Supporting Information for

Diastereoselective Synthesis of *N*-aryl Tetrahydroquinolines and *N*-aryl Indolines by the Tandem Reaction of Aryne

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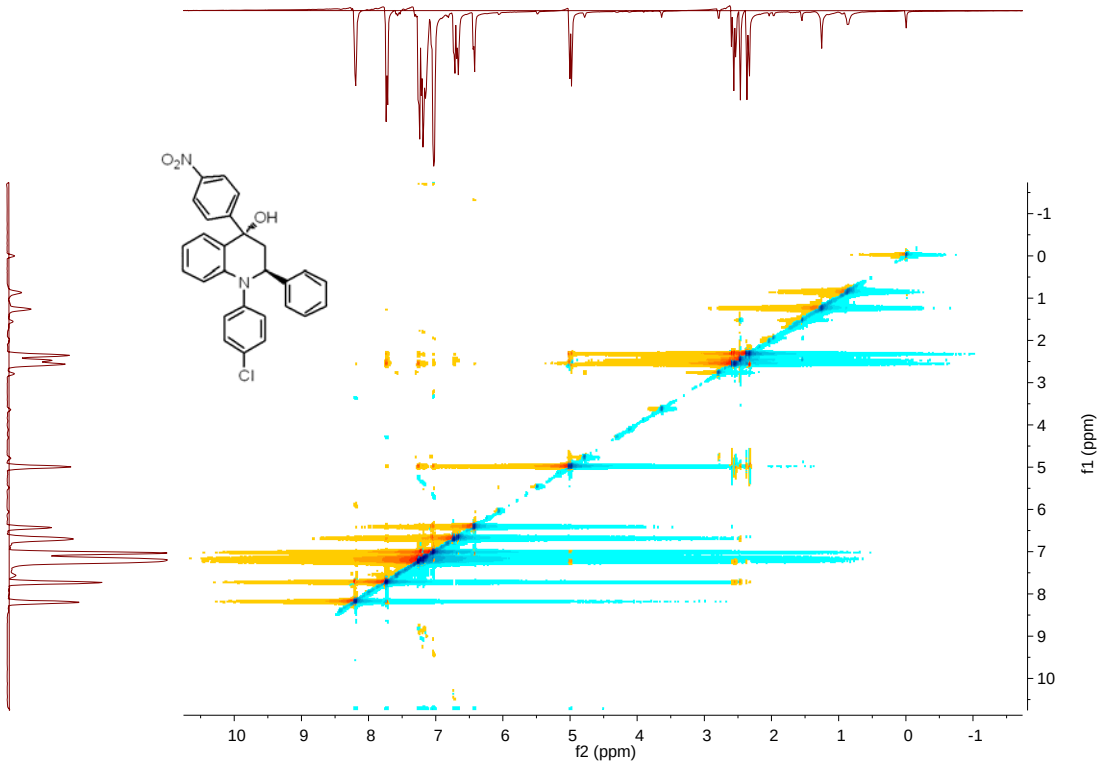
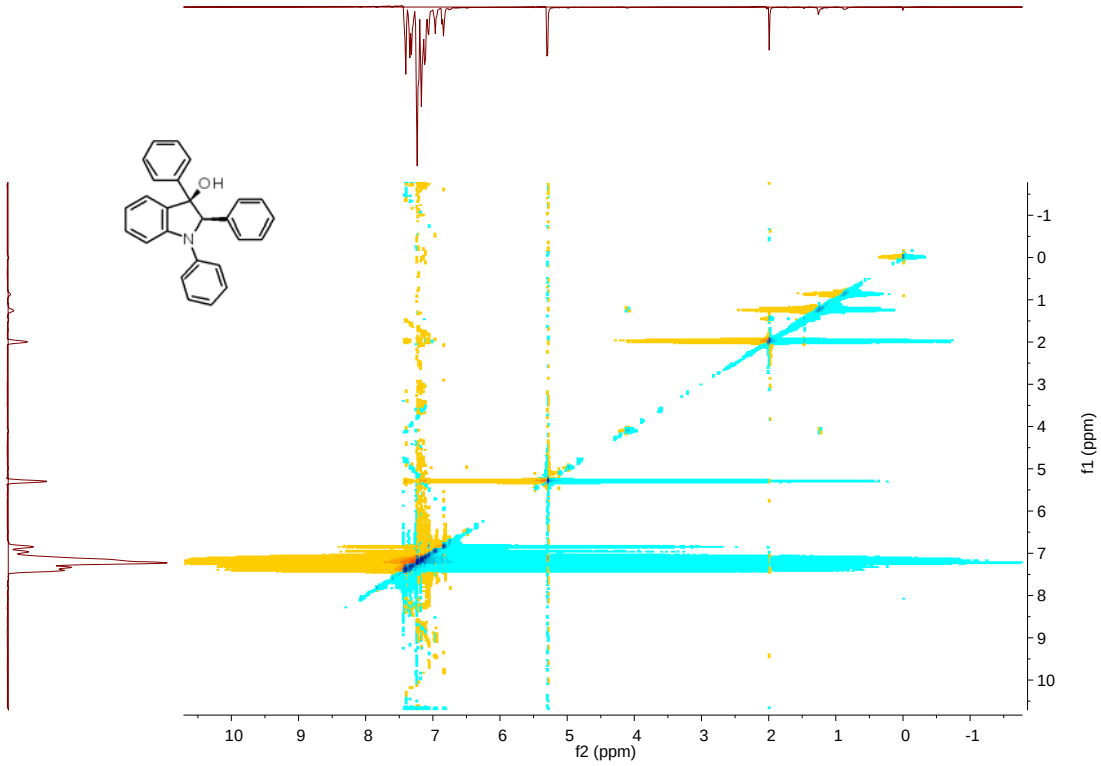
1. Roesy NMR spectra for product 3g and 6a

Roesy NMR of 1-(4-chlorophenyl)-4-(4-nitrophenyl)-2-phenyl-1,2,3,4-tetrahydroquinolin-4-ol (3g)

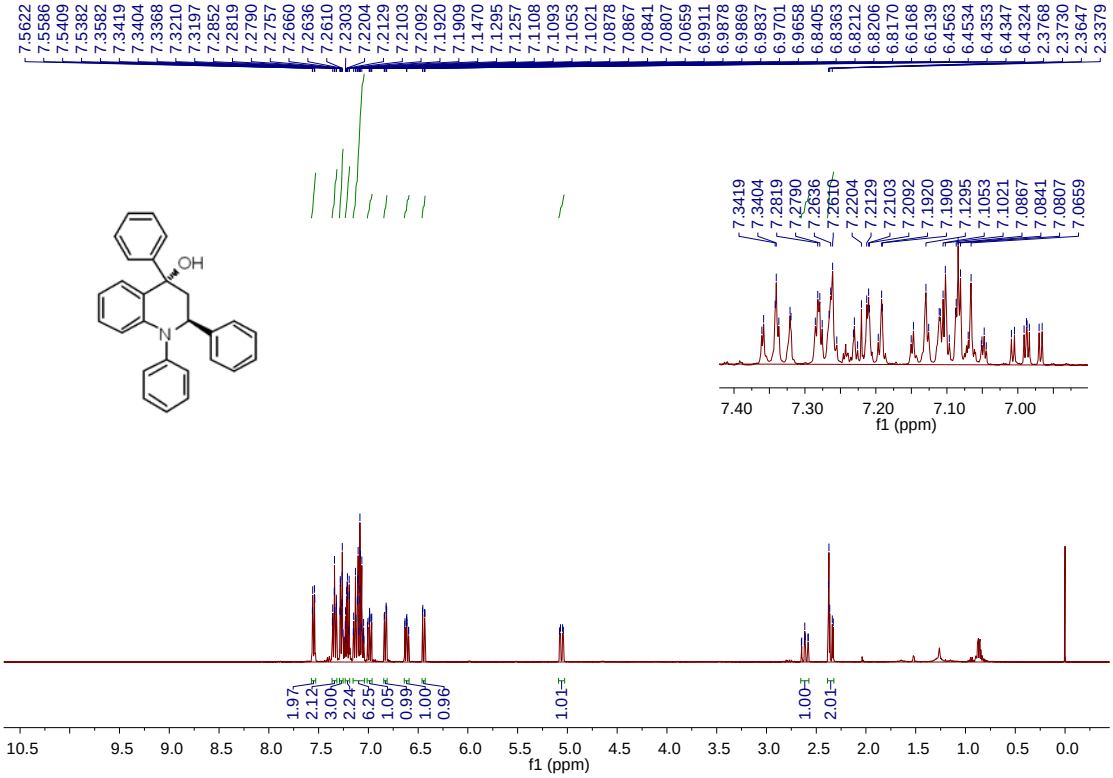


Roesy NMR of 1,2,3-triphenylindolin-3-ol (6a)

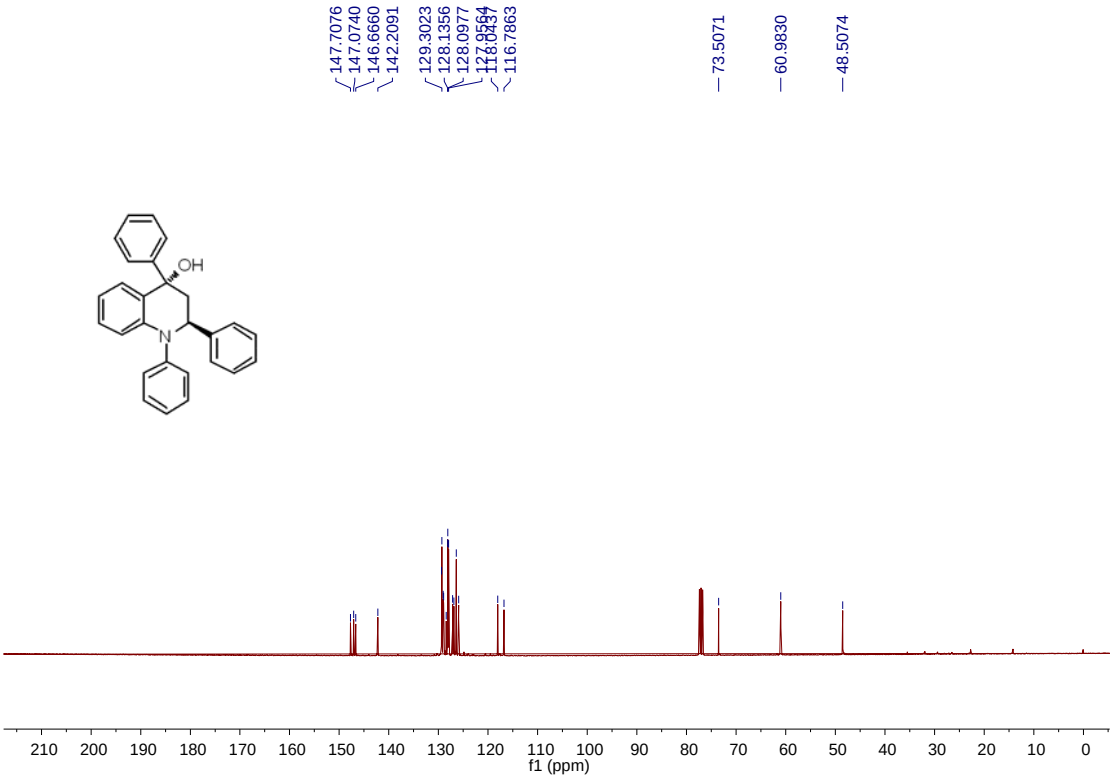


2. Copies of ^{1}H and ^{13}C NMR spectra

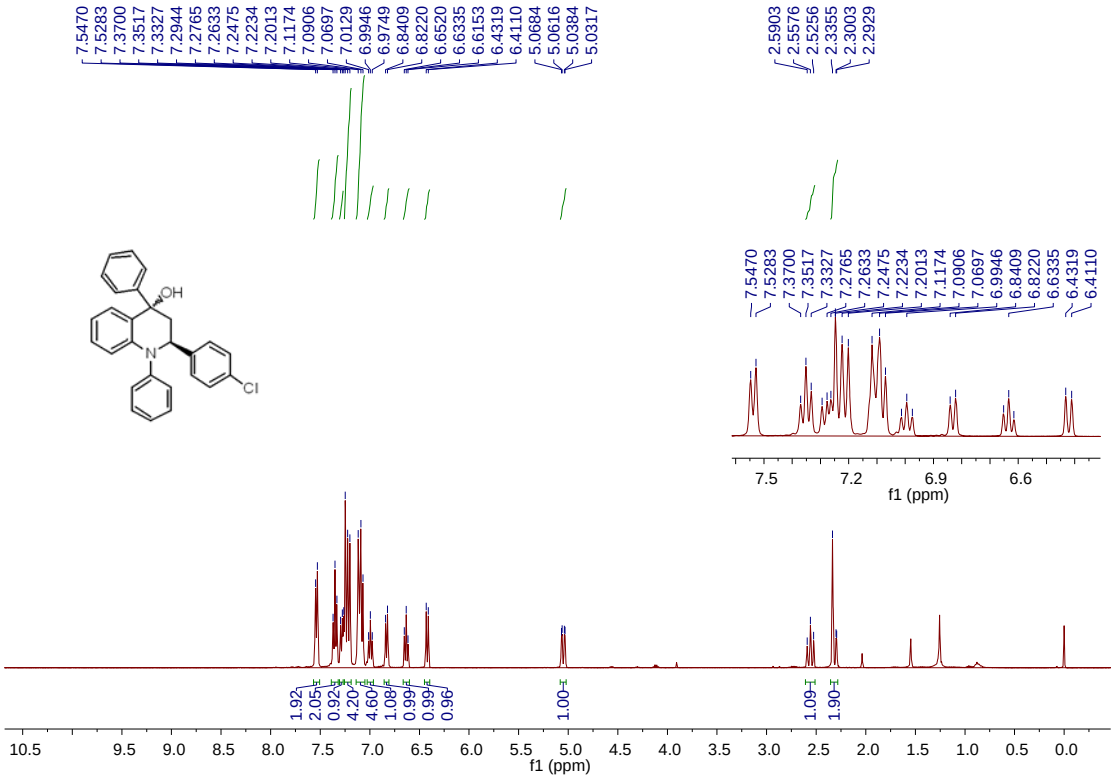
^{1}H NMR of 1,2,4-triphenyl-1,2,3,4-tetrahydroquinolin-4-ol (3a)



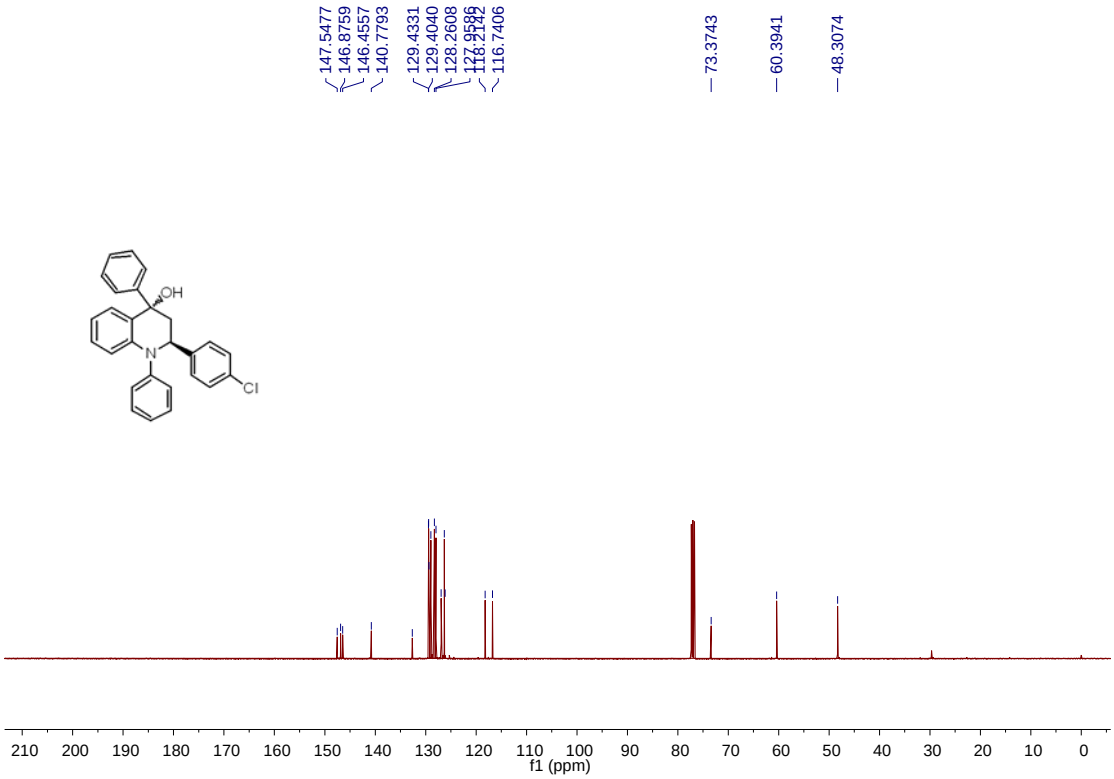
^{13}C NMR of 1,2,4-triphenyl-1,2,3,4-tetrahydroquinolin-4-ol (3a)



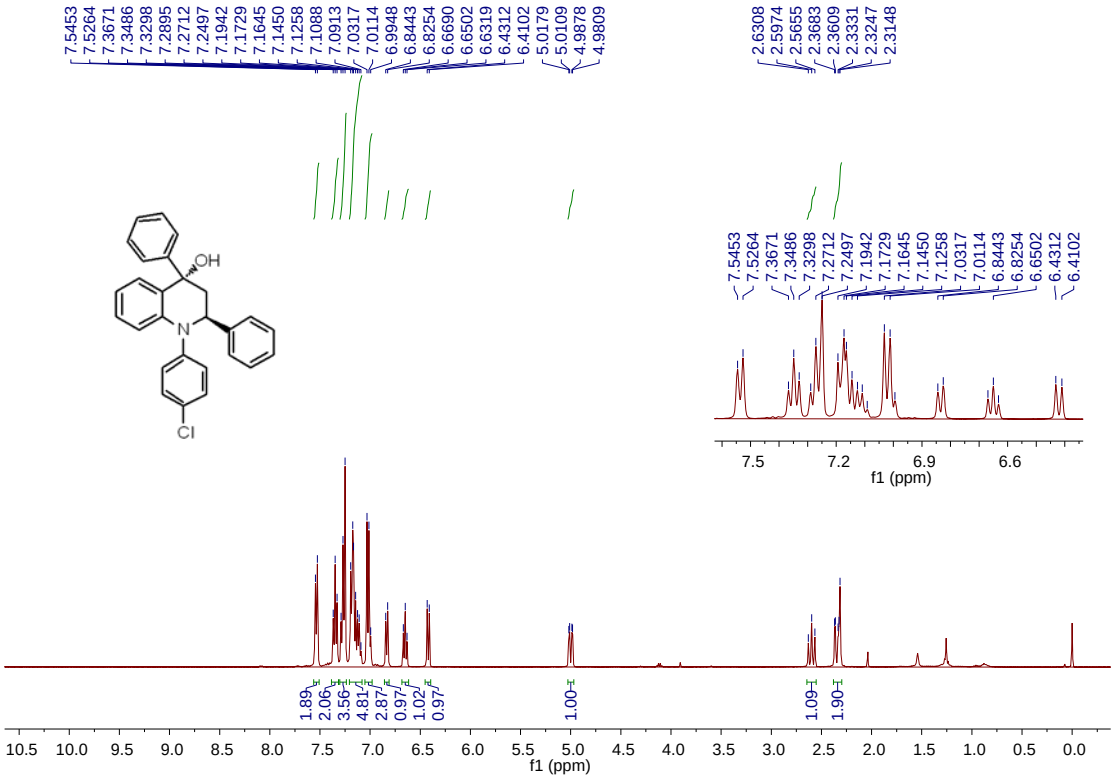
^{1}H NMR of 2-(4-chlorophenyl)-1,4-diphenyl-1,2,3,4-tetrahydroquinolin-4-ol (3b)



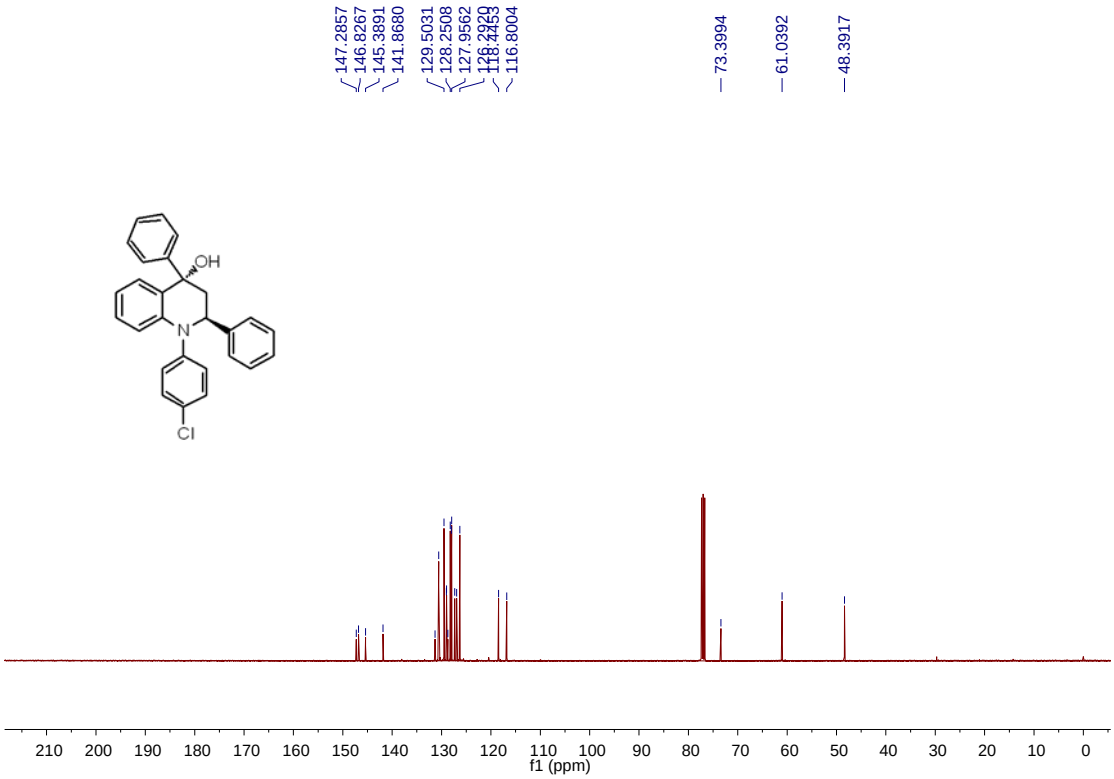
^{13}C NMR of 2-(4-chlorophenyl)-1,4-diphenyl-1,2,3,4-tetrahydroquinolin-4-ol (3b)



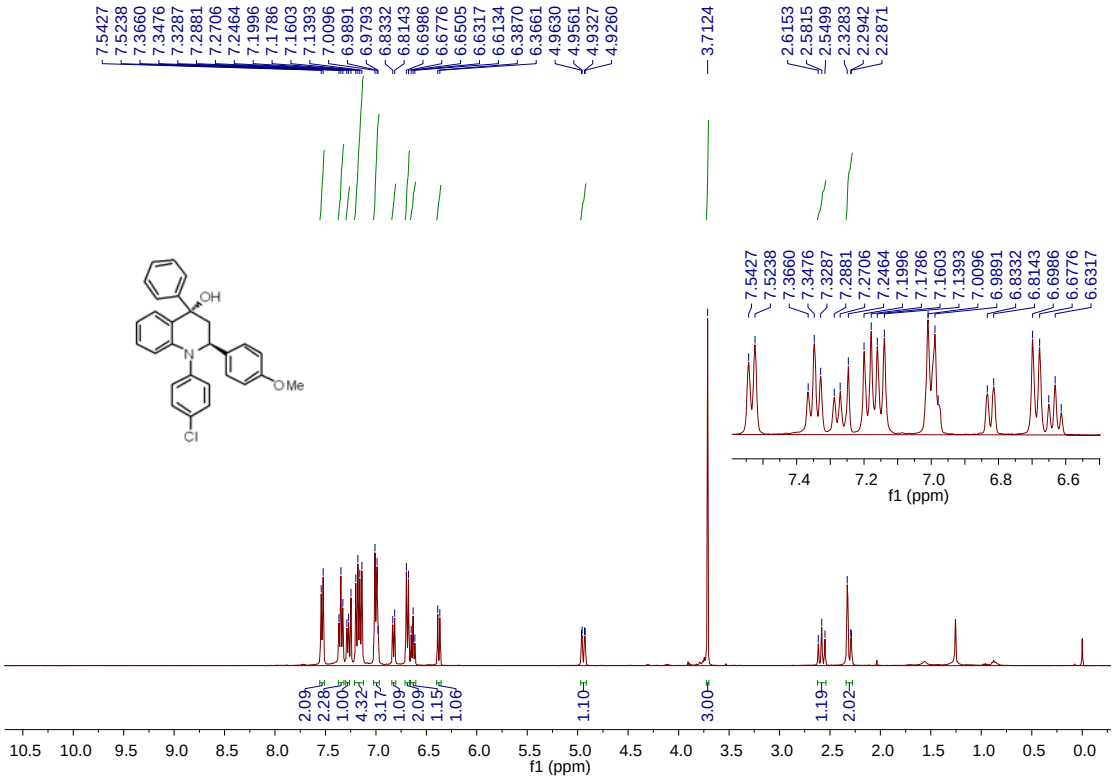
^{1}H NMR of 1-(4-chlorophenyl)-2,4-diphenyl-1,2,3,4-tetrahydroquinolin-4-ol (3c)



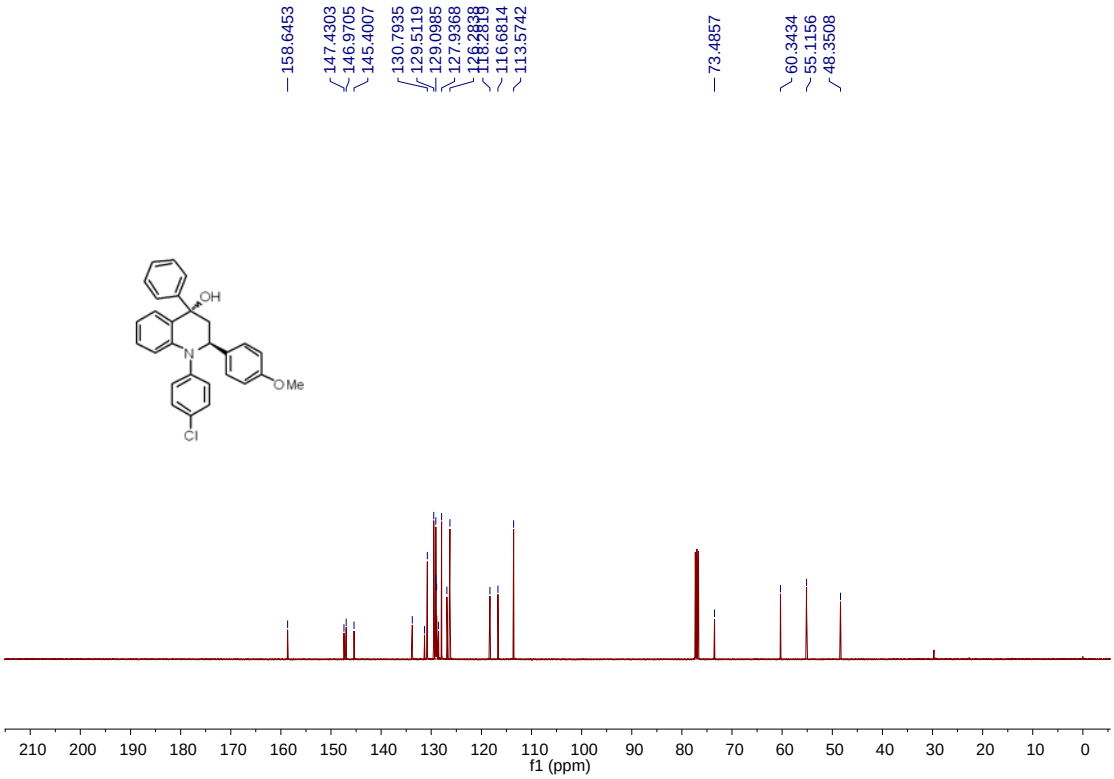
^{13}C NMR of 1-(4-chlorophenyl)-2,4-diphenyl-1,2,3,4-tetrahydroquinolin-4-ol (3c)



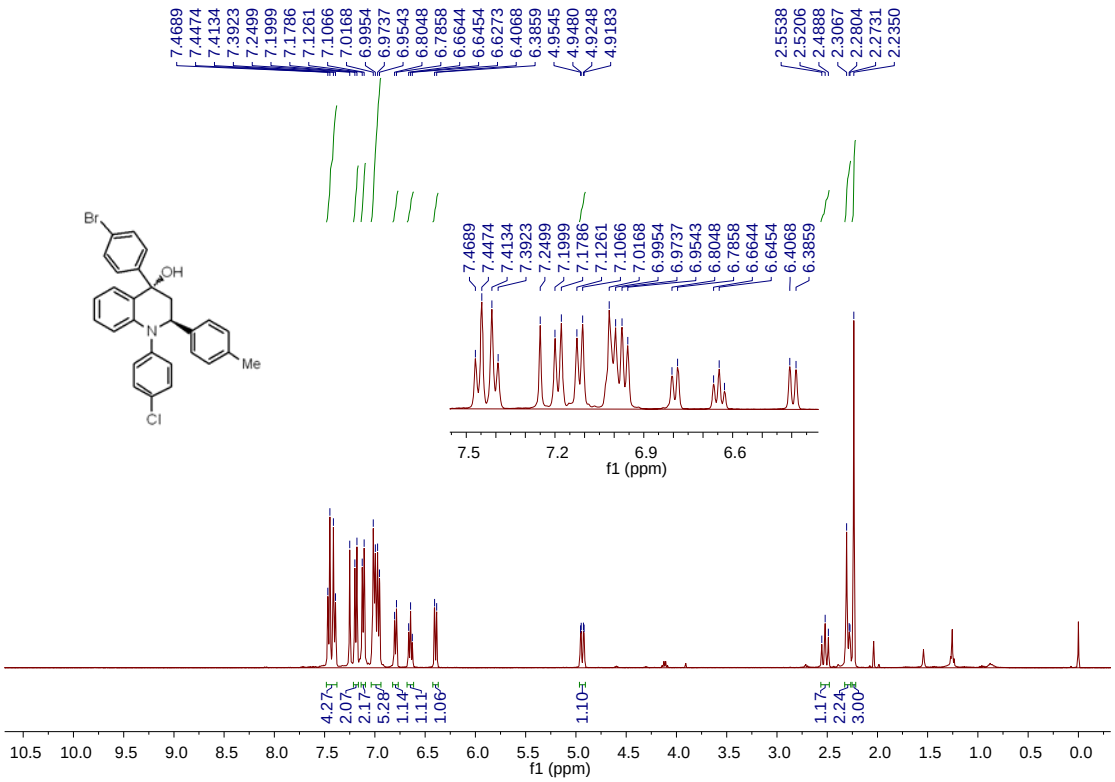
^{1}H NMR of 1-(4-chlorophenyl)-2-(4-methoxyphenyl)-4-phenyl-1,2,3,4-tetrahydro-quinolin-4-ol (3d)



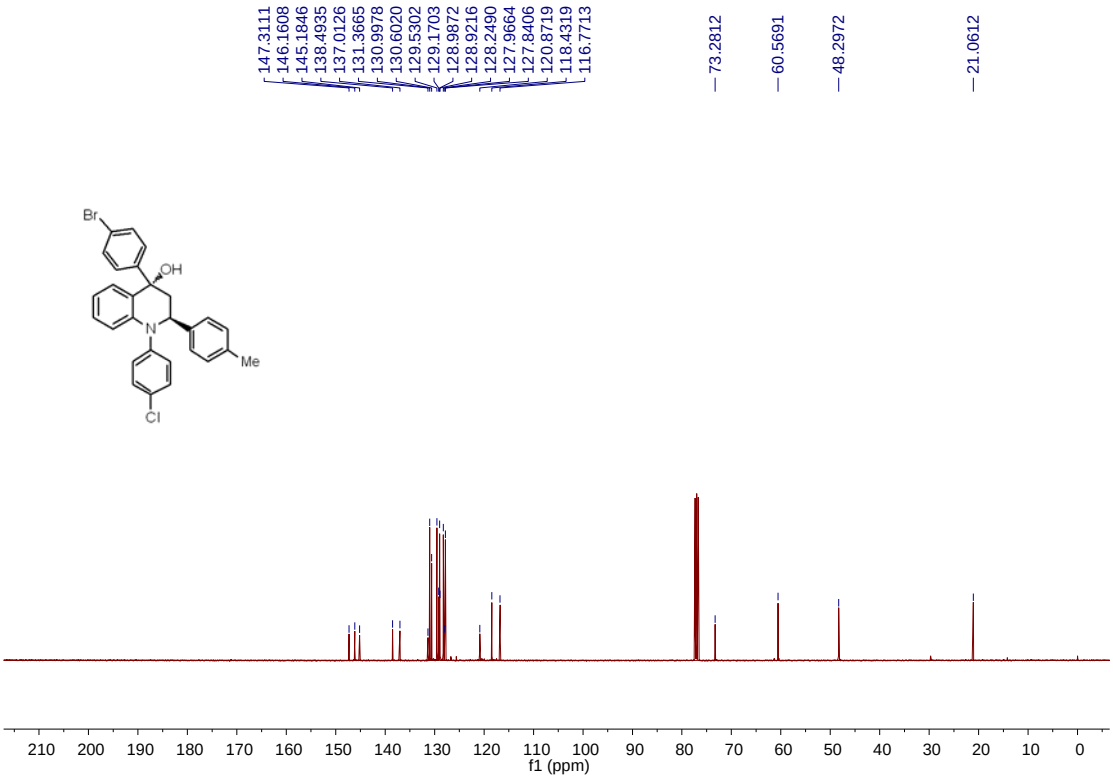
^{13}C NMR of 1-(4-chlorophenyl)-2-(4-methoxyphenyl)-4-phenyl-1,2,3,4-tetrahydro-quinolin-4-ol (3d)



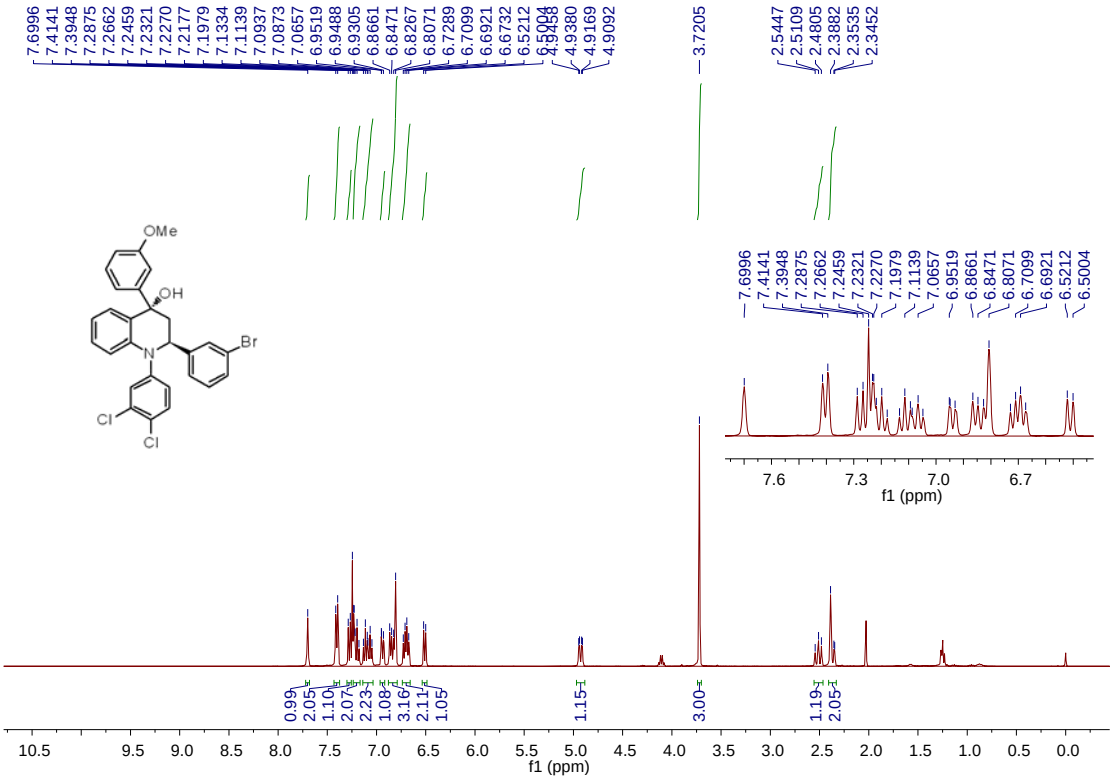
^{1}H NMR of 4-(4-bromophenyl)-1-(4-chlorophenyl)-2-(p-tolyl)-1,2,3,4-tetrahydroquinolin-4-ol (3e)



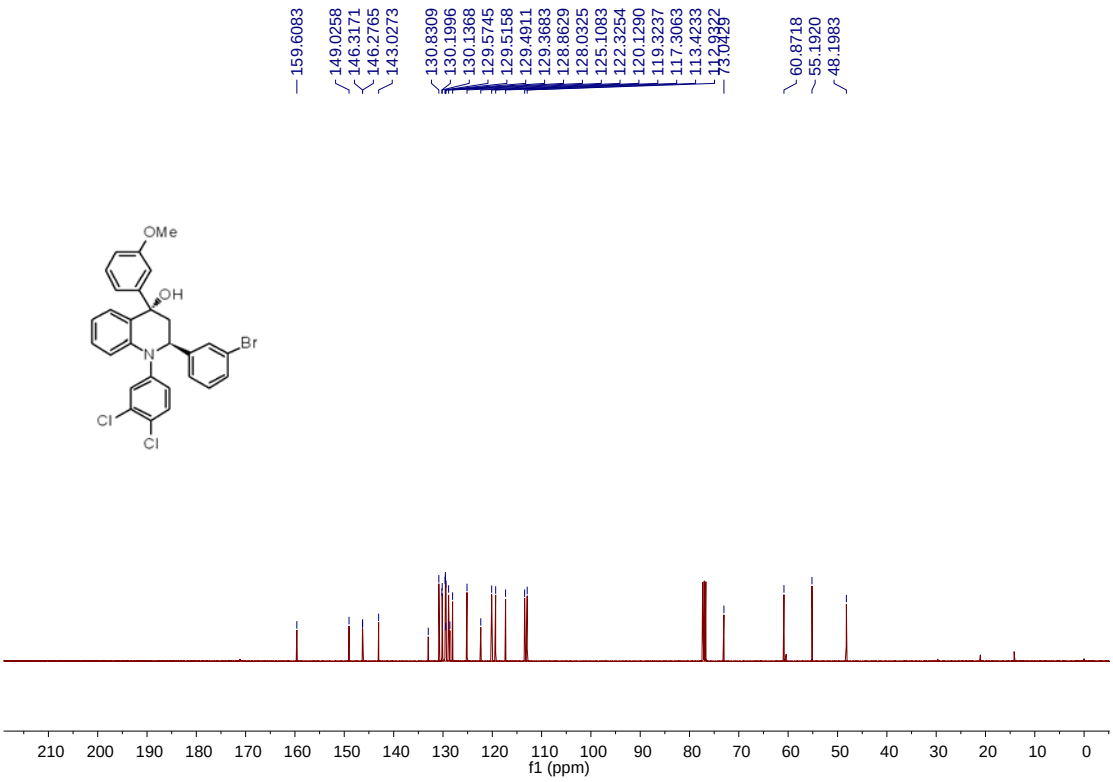
^{13}C NMR of 4-(4-bromophenyl)-1-(4-chlorophenyl)-2-(p-tolyl)-1,2,3,4-tetrahydroquinolin-4-ol(3e)



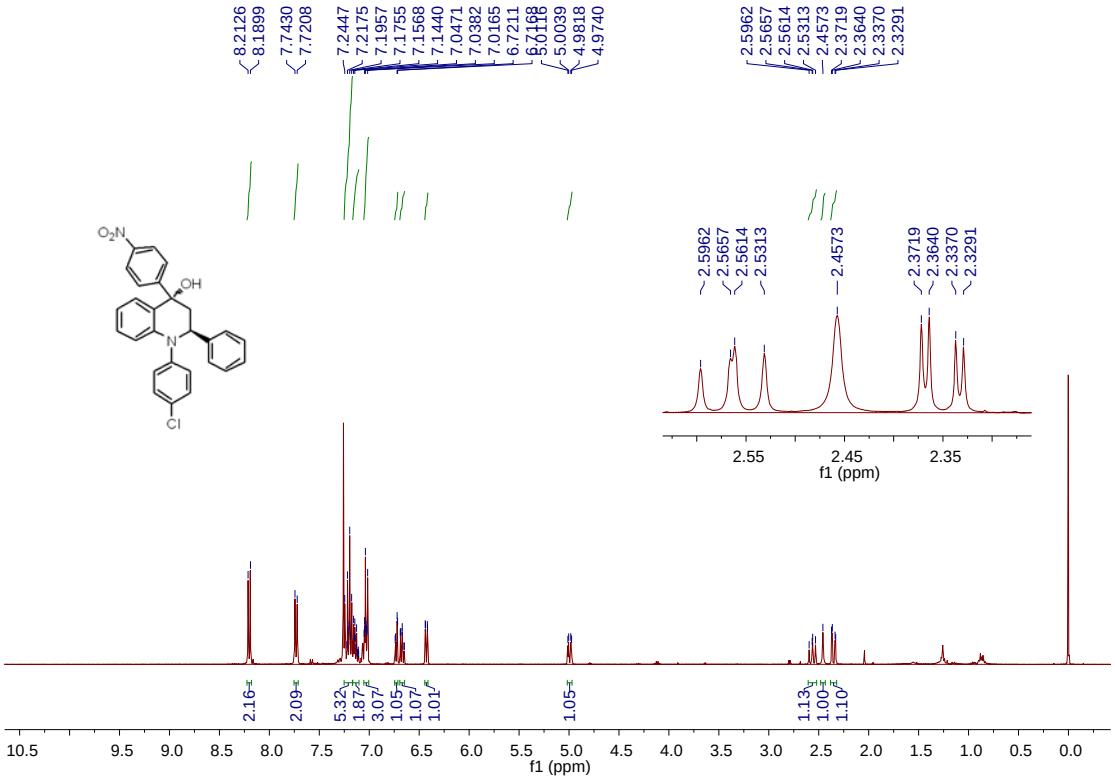
^{1}H NMR of 2-(3-bromophenyl)-1-(3,4-dichlorophenyl)-4-(3-methoxyphenyl)-1,2,3,4-tetrahydroquinolin-4-ol (3f)



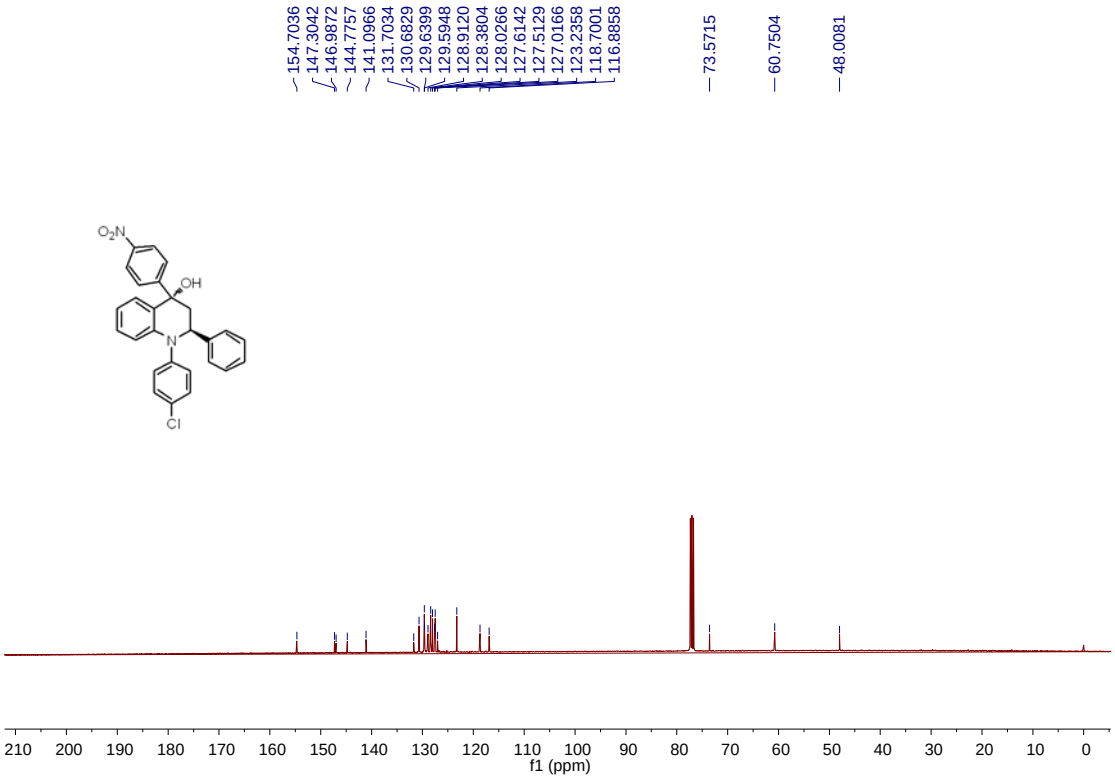
^{13}C NMR of 2-(3-bromophenyl)-1-(3,4-dichlorophenyl)-4-(3-methoxyphenyl)-1,2,3,4-tetrahydroquinolin-4-ol (3f)



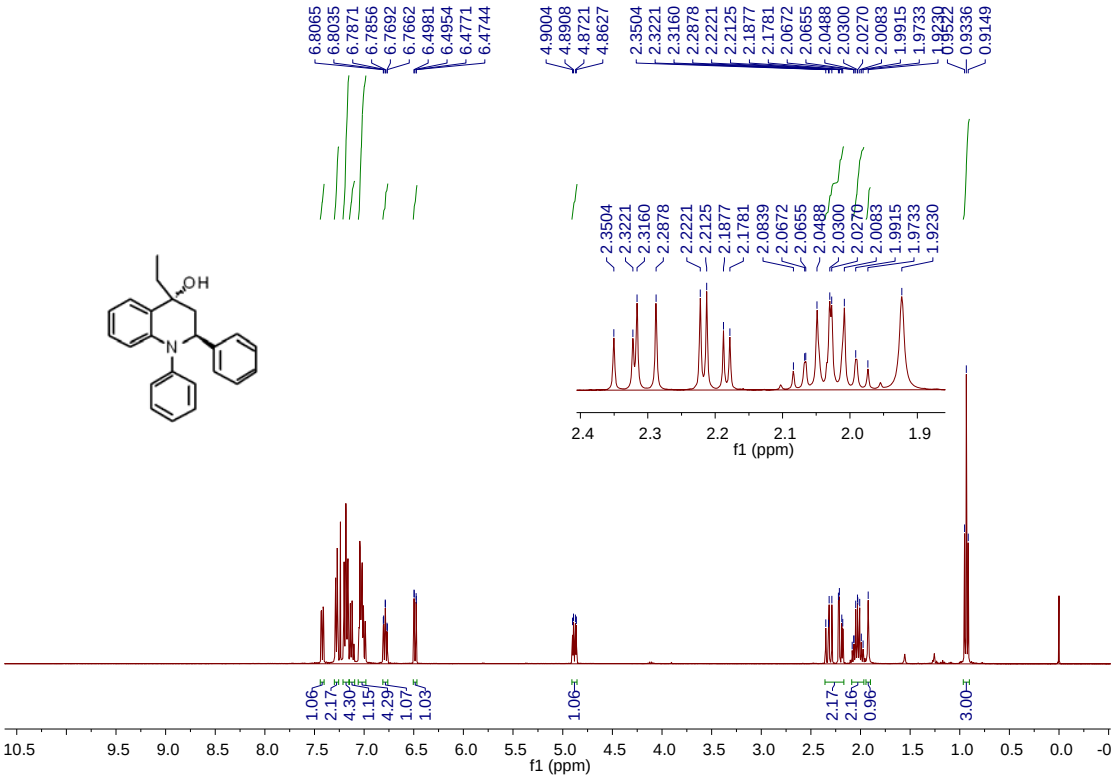
^{1}H NMR of 1-(4-chlorophenyl)-4-(4-nitrophenyl)-2-phenyl-1,2,3,4-tetrahydroquinolin-4-ol (3g)



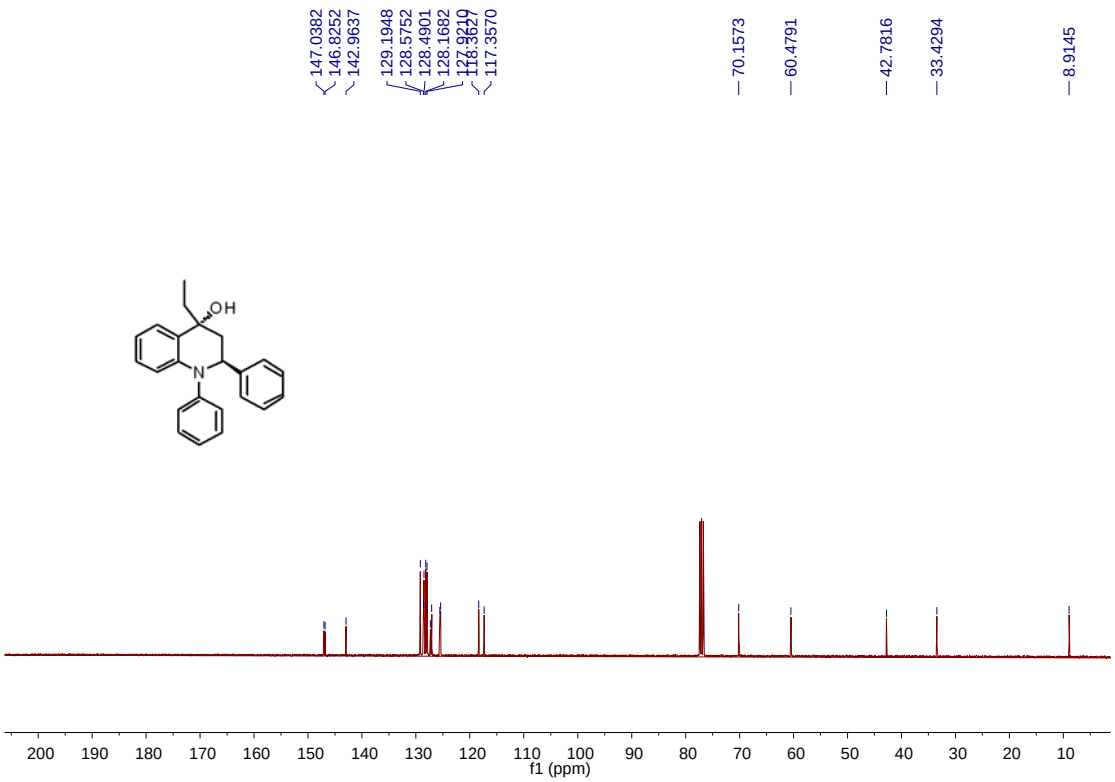
^{13}C NMR of 1-(4-chlorophenyl)-4-(4-nitrophenyl)-2-phenyl-1,2,3,4-tetrahydroquinolin-4-ol (3g)



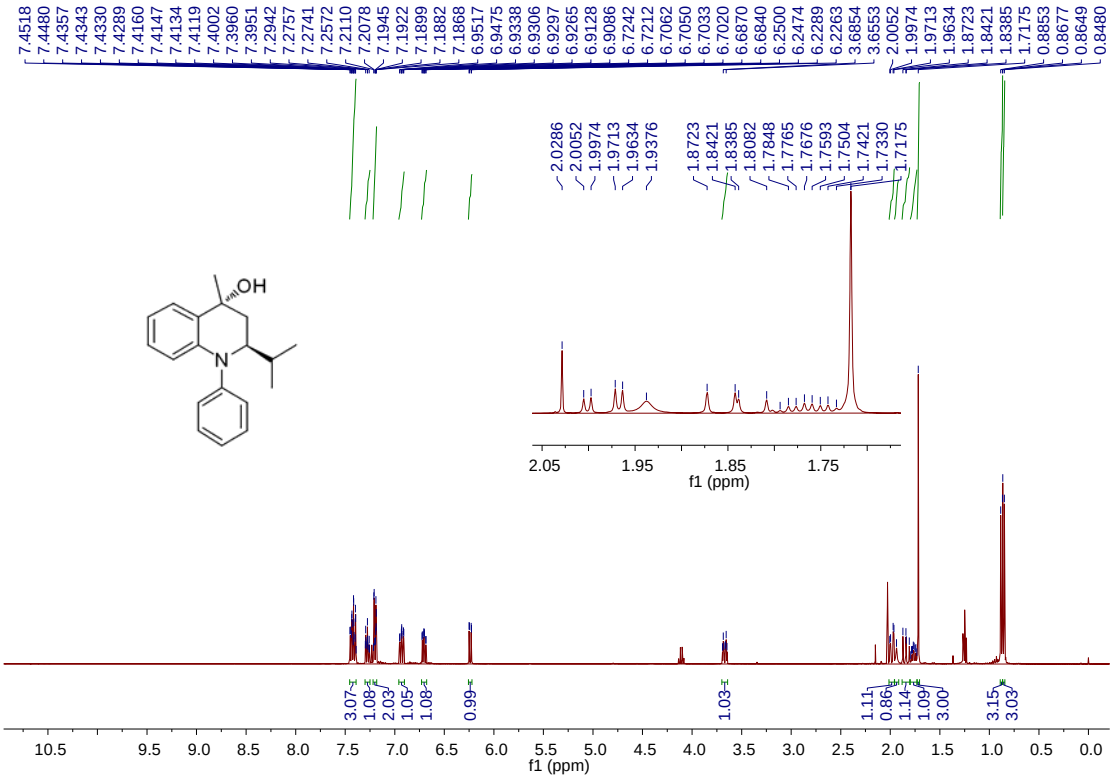
^{1}H NMR of 4-ethyl-1,2-diphenyl-1,2,3,4-tetrahydroquinolin-4-ol (3h)



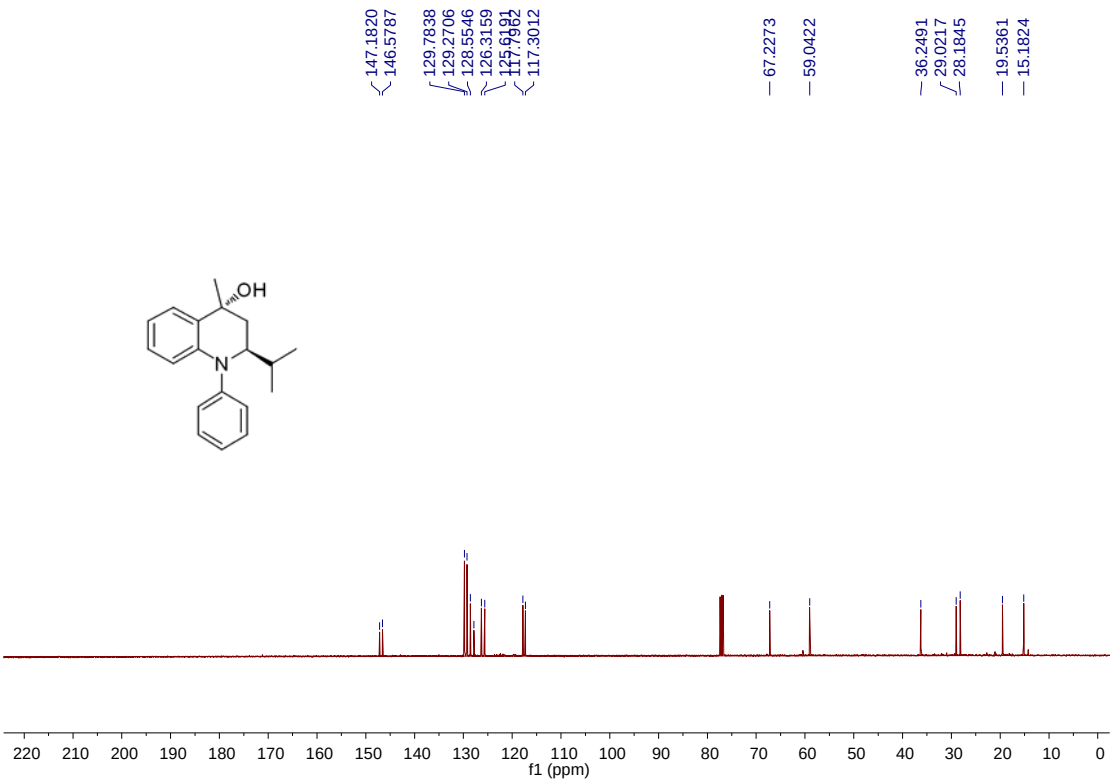
^{13}C NMR of 4-ethyl-1,2-diphenyl-1,2,3,4-tetrahydroquinolin-4-ol (3h)



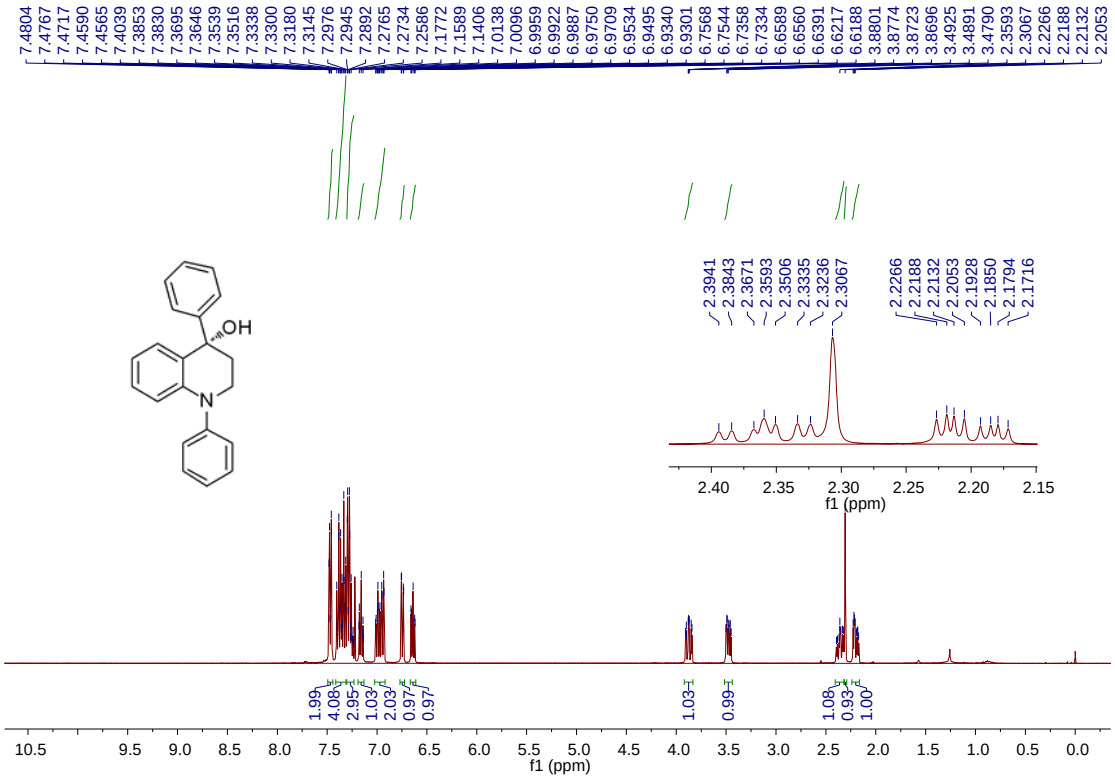
^{1}H NMR of 2-isopropyl-4-methyl-1-phenyl-1,2,3,4-tetrahydroquinolin-4-ol (3i)



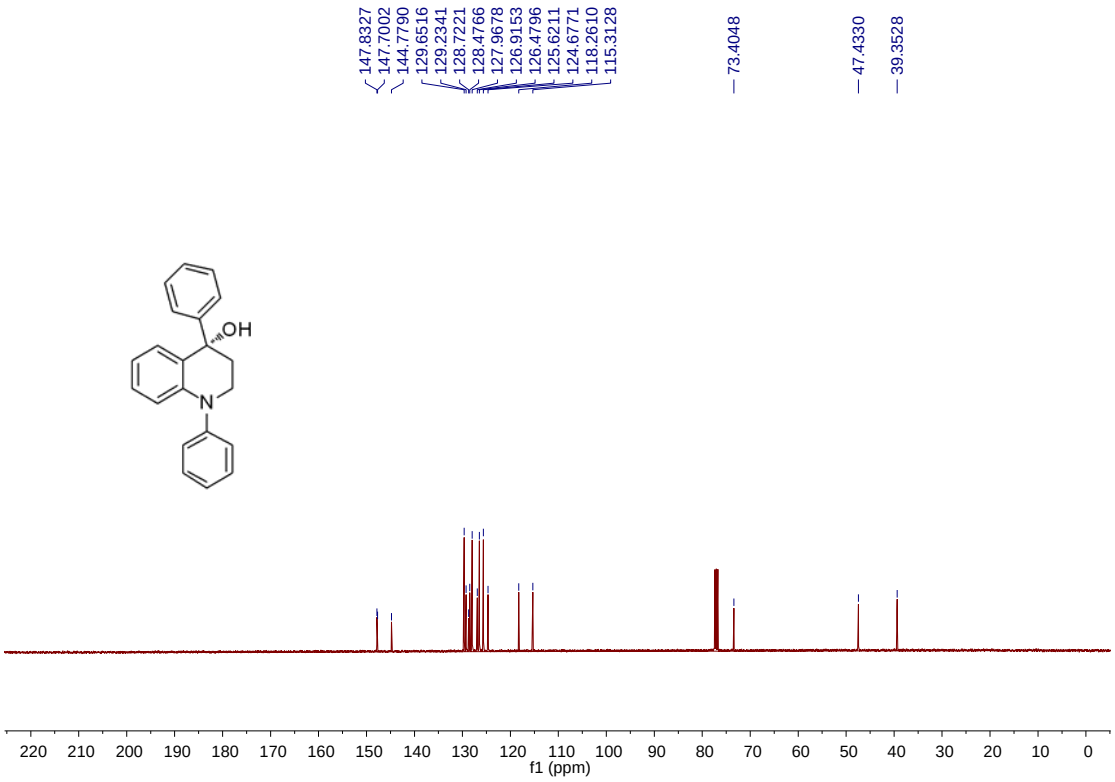
^{13}C NMR of 2-isopropyl-4-methyl-1-phenyl-1,2,3,4-tetrahydroquinolin-4-ol (3i)



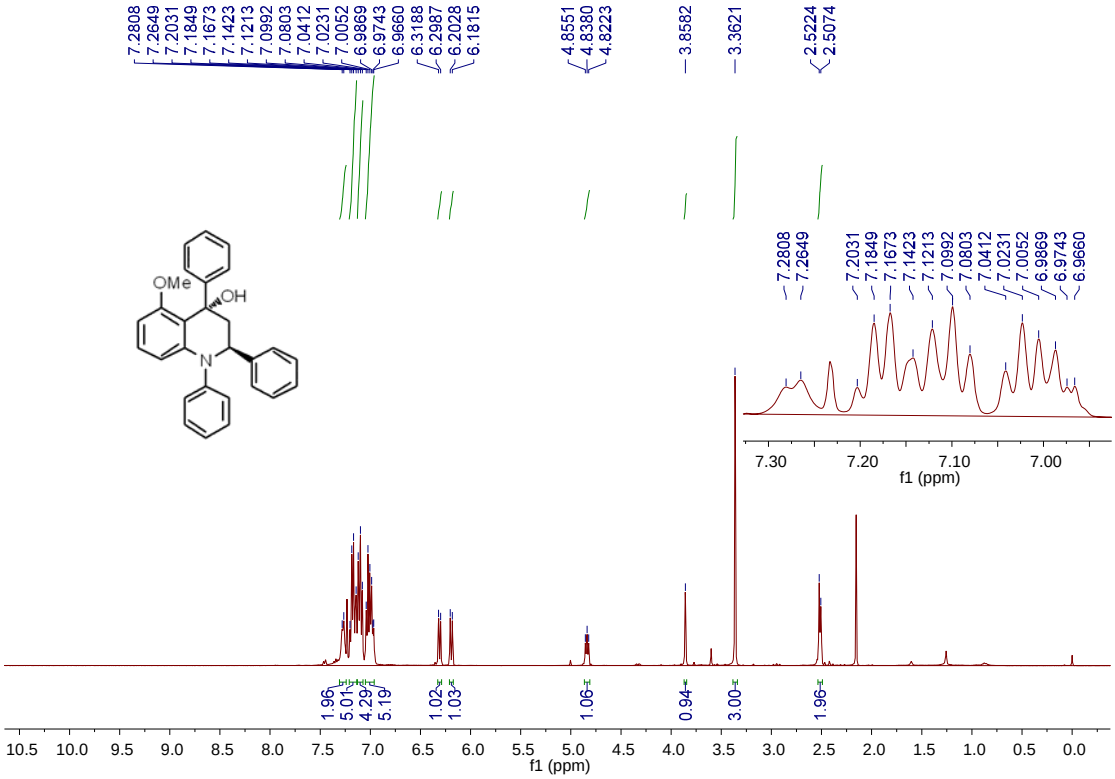
^{1}H NMR of 1,4-diphenyl-1,2,3,4-tetrahydroquinolin-4-ol (3j)



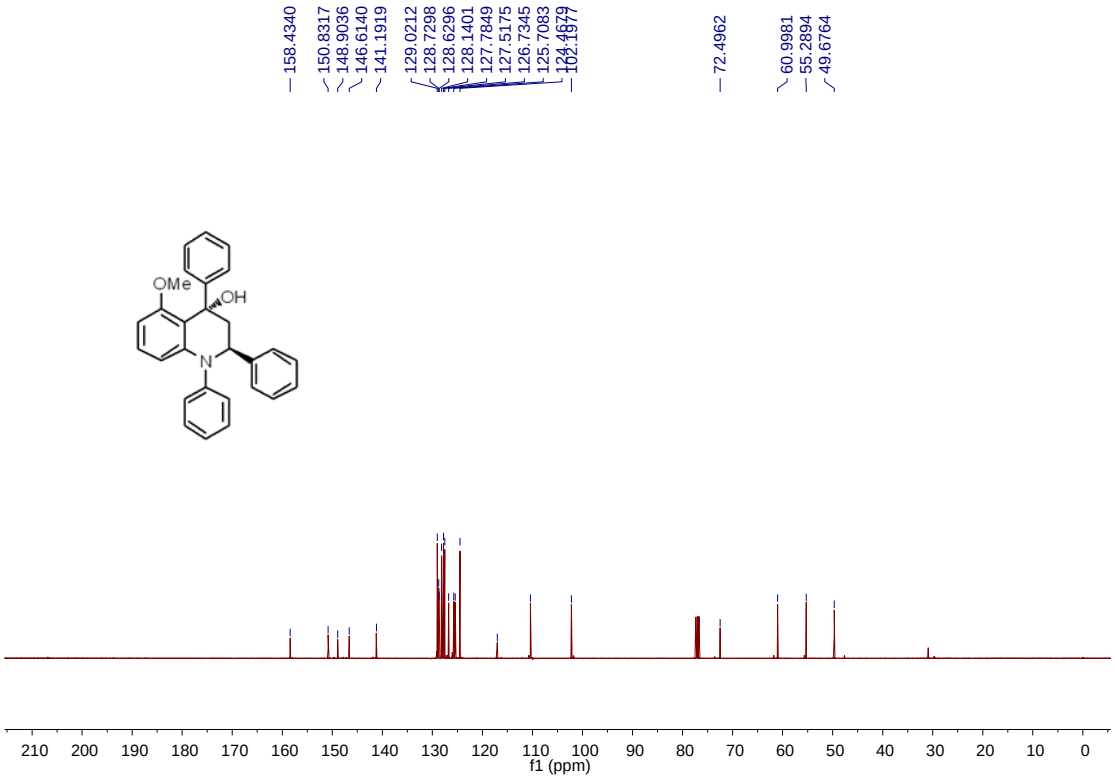
^{13}C NMR of 1,4-diphenyl-1,2,3,4-tetrahydroquinolin-4-ol (3j)



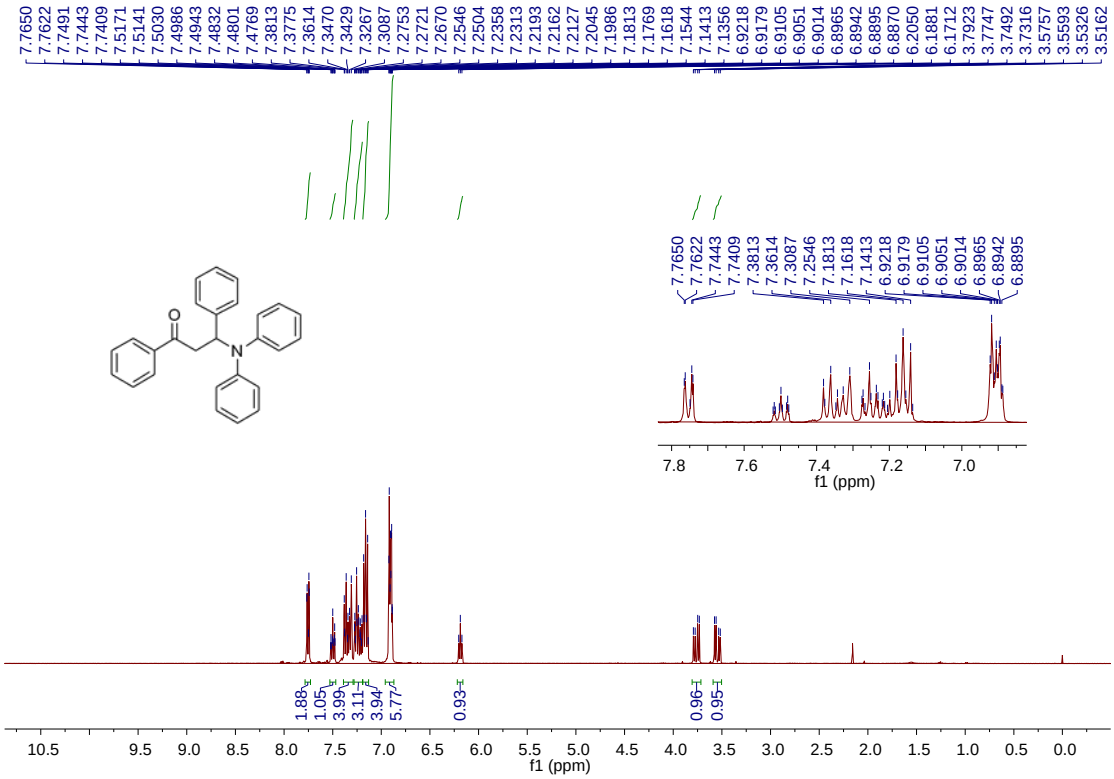
^{1}H NMR of 5-methoxy-1,2,4-triphenyl-1,2,3,4-tetrahydroquinolin-4-ol (3k)



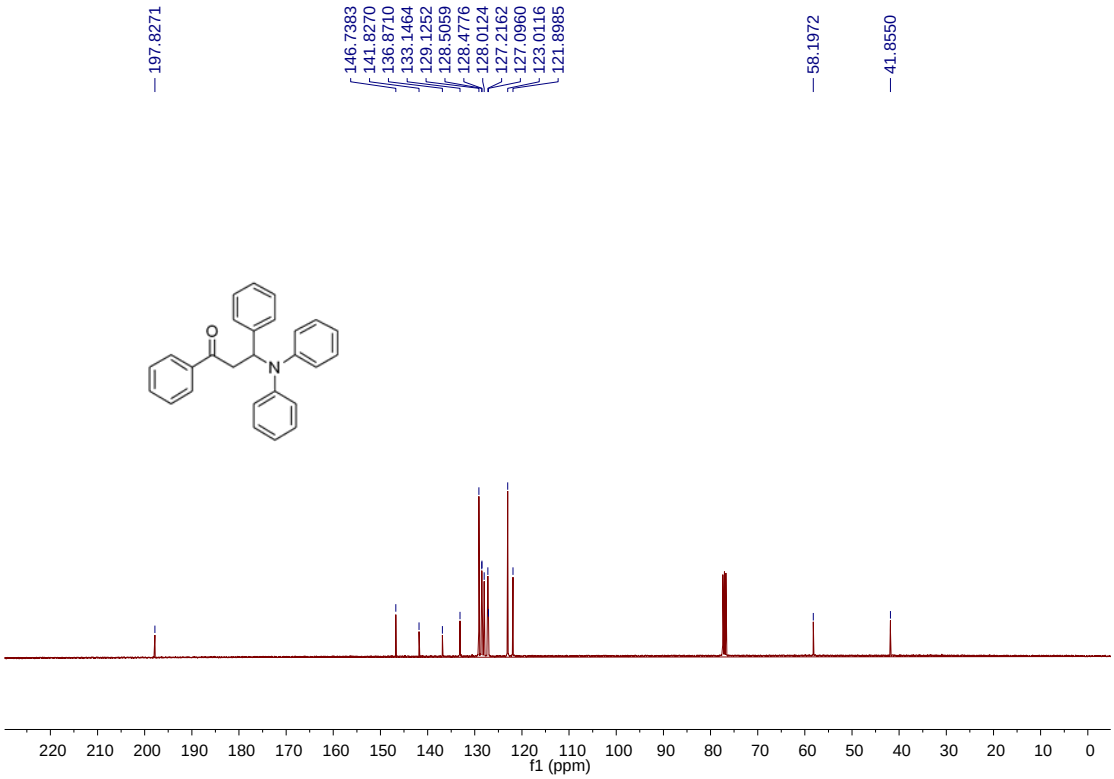
^{13}C NMR of 5-methoxy-1,2,4-triphenyl-1,2,3,4-tetrahydroquinolin-4-ol (3k)



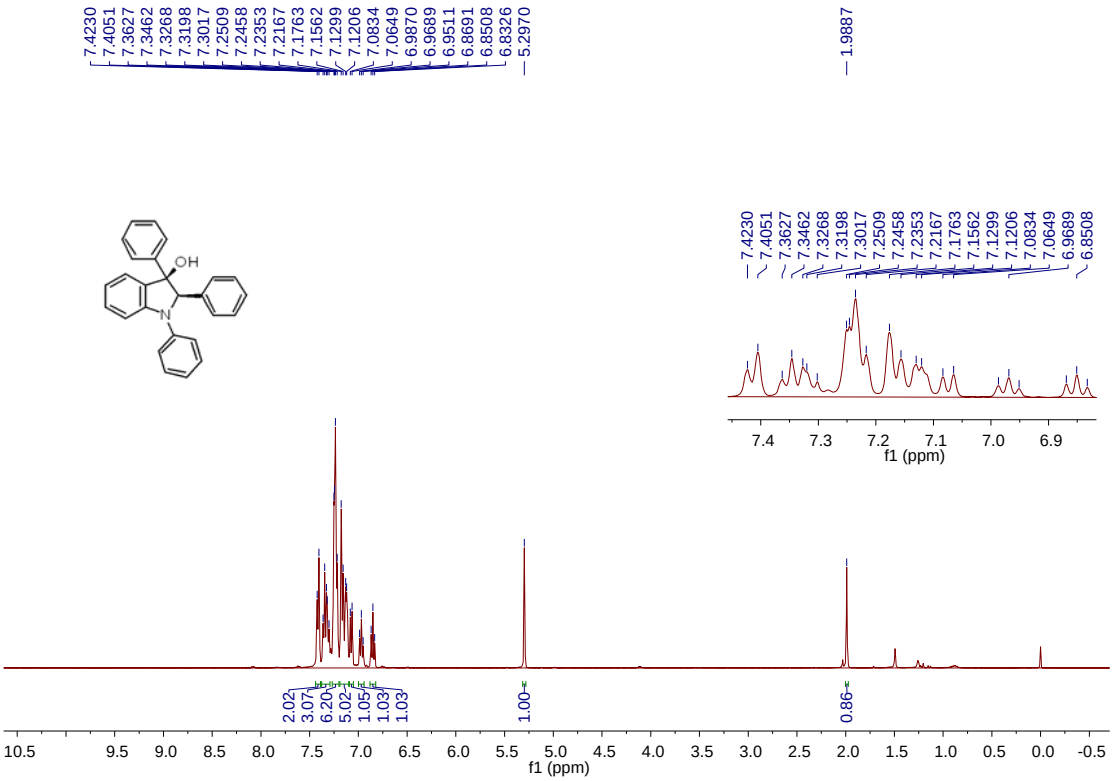
^{1}H NMR of 3-(diphenylamino)-1,3-diphenylpropan-1-one (4a)



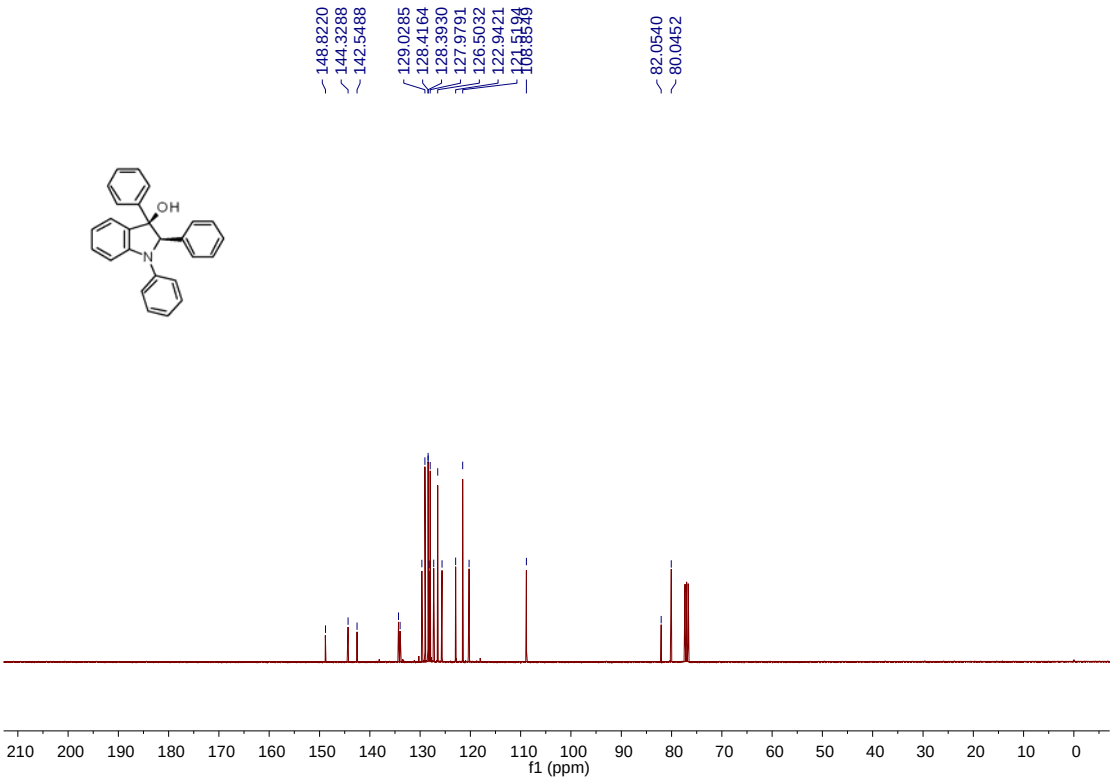
^{13}C NMR of 3-(diphenylamino)-1,3-diphenylpropan-1-one (4a)



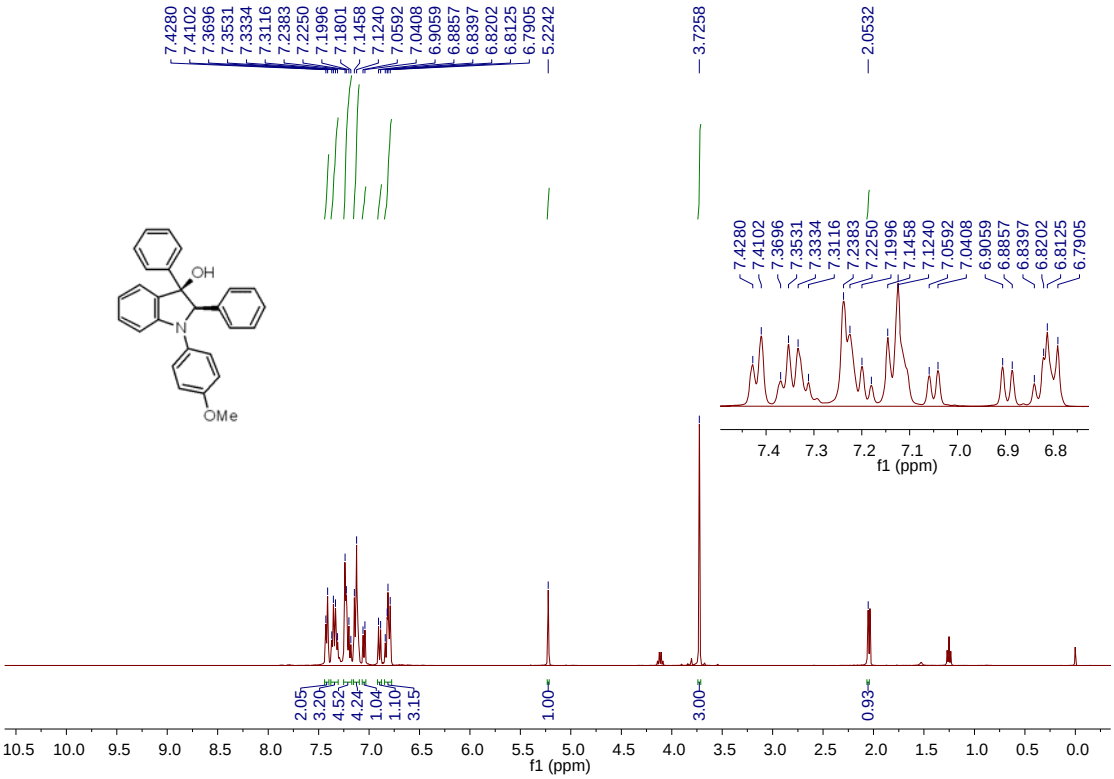
^{1}H NMR of 1,2,3-triphenylindolin-3-ol (6a)



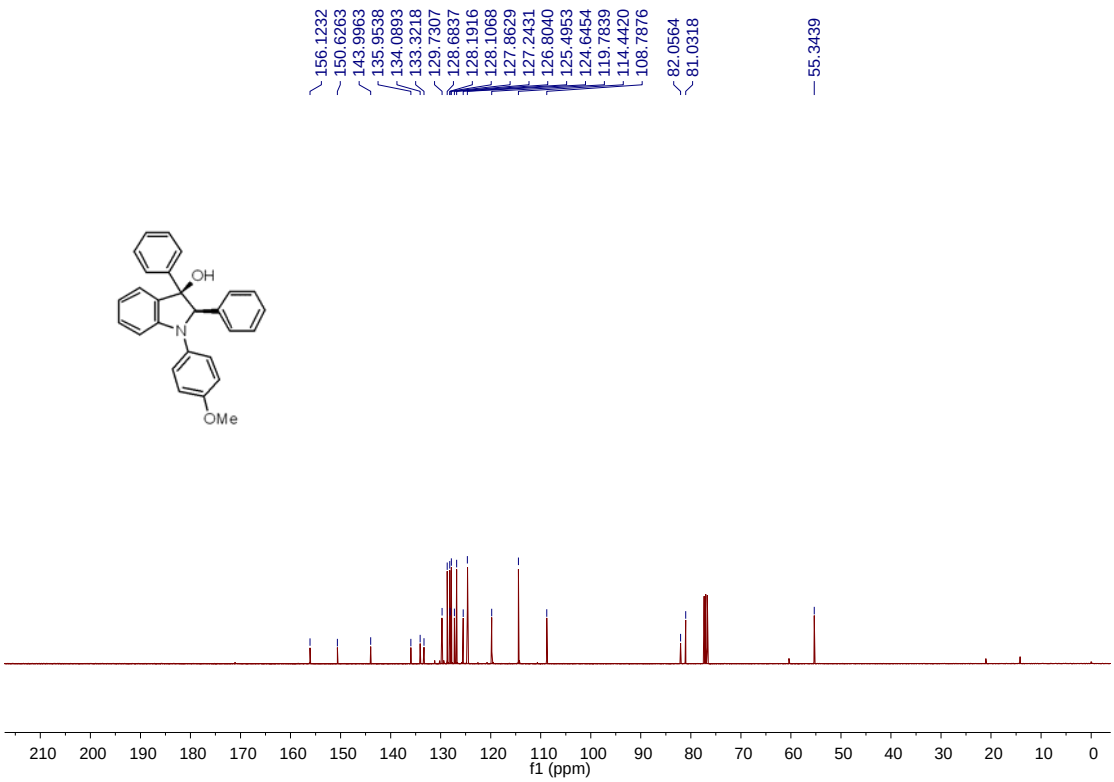
^{13}C NMR of 1,2,3-triphenylindolin-3-ol (6a)



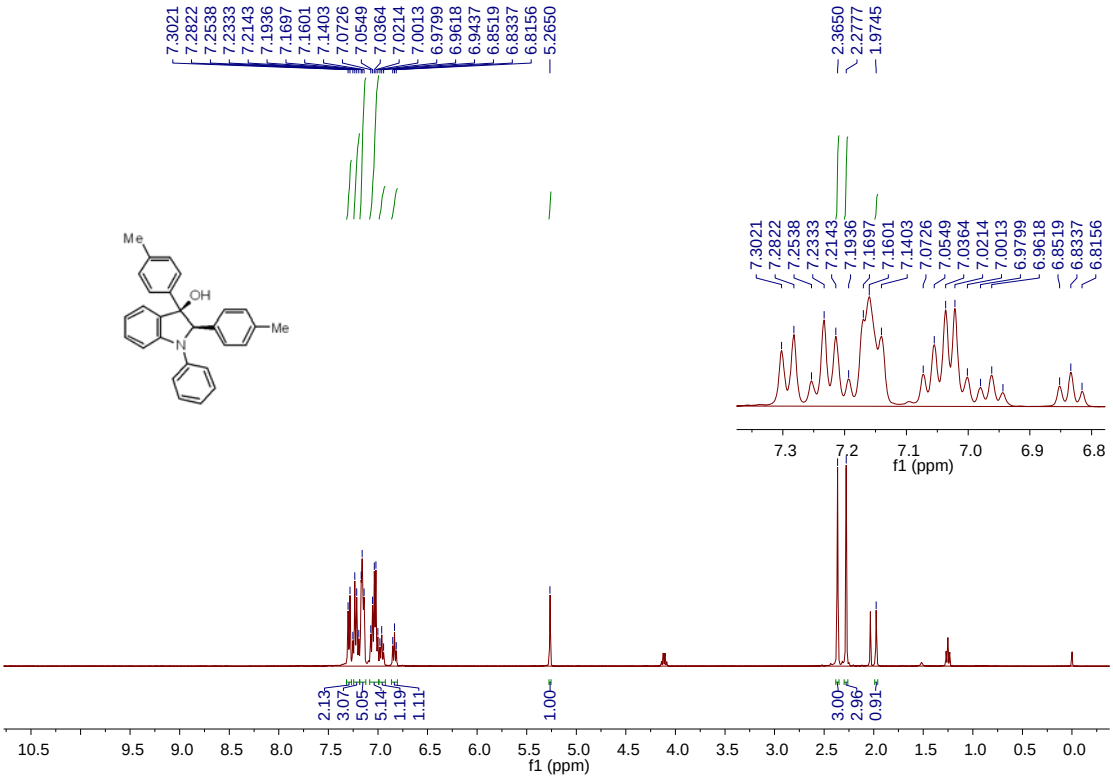
^{1}H NMR of 1-(4-methoxyphenyl)-2,3-diphenylindolin-3-ol (6b)



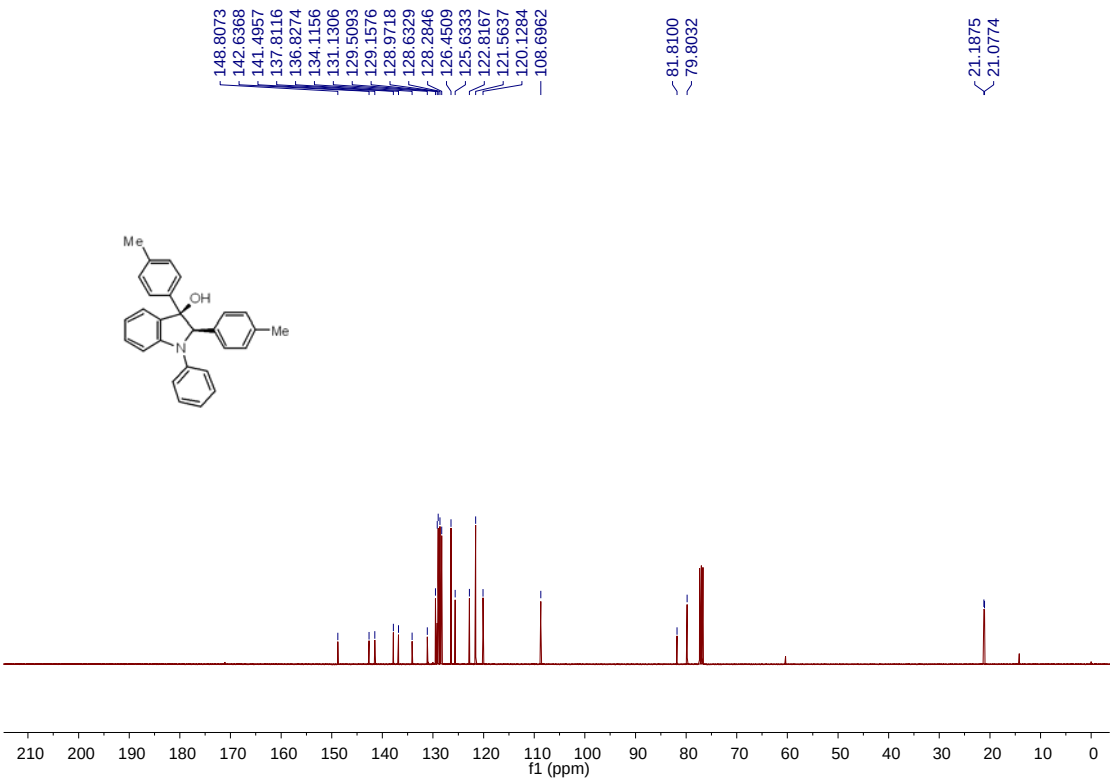
^{13}C NMR of 1-(4-methoxyphenyl)-2,3-diphenylindolin-3-ol (6b)



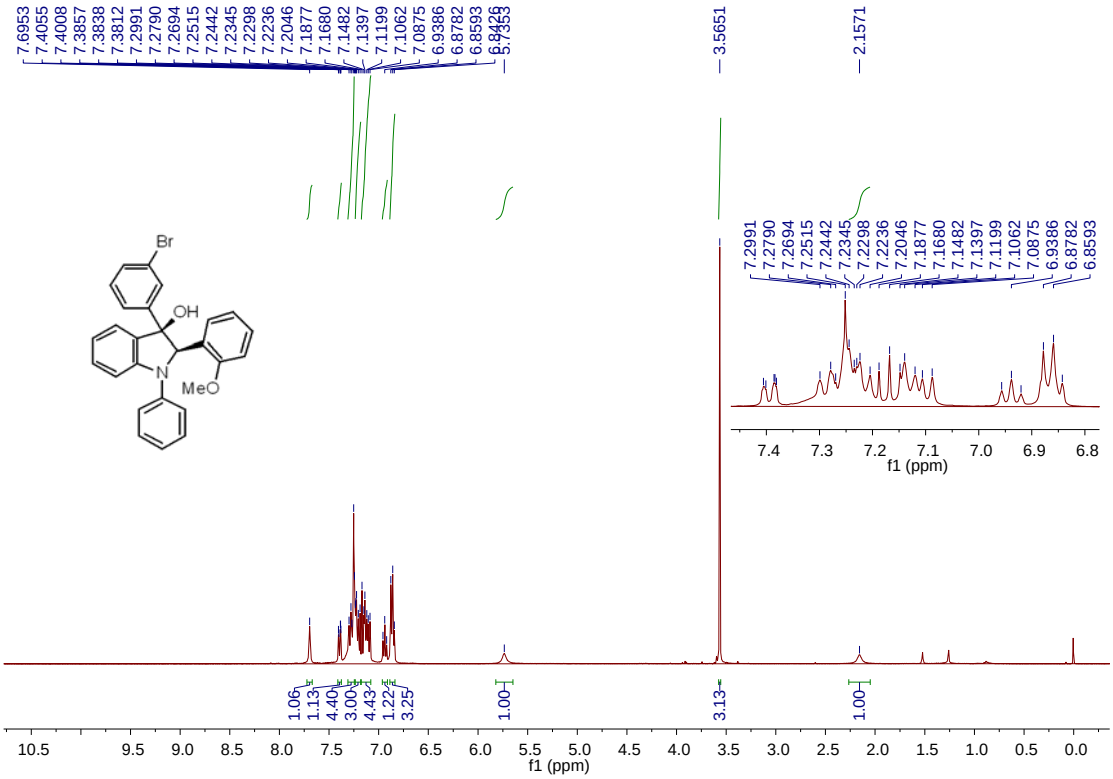
^{1}H NMR of 1-phenyl-2,3-di-p-tolylindolin-3-ol (6c)



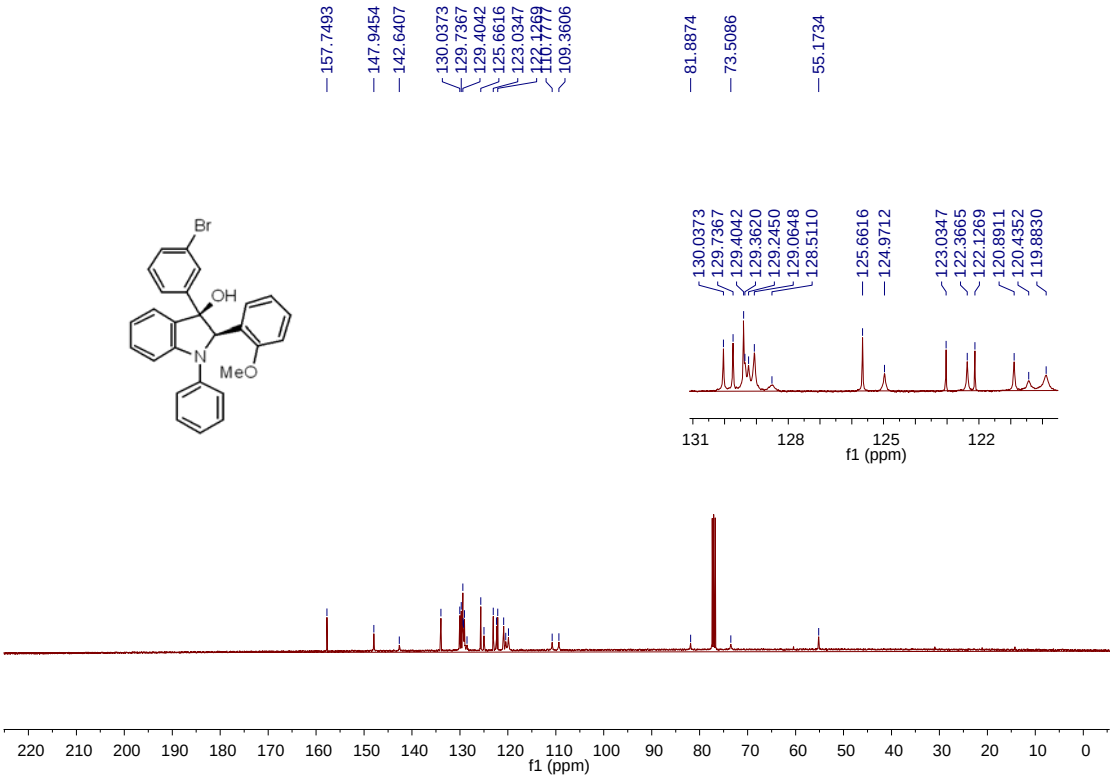
^{13}C NMR of 1-phenyl-2,3-di-p-tolylindolin-3-ol (6c)



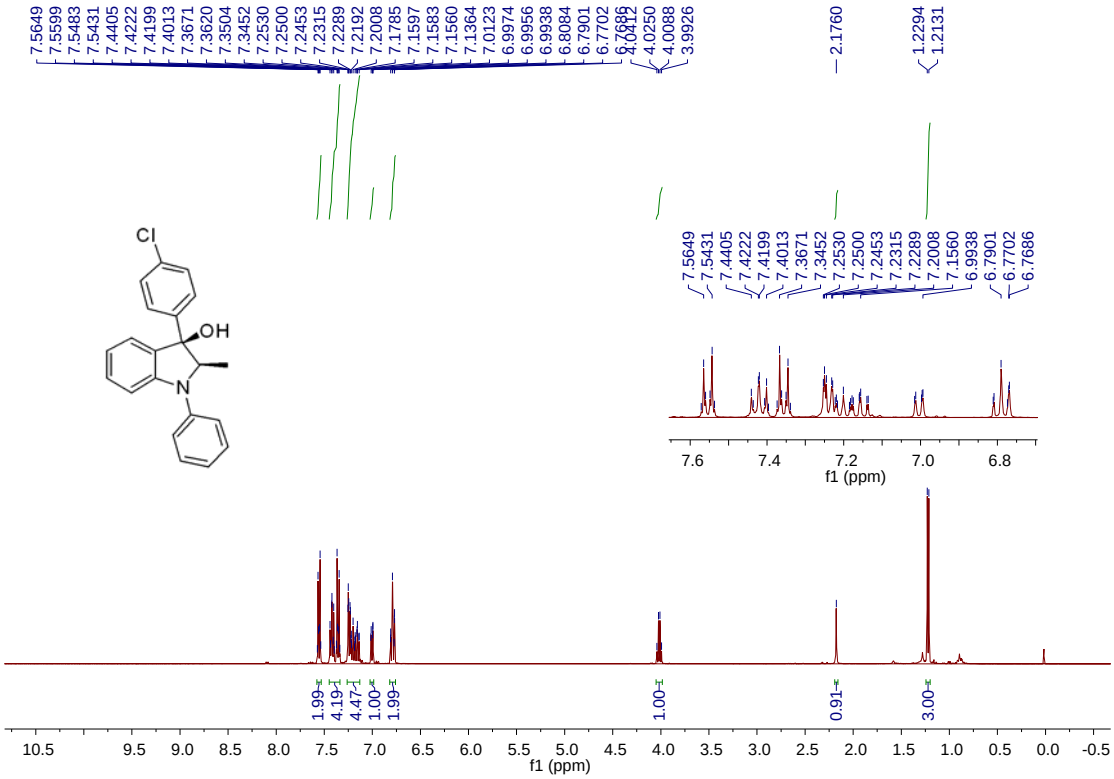
^{1}H NMR of 3-(3-bromophenyl)-2-(2-methoxyphenyl)-1-phenylindolin-3-ol (6d)



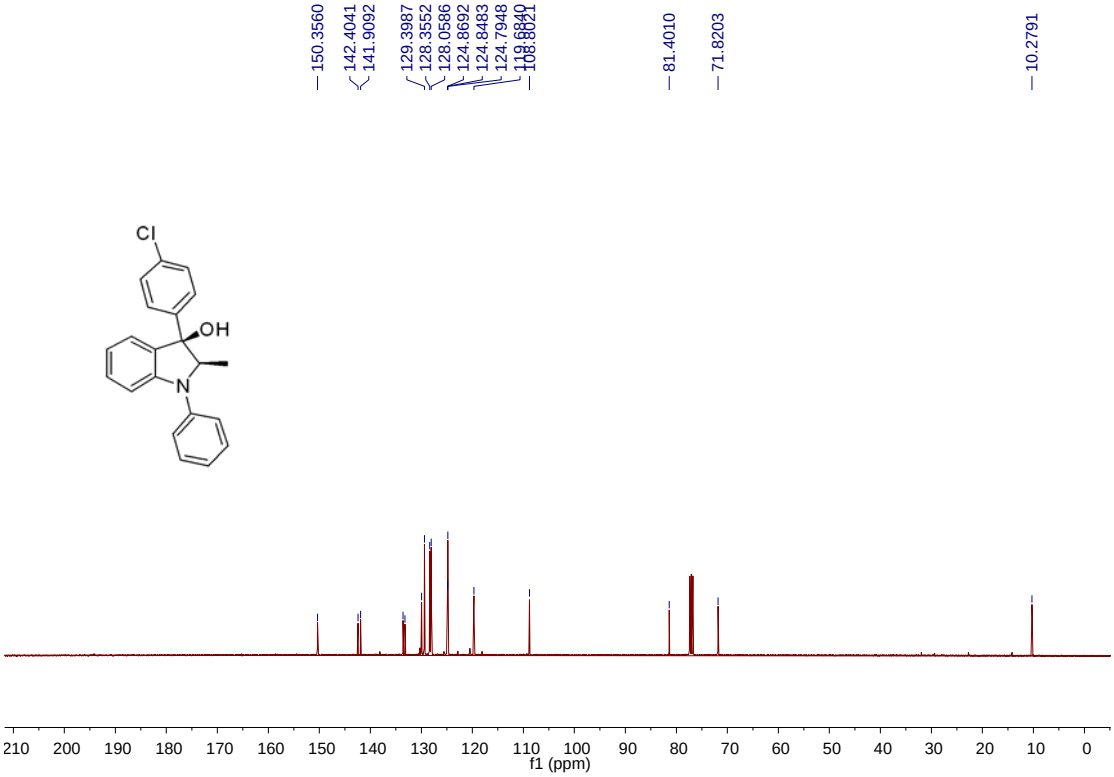
^{13}C NMR of 3-(3-bromophenyl)-2-(2-methoxyphenyl)-1-phenylindolin-3-ol (6d)



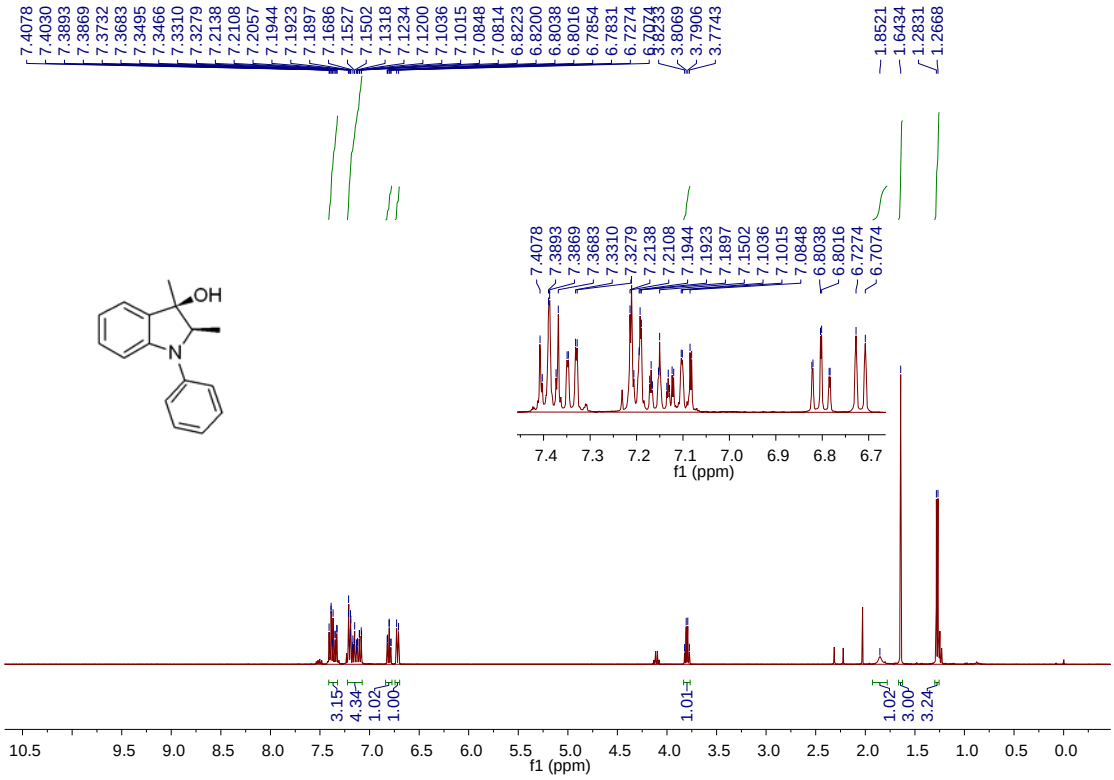
^{1}H NMR of 3-(4-chlorophenyl)-2-methyl-1-phenylindolin-3-ol (6e)



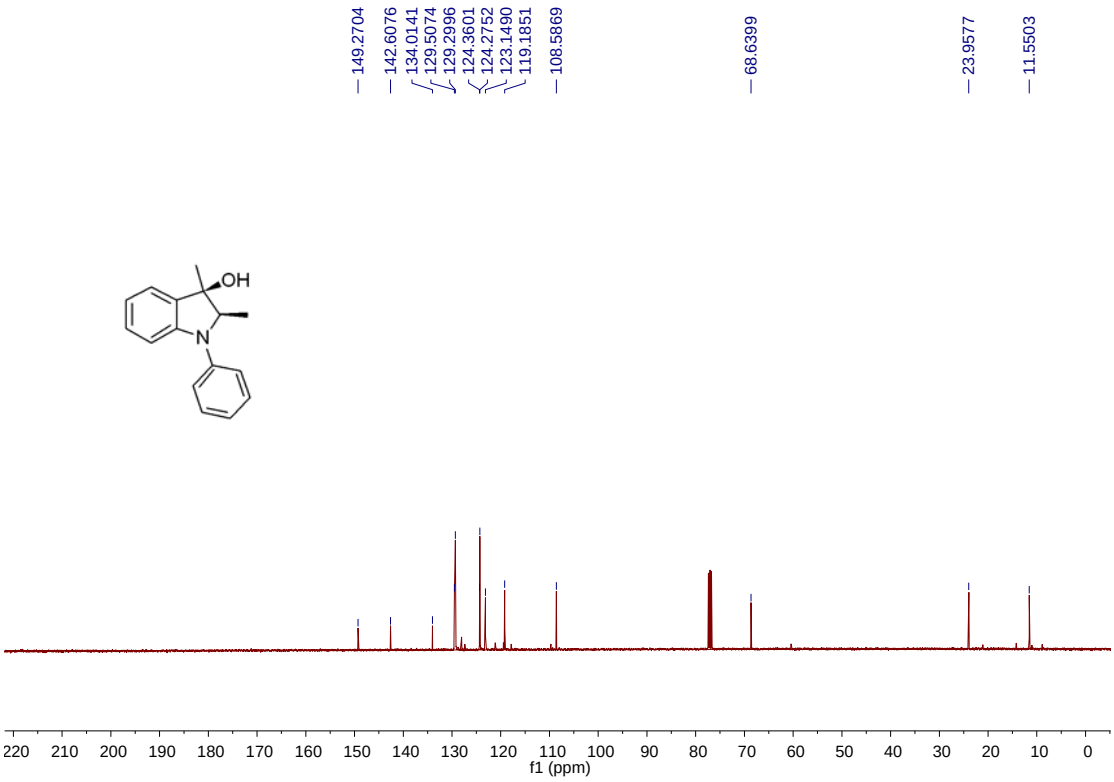
^{13}C NMR of 3-(4-chlorophenyl)-2-methyl-1-phenylindolin-3-ol (6e)



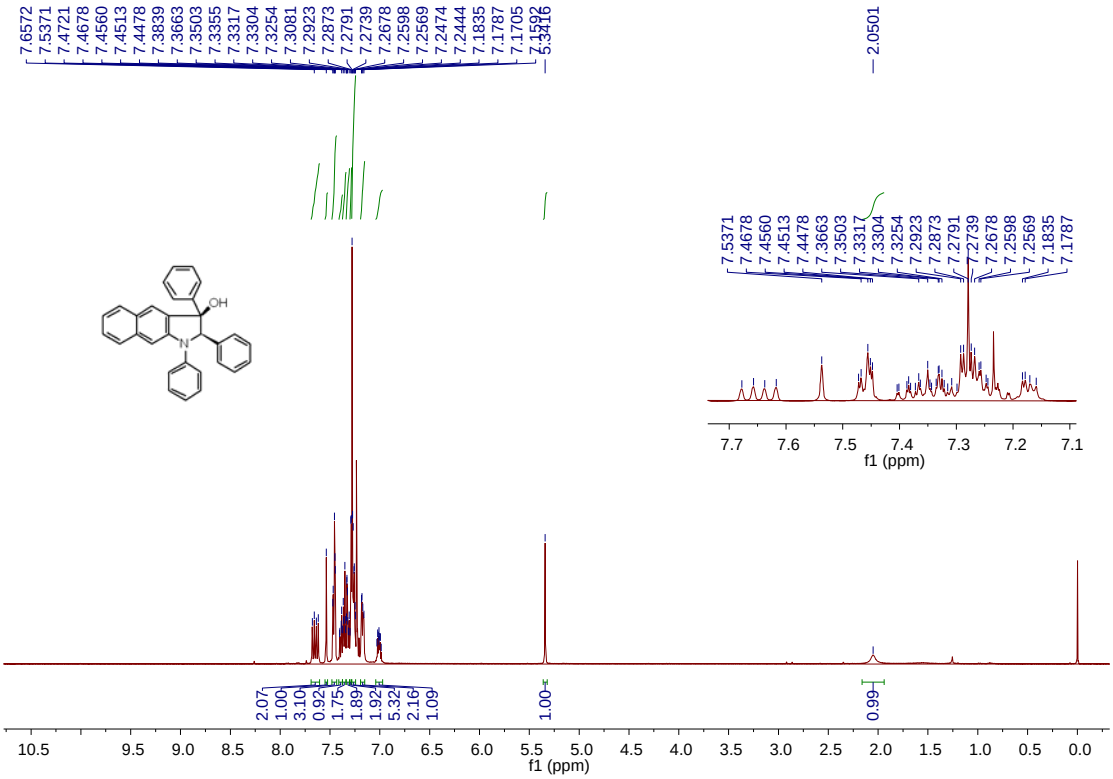
^{1}H NMR of 2,3-dimethyl-1-phenylindolin-3-ol (6f)



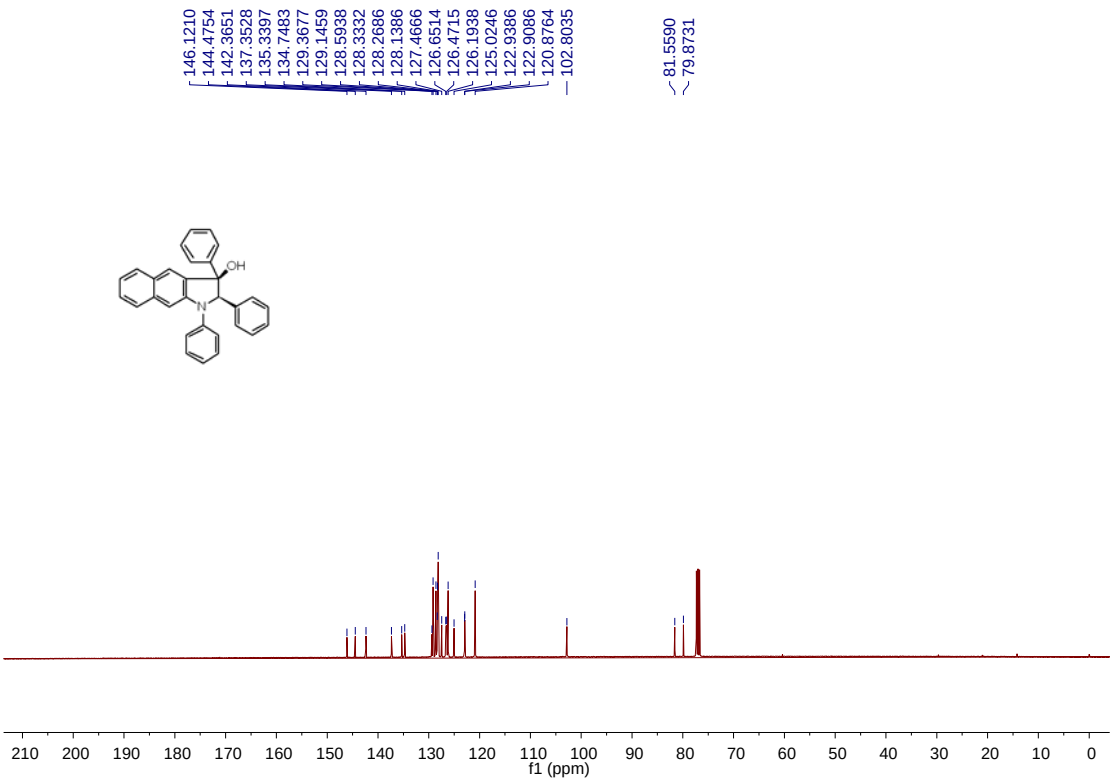
^{13}C NMR of 2,3-dimethyl-1-phenylindolin-3-ol (6f)



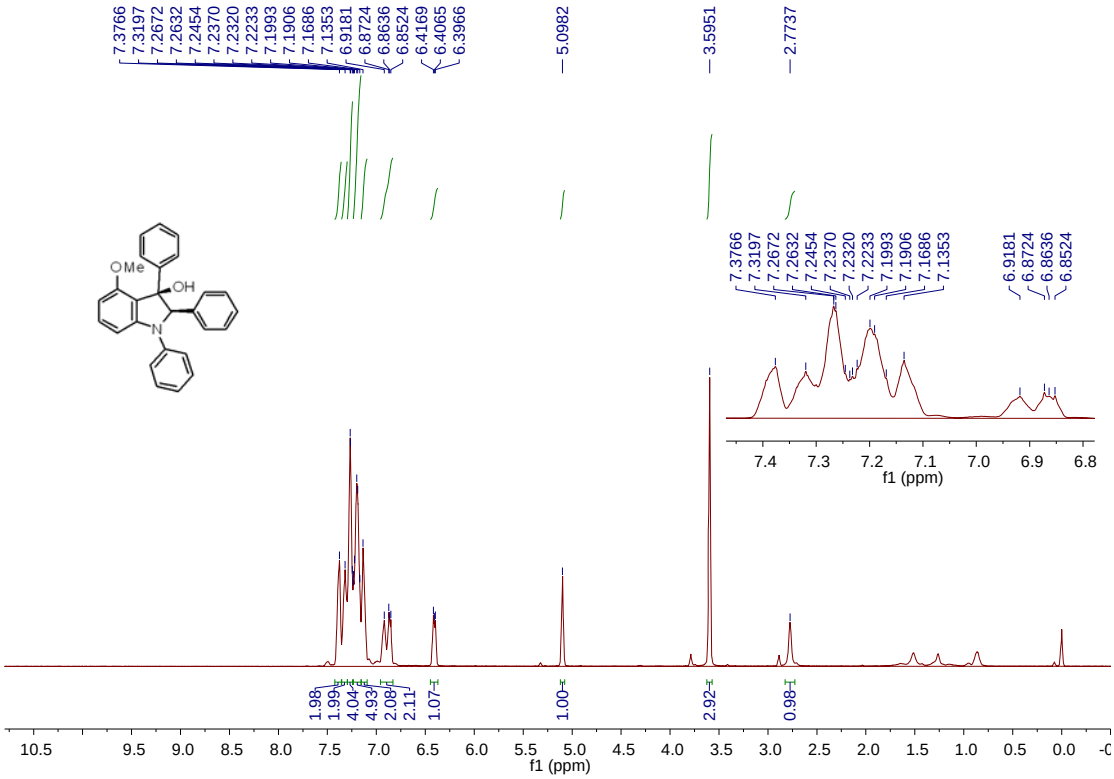
^{1}H NMR of 1,2,3-triphenyl-2,3-dihydro-1H-benzo[f]indol-3-ol (6g)



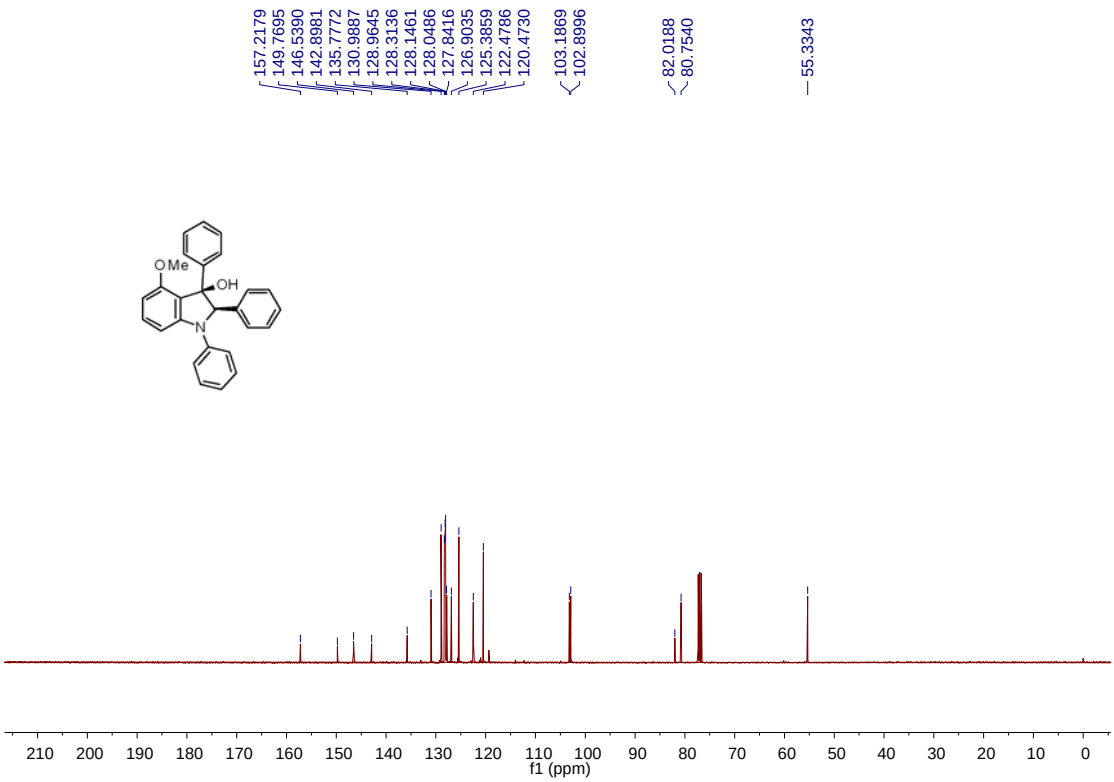
^{13}C NMR of 1,2,3-triphenyl-2,3-dihydro-1H-benzo[f]indol-3-ol (6g)



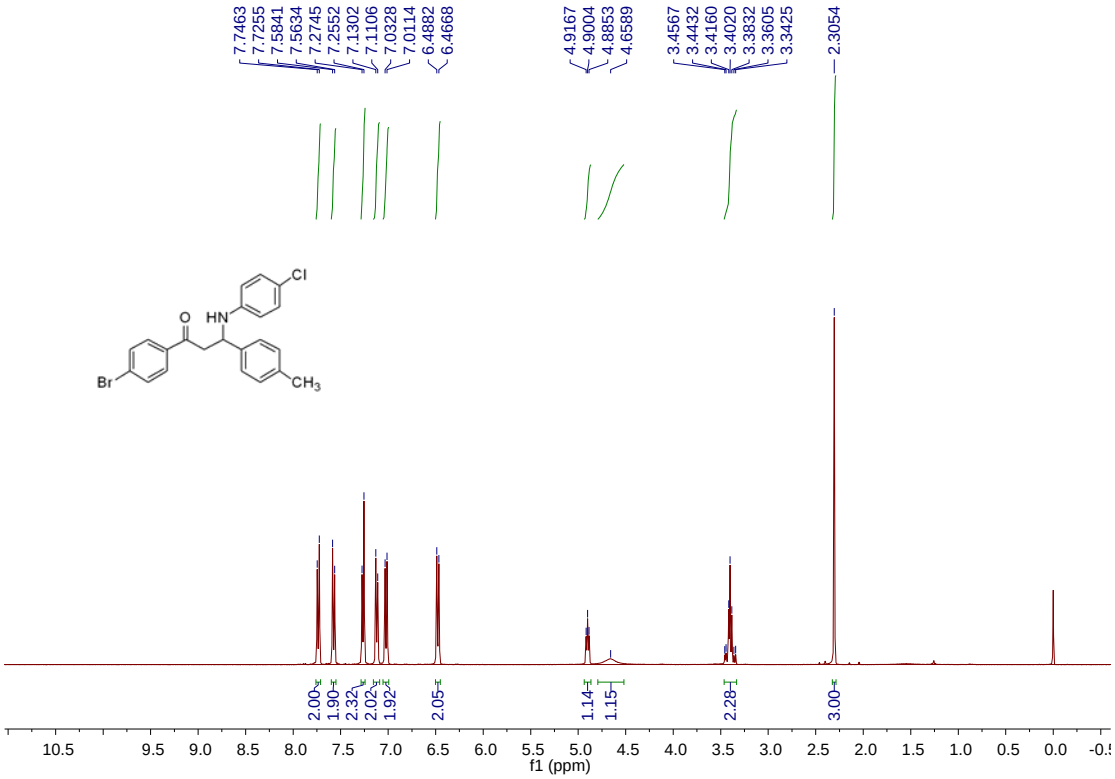
^{1}H NMR of 4-methoxy-1,2,3-triphenylindolin-3-ol (6h)



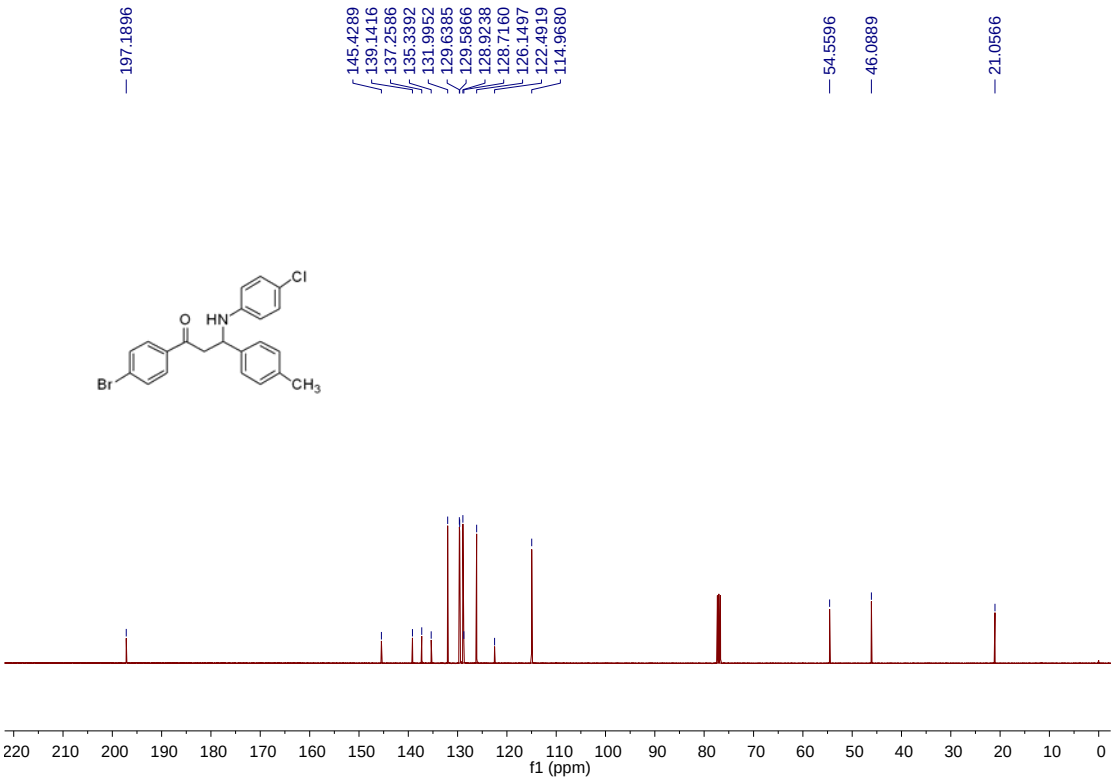
^{13}C NMR of 4-methoxy-1,2,3-triphenylindolin-3-ol (6h)



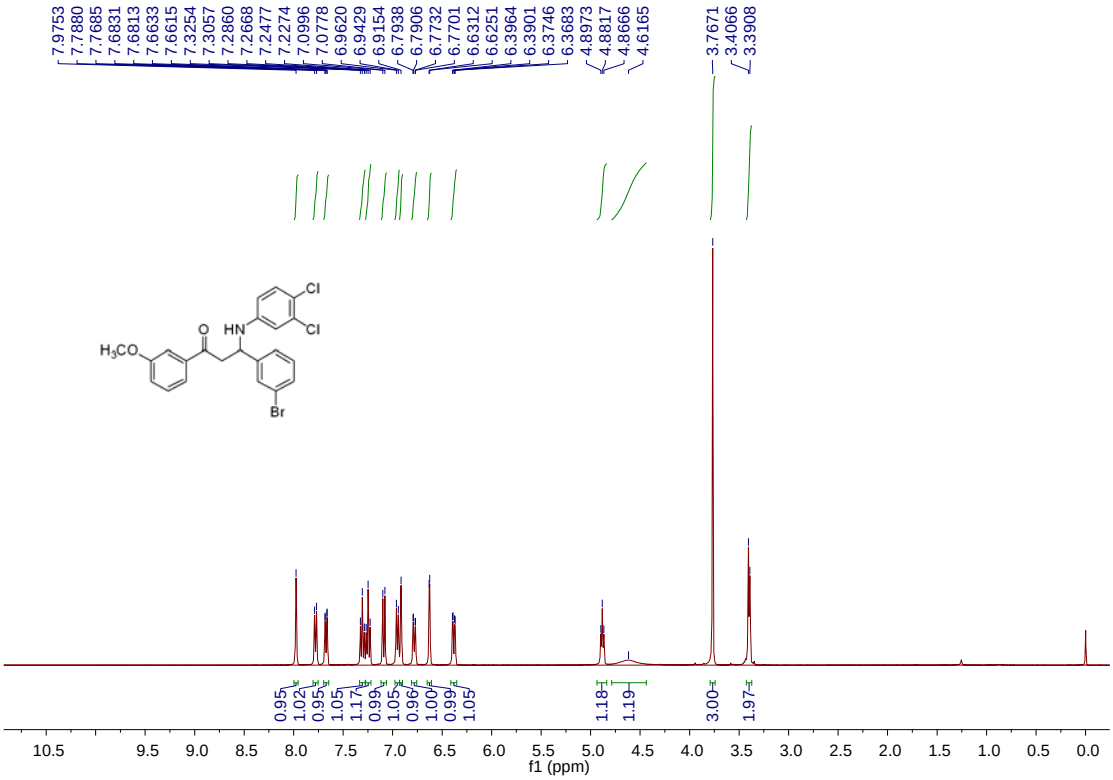
^{1}H NMR of 1-(4-bromophenyl)-3-((4-chlorophenyl)amino)-3-(p-tolyl)propan-1-one (2e)



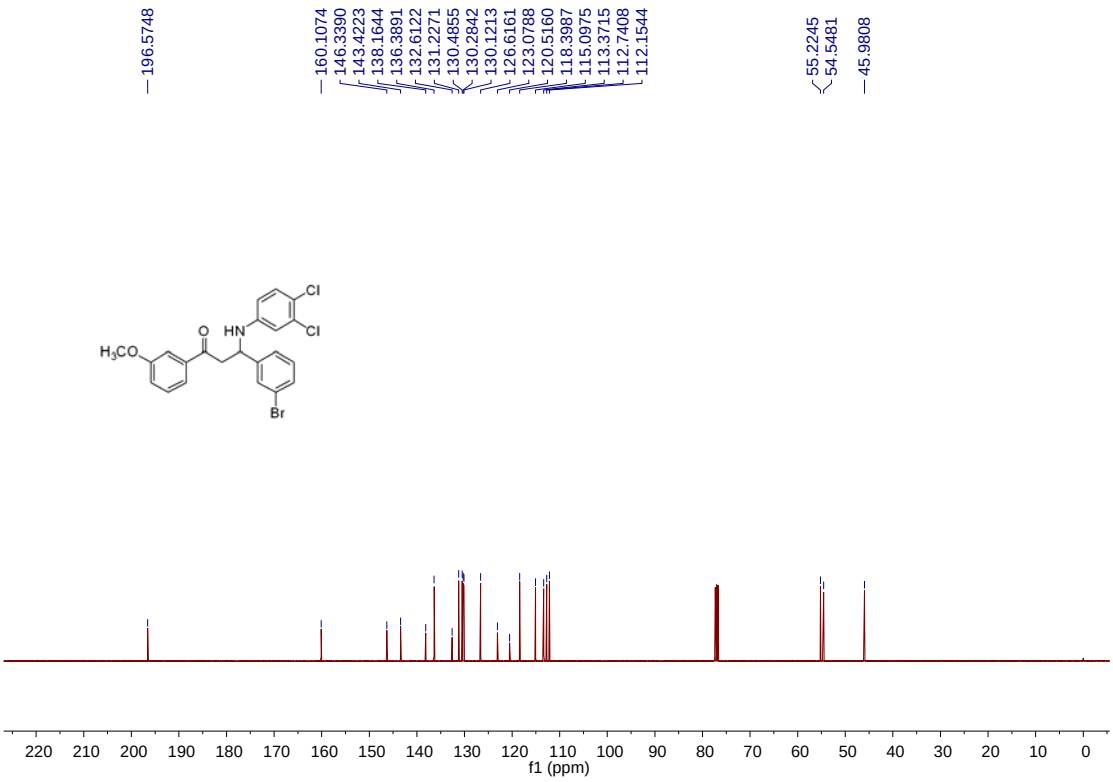
^{13}C NMR of 1-(4-bromophenyl)-3-((4-chlorophenyl)amino)-3-(p-tolyl)propan-1-one (2e)



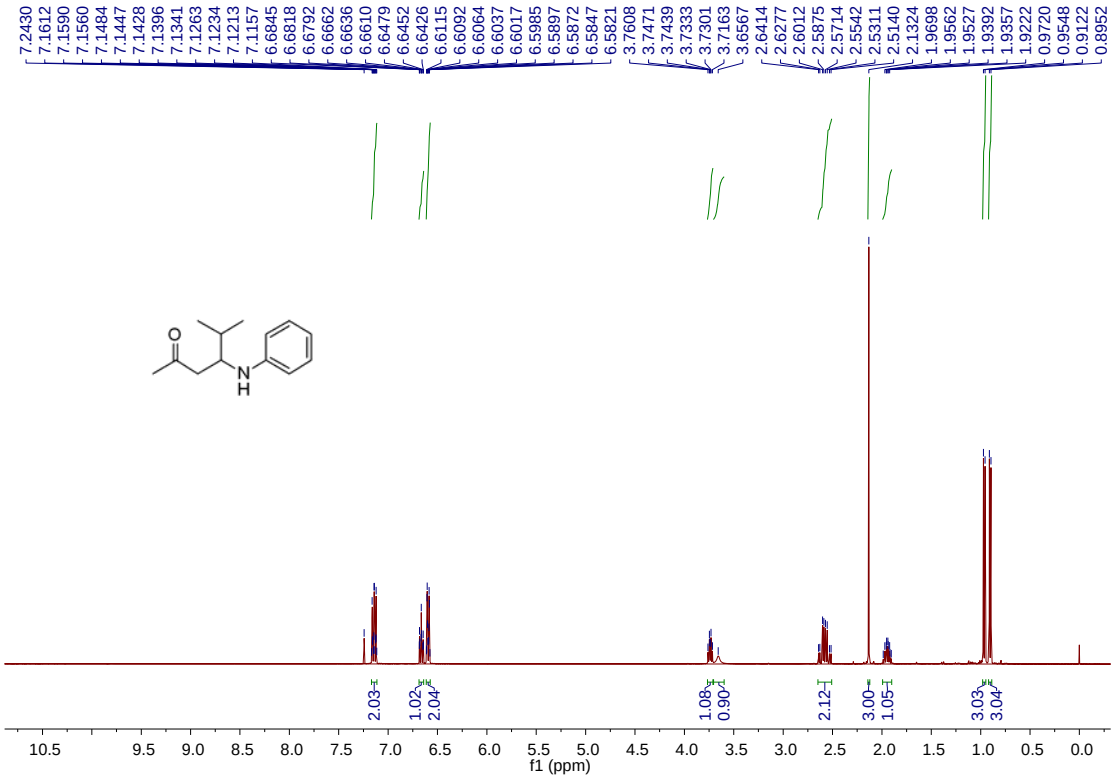
^{1}H NMR of 3-(3-bromophenyl)-3-((3,4-dichlorophenyl)amino)-1-(3-methoxyphenyl)propan-1-one (2f)



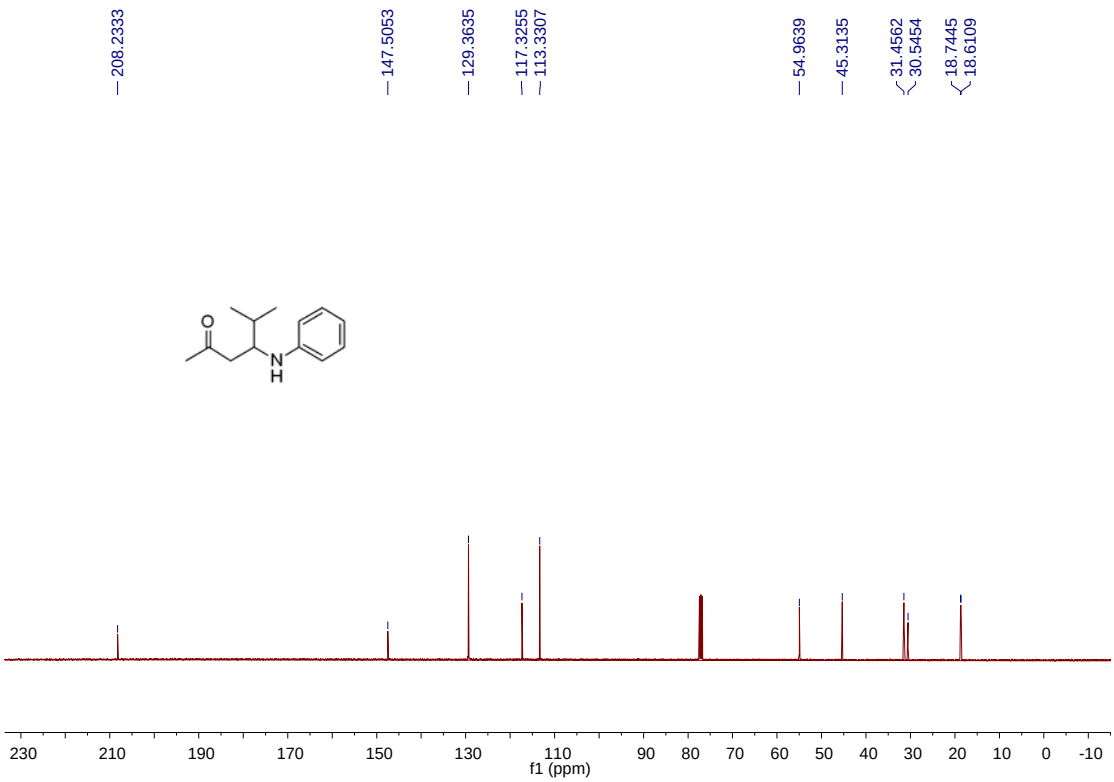
^{13}C NMR of 3-(3-bromophenyl)-3-((3,4-dichlorophenyl)amino)-1-(3-methoxyphenyl)propan-1-one (2f)



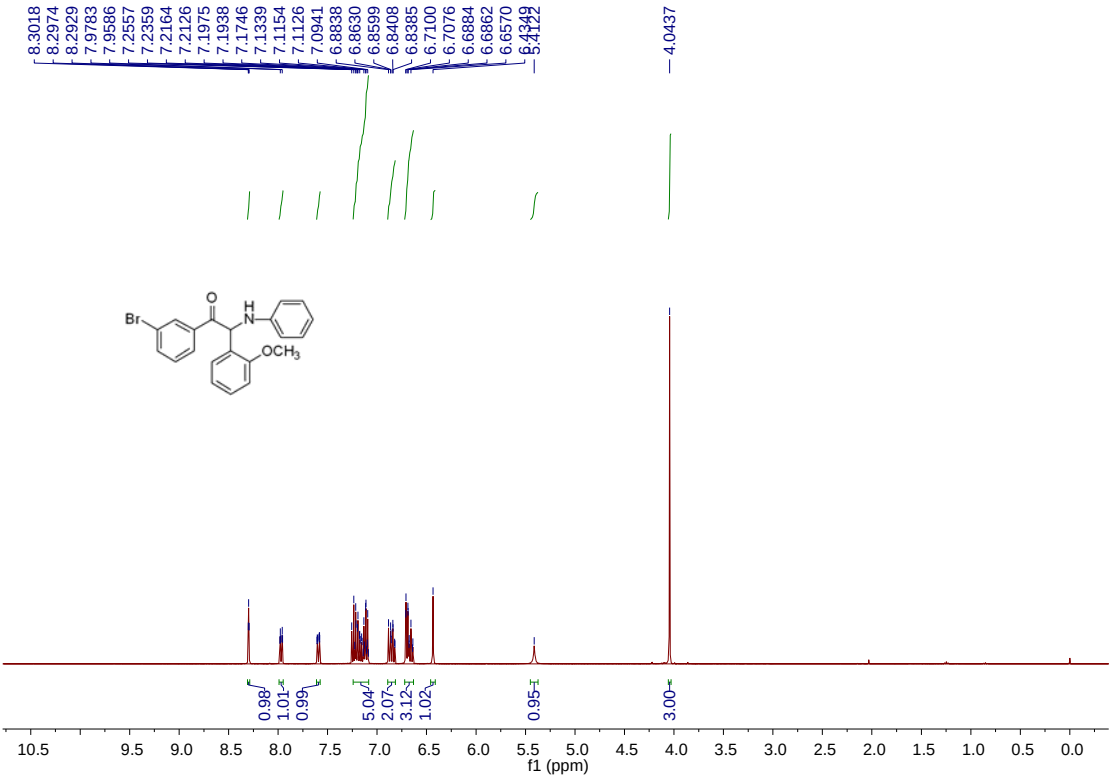
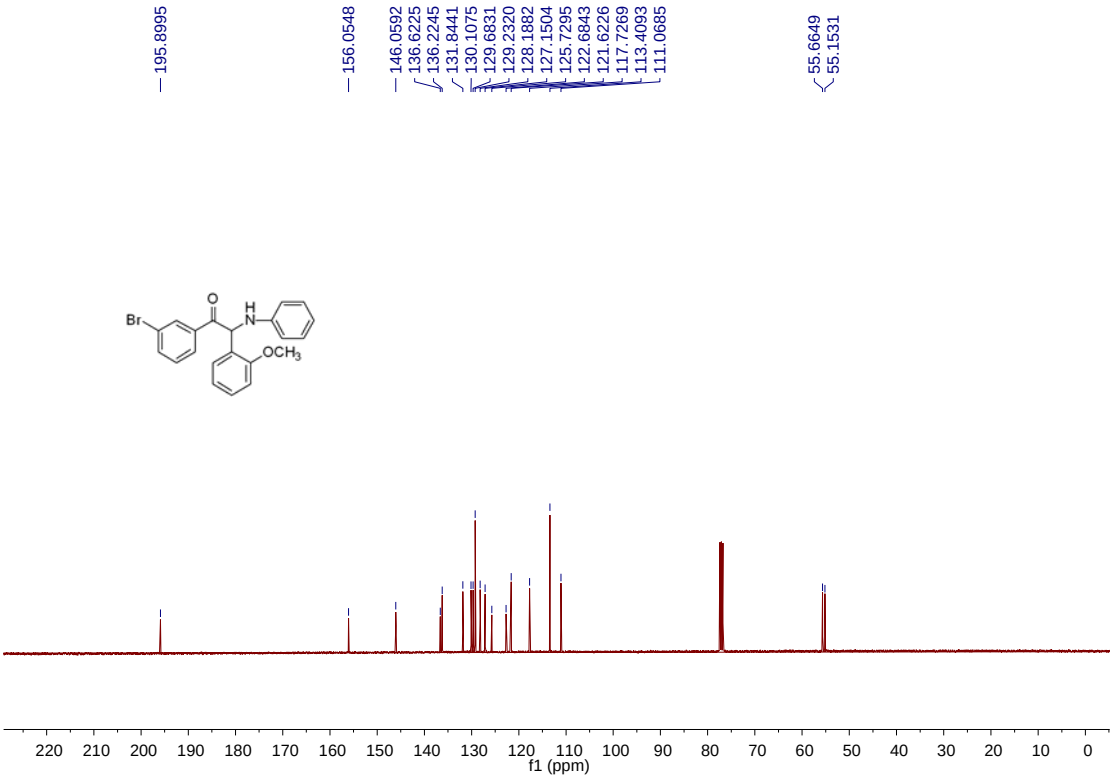
^{1}H NMR of 5-methyl-4-(phenylamino)hexan-2-one (2i)



^{13}C NMR of 5-methyl-4-(phenylamino)hexan-2-one (2i)



^{1}H NMR of 1-(3-bromophenyl)-2-(2-methoxyphenyl)-2-(phenylamino)ethanone (5d)



^{13}C NMR of 1-(3-bromophenyl)-2-(2-methoxyphenyl)-2-(phenylamino)ethanone (5d)