Supporting Information

Selective Synthesis of Aminoisoquinolines *via* Rh(III)-catalyzed C-H/N-H Bond Functionalization of *N*-Aryl Amidines with Cyclic 2-Diazo-1,3-diketones

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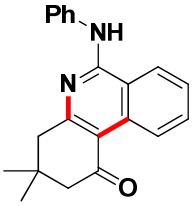
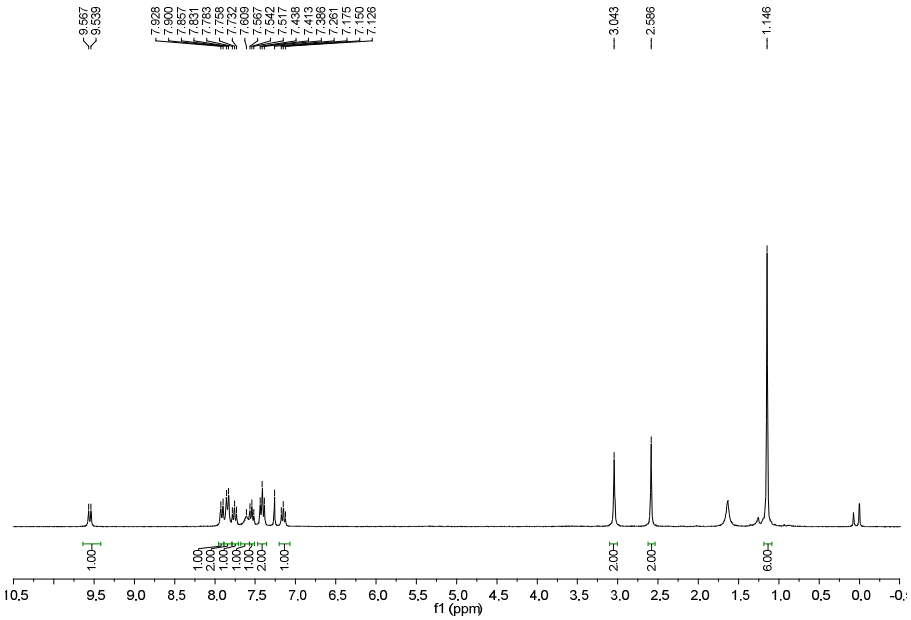
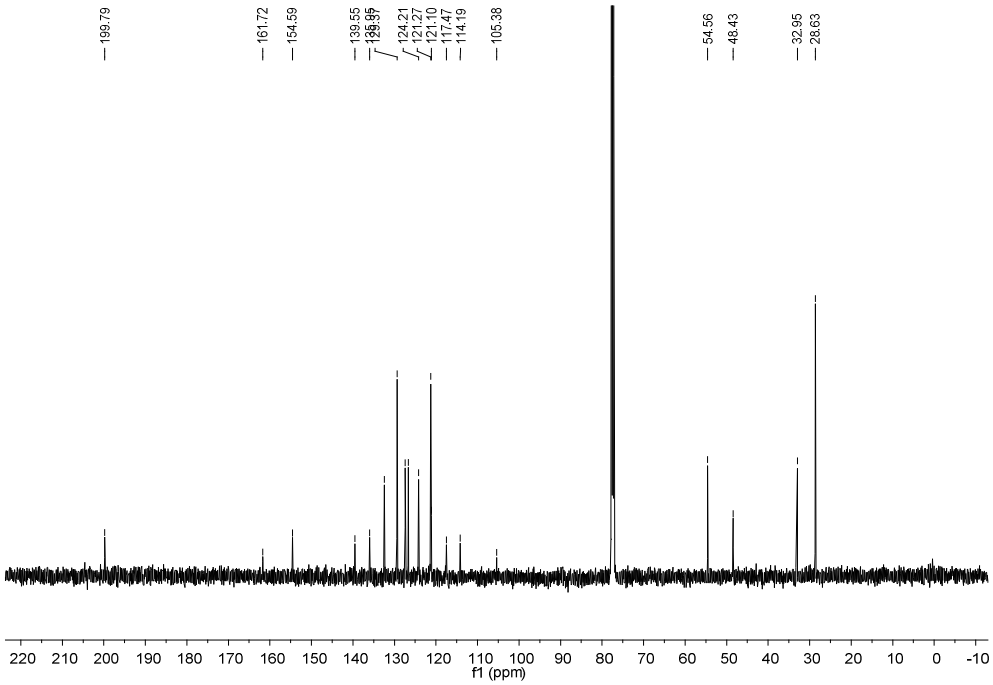
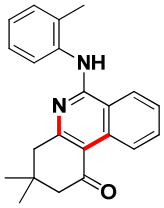
^{1}H NMR and ^{13}C NMR Spectra of Compound 3a

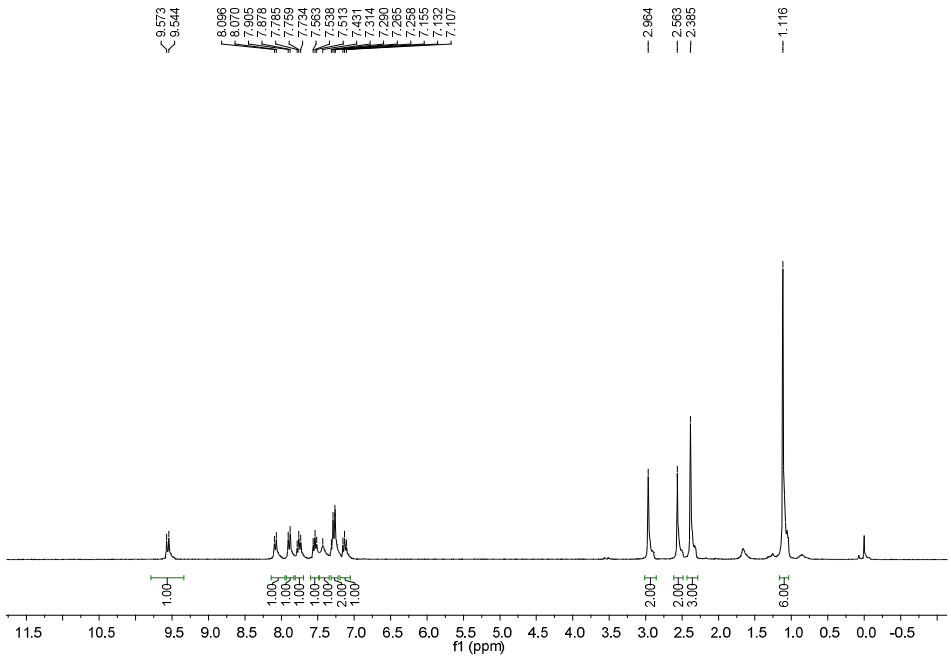


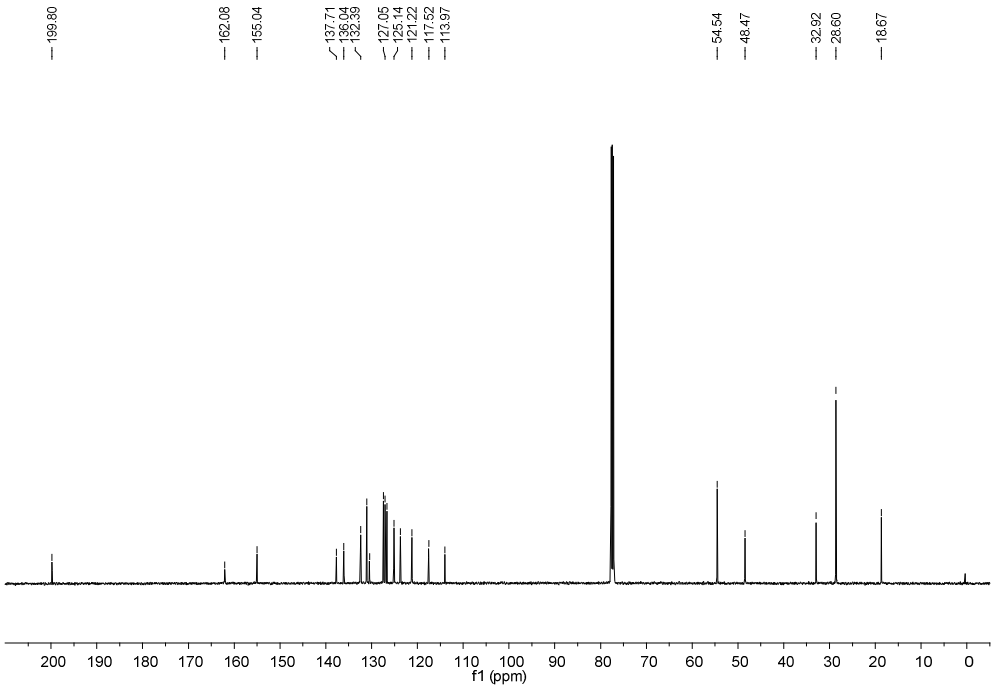




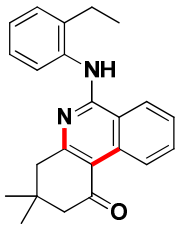
^{1}H NMR and ^{13}C NMR Spectra of Compound 3b

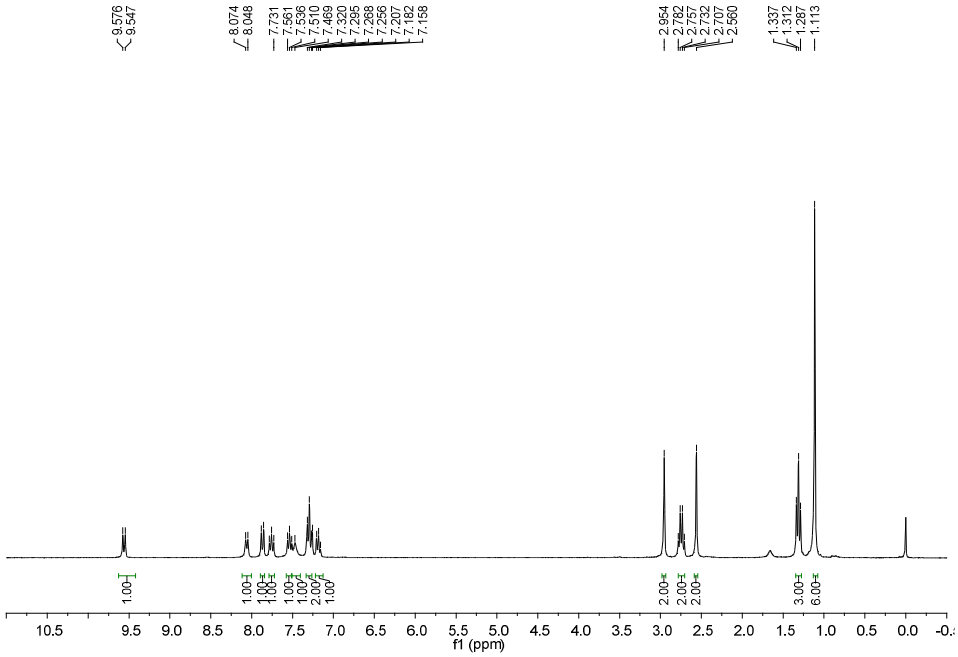


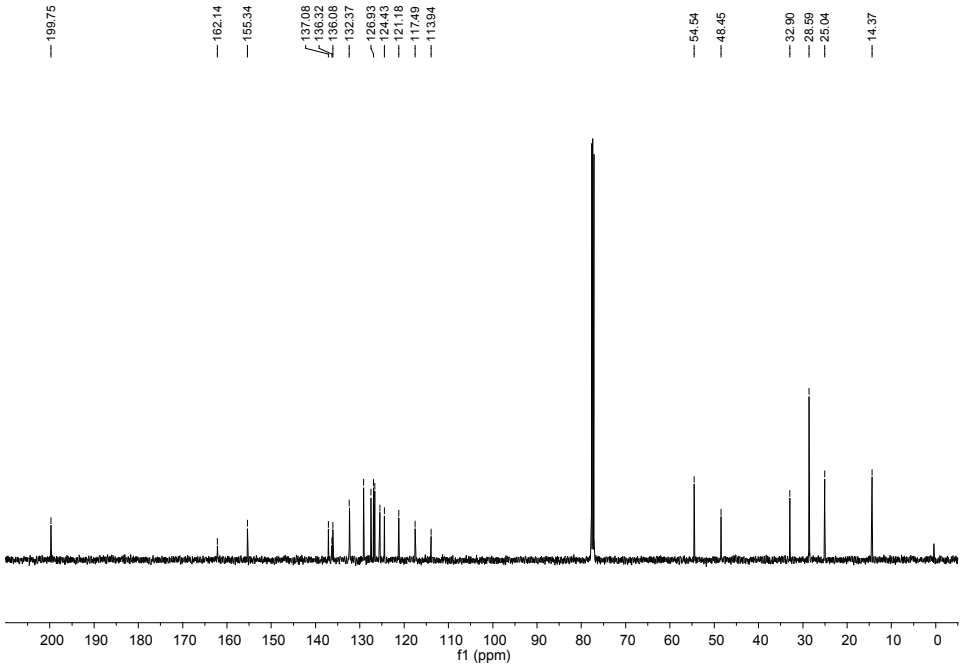




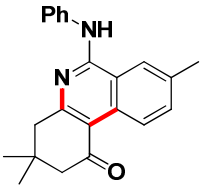
^{1}H NMR and ^{13}C NMR Spectra of Compound 3c

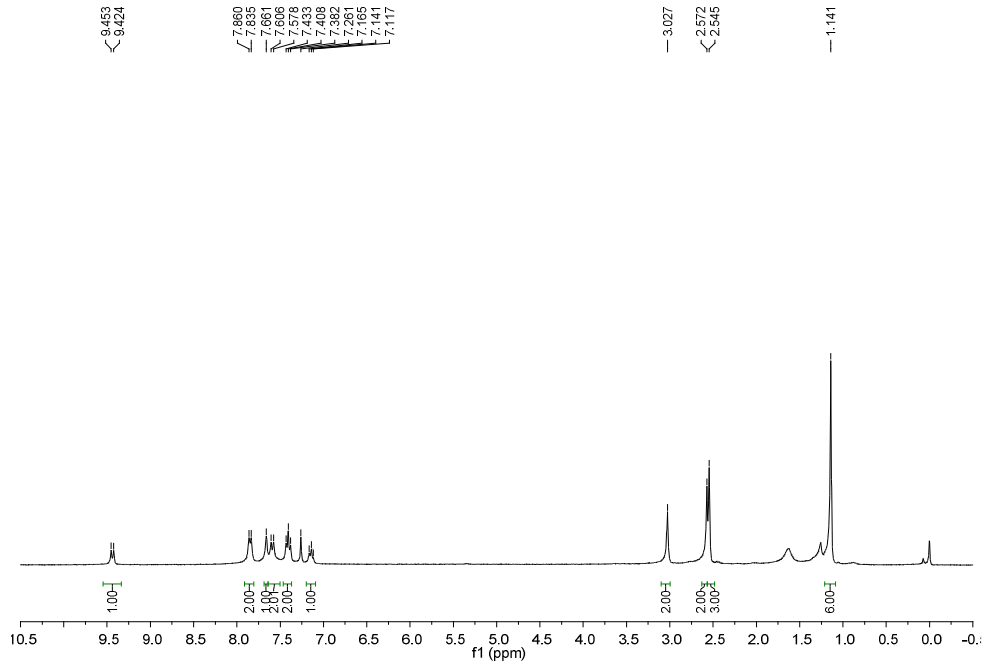


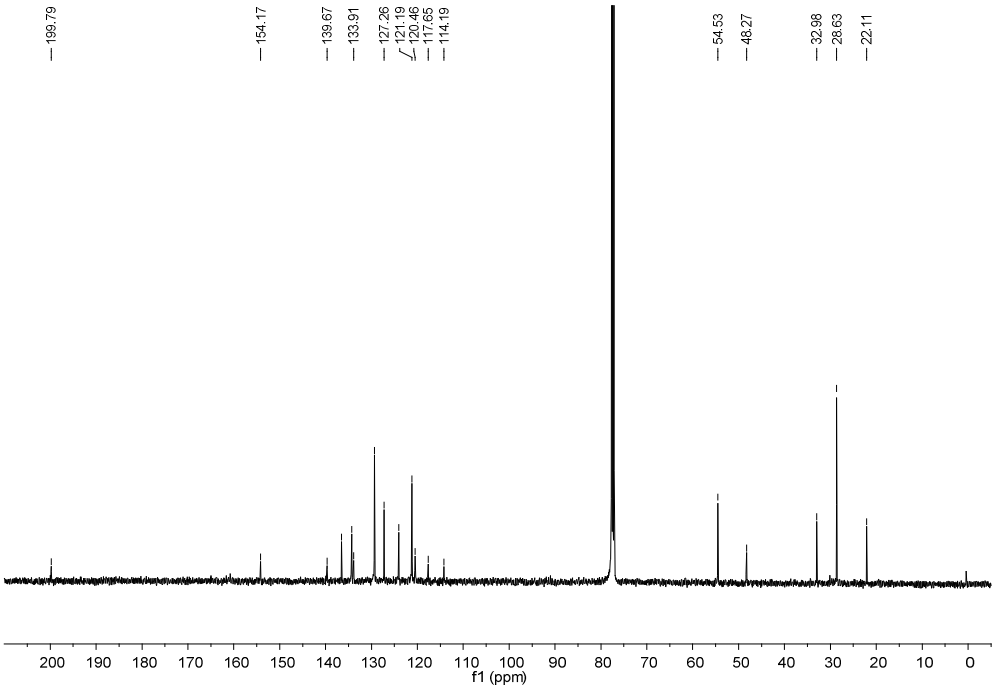




^{1}H NMR and ^{13}C NMR Spectra of Compound 3d







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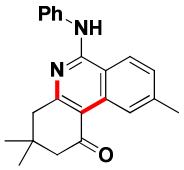
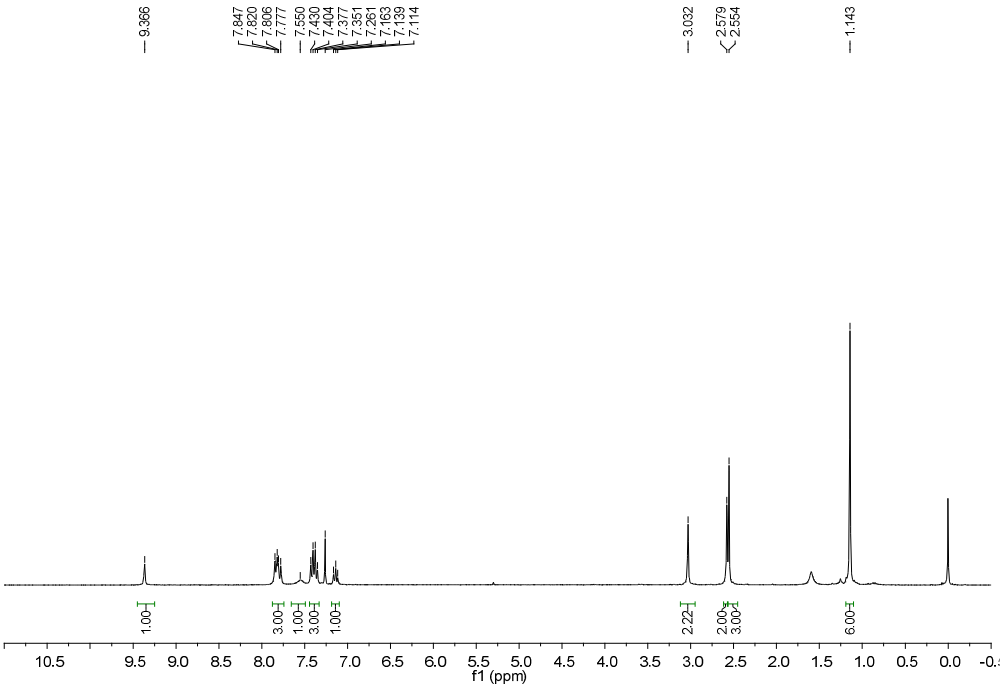
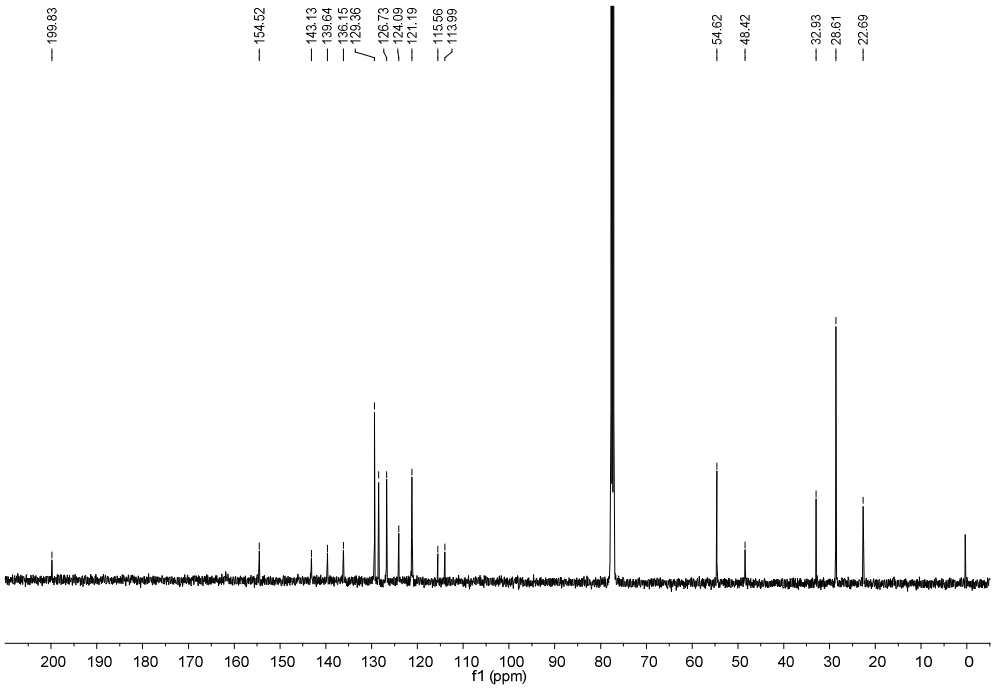
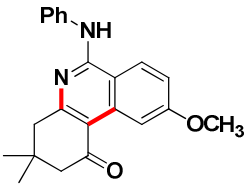
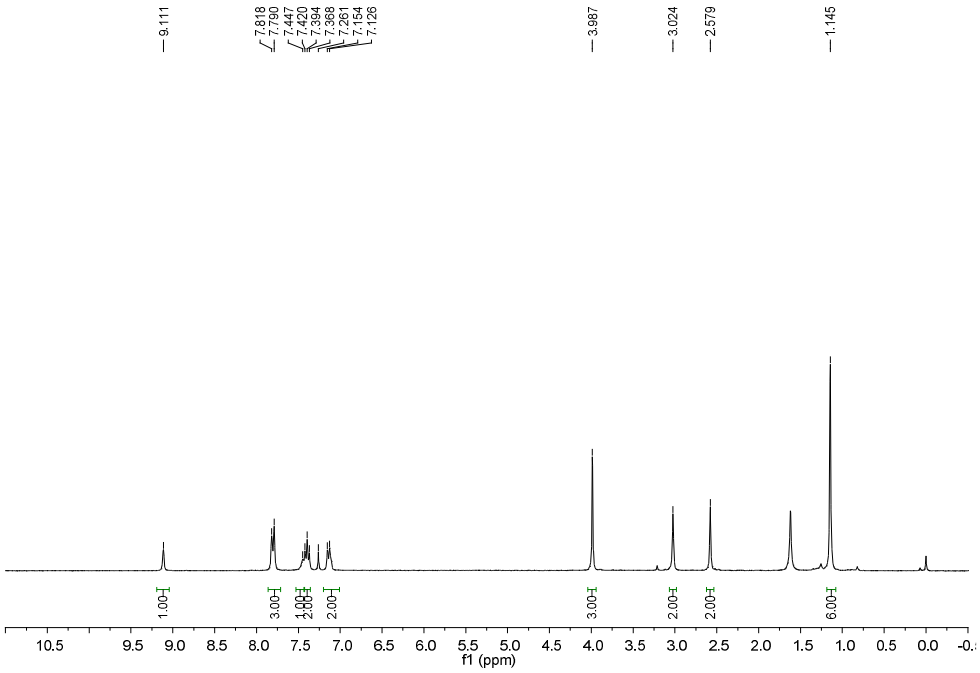


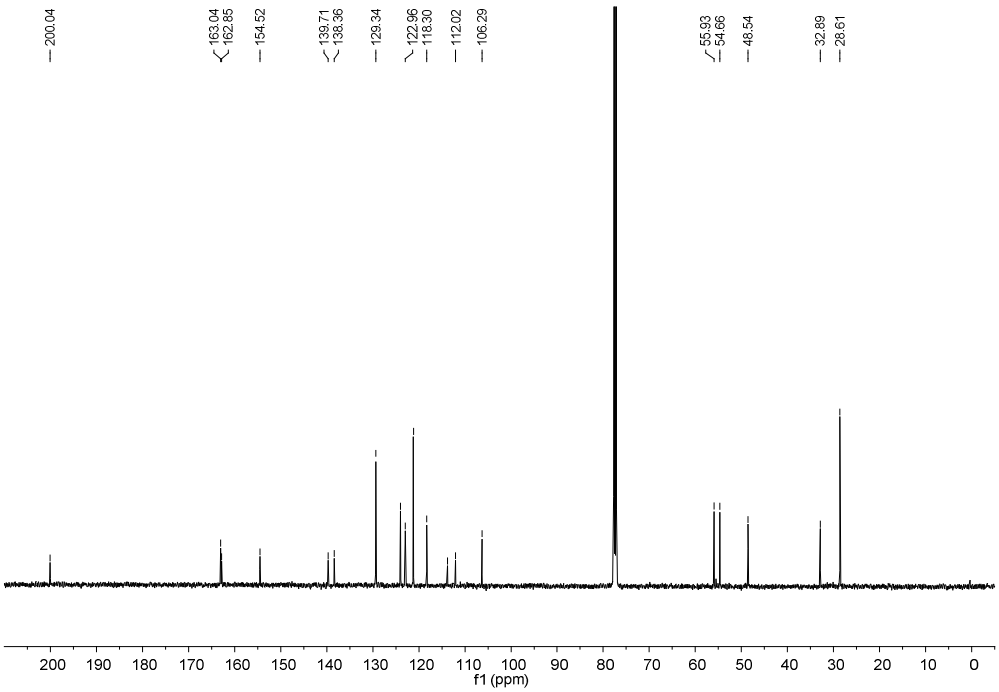




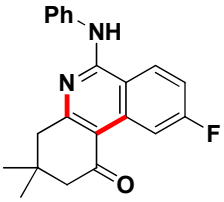
^{1}H NMR and ^{13}C NMR Spectra of Compound 3f

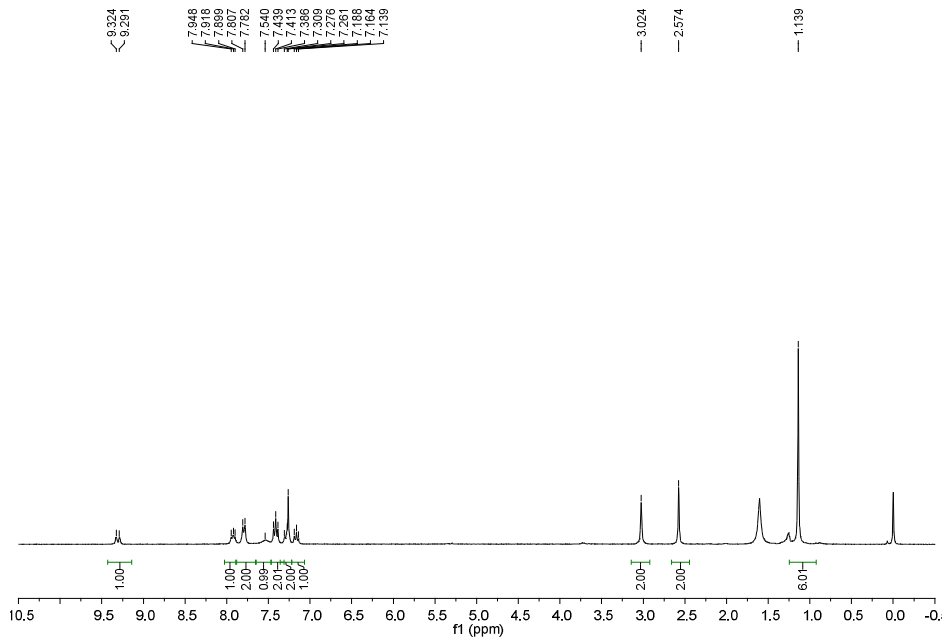


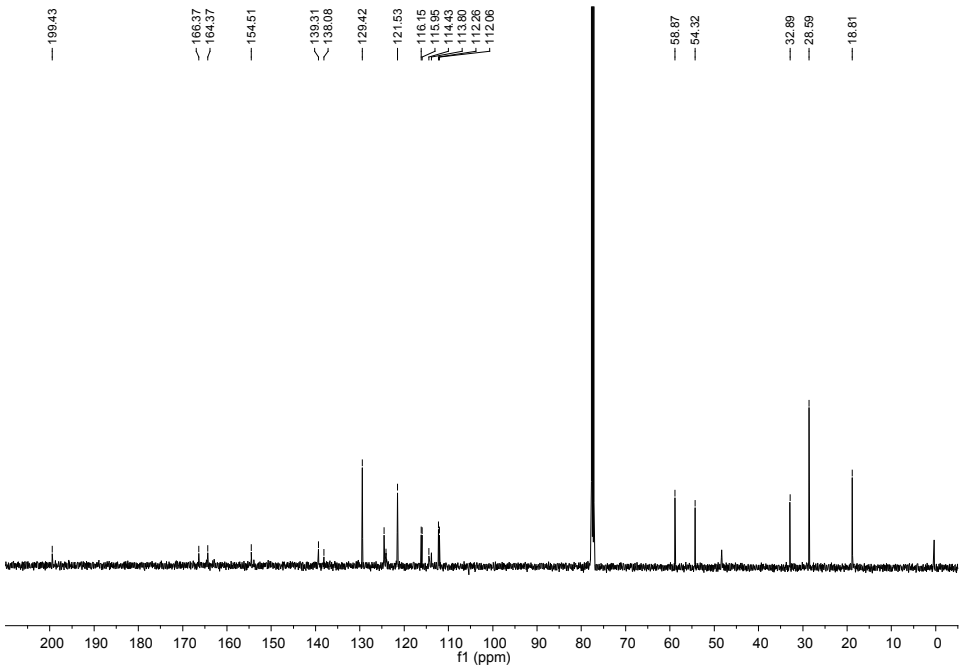




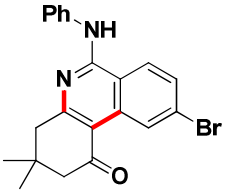
^{1}H NMR and ^{13}C NMR Spectra of Compound 3g

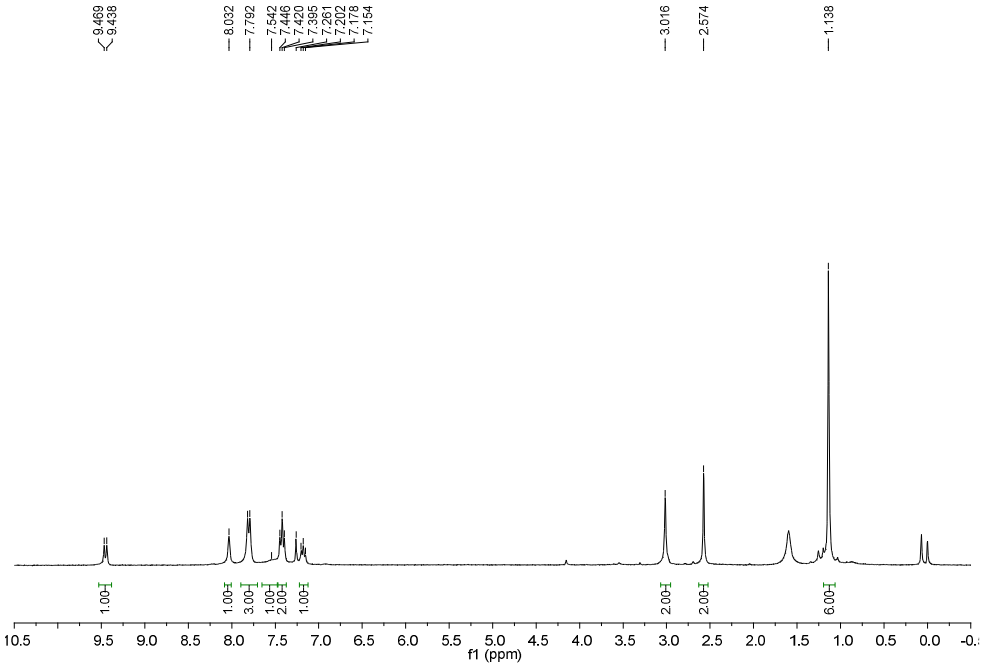


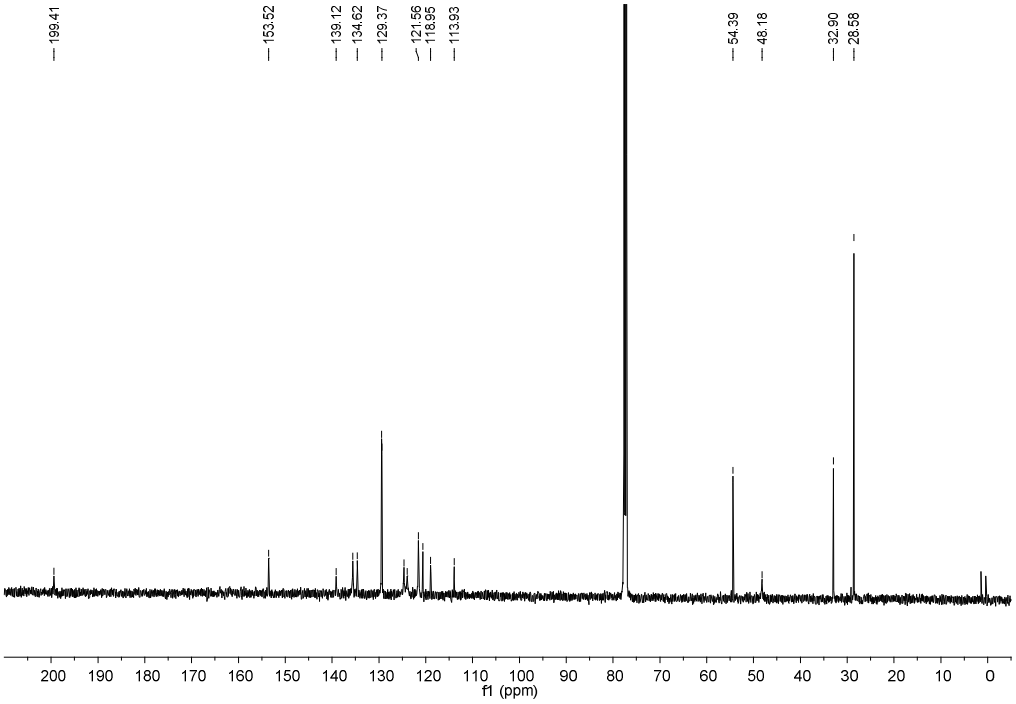




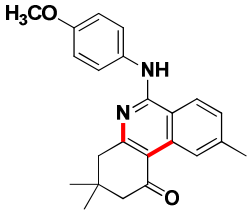
^{1}H NMR and ^{13}C NMR Spectra of Compound 3h

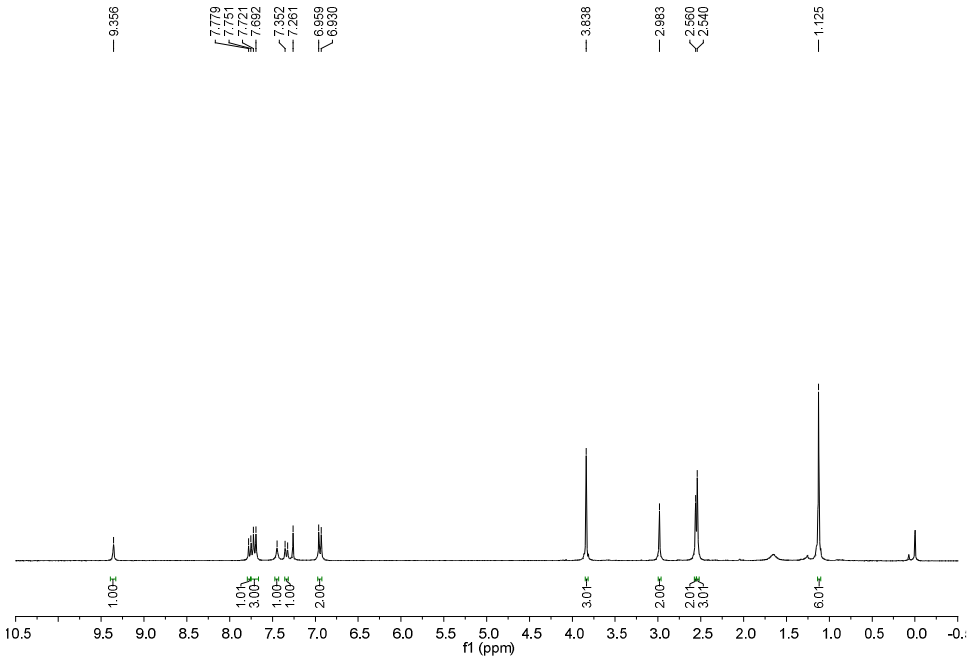


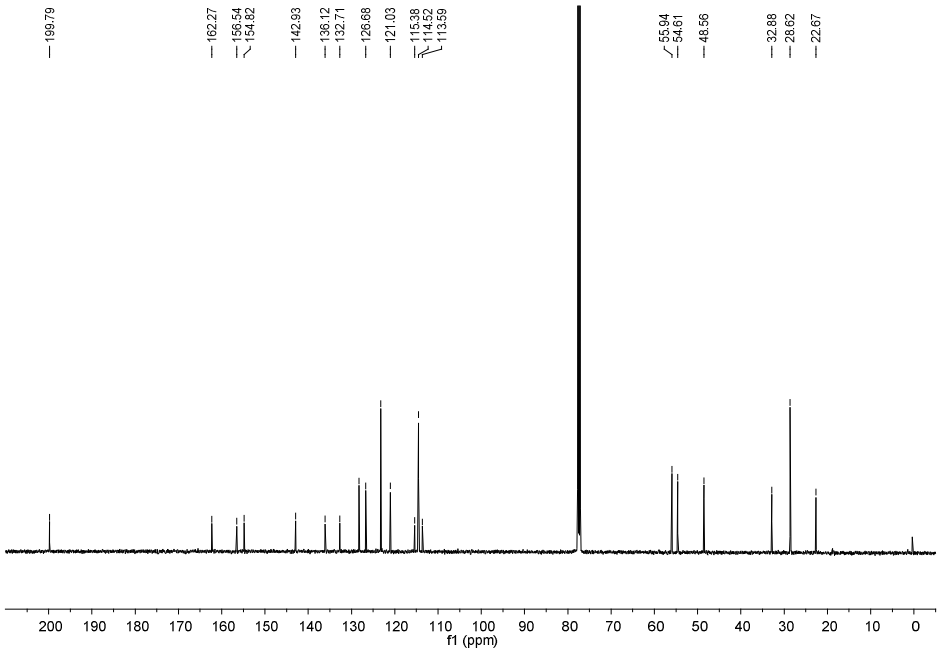




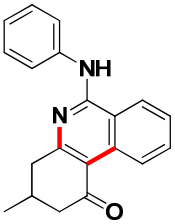
^{1}H NMR and ^{13}C NMR Spectra of Compound 3i

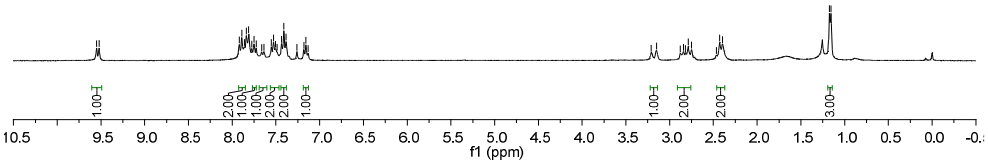


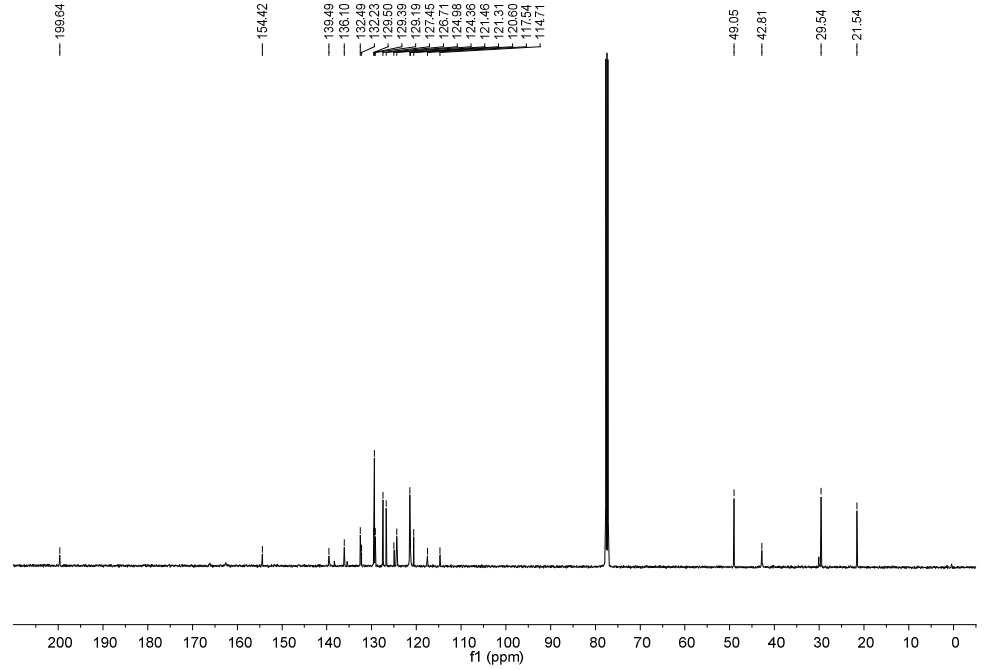




^{1}H NMR and ^{13}C NMR Spectra of Compound 3j







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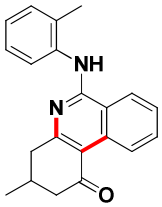

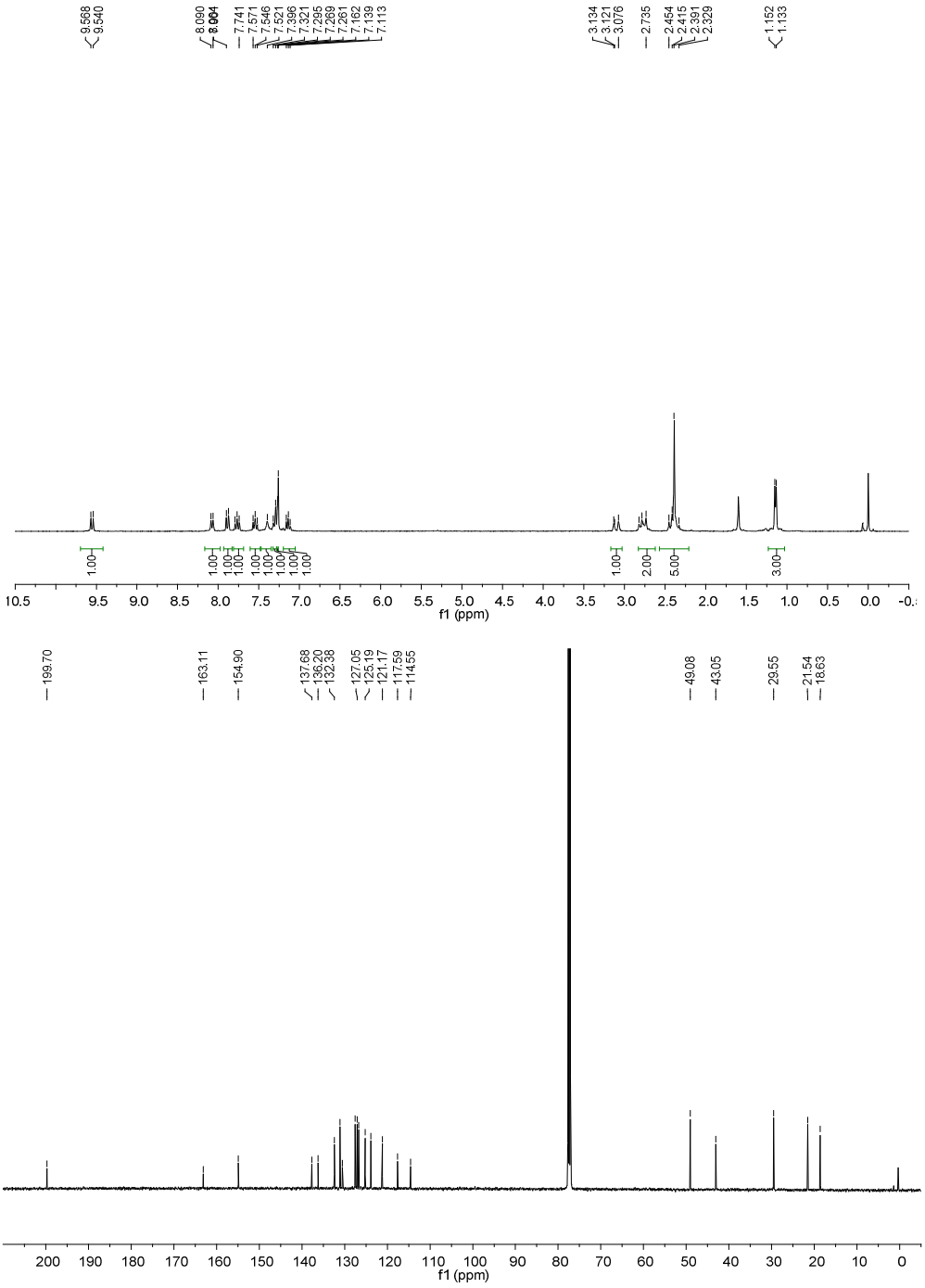

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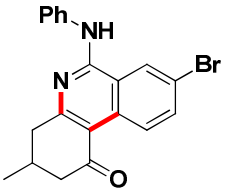
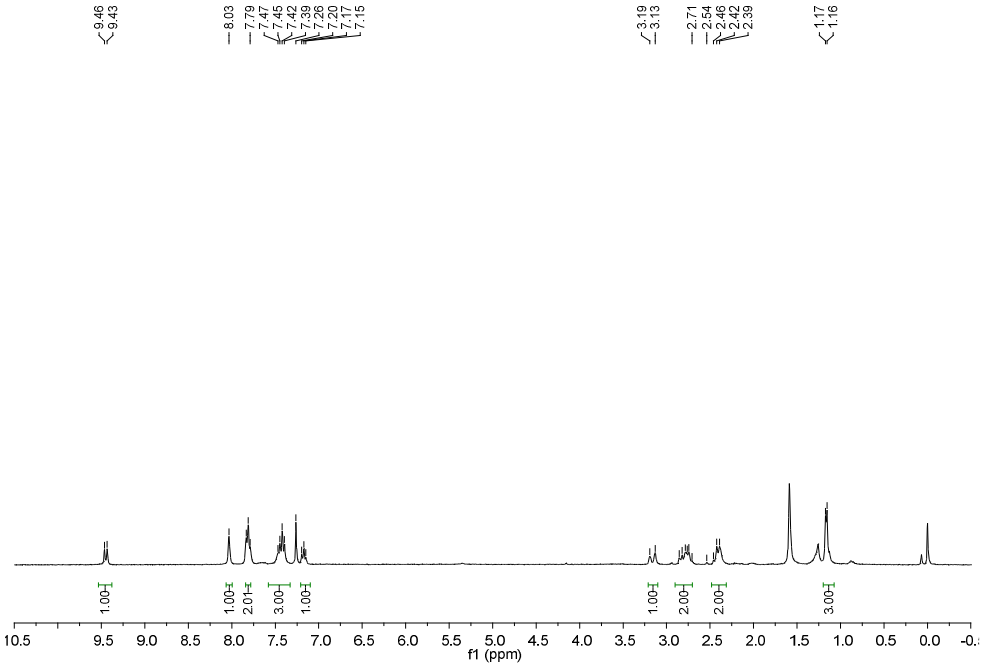
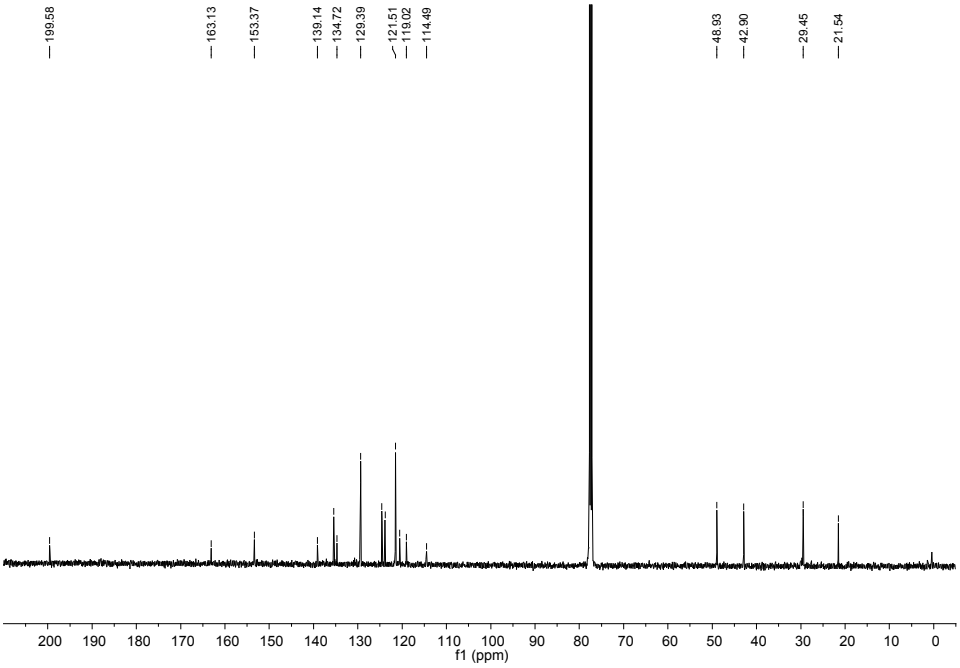
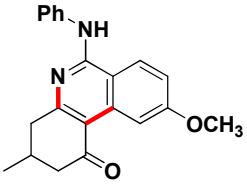
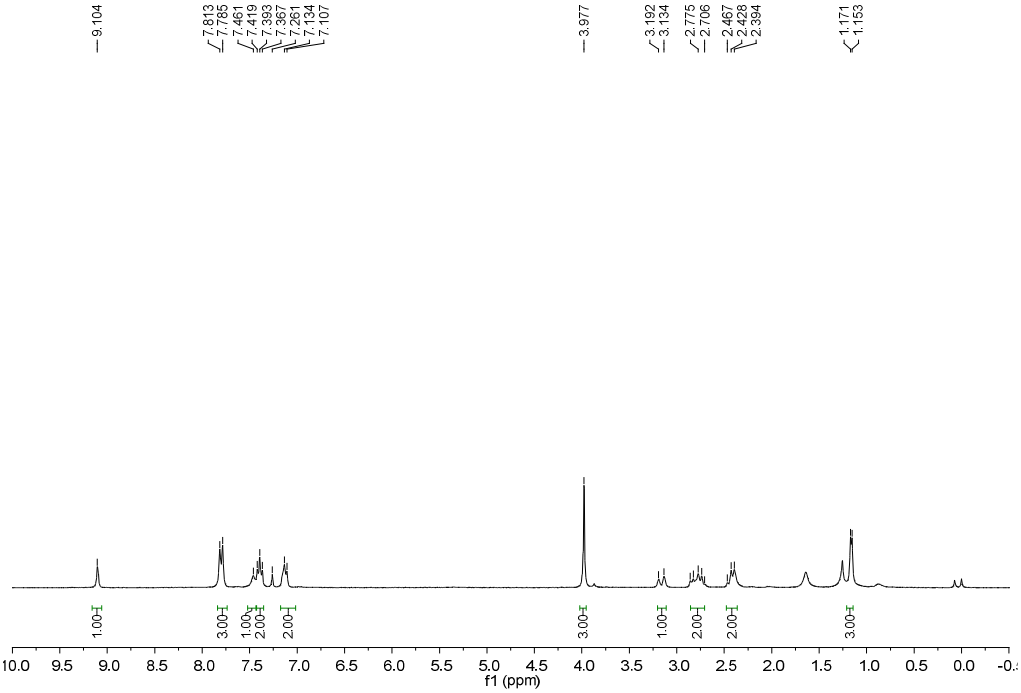


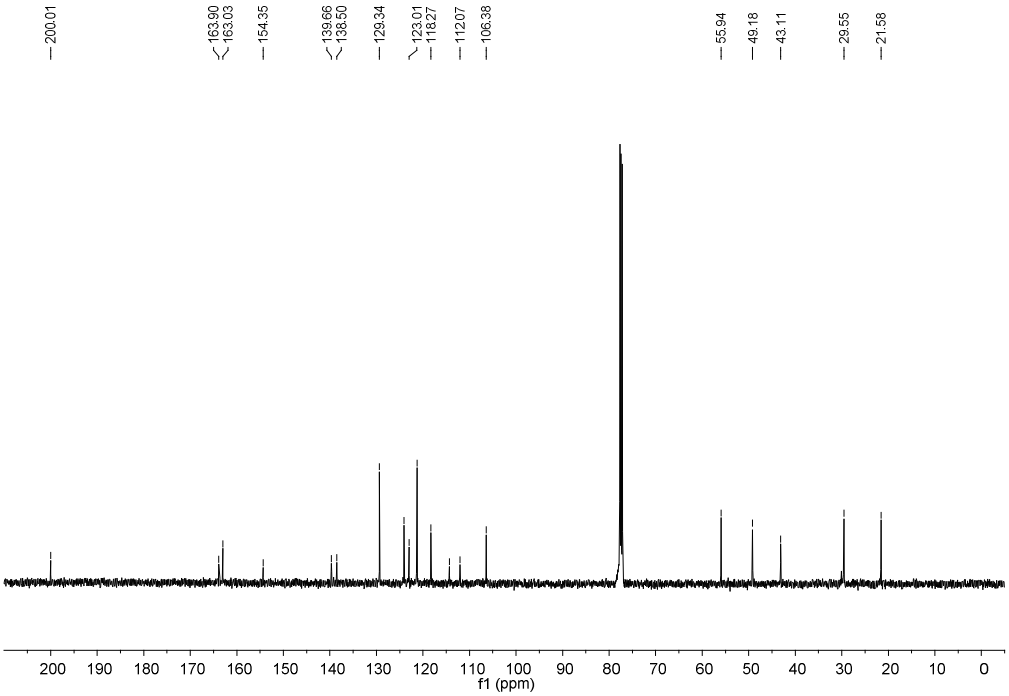




^{1}H NMR and ^{13}C NMR Spectra of Compound 3m







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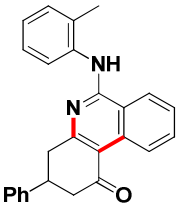
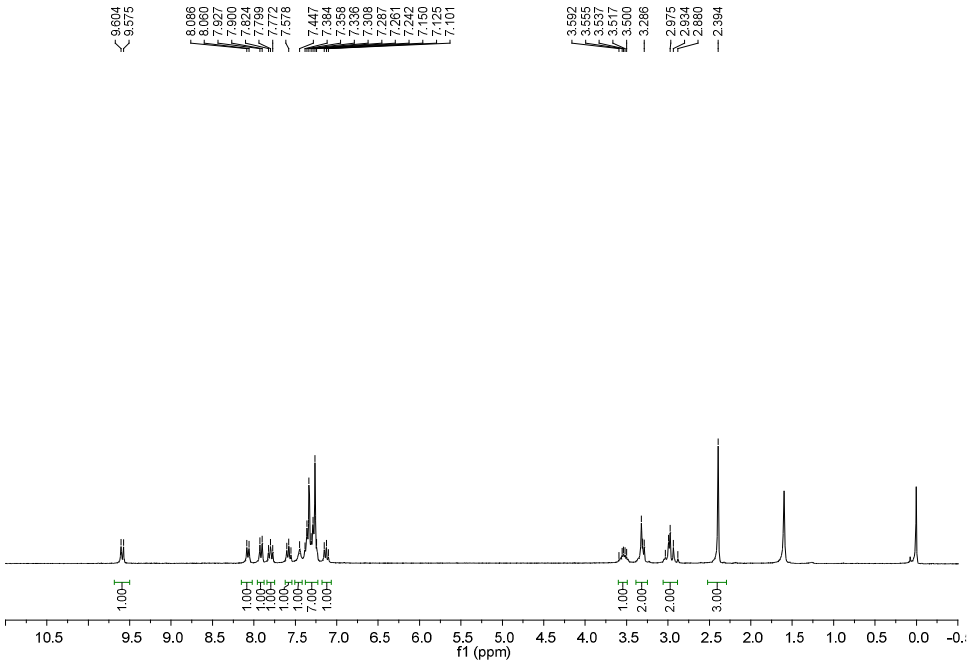
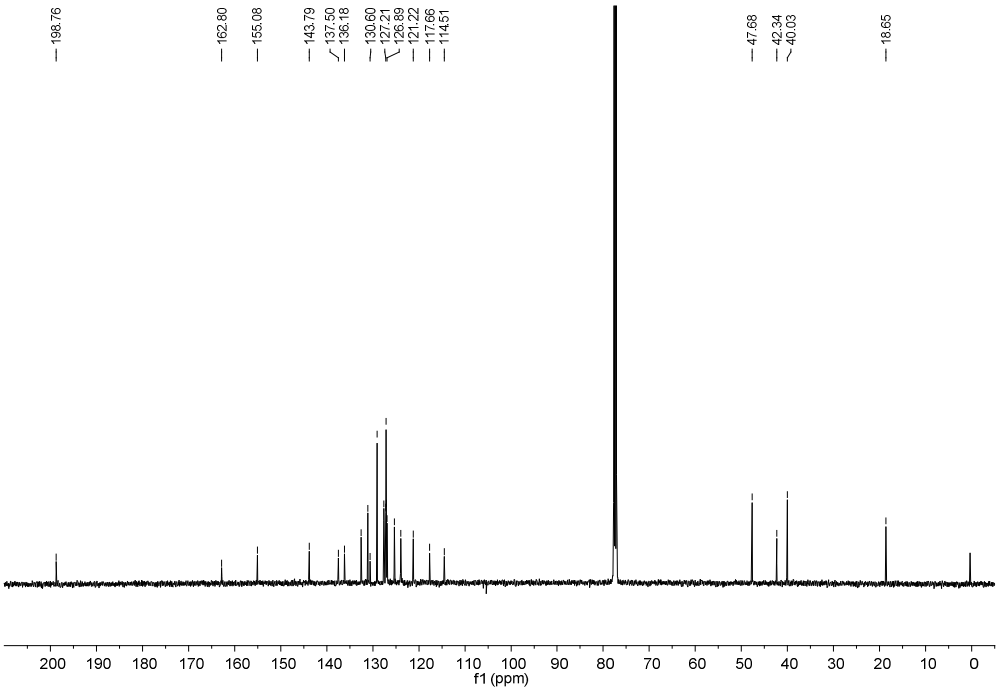
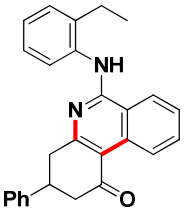
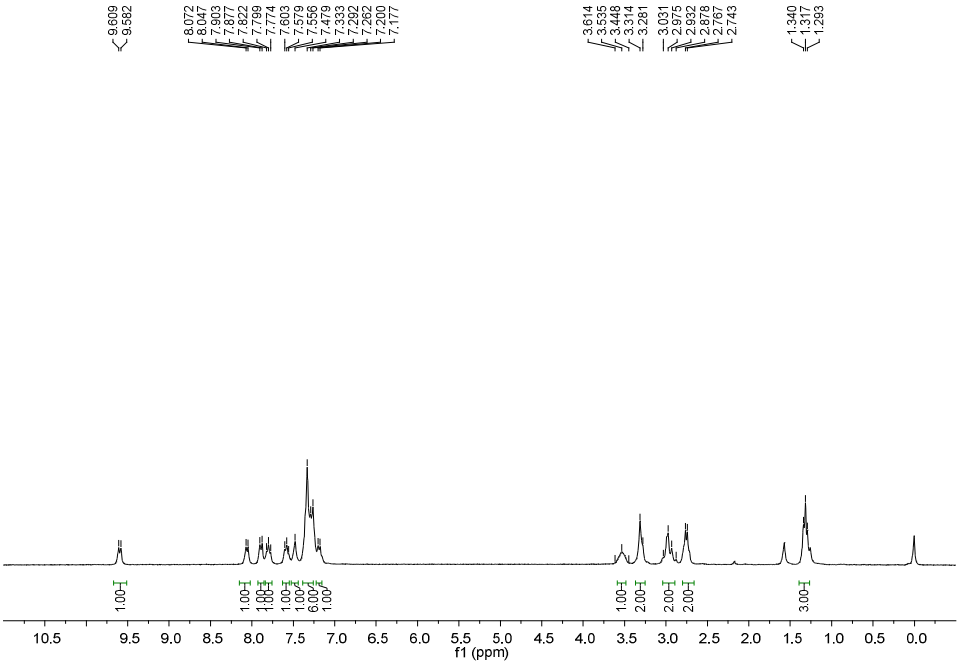


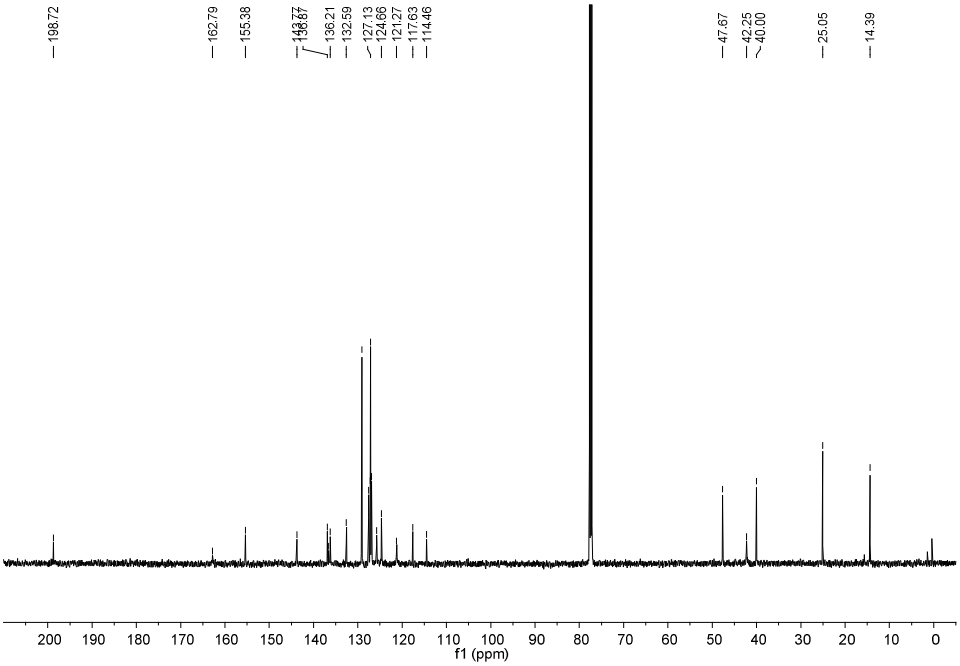




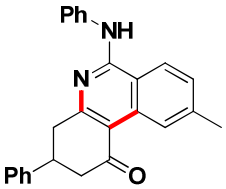
^{1}H NMR and ^{13}C NMR Spectra of Compound 3o

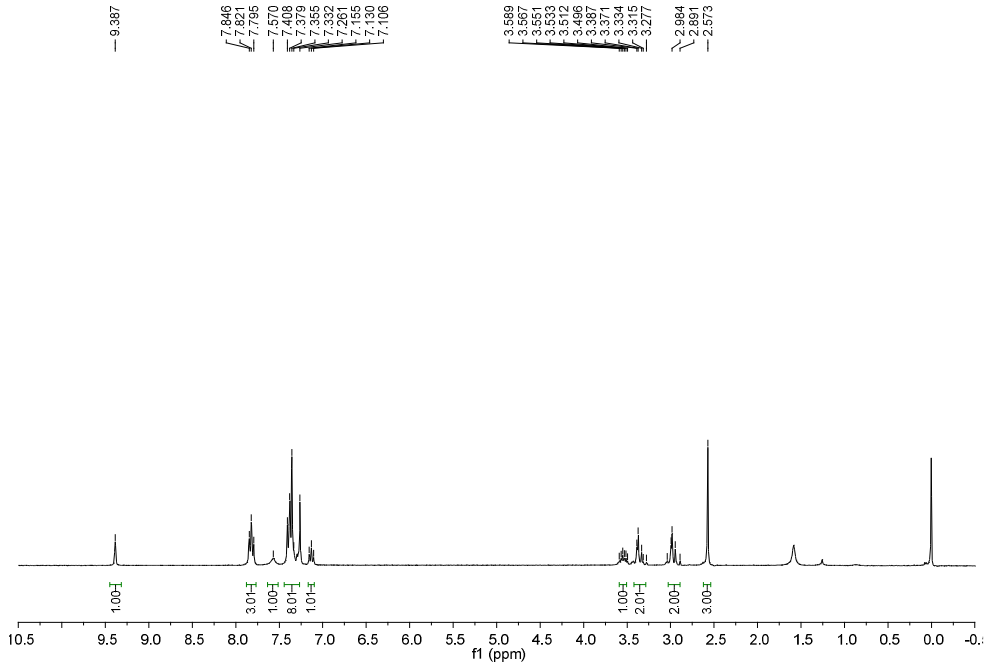


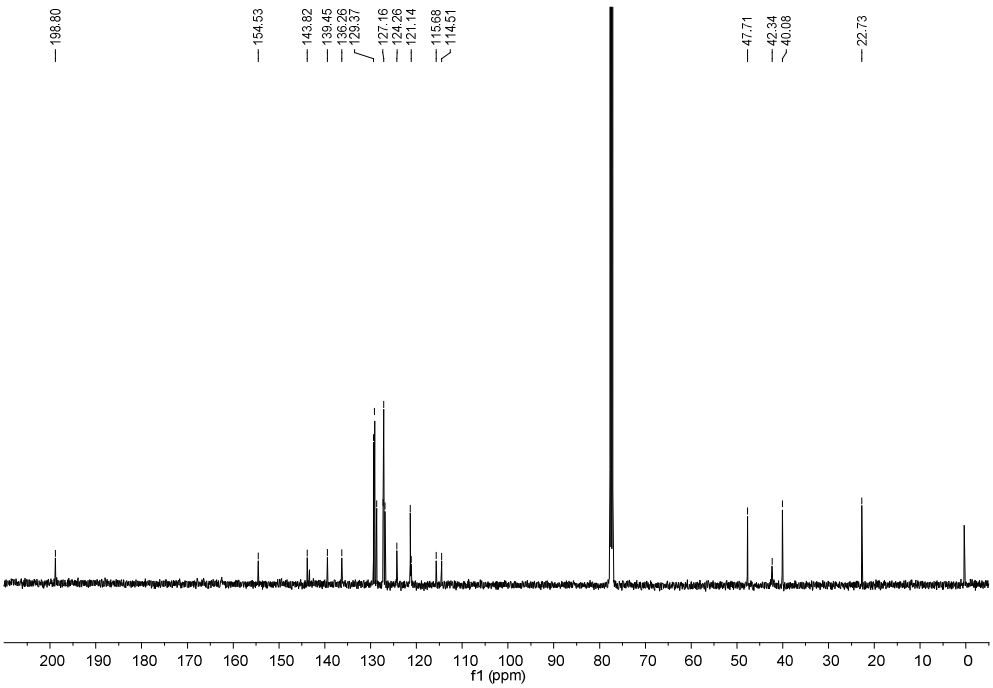




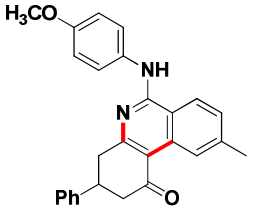
^{1}H NMR and ^{13}C NMR Spectra of Compound 3p

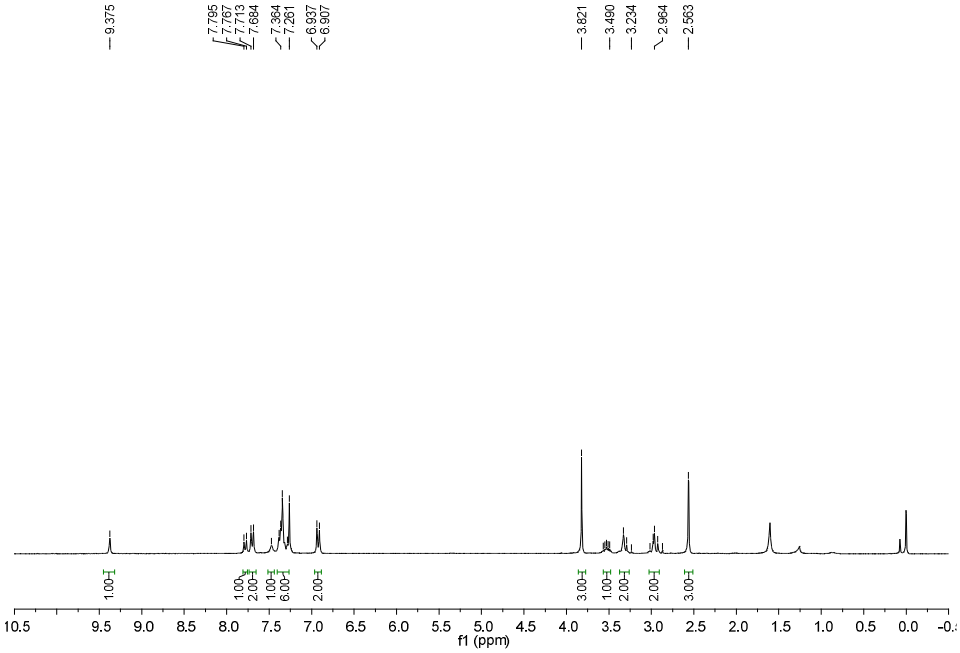


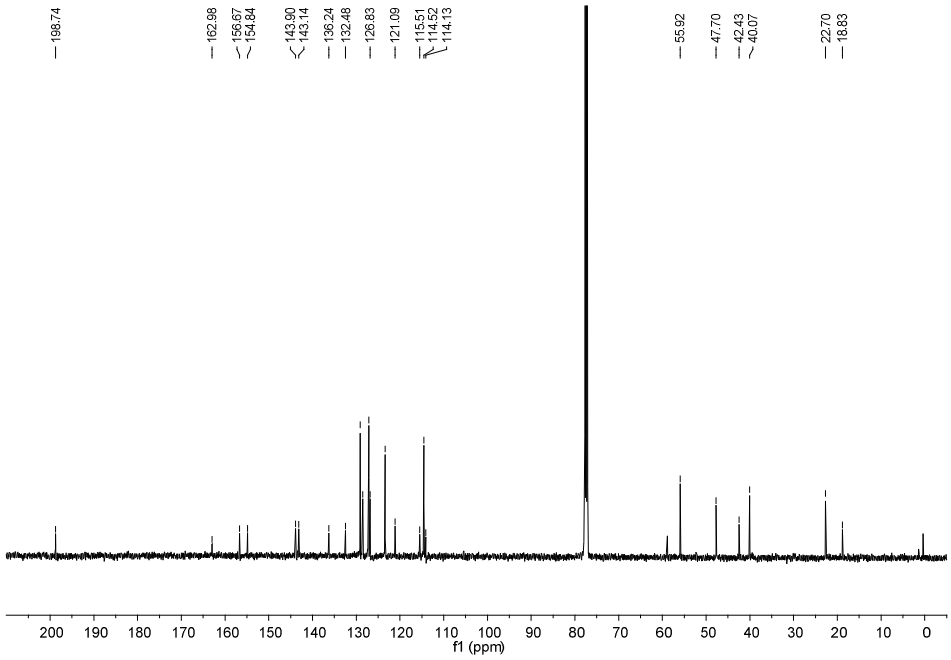




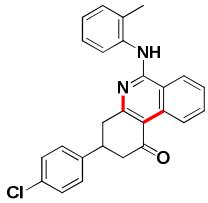
^{1}H NMR and ^{13}C NMR Spectra of Compound 3q

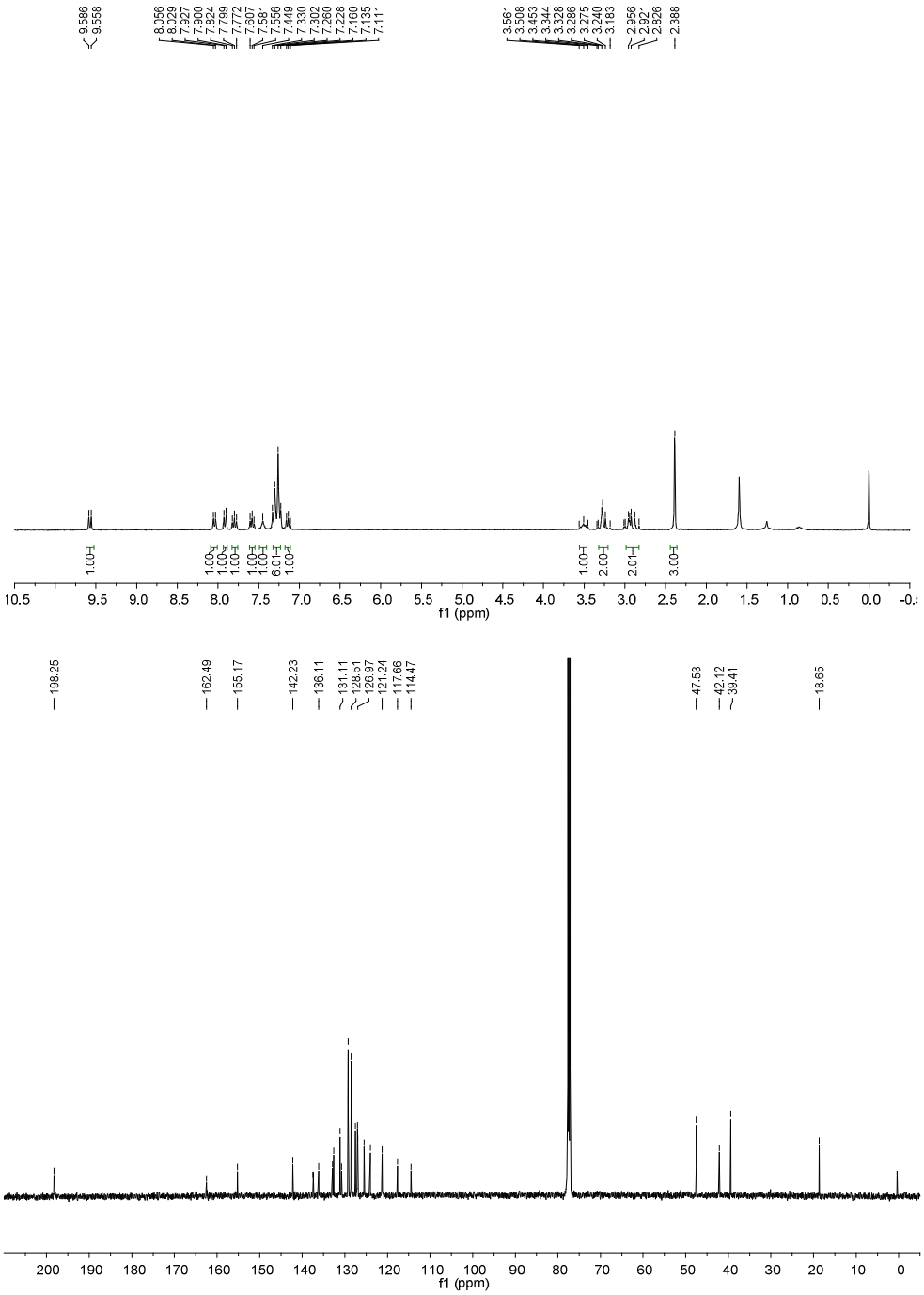




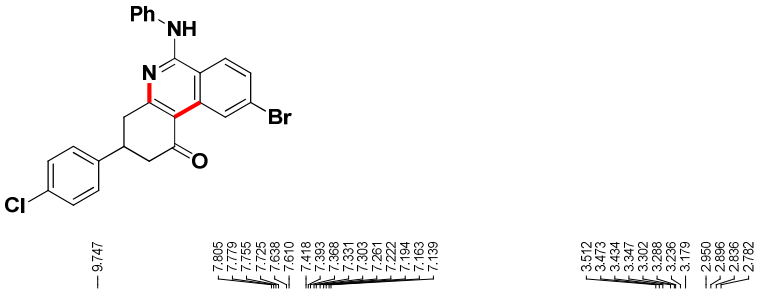


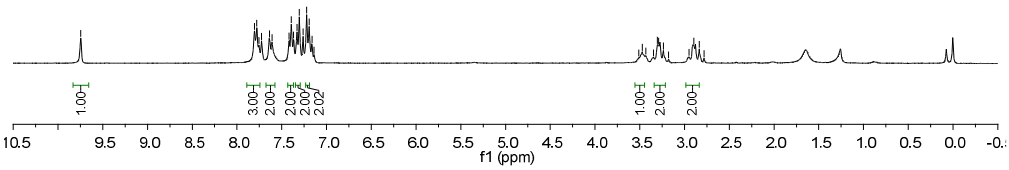
^{1}H NMR and ^{13}C NMR Spectra of Compound 3r

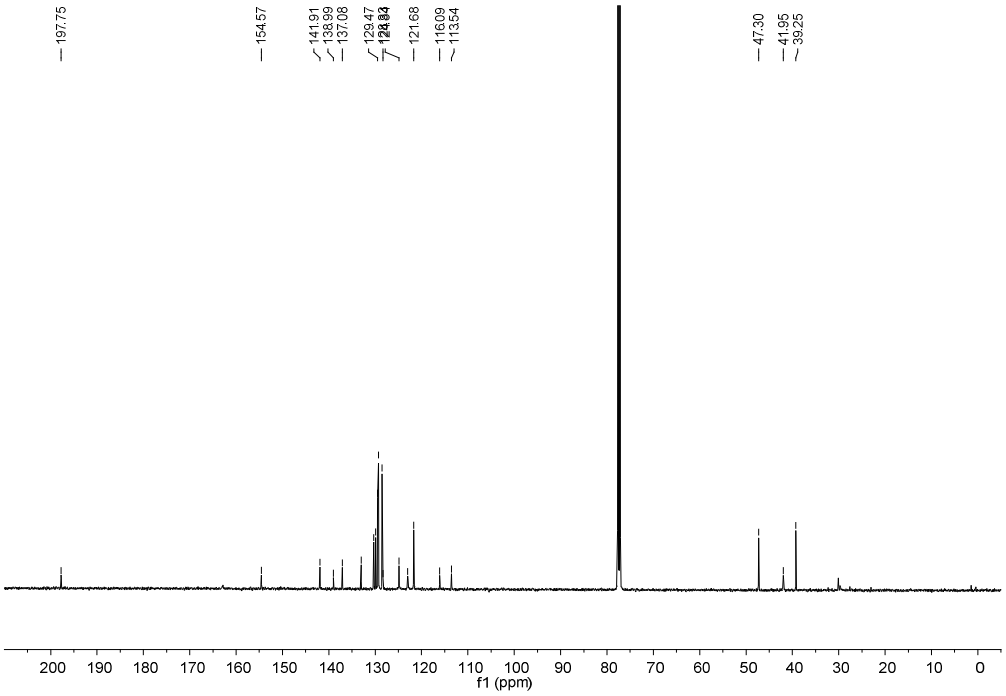




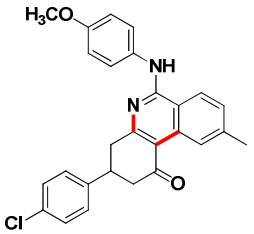
^{1}H NMR and ^{13}C NMR Spectra of Compound 3s

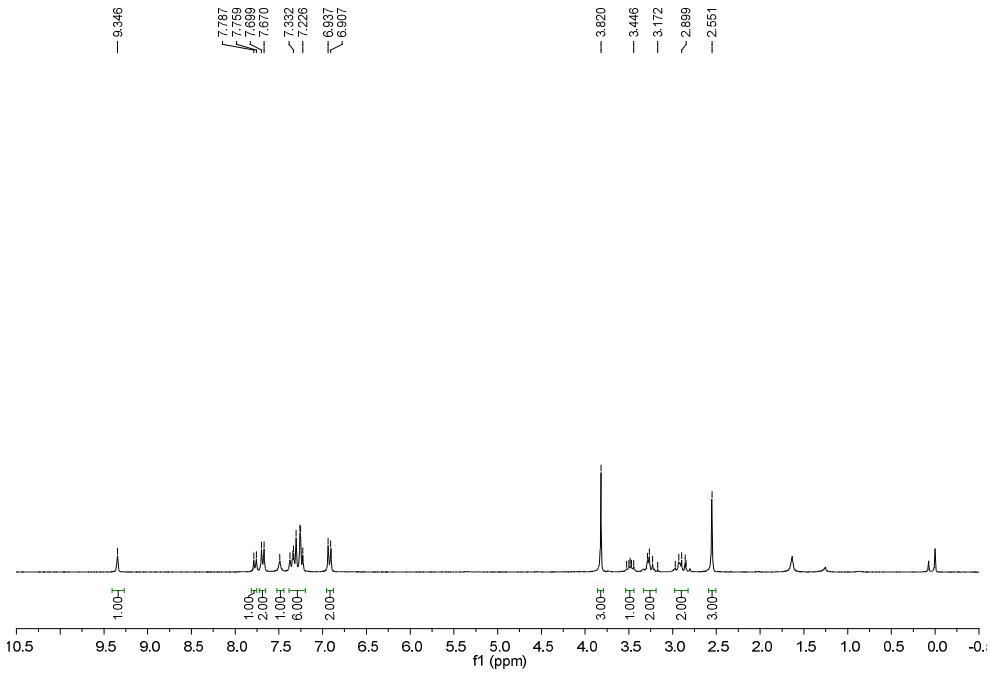


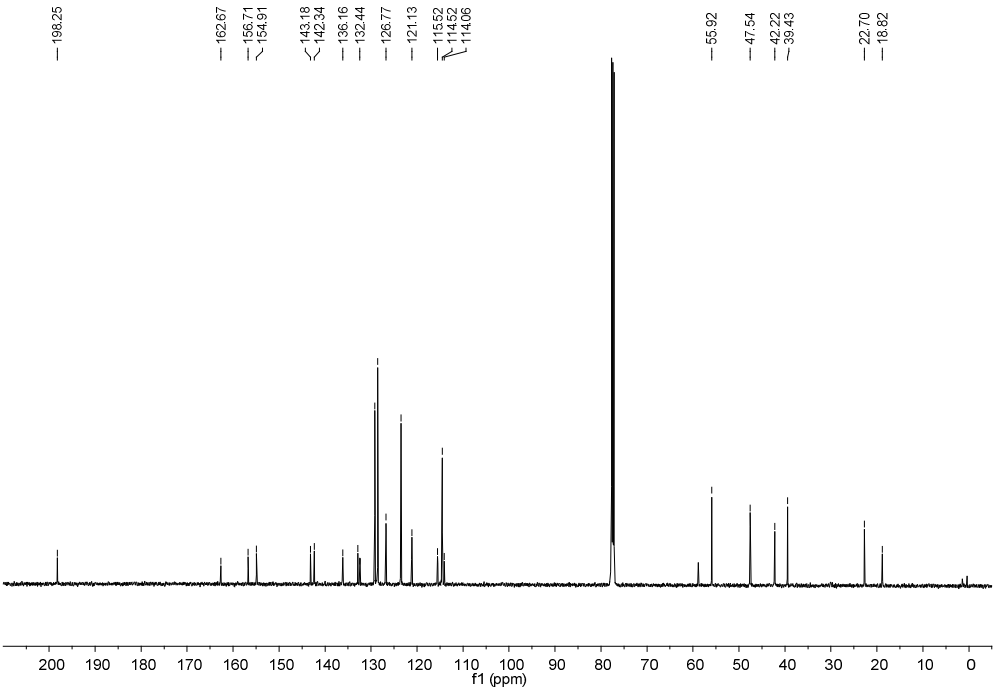




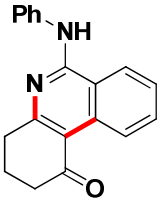
^{1}H NMR and ^{13}C NMR Spectra of Compound 3t

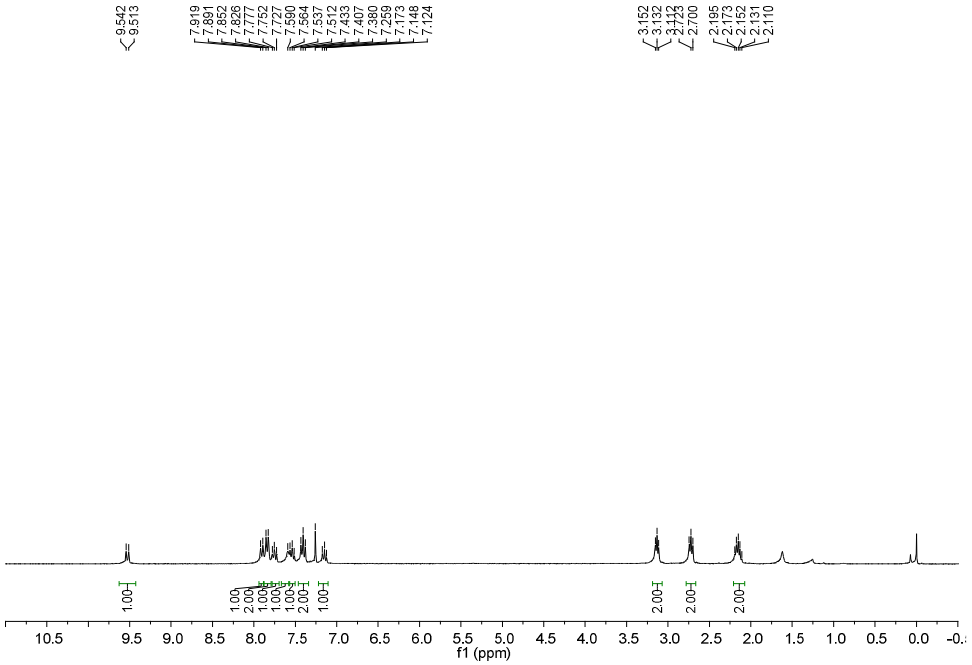


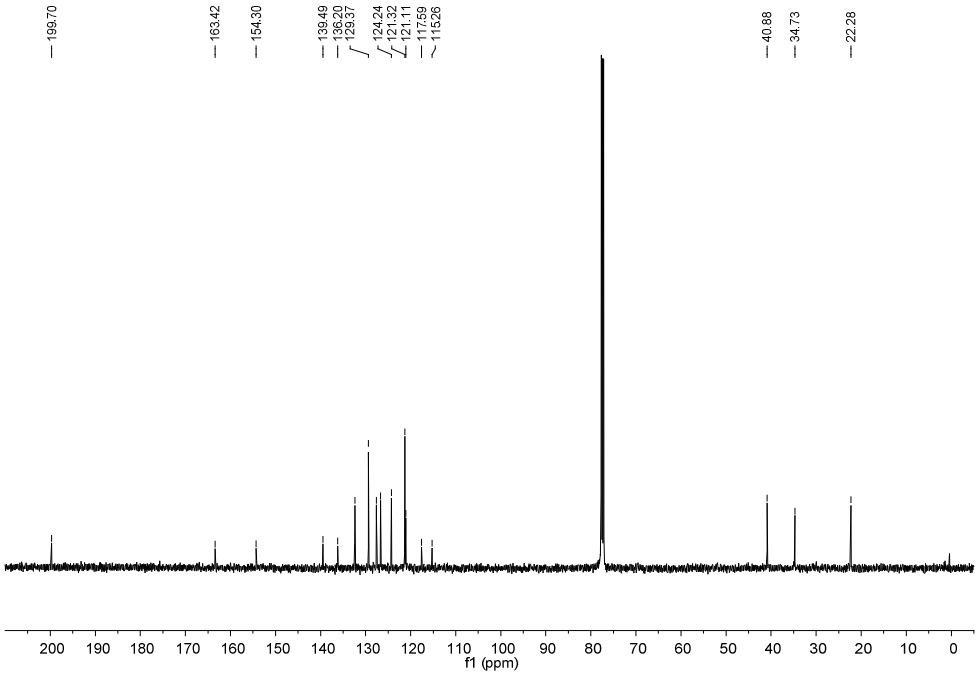




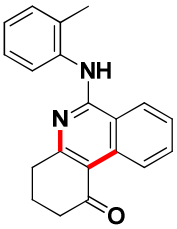
^{1}H NMR and ^{13}C NMR Spectra of Compound 3u

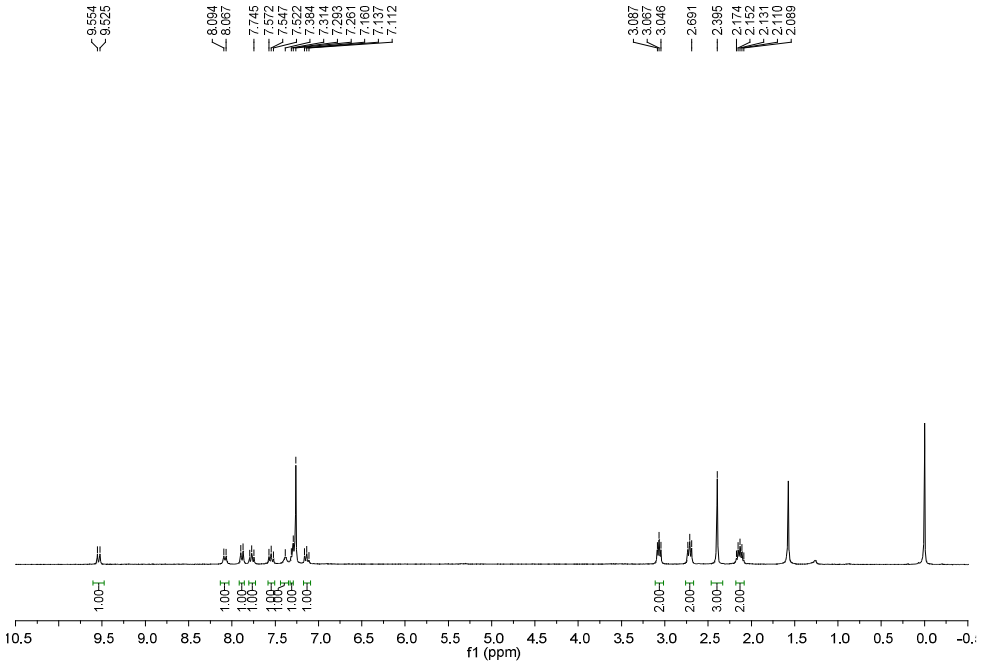


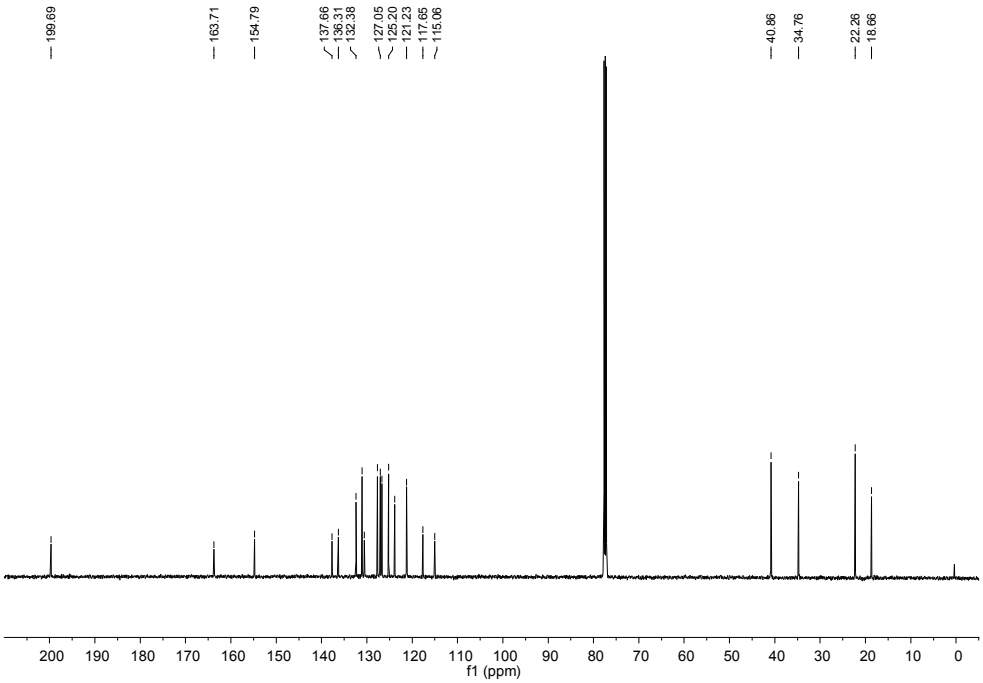




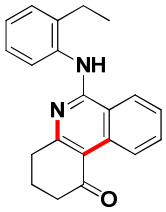
^{1}H NMR and ^{13}C NMR Spectra of Compound 3v

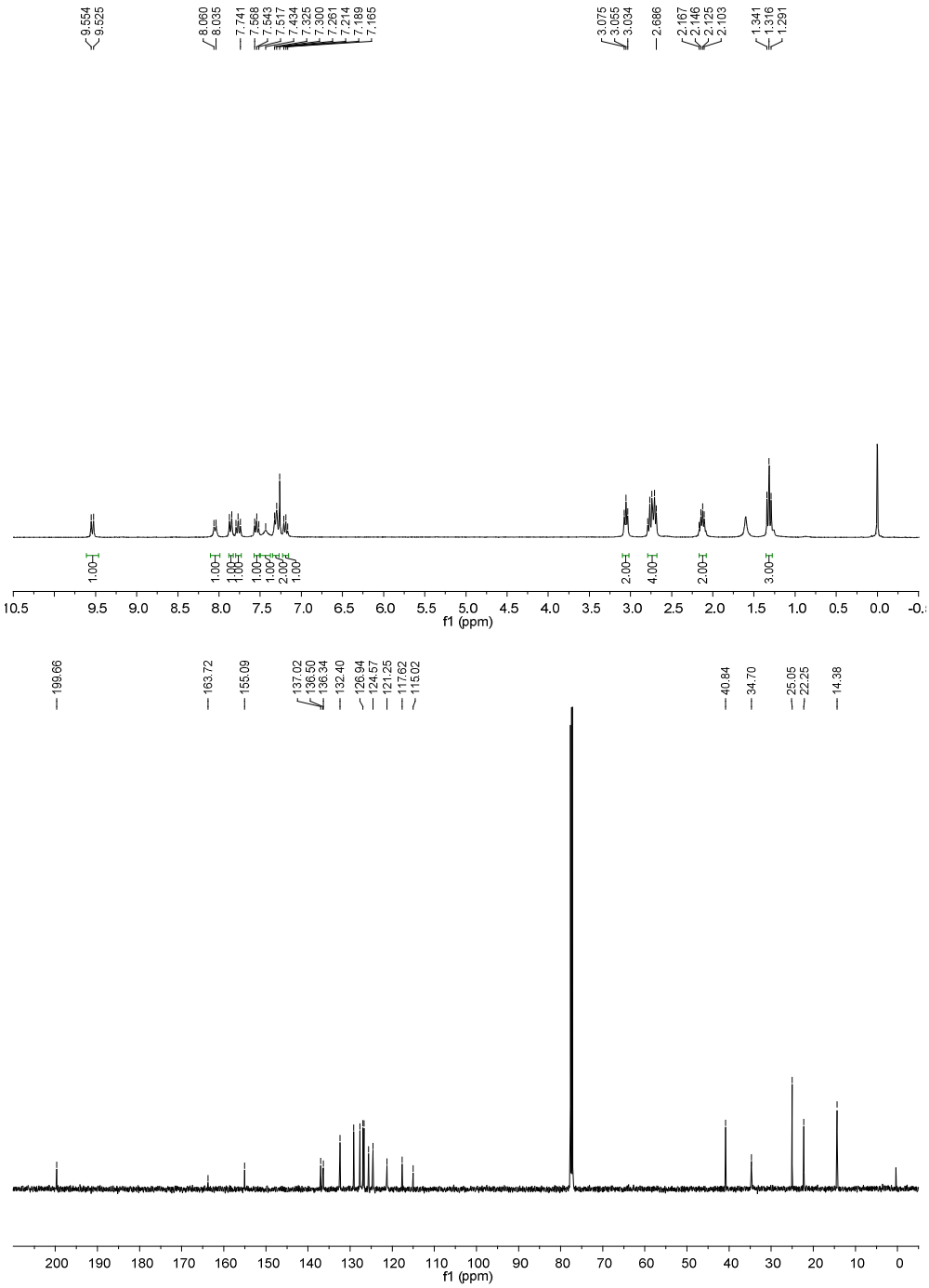




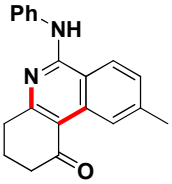


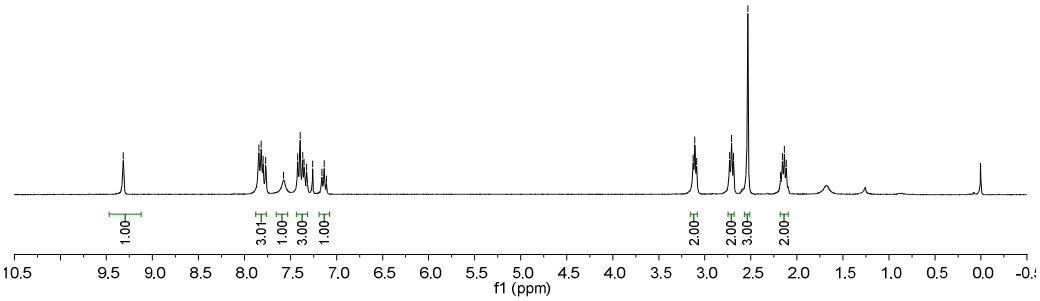
^{1}H NMR and ^{13}C NMR Spectra of Compound 3w

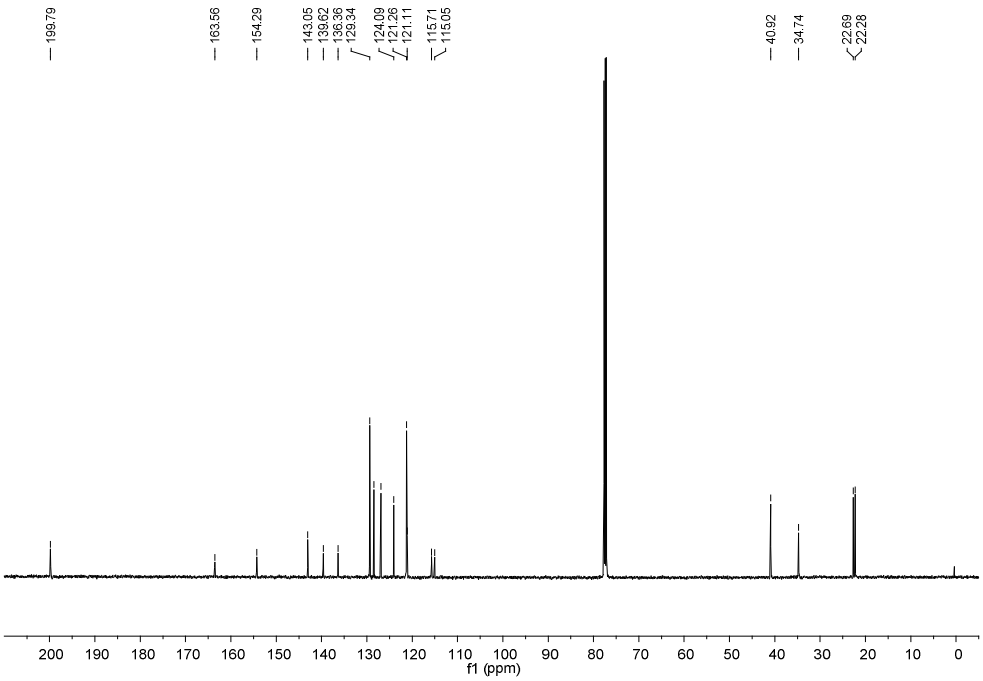




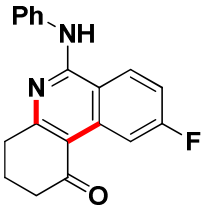
^{1}H NMR and ^{13}C NMR Spectra of Compound 3x

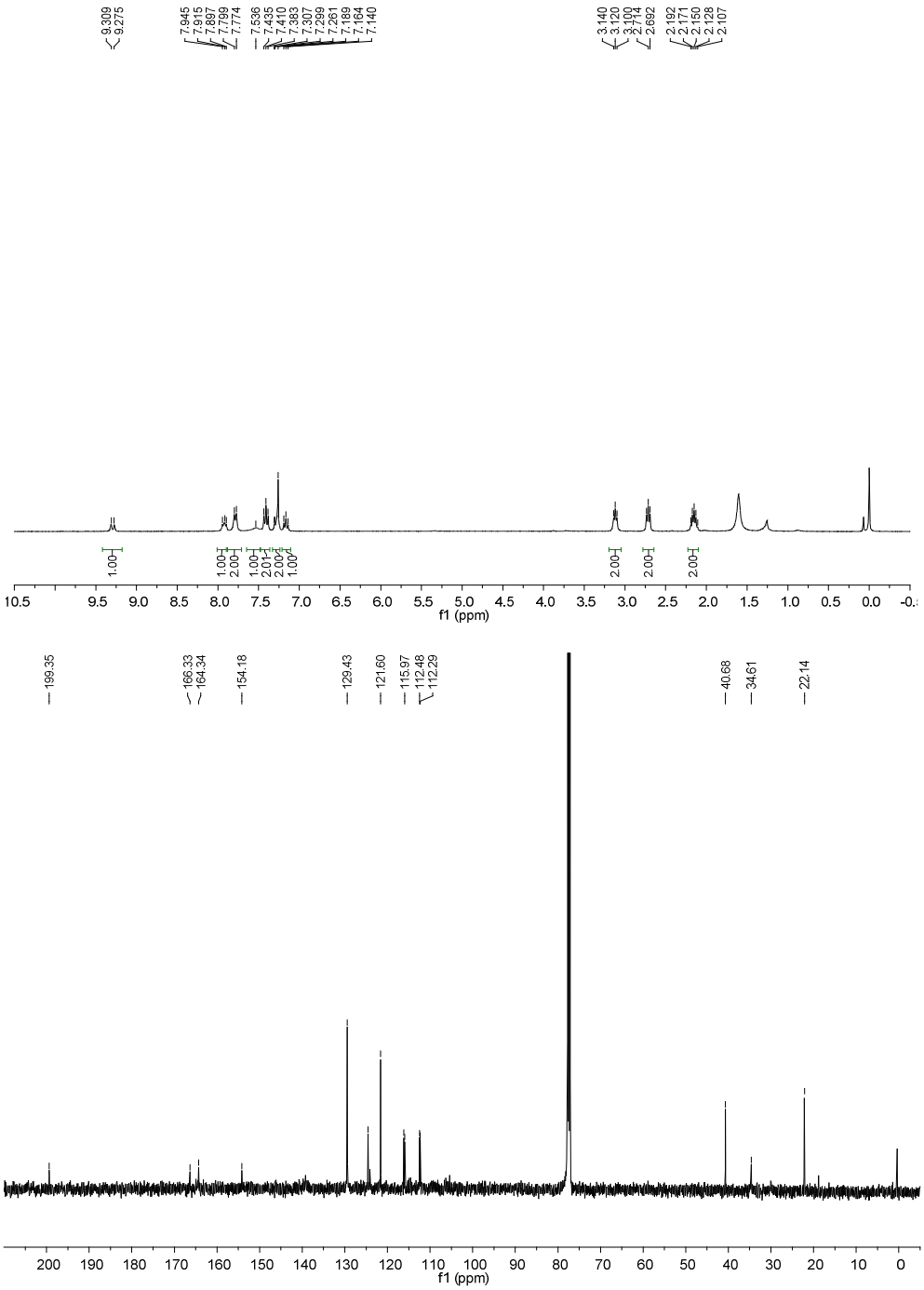




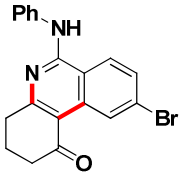


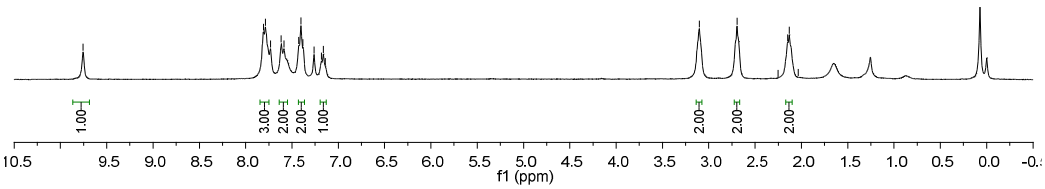
^{1}H NMR and ^{13}C NMR Spectra of Compound 3y

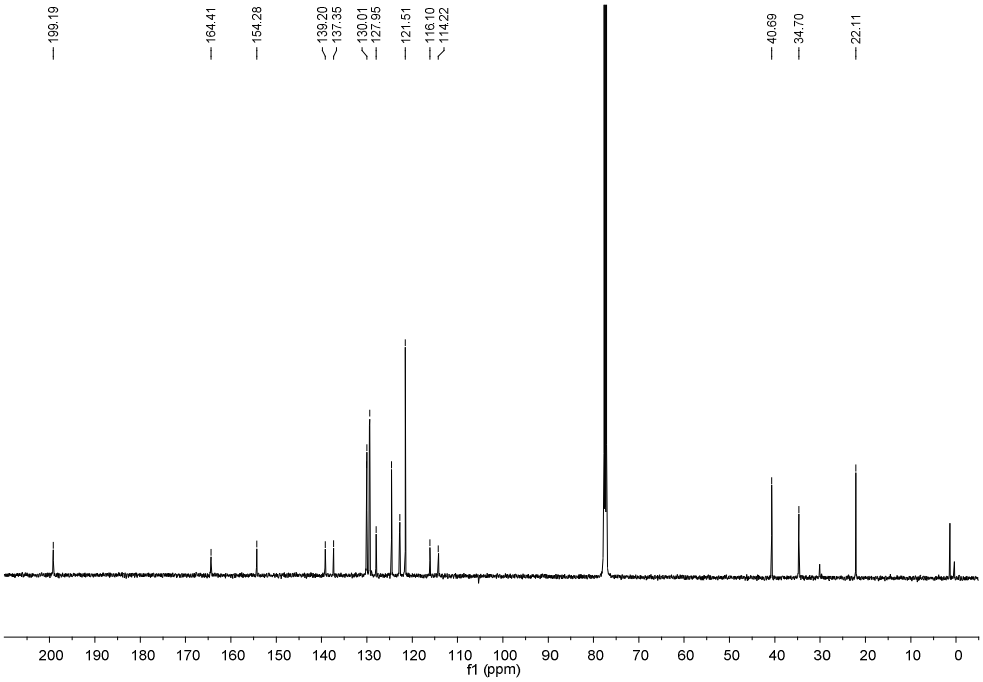




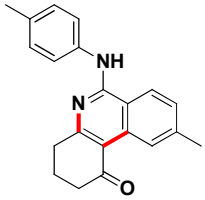
^{1}H NMR and ^{13}C NMR Spectra of Compound 3z

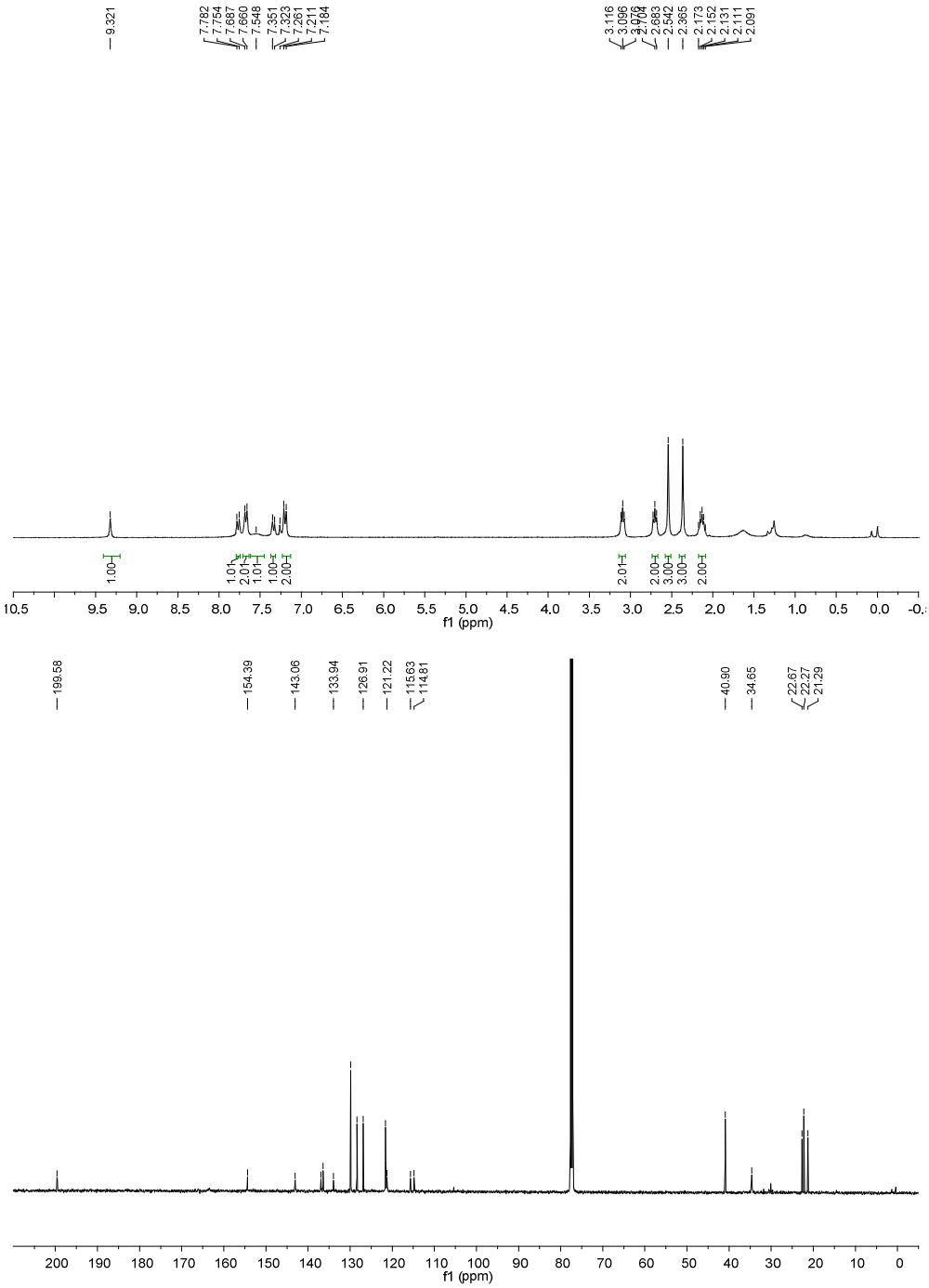




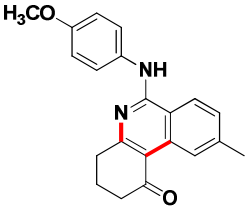


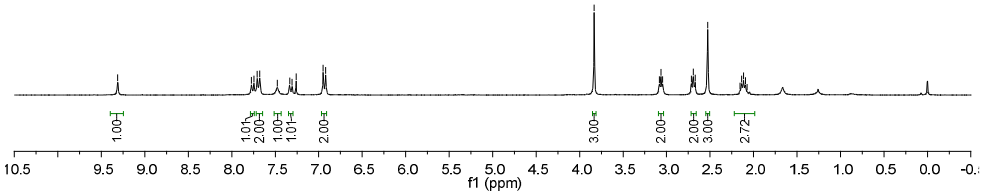
^{1}H NMR and ^{13}C NMR Spectra of Compound 3aa

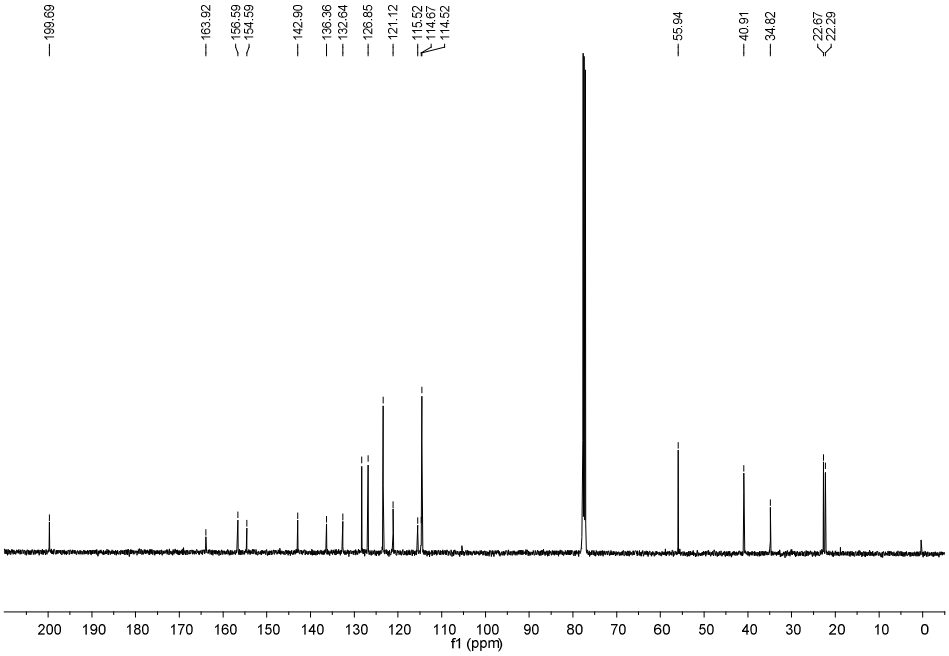




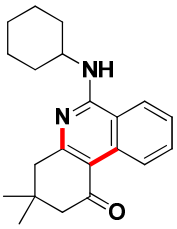
^{1}H NMR and ^{13}C NMR Spectra of Compound 3ab

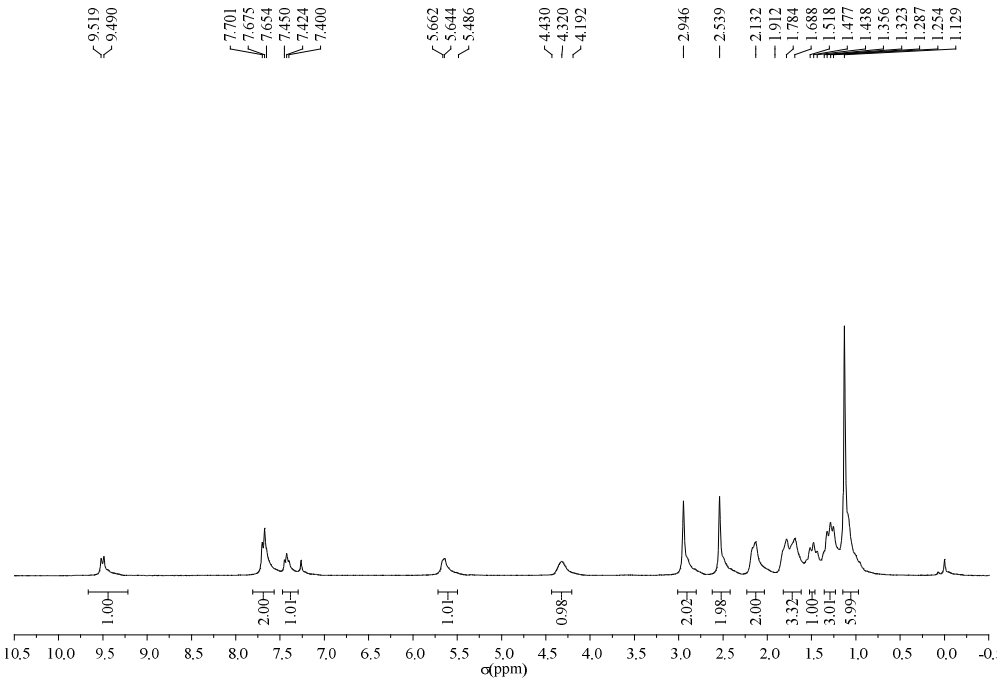


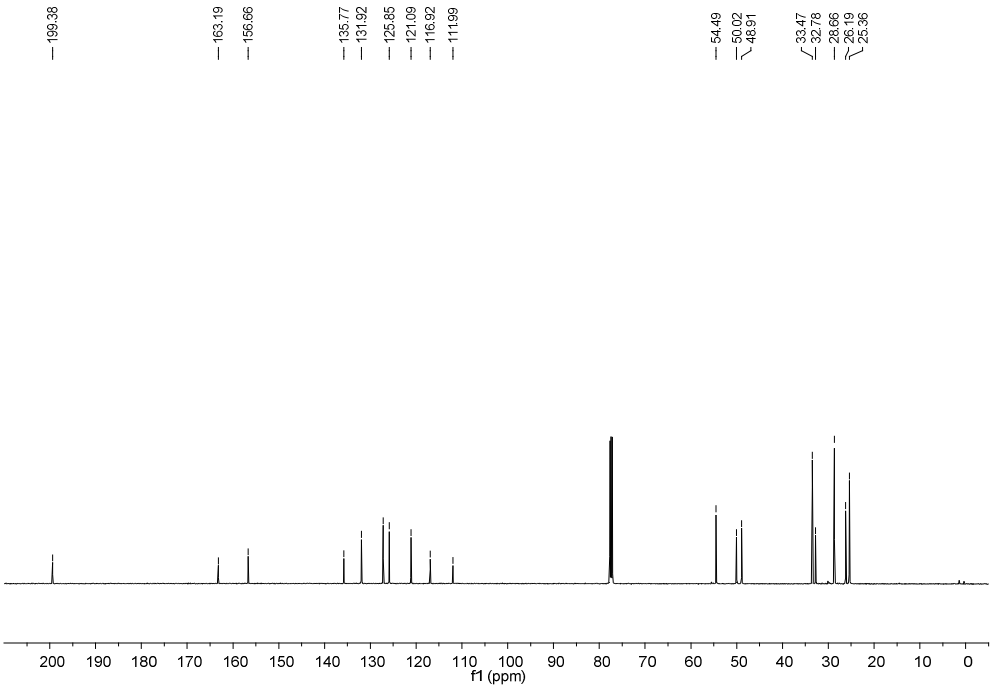




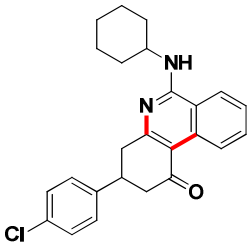
^{1}H NMR and ^{13}C NMR Spectra of Compound 3ag

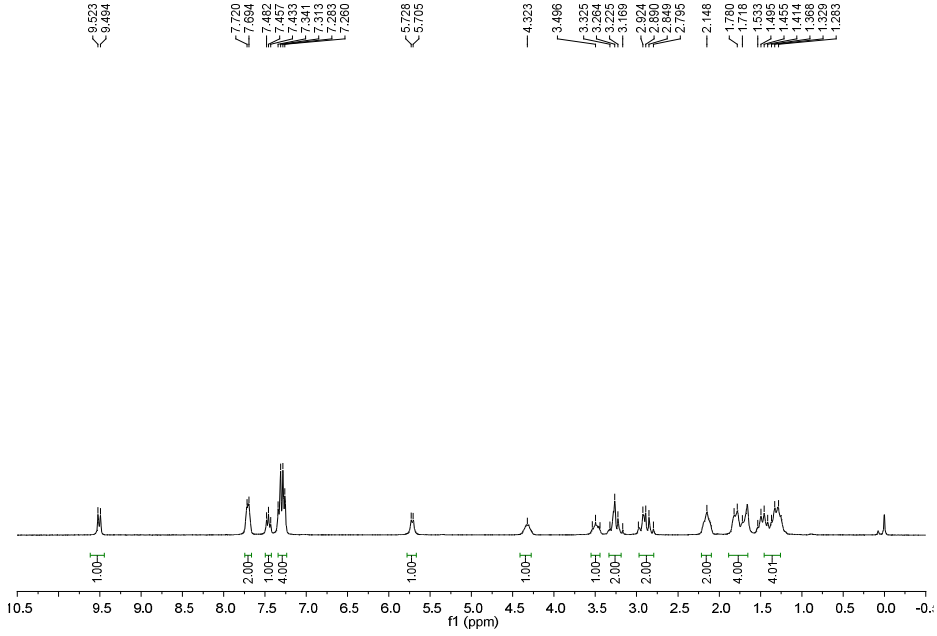


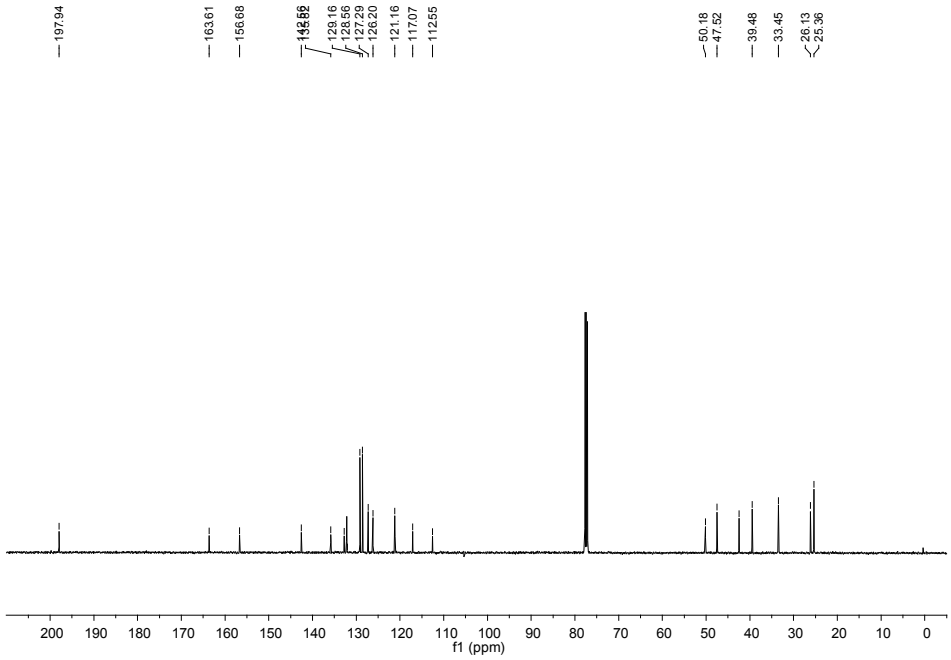




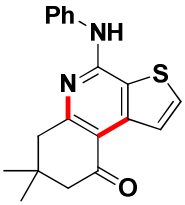
^{1}H NMR and ^{13}C NMR Spectra of Compound 3ah

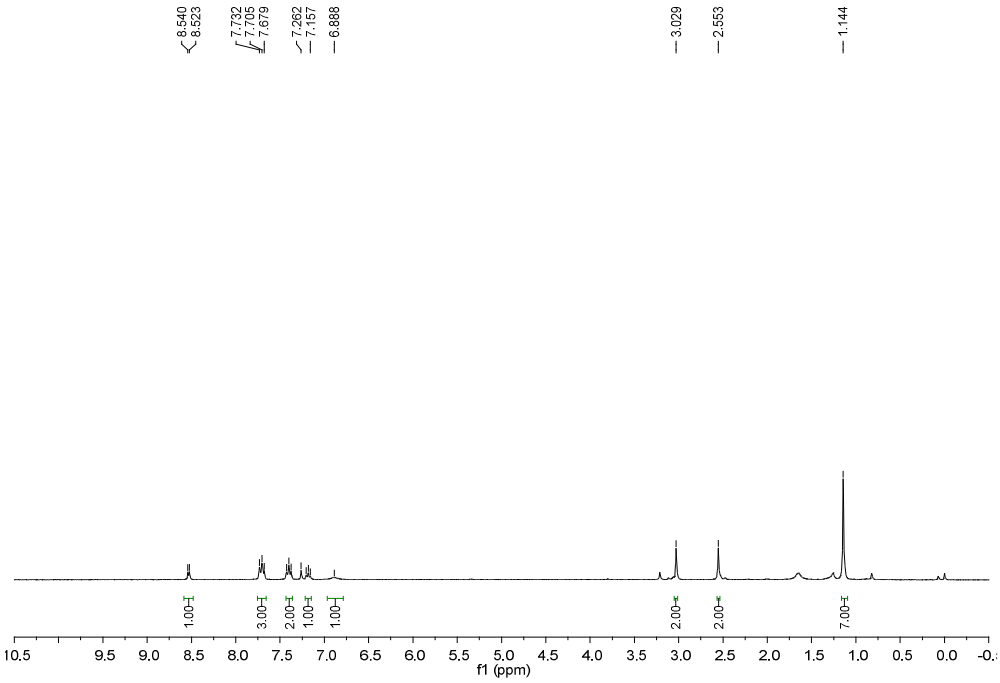


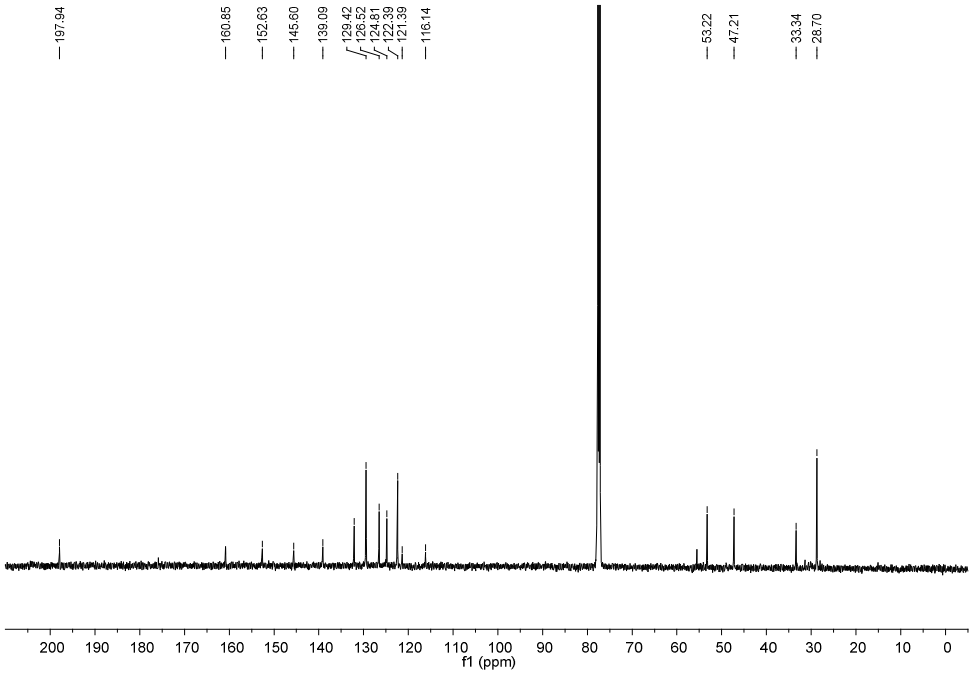




H NMR and ^{13}C NMR Spectra of Compound 3ai







X-Ray Crystallography structures of Compound **3aa**

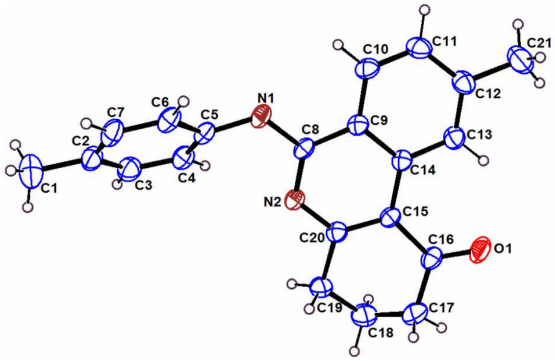


Figure S1. X-ray crystal structure of **3aa**

Crystal data for **3aa**: $C_{21}H_{19}N_2O$, *Mr* = 315.38, Triclinic, *a* = 10.0296(18) Å, b = 13.277(2) Å, c = 14.687(3) Å, α = 64.959(2)^o, *β* = 81.930(2)^o, *γ* = 89.212(2)^o, *V* = 1752.1(6) Å^3, *T* = 293 (2) K, space group P(-1), Z = 4, 6153 reflections collected, 3719 unique (R_{int} = 0.0372) which were used in all calculation. The ellipsoid contour probability level in the caption of 30 %.

Crystallographic data for compound **3aa** reported in this paper have been deposited with the Cambridge Crystallographic Data Centre as supplementary publication no. 1862373.