Supporting Information

Scandium Triflate Catalyzed One pot Domino Approach Towards General and Efficient Synthesis of Unsymmetrical 9-substituted Xanthene Derivatives

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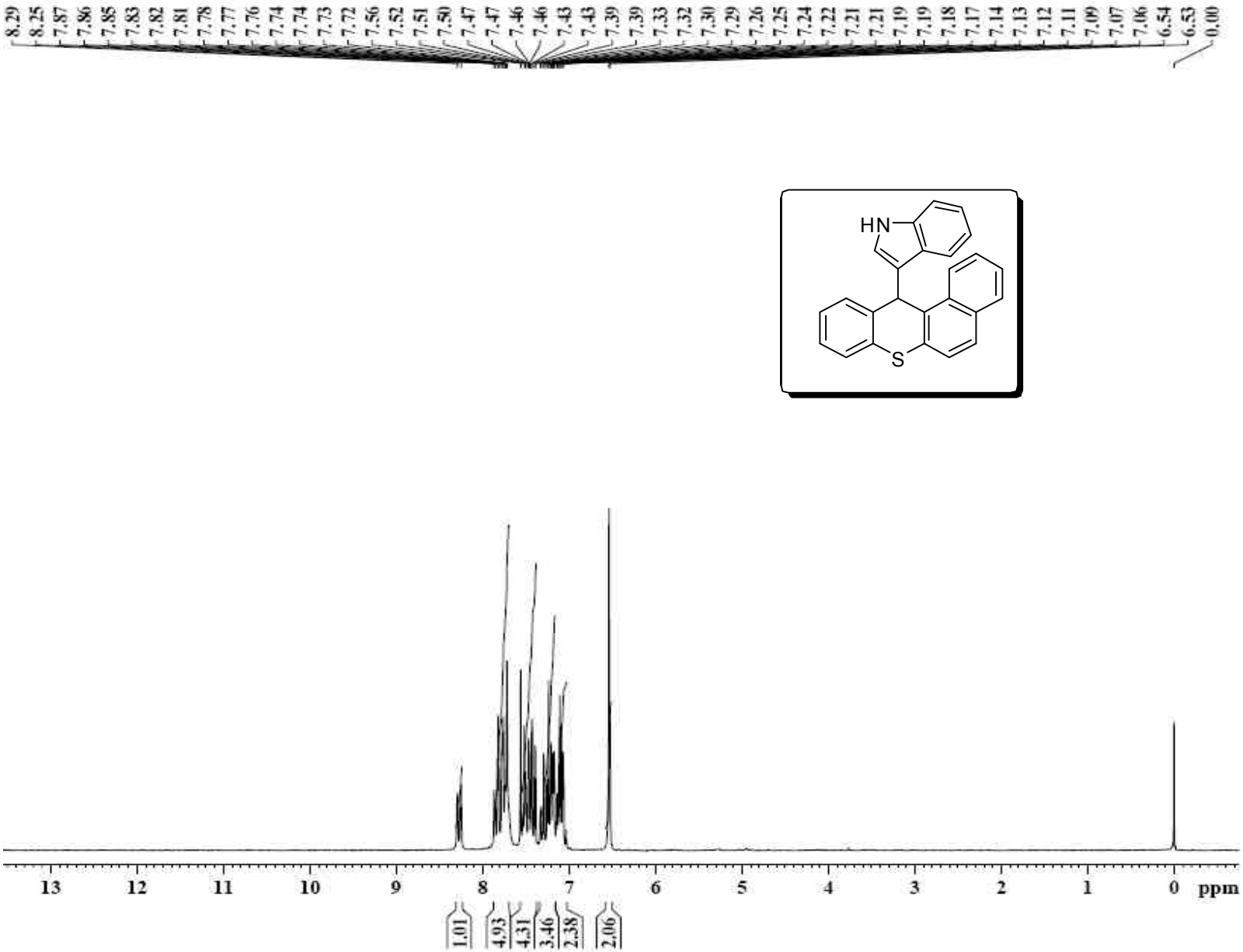
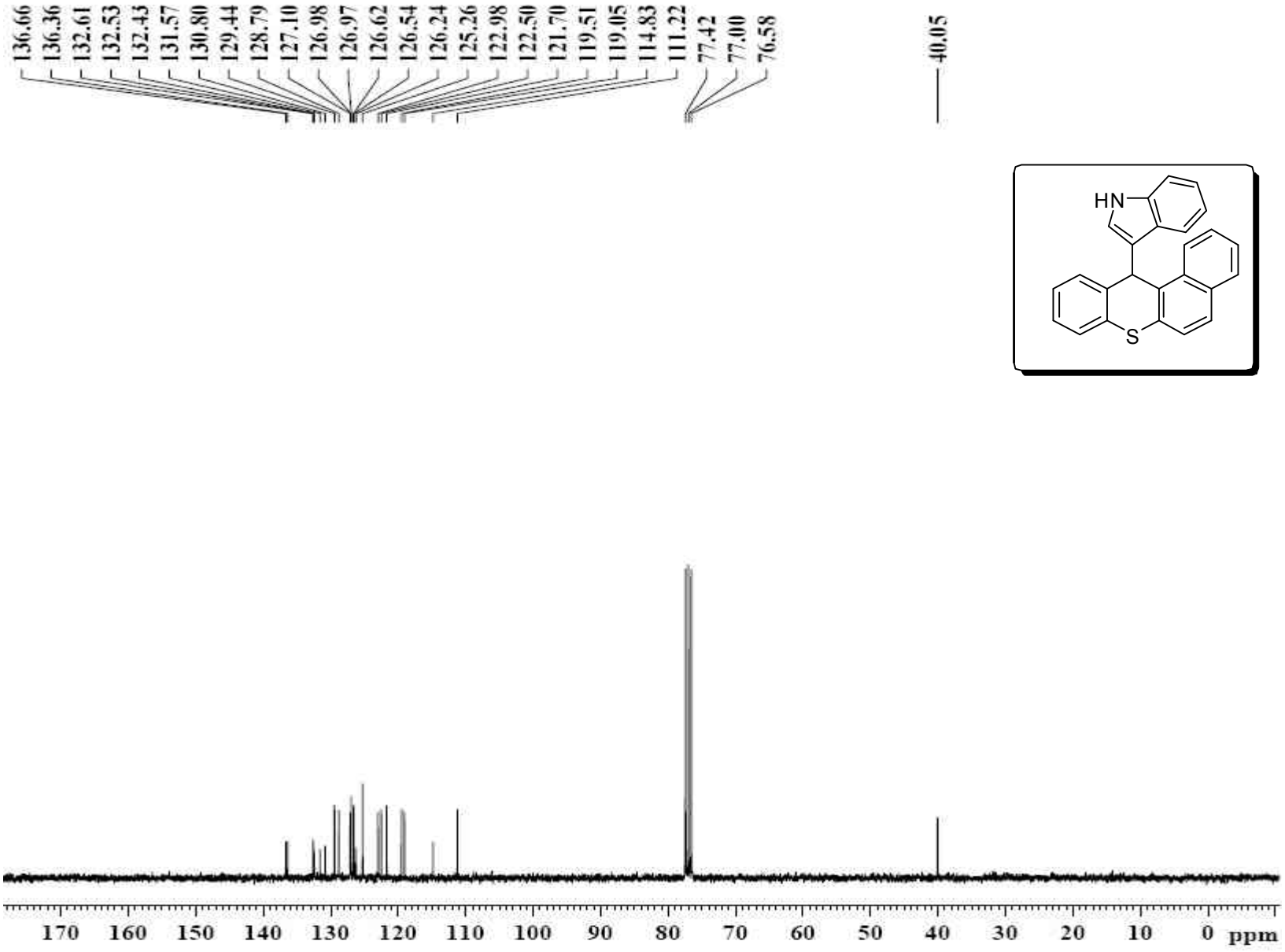
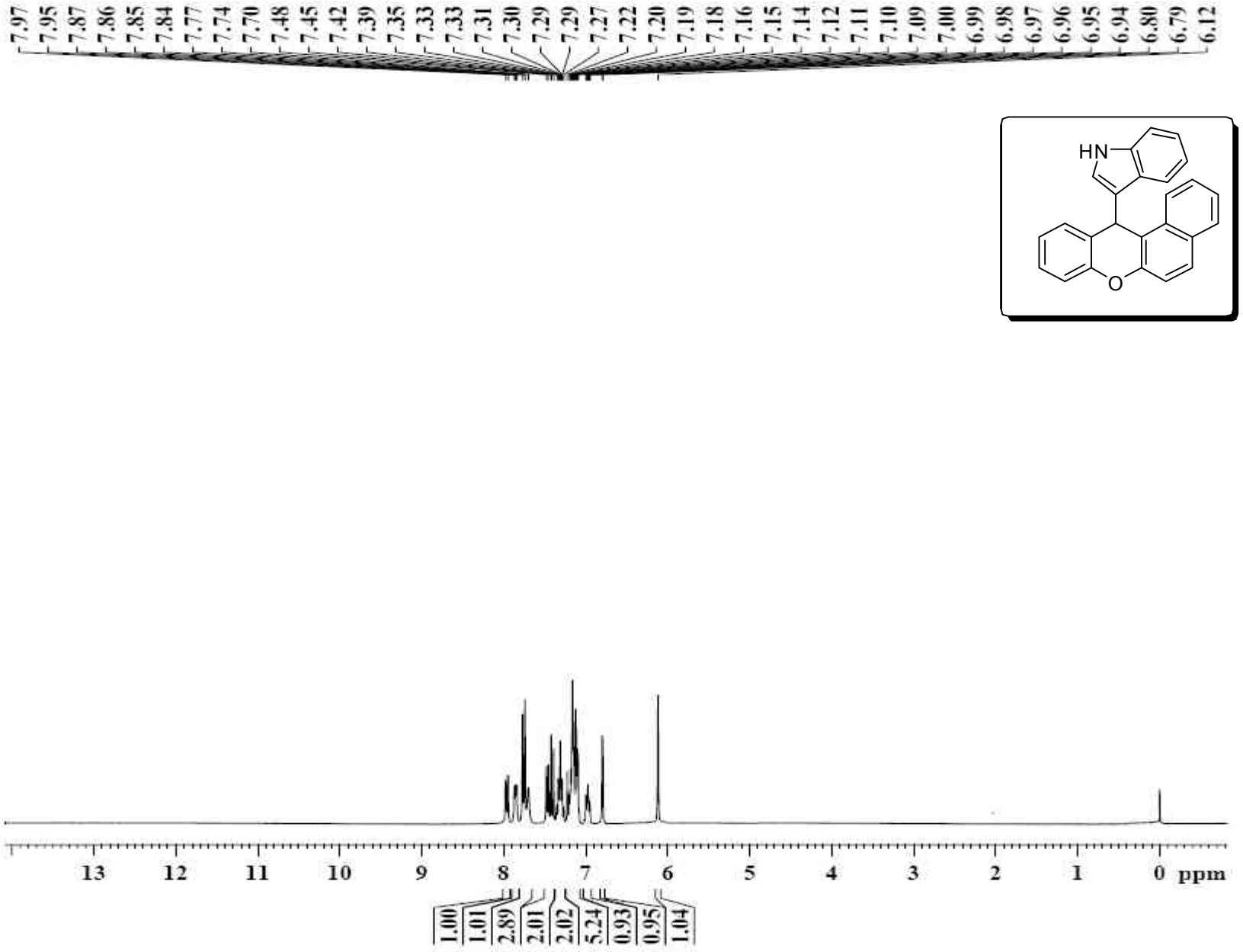


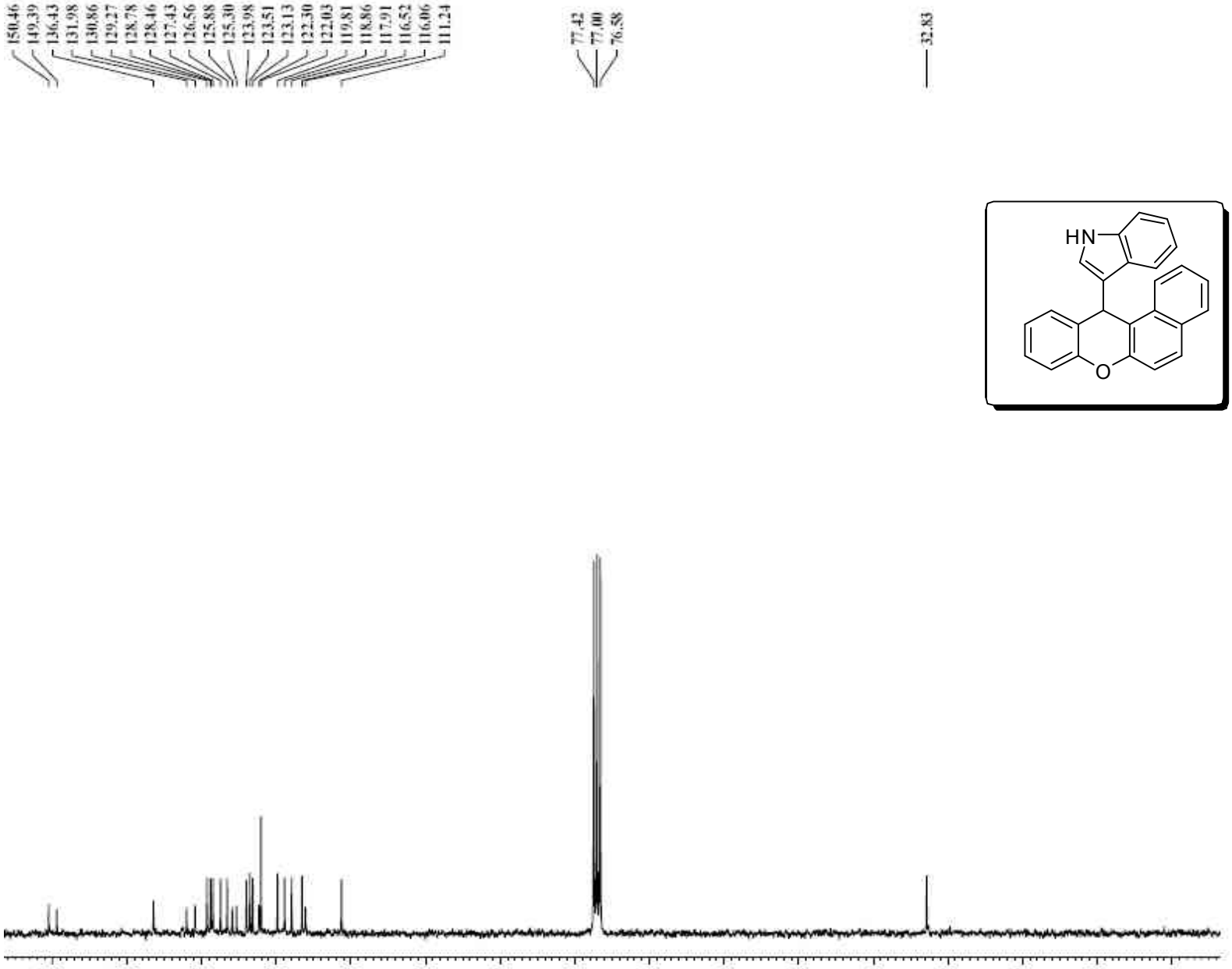
^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **12a**



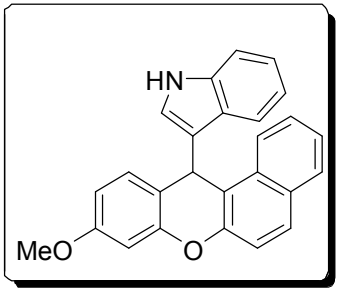
^{13}C NMR ($CDCl_3$, 75 MHz) spectrum of compound **12a**

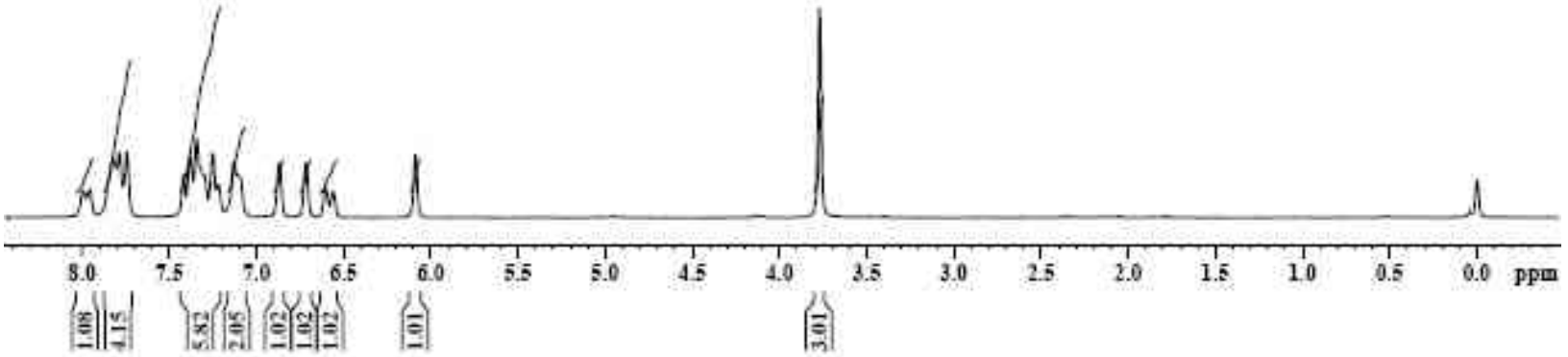


^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **12b**

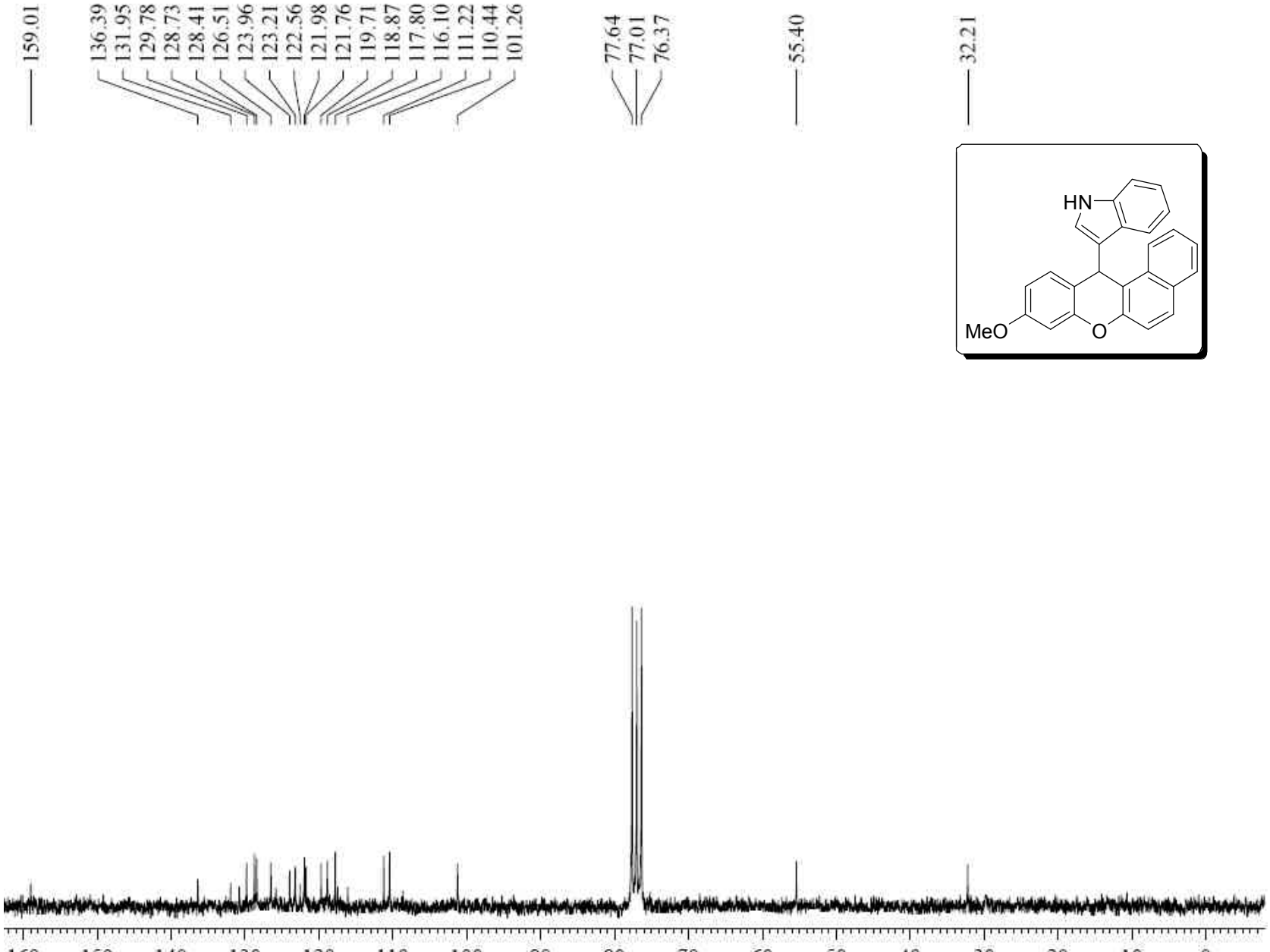


^{13}C NMR ($CDCl_3$, 75 MHz) spectrum of compound **12b**

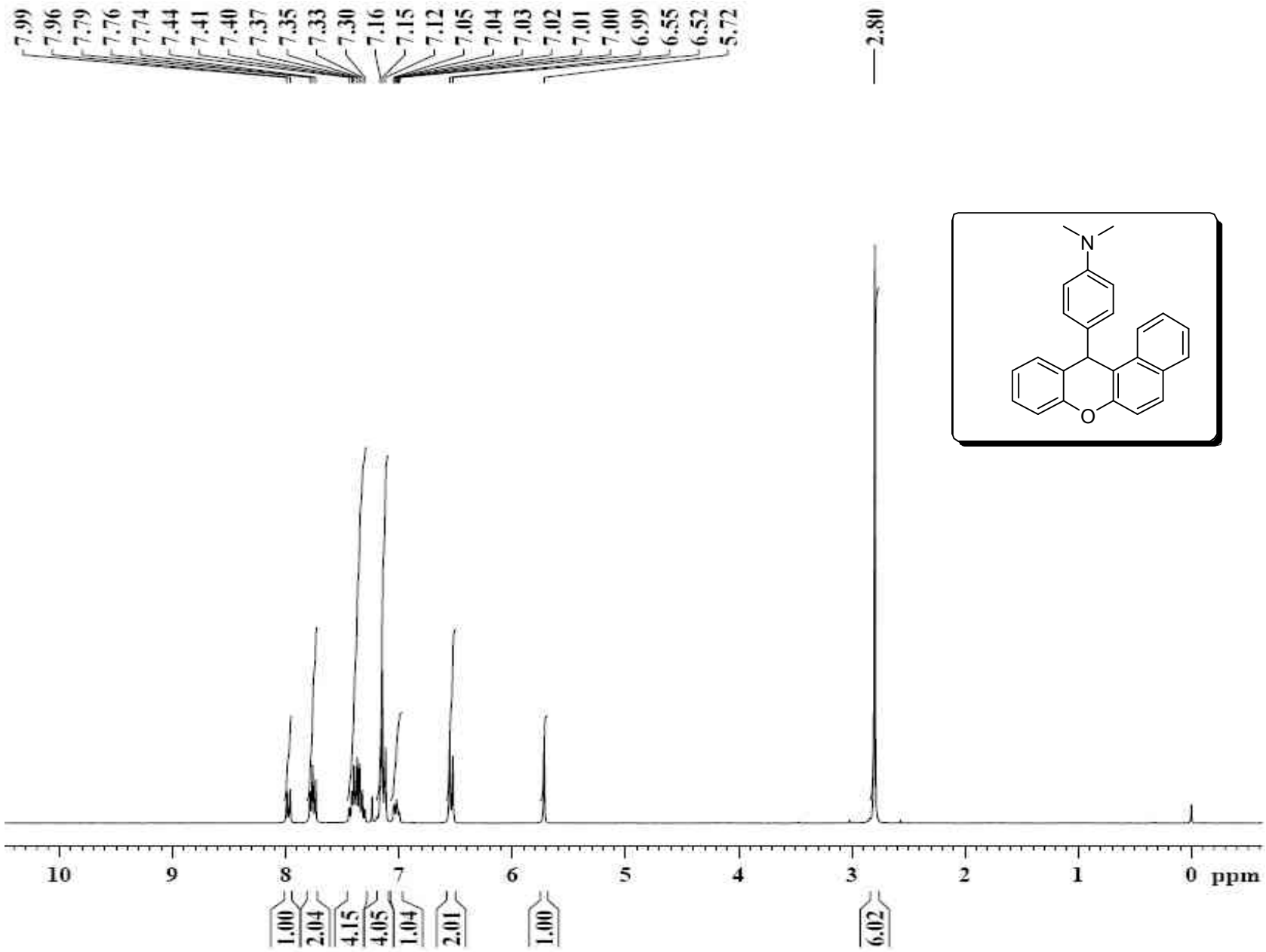




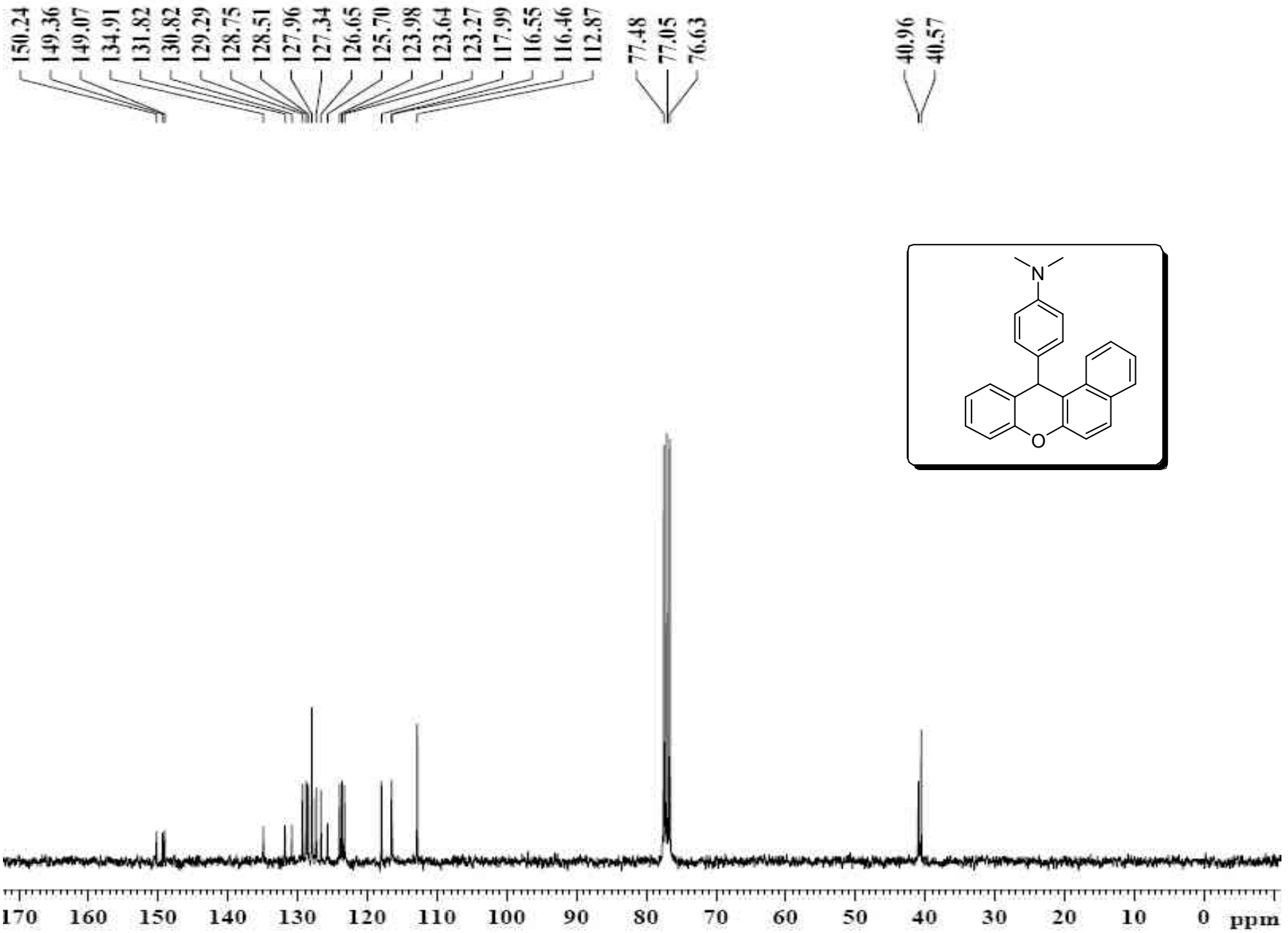
^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **12c**



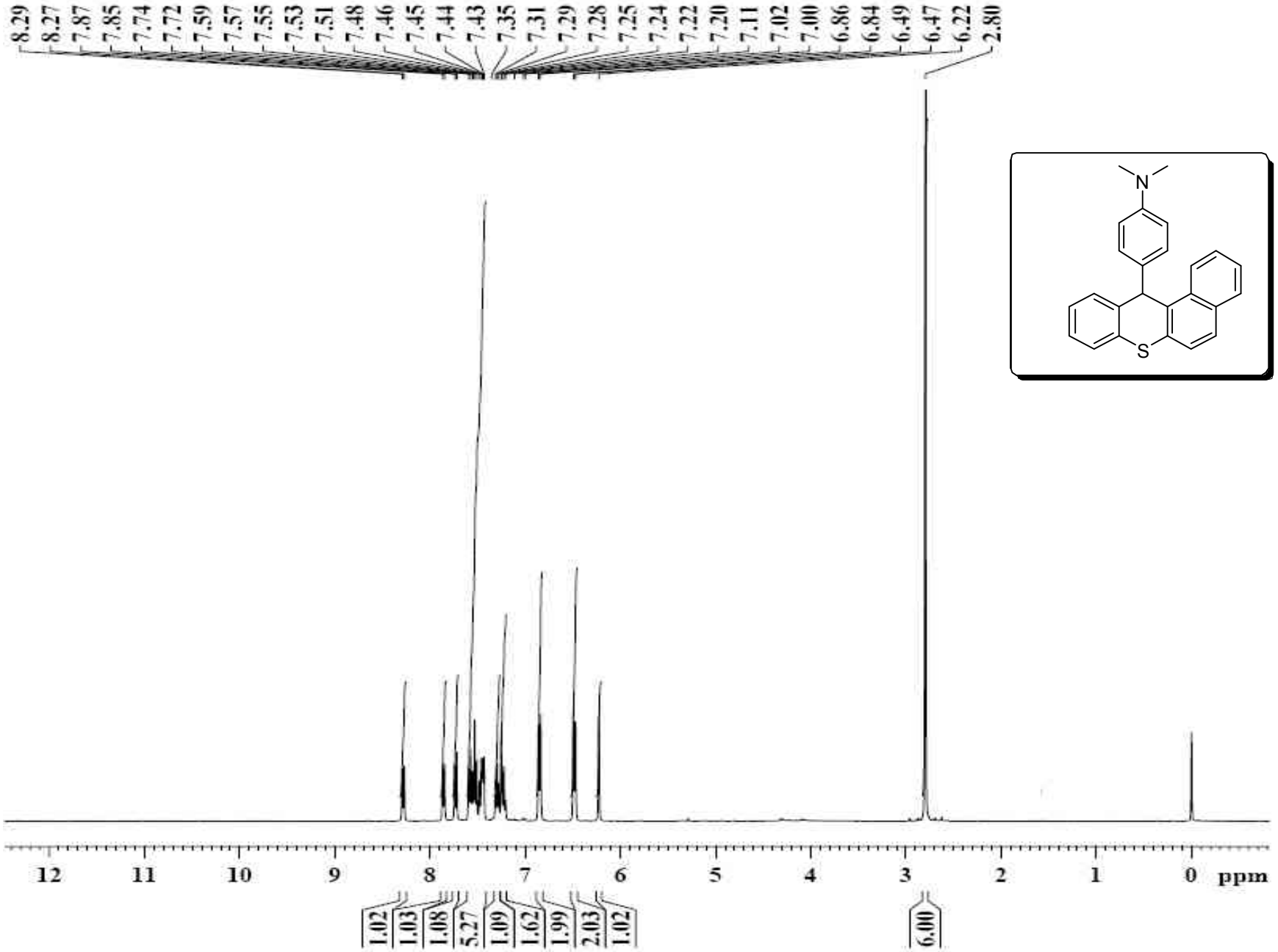
^{13}C NMR ($CDCl_3$, 75 MHz) spectrum of compound **12c**



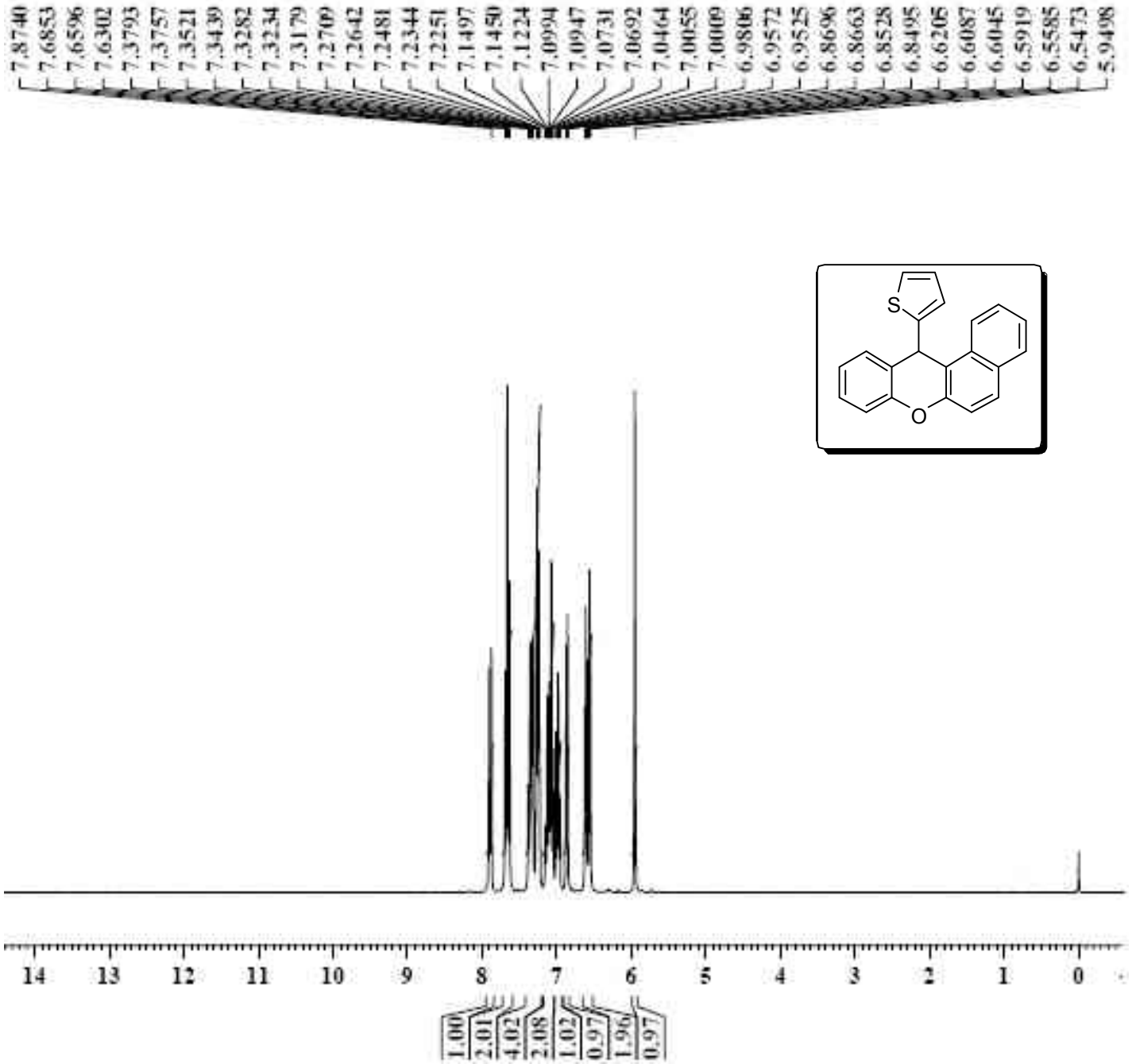
^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **12d**



^{13}C NMR ($CDCl_3$, 75 MHz) spectrum of compound **12d**



^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **12e**



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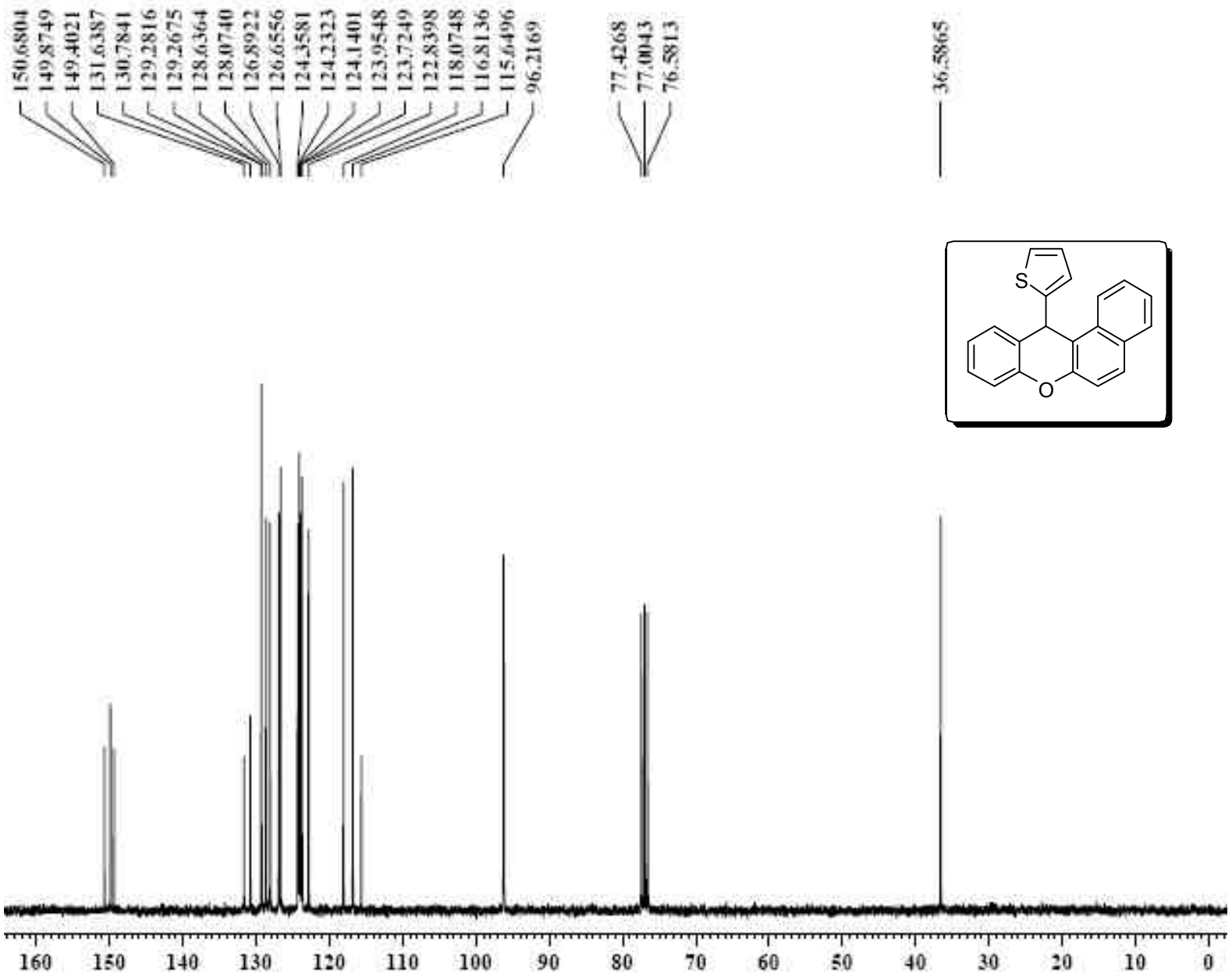
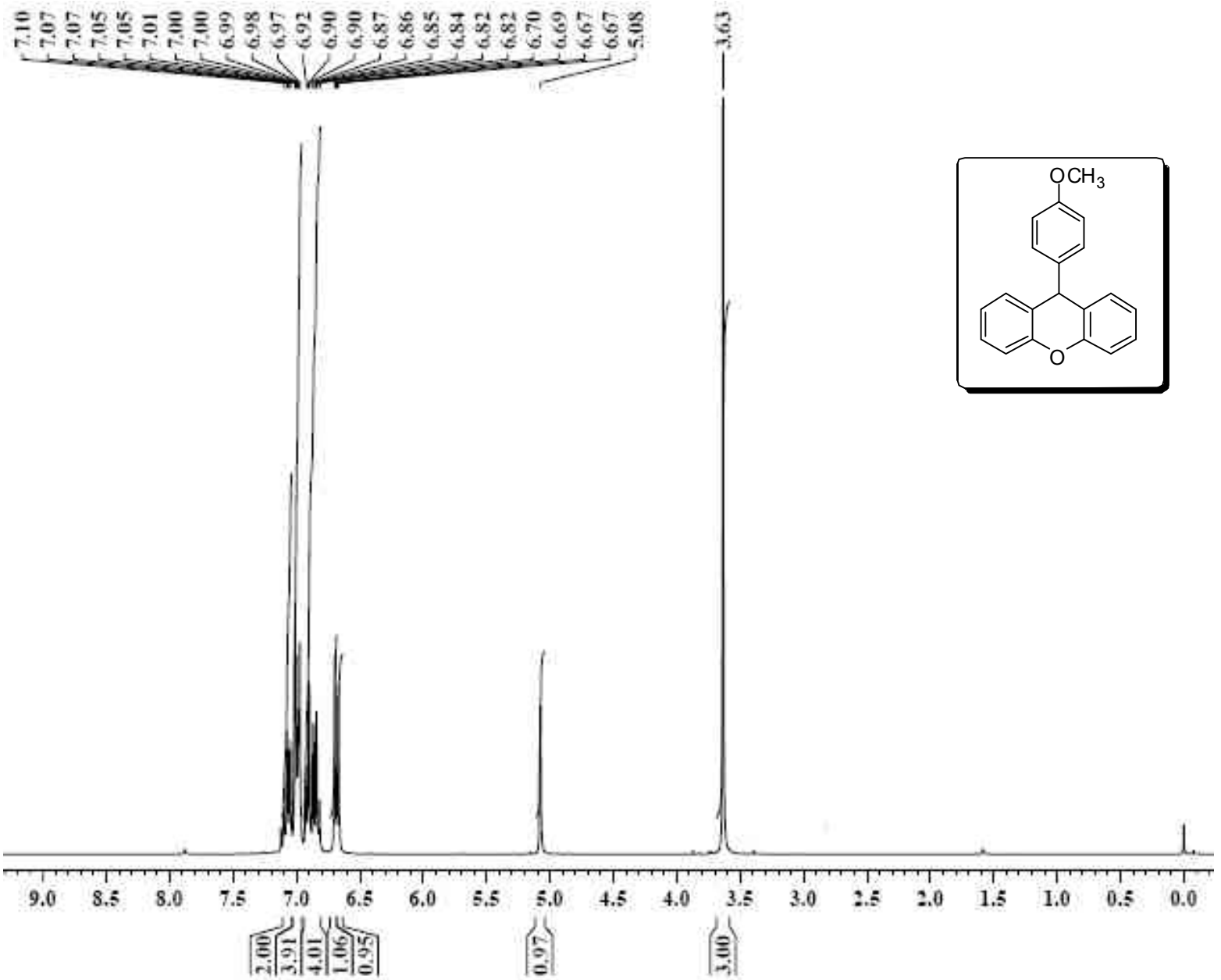
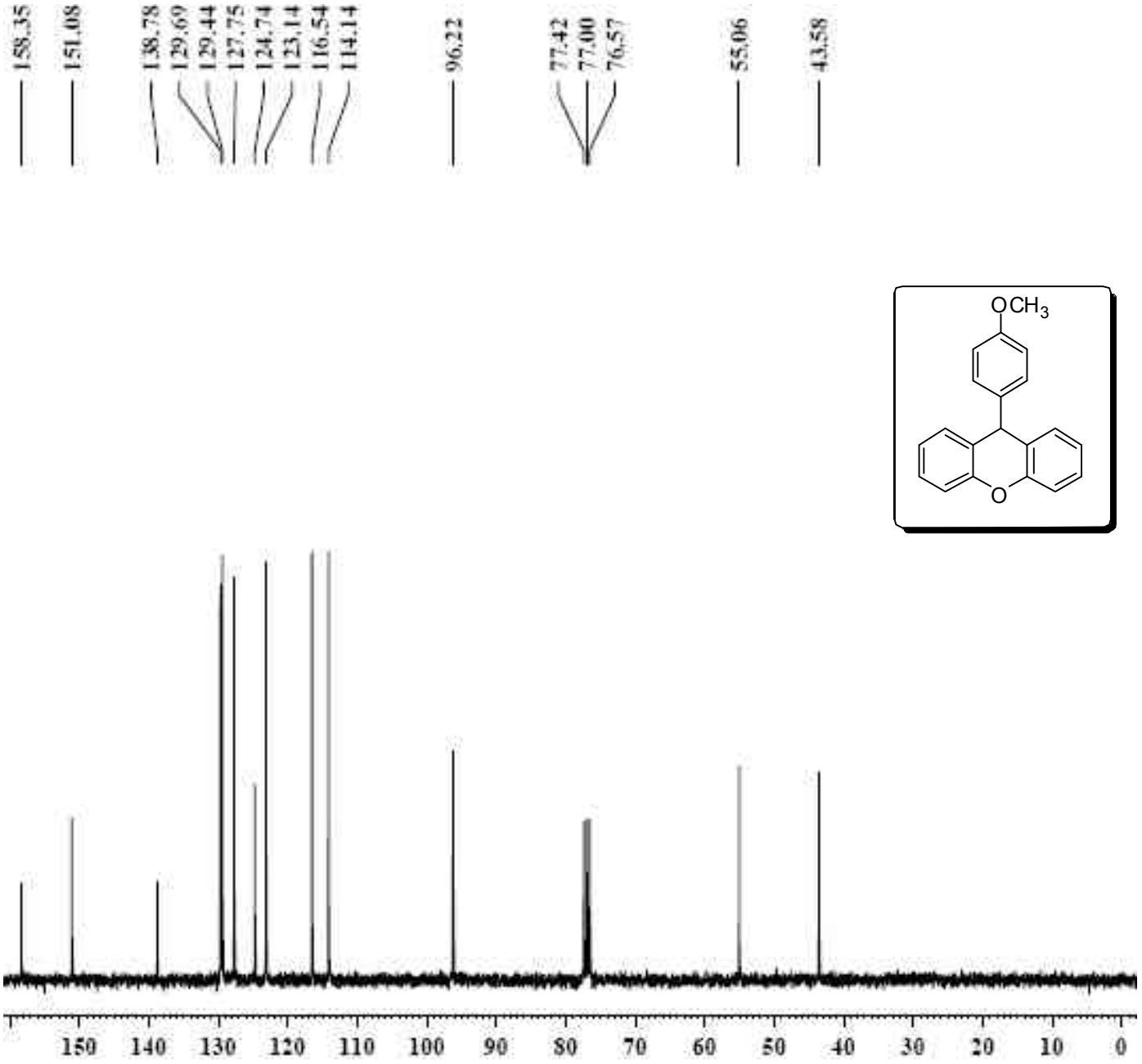


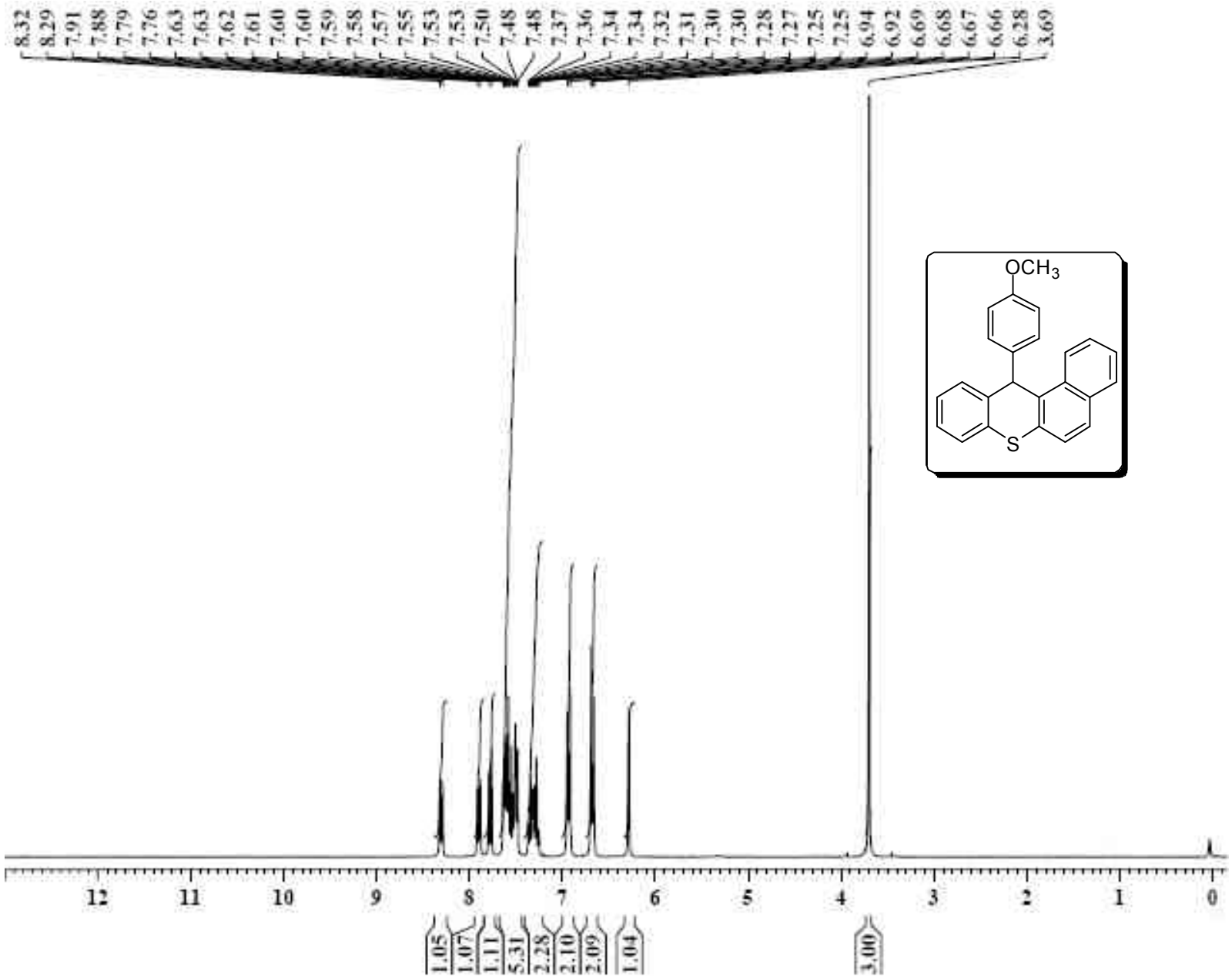
^{13}C NMR ($CDCl_3$ +CCl_4, 75 MHz) spectrum of compound **12f**



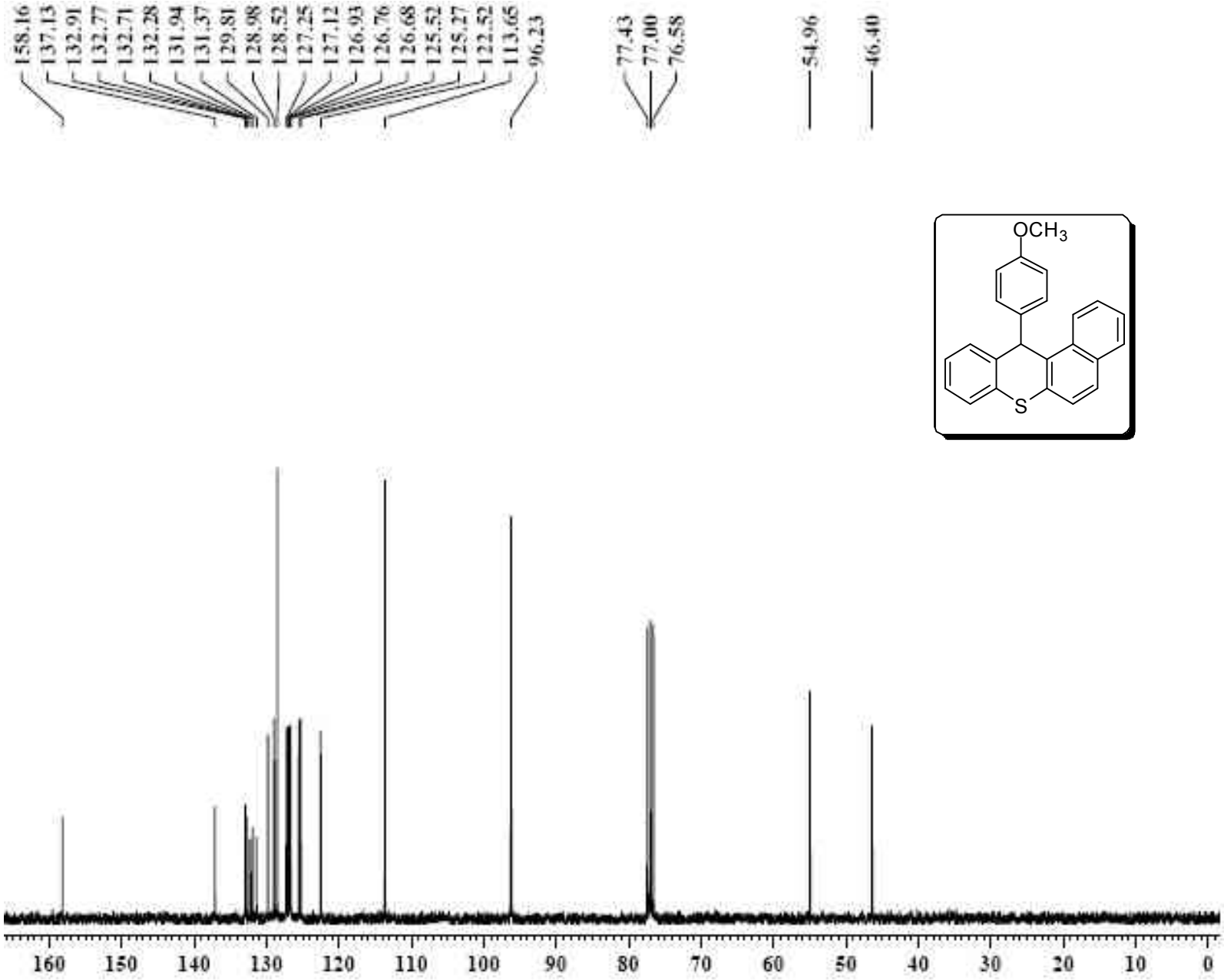
^{1}H NMR ($CDCl_3$ + CCl_4, 300 MHz) spectrum of compound **12g**



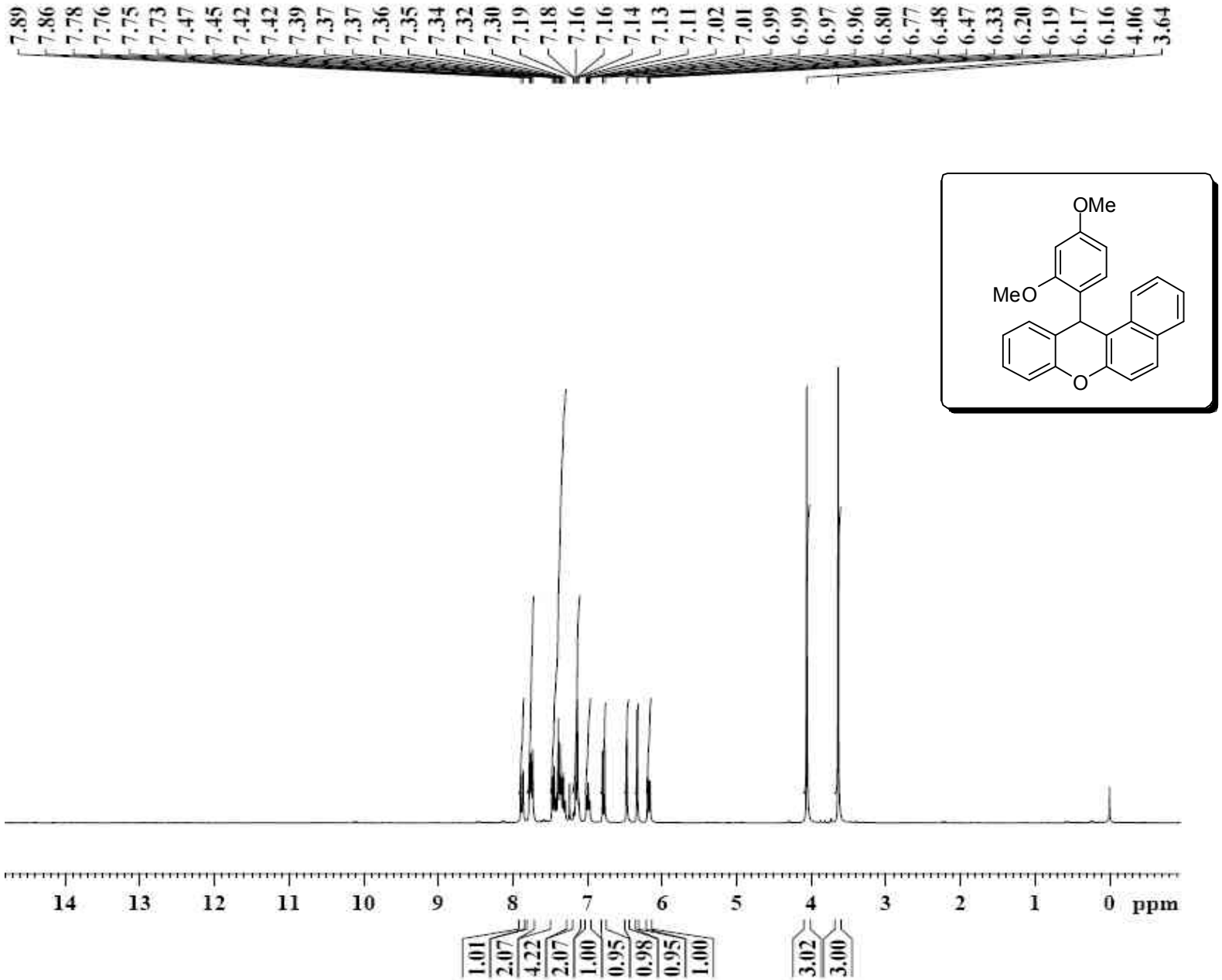
^{13}C NMR ($CDCl_3$ + CCl_4, 75 MHz) spectrum of compound **12g**



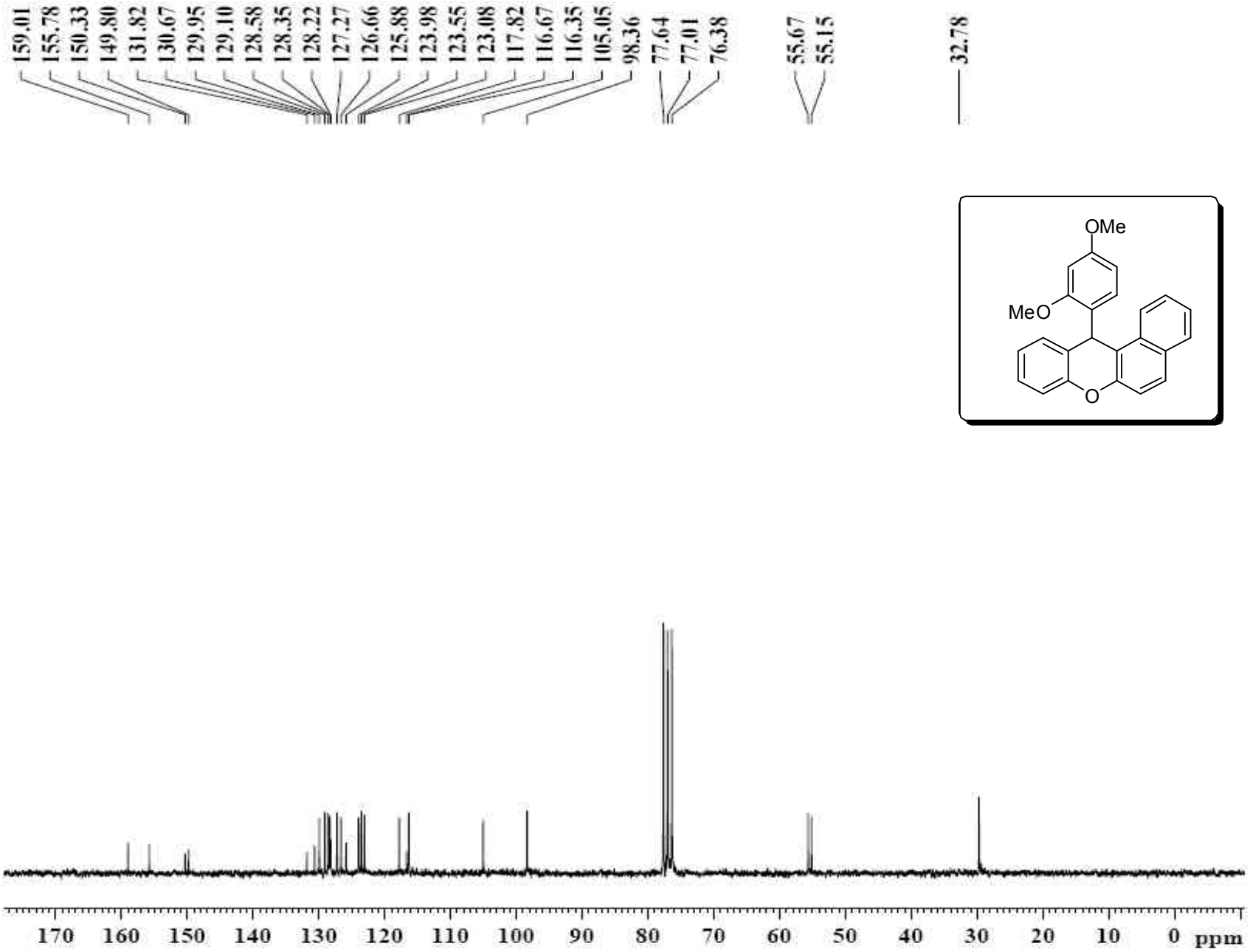
^{1}H NMR ($CDCl_3$ + CCl_4, 300 MHz) spectrum of compound **12h**



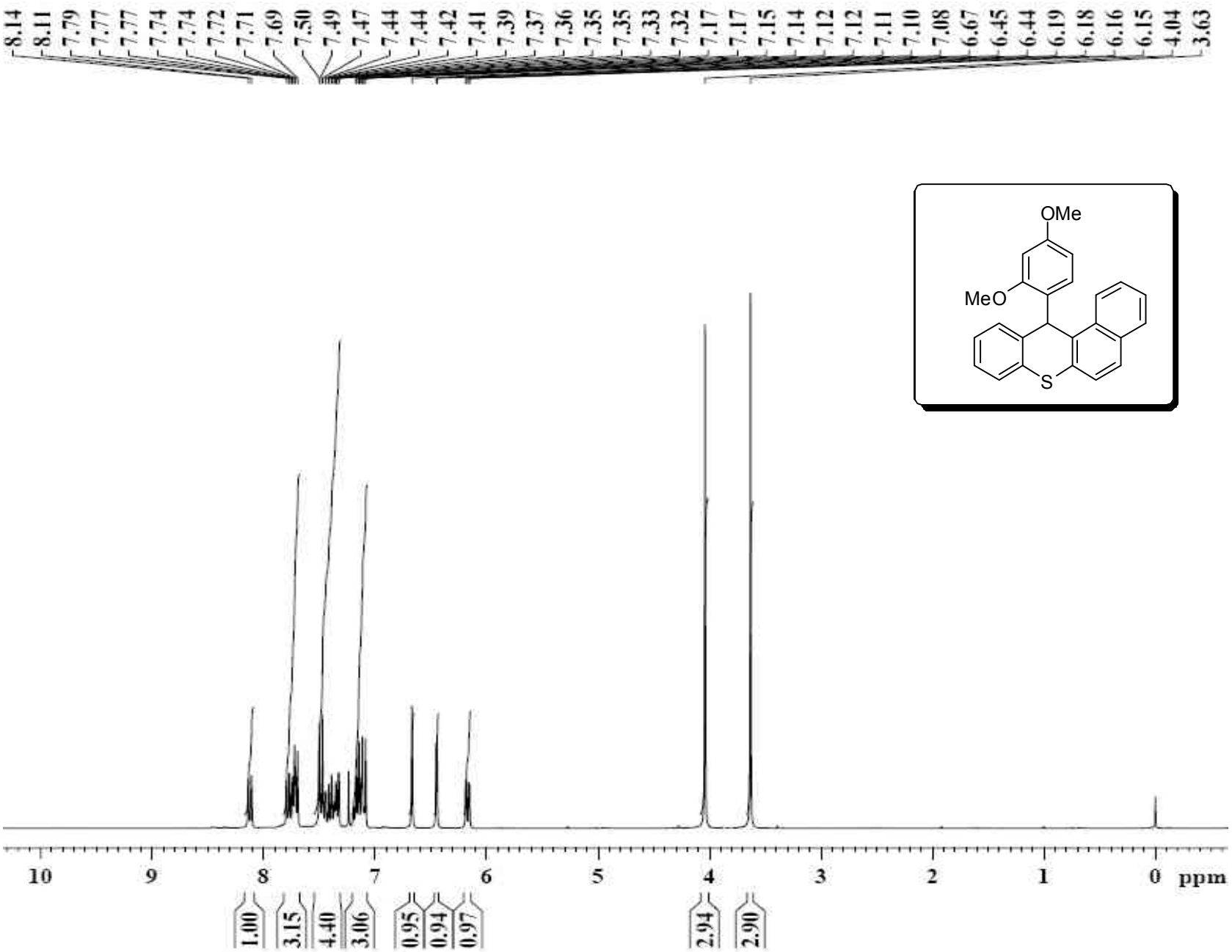
^{13}C NMR ($CDCl_3$ + CCl_4, 75 MHz) spectrum of compound **12h**



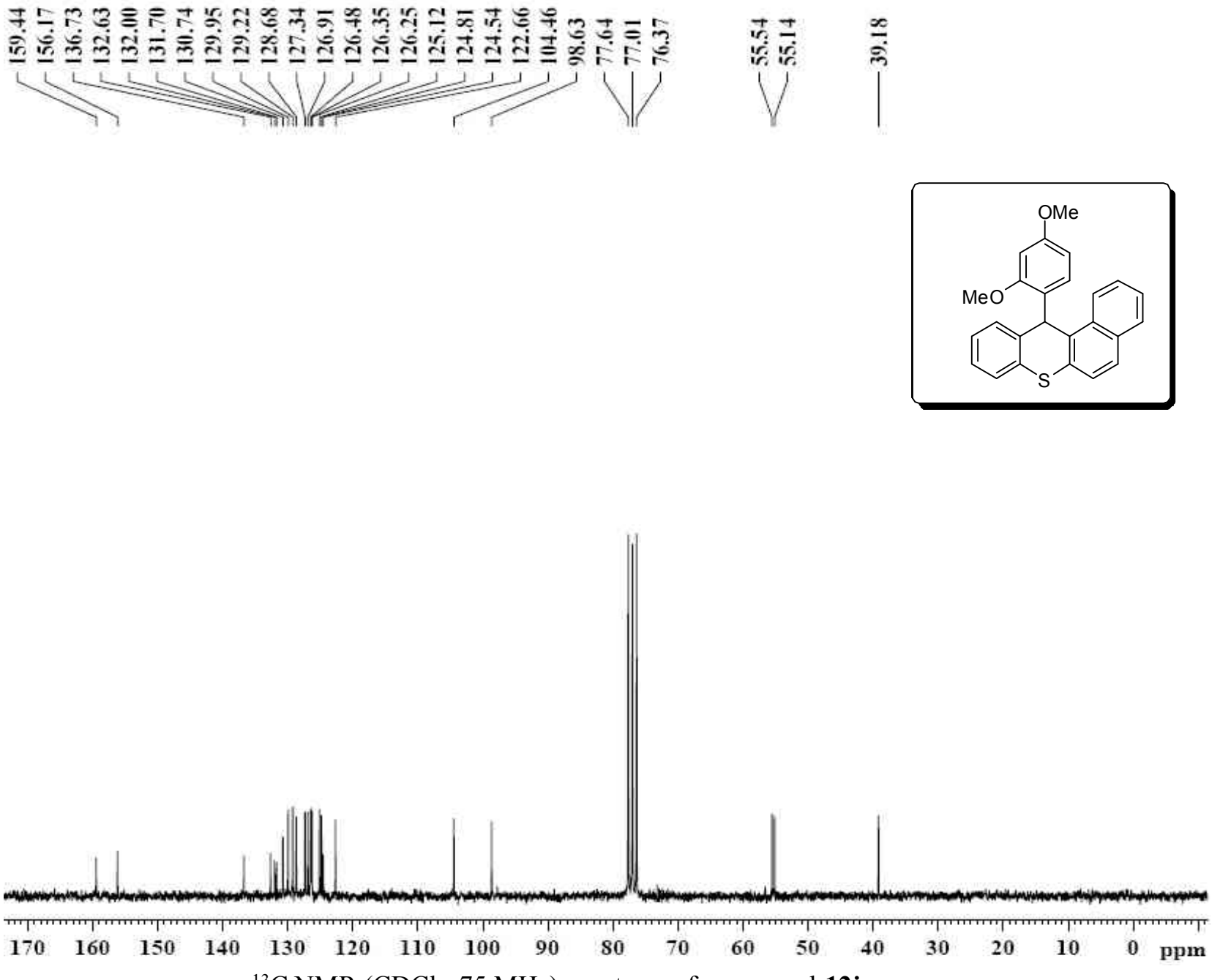
^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **12i**



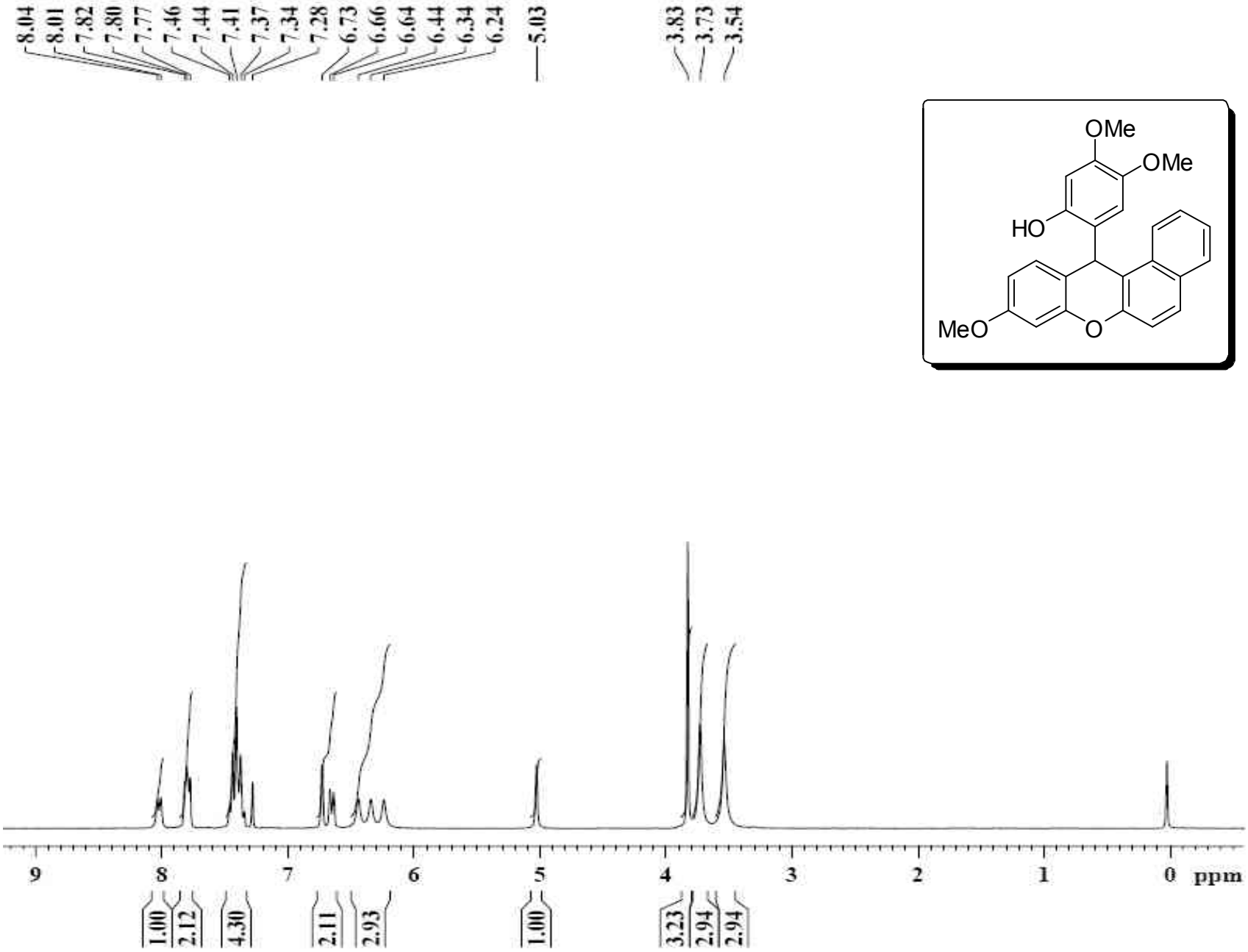
^{13}C NMR ($CDCl_3$, 75 MHz) spectrum of compound **12i**



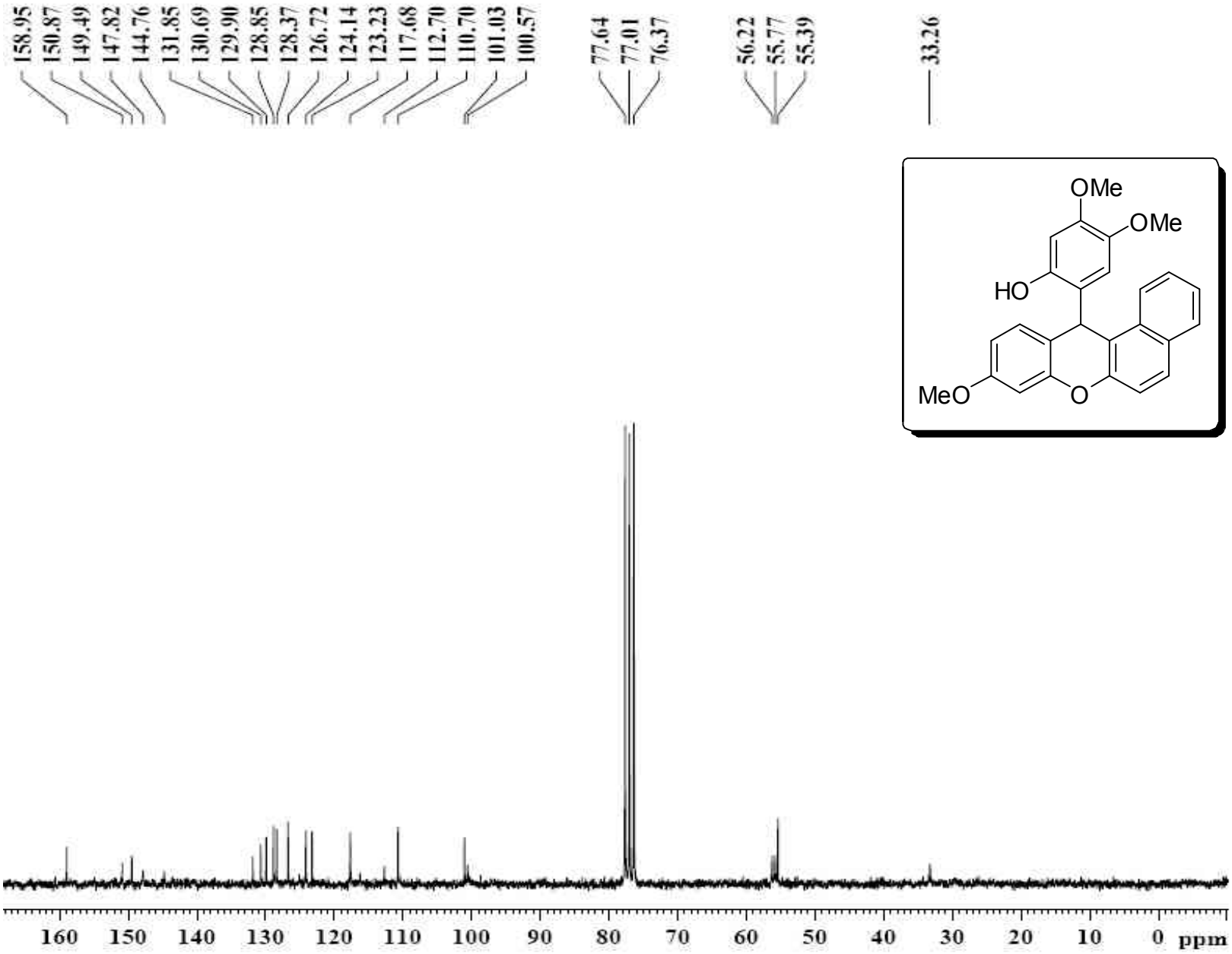
^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **12j**



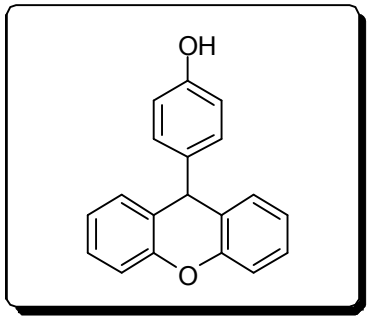
^{13}C NMR ($CDCl_3$, 75 MHz) spectrum of compound **12j**

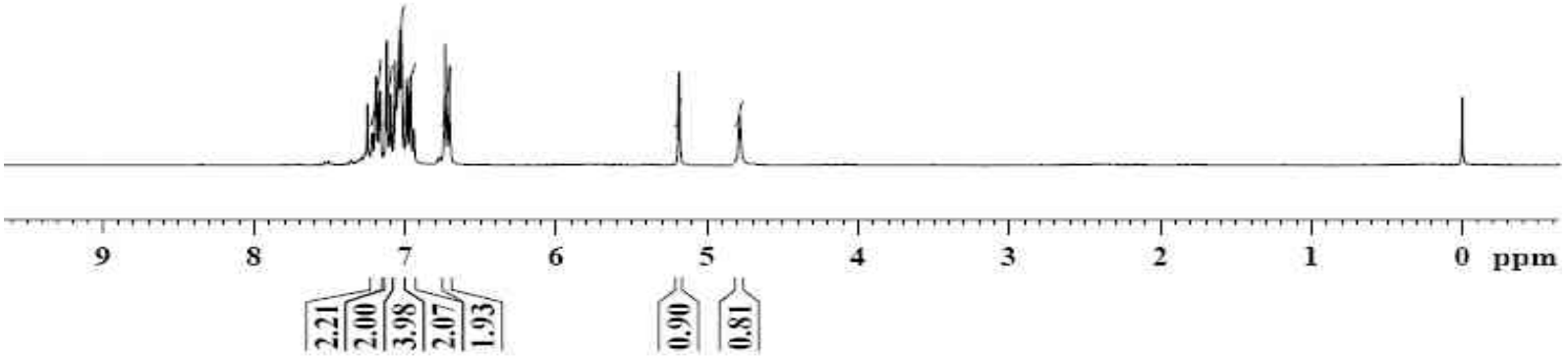


^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **12k**

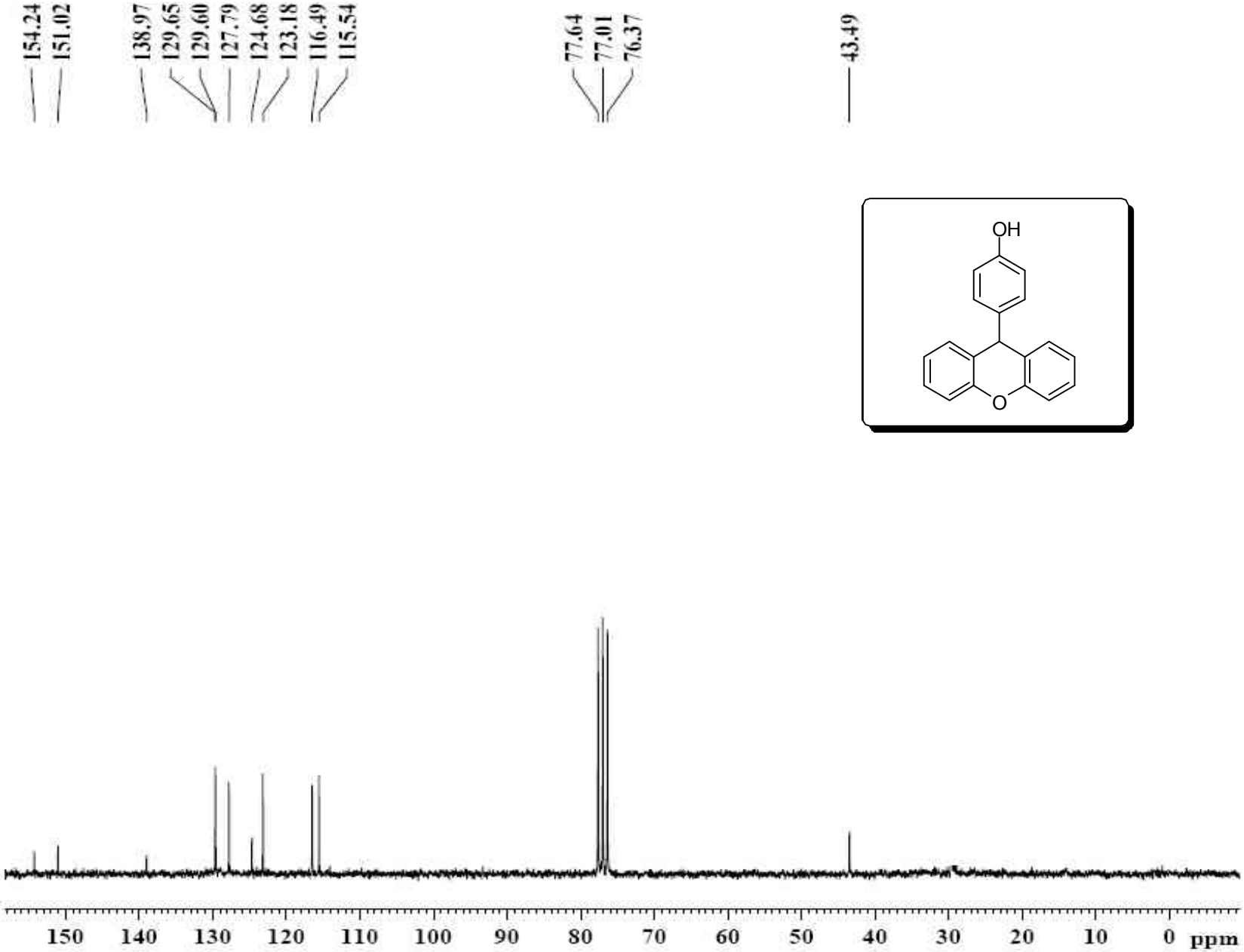


^{13}C NMR ($CDCl_3$, 75 MHz) spectrum of compound **12k**

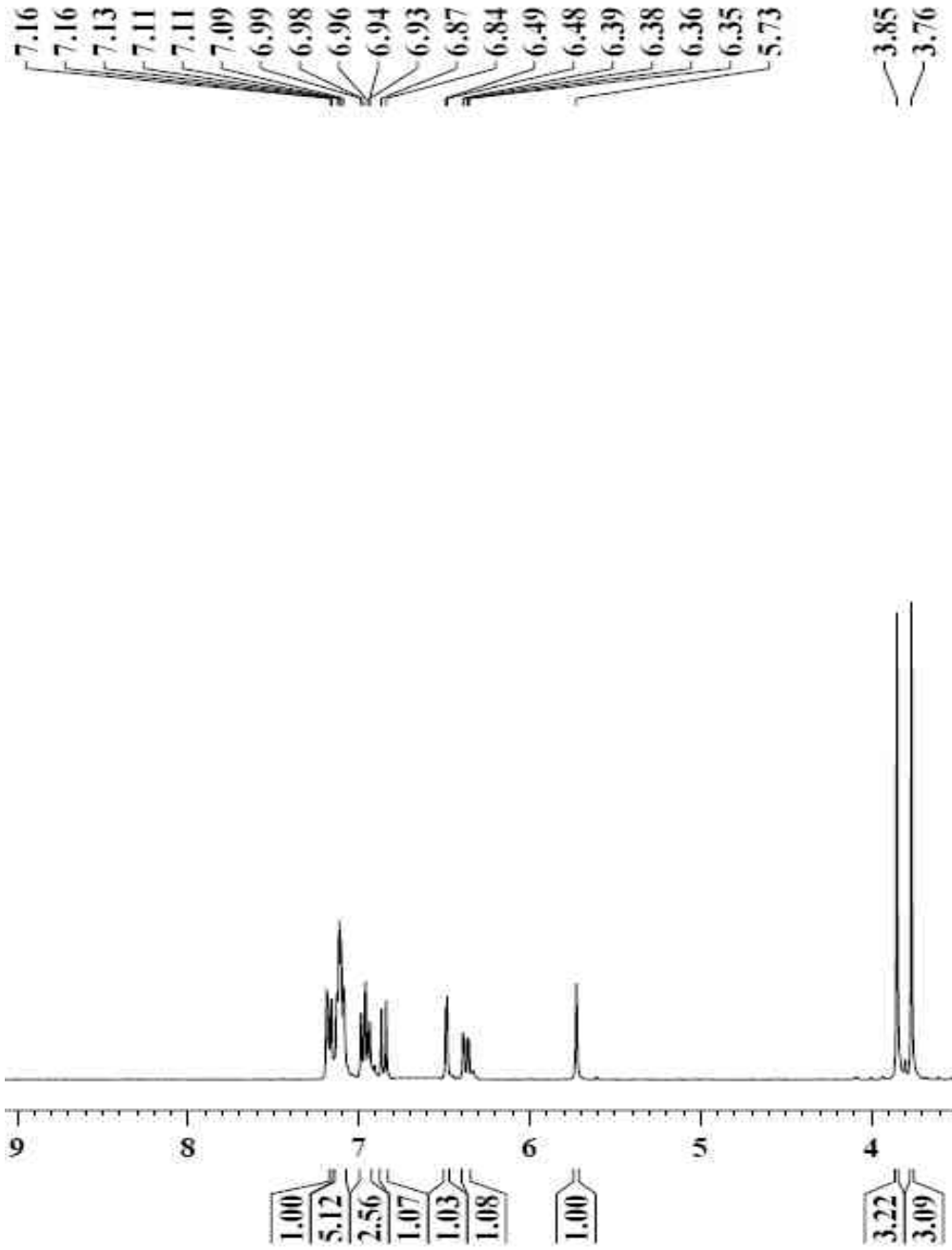




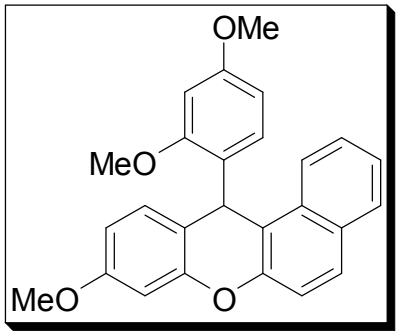
^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **12l**

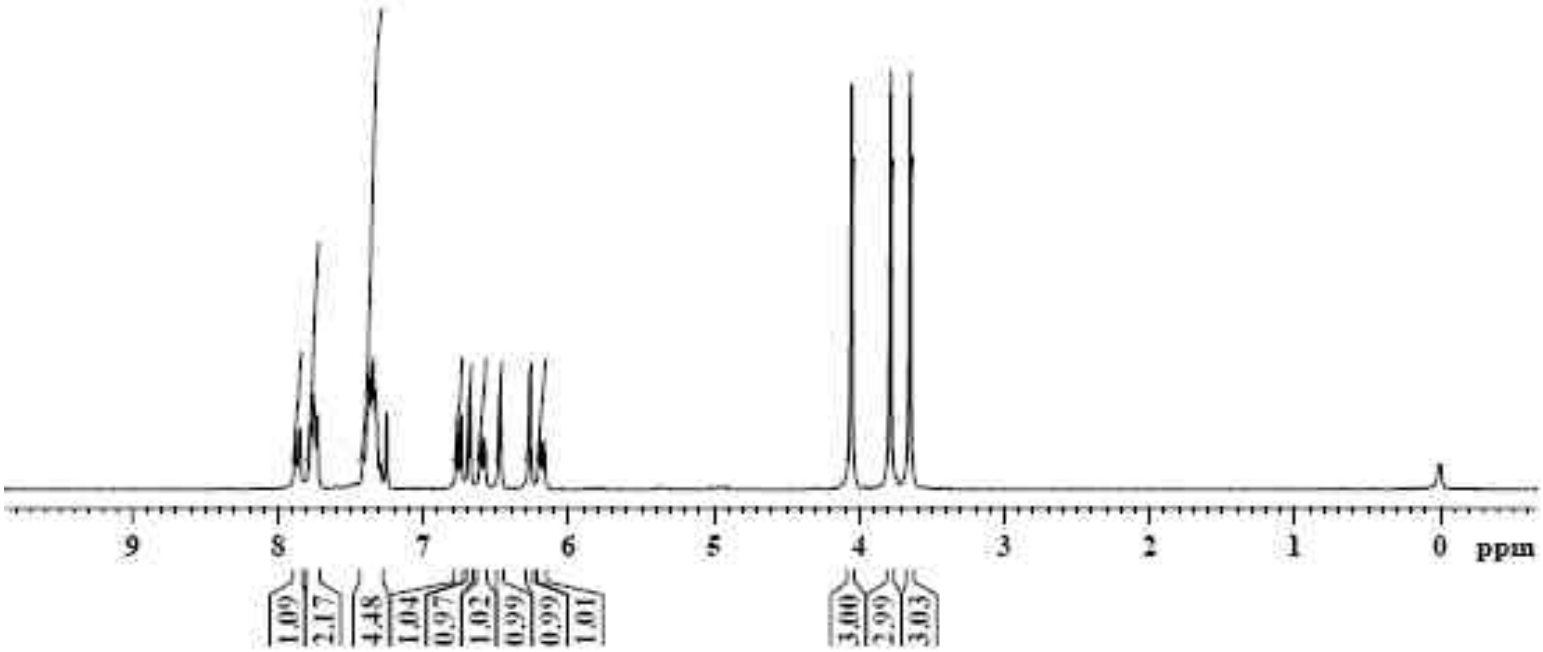


^{13}C NMR ($CDCl_3$, 75 MHz) spectrum of compound **12l**

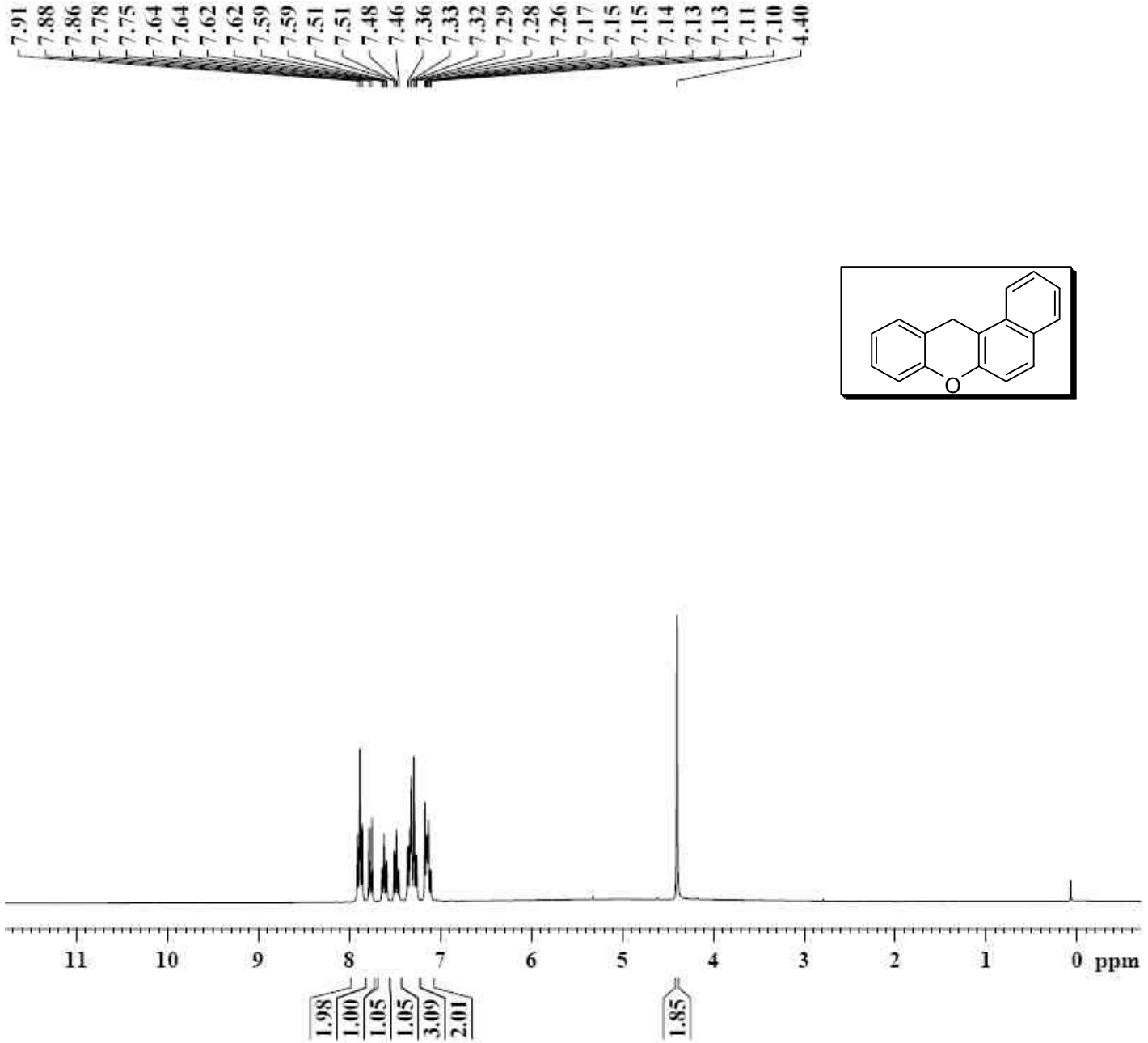


^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **12m**

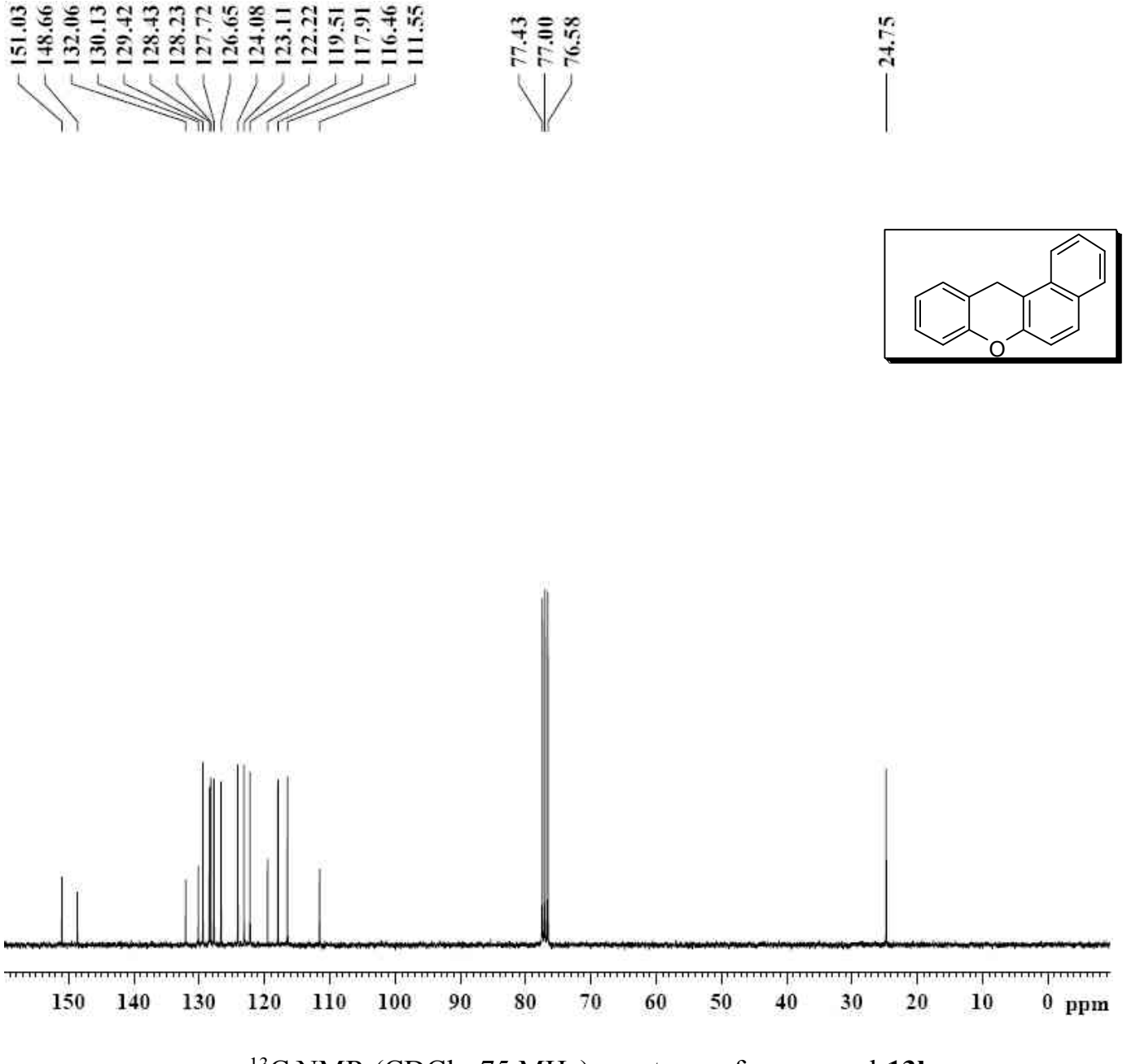




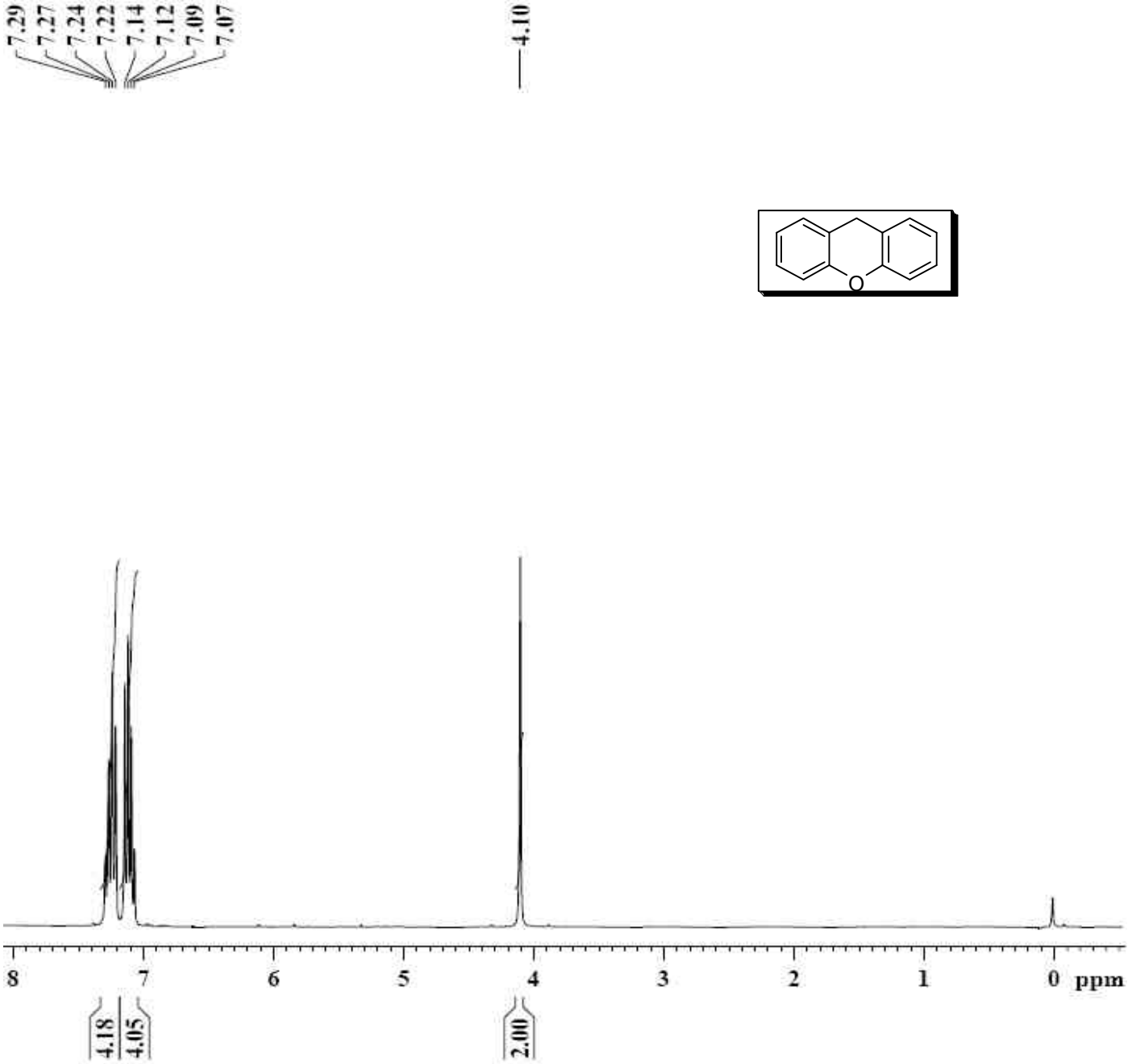
^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **12n**



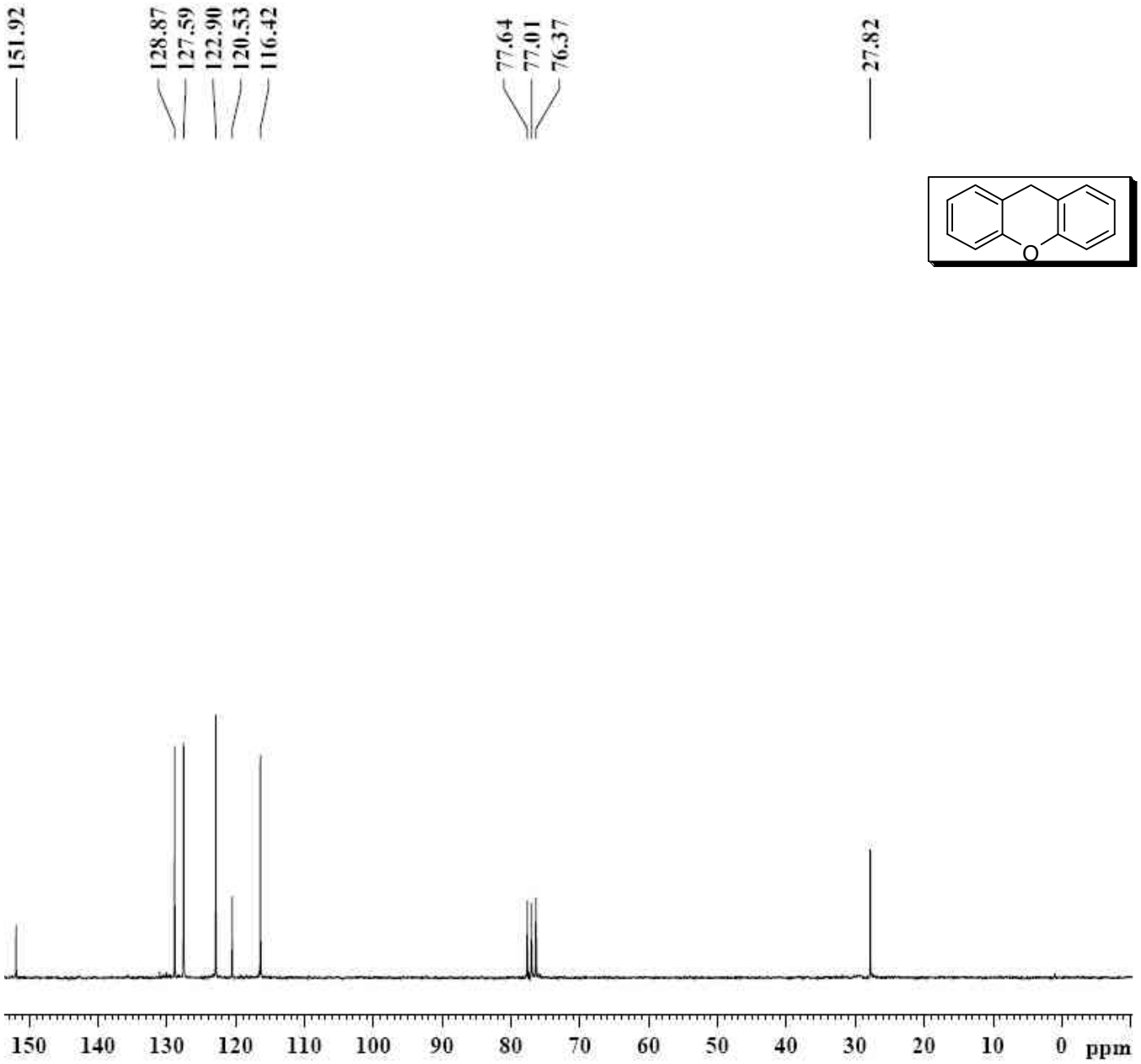
^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **13b**



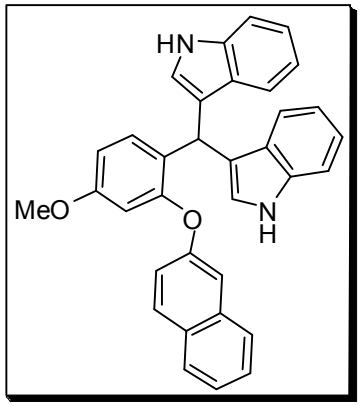
^{13}C NMR ($CDCl_3$, 75 MHz) spectrum of compound **13b**

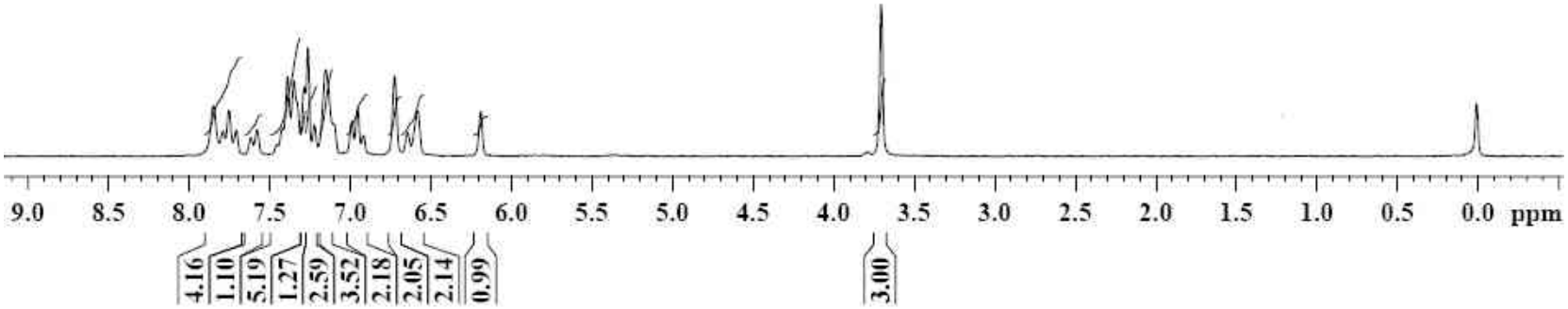


^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **13g**

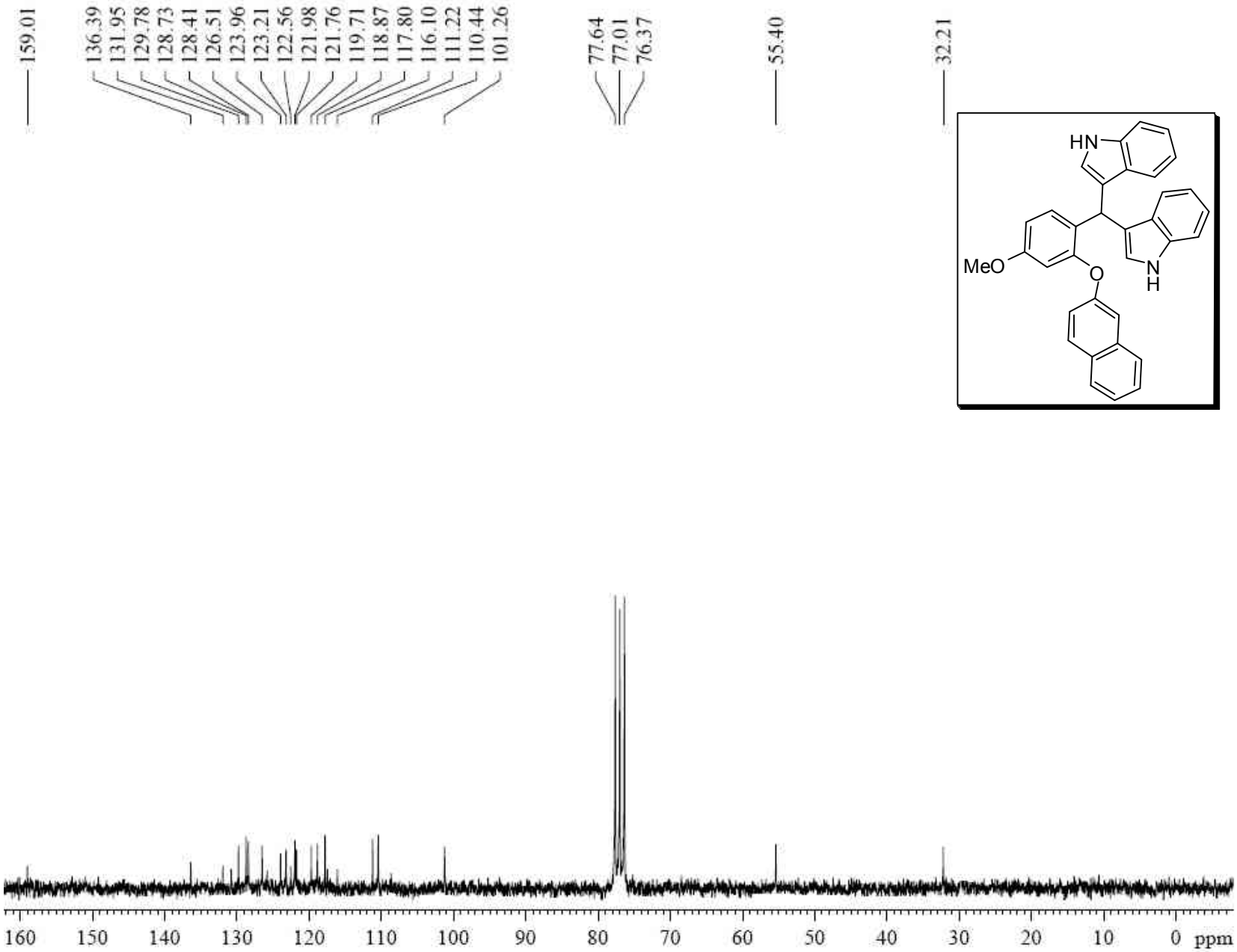


^{13}C NMR ($CDCl_3$, 75 MHz) spectrum of compound **13g**

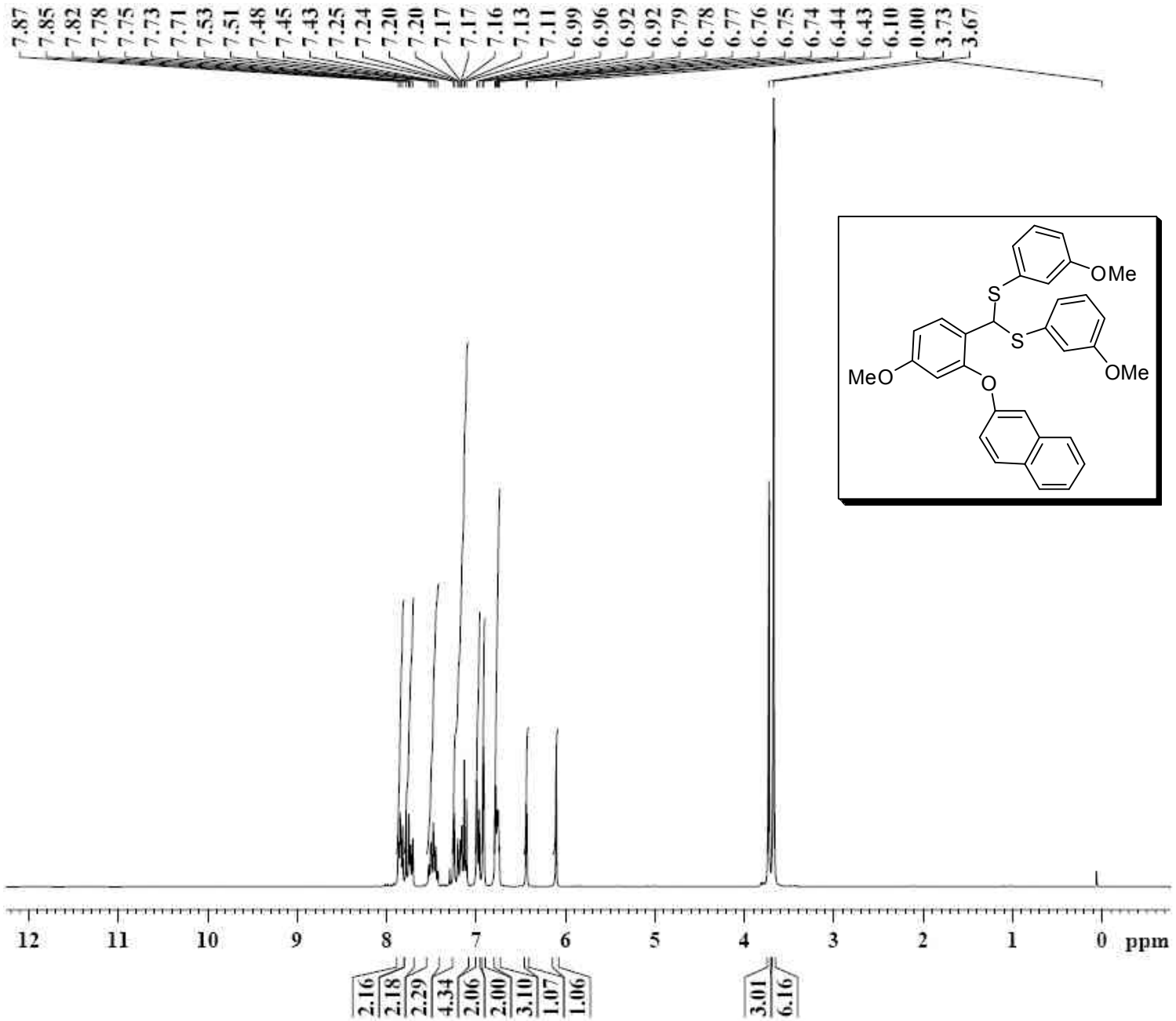




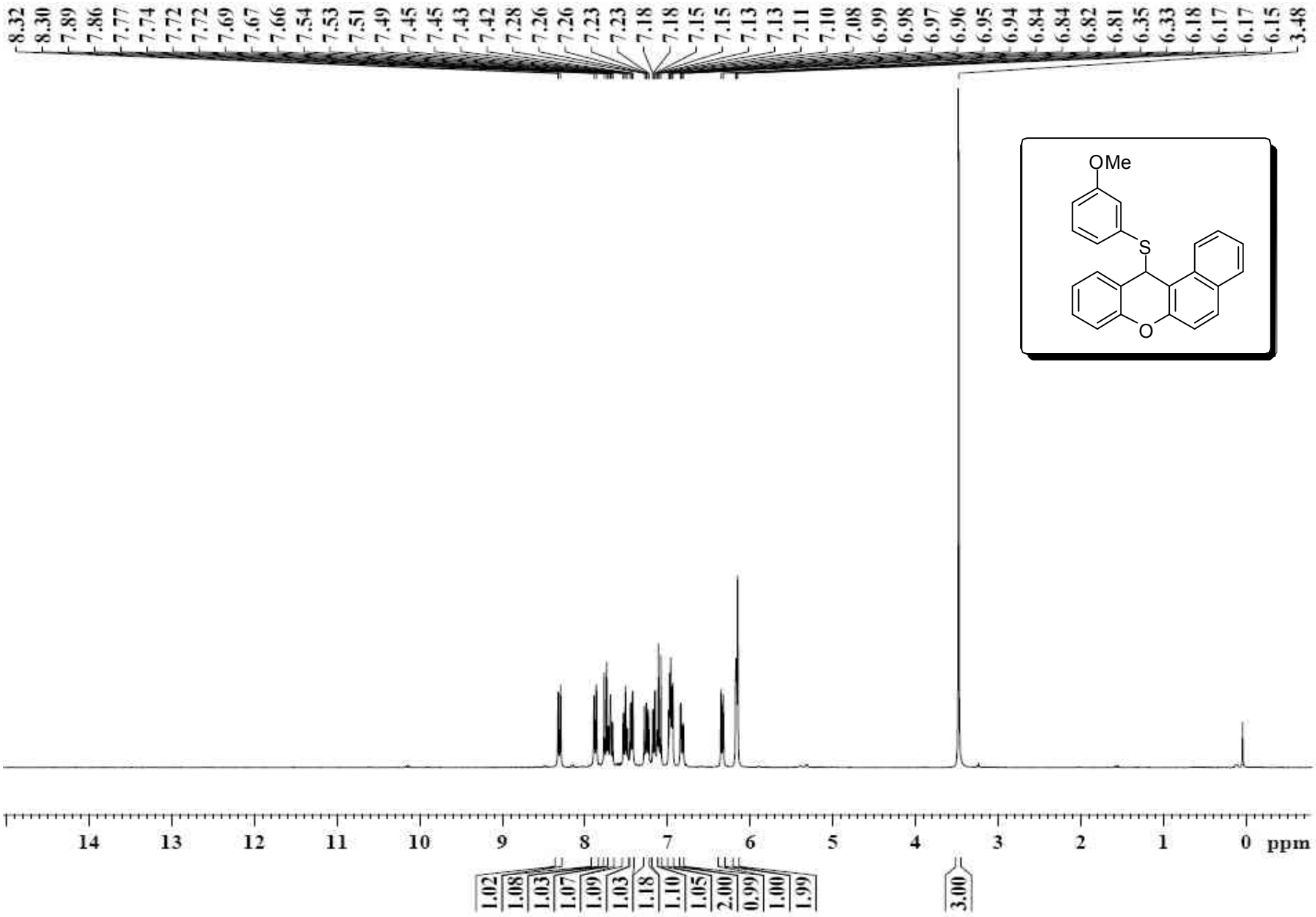
^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **14c**



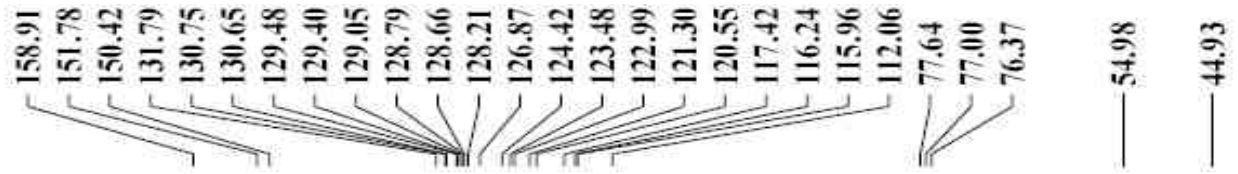
^{13}C NMR ($CDCl_3$, 75 MHz) spectrum of compound **14c**

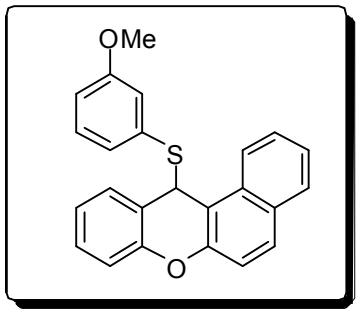


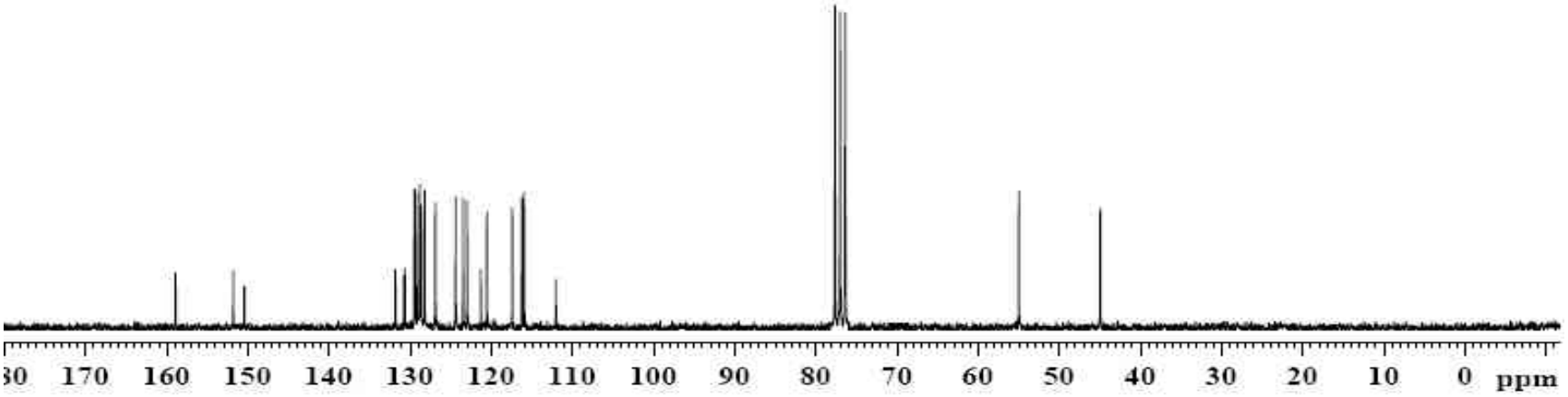
^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound 1**9d**



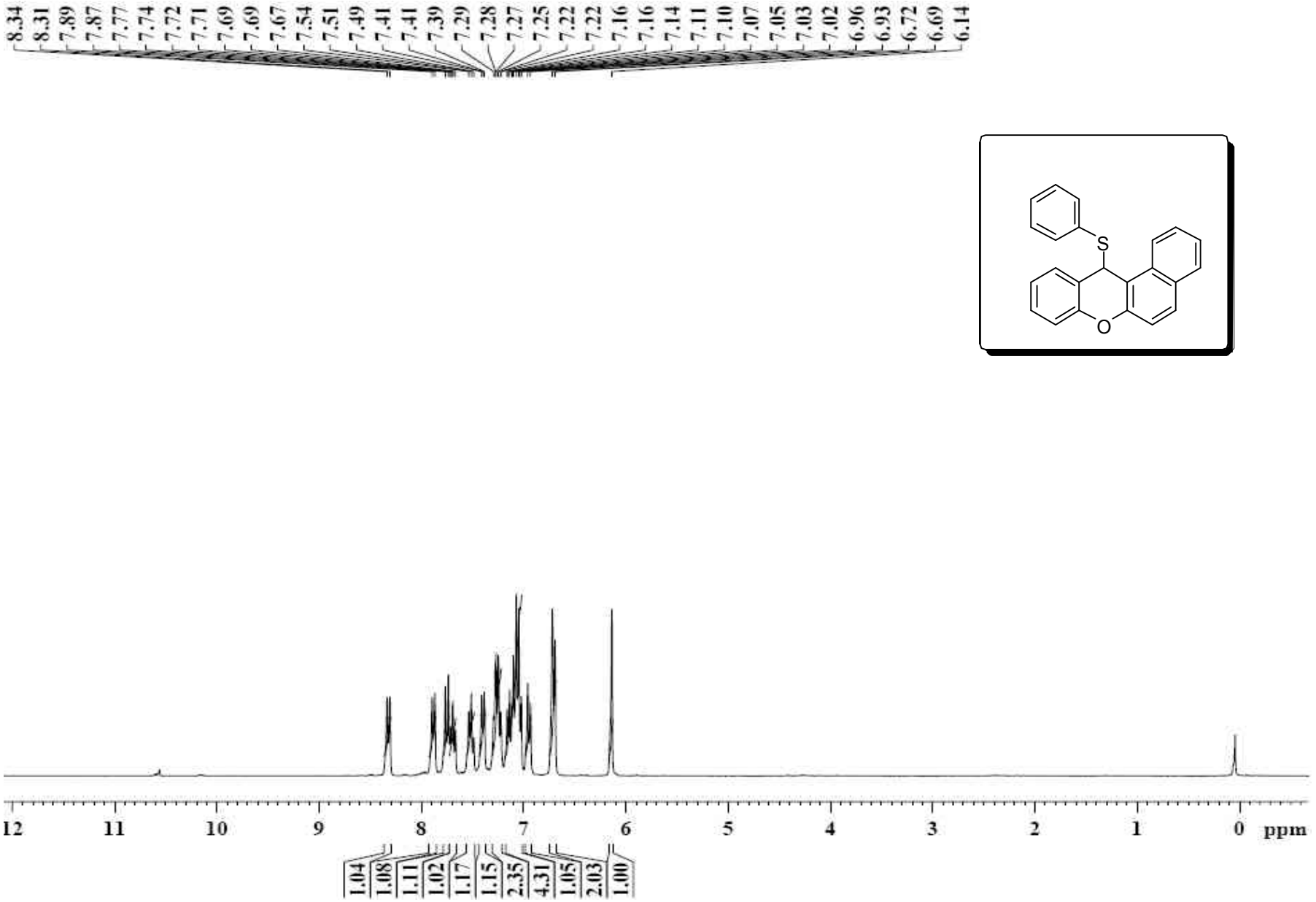
^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **20a**



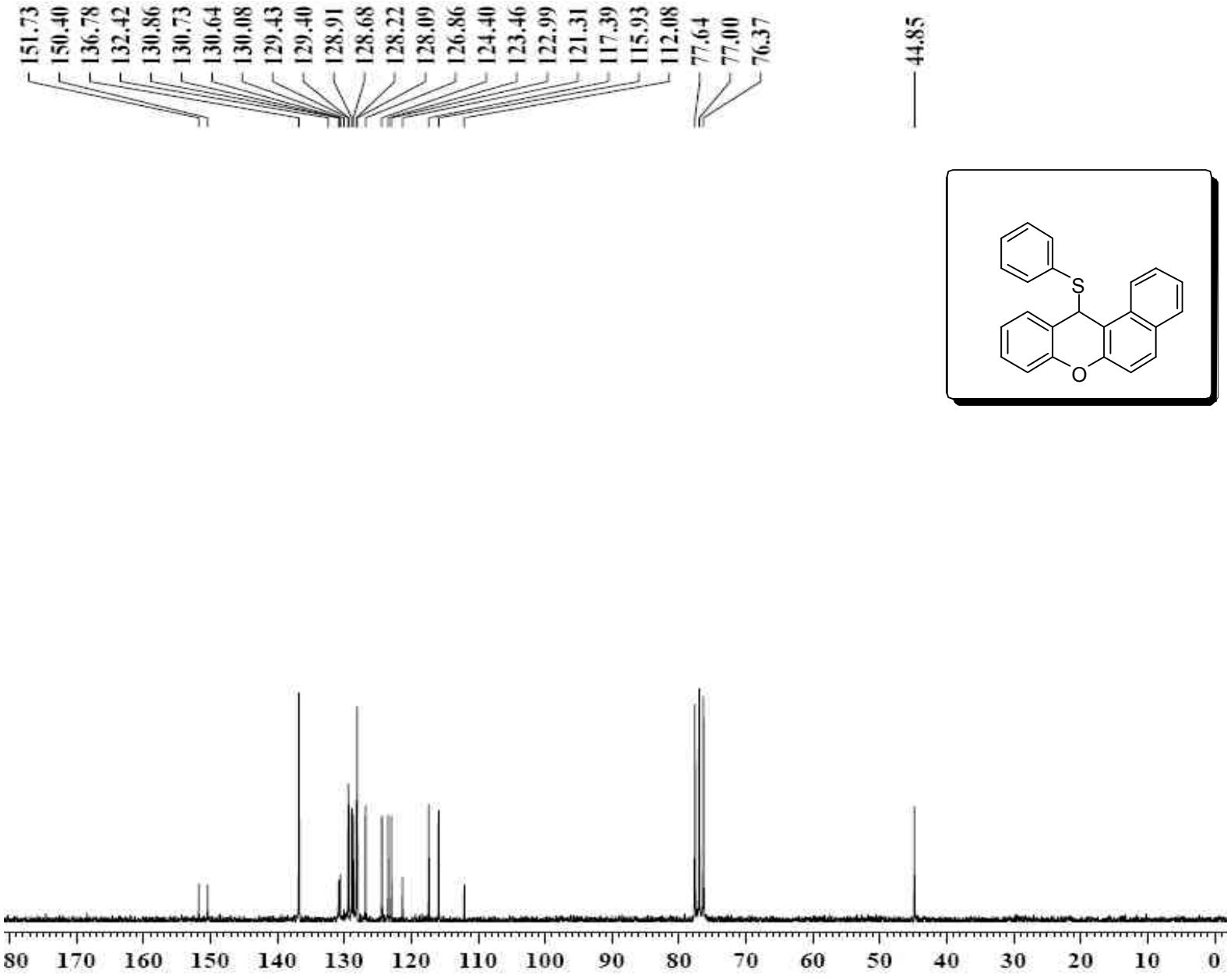




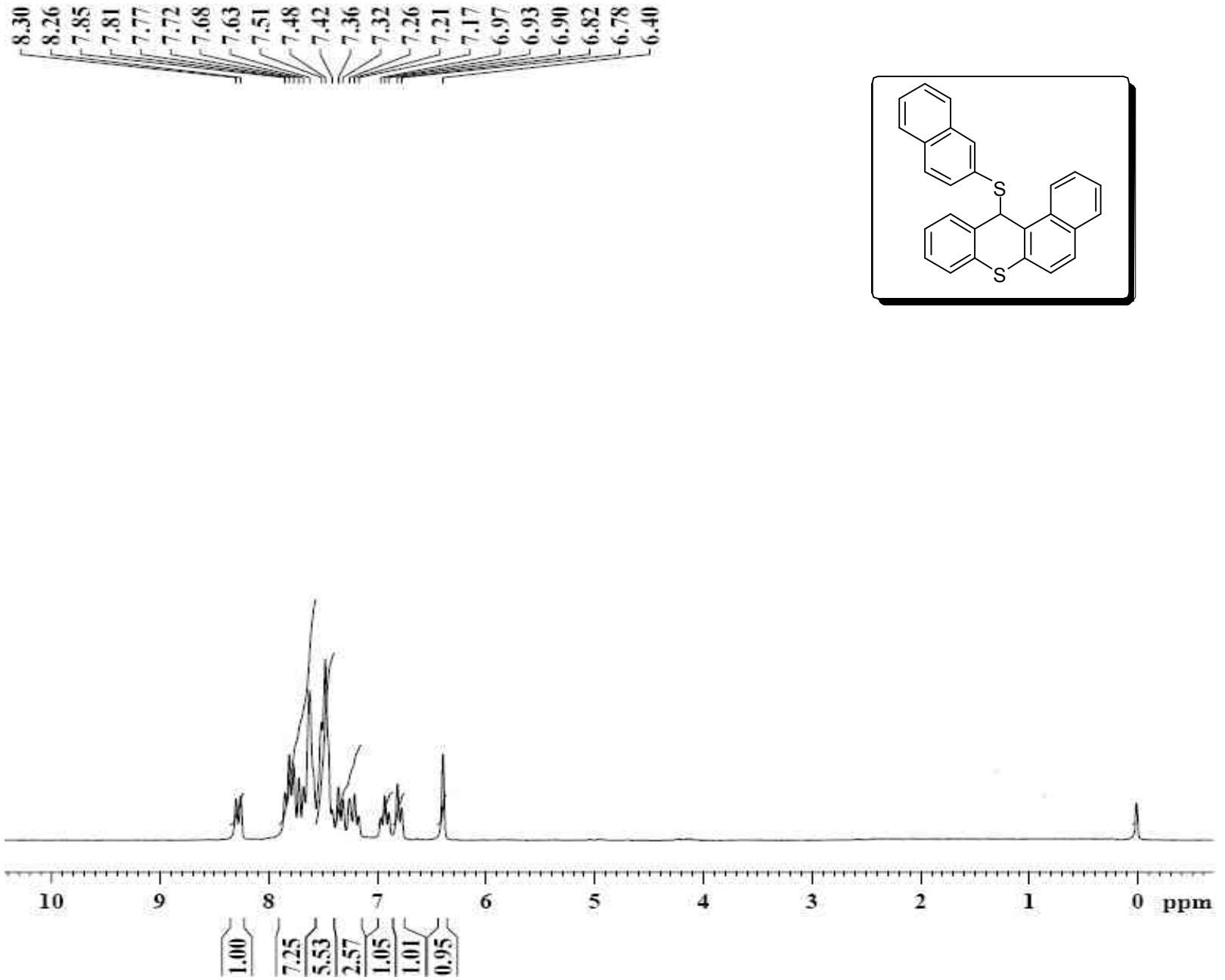
^{13}C NMR ($CDCl_3$, 75 MHz) spectrum of compound **20a**



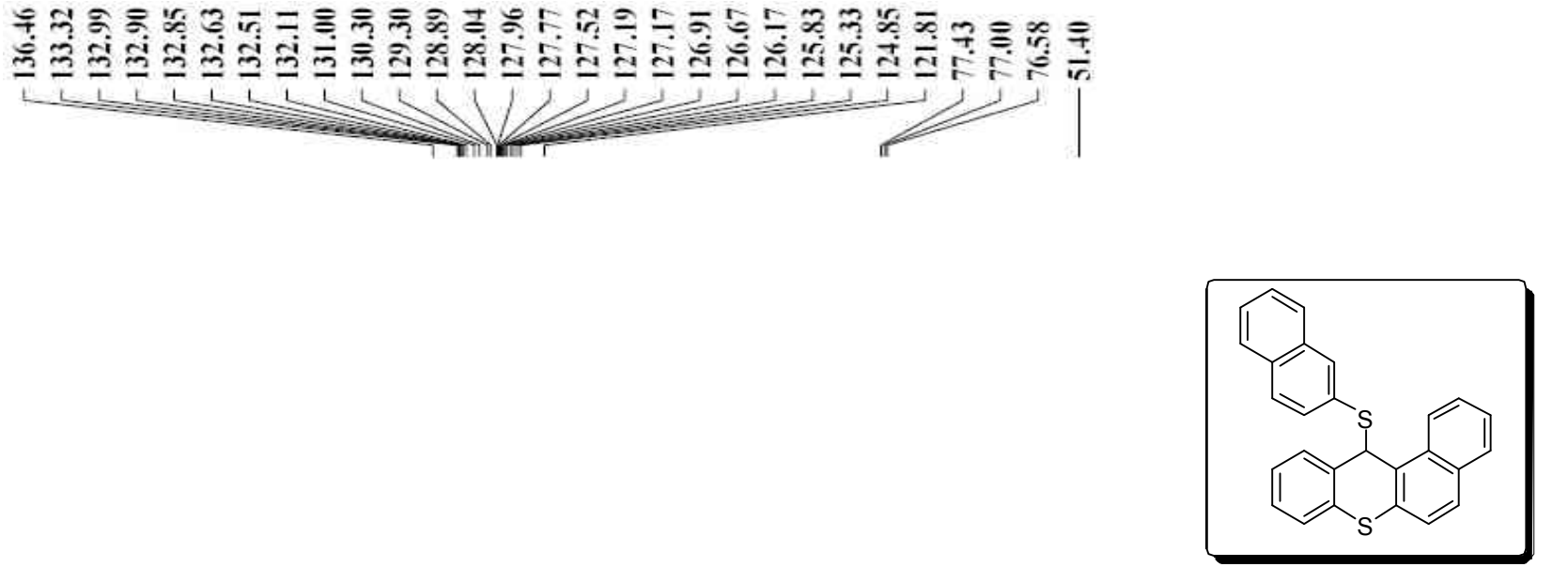
^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **20b**



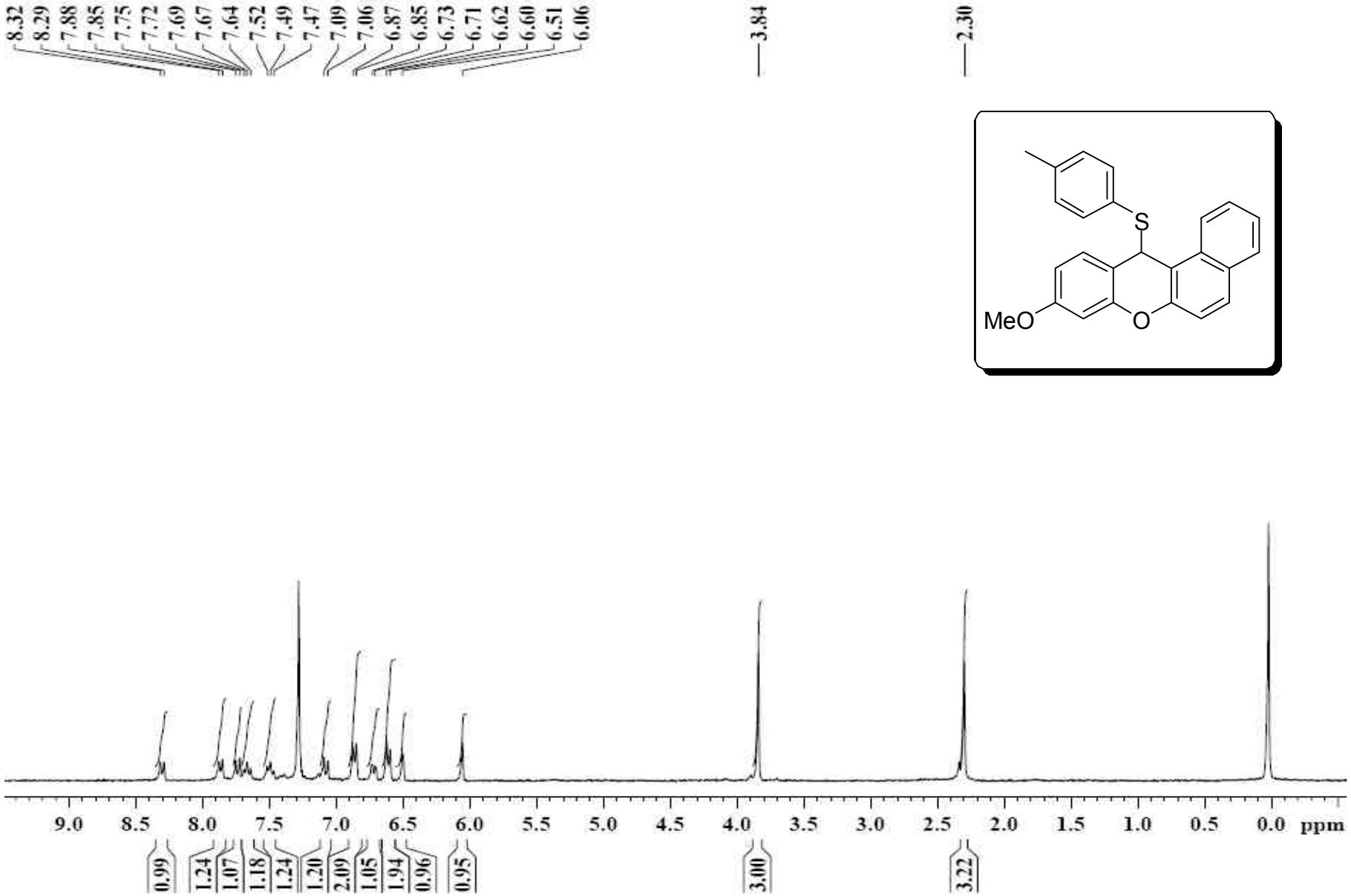
^{13}C NMR ($CDCl_3$, 75 MHz) spectrum of compound **20b**



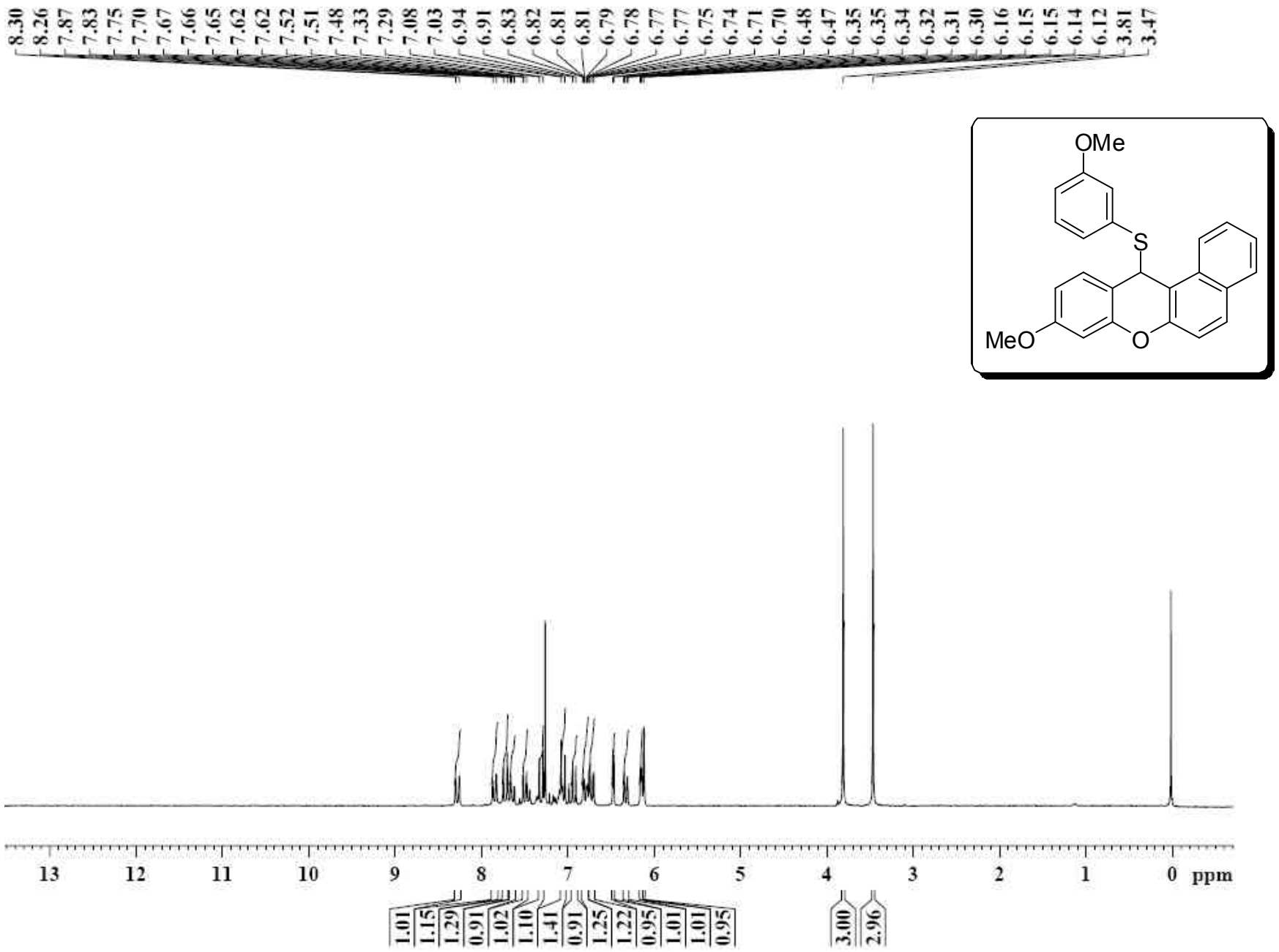
^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **20c**



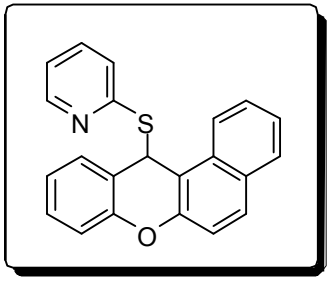
^{13}C NMR ($CDCl_3$, 75 MHz) spectrum of compound **20c**

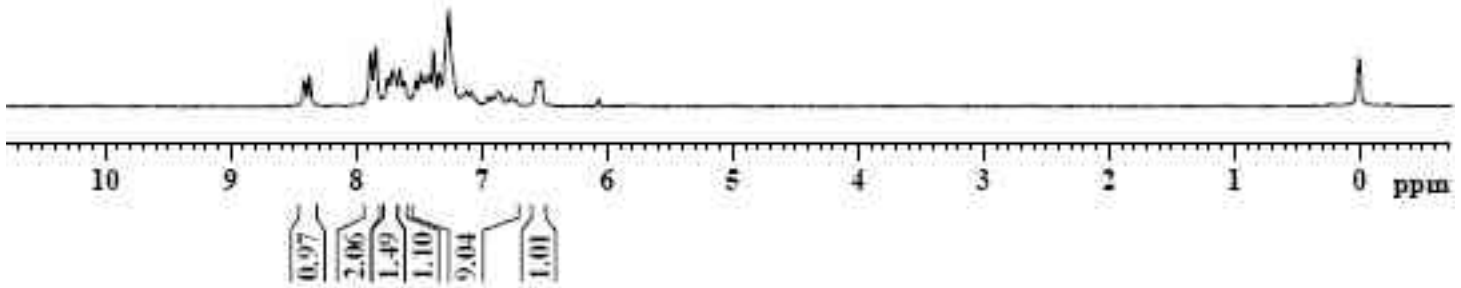


^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **20d**



^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **20e**





^{1}H NMR ($CDCl_3$, 300 MHz) spectrum of compound **20f**