Supplementary Material (ESI) for Organic & Biomolecular Chemistry

Supporting Information-2

Application of Nazarov type electrocyclization to access [6-5-6] and [6-5-5] core embedded new Polycycles: an easy entry to tetrahydrofluorene scaffolds related to Taiwaniaquinoids and C-*nor*-D *homo* steroids[#]

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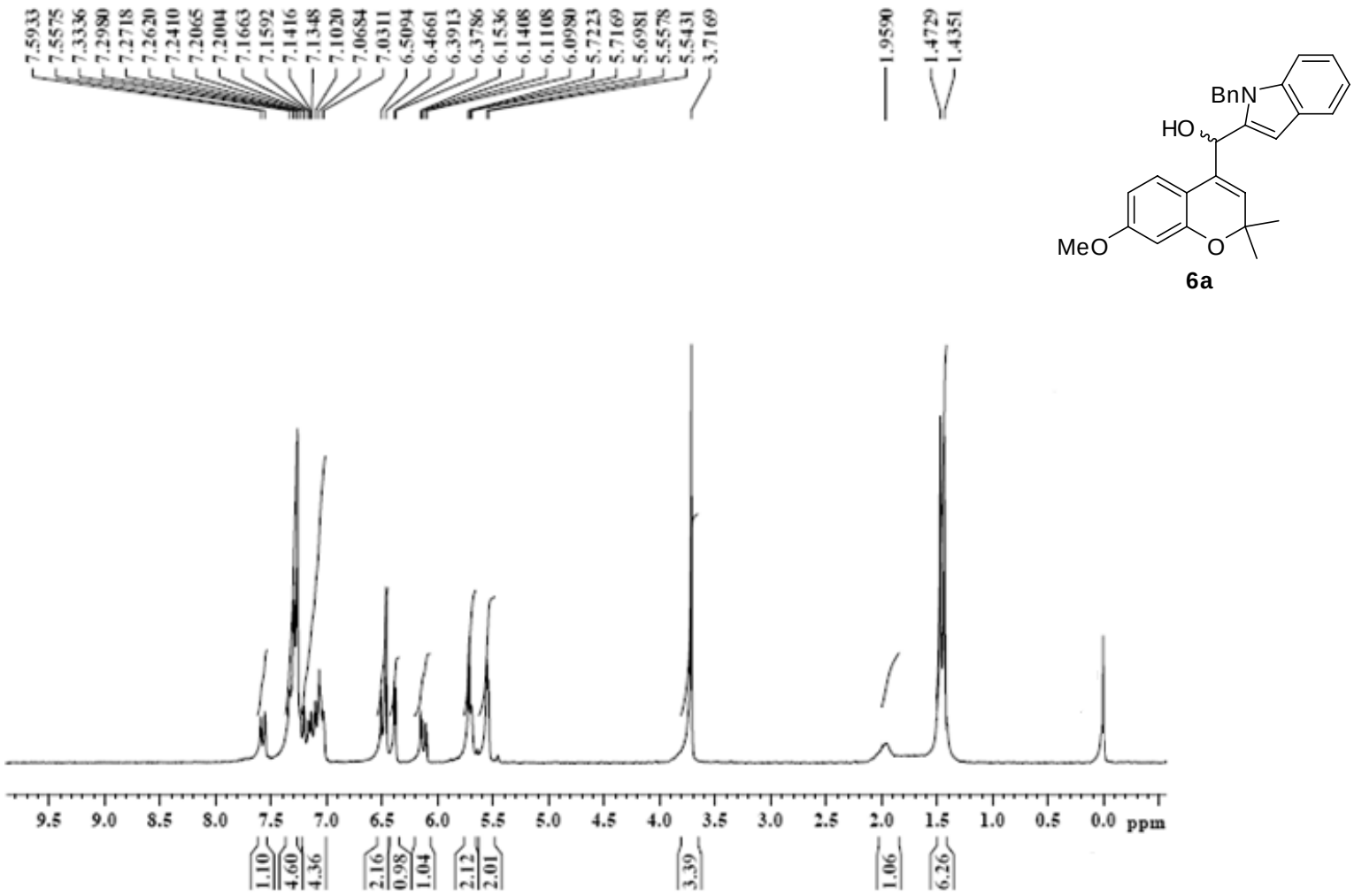


Fig. S-1: ^{1}H NMR of (1-Benzyl-1H-indol-2-yl)(7-methoxy-2,2-dimethyl-2H-chromen-4-yl)methanol (6a)

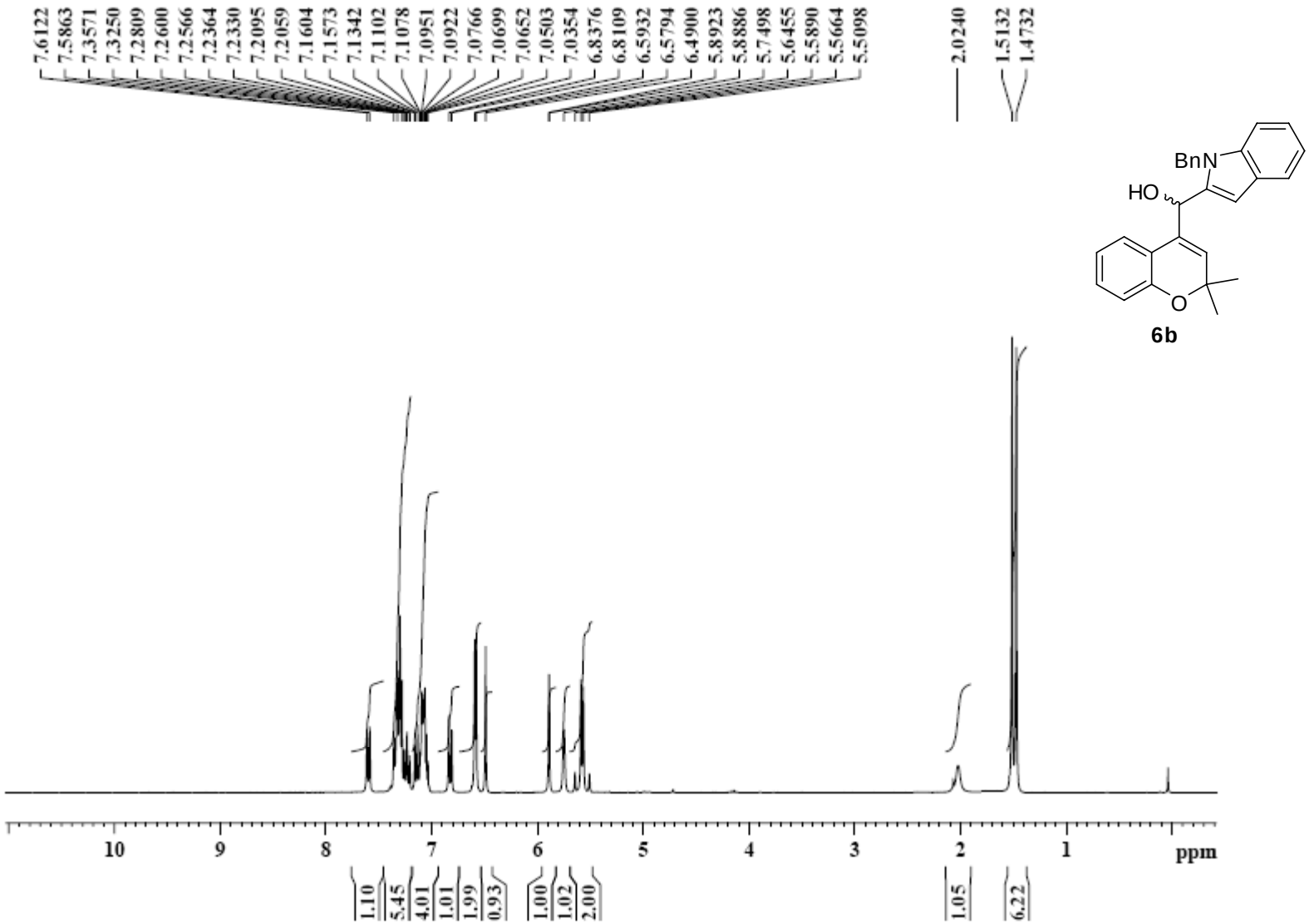


Fig. S-2: ^{1}H NMR of (1-Benzyl-1H-indol-2-yl)(2,2-dimethyl-2H-chromen-4-yl)methanol (6b)

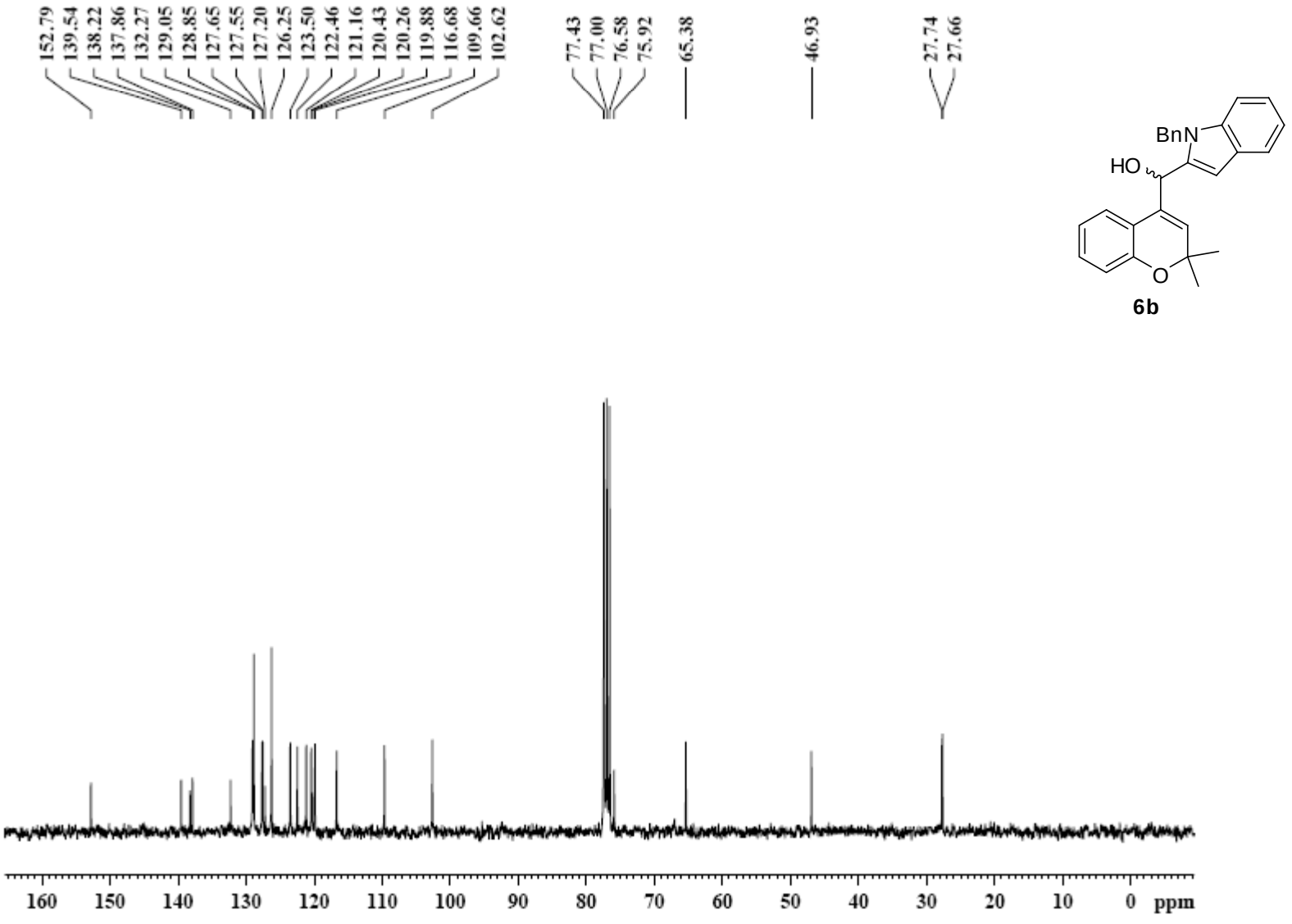


Fig. S-3: : ^{13}C NMR of (1-Benzyl-1H-indol-2-yl)(2,2-dimethyl-2H-chromen-4-yl)methanol (6b)

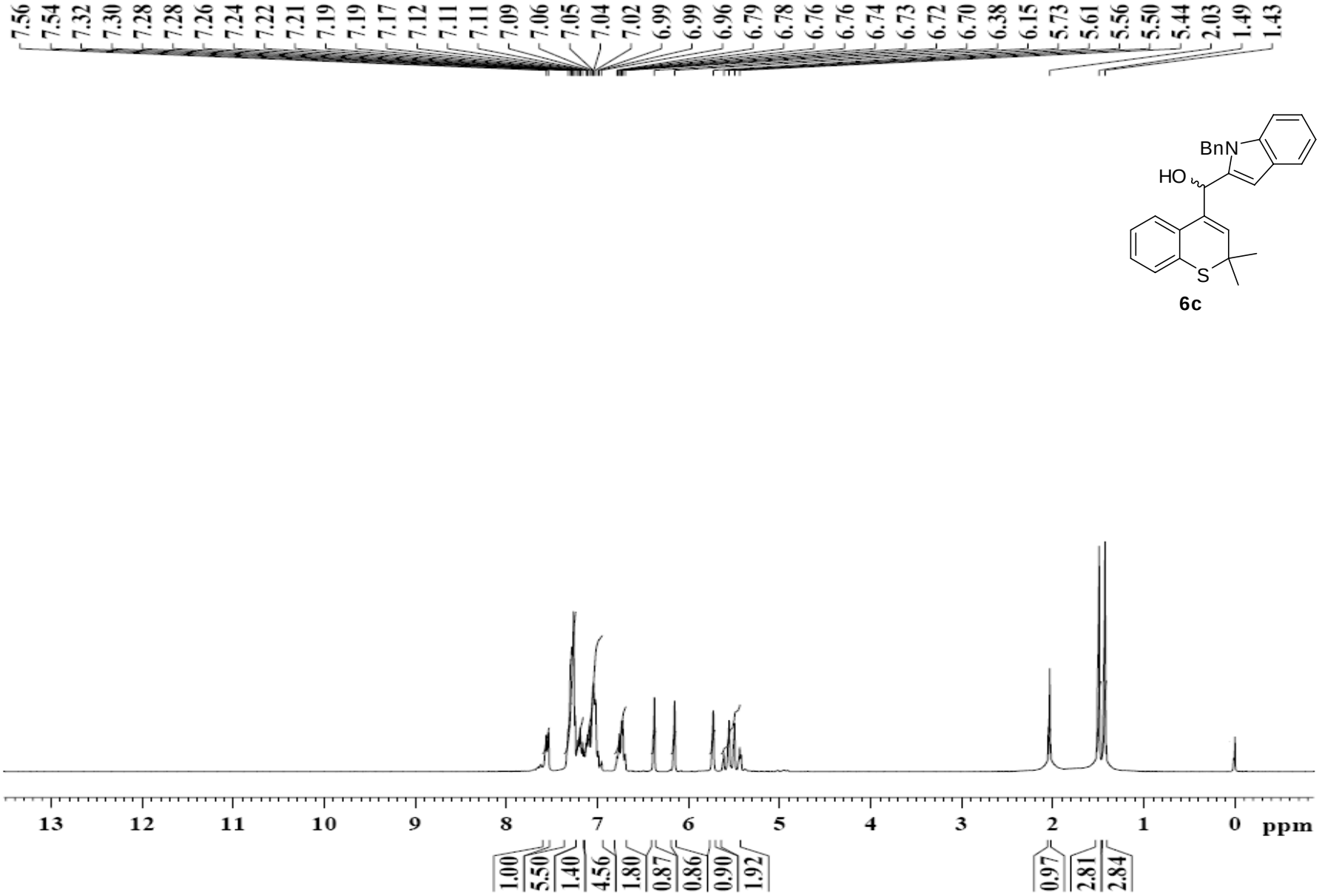


Fig. S-4: ^{1}H NMR of ((1-benzyl-1H-indol-2-yl)(2,2-dimethyl-2H-thiochromen-4-yl)methanol(6c)

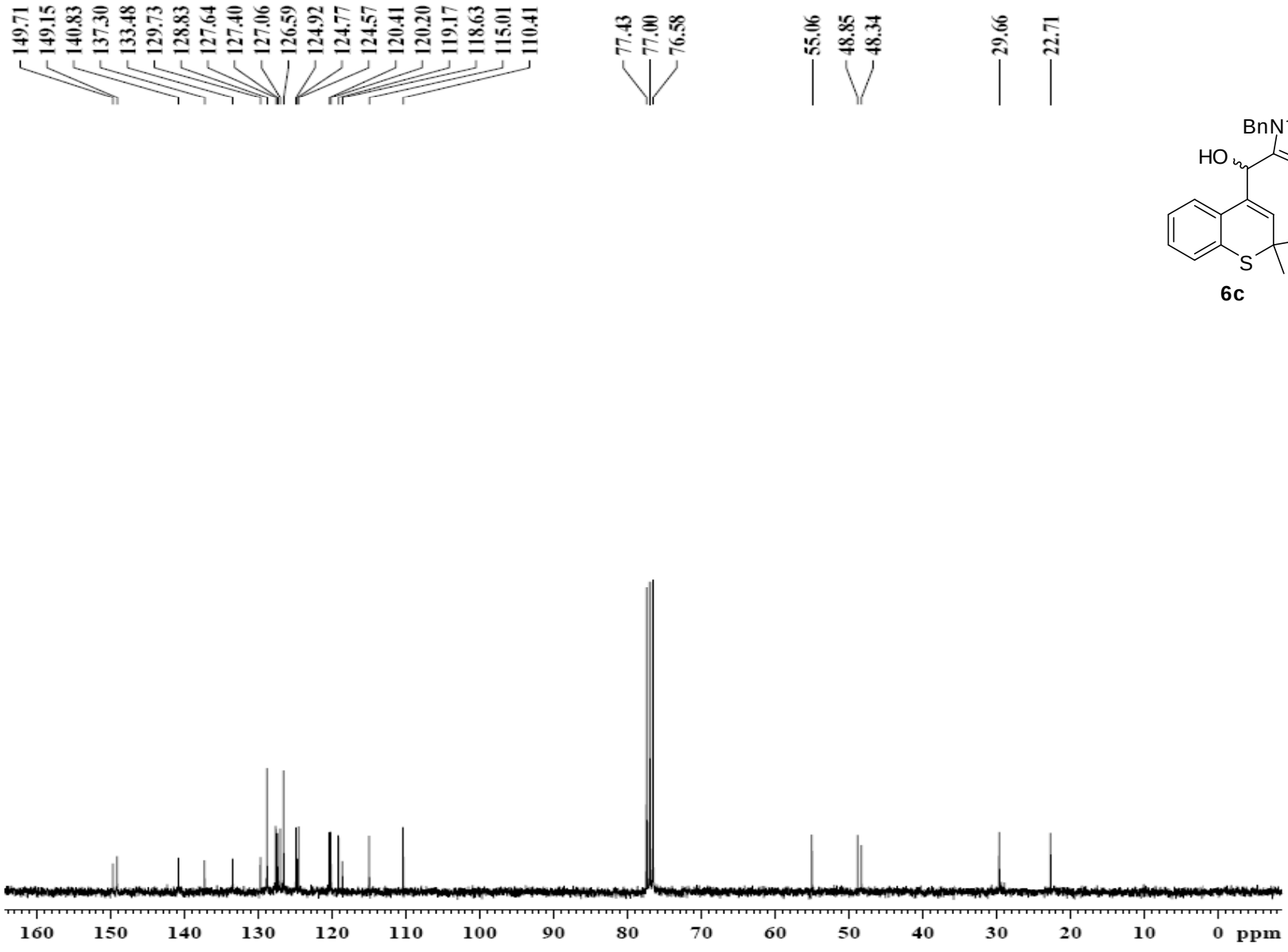


Fig. S-5: ^{13}C NMR of (1-benzyl-1H-indol-2-yl)(2,2-dimethyl-2H-thiochromen-4-yl)methanol(6c)

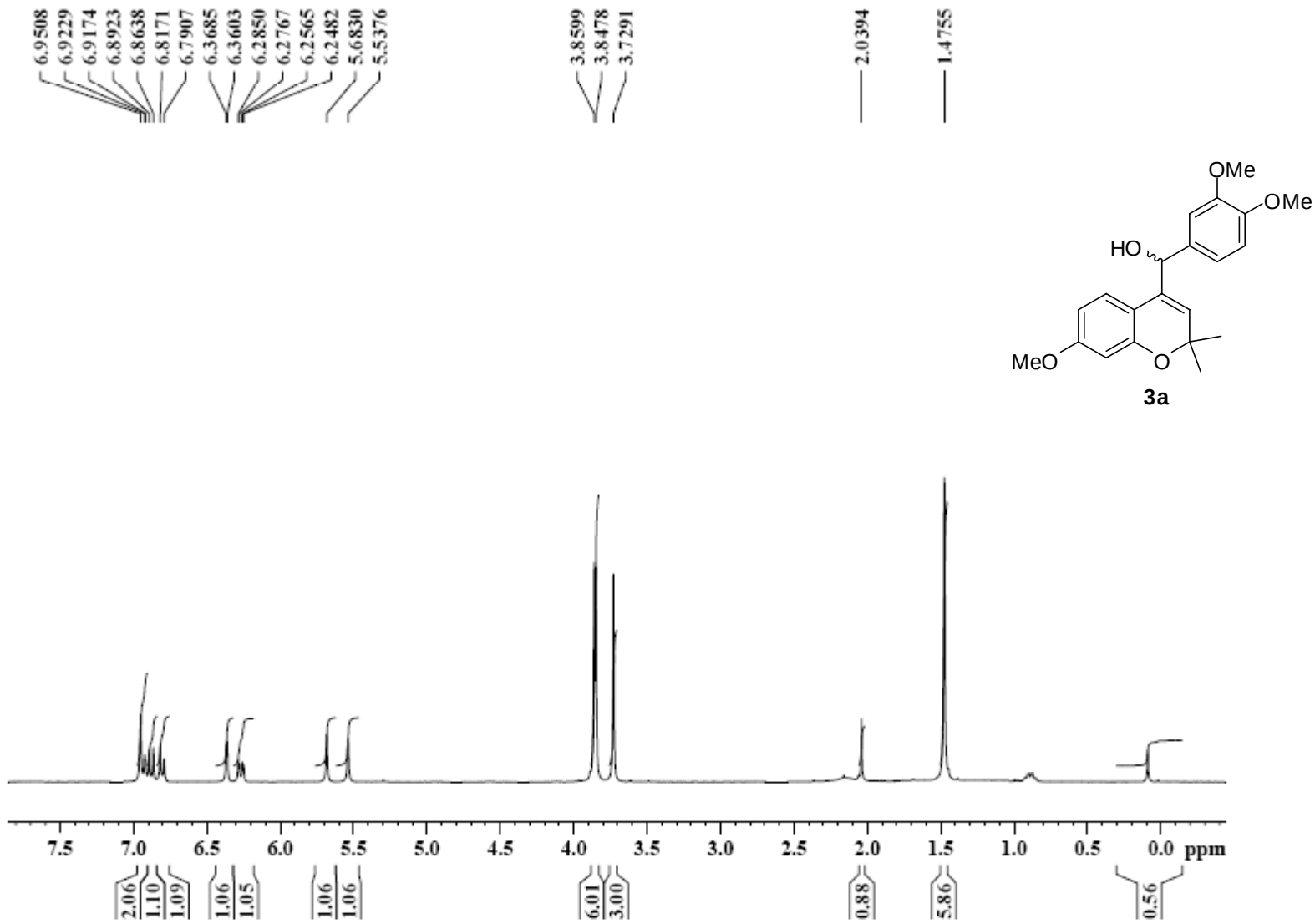


Fig. S-6: ^{1}H NMR of (3,4-Dimethoxyphenyl)(7-methoxy-2,2-dimethyl-2H-chromen-4-yl)methanol (3a)

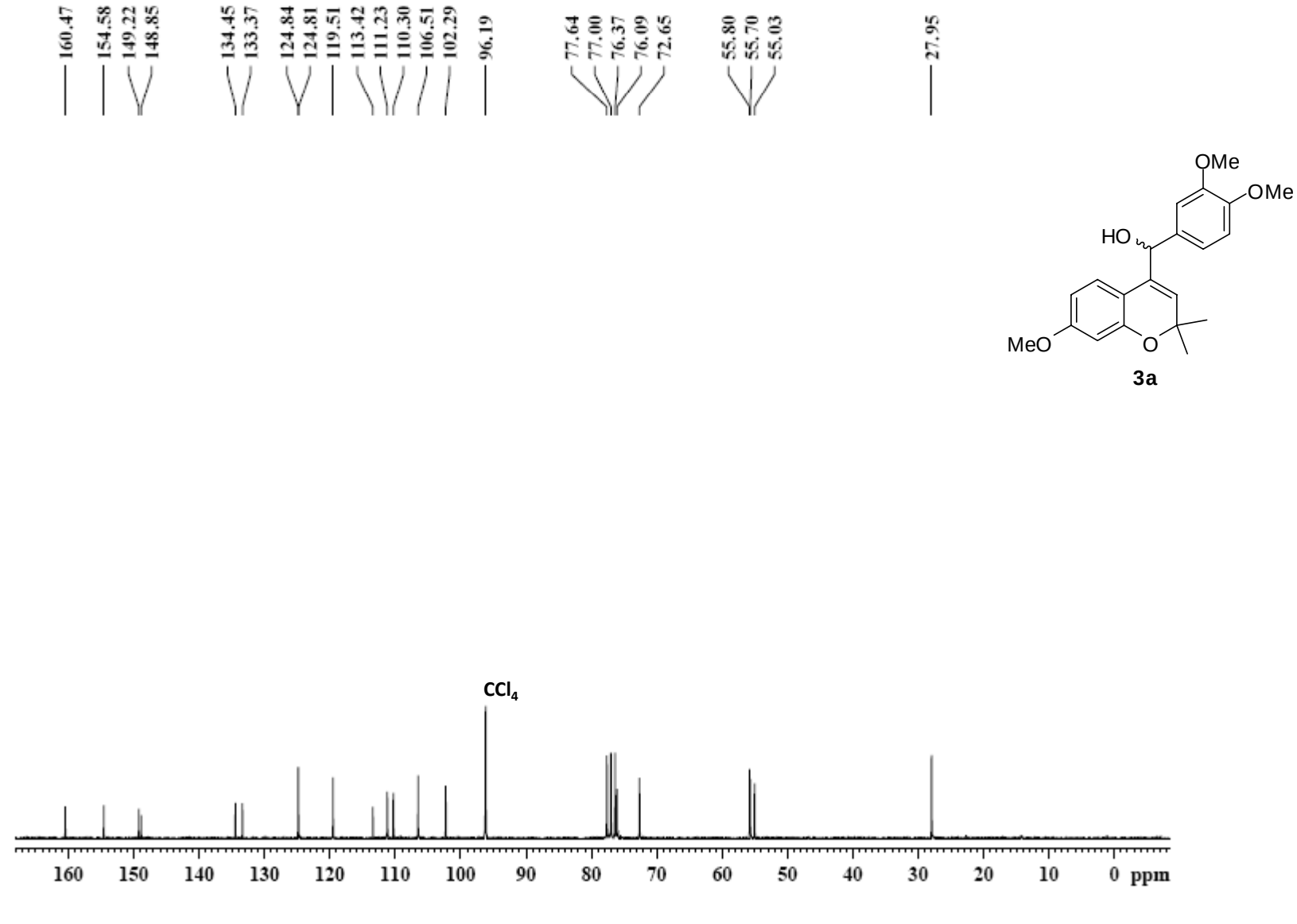


Fig. S-7: ^{13}C NMR of (3,4-Dimethoxyphenyl)(7-methoxy-2,2-dimethyl-2H-chromen-4-yl)methanol (3a)

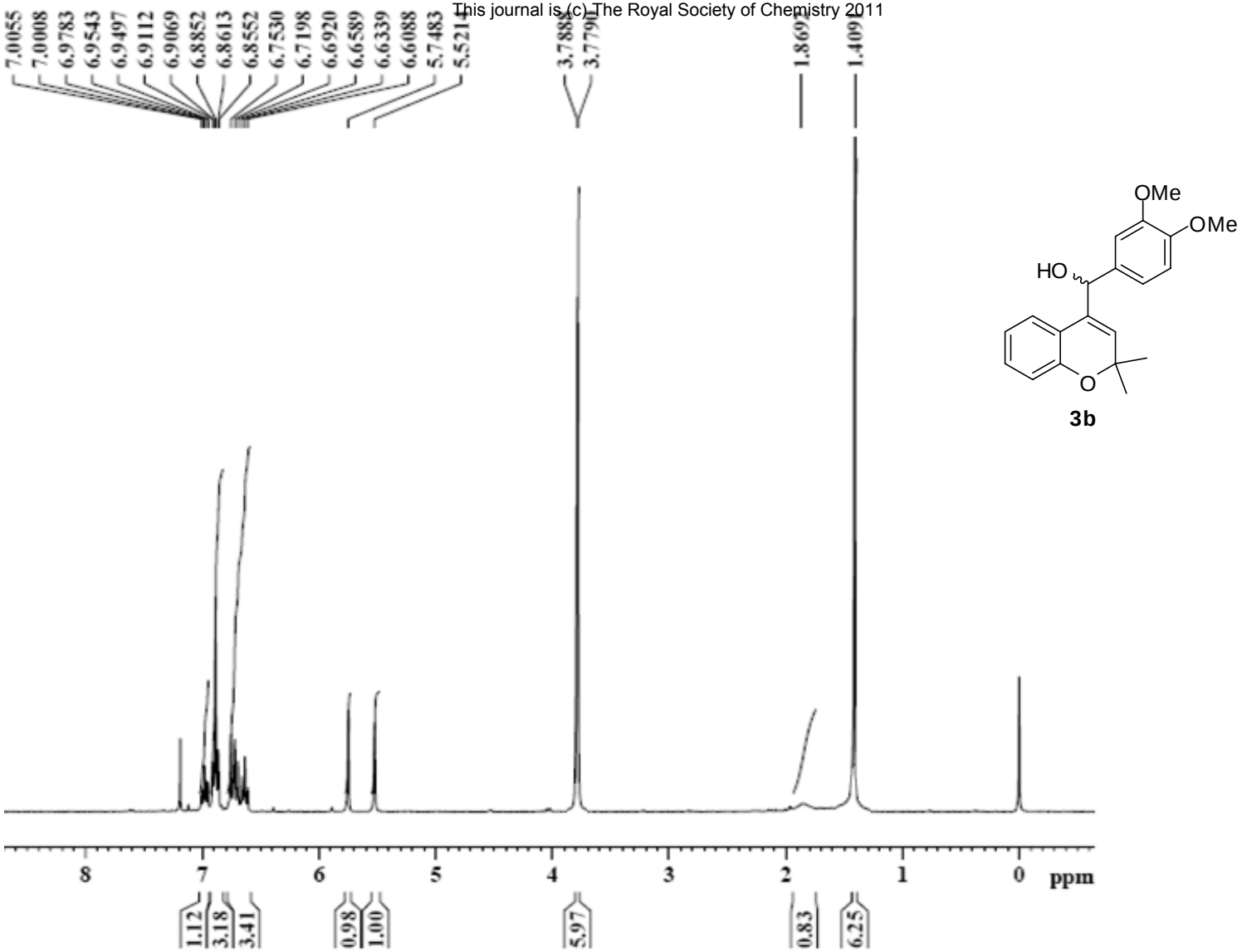


Fig. S-8: ^{1}H NMR of (3,4-Dimethoxyphenyl)(2,2-dimethyl-2H-chromen-4-yl)methanol (3b)

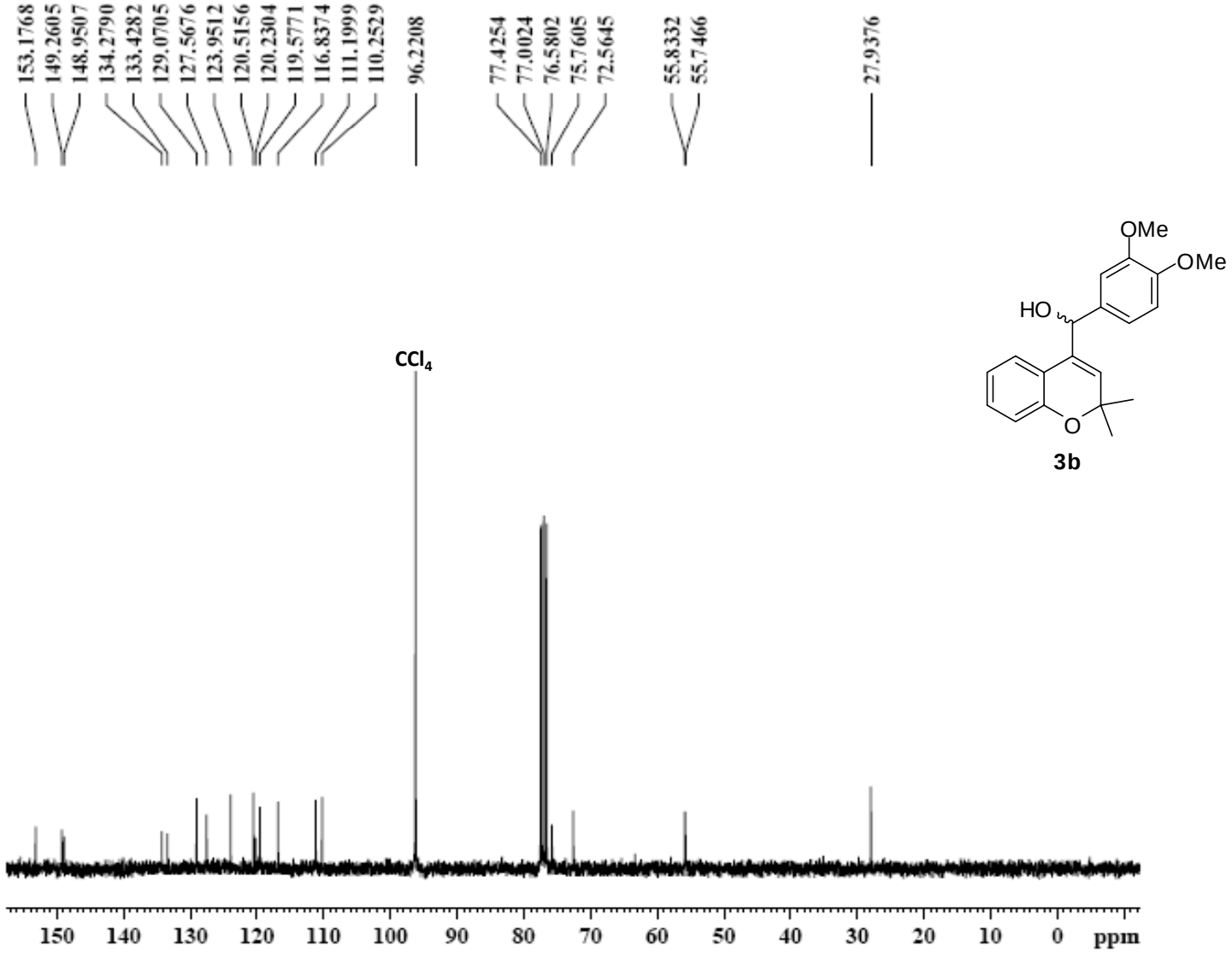


Fig. S-9: ^{13}C NMR of (3,4-Dimethoxyphenyl)(2,2-dimethyl-2H-chromen-4-yl)methanol (3b)

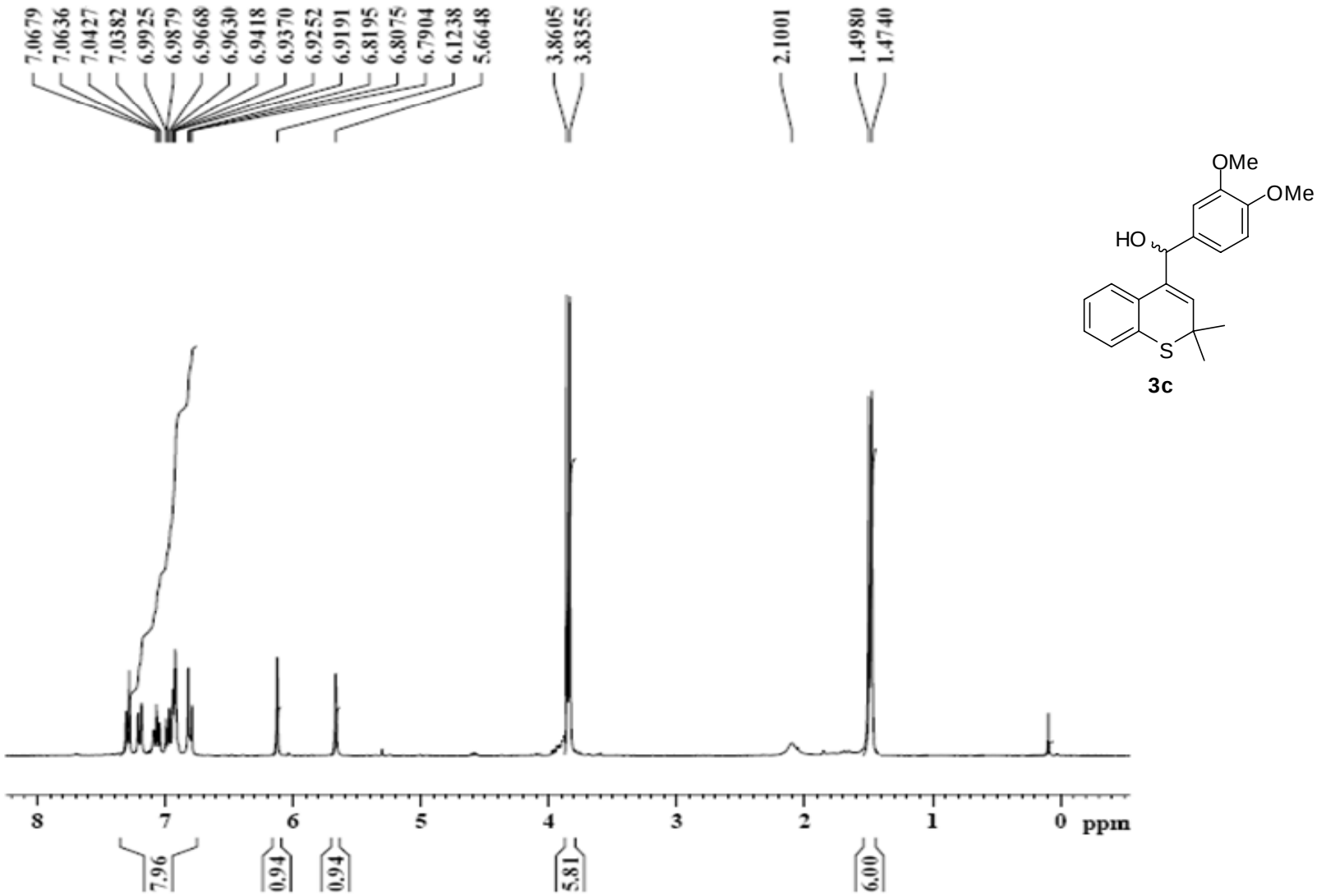
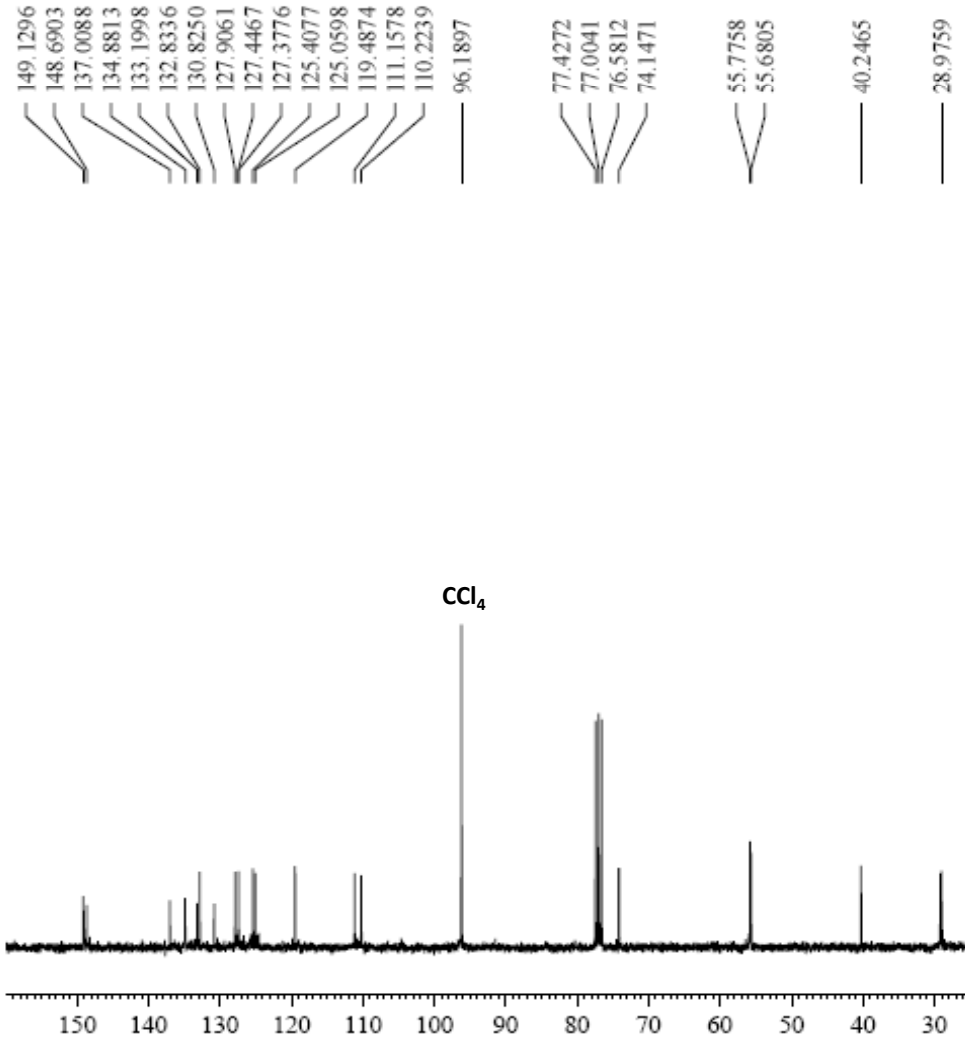
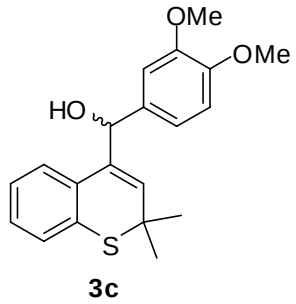


Fig. S-10: ^{1}H NMR of (3,4-Dimethoxyphenyl)(2,2-dimethyl-2H-thiochromen-4-yl)methanol (3c)





3c

Fig. S-11: ^{13}C NMR of (3,4-Dimethoxyphenyl)(2,2-dimethyl-2H-thiochromen-4-yl)methanol (3c)

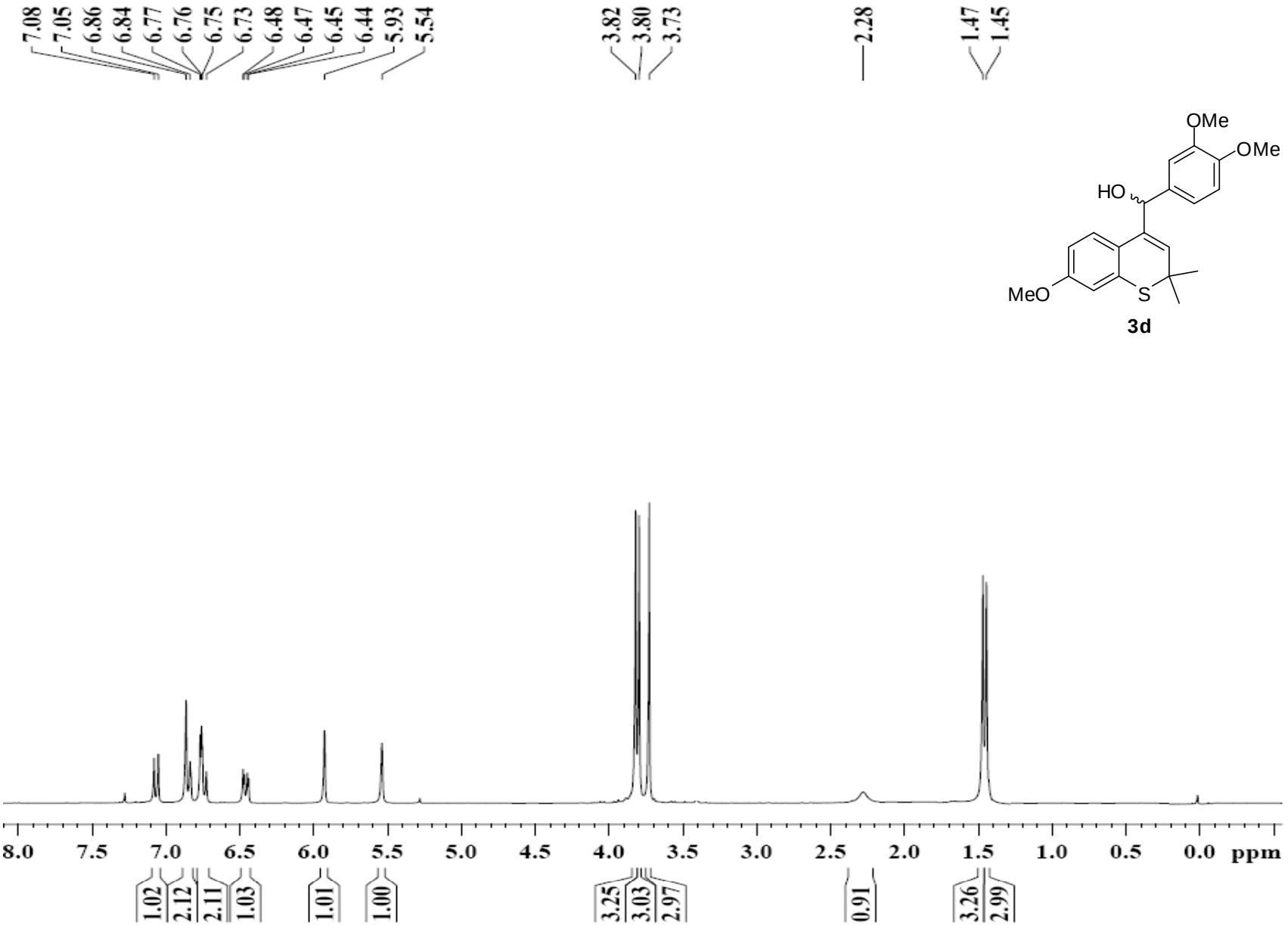


Fig. S-12: ^{1}H NMR of (3,4-dimethoxyphenyl)(7-methoxy-2,2-dimethyl-2H-thiochromen-4-yl)methanol (3d)

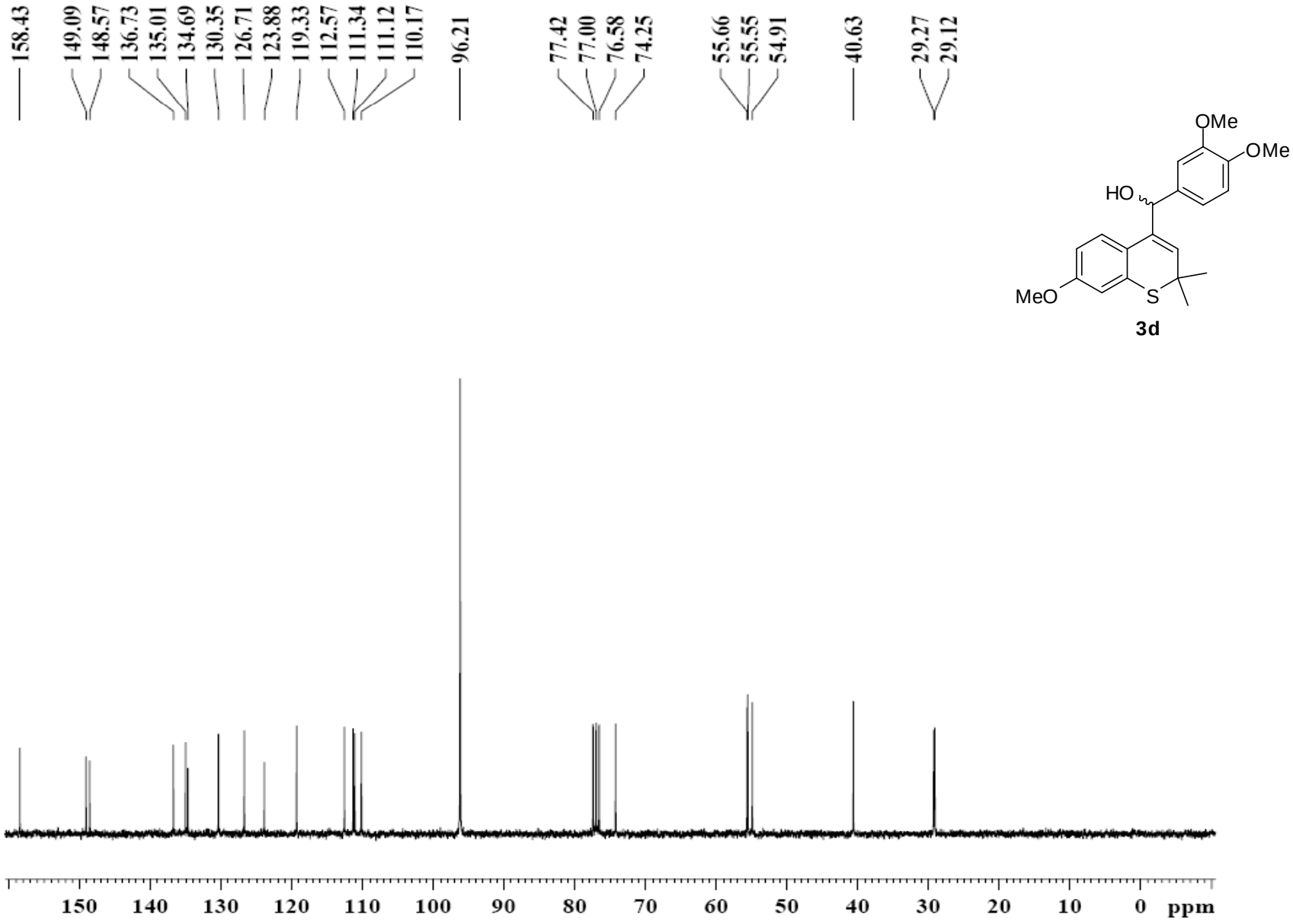


Fig. S-13: ^{13}C NMR of (3,4-dimethoxyphenyl)(7-methoxy-2,2-dimethyl-2H-thiochromen-4-yl)methanol (3d)

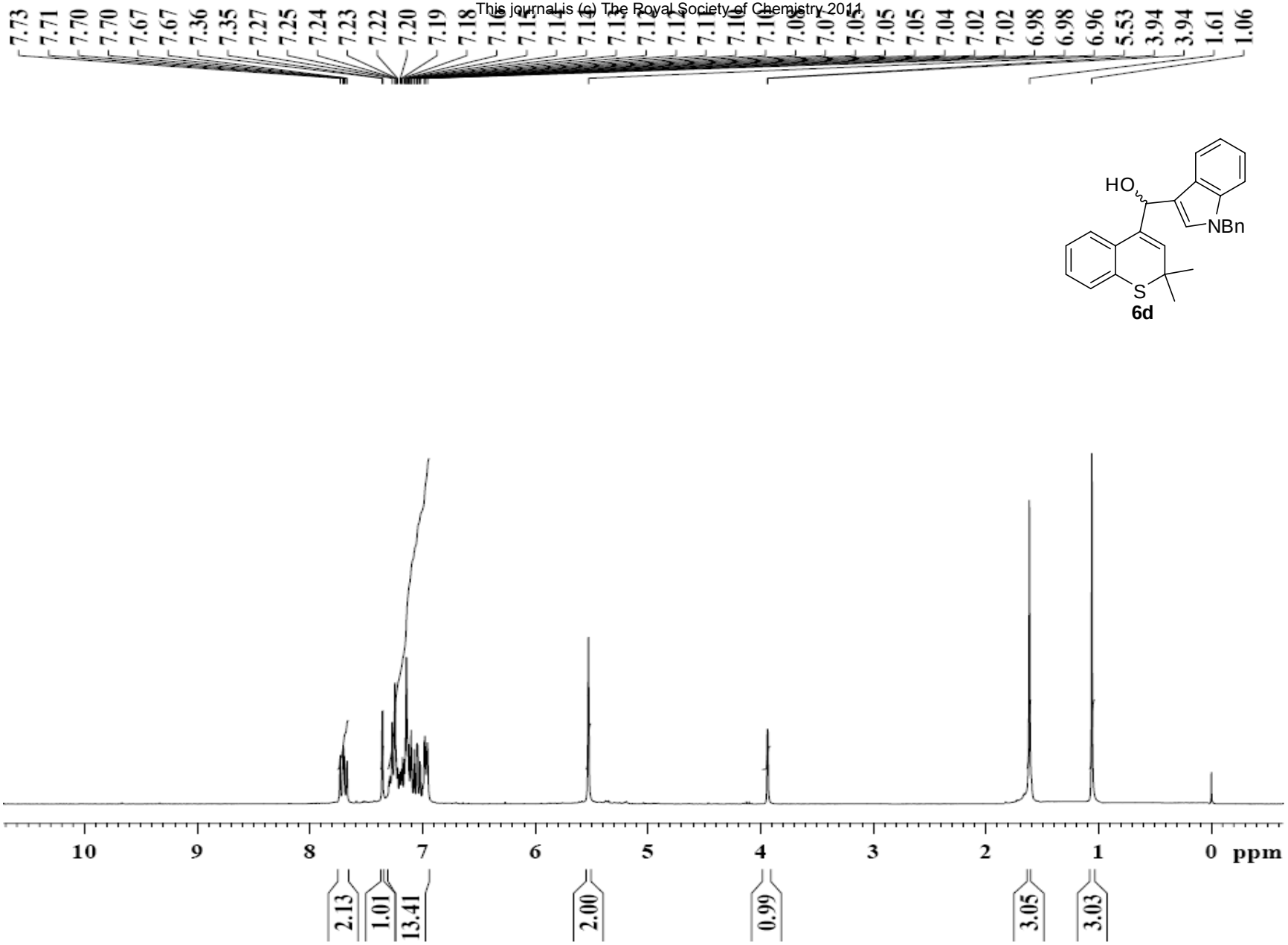


Fig. S-14: ^{1}H NMR of (1-benzyl-1H-indol-3-yl)(2,2-dimethyl-2H-thiochromen-4-yl)methanol (6d)

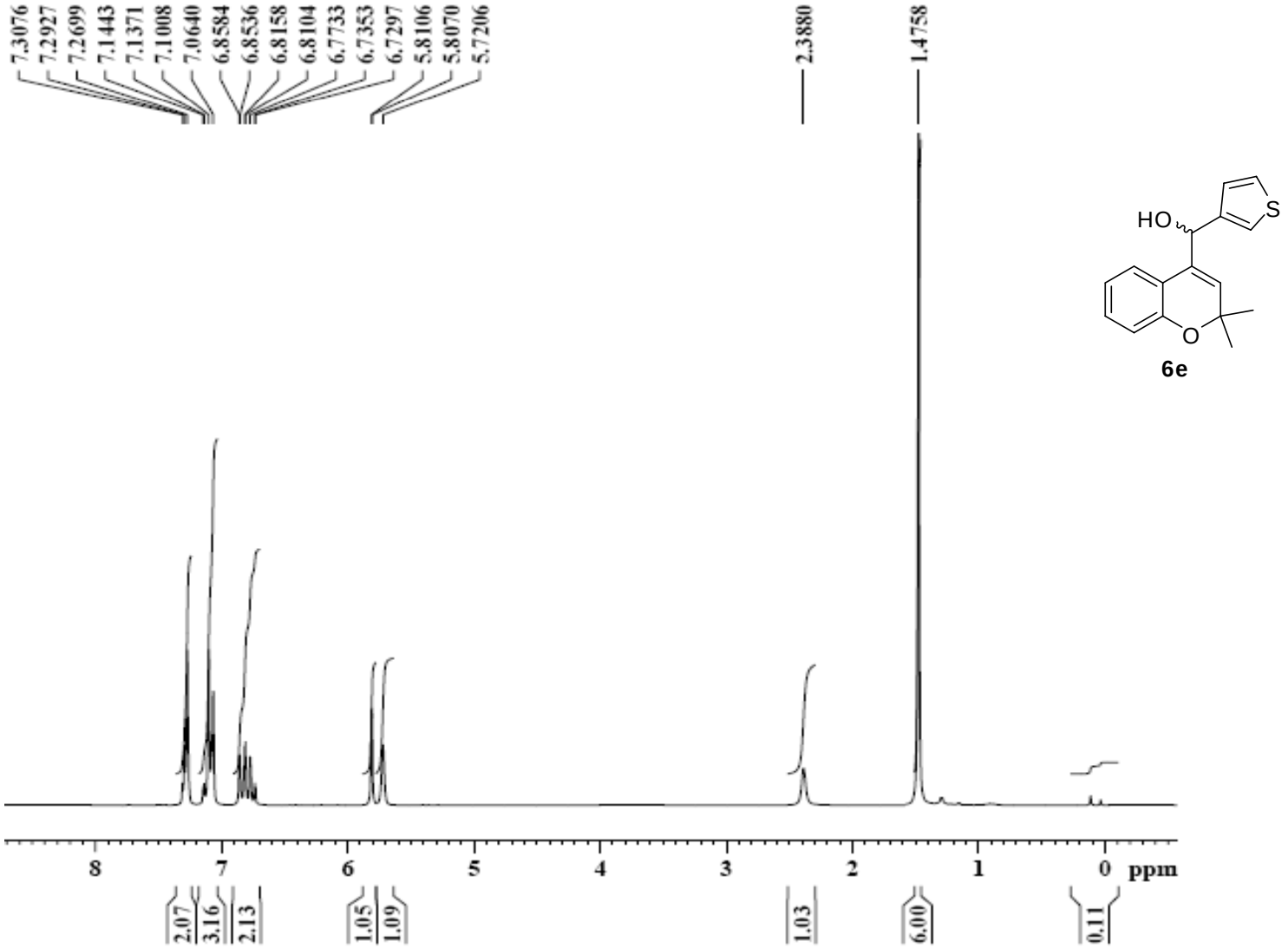


Fig. S-15: ^{1}H NMR of (2,2-Dimethyl-2H-chromen-4-yl)(thiophen-3-yl)methanol (6e)

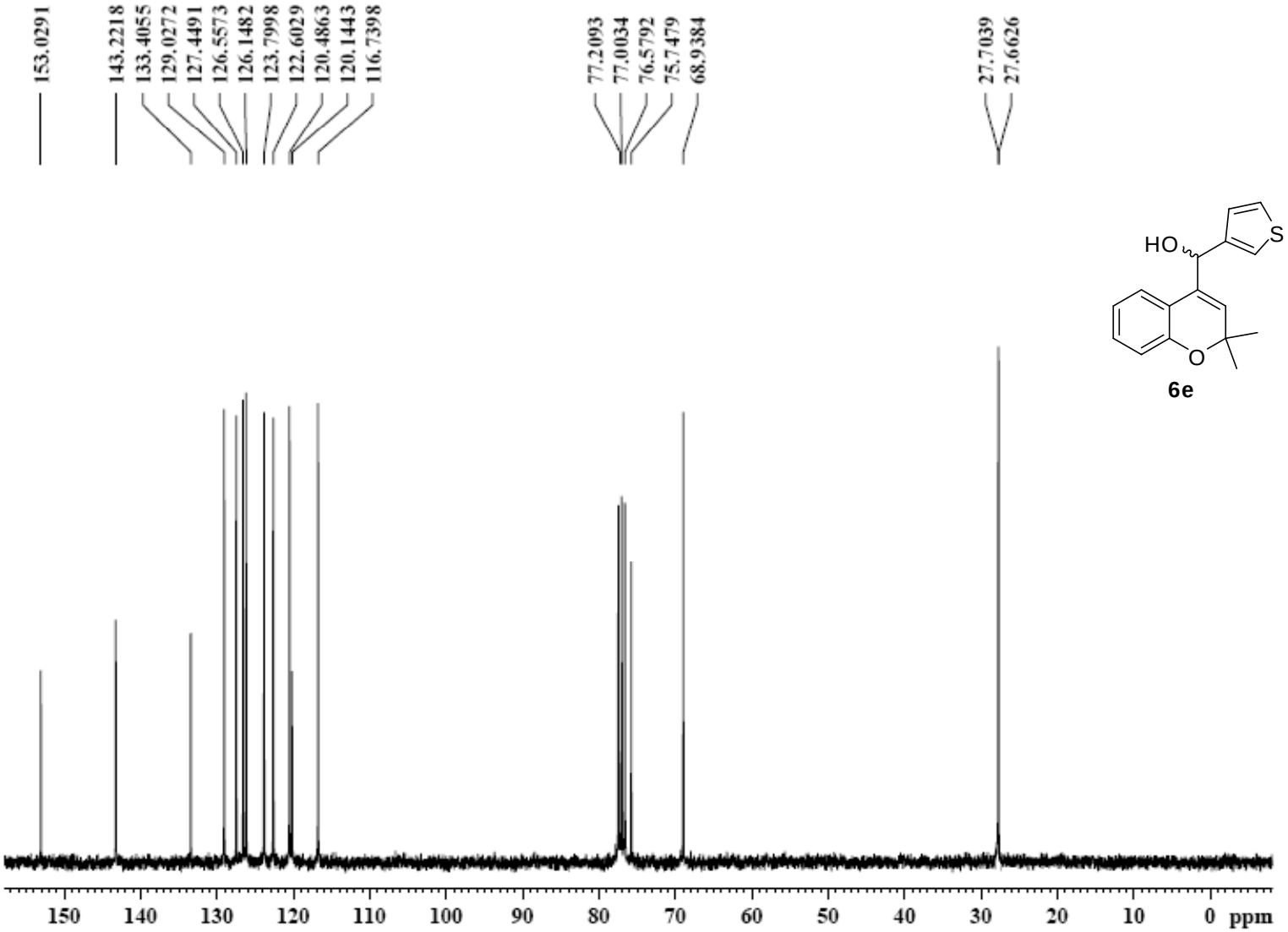


Fig. S-16: ^{13}C NMR of (2,2-Dimethyl-2H-chromen-4-yl)(thiophen-3-yl)methanol (6e)

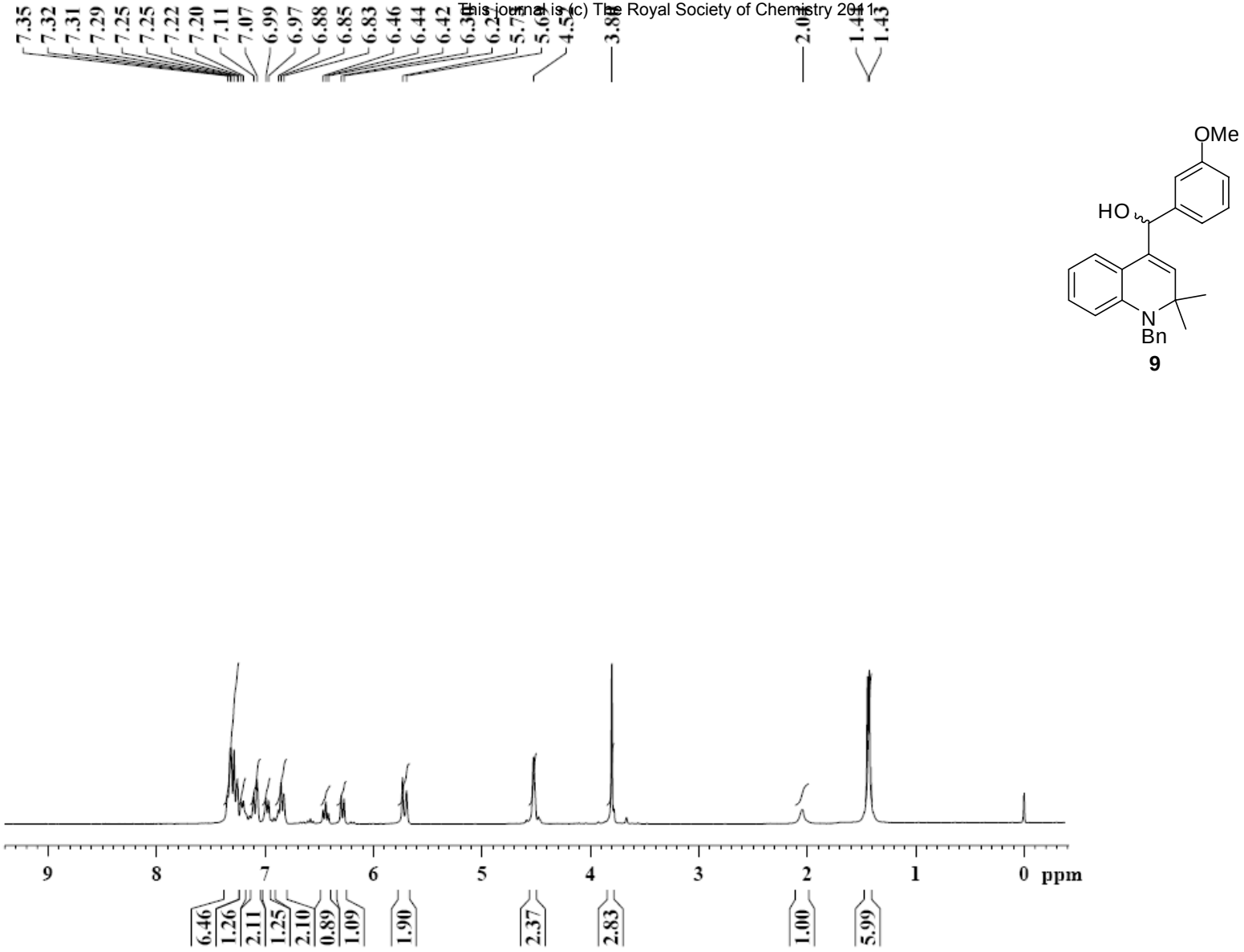


Fig. S-17: ^{1}H NMR of (1-benzyl-2,2-dimethyl-1,2-dihydroquinolin-4-yl)(3-methoxyphenyl)methanol (9)

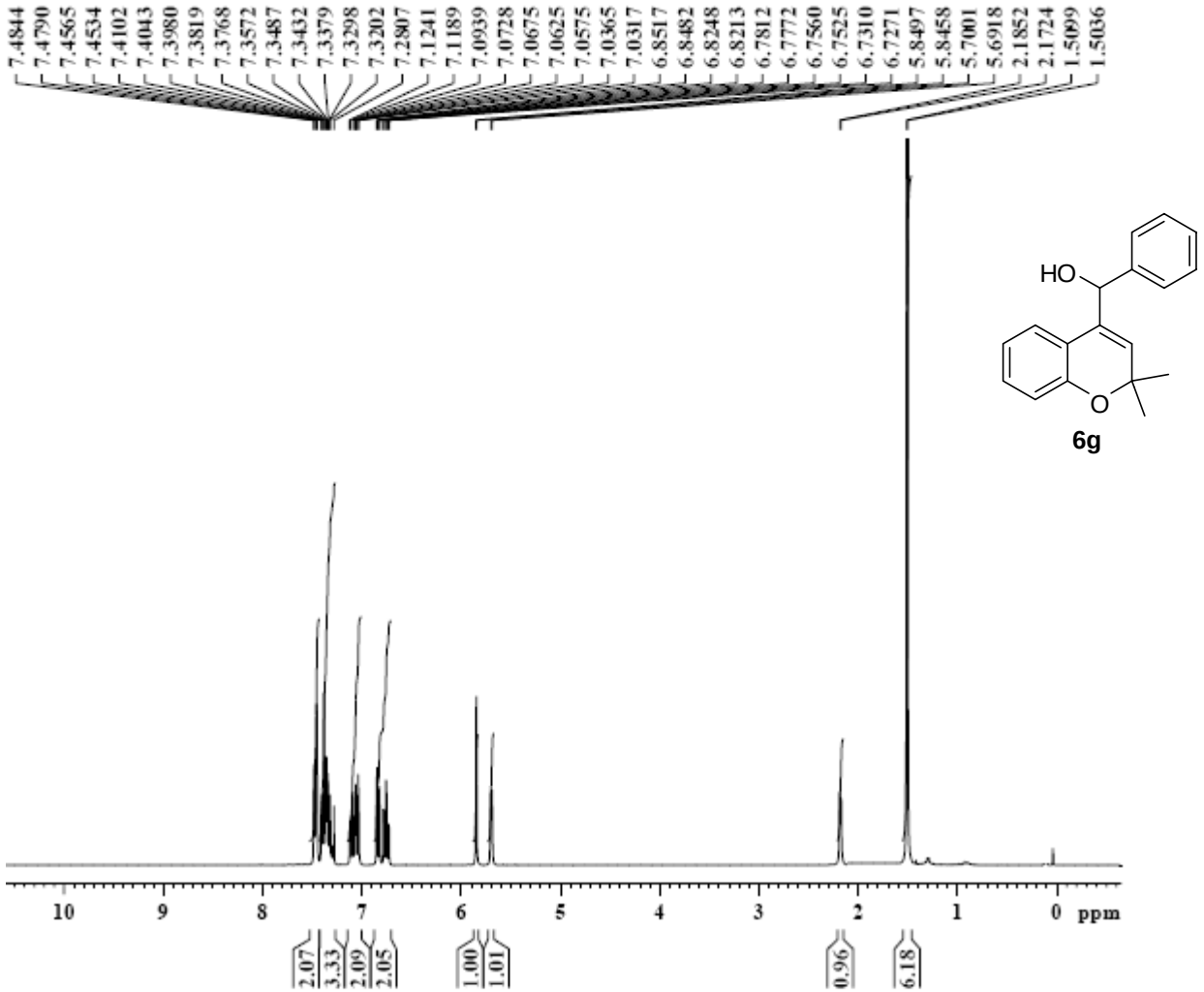


Fig. S-18: ^{1}H NMR of (2,2-dimethyl-2H-chromen-4-yl)(phenyl)methanol(6g)

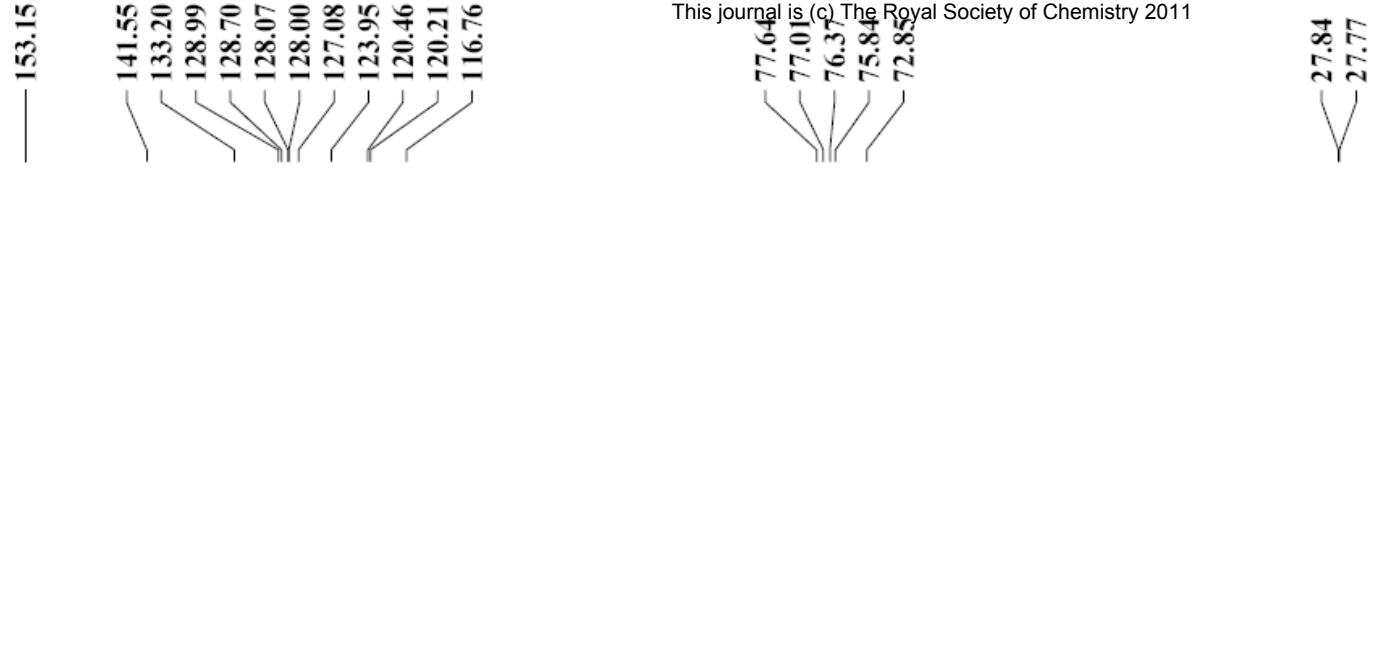


Fig. S-19: ^{13}C NMR of (2,2-dimethyl-2H-chromen-4-yl)(phenyl)methanol (6g)

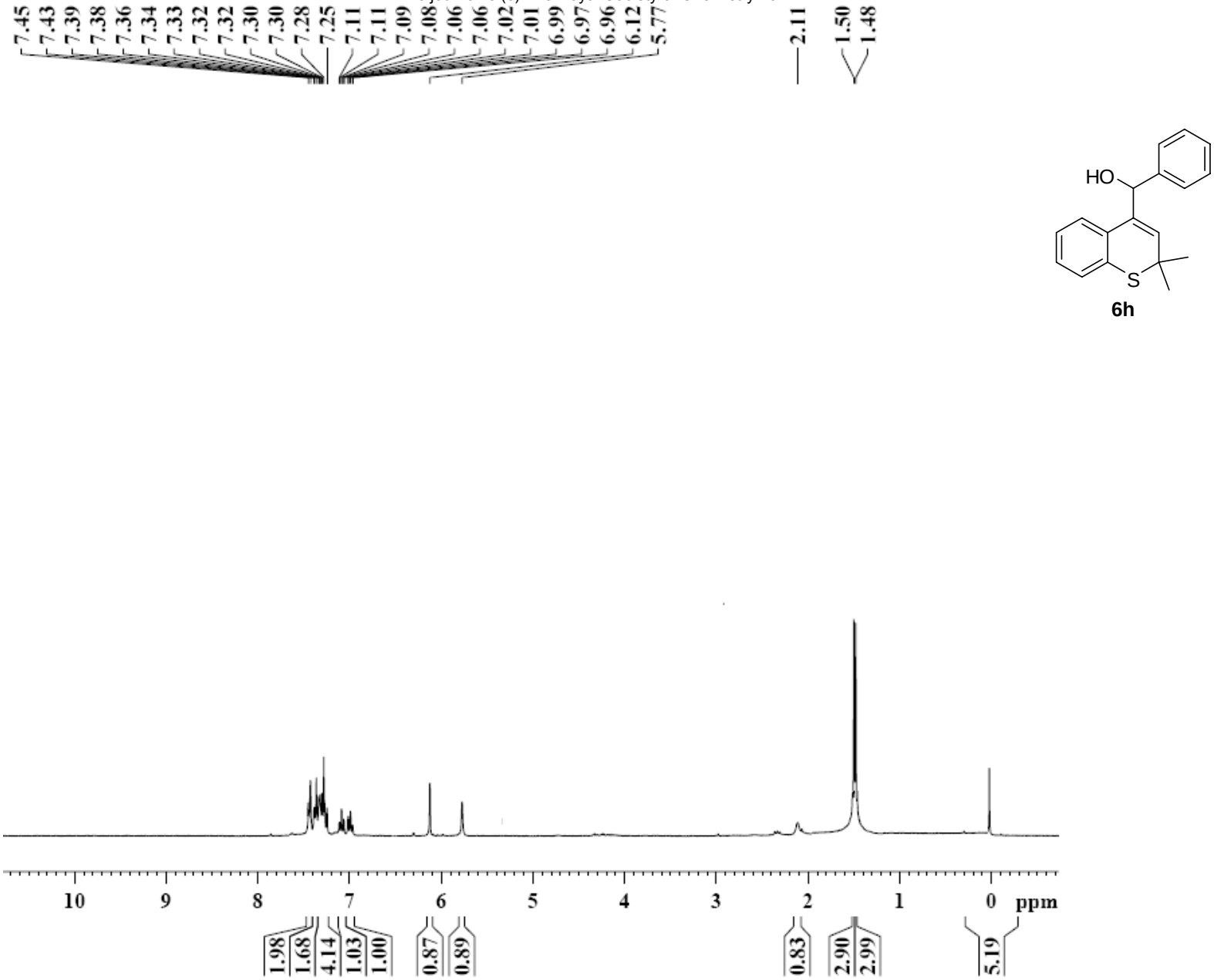
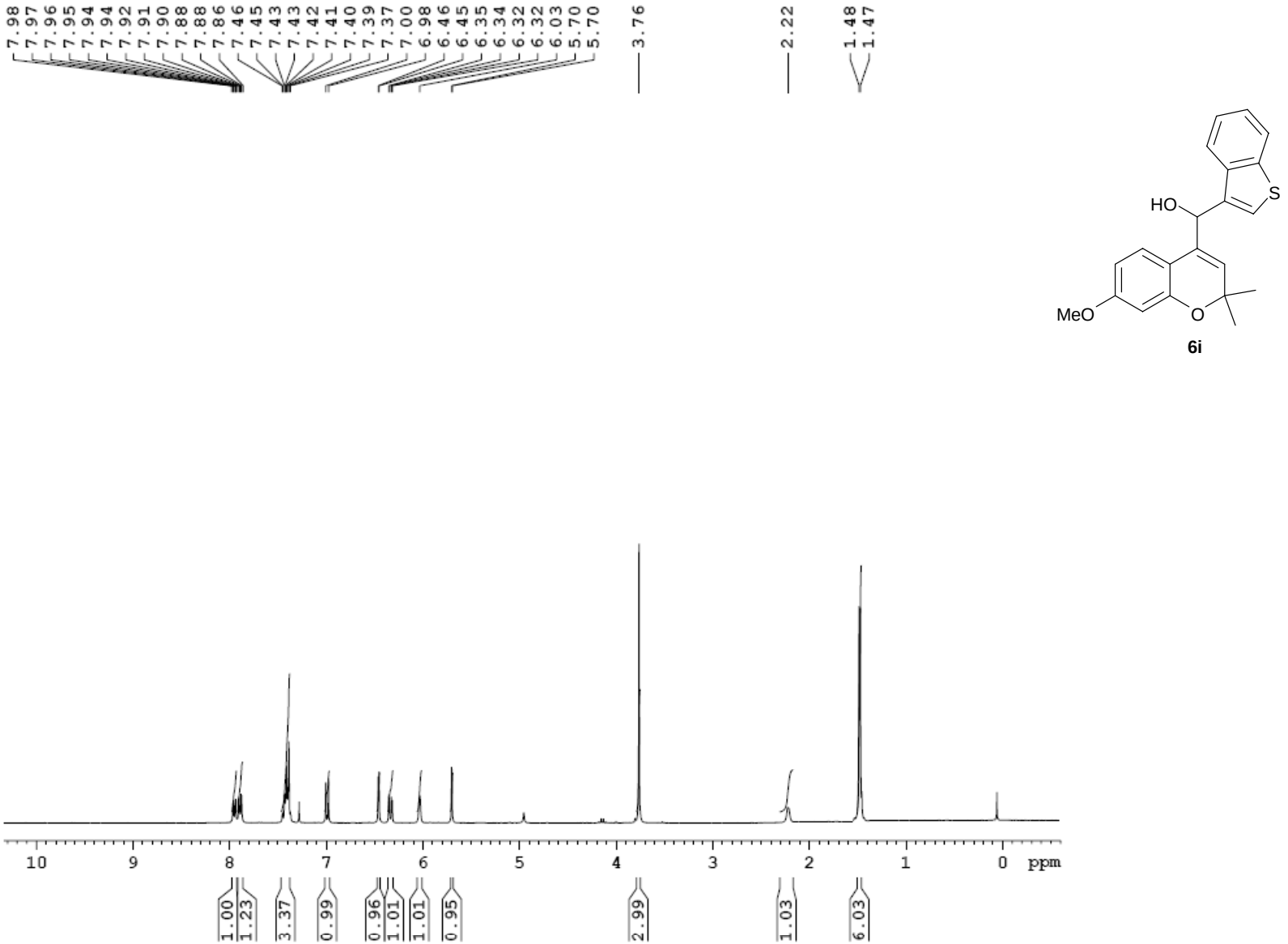


Fig. S-20: ^{1}H NMR of ((2,2-dimethyl-2H-thiochromen-4-yl)(phenyl)methanol (6h)



6i

Fig. S-21: ^{1}H NMR of (benzo[b]thiophen-3-yl(7-methoxy-2,2-dimethyl-2H-chromen-4-yl)methanol (6i)

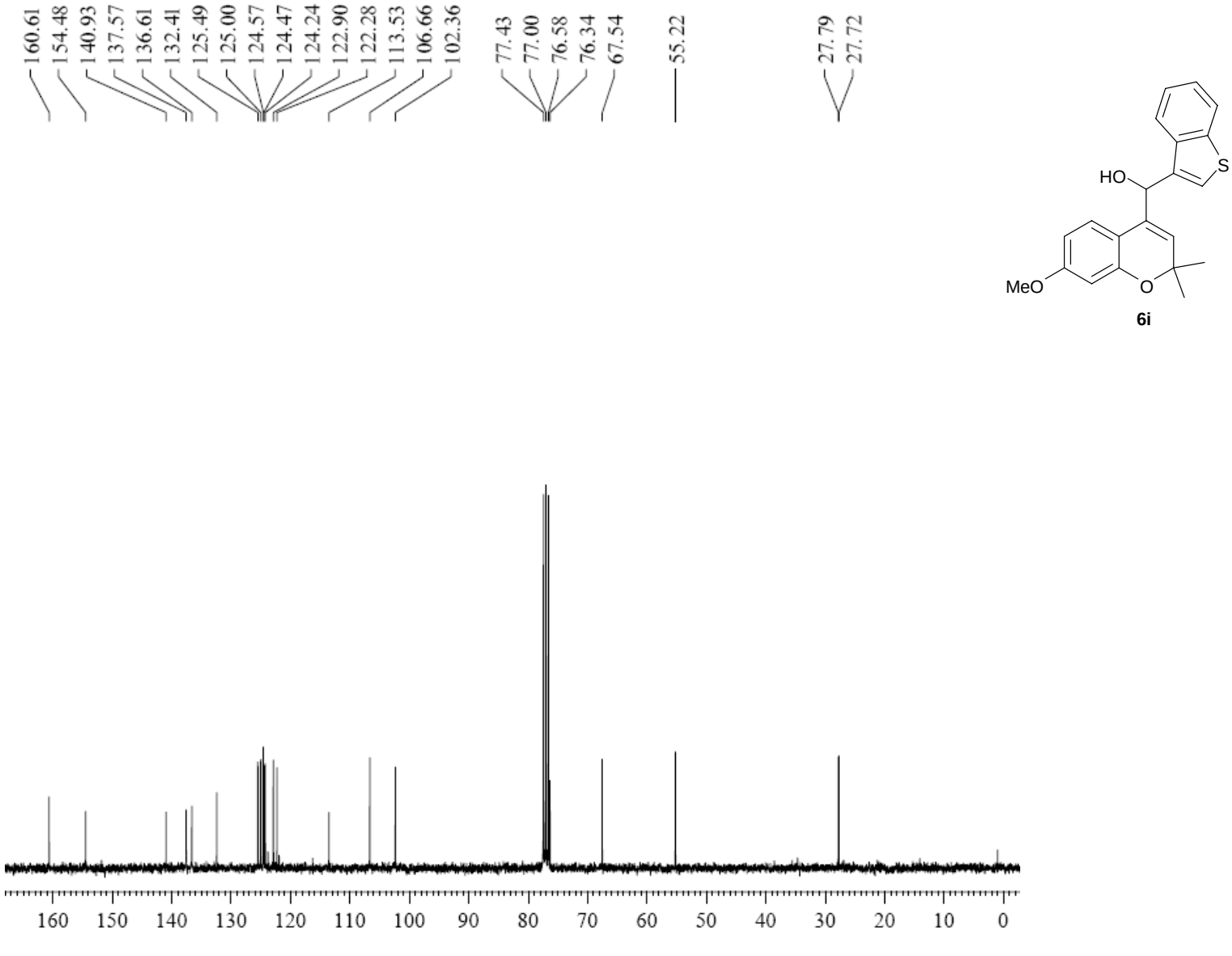


Fig. S-22: ^{13}C NMR of (benzo[b]thiophen-3-yl(7-methoxy-2,2-dimethyl-2H-chromen-4-yl)methanol (6i)

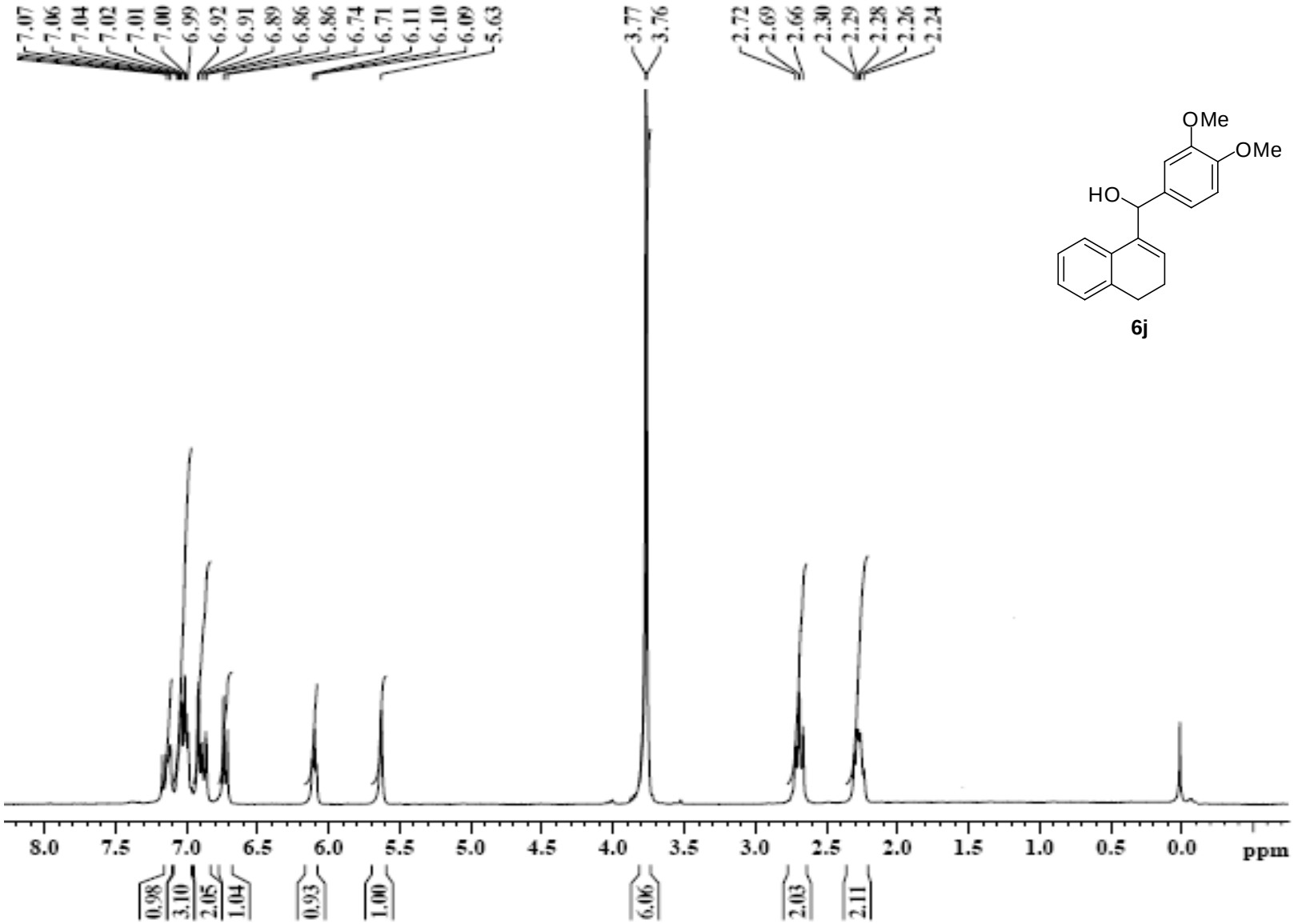


Fig. S-23: ^{1}H NMR of (3,4-dihydronaphthalen-1-yl)(3,4-dimethoxyphenyl)methanol (6j)

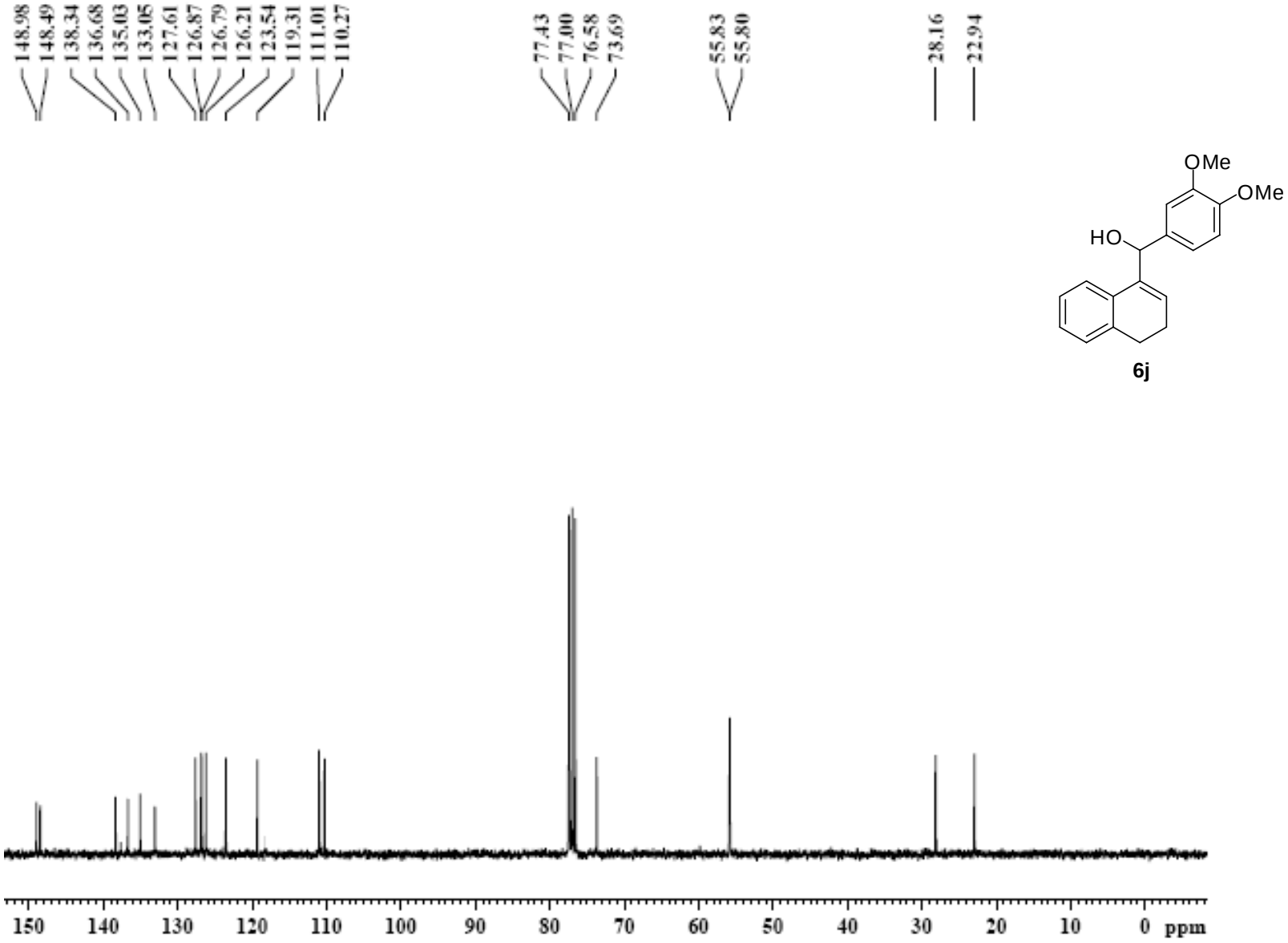


Fig. S-24: ^{13}C NMR of (3,4-dihydronaphthalen-1-yl)(3,4-dimethoxyphenyl)methanol (6j)

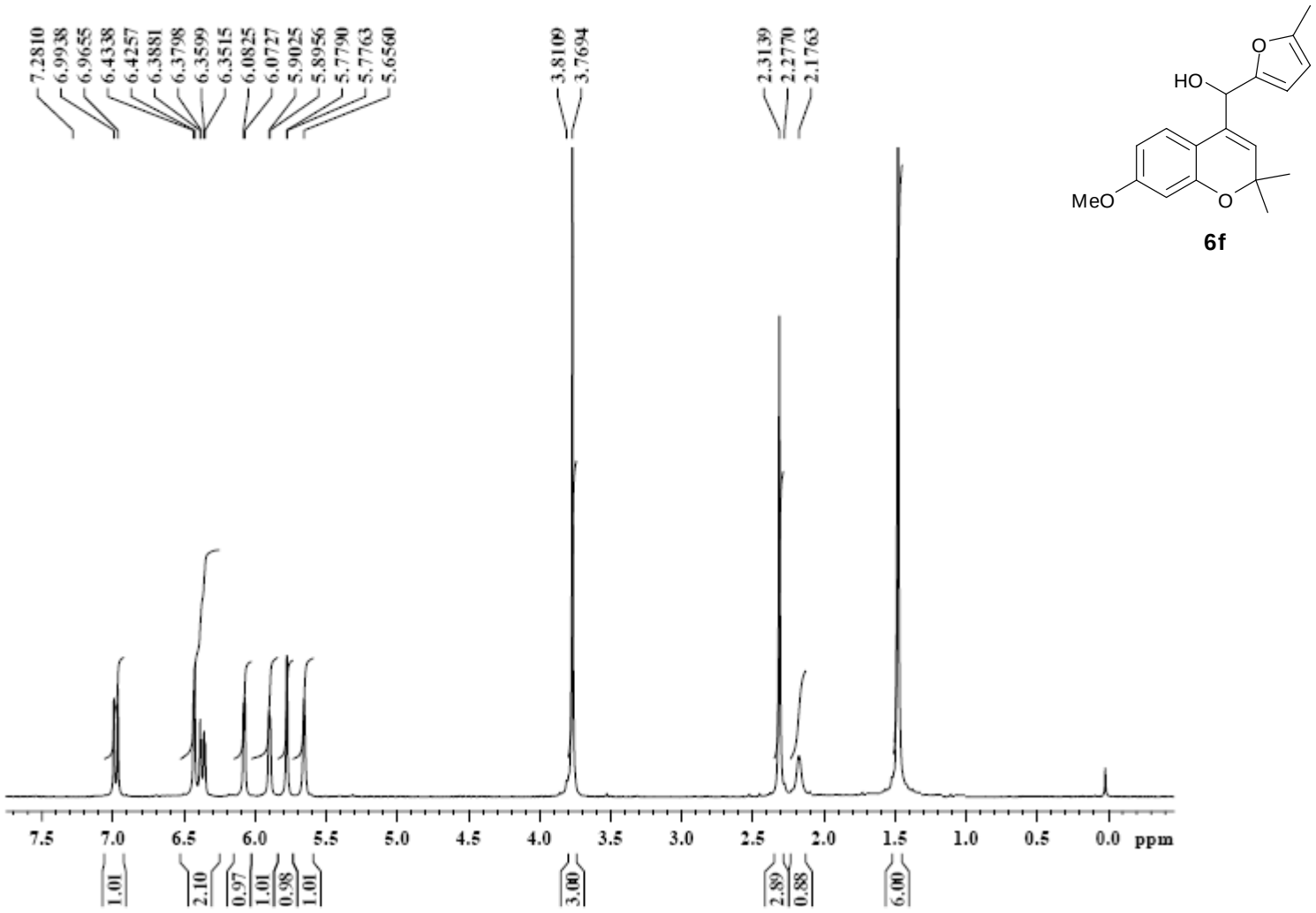


Fig. S-25: ^{1}H NMR of (7-methoxy-2,2-dimethyl-2H-chromen-4-yl)(5-methylfuran-2-yl)methanol (6f)

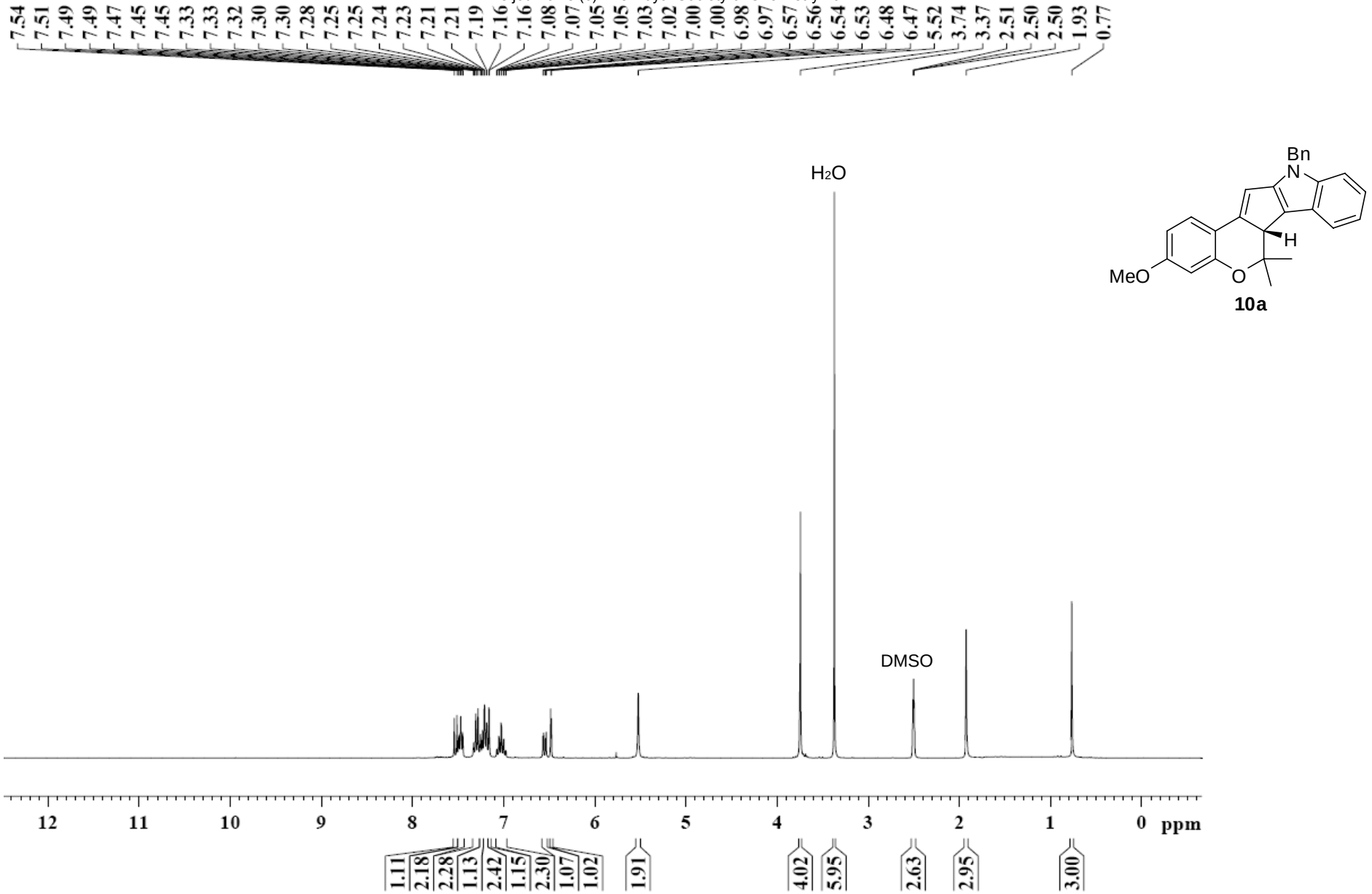


Fig. S-26: ^{1}H NMR of 11-Benzyl-3-methoxy-6,6-dimethyl-6a,11-dihydro-6*H*-5-oxa-11-aza- benzo[5,6]pentaleno[2,1-b]naphthalene (10a)

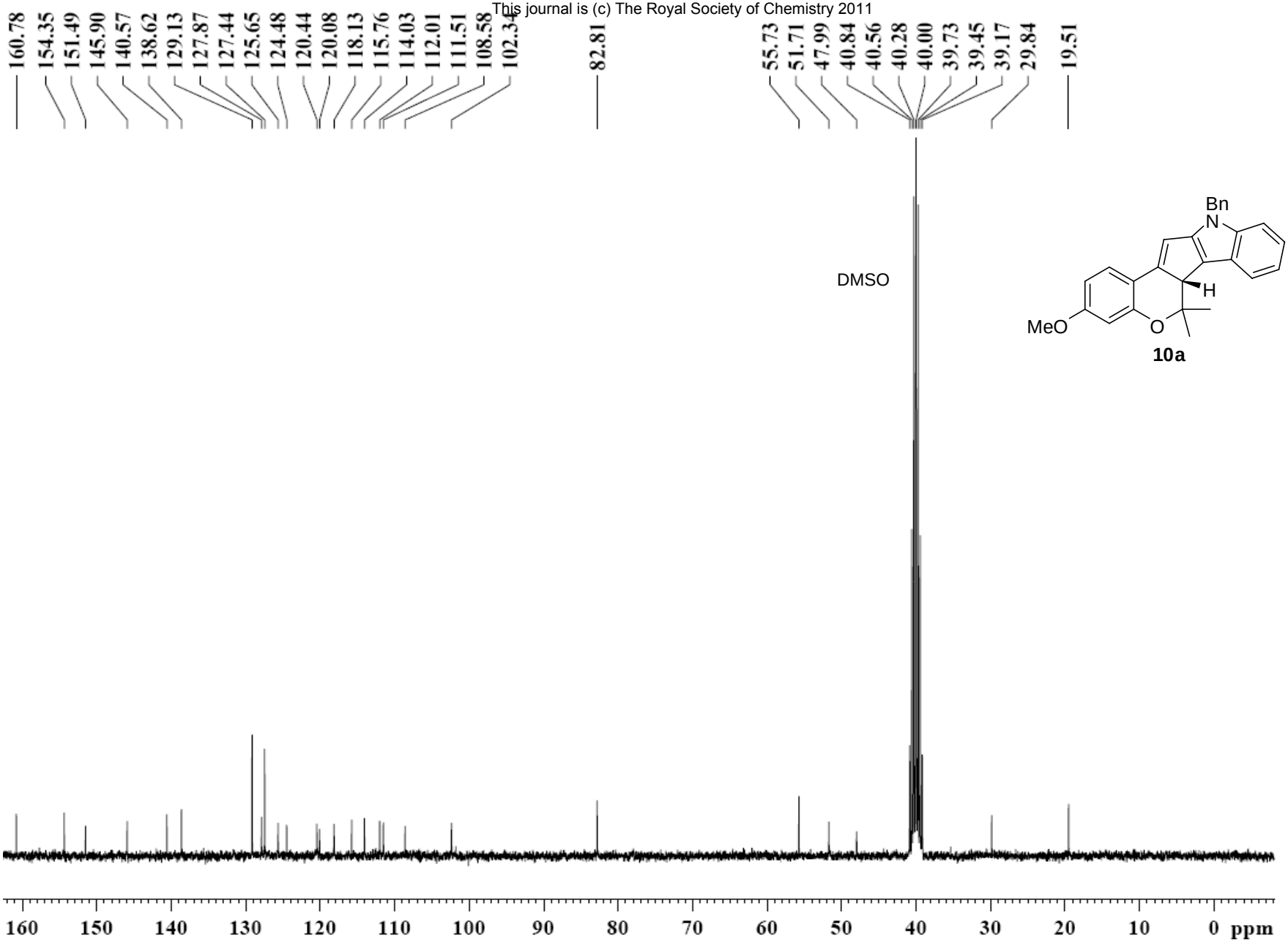


Fig. S-27: ^{13}C NMR of 11-Benzyl-3-methoxy-6,6-dimethyl-6a,11-dihydro-6*H*-5-oxa-11-aza- benzo[5,6]pentaleno[2,1-b]naphthalene (10a)

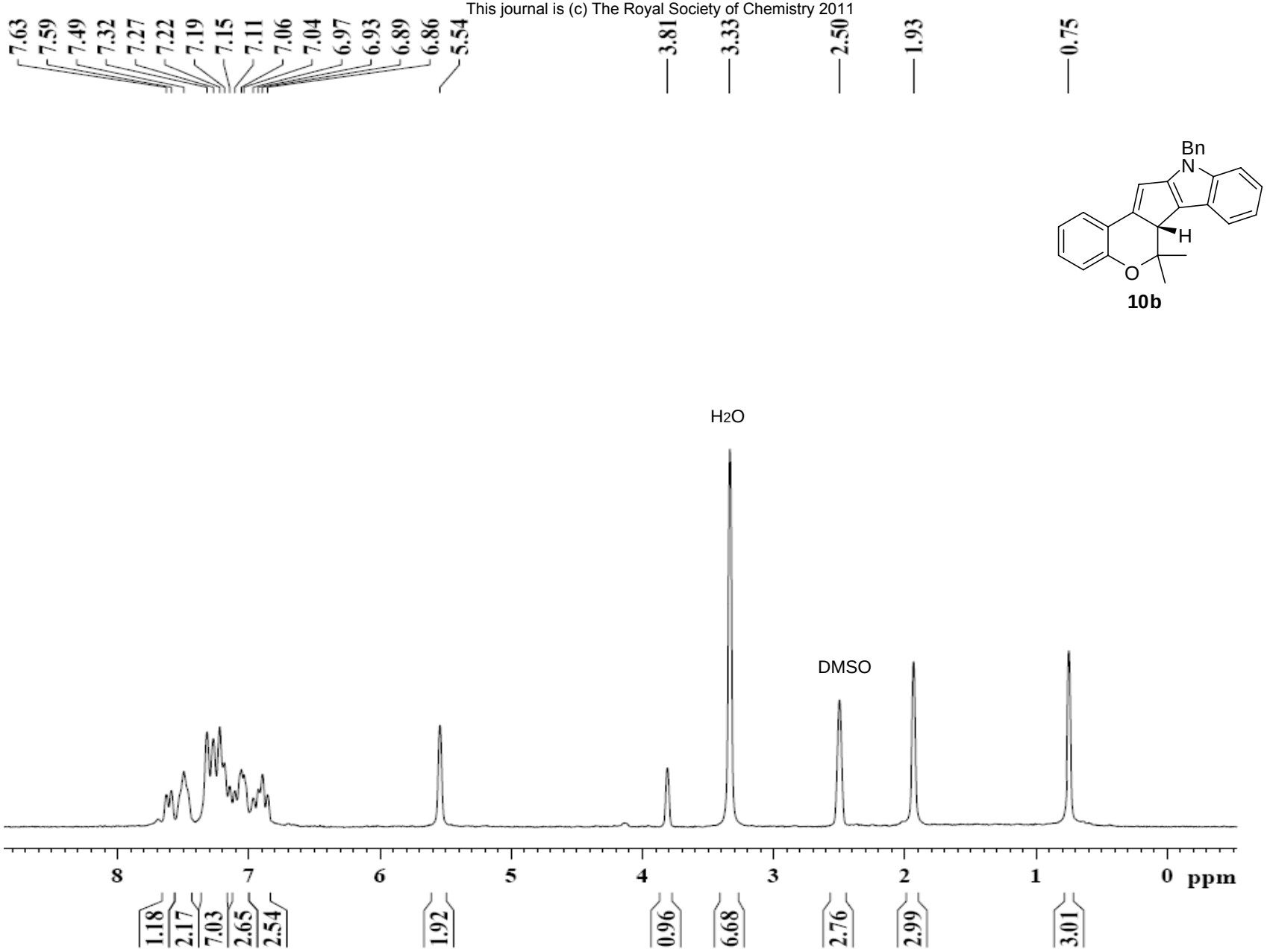


Fig. S-28: ^{1}H NMR of 11-Benzyl-6,6-dimethyl-6a,11-dihydro-6*H*-5-oxa-11-aza-benzo[5,6]pentaleno[2,1-b]naphthalene (10b)

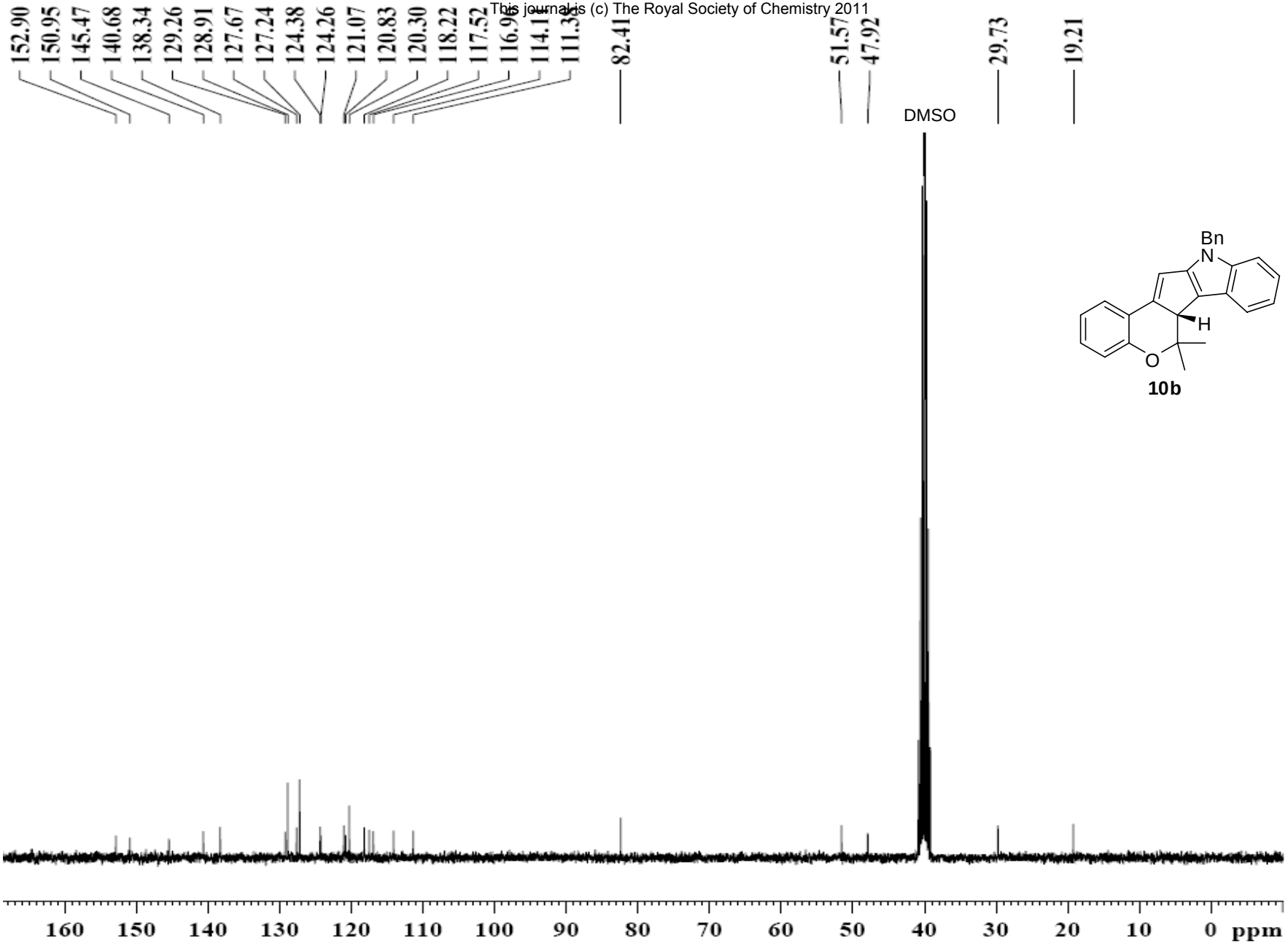
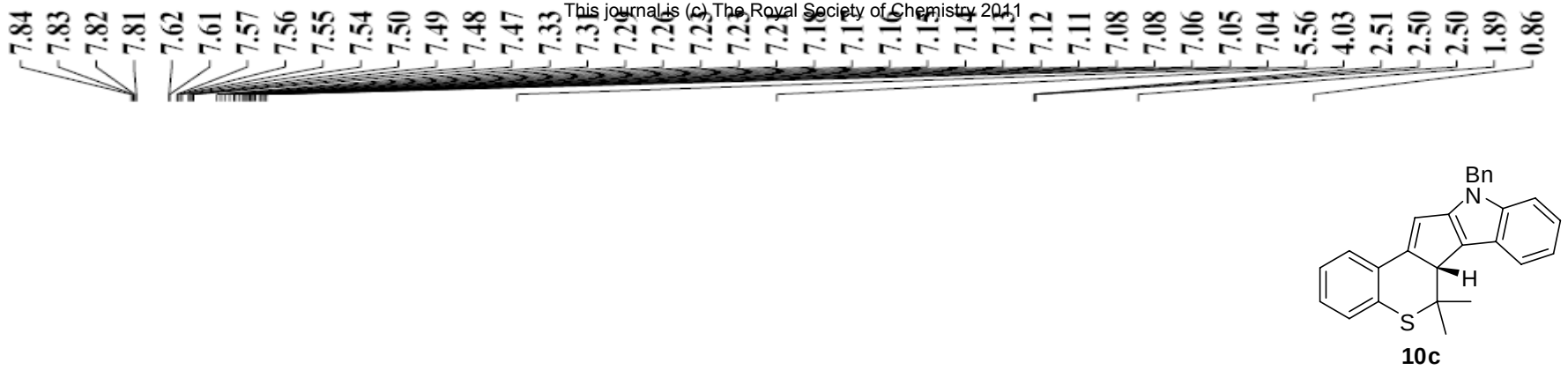


Fig. S-29: ^{13}C NMR of 11-Benzyl-6,6-dimethyl-6a,11-dihydro-6*H*-5-oxa-11-aza-benzo[5,6]pentaleno[2,1-b]naphthalene (10b)



10c

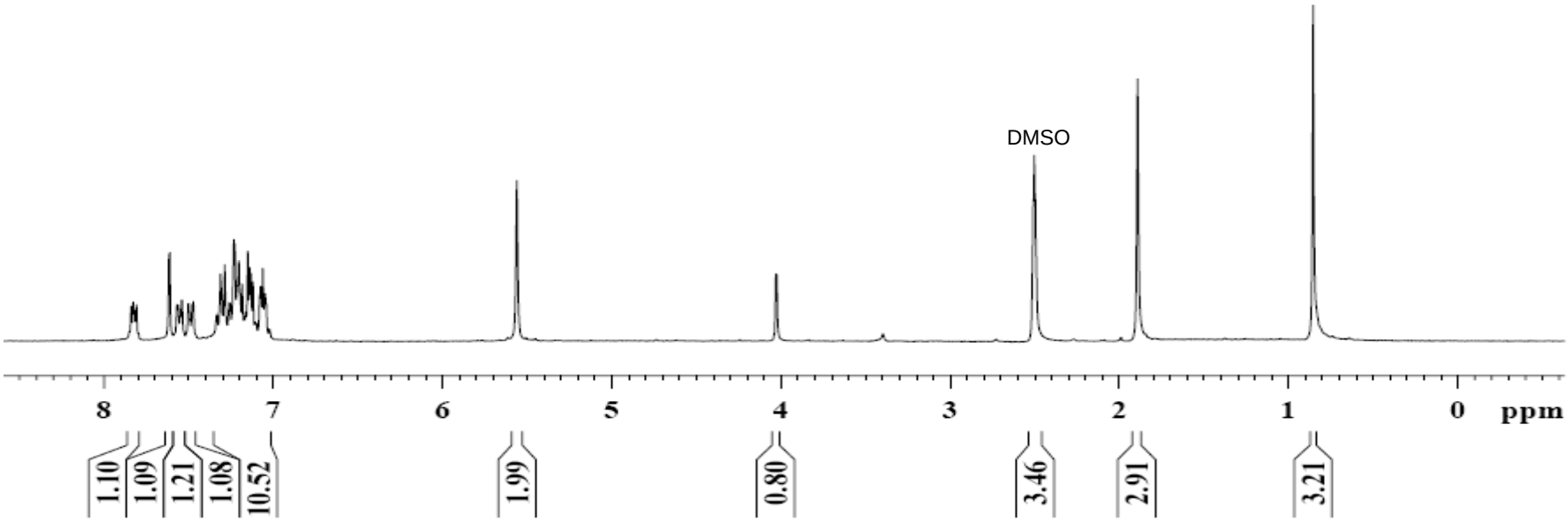


Fig. S-30: ^{1}H NMR of 11-benzyl-6,6-dimethyl-6a,11-dihydro-6*H*-5-thia-11-aza-benzo[5,6]pentaleno[2,1-b]naphthalene (10c)

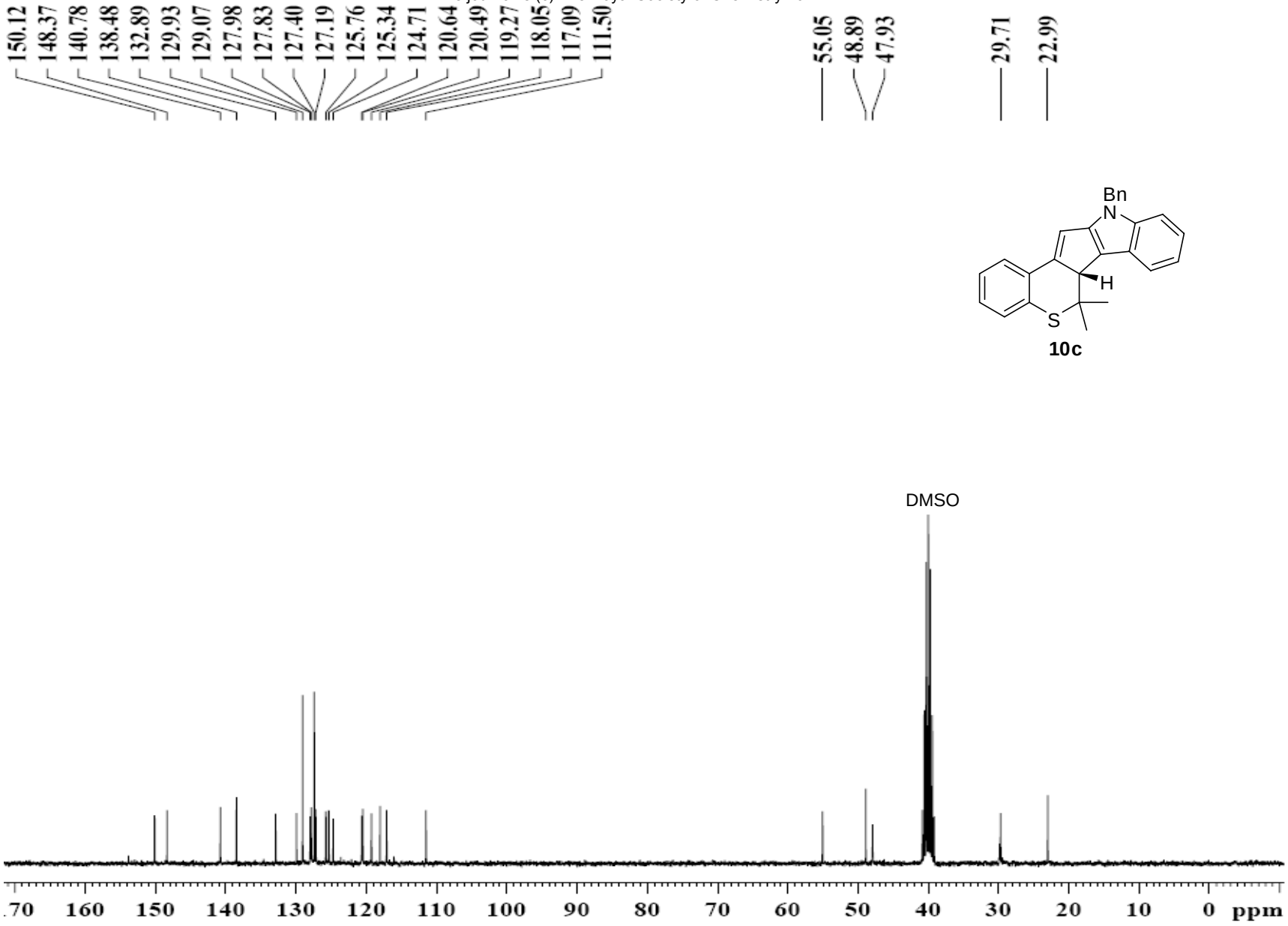


Fig. S-31: ^{13}C NMR of 11-benzyl-6,6-dimethyl-6a,11-dihydro-6*H*-5-thia-11-aza-benzo[5,6]pentaleno[2,1-b]naphthalene(10c)

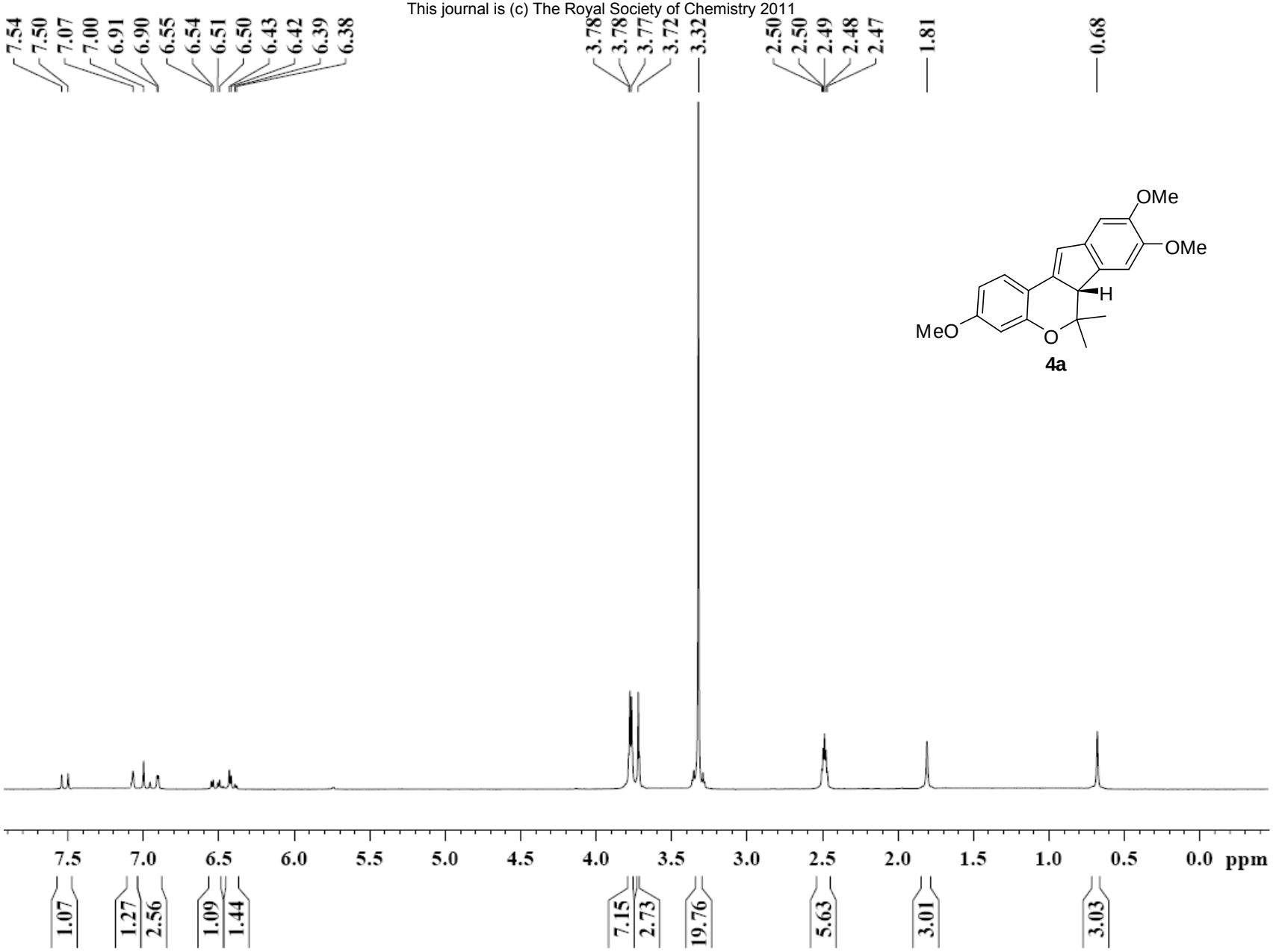


Fig. S-32: ^{1}H NMR of 3,8,9-trimethoxy-6,6-dimethyl-6,6a-dihydroindeno[1,2-c]chromene (4a)

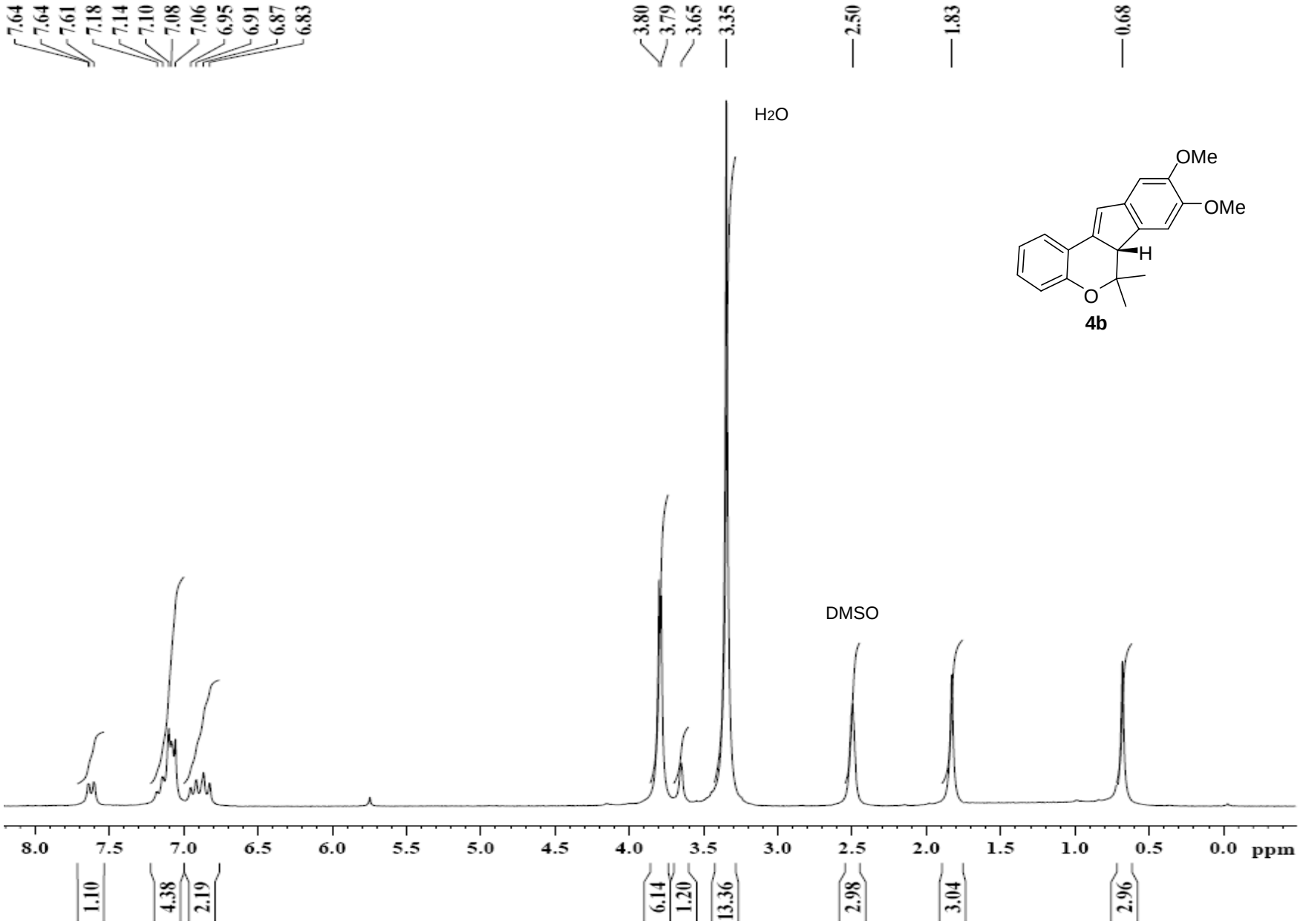


Fig. S-33: ^{1}H NMR of 8,9-dimethoxy-6,6-dimethyl-6,6a-dihydroindeno[1,2-c]chromene (4b)

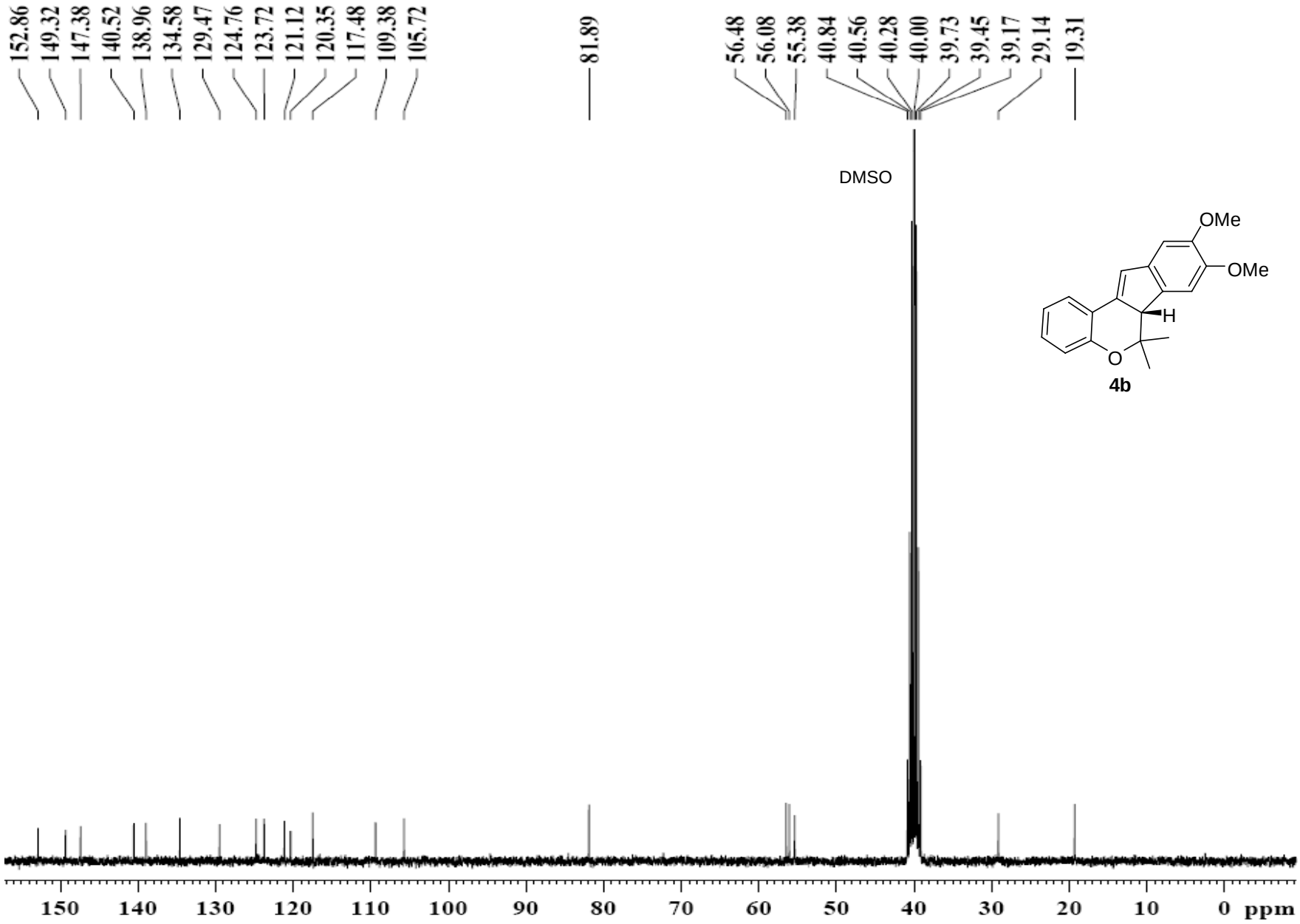


Fig. S-34: ^{13}C NMR of 8,9-dimethoxy-6,6-dimethyl-6,6a-dihydroindeno[1,2-c]chromene (4b)

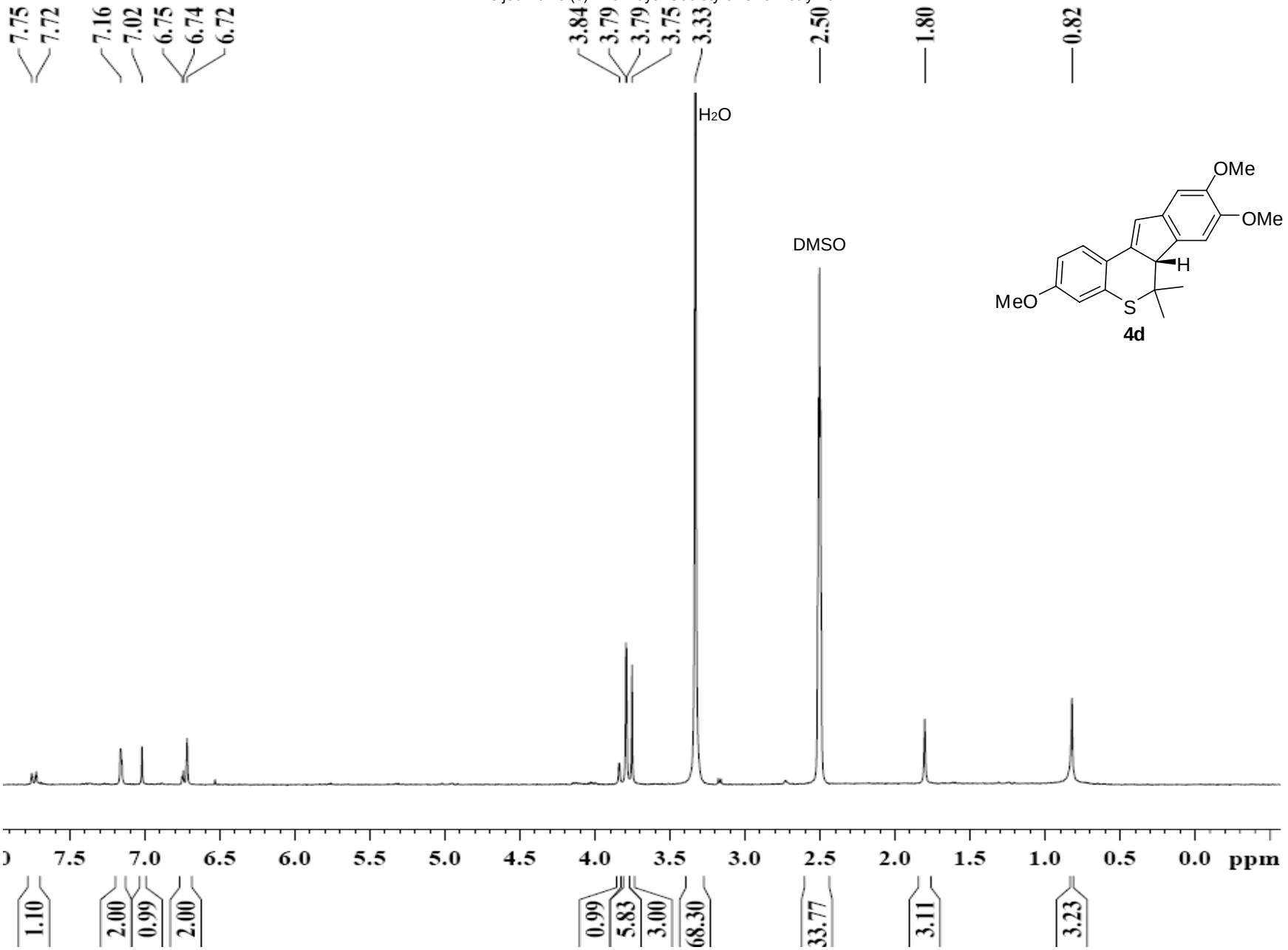


Fig. S-35: ^{1}H NMR of 3,8,9-trimethoxy-6,6-dimethyl-6,6a-dihydroindeno[1,2-c]thiochromene (4d)

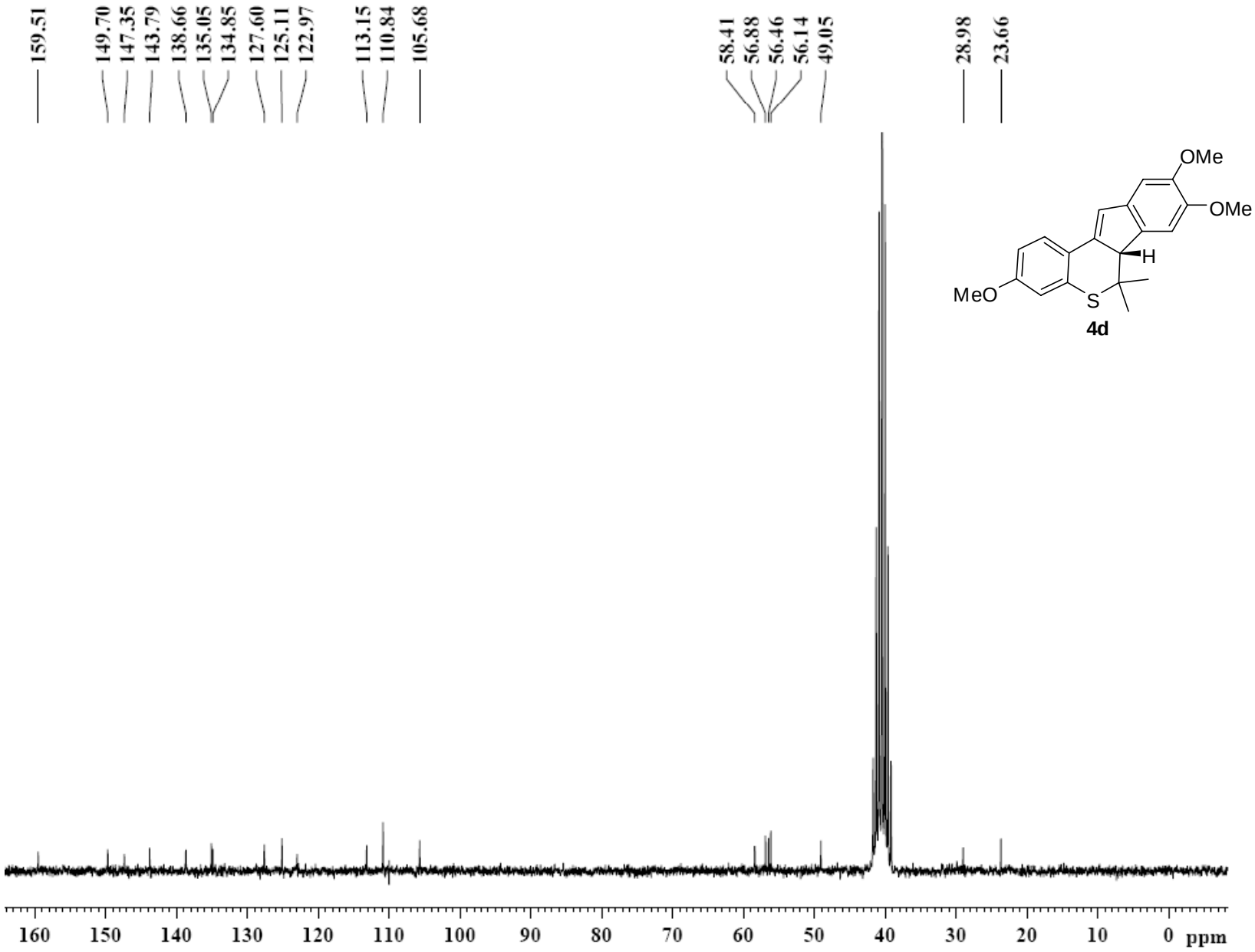


Fig. S-36: ^{13}C NMR 3,8,9-trimethoxy-6,6-dimethyl-6,6a-dihydroindeno[1,2-c]thiochromene (4d)

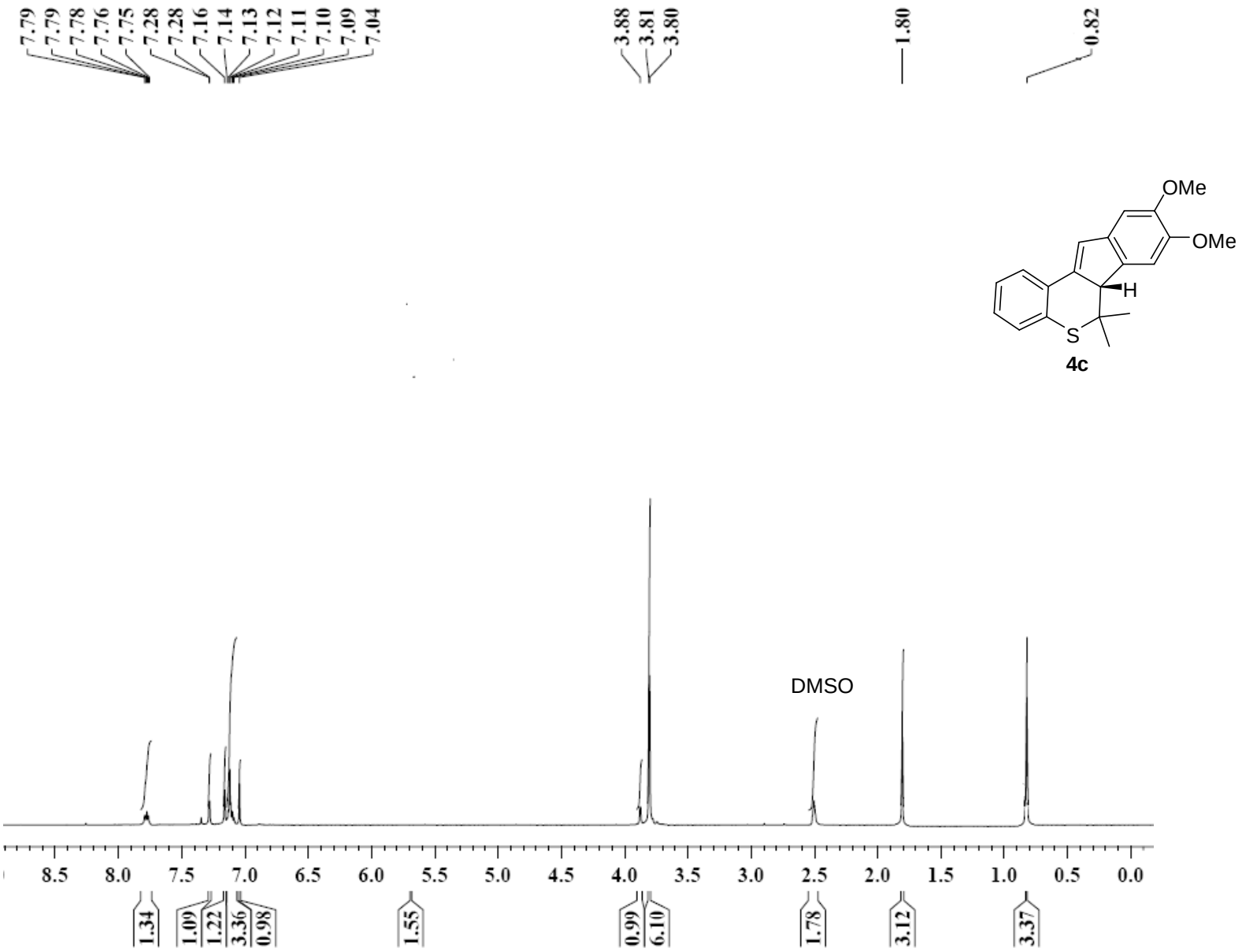


Fig. S-37: ^{1}H NMR of 8,9-dimethoxy-6,6-dimethyl-6,6a-dihydroindeno[1,2-c]thiochromene (4c)

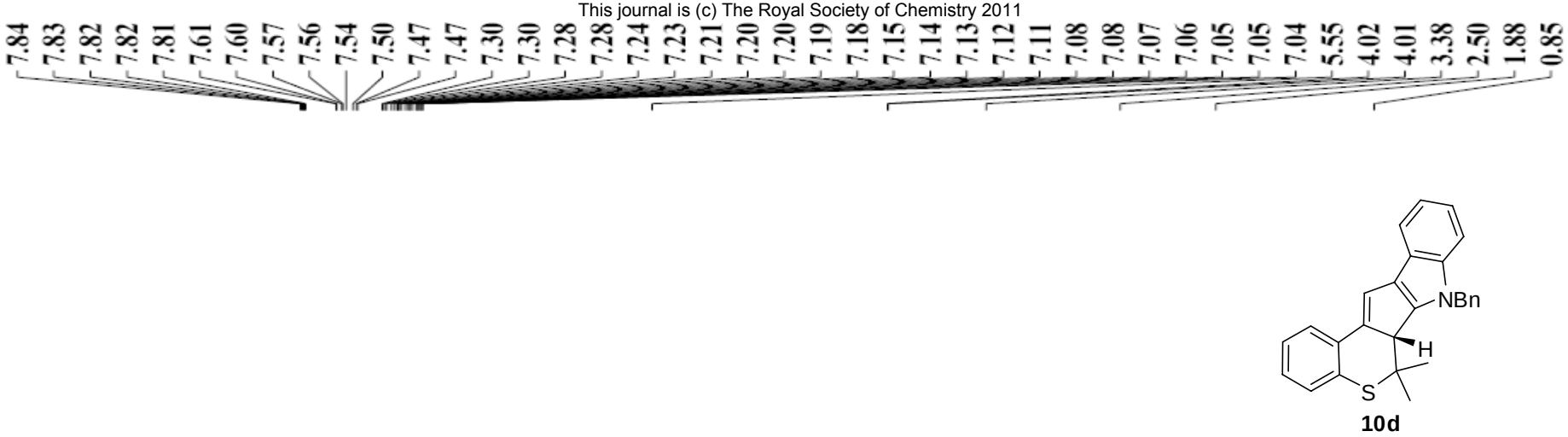


Fig. S-38: ^{1}H NMR of 7-Benzyl-6,6-dimethyl-6a,7-dihydro-6*H*-5-thia-7-aza-benzo[4,5]pentaleno[2,1-a]naphthalene (10d)

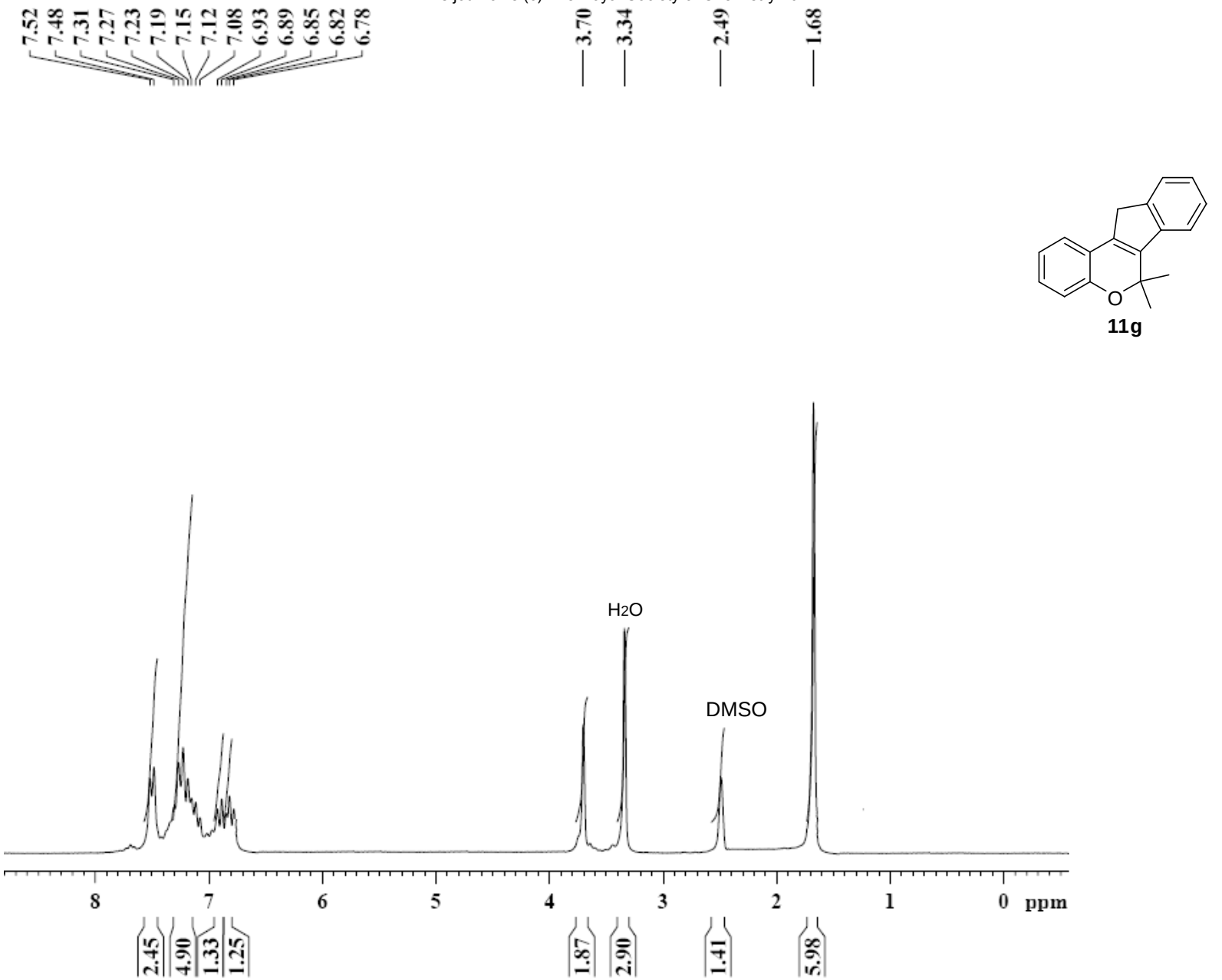


Fig. S-39: ^{1}H NMR of 6,6-dimethyl-6,11-dihydroindeno[1,2-c]chromene (11g)

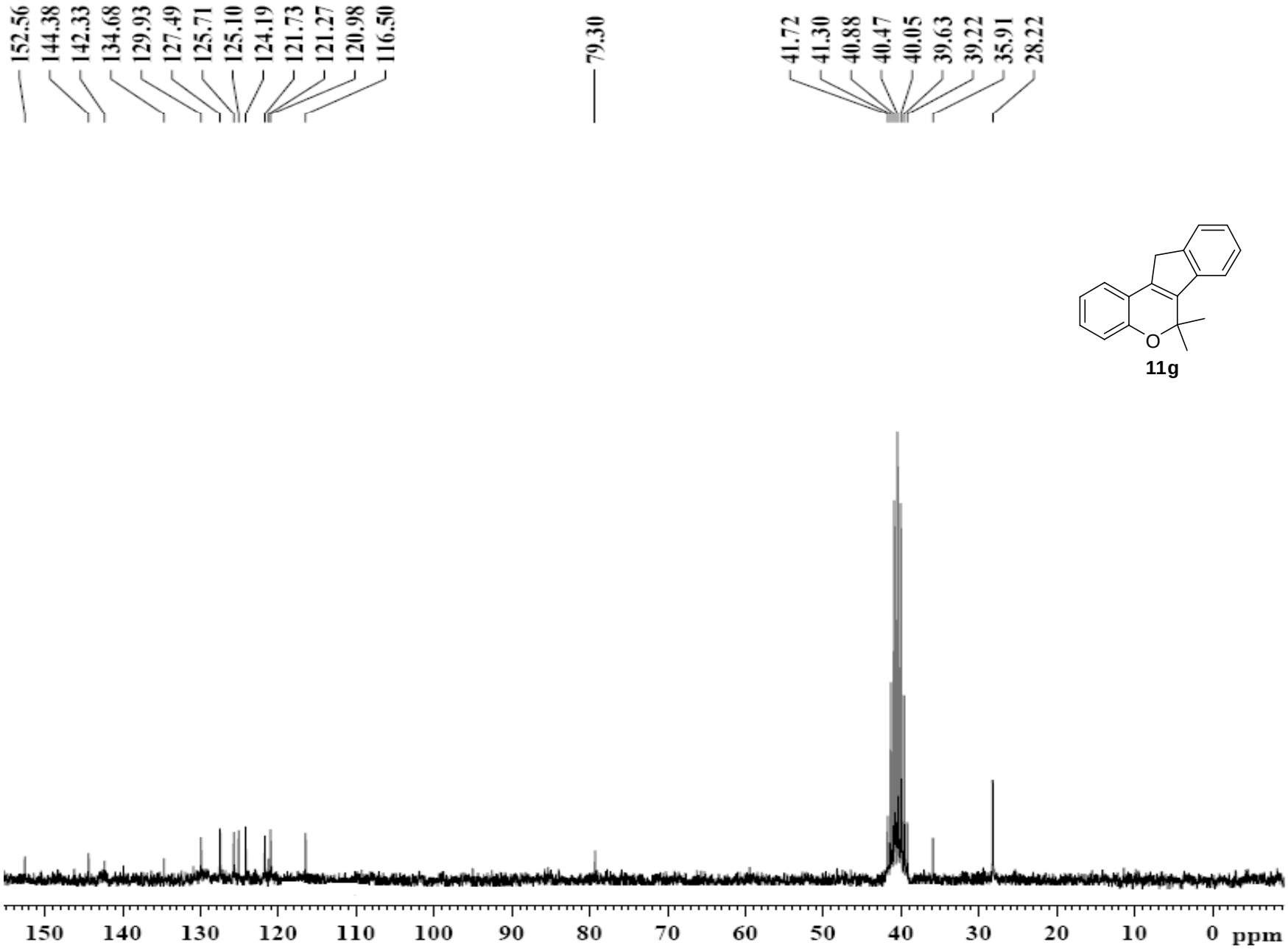


Fig. S-40: ^{13}C NMR of 6,6-dimethyl-6,11-dihydroindeno[1,2-c]chromene (11g)

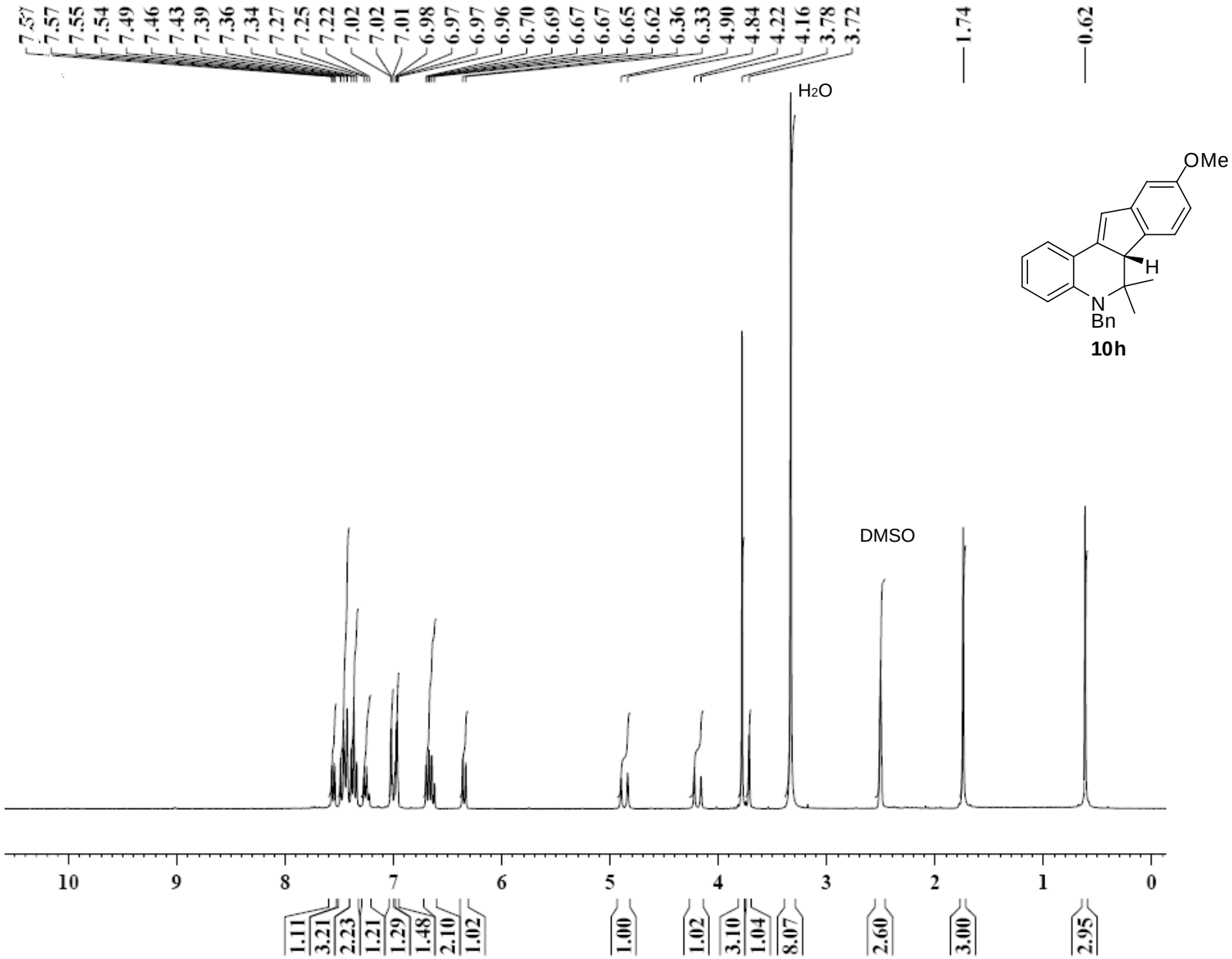
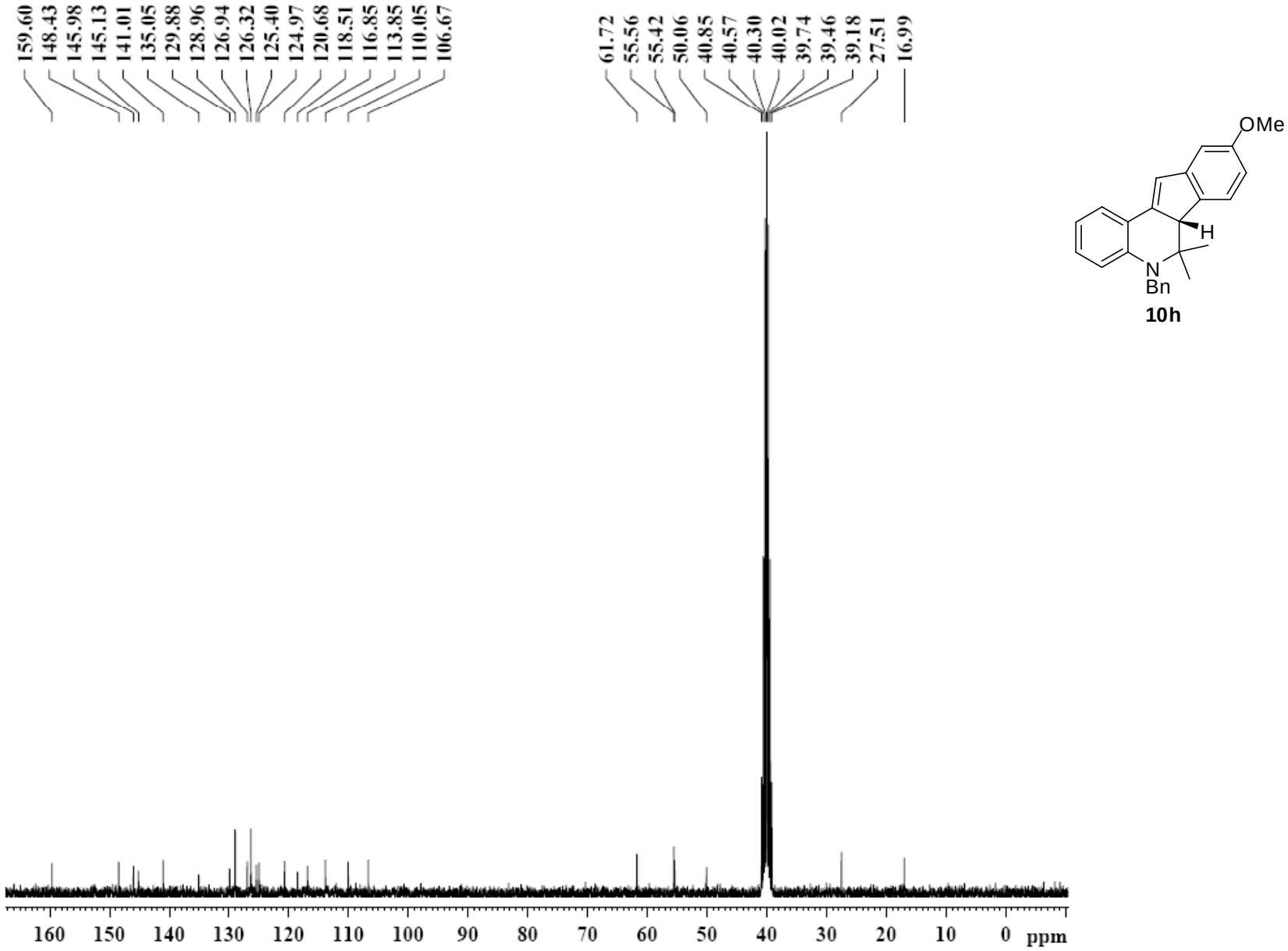


Fig. S-41: ^{1}H NMR of 5-benzyl-9-methoxy-6,6-dimethyl-6,6a-dihydro-5H-indeno[1,2-c]quinoline (10h)



10h

Fig. S-42: ^{13}C NMR of 5-benzyl-9-methoxy-6,6-dimethyl-6,6a-dihydro-5H-indeno[1,2-c]quinoline (10h)

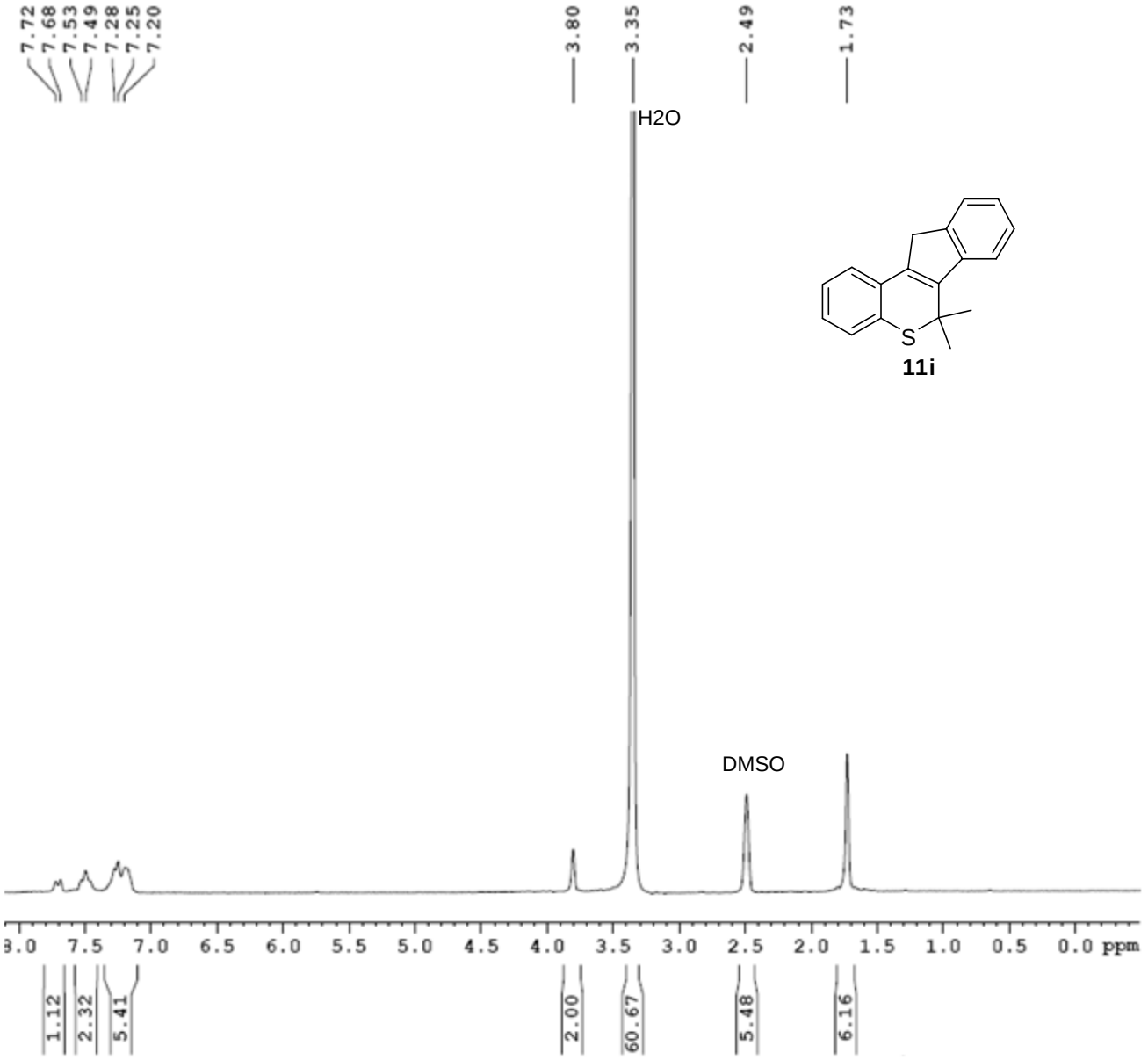
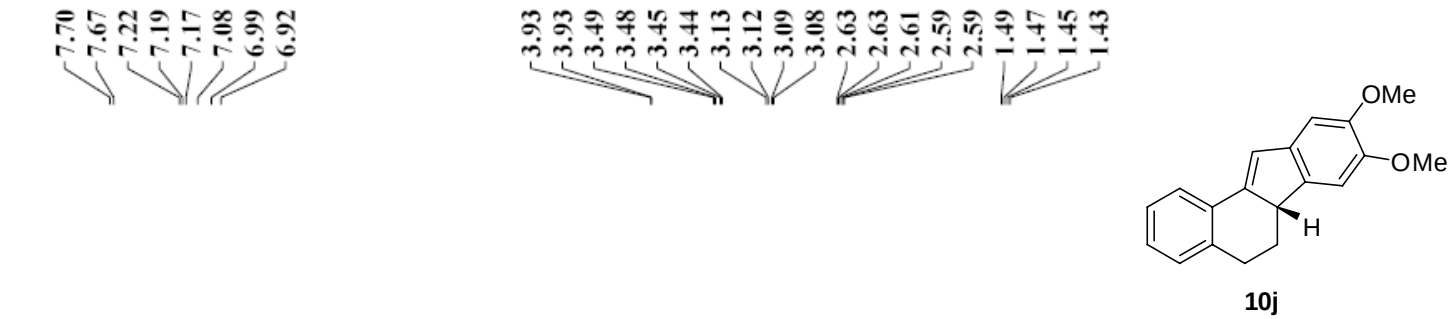


Fig. S-43: ^{1}H NMR of 6,6-dimethyl-6,11-dihydroindeno[1,2-c]thiochromene (11i)



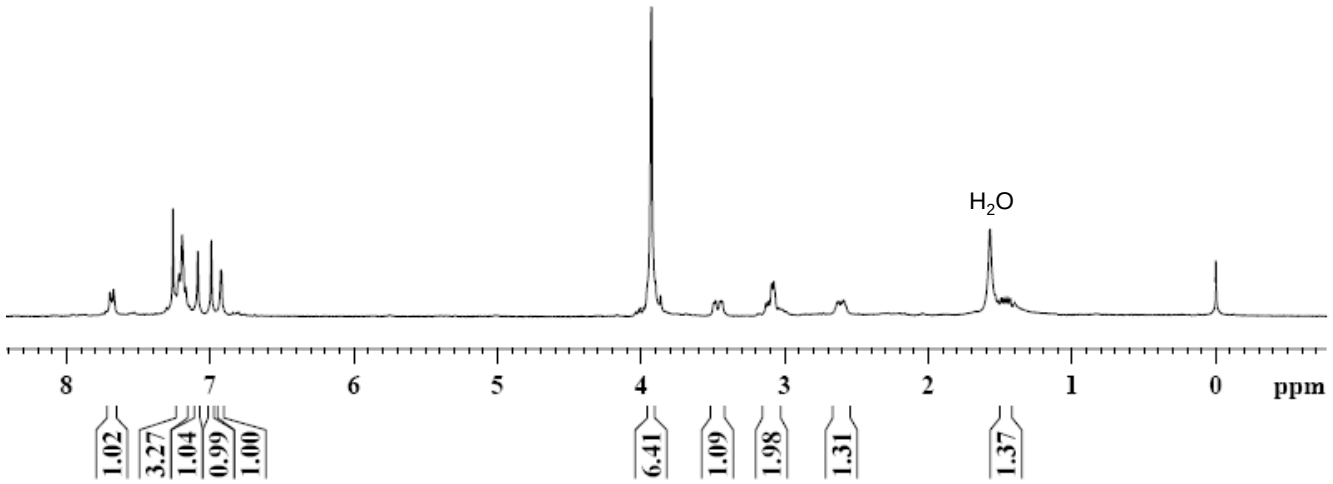


Fig. S-44: ^{1}H NMR of 8,9-dimethoxy-6,6a-dihydro-5H-benzo[a]fluorene (10j)

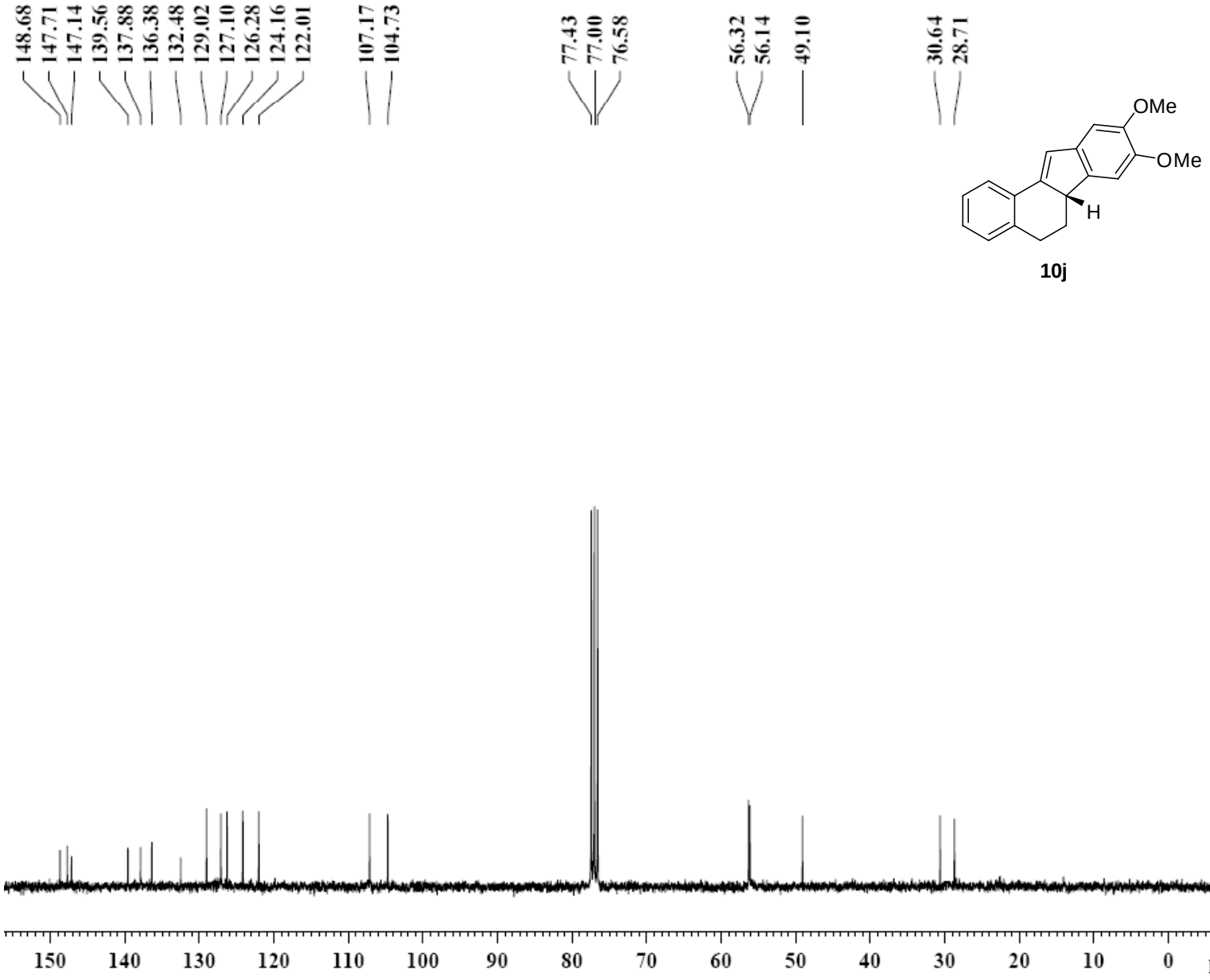


Fig. S-45: ^{13}C NMR of 8,9-dimethoxy-6,6a-dihydro-5H-benzo[a]fluorene (10j)