Supporting Information

Synthesis of Organic Carbonates with Alkyl/aryl 4,5-dichloro-6-oxopyridazine-1(6*H*)-carboxylates and ROH/$AlCl_3$ under Ambient Condition

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1. Copy of ^{1}H and ^{13}C NMR spectrum of 3, 5 and 6

^{1}H and ^{13}C Spectra of alkyl (or aryl) 4,5-dichloro-6-oxopyridazine-1(6*H*)-carboxylates **(3)**

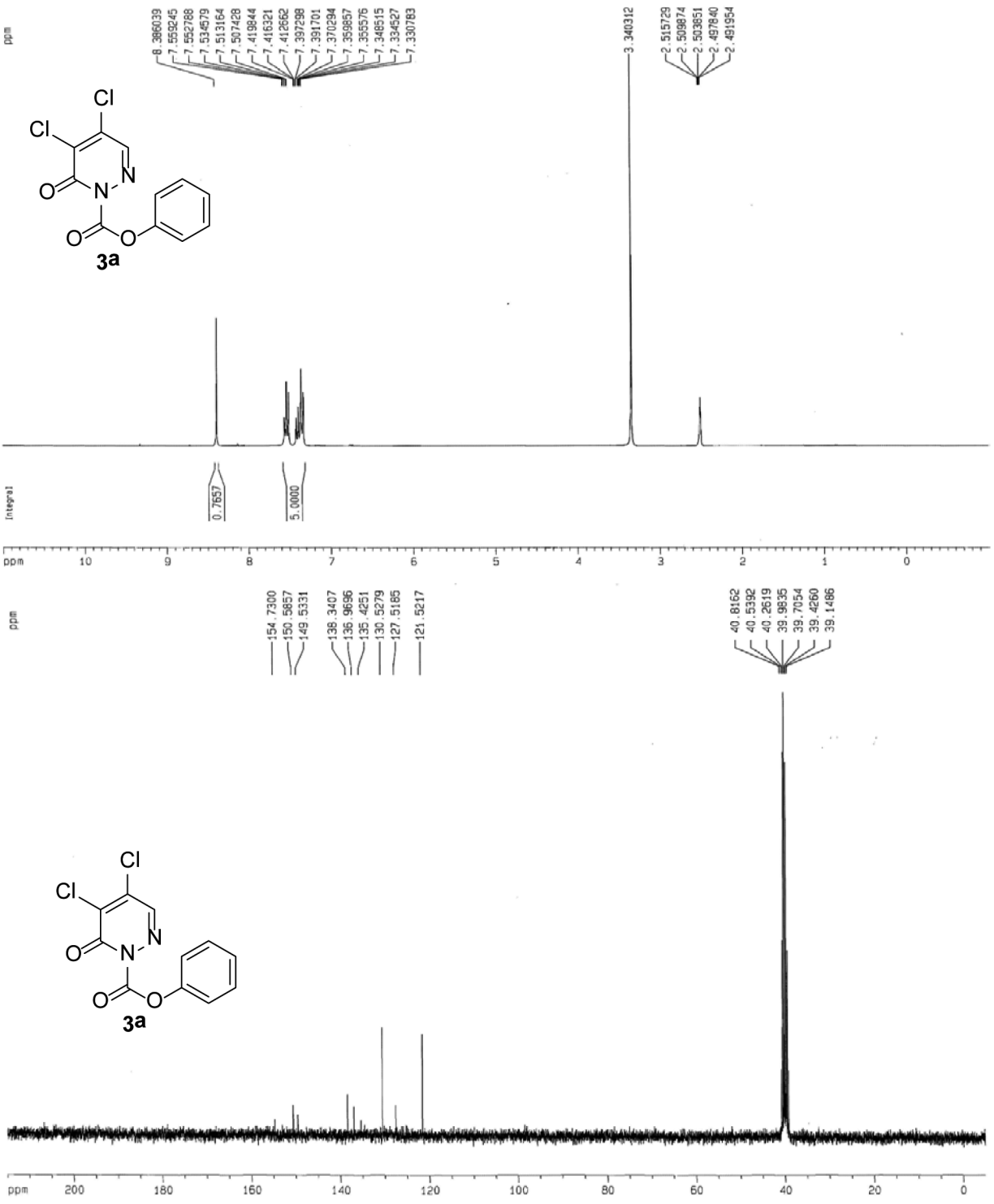

Figure 1. ^{1}H(top) and ^{13}C NMR(bottom) spectra in DMSO-d_6 of compound **3a**.

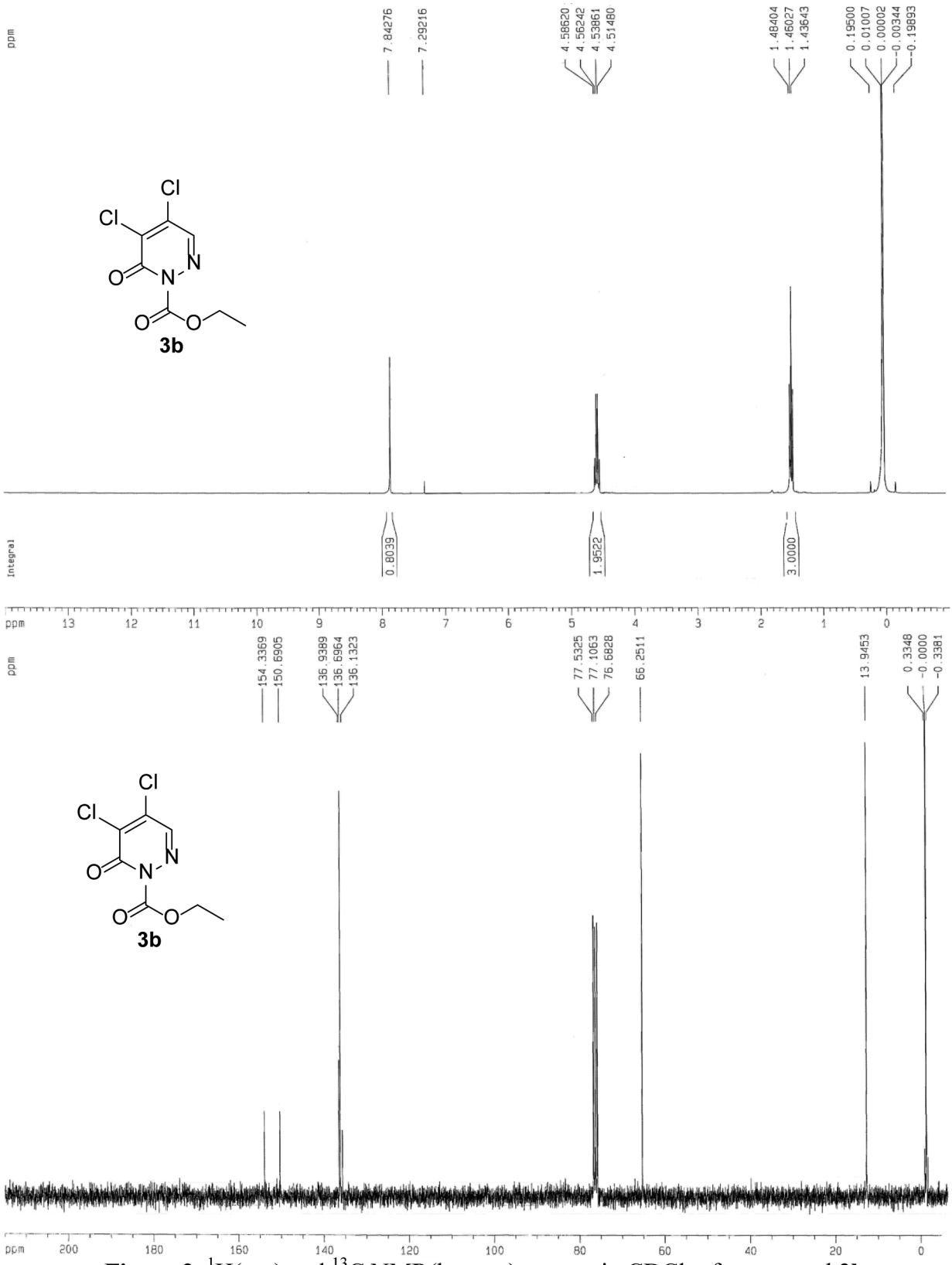

Figure 2. ^{1}H(top) and ^{13}C NMR(bottom) spectra in $CDCl_3$ of compound **3b**.

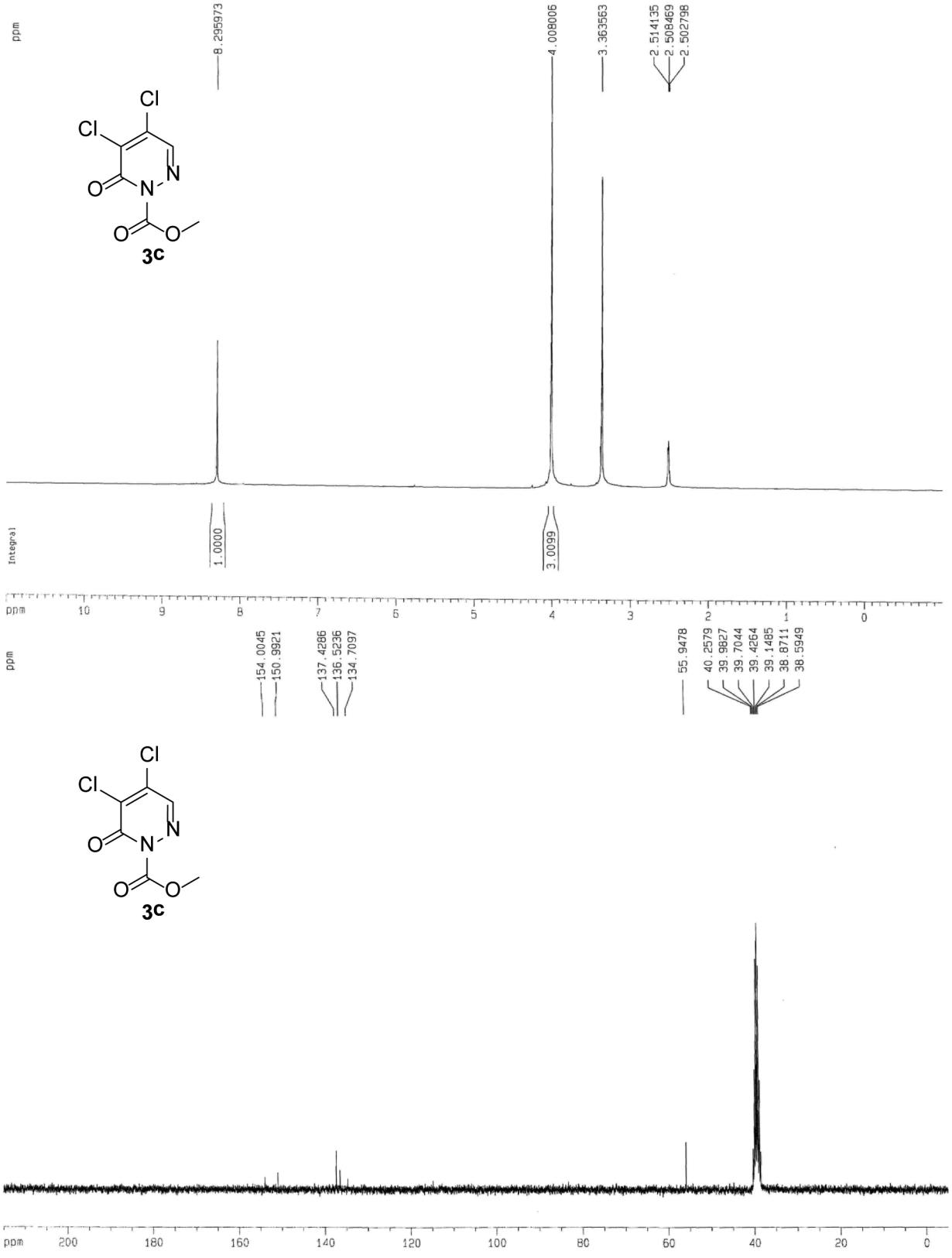

Figure 3. ^{1}H(top) and ^{13}C NMR(bottom) spectra in DMSO-d_6 of compound **3c**.

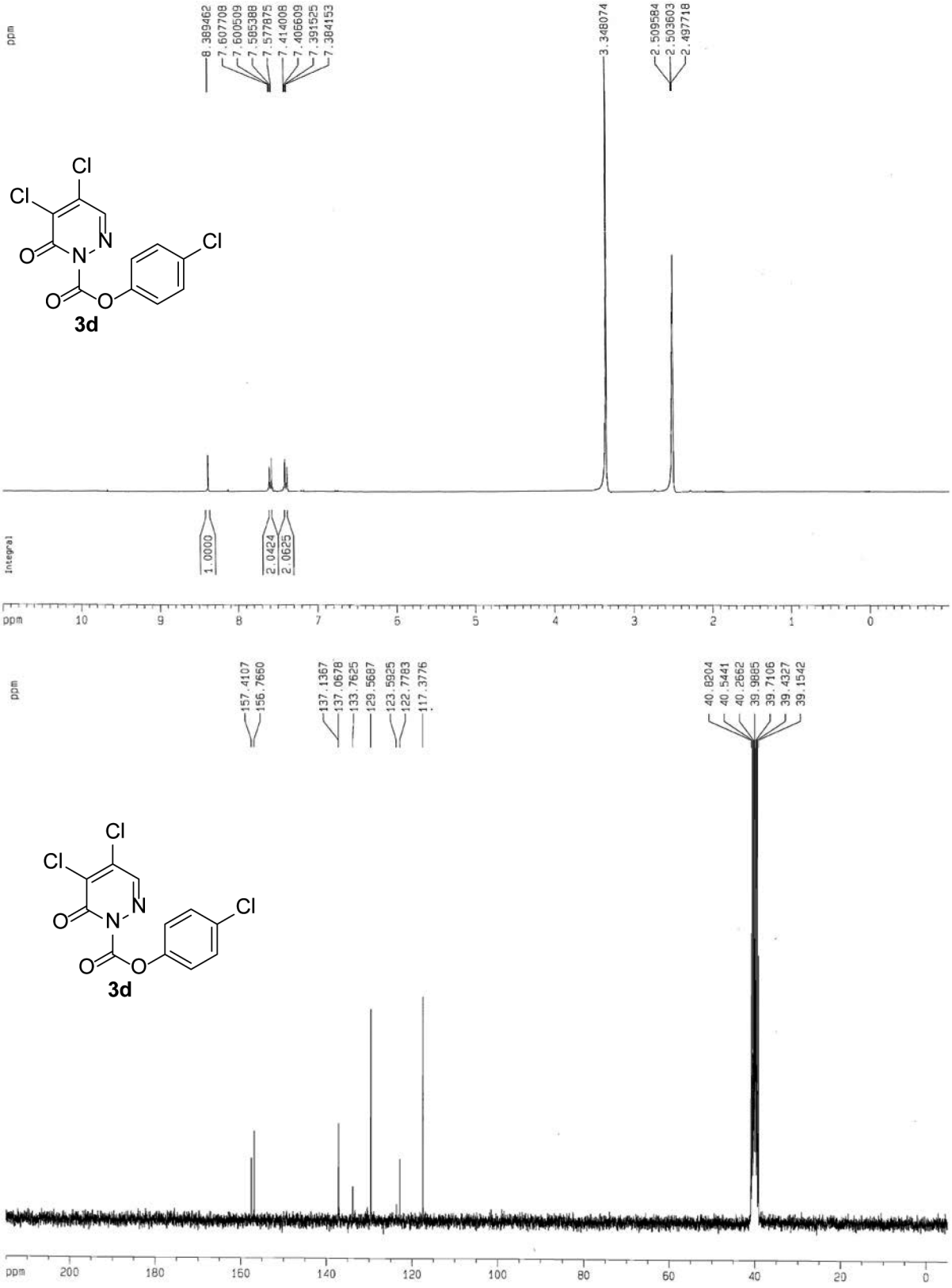

Figure 4. ^{1}H(top) and ^{13}C NMR(bottom) spectra in DMSO-d_6 of compound **3d**.

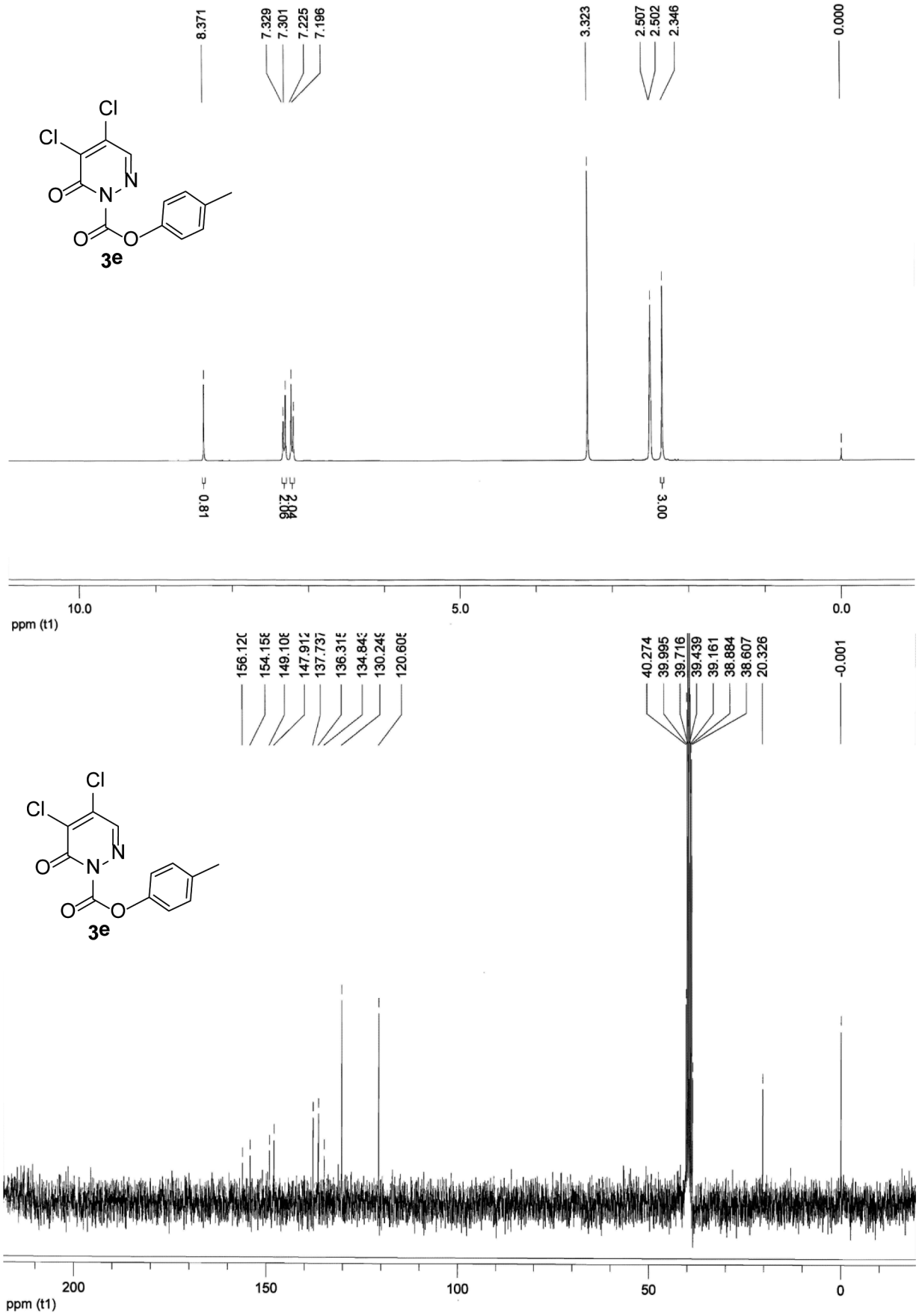

Figure 5. ^{1}H(top) and ^{13}C NMR(bottom) spectra in DMSO-d_6 of compound **3e**.

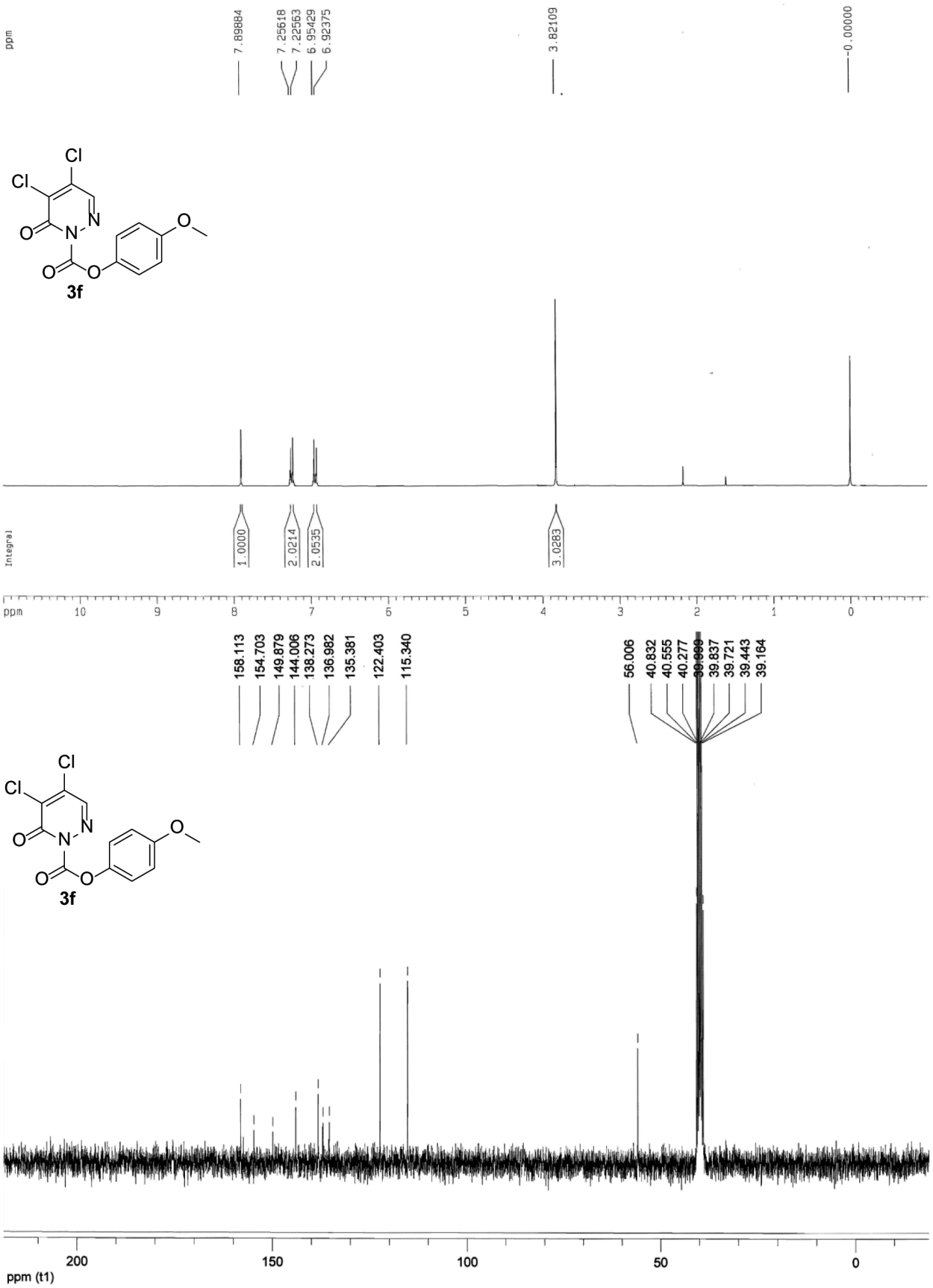

Figure 6. ^{1}H(top) and ^{13}C NMR(bottom) spectra in DMSO-d_6 of compound **3f**.

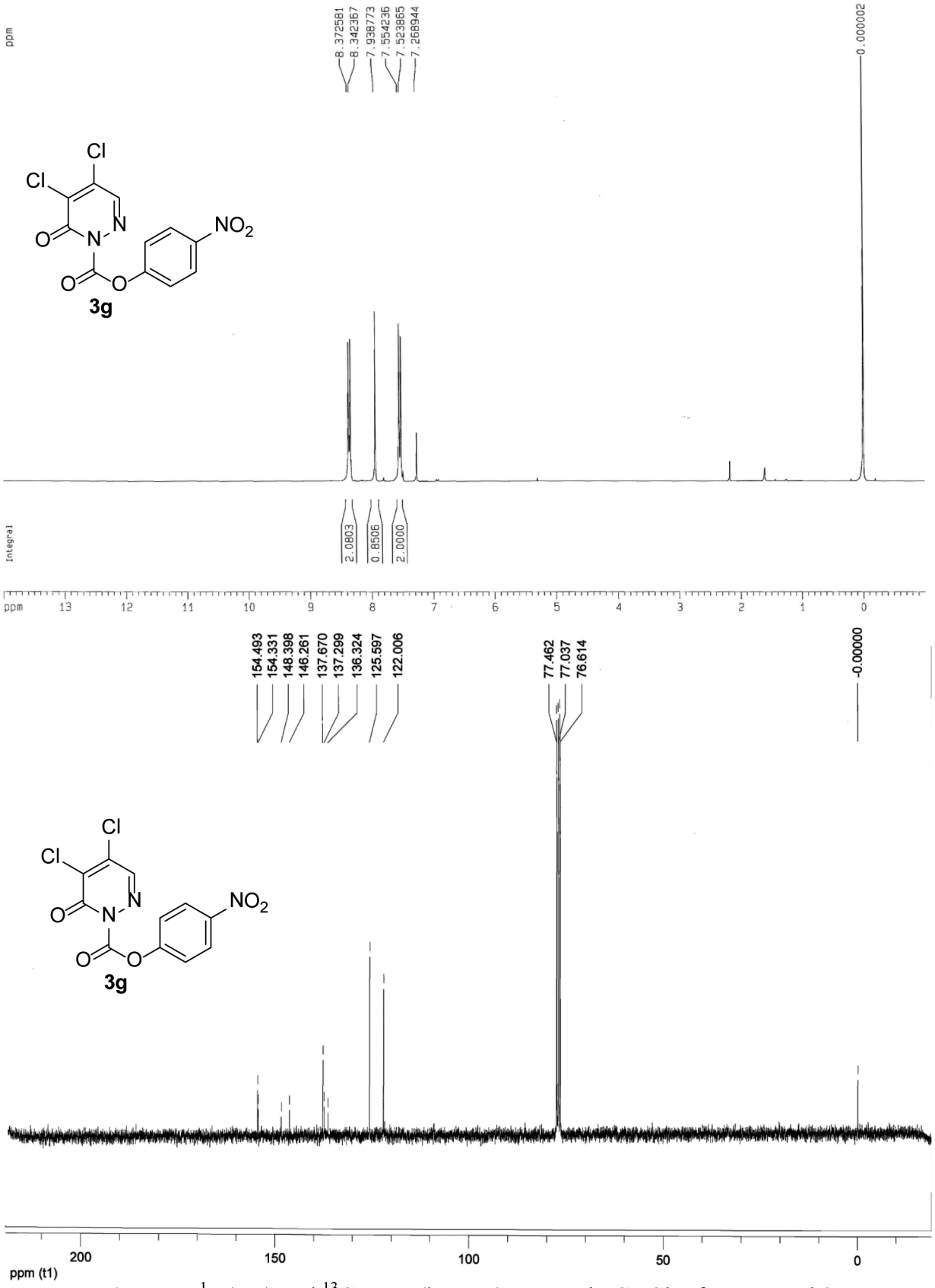

Figure 7. ^{1}H(top) and ^{13}C NMR(bottom) spectra in $CDCl_3$ of compound **3g**.

^{1}H and ^{13}C Spectra of asymmetric organic carbonates **(5)**

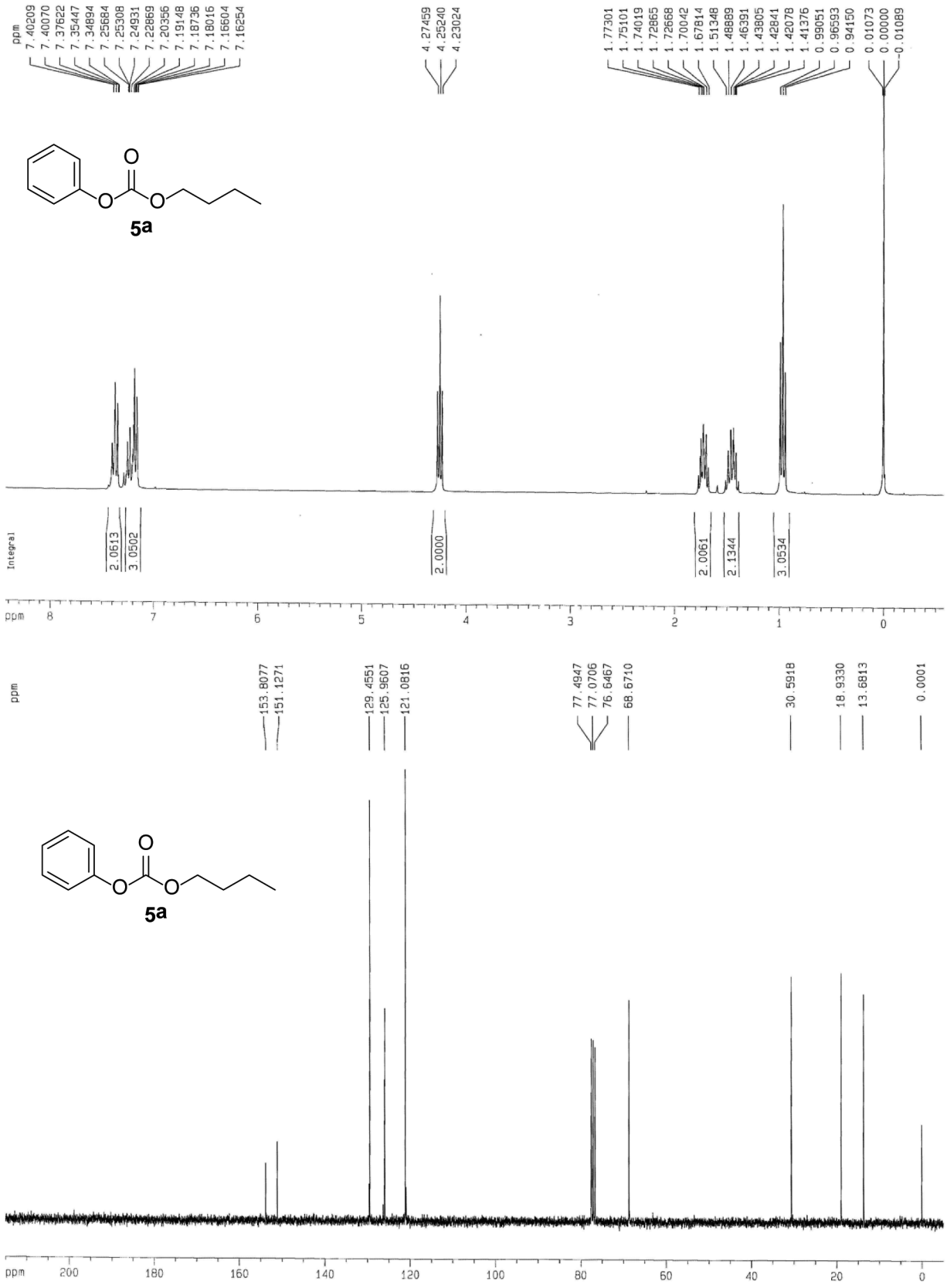

Figure 8. ^{1}H(top) and ^{13}C NMR(bottom) spectra in $CDCl_3$ of compound **5a**.

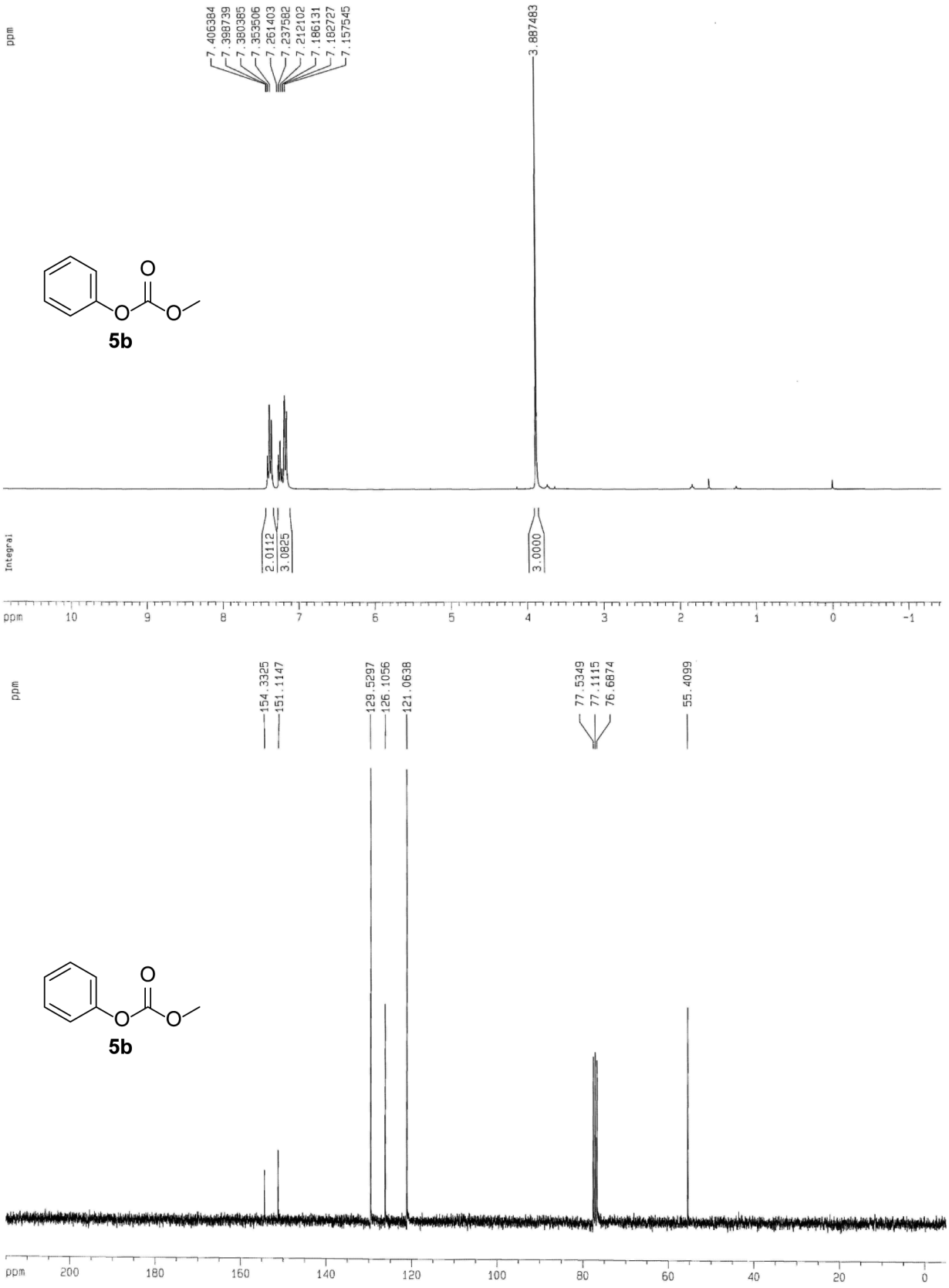

Figure 9. ^{1}H(top) and ^{13}C NMR(bottom) spectra in $CDCl_3$ of compound **5b**.

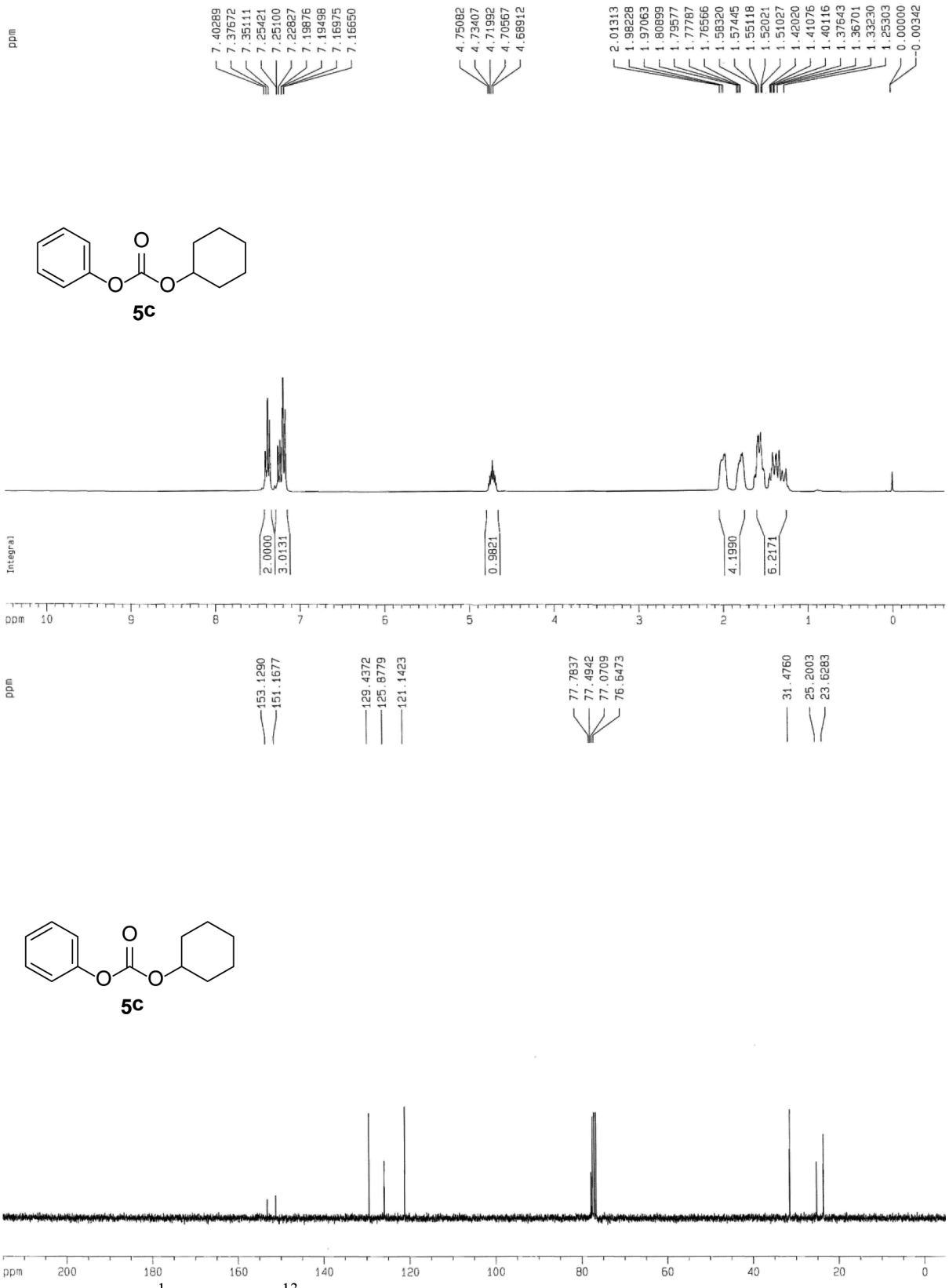

Figure 10. ^{1}H(top) and ^{13}C NMR(bottom) spectra in DMSO-d_6 $CDCl_3$ of compound **5c**.

Figure 11. ^{1}H(top) and ^{13}C NMR(bottom) spectra in $CDCl_3$ of compound **5d**.

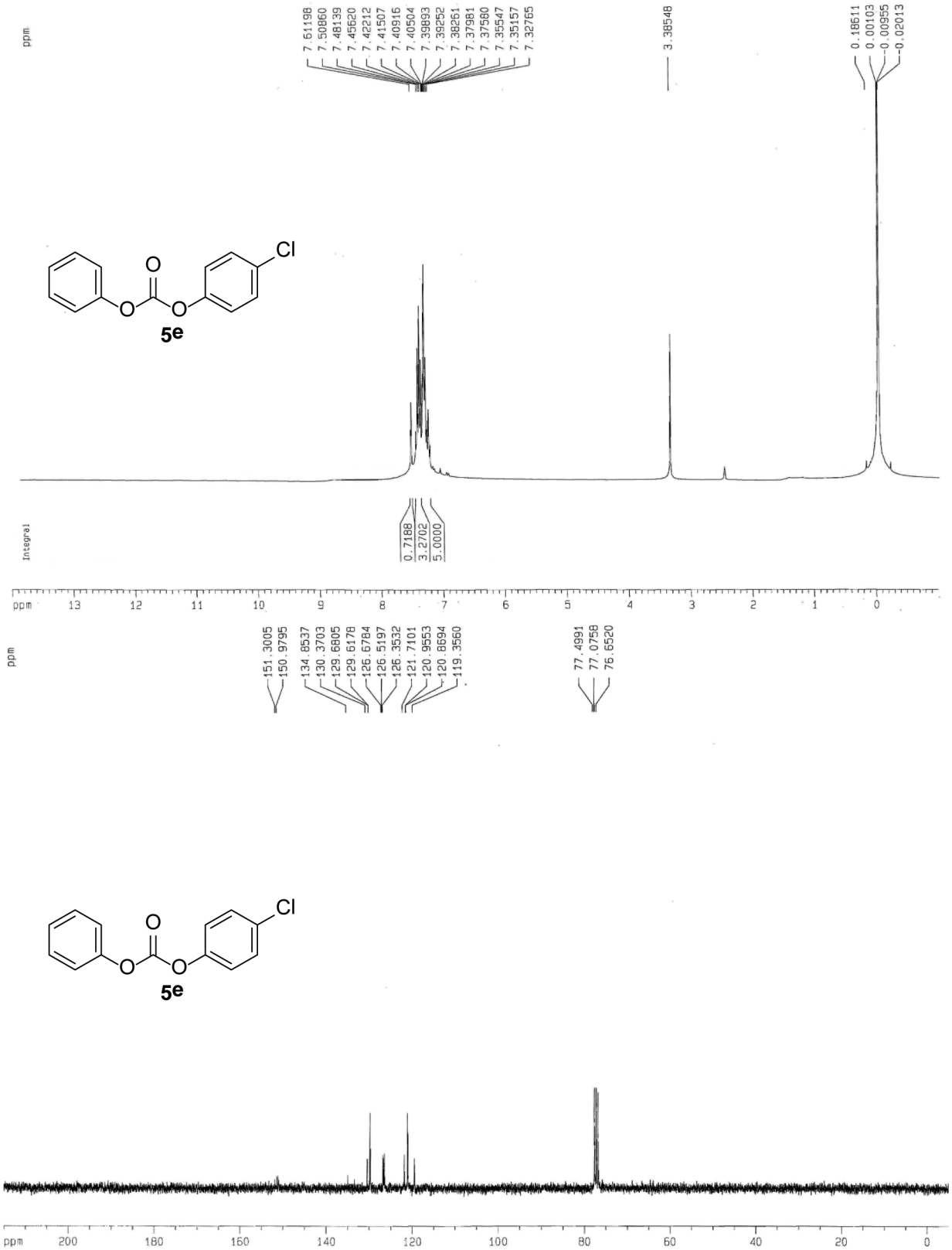

Figure 12. ^{1}H NMR(top) spectra in DMSO-d_6 and ^{13}C NMR(bottom) spectra in $CDCl_3$ of compound **5e**.

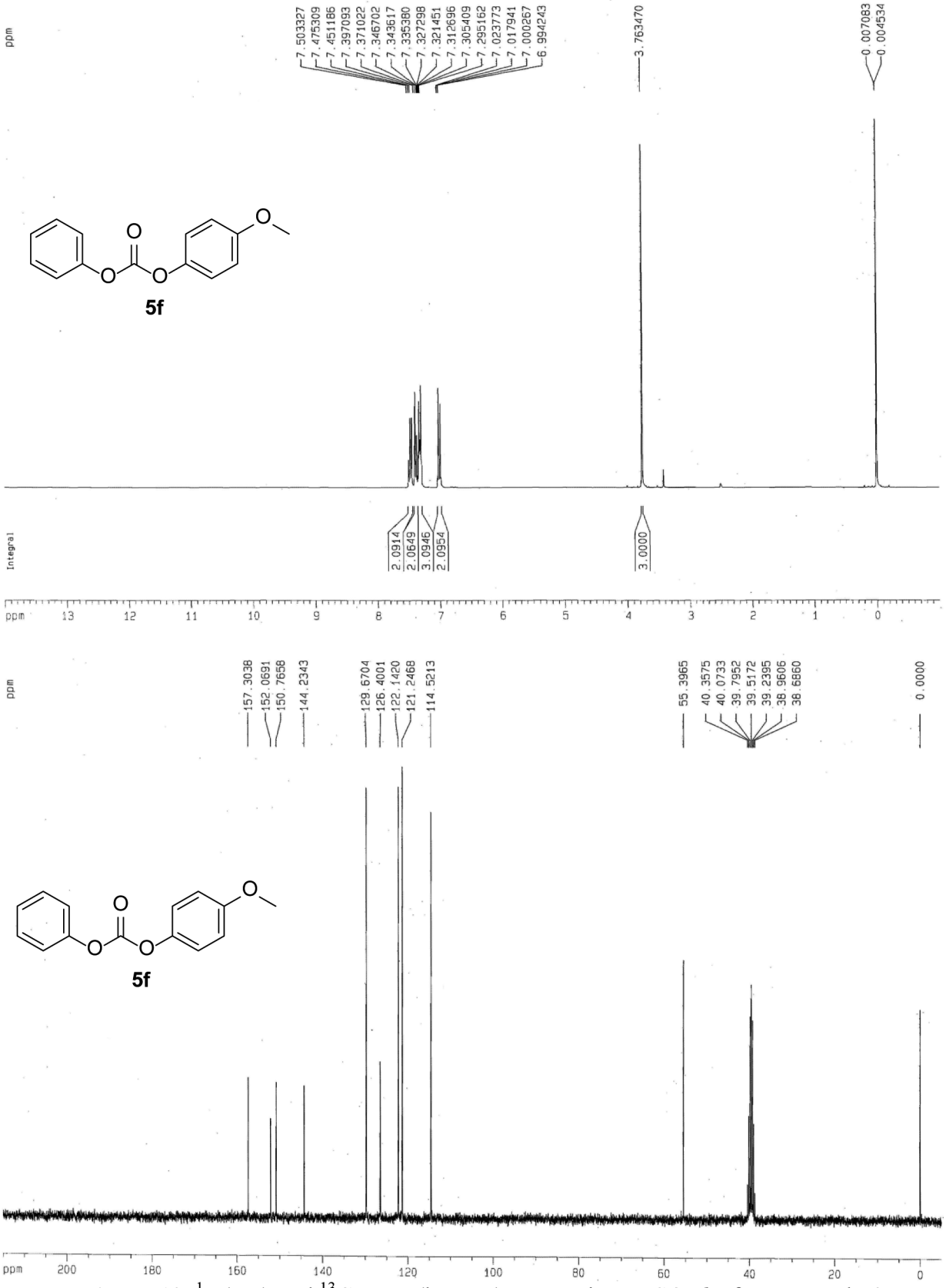

Figure 13. ^{1}H(top) and ^{13}C NMR(bottom) spectra in DMSO-d_6 of compound **5f**.

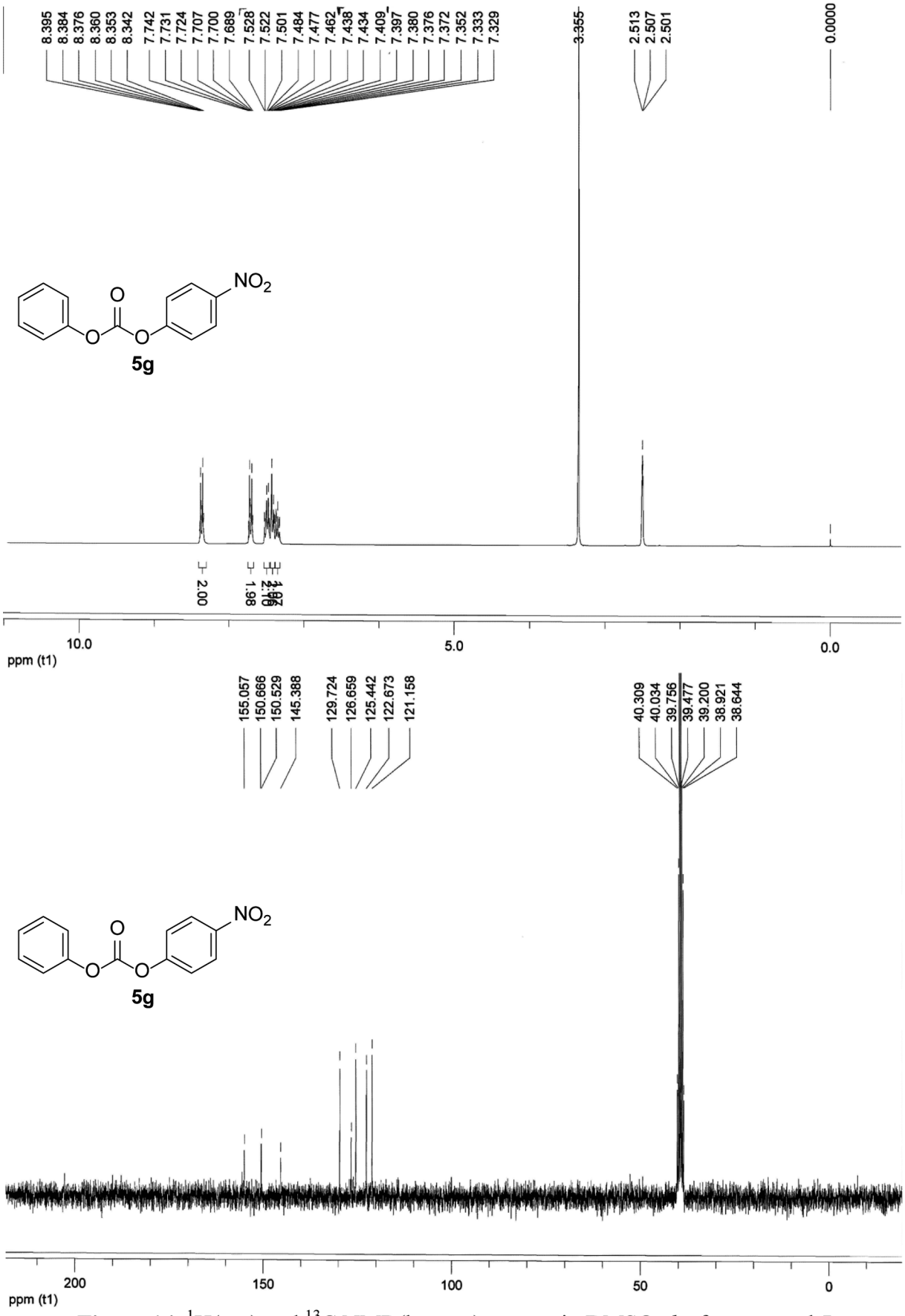

Figure 14. ^{1}H(top) and ^{13}C NMR(bottom) spectra in DMSO-d_6 of compound **5g**.

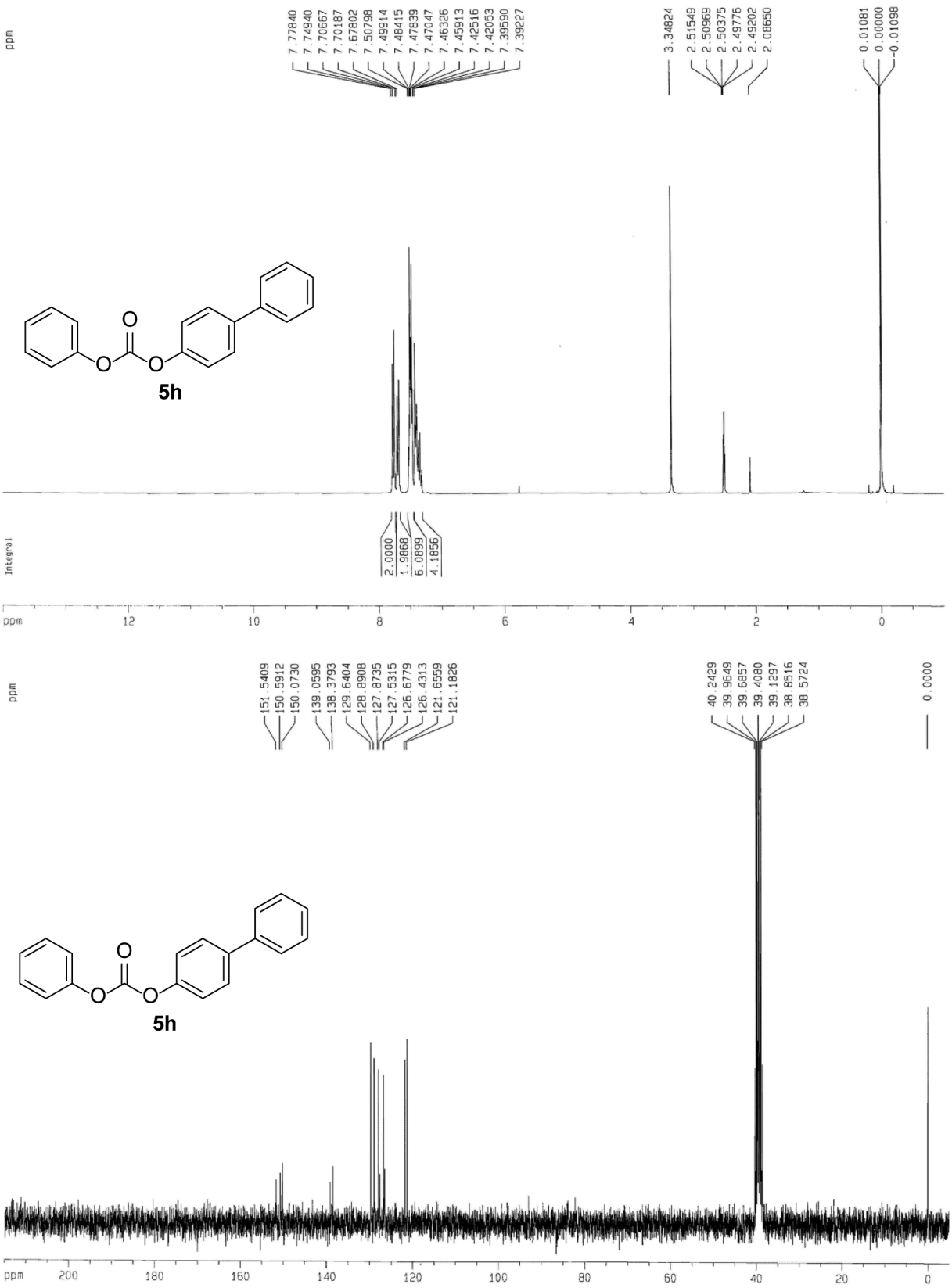

Figure 15. ^{1}H(top) and ^{13}C NMR(bottom) spectra in DMSO-d_6 of compound **5h**.

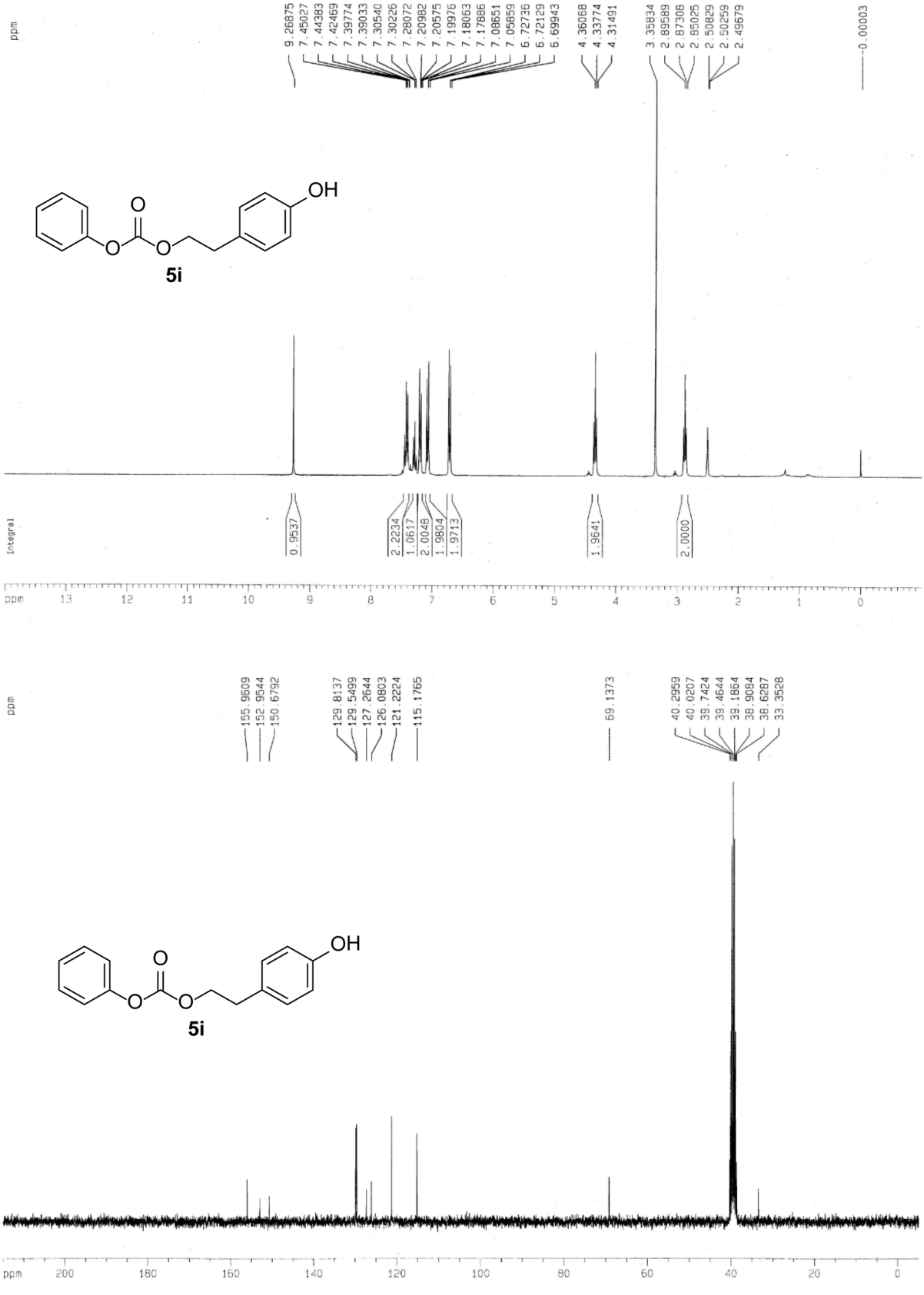

Figure 16. ^{1}H(top) and ^{13}C NMR(bottom) spectra in DMSO-d_6 of compound **5i**.

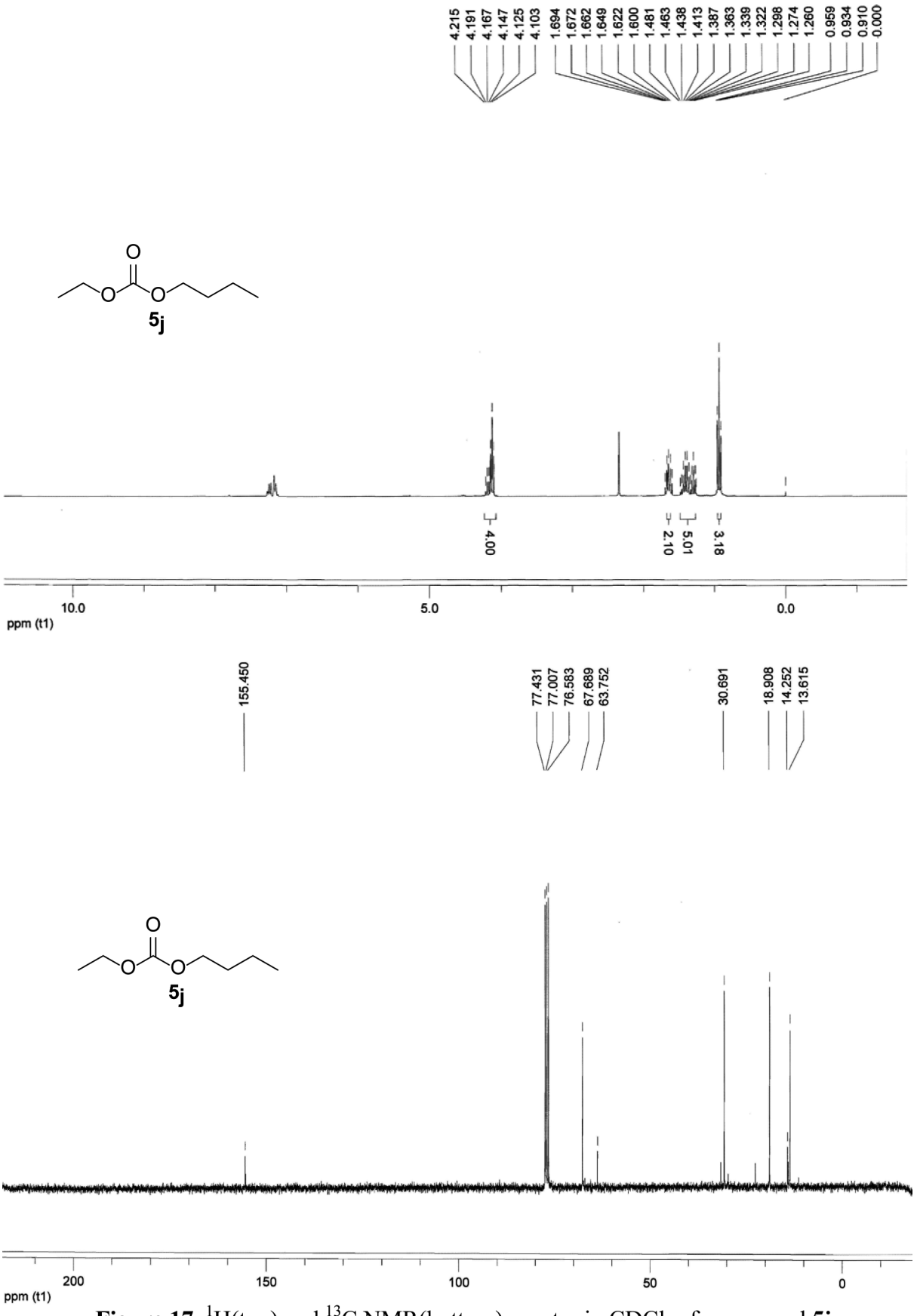

Figure 17. ^{1}H(top) and ^{13}C NMR(bottom) spectra in $CDCl_3$ of compound **5j**.

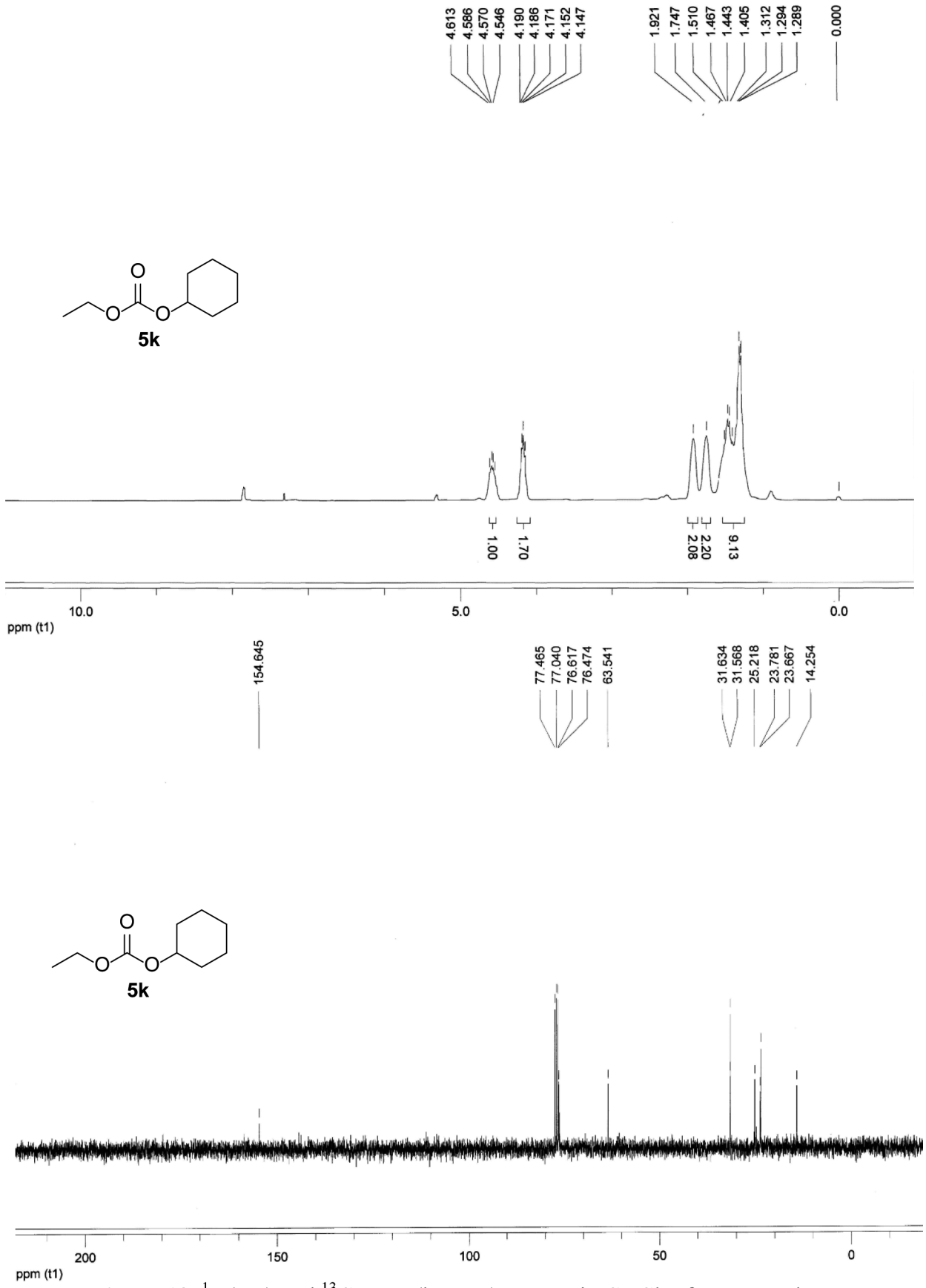

Figure 18. ^{1}H(top) and ^{13}C NMR(bottom) spectra in $CDCl_3$ of compound **5k**.

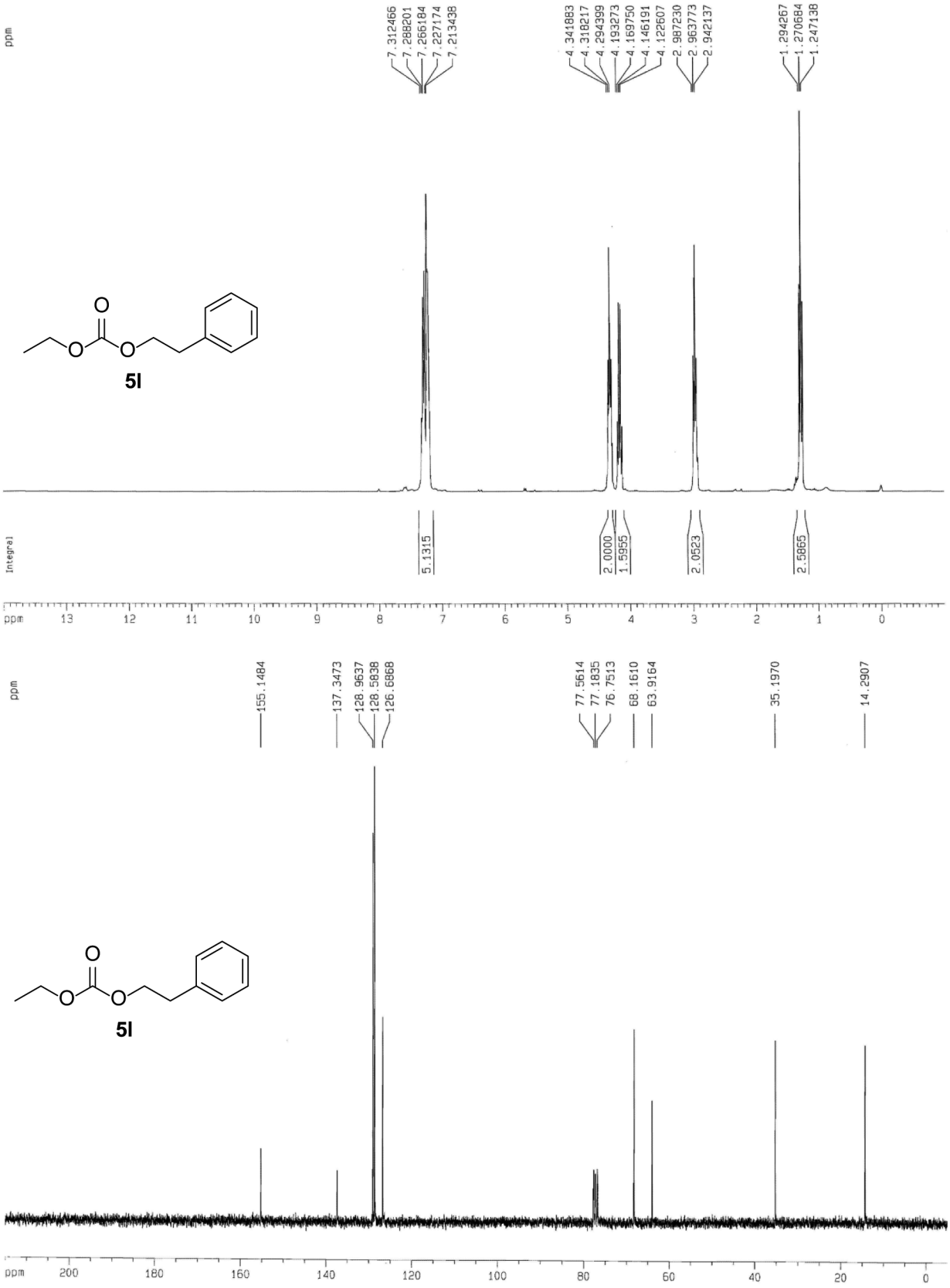

Figure 19. ^{1}H(top) and ^{13}C NMR(bottom) spectra in $CDCl_3$ of compound **5l**.

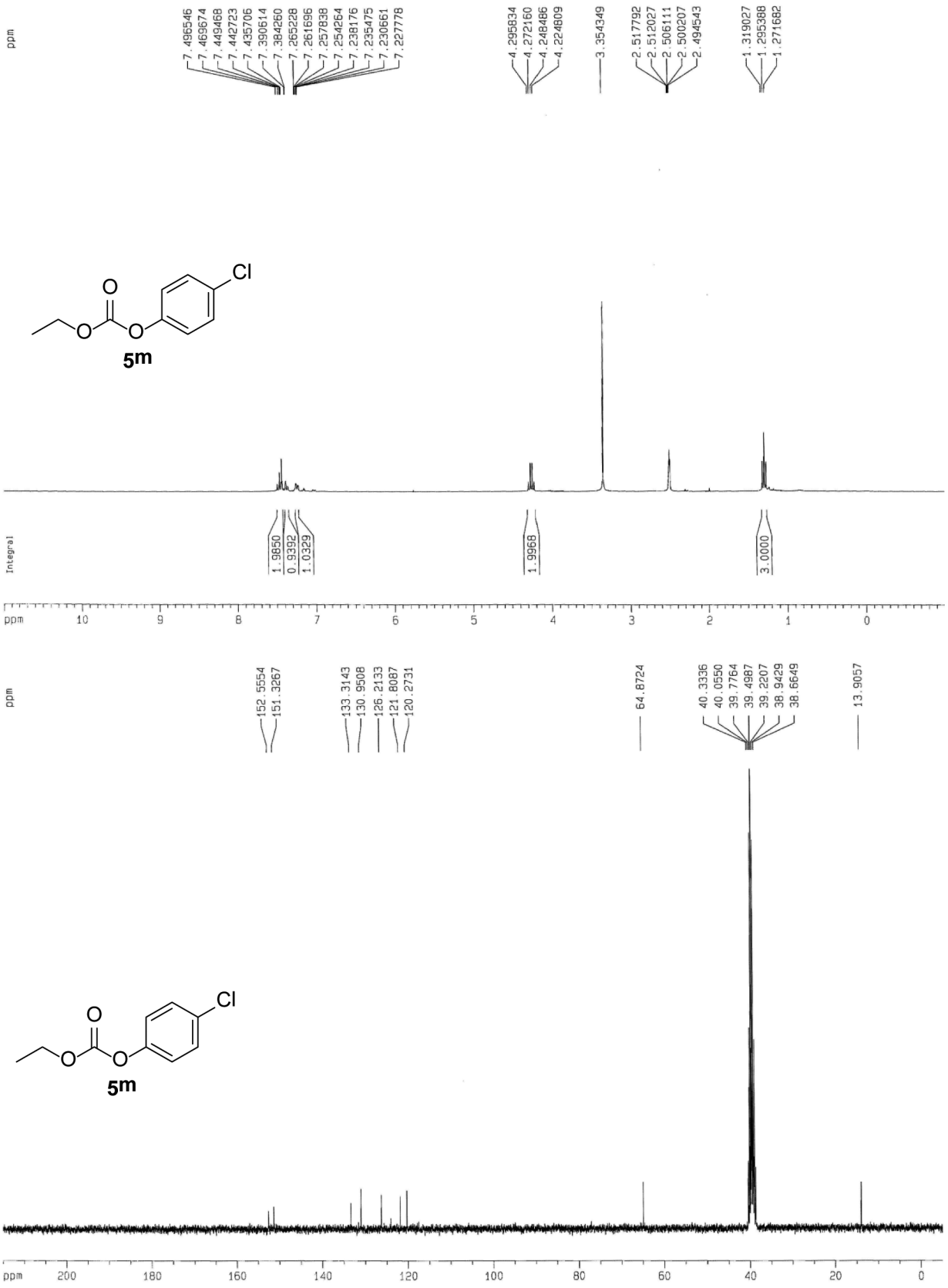

Figure 20. ^{1}H(top) and ^{13}C NMR(bottom) spectra in DMSO-d_6 of compound **5m**.

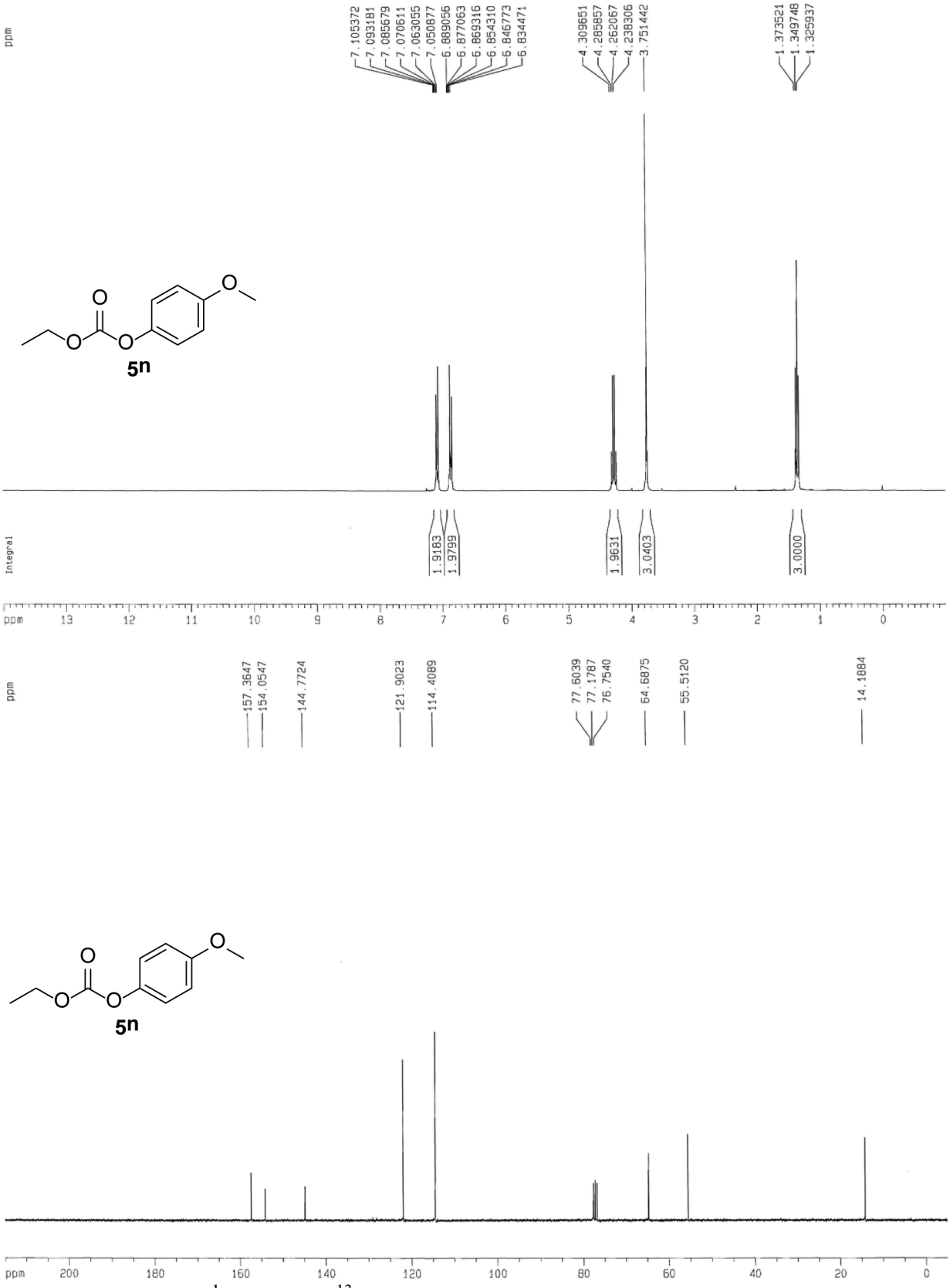

Figure 21. ^{1}H(top) and ^{13}C NMR(bottom) spectra in $CDCl_3$ of compound **5n**.

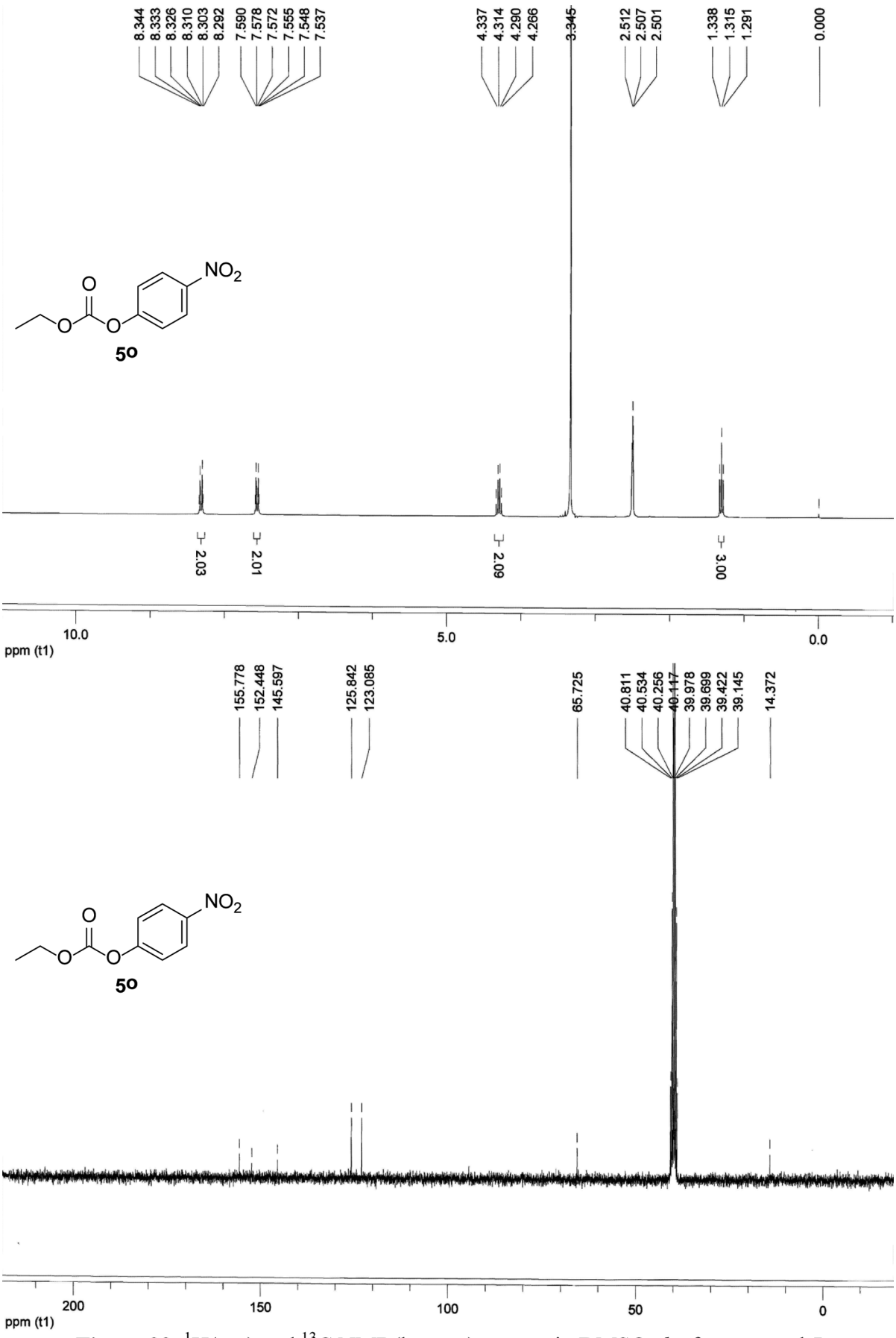

Figure 22. ^{1}H(top) and ^{13}C NMR(bottom) spectra in DMSO-d_6 of compound **5o**.

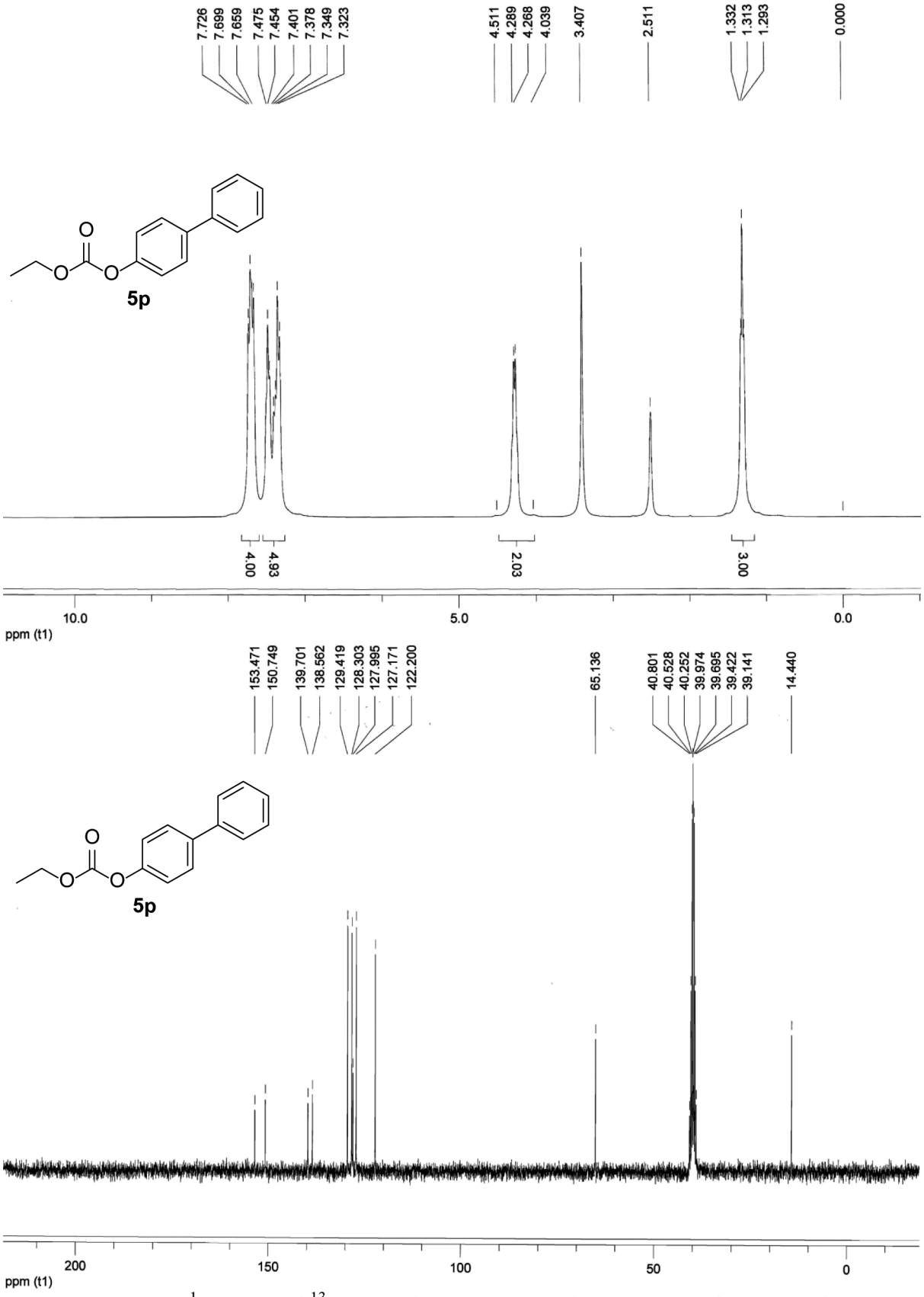

Figure 23. ^{1}H(top) and ^{13}C NMR(bottom) spectra in DMSO-d_6 of compound **5p**.

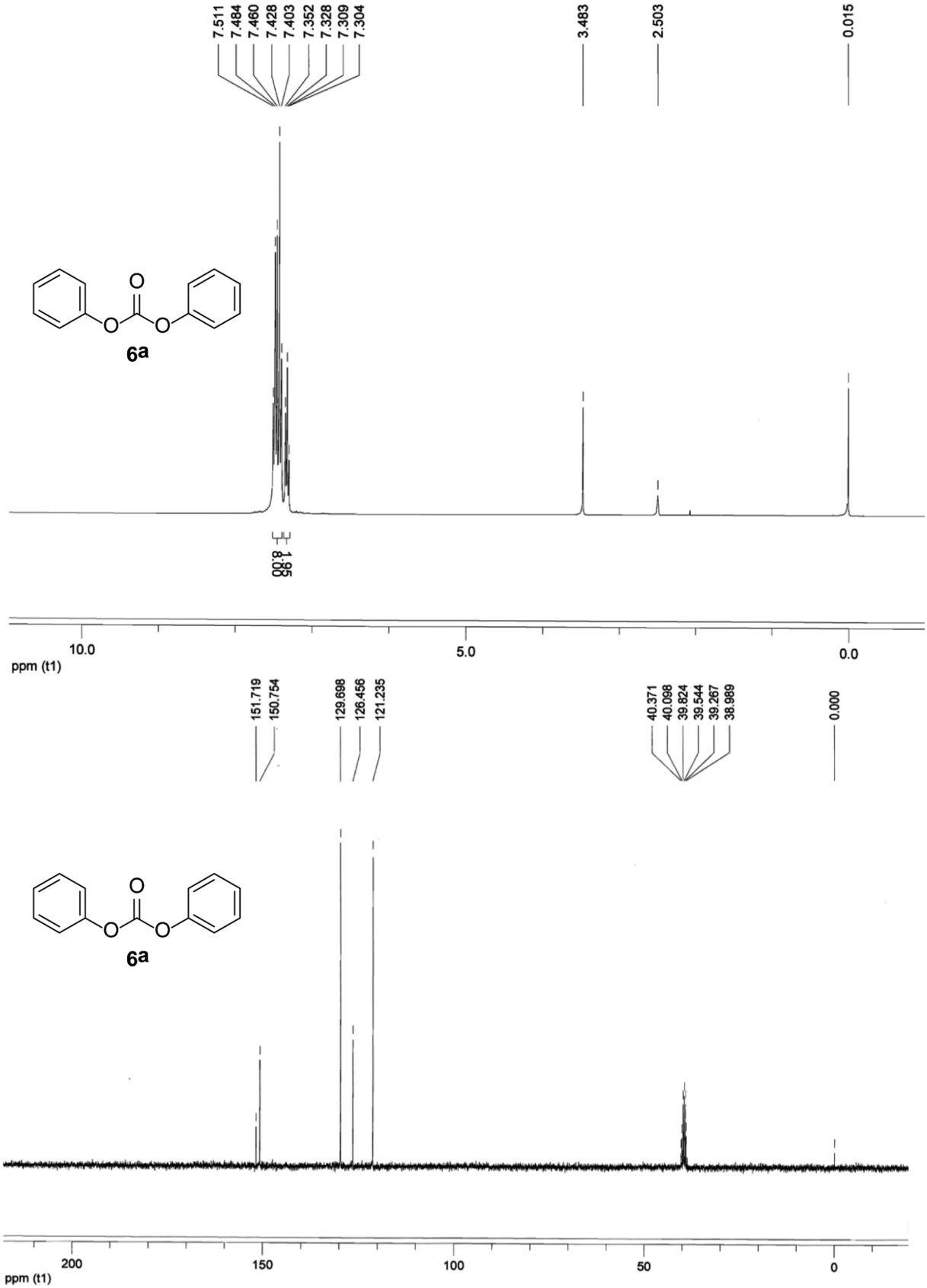

Figure 24. ^{1}H(top) and ^{13}C NMR(bottom) spectra in DMSO-d_6 of compound **6a**.

Figure 25. ^{1}H(top) and ^{13}C NMR(bottom) spectra in $CDCl_3$ of compound **6b**.

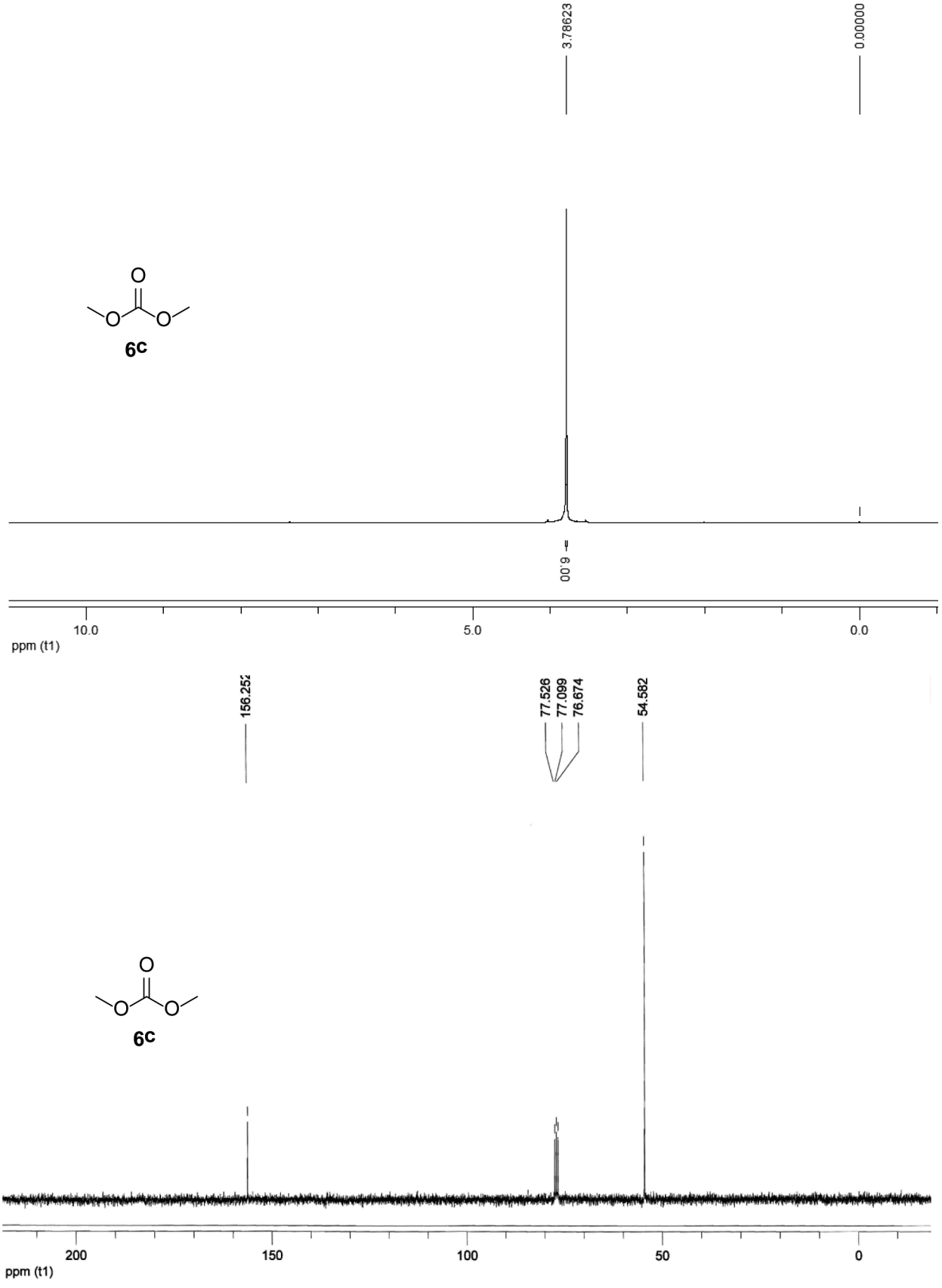

Figure 26. ^{1}H(top) and ^{13}C NMR(bottom) spectra in $CDCl_3$ of compound **6c**.

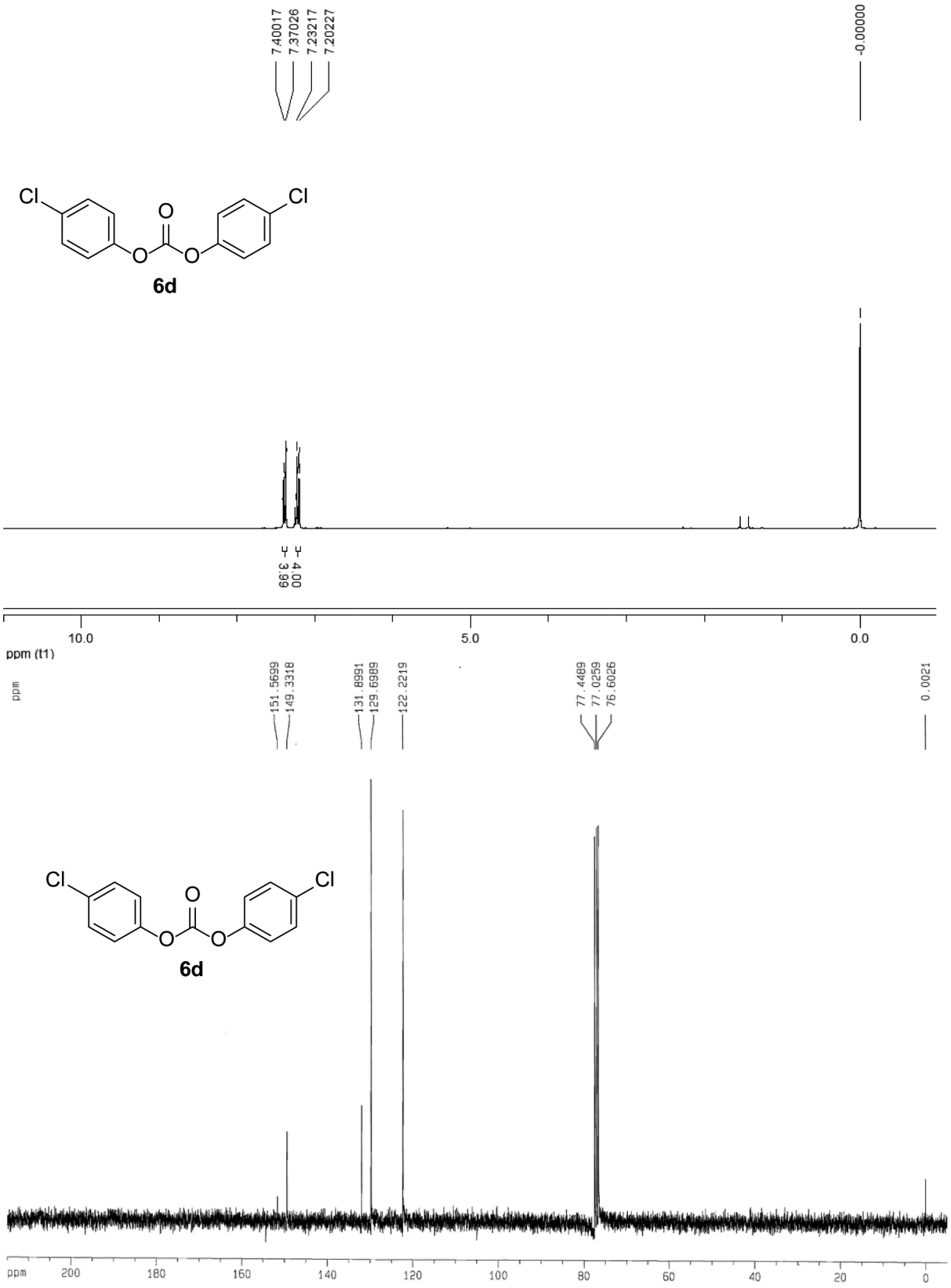

Figure 27. ^{1}H(top) and ^{13}C NMR(bottom) spectra in $CDCl_3$ of compound **6d**.

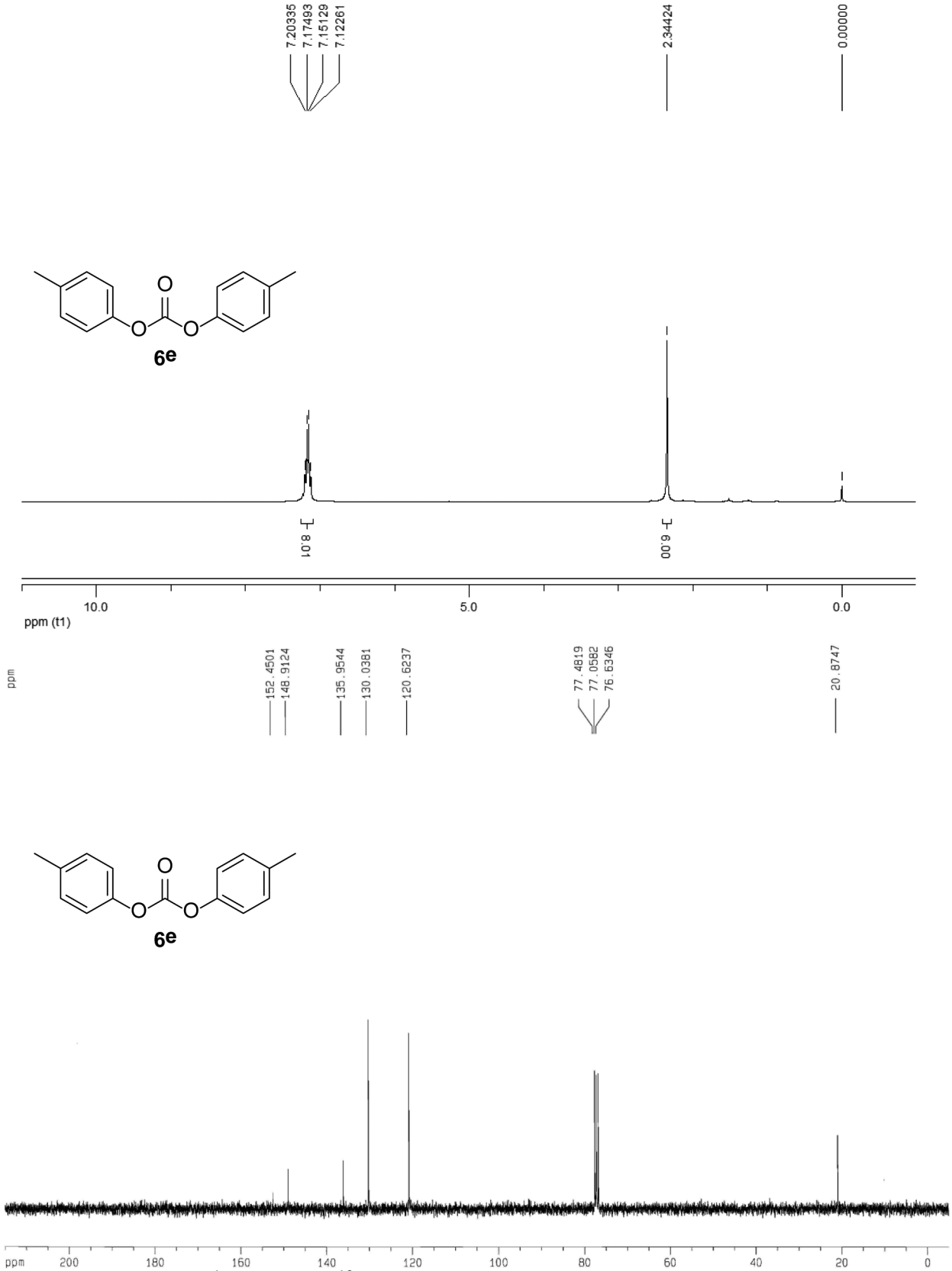

Figure 28. ^{1}H(top) and ^{13}C NMR(bottom) spectra in $CDCl_3$ of compound **6e.**

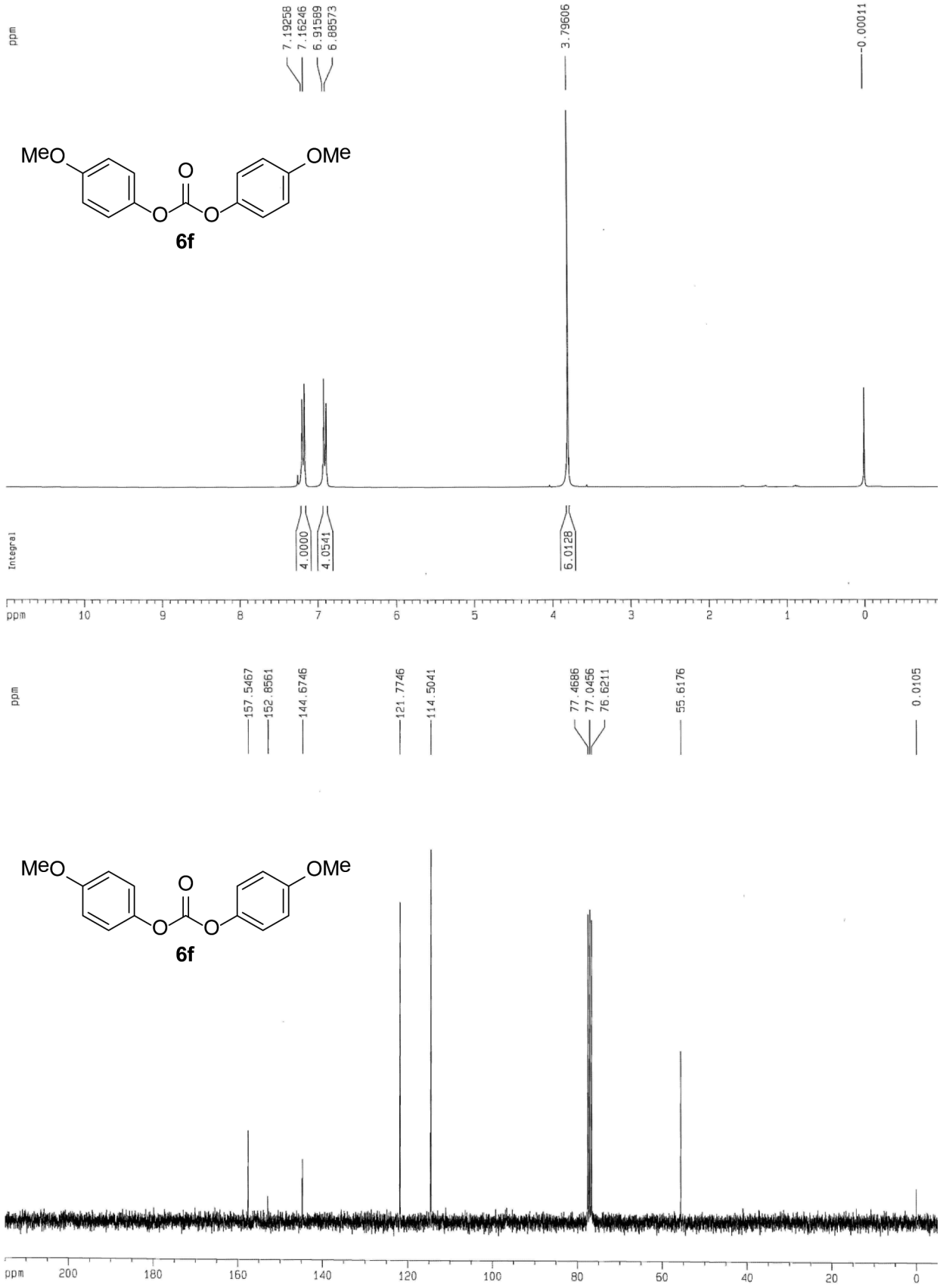

Figure 29. ^{1}H(top) and ^{13}C NMR(bottom) spectra in $CDCl_3$ of compound **6f**.

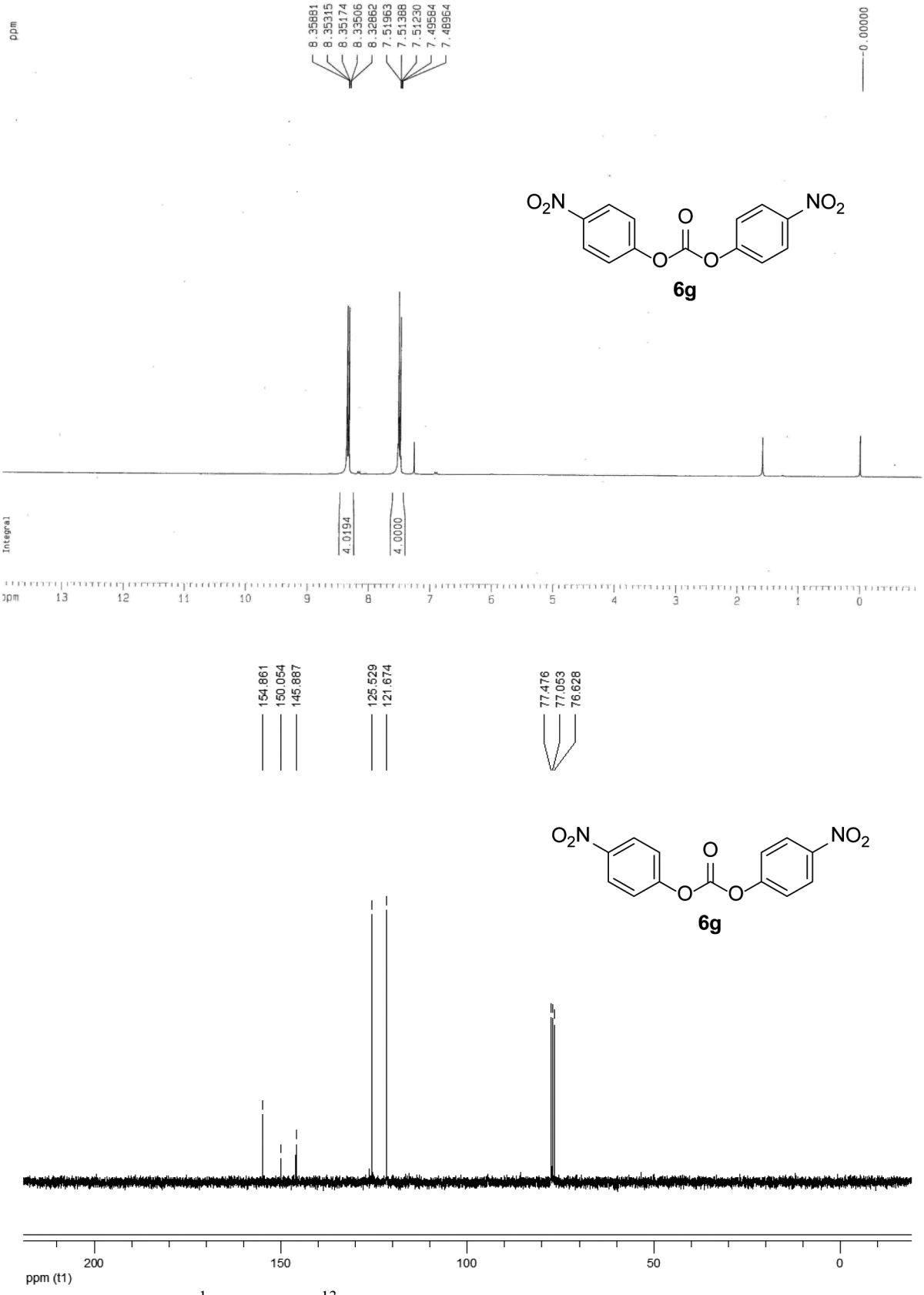

Figure 30. ^{1}H(top) and ^{13}C NMR(bottom) spectra in $CDCl_3$ of compound **6g**.