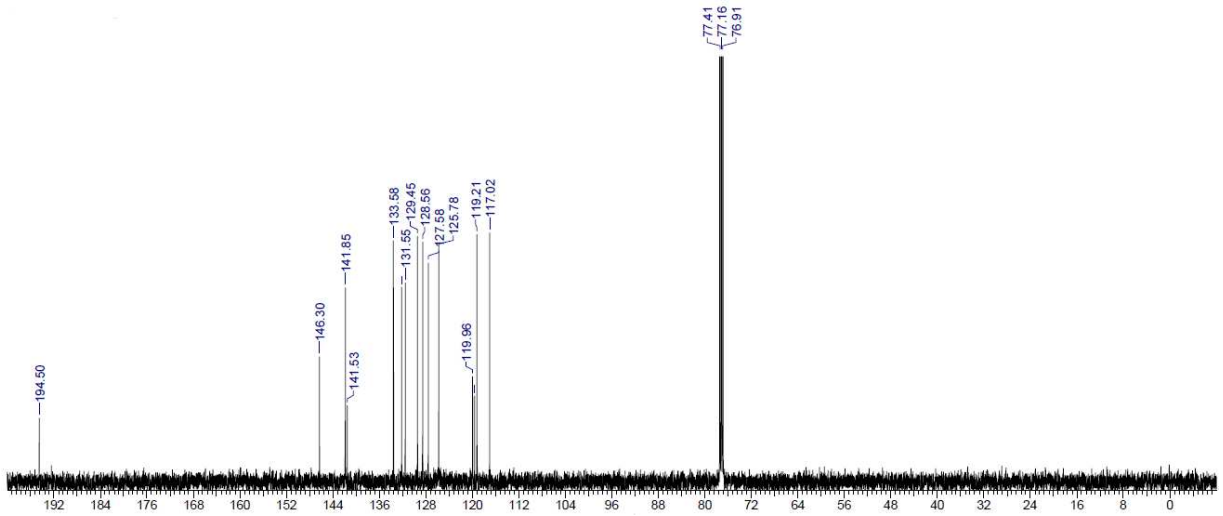


1-4. NMR Spectra of (*E*)-2-Aminophenylstyryl 2-Bromophenyl Ketone (**2j**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

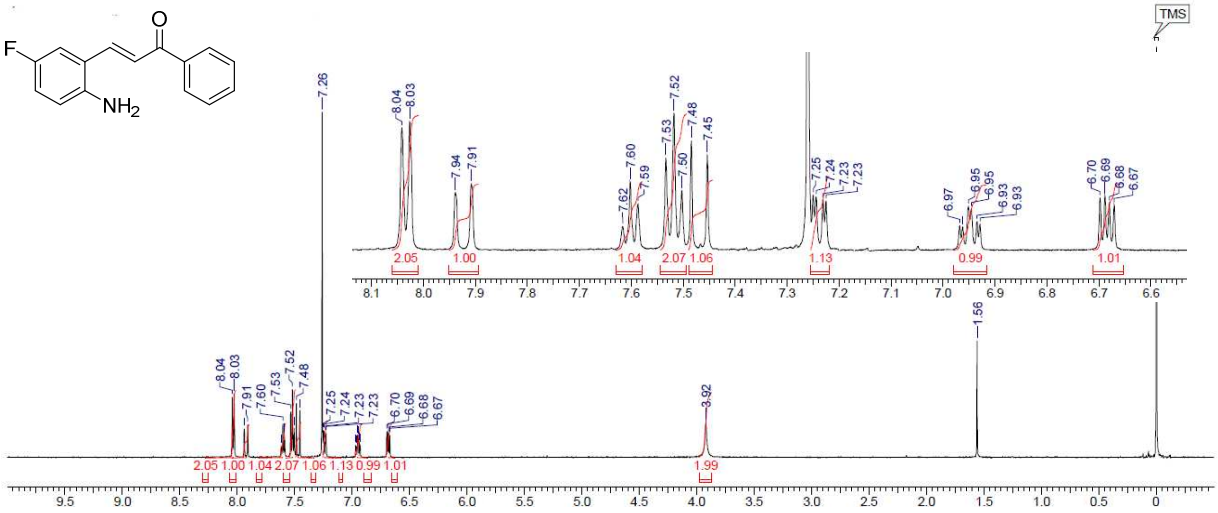


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

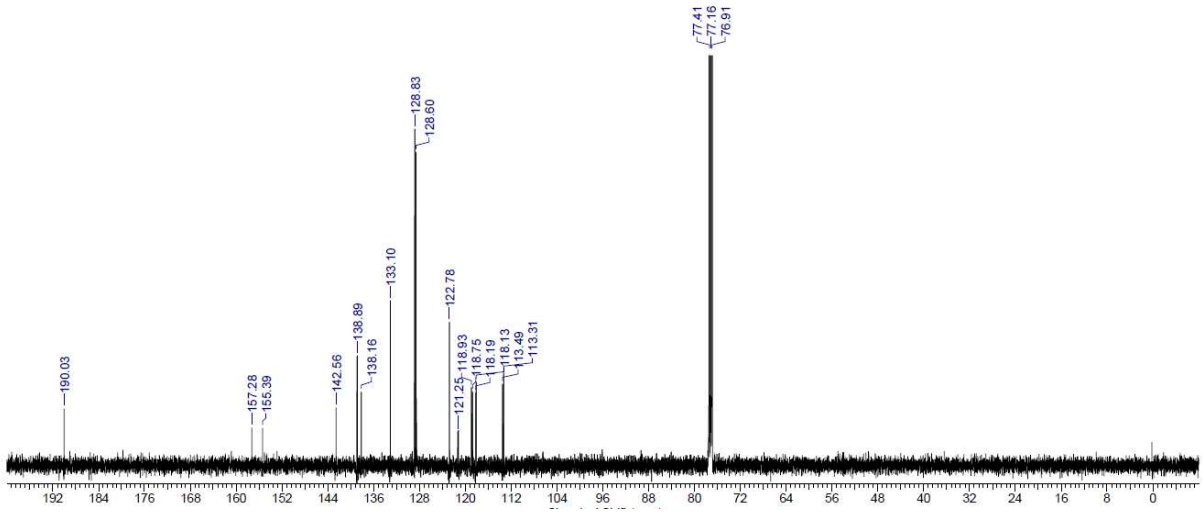


1-5. NMR Spectra of (*E*)-2-Amino-5-Fluorophenylstyryl Phenyl Ketone (**2p**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

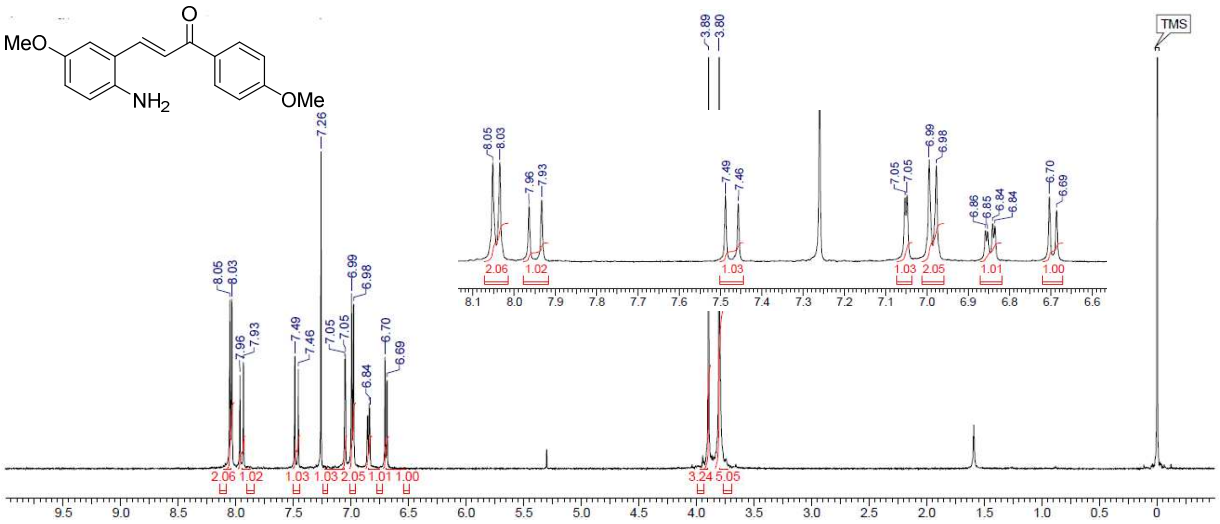


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

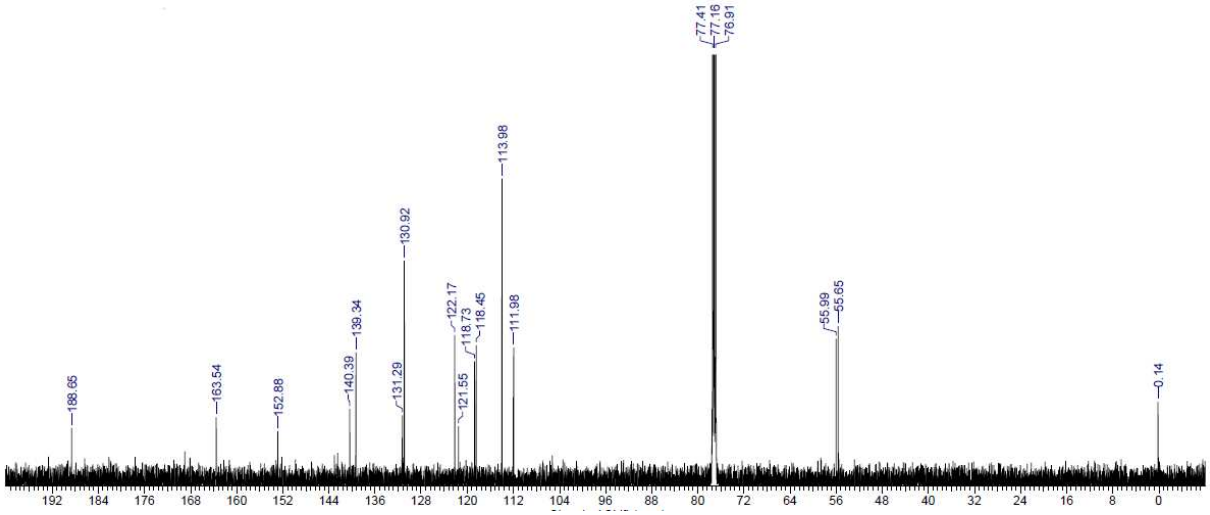


1-6. NMR Spectra of (*E*)-2-Amino-5-Methoxyphenylstyryl 4-Methoxyphenyl Ketone (**2t**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

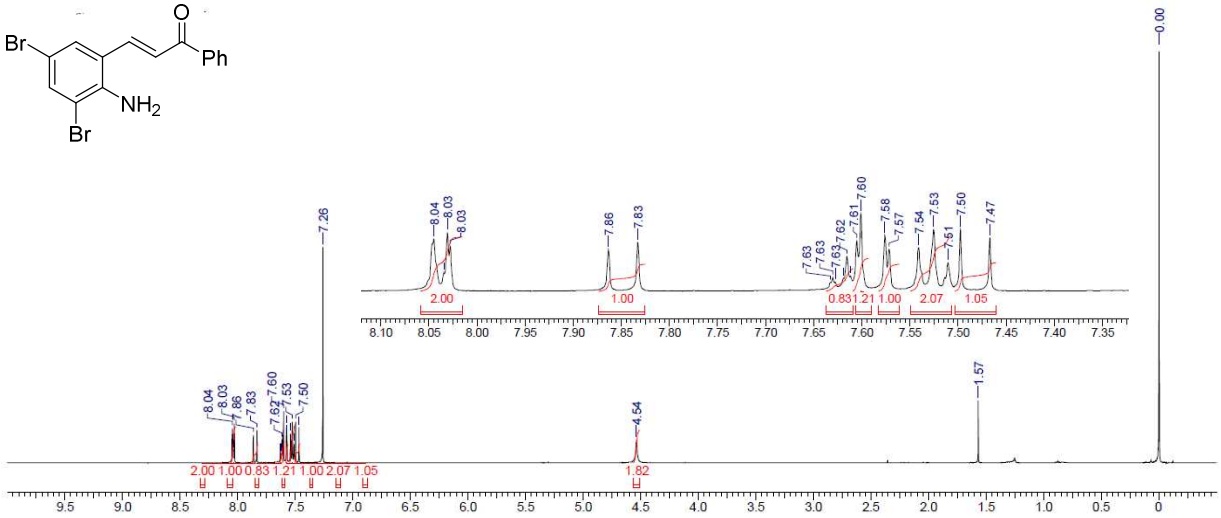


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

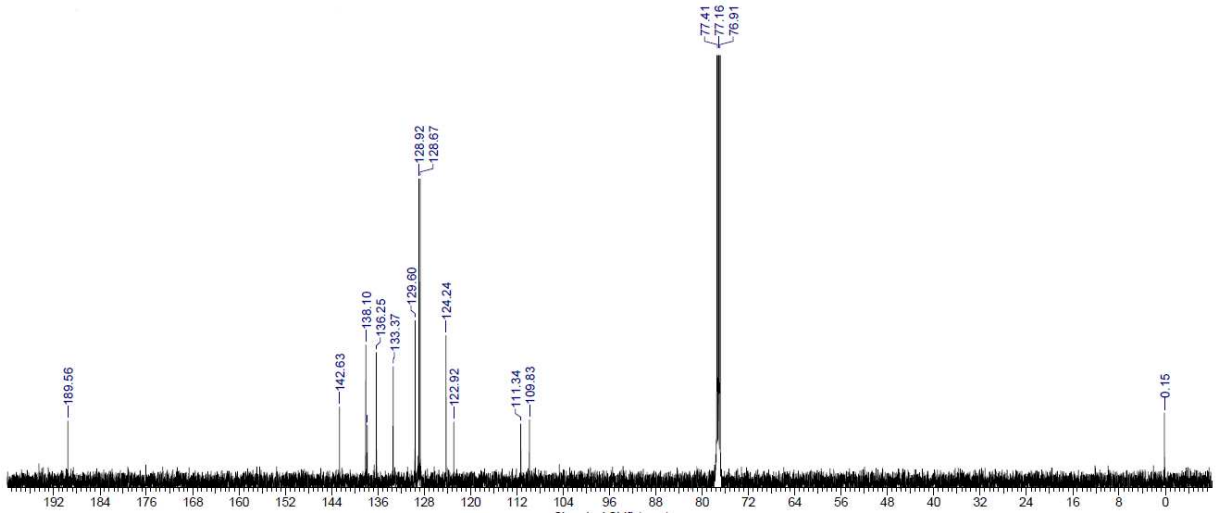


1-7. NMR Spectra of (*E*)-2-Amino-3,5-dibromophenylstyryl Phenyl Ketone (**2v**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

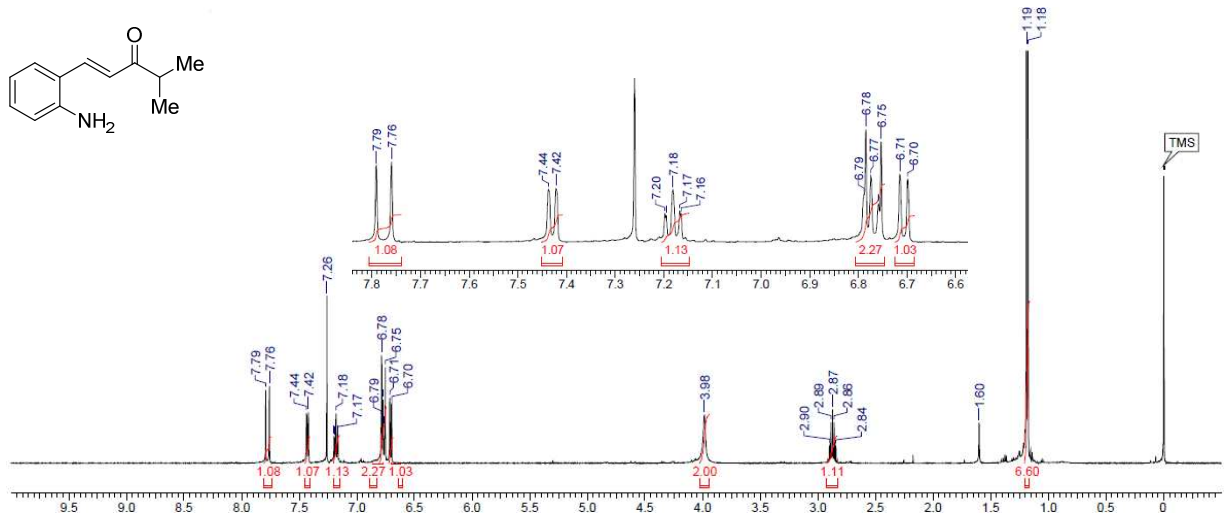


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

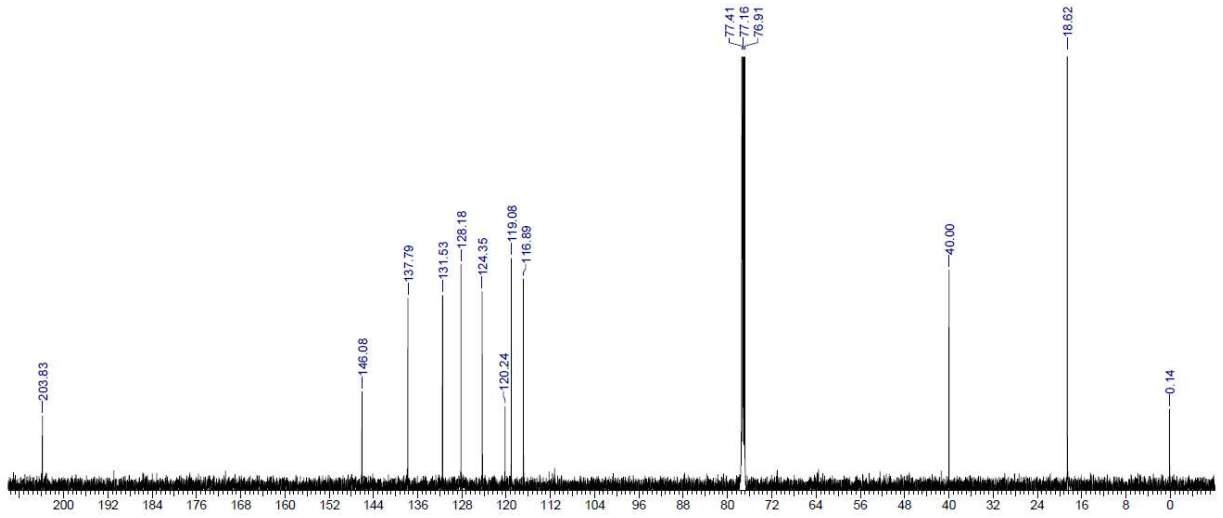


1-8. NMR Spectra of (*E*)-2-Aminophenylstyryl Isopropyl Ketone (**2y**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)



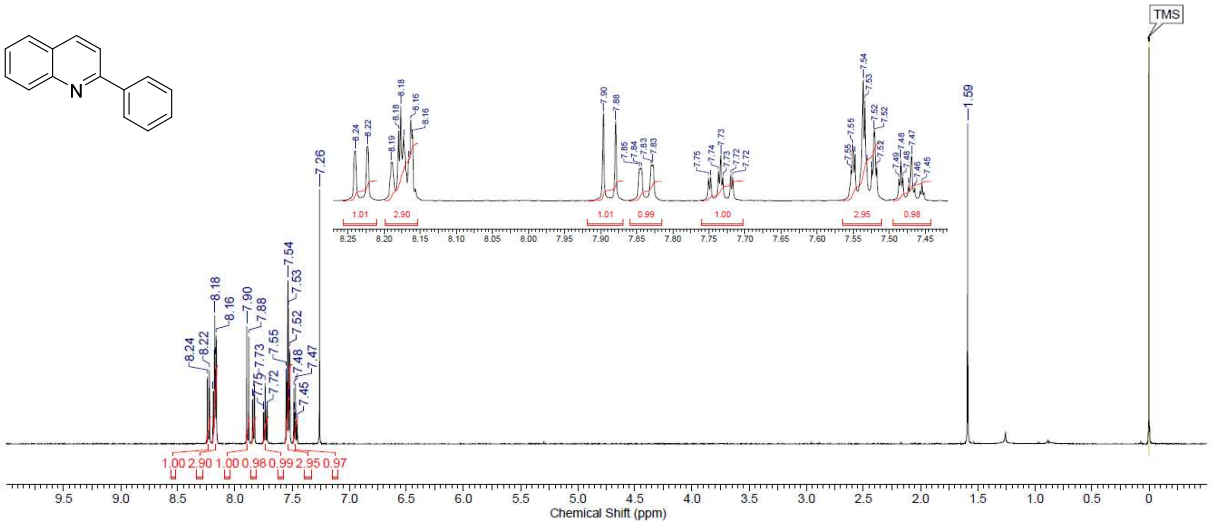
b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)



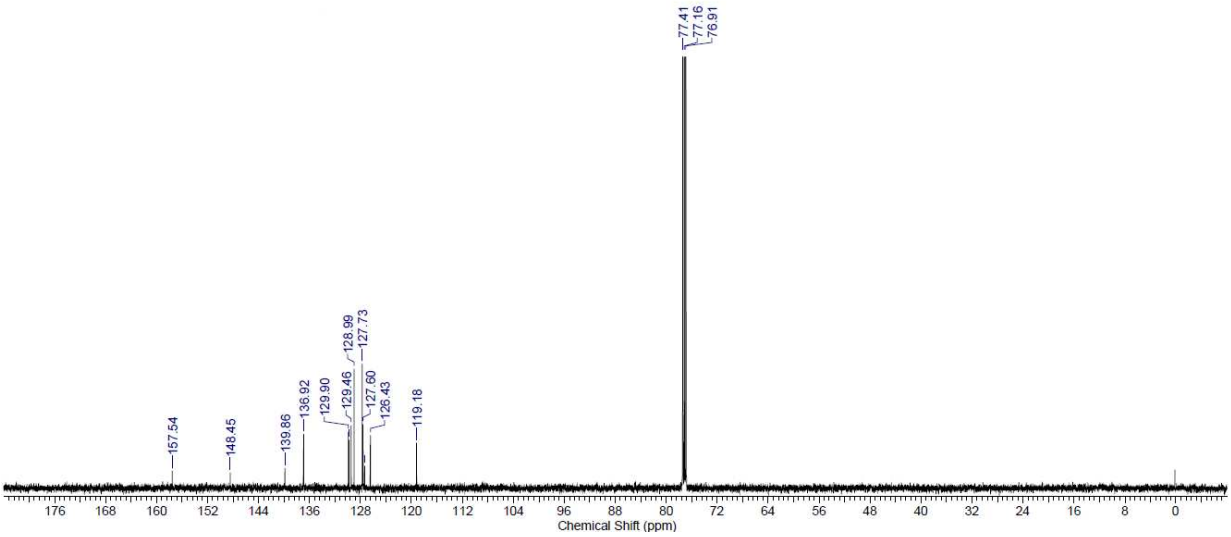
2. Spectroscopic Data of 2-Substituted Quinolines 1

2-1. NMR Spectra of 2-Phenylquinoline (**1a**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

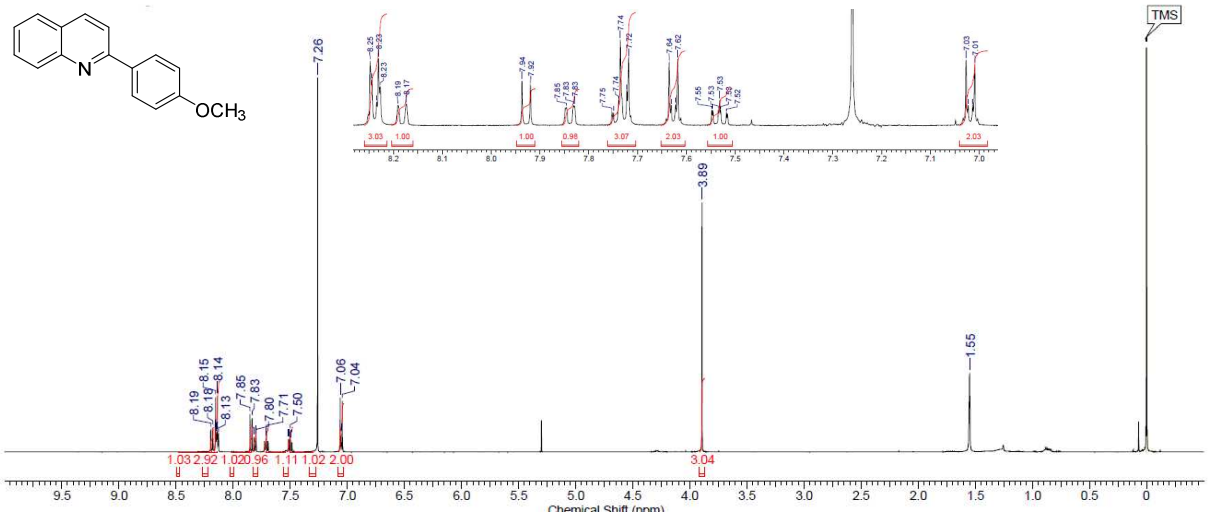


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

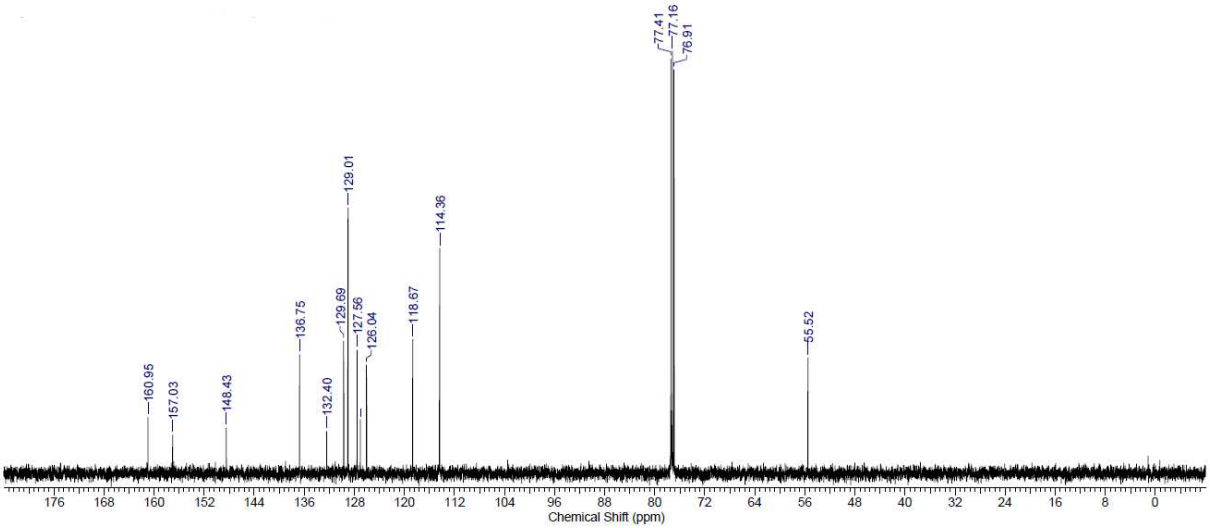


2-2. NMR Spectra of 2-(4-Methoxyphenyl)quinoline (**1b**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

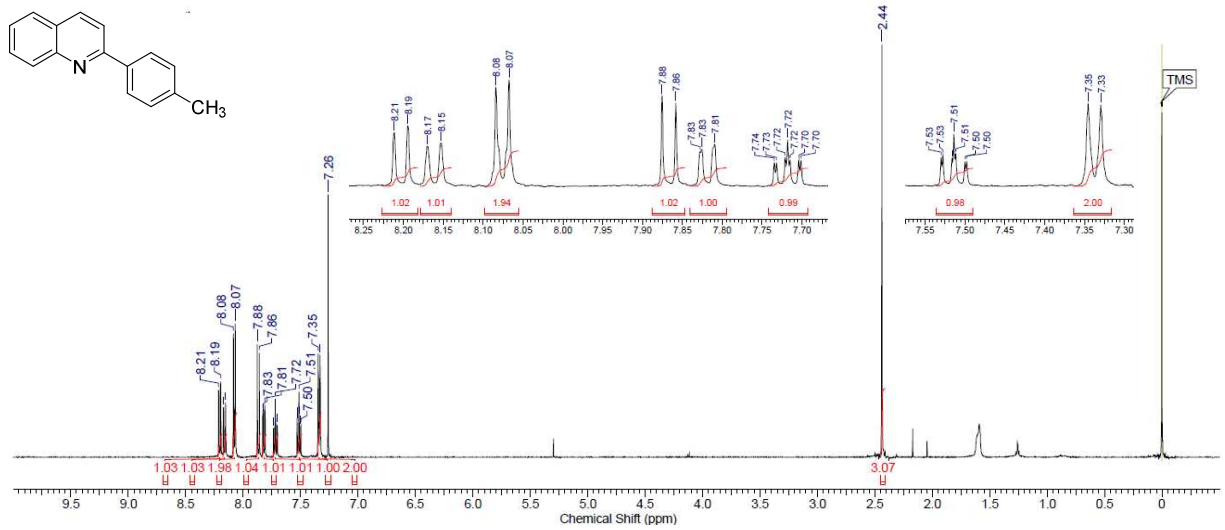


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

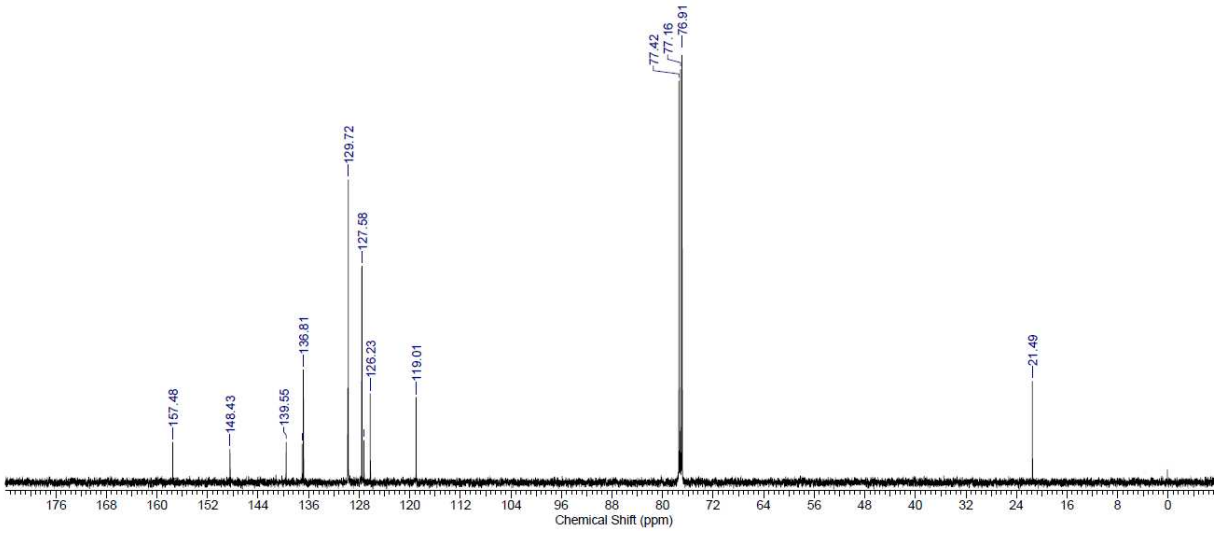


2-3. NMR spectra of 2-(4-Methylphenyl)quinoline (**1c**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

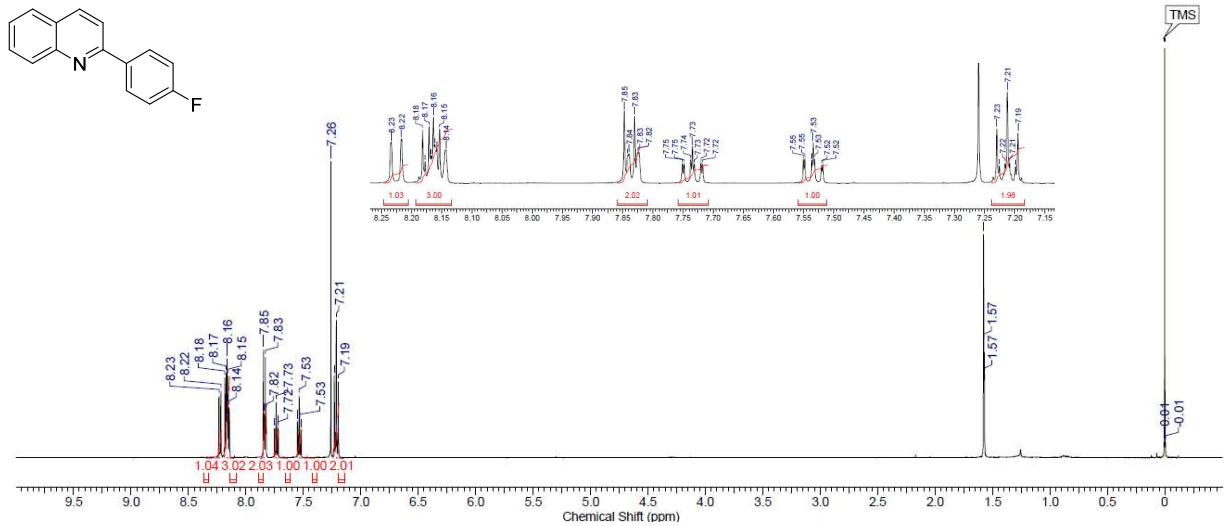


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

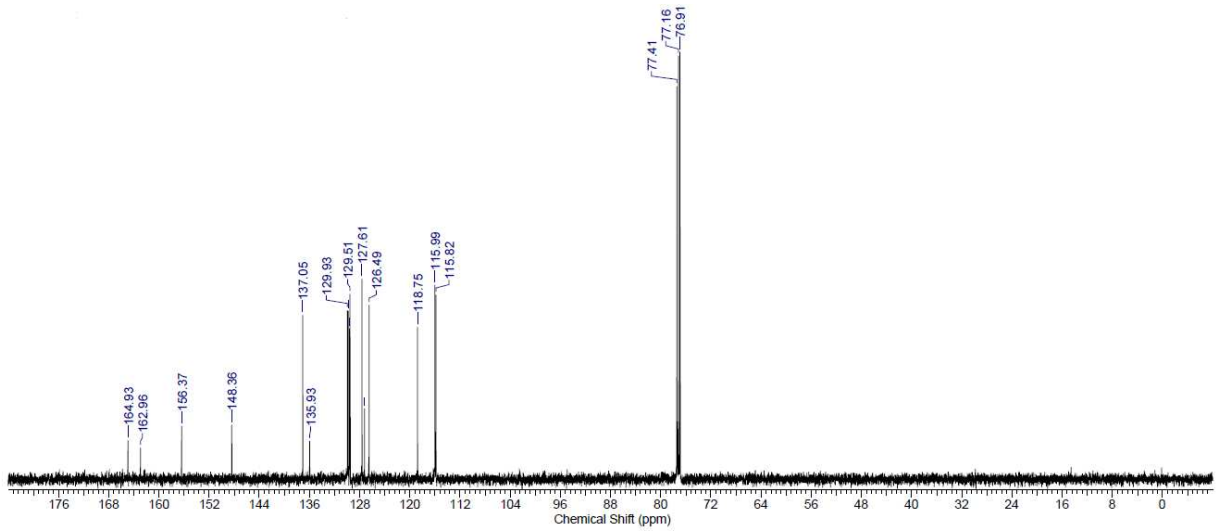


2-4. NMR spectra of 2-(4-Fluorophenyl)quinoline (**1d**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

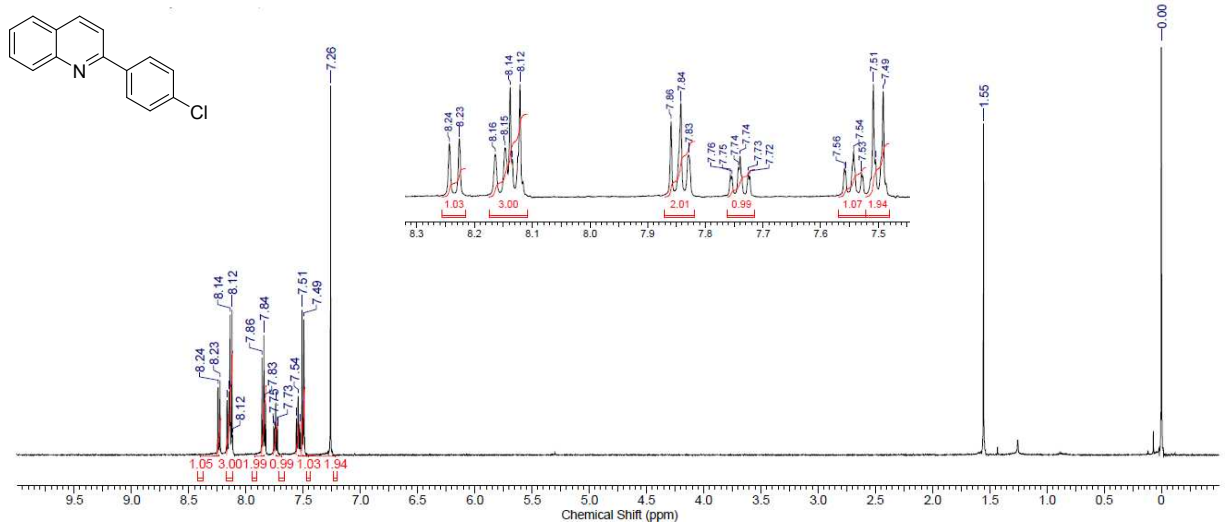


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

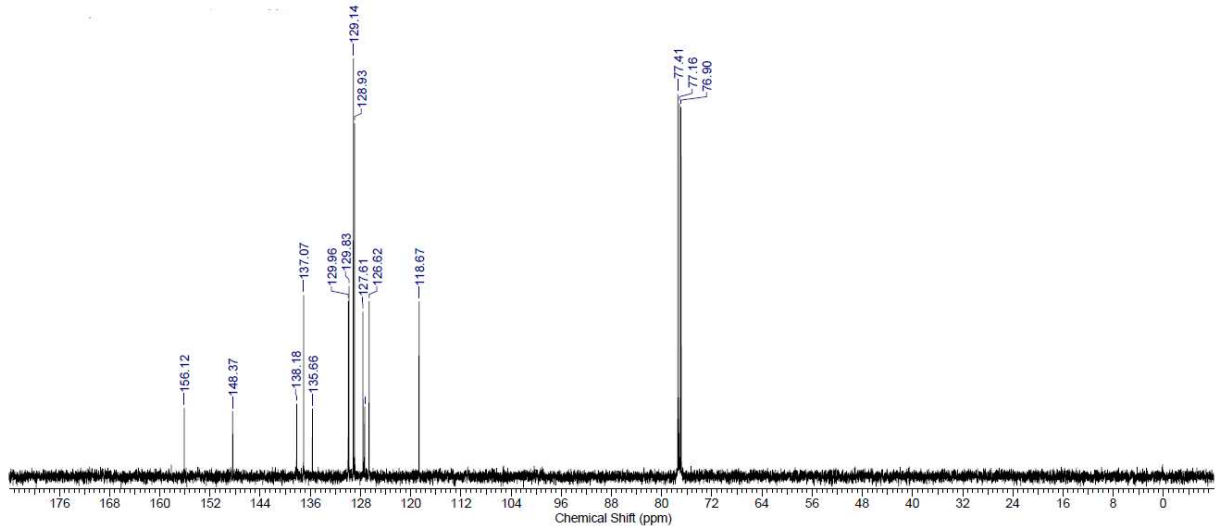


2-5. NMR spectra of 2-(4-Chlorophenyl)quinoline (**1e**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

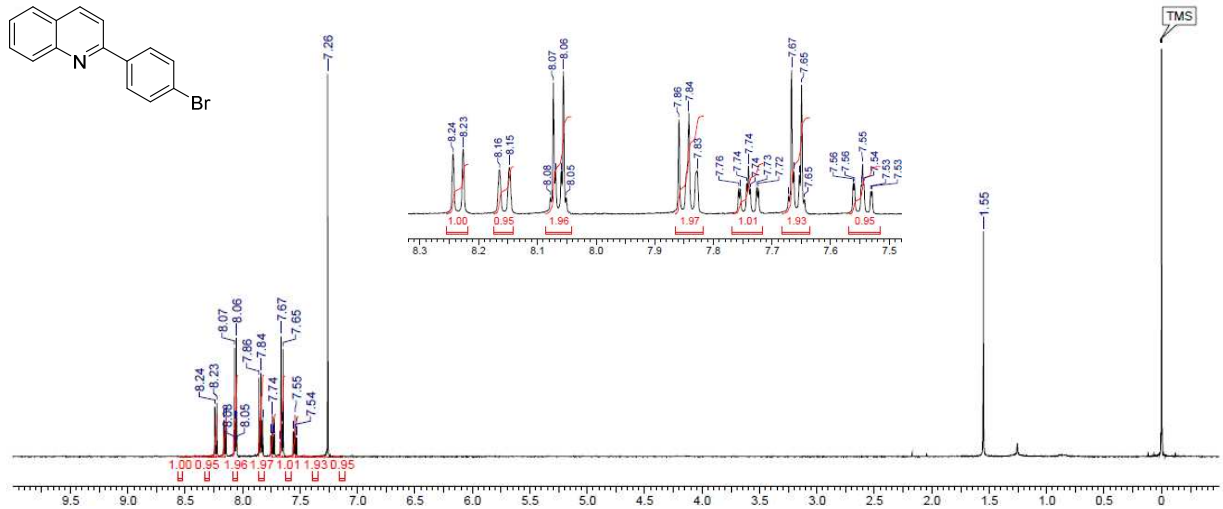


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

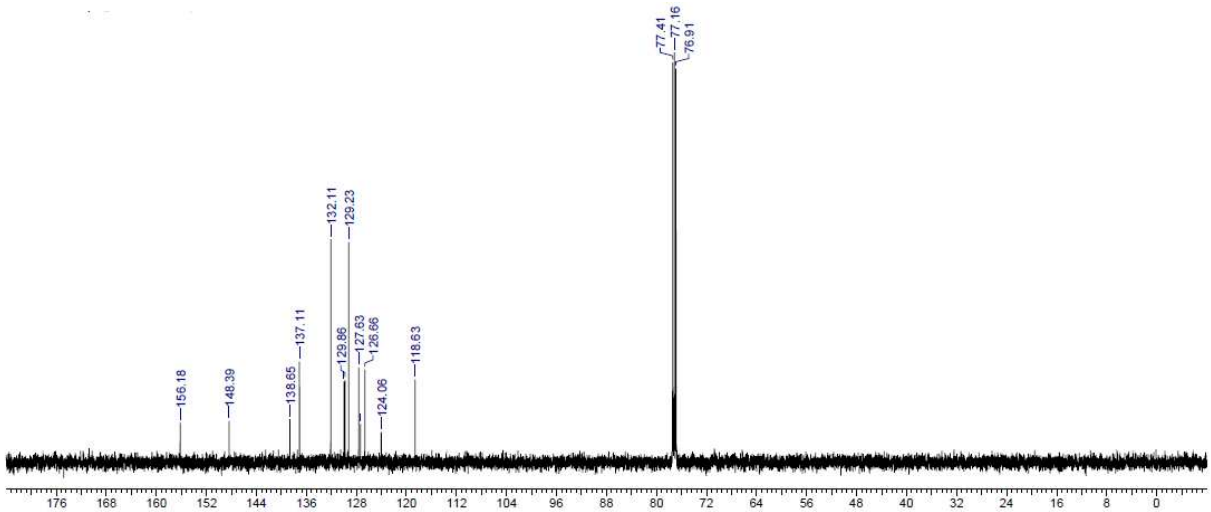


2-6. NMR spectra of 2-(4-Bromophenyl)quinoline (**1f**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

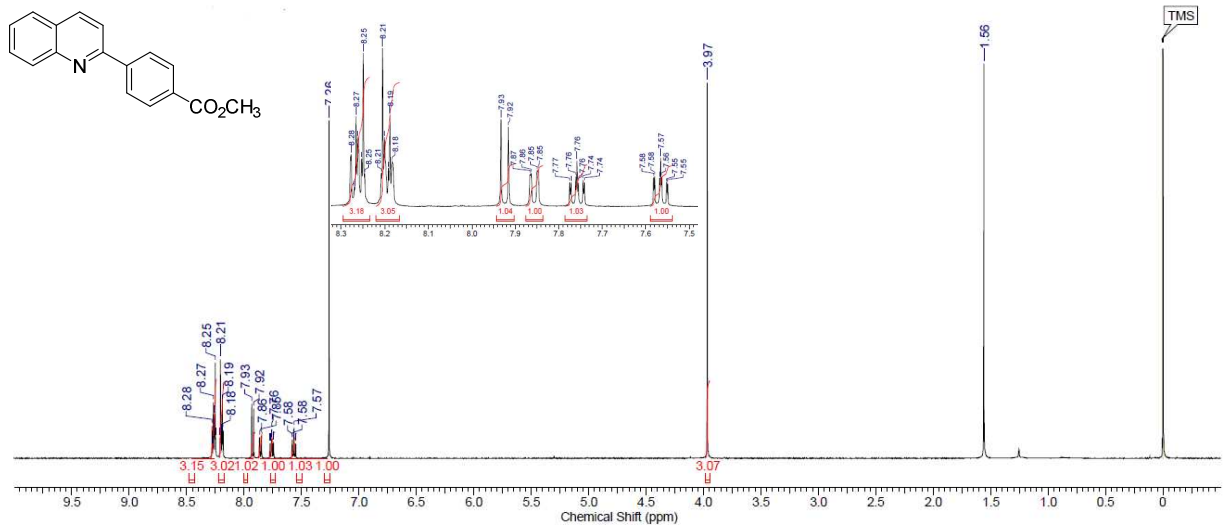


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

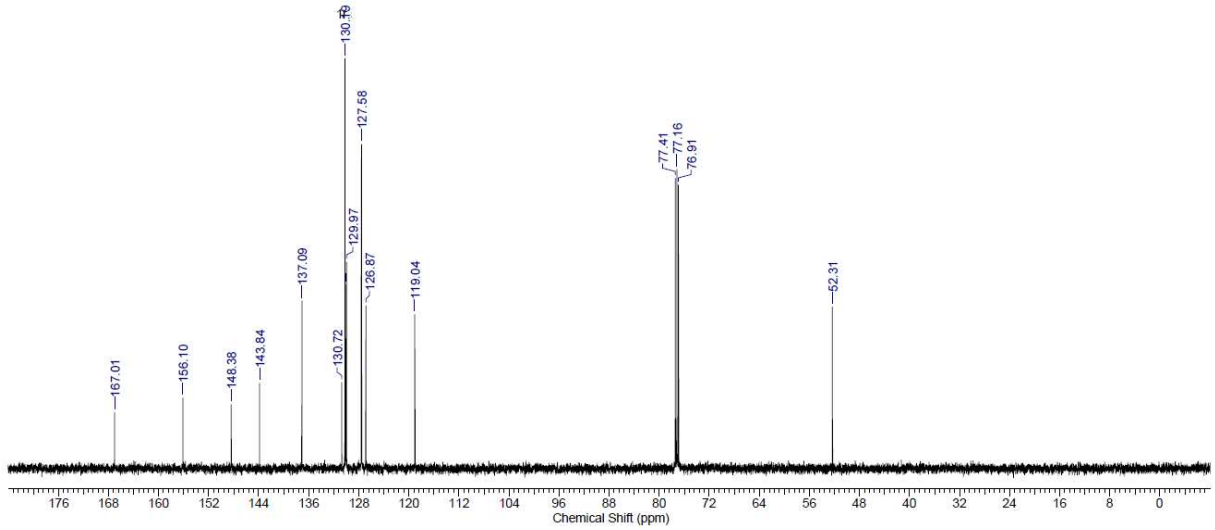


2-7. NMR spectra of 2-(4-Methoxycarbonylphenyl)quinoline (**1g**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

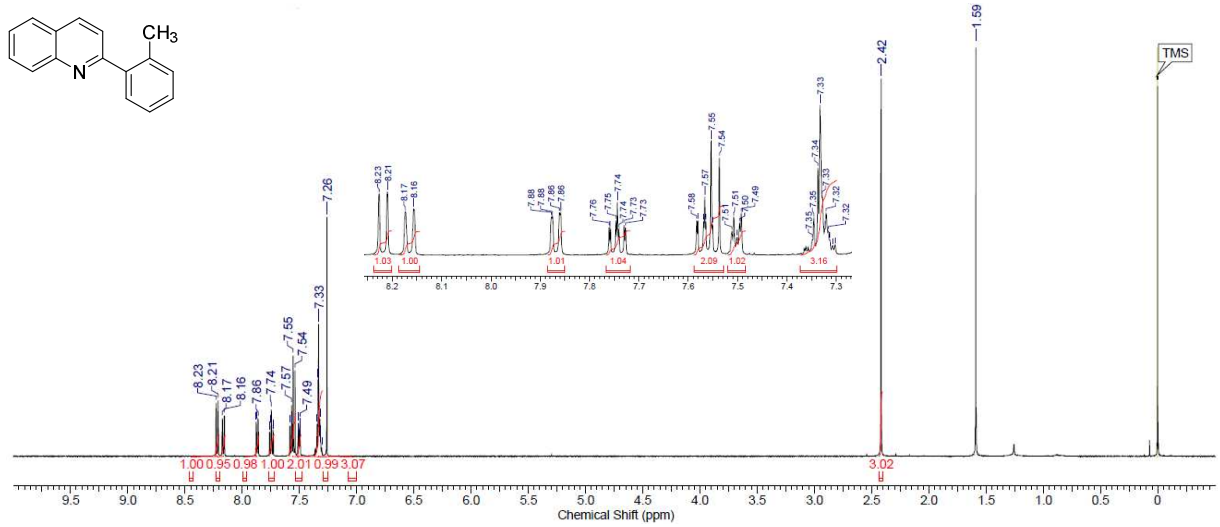


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

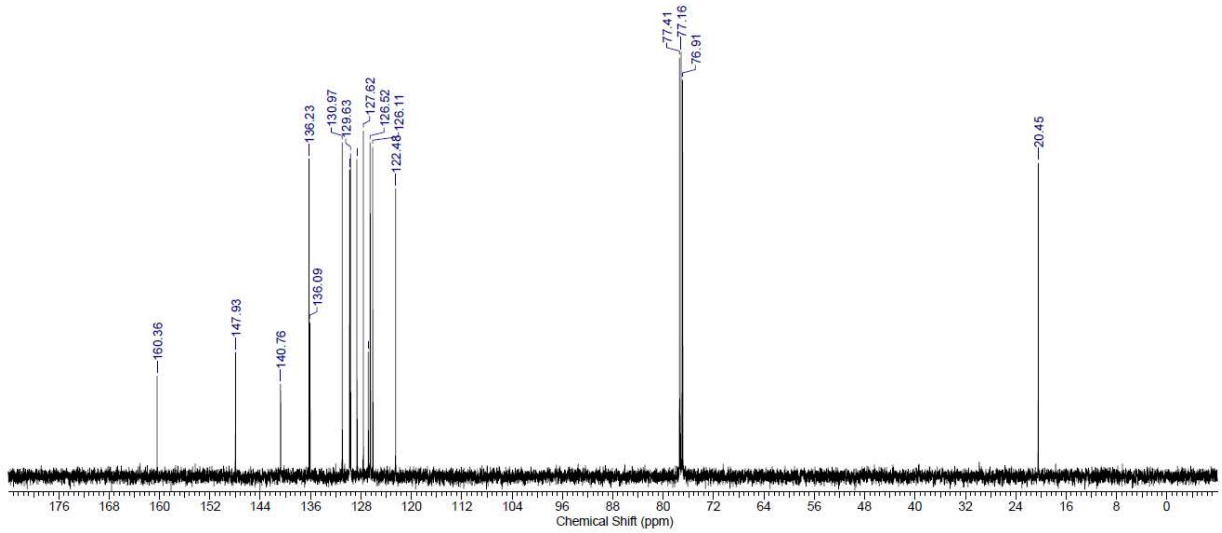


2-8. NMR spectra of 2-(2-Methylphenyl)quinoline (**1h**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

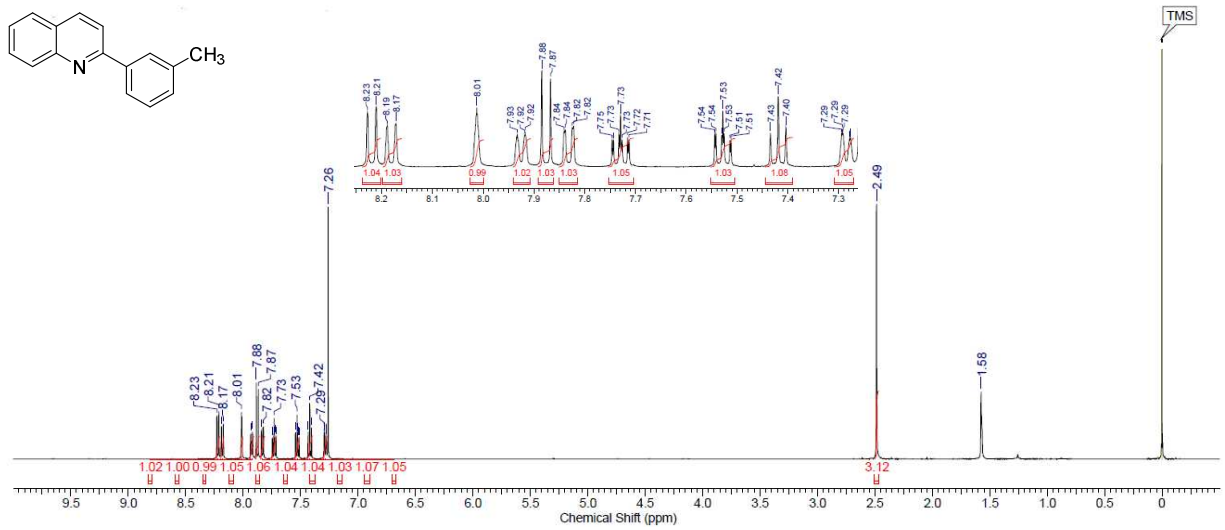


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

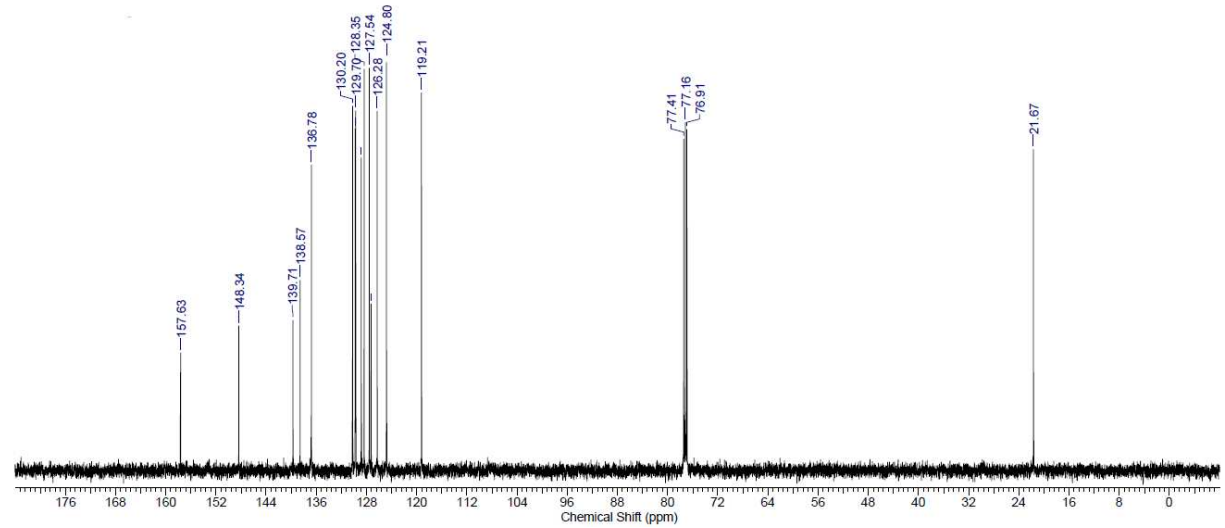


2-9. NMR spectra of 2-(3-Methylphenyl)quinoline (**1i**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

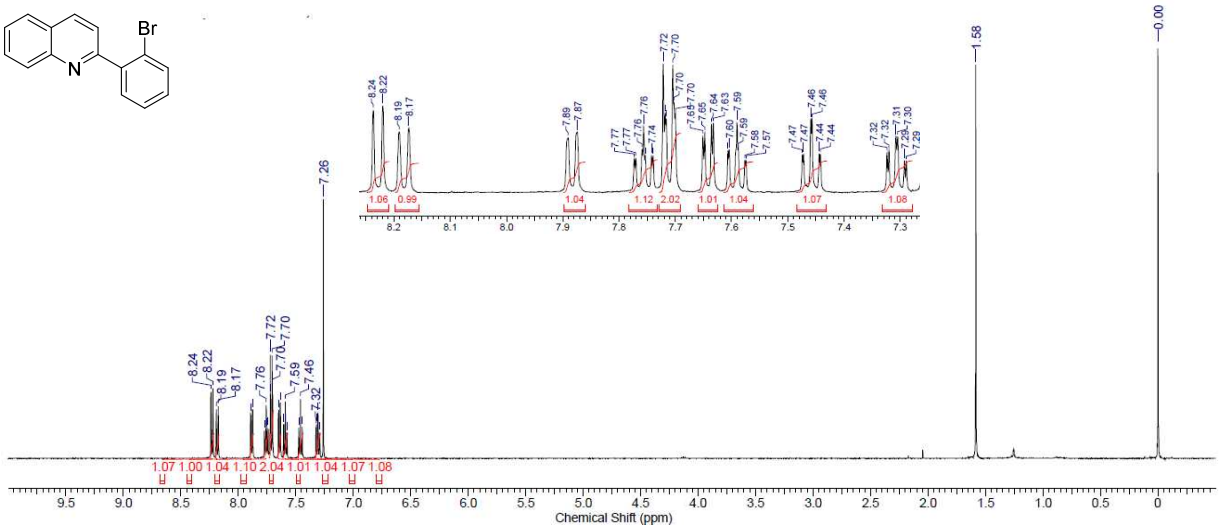


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

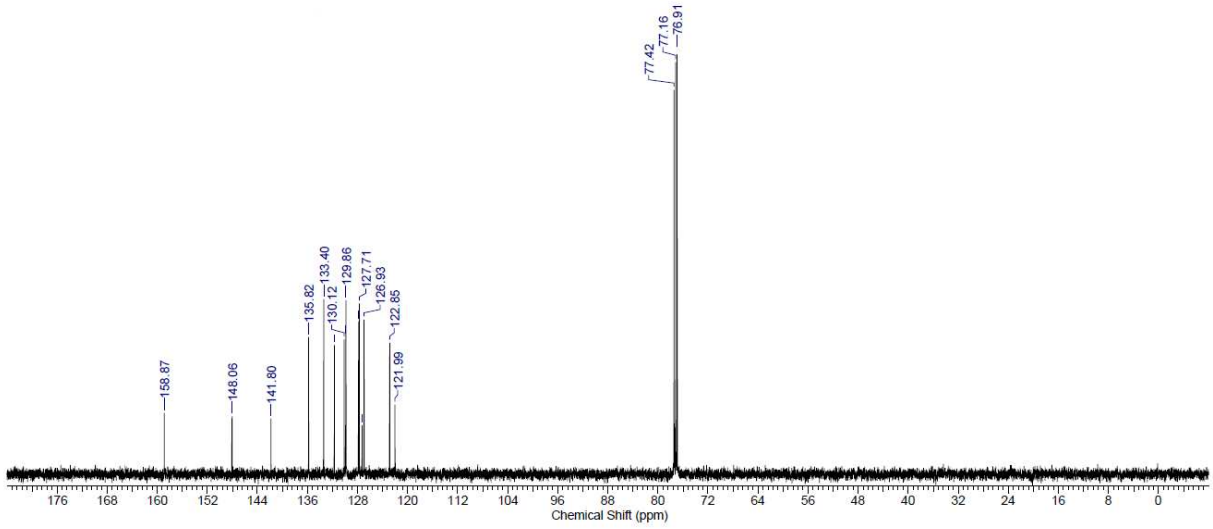


2-10. NMR spectra of 2-(2-Bromophenyl)quinoline (**1j**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

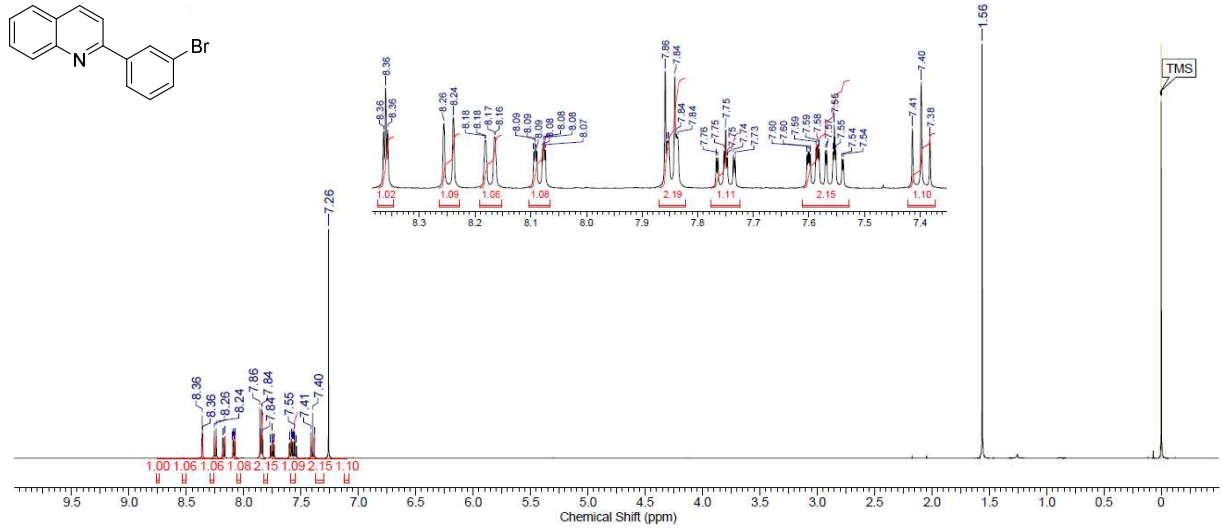


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

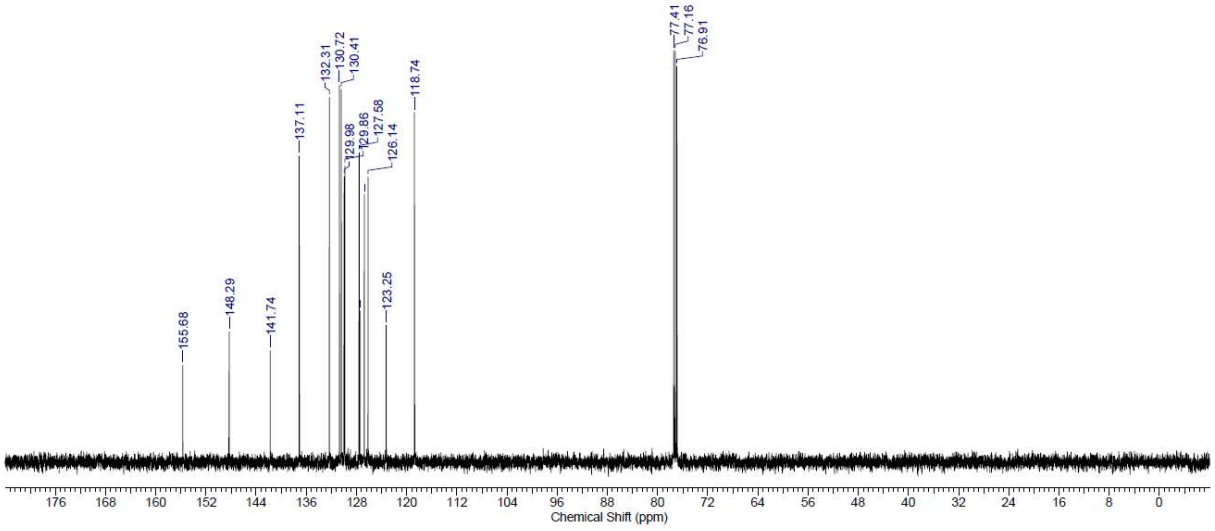


2-11. NMR spectra of 2-(3-Bromophenyl)quinoline (**1k**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

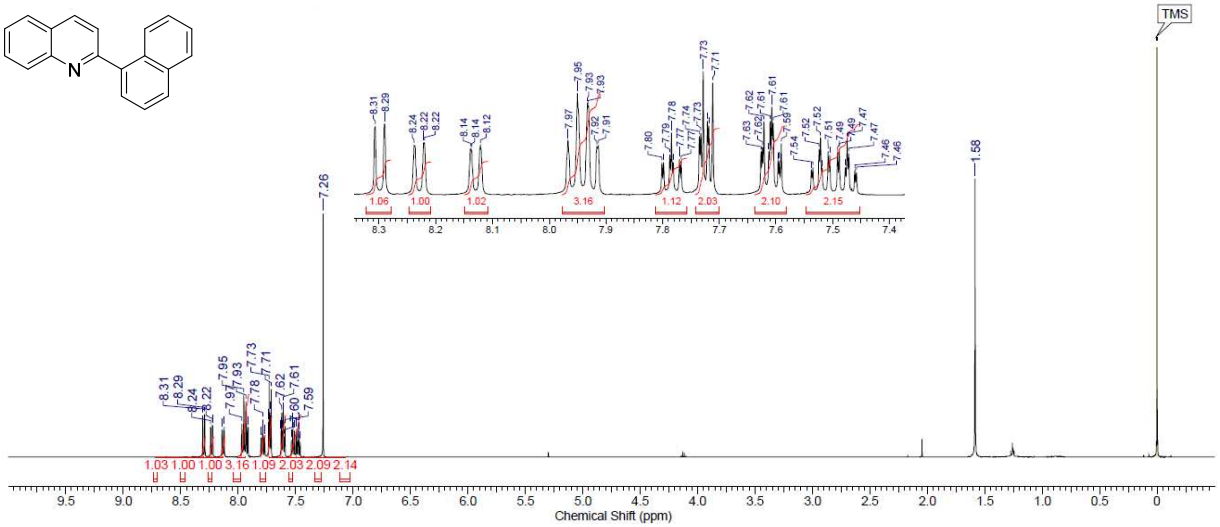


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

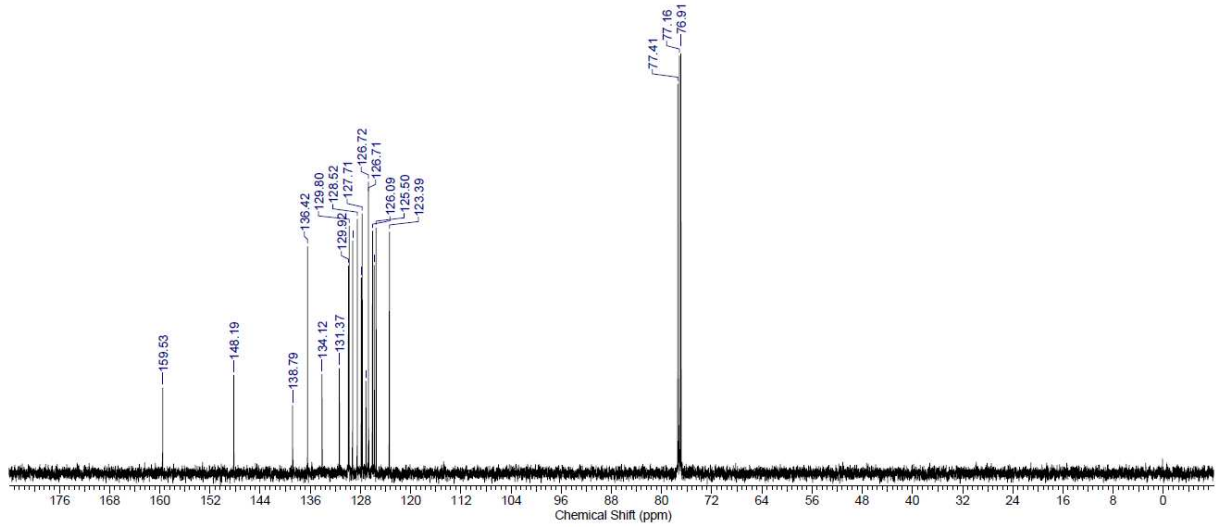


2-12. NMR spectra of 2-(1-Naphthyl)quinoline (**1l**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

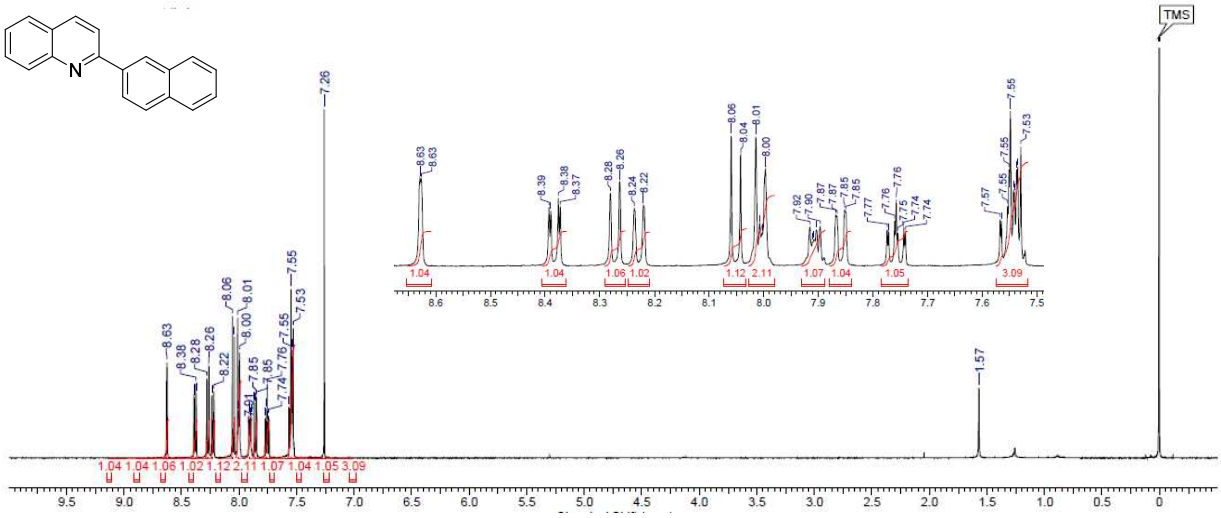


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

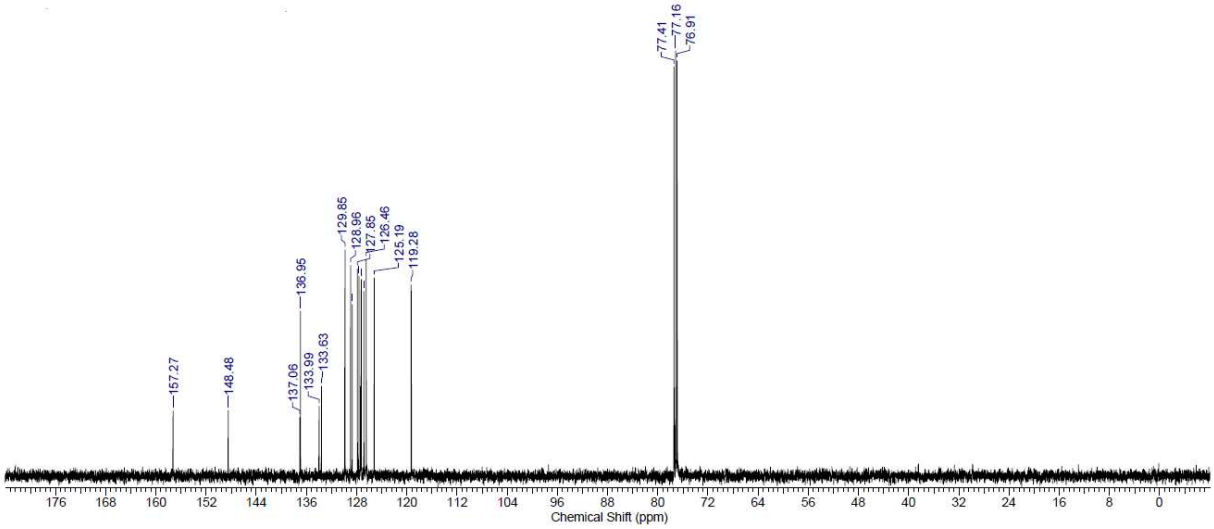


2-13. NMR spectra of 2-(2-Naphthyl)quinoline (**1m**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

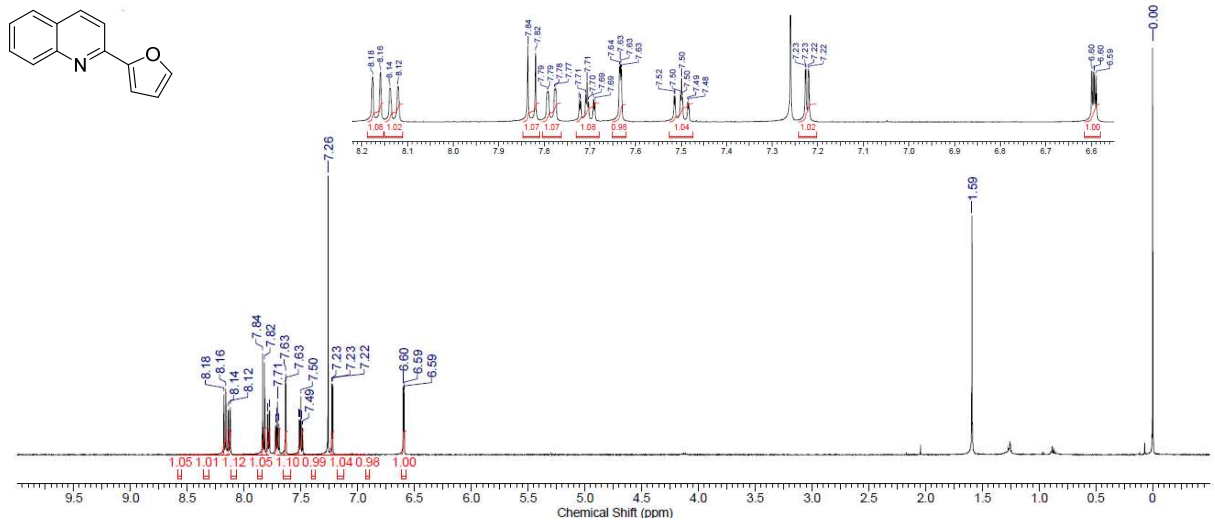


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

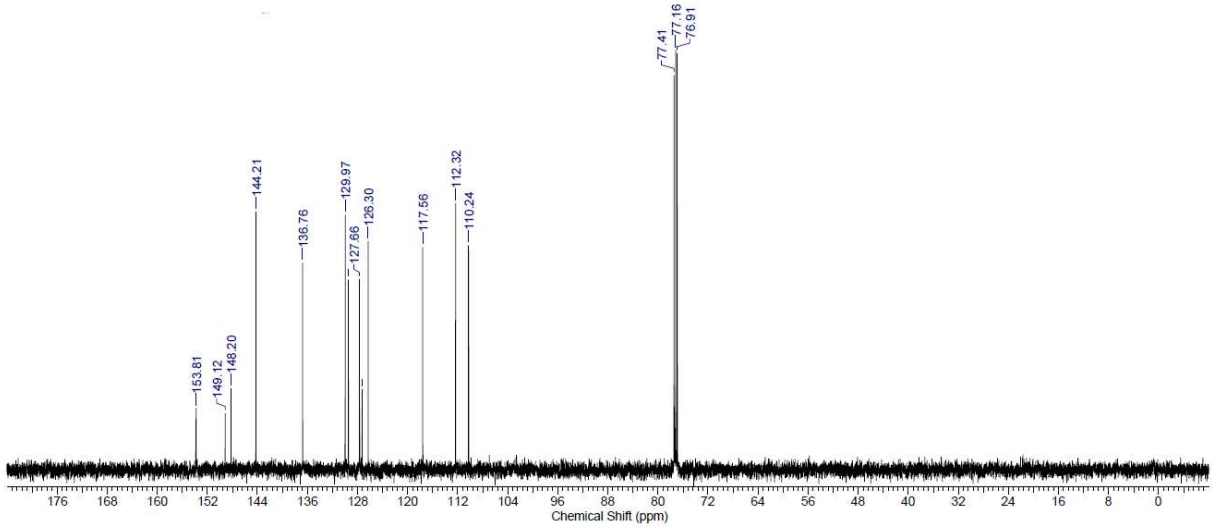


2-14. NMR spectra of 2-(2-Furyl)quinoline (**1n**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

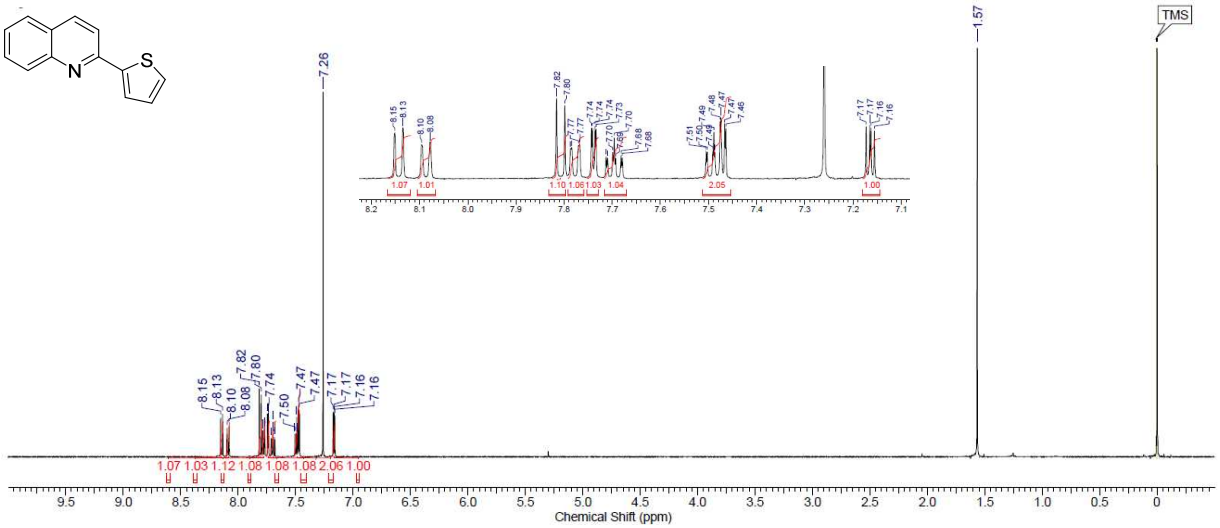


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

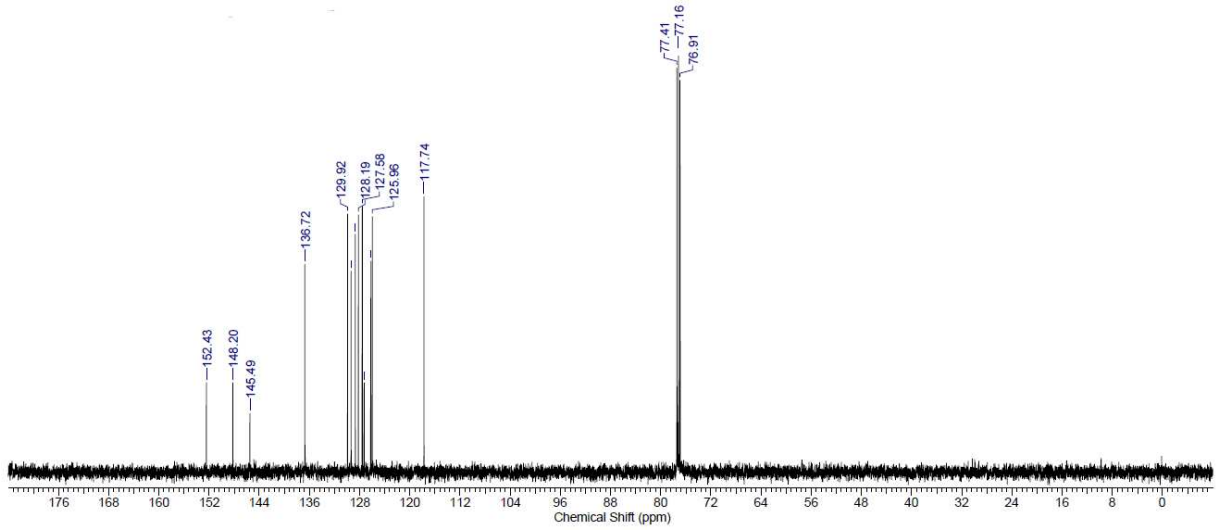


2-15. NMR spectra of 2-(2-Thienyl)quinoline (**1o**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

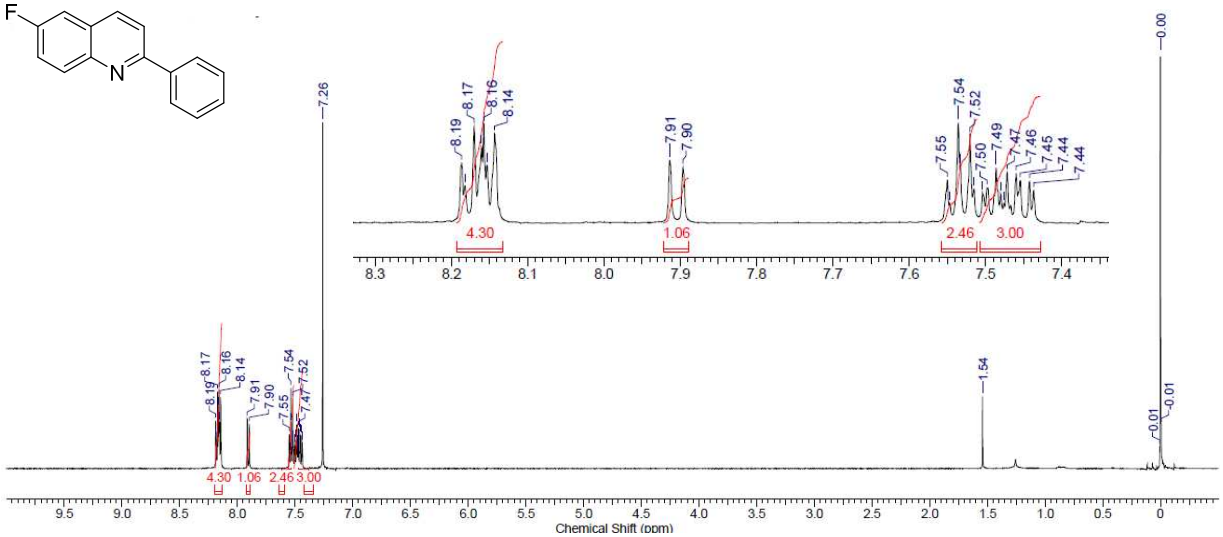


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

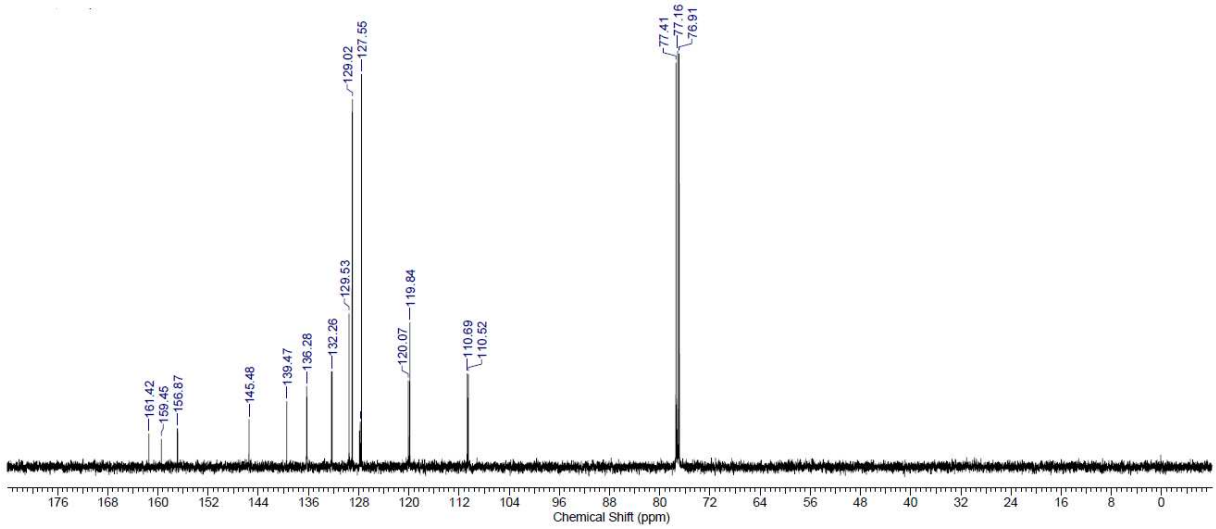


2-16. NMR spectra of 6-Fluoro-2-phenylquinoline (**1p**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

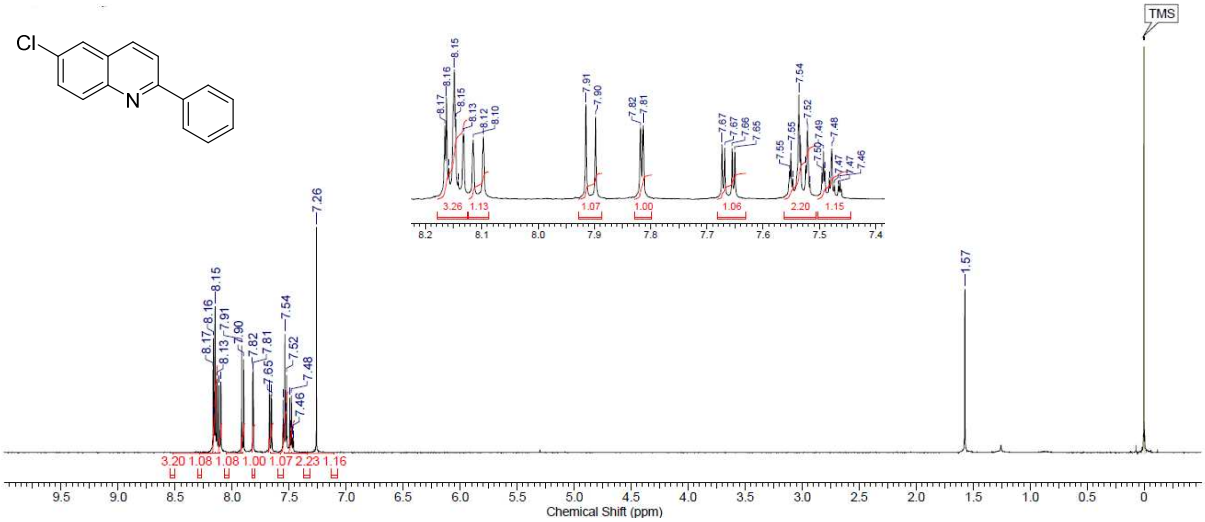


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

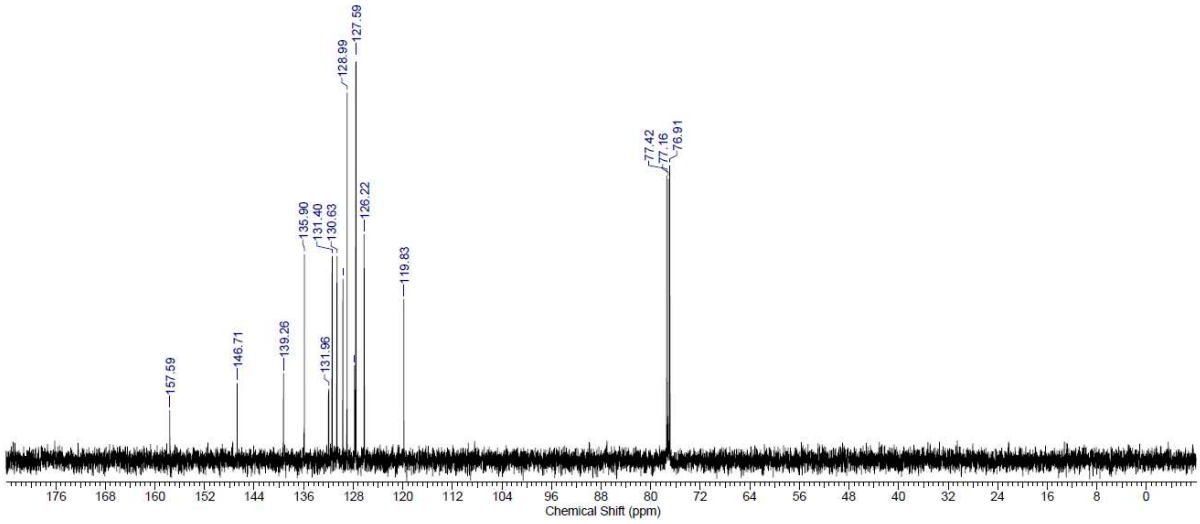


2-17. NMR spectra of 6-Chloro-2-phenylquinoline (**1q**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

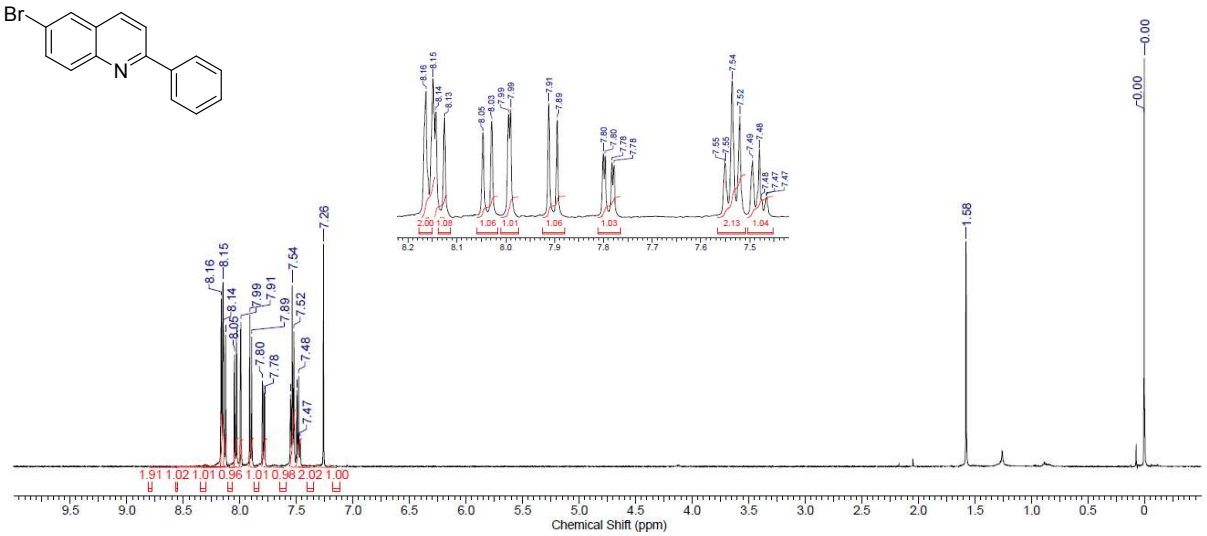


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

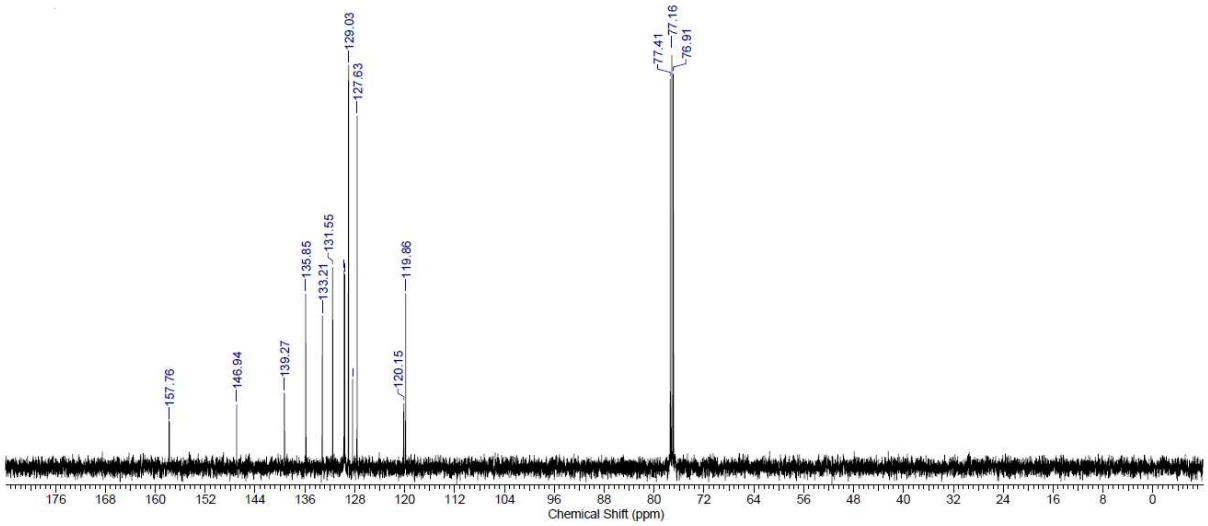


2-18. NMR spectra of 6-Bromo-2-phenylquinoline (**1r**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

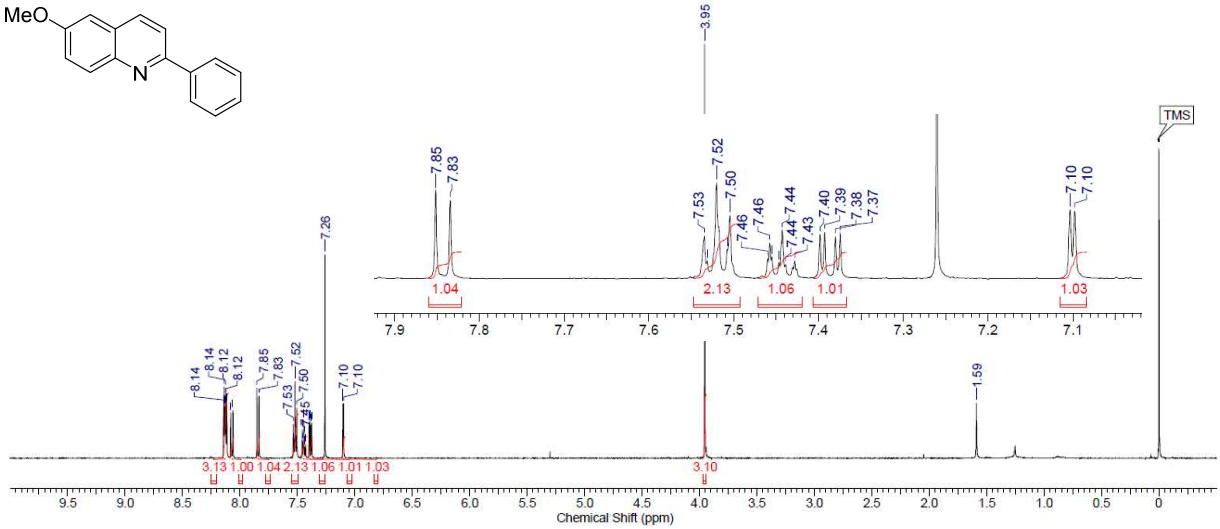


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

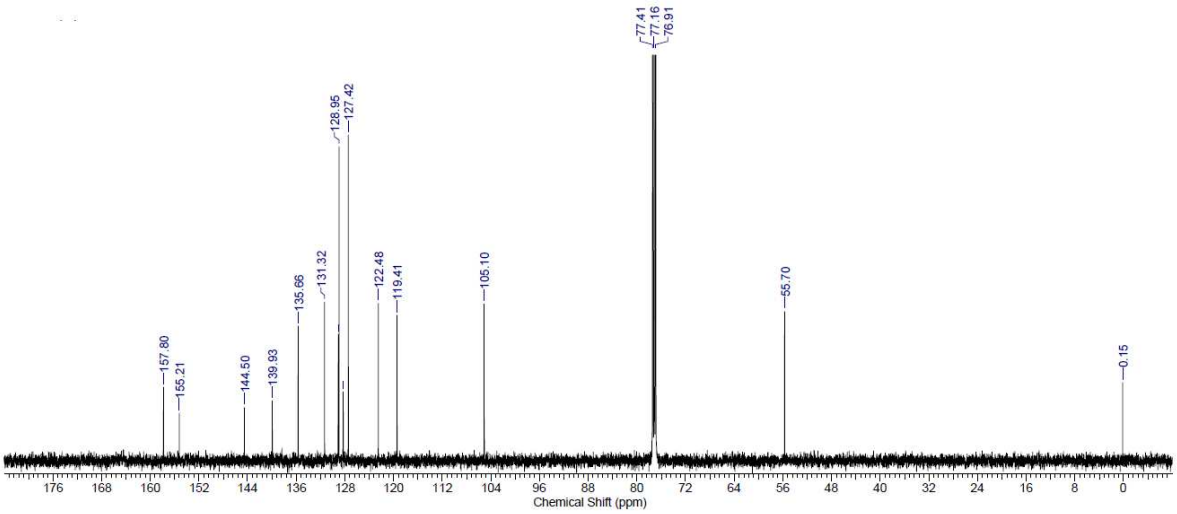


2-19. NMR spectra of 6-Methoxy-2-phenylquinoline (**1s**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

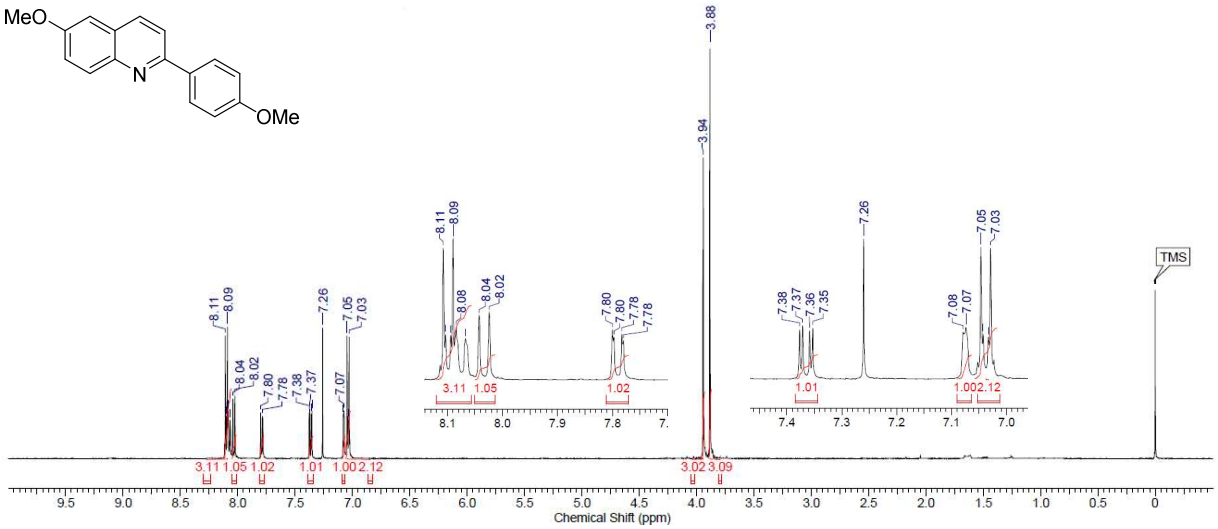


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

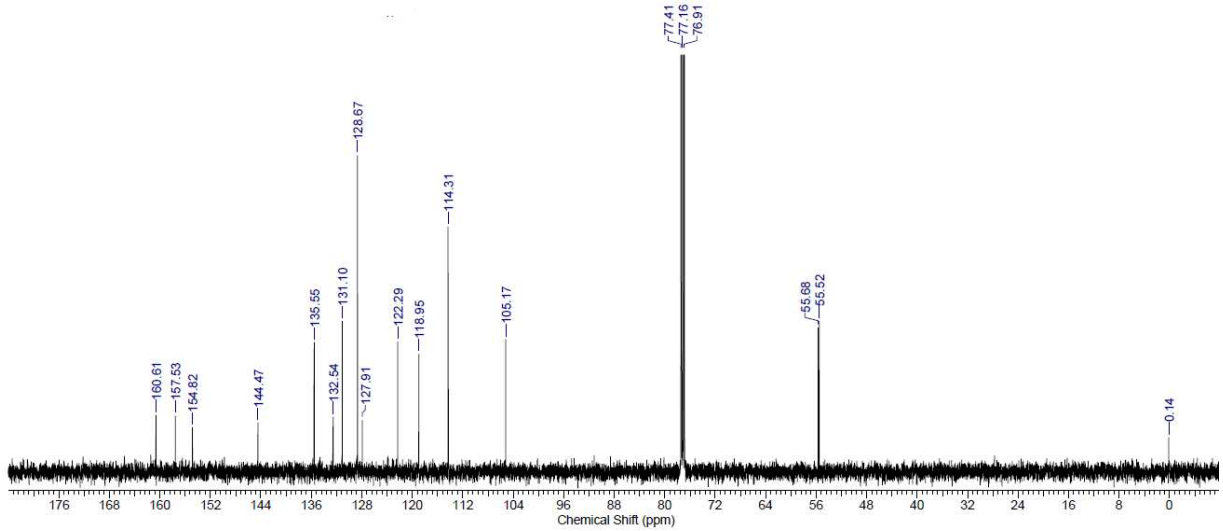


2-20. NMR spectra of 6-Methoxy-2-(4-methoxyphenyl)quinoline (**1t**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

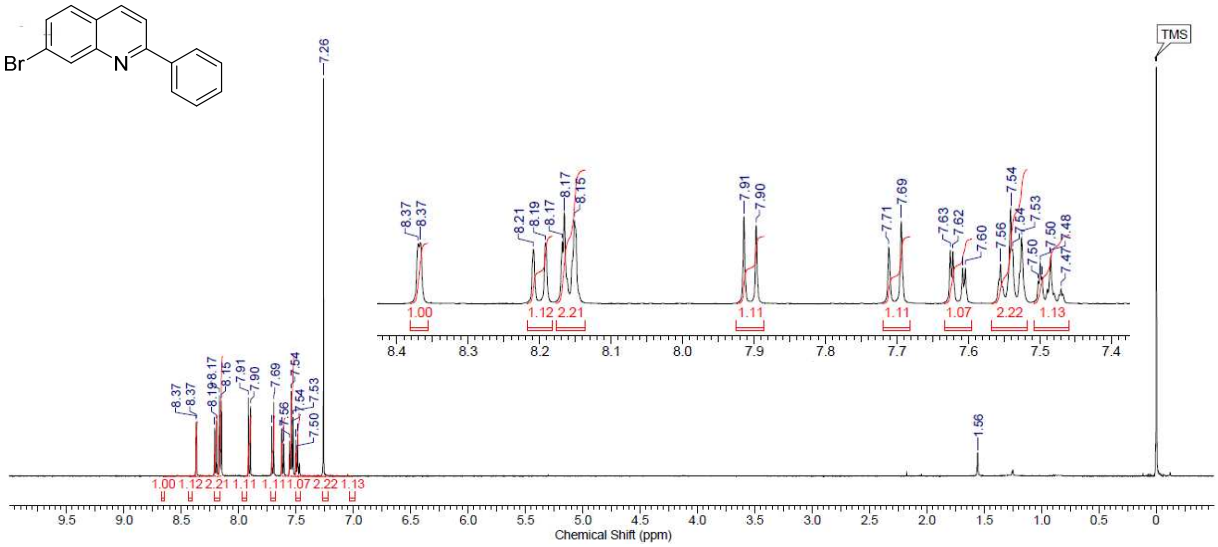


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

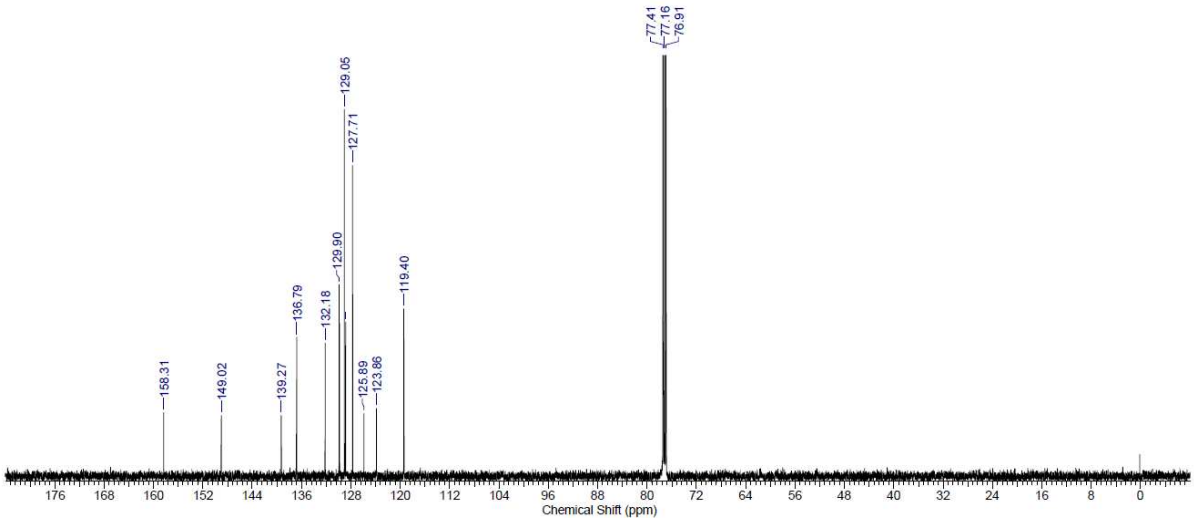


2-21. NMR spectra of 7-Bromo-2-phenylquinoline (**1u**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

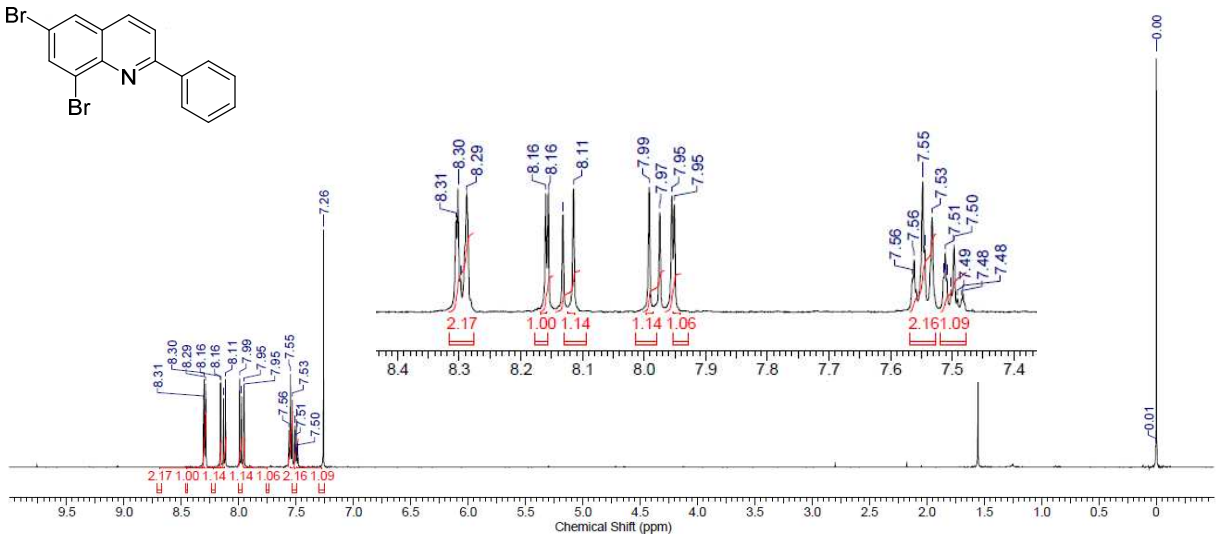


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

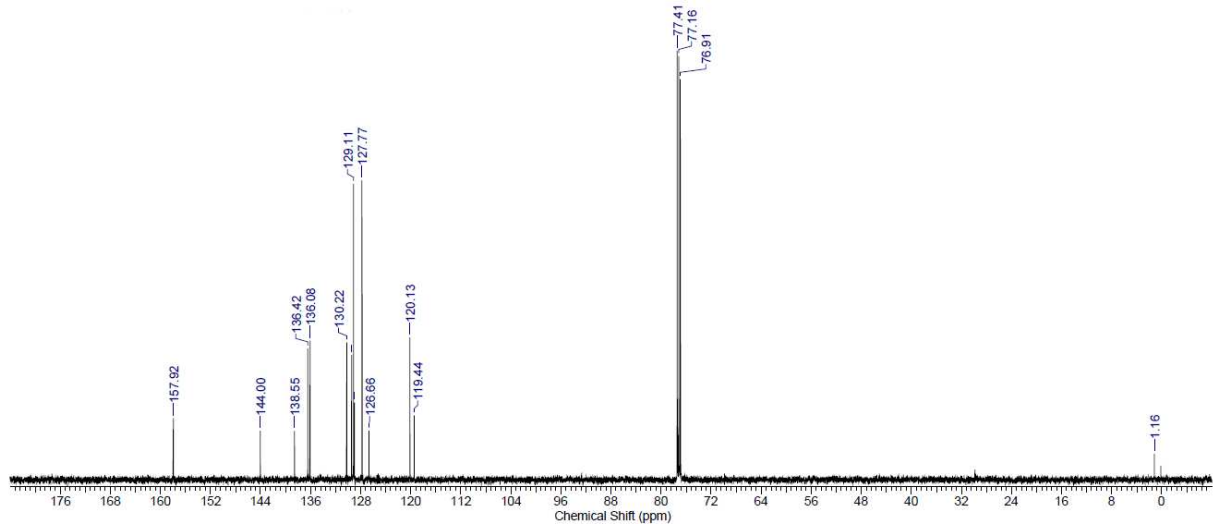


2-22. NMR spectra of 6,8-Dibromo-2-phenylquinoline (**1v**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

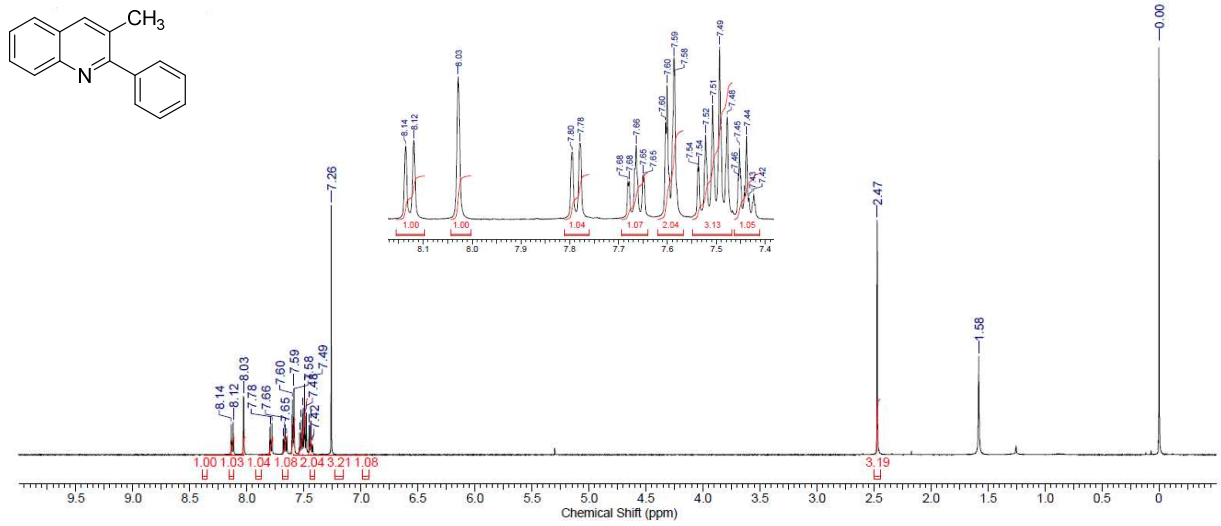


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

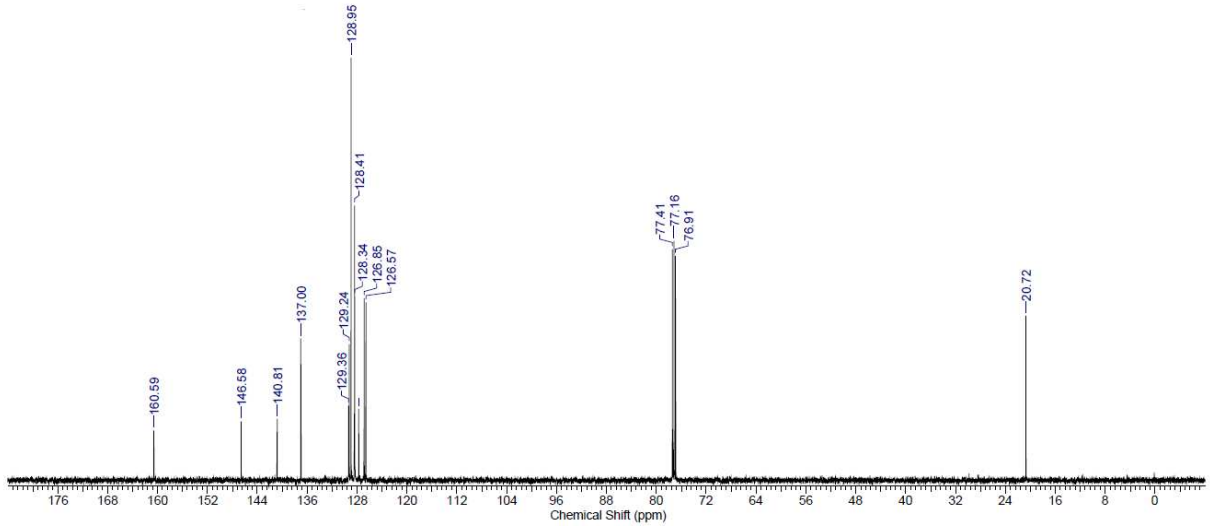


2-23. NMR spectra of 3-Methyl-2-phenylquinoline (**1w**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

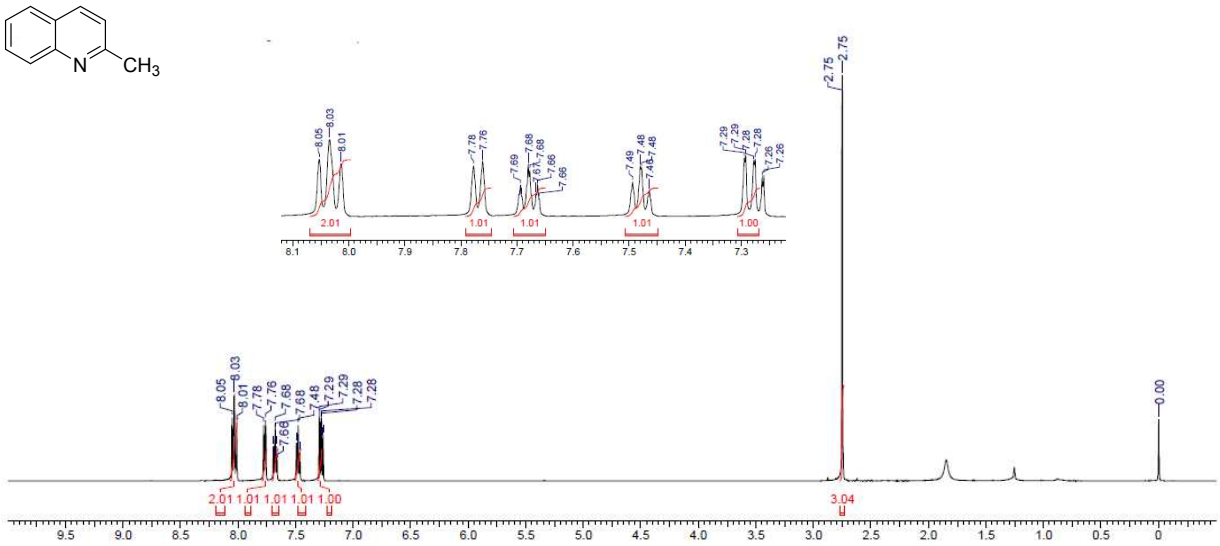


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

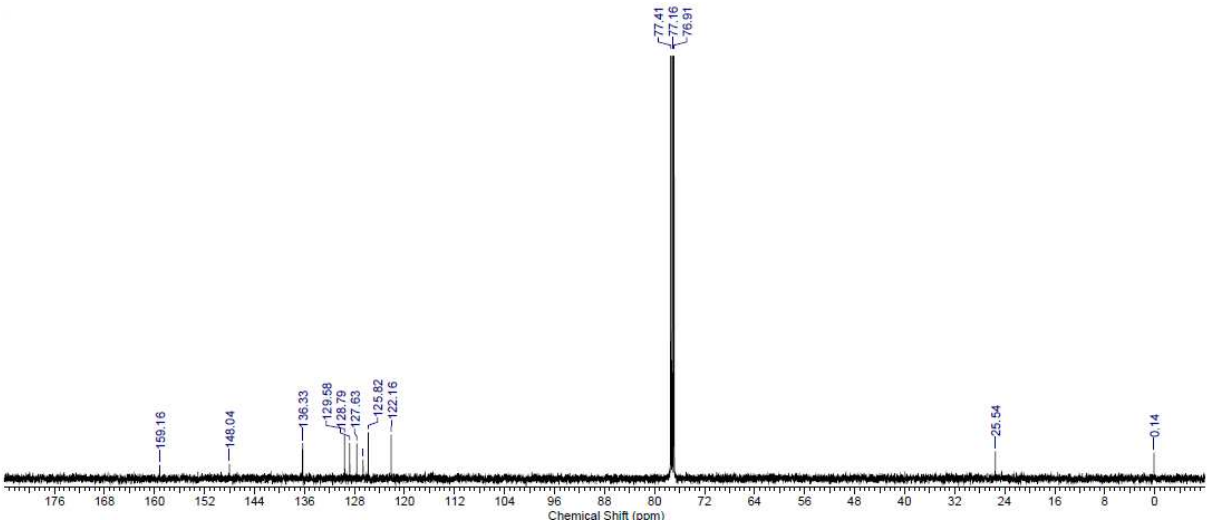


2-24. NMR spectra of 2-Methylquinoline (**1x**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

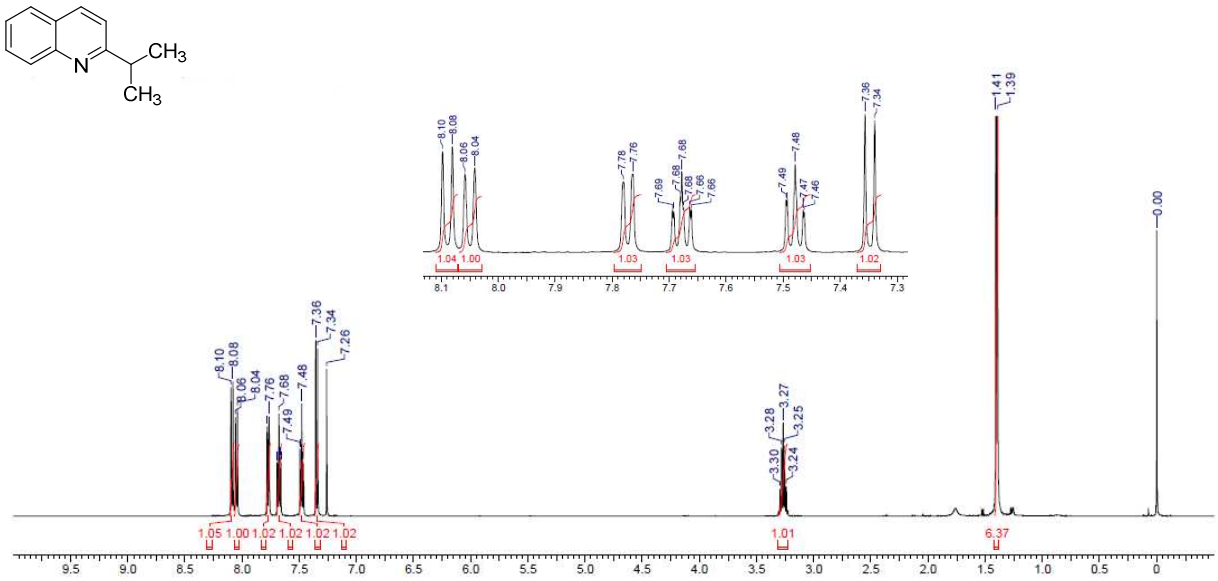


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

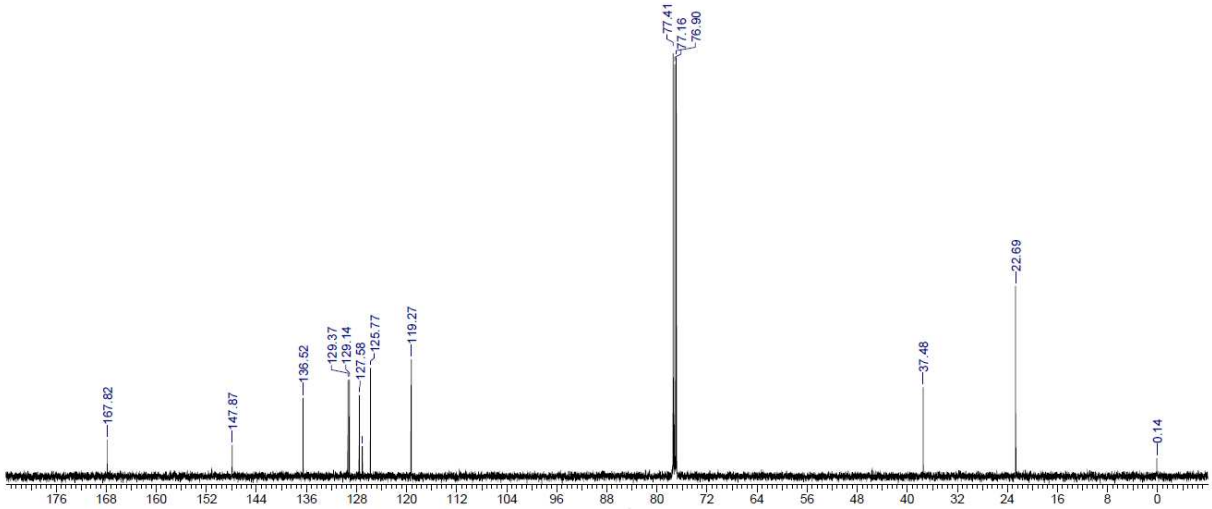


2-25. NMR spectra of 2-Isopropylquinoline (**1y**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

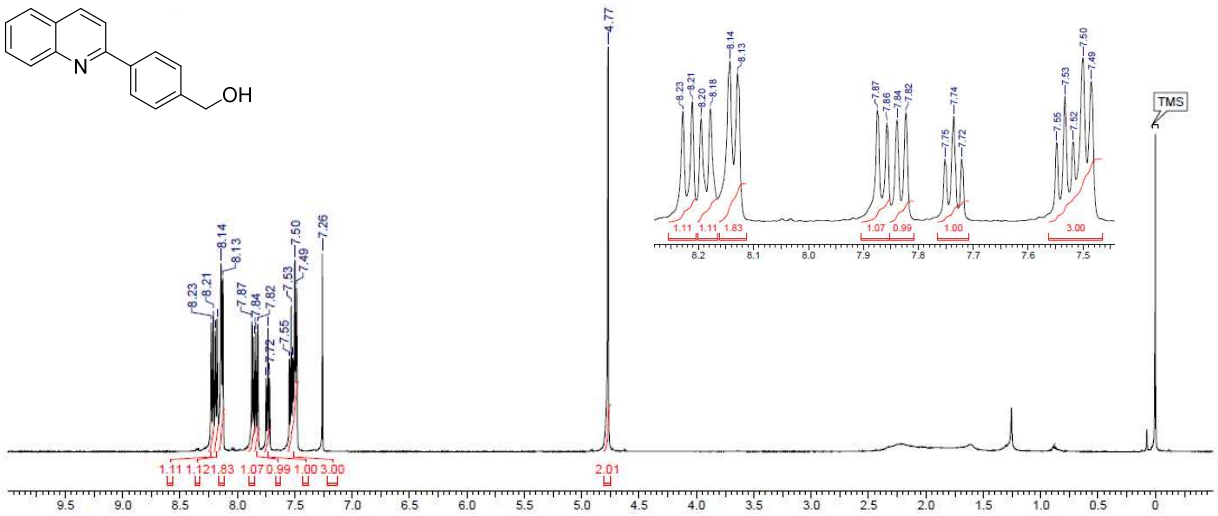


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

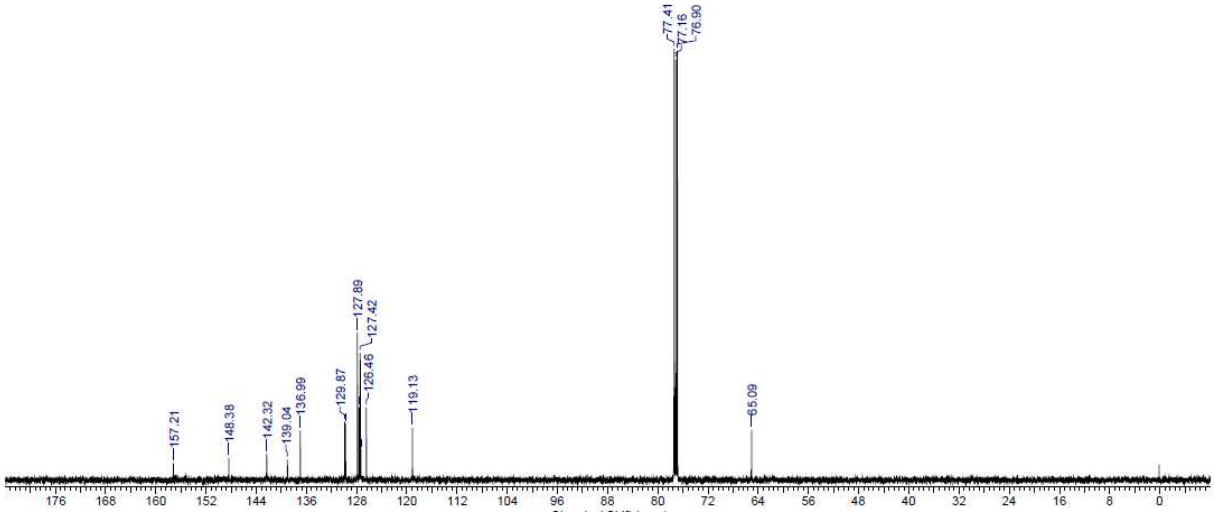


3. Spectroscopic Data of 2-(4-Hydroxymethylphenyl)quinoline (3)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)



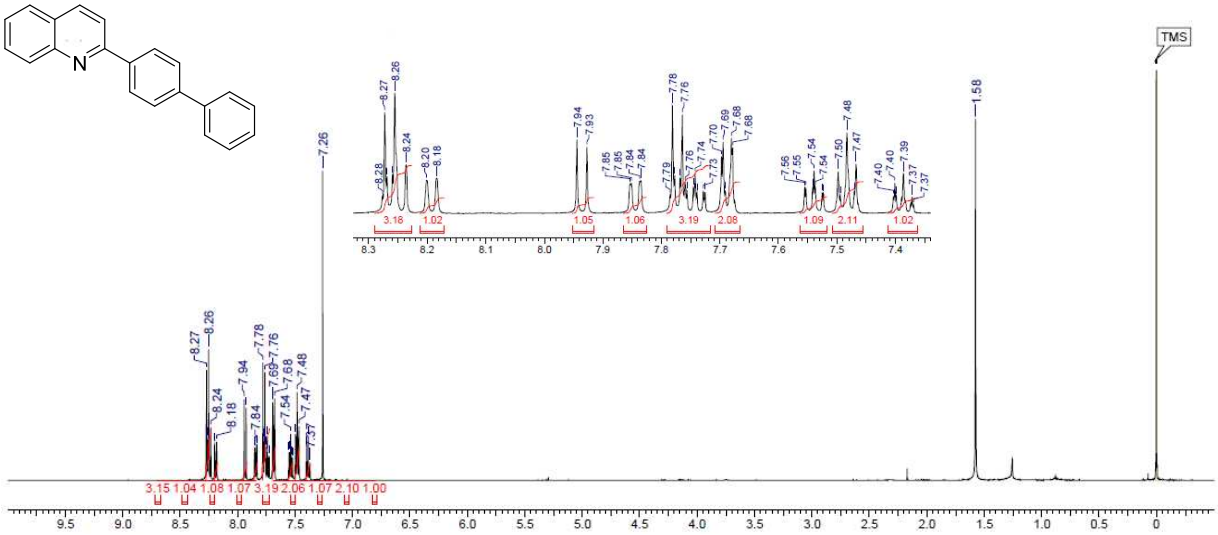
b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)



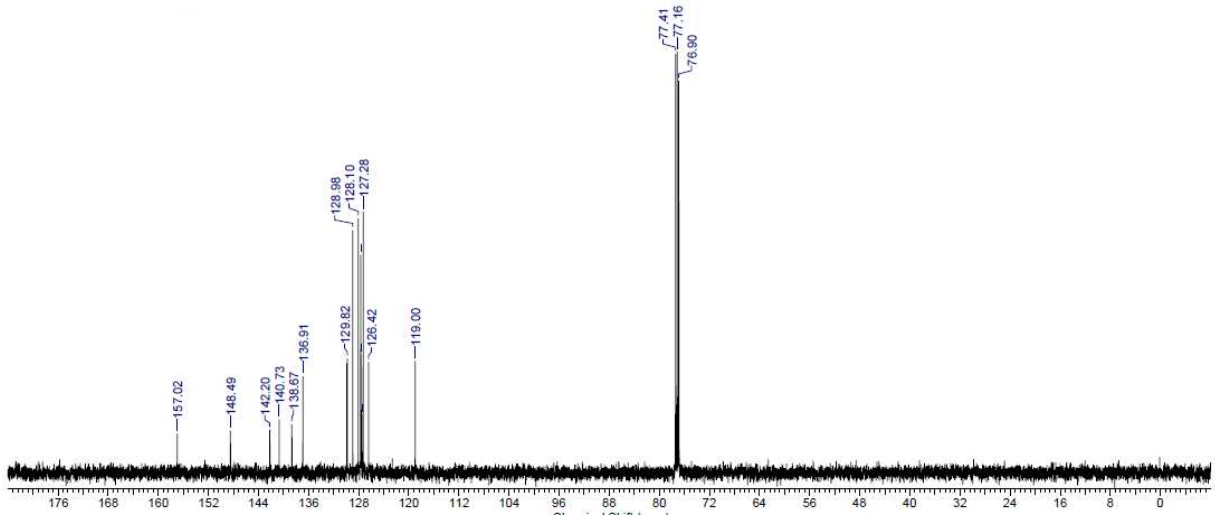
4. Spectroscopic Data of 2-Biarylquinolines (4)

4-1. NMR spectra of 2-(4'-Biphenyl)quinoline (**4a**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

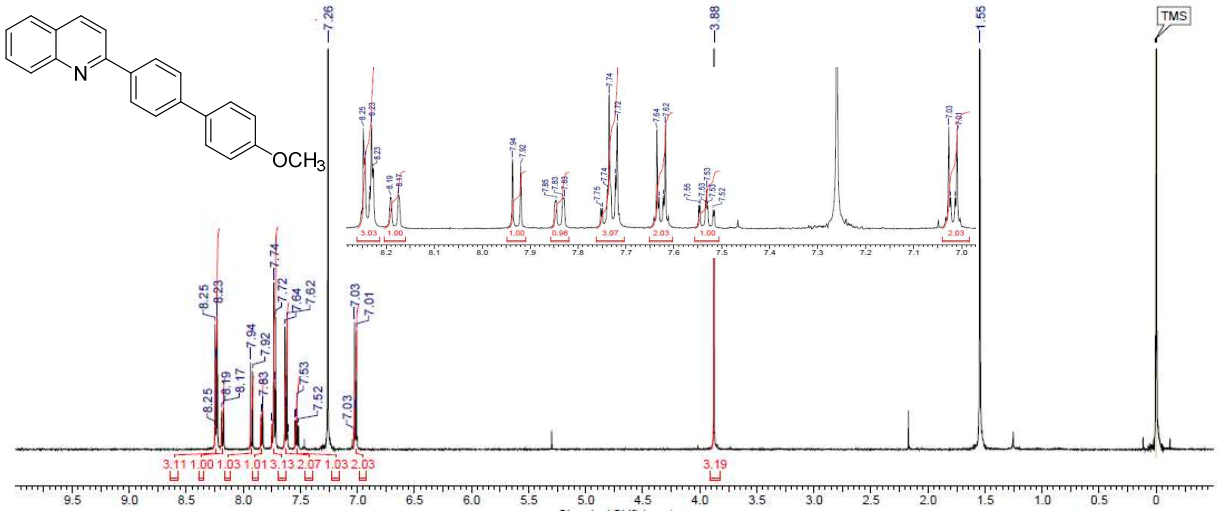


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)

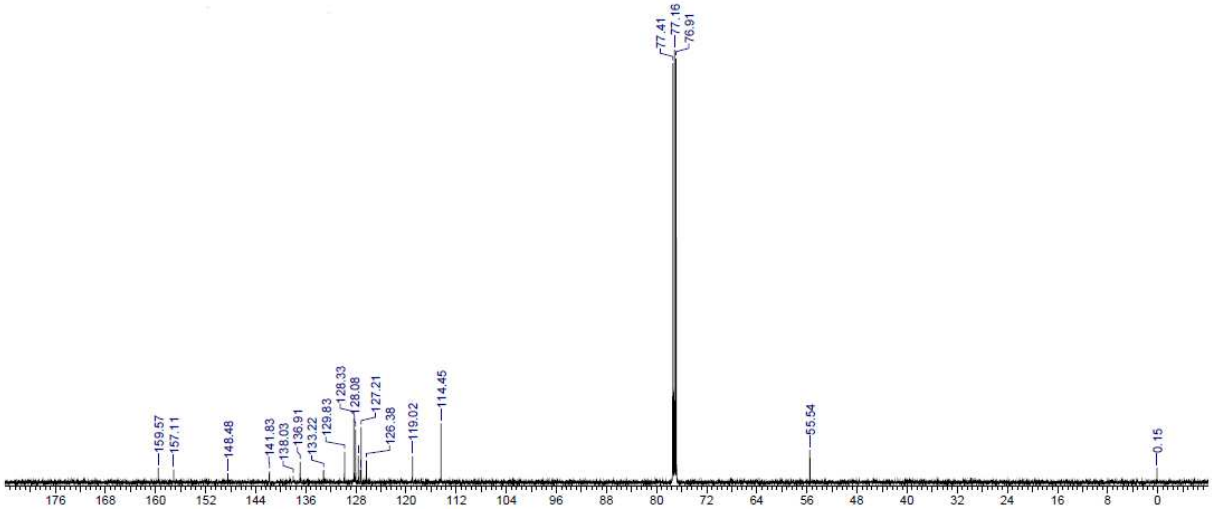


4-2. NMR spectra of 2-(4'-Methoxy-4-biphenyl)quinoline (**4b**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)

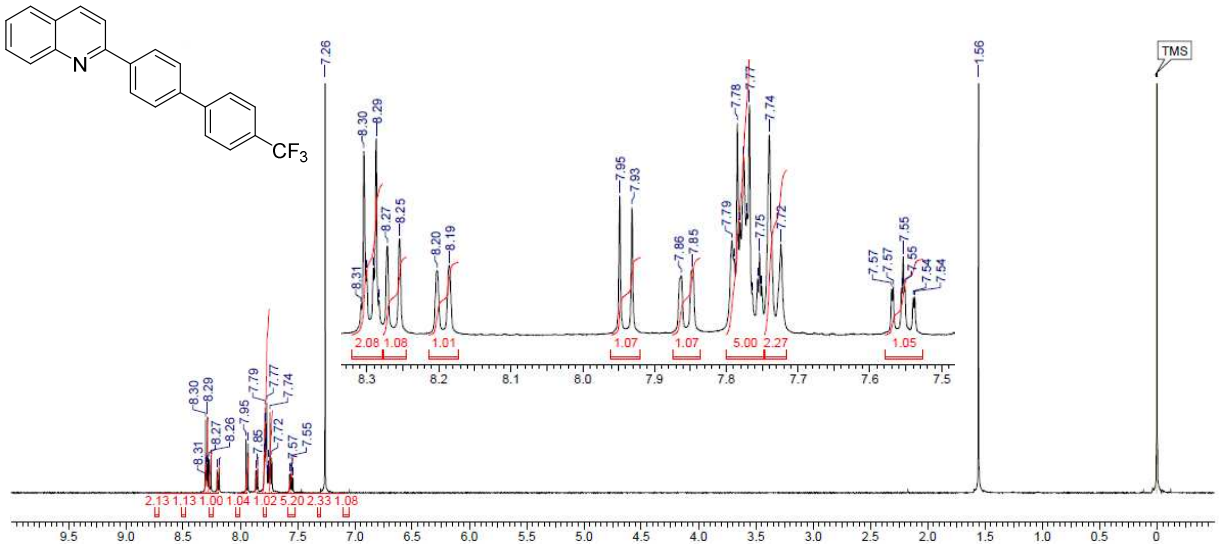
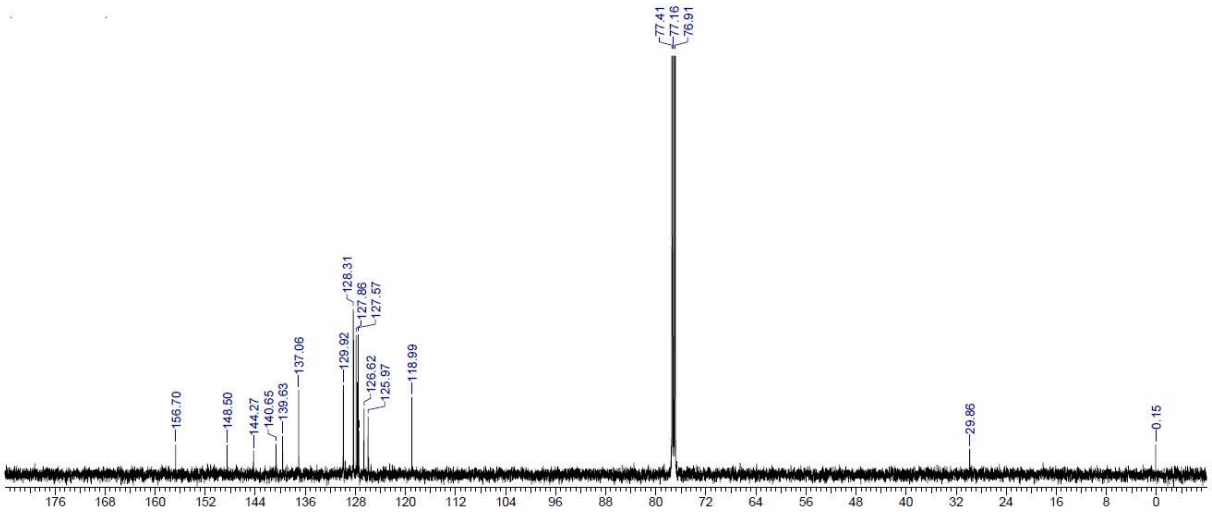


b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)



4-3. NMR spectra of 2-(4'-(Trifluoromethyl)-4-biphenyl)quinoline (**4c**)

a) ^{1}H NMR Spectrum (in $CDCl_3$, 500 MHz)



b) ^{13}C NMR Spectrum (in $CDCl_3$, 125 MHz)