APPENDIX 2

Spectra Relevant to Chapter 1:

Evolving Strategies Toward the Synthesis of Curcusone C

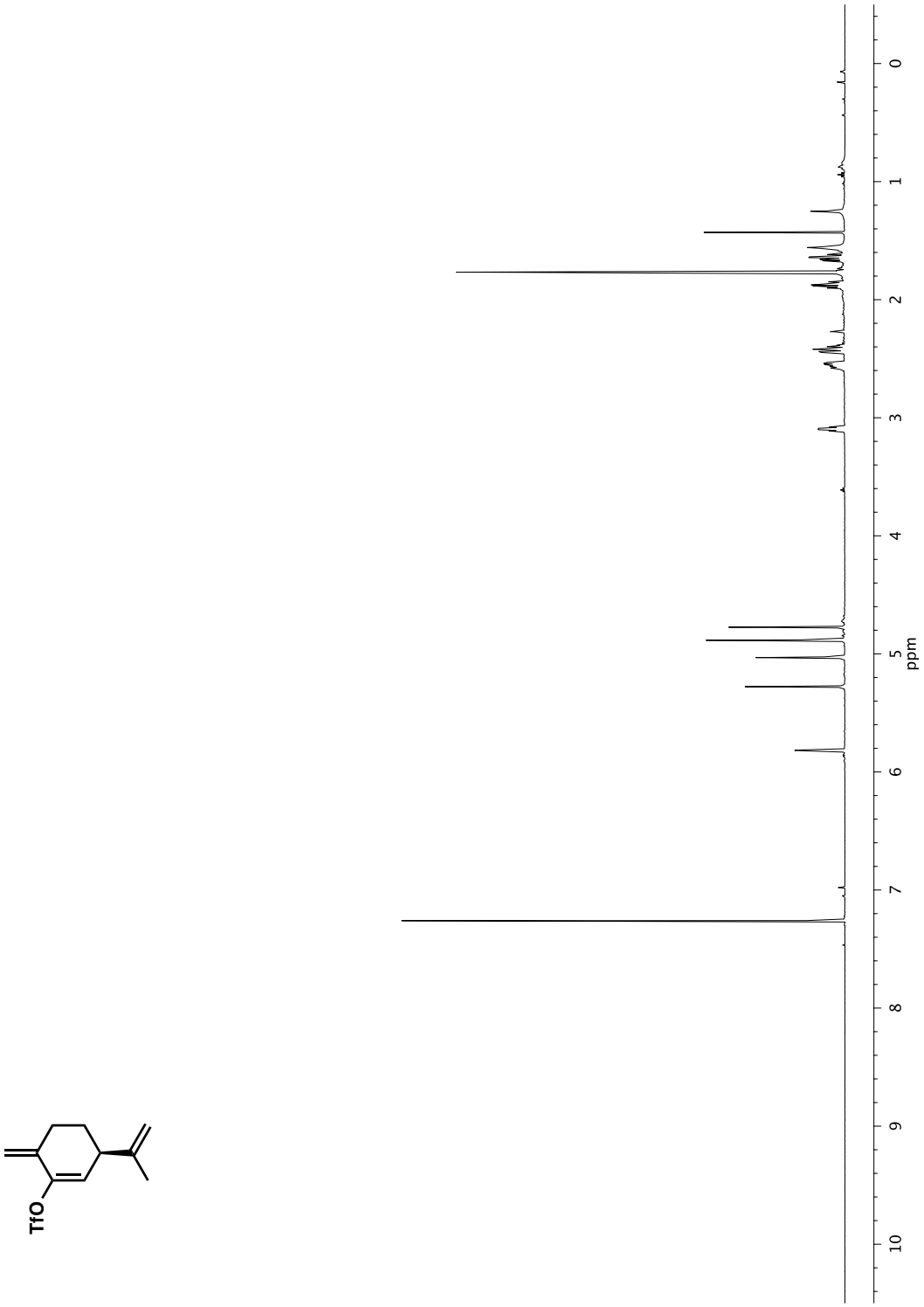

Figure A2.1 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **28**

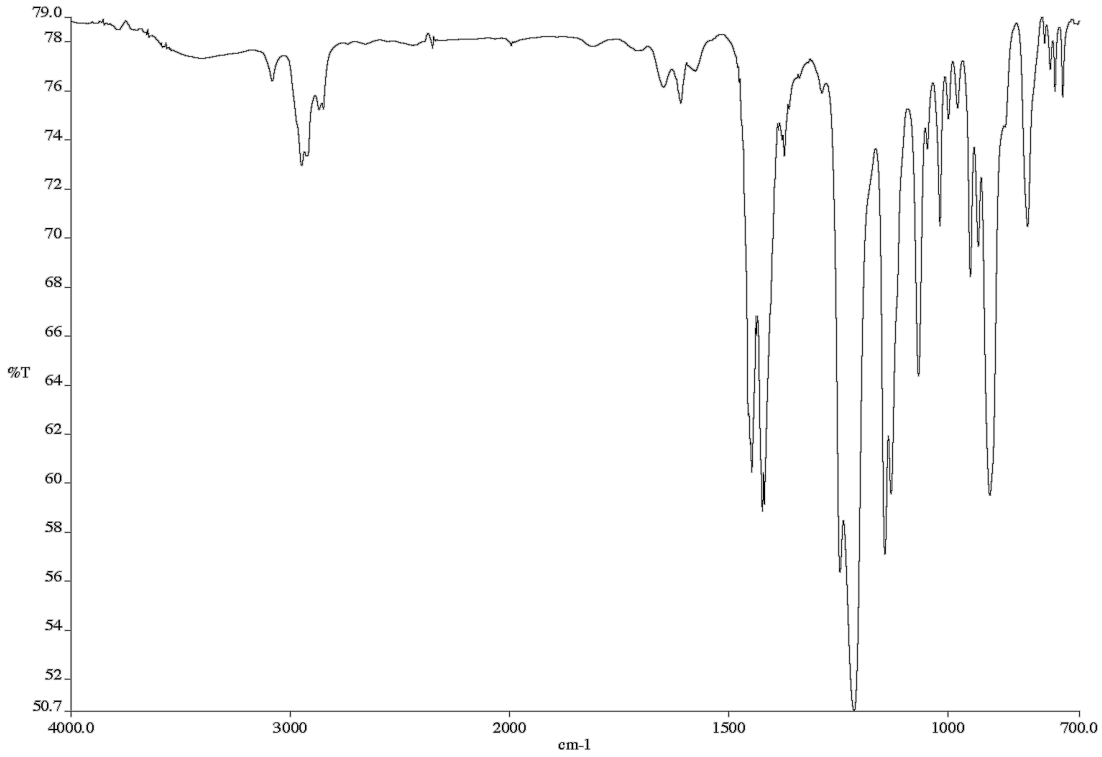

Figure A2.2 Infrared spectrum (Thin Film, NaCl) of compound **28**

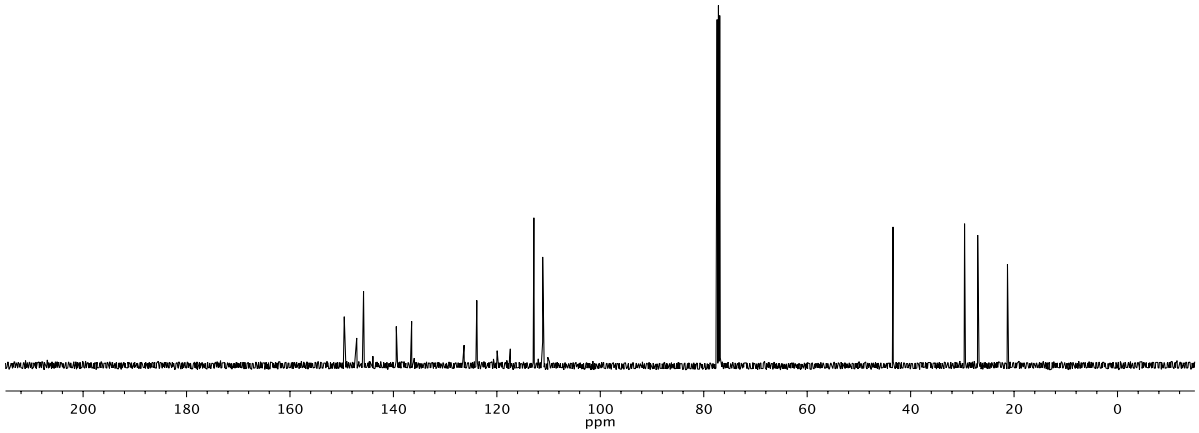

Figure A2.3 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **28**

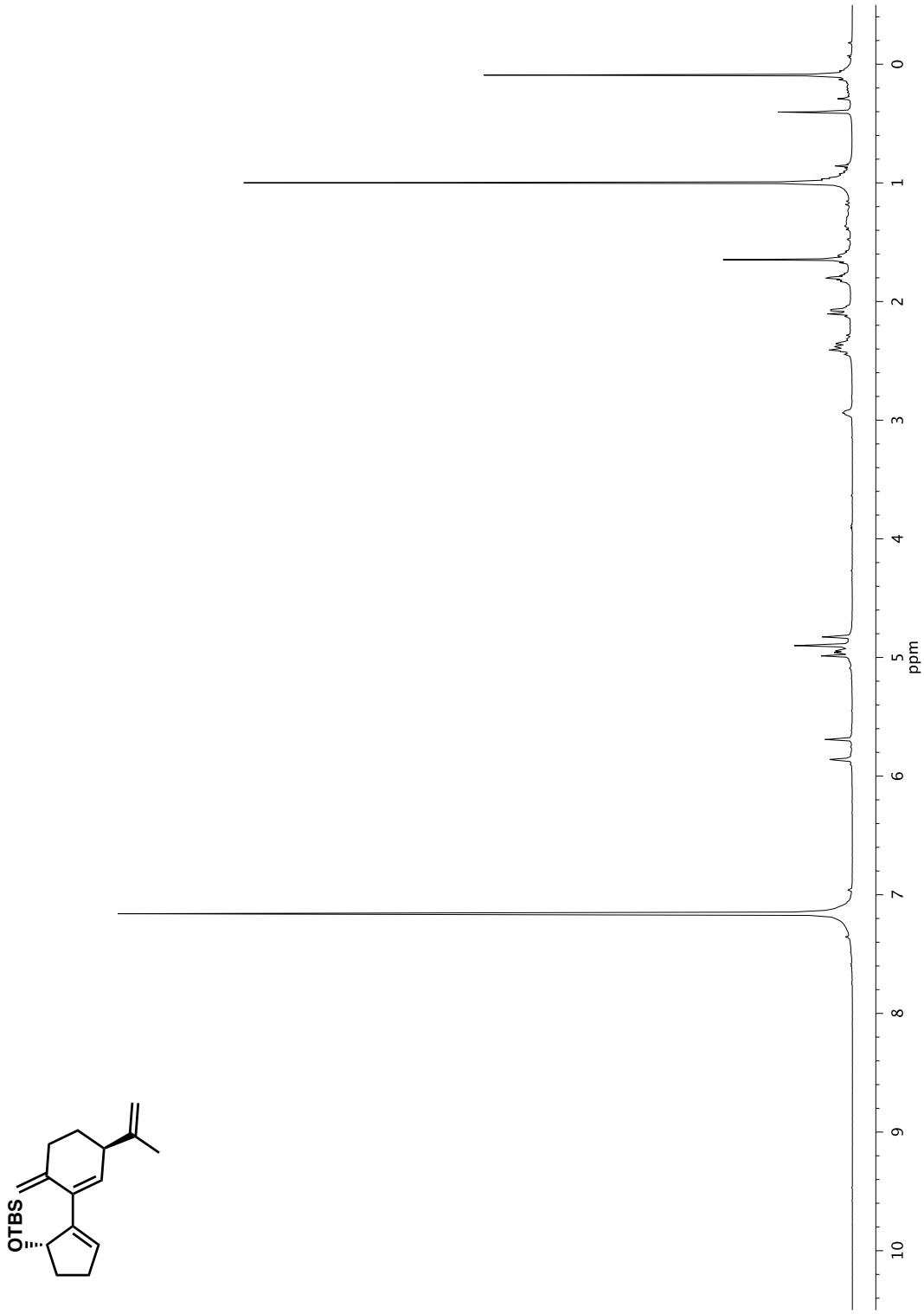

Figure A2.4 ^{1}H NMR (400 MHz, $CDCl_3$) of compound **31**

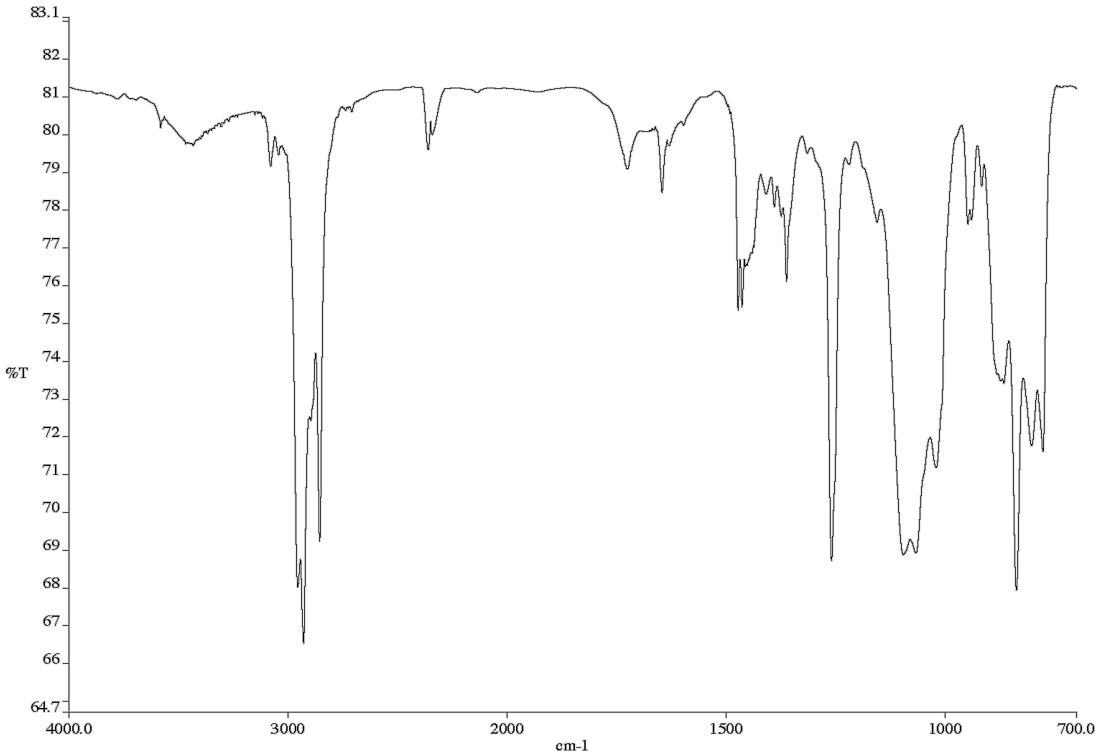

Figure A2.5 Infrared spectrum (Thin Film, NaCl) of compound **31**

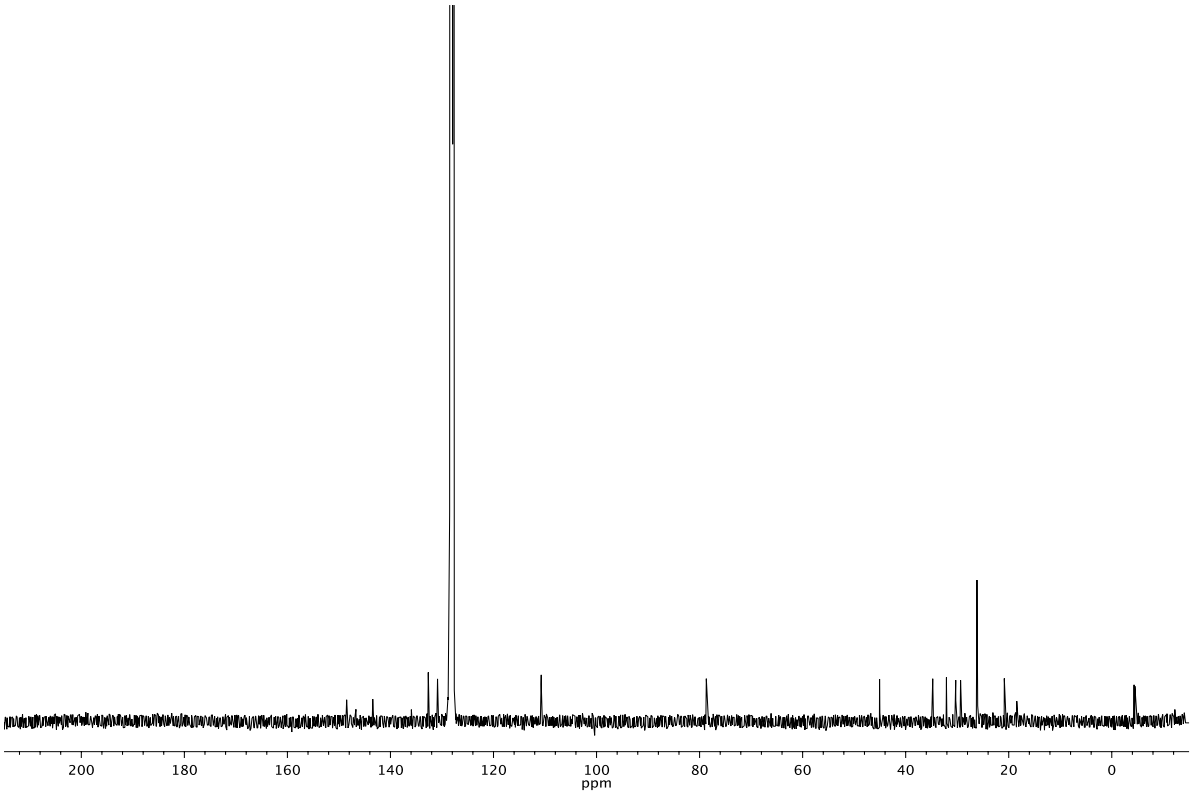

Figure A2.6 ^{13}C NMR (101 MHz, C_6D_6) of compound **31**

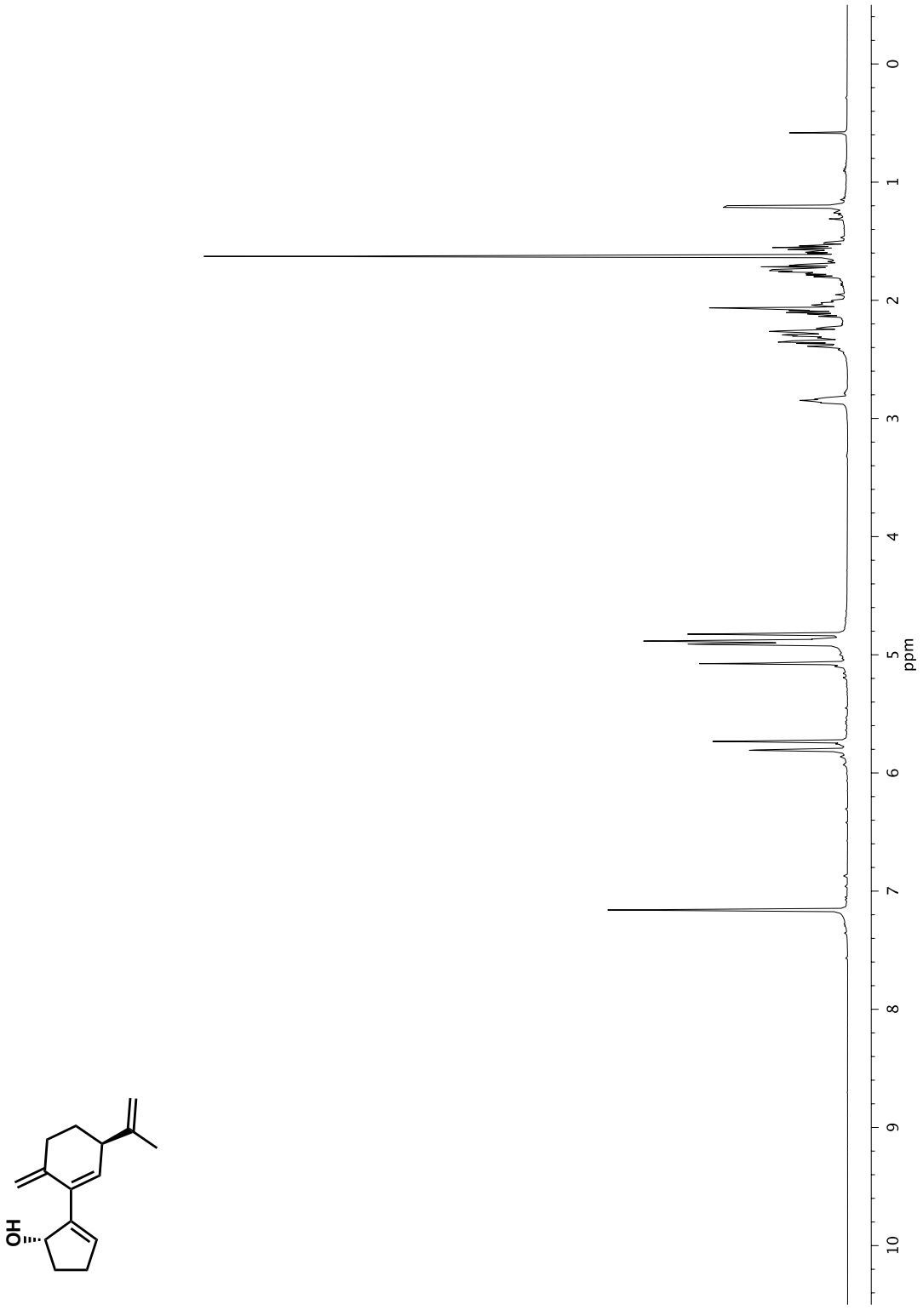

Figure A2.7 ^{1}H NMR (400 MHz, C_6D_6) of compound **87**

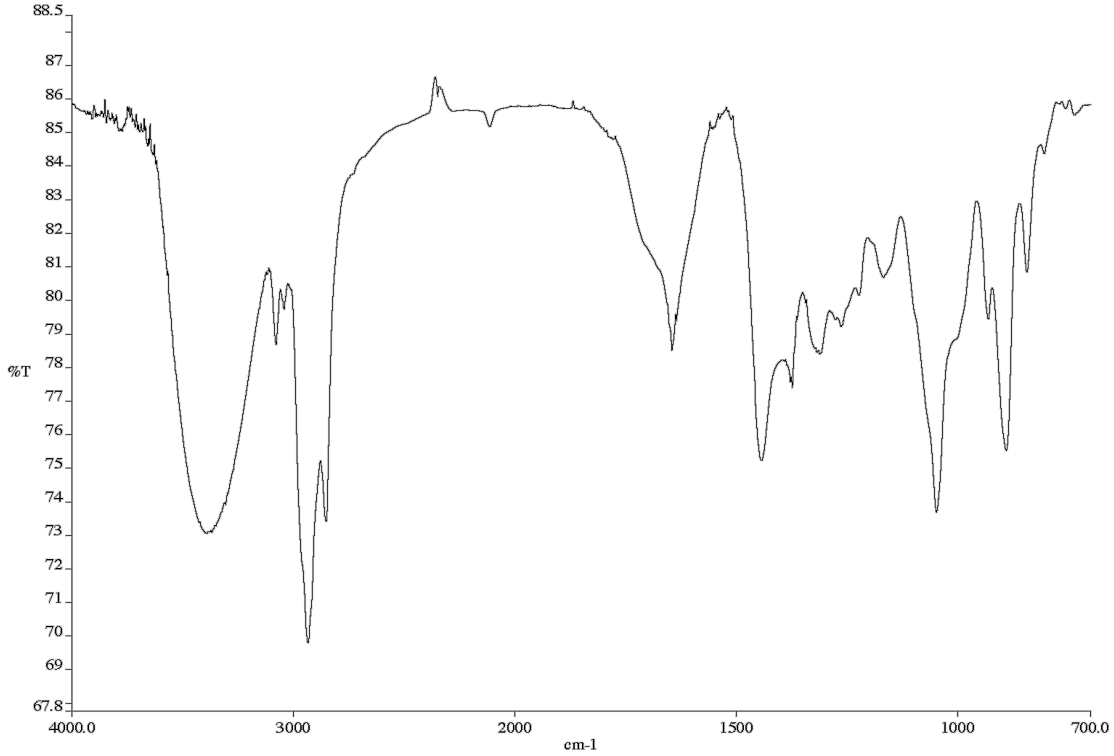

Figure A2.8 Infrared spectrum (Thin Film, NaCl) of compound **87**

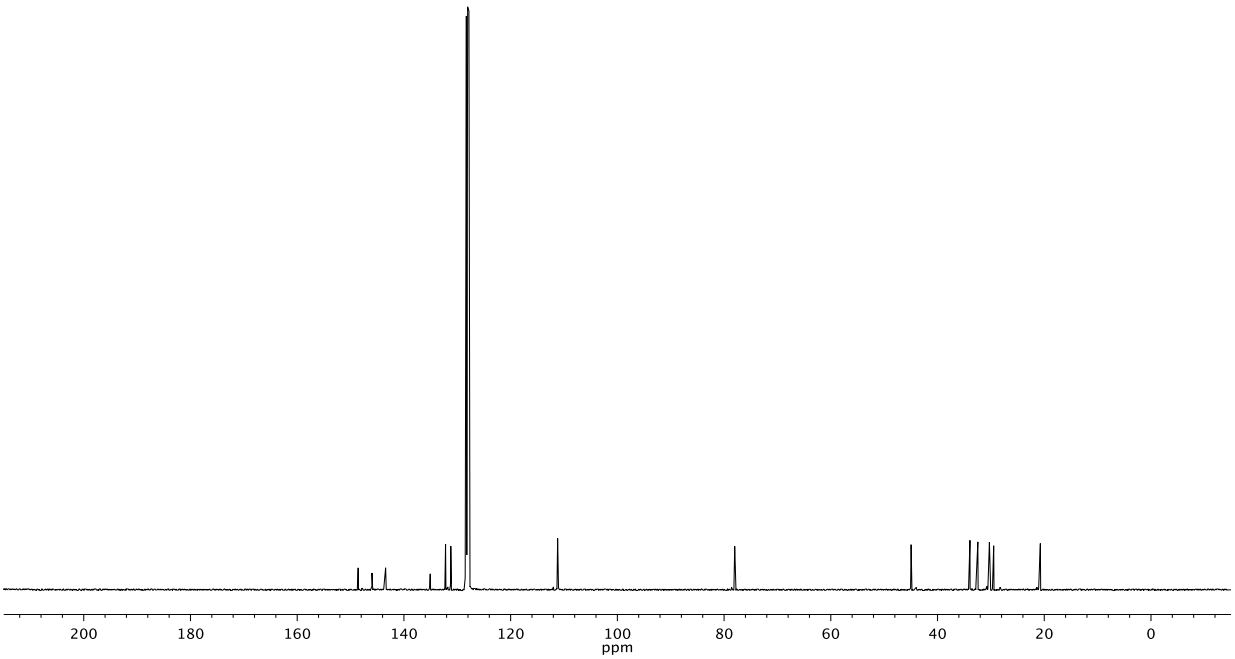

Figure A2.9 ^{13}C NMR (101 MHz, C_6D_6) of compound **87**

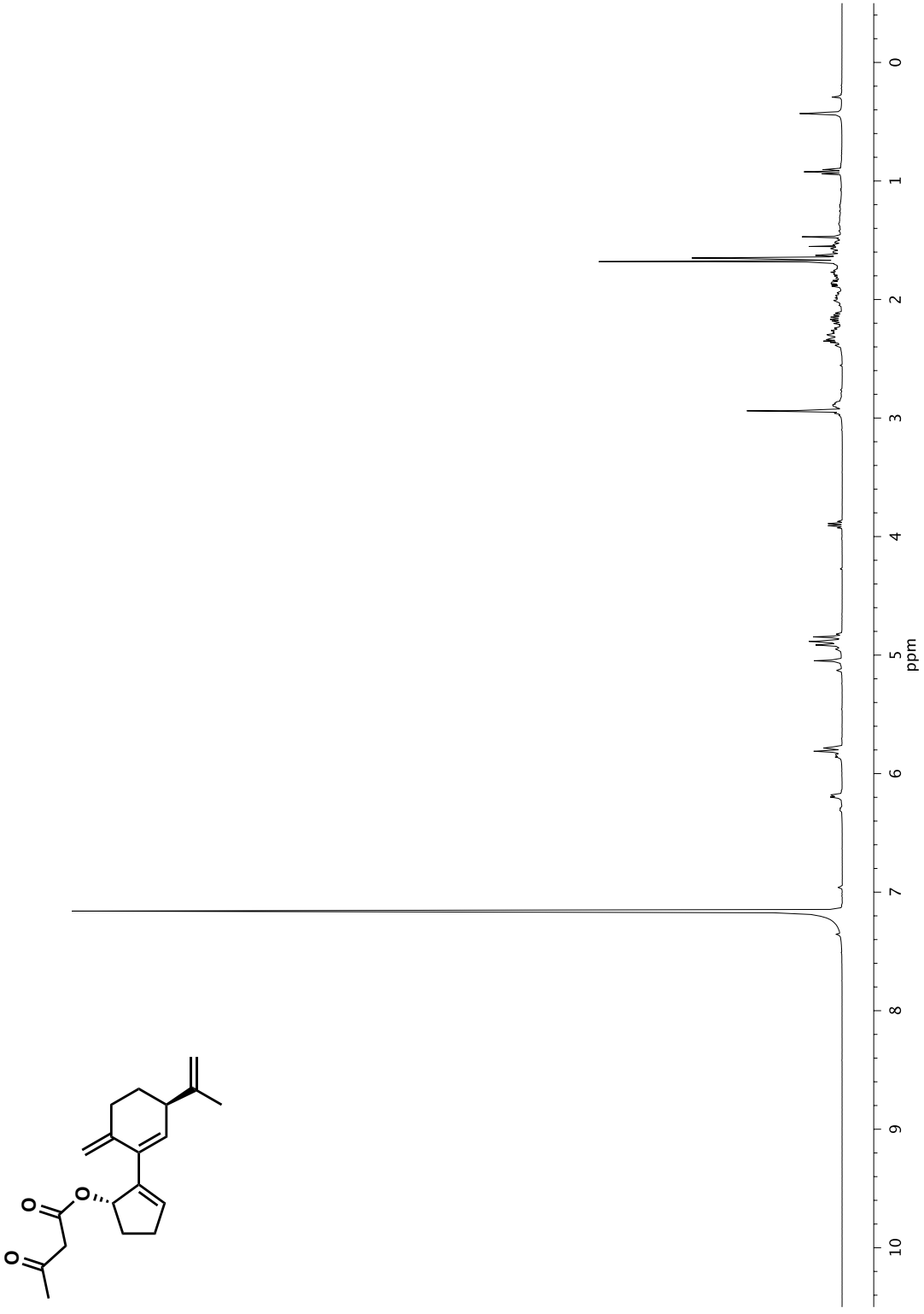

Figure A2.10 ^{1}H NMR (400 MHz, C_6D_6) of compound **33**

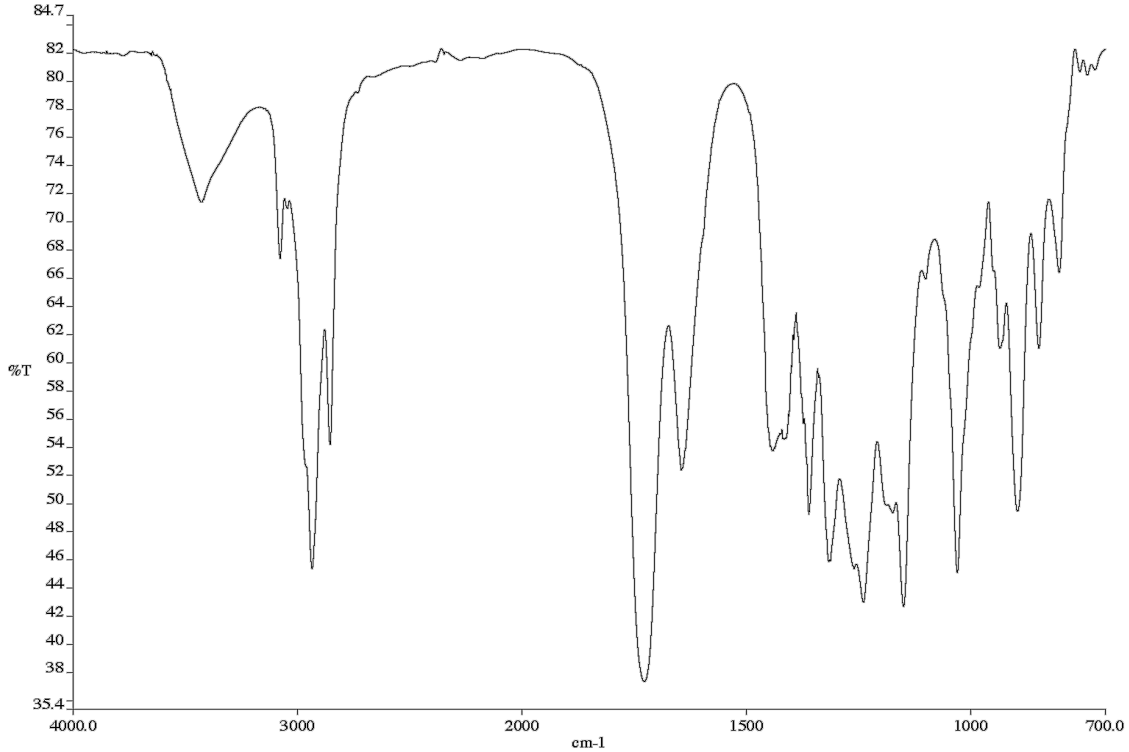

Figure A2.11 Infrared spectrum (Thin Film, NaCl) of compound **33**

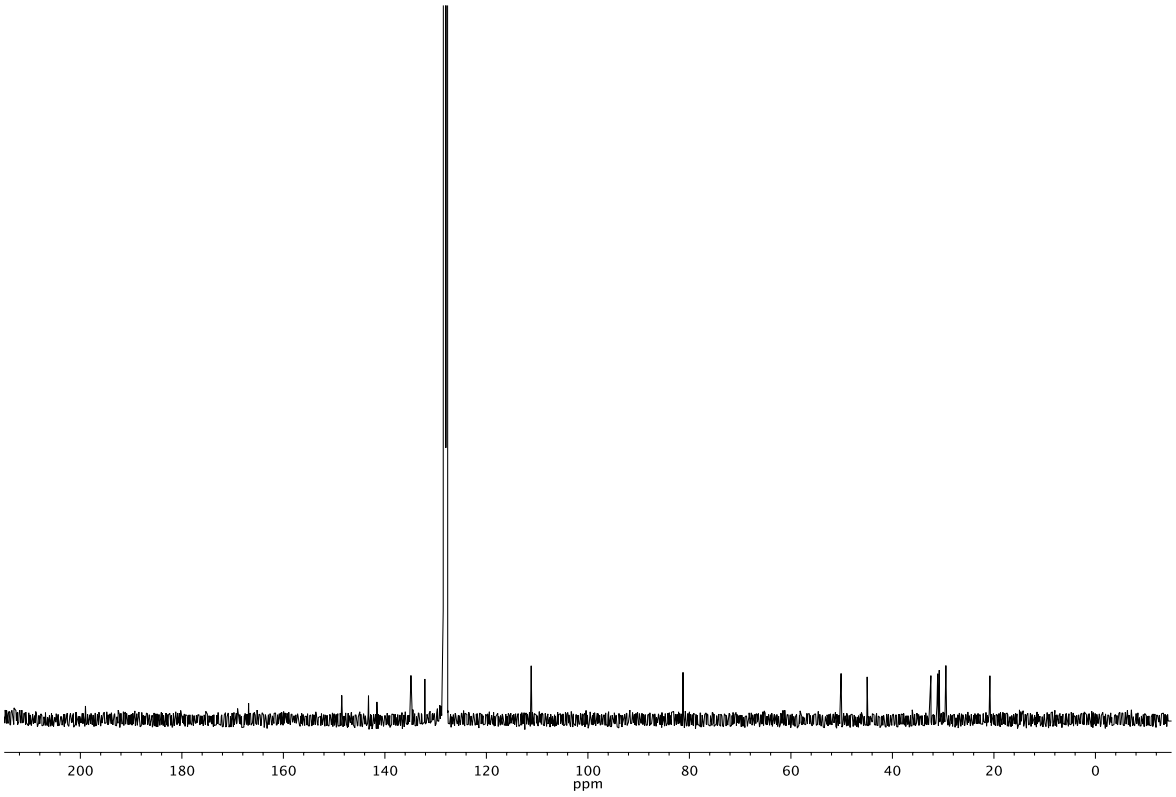

Figure A2.12 ^{13}C NMR (101 MHz, $CDCl_3$) of compound **33**

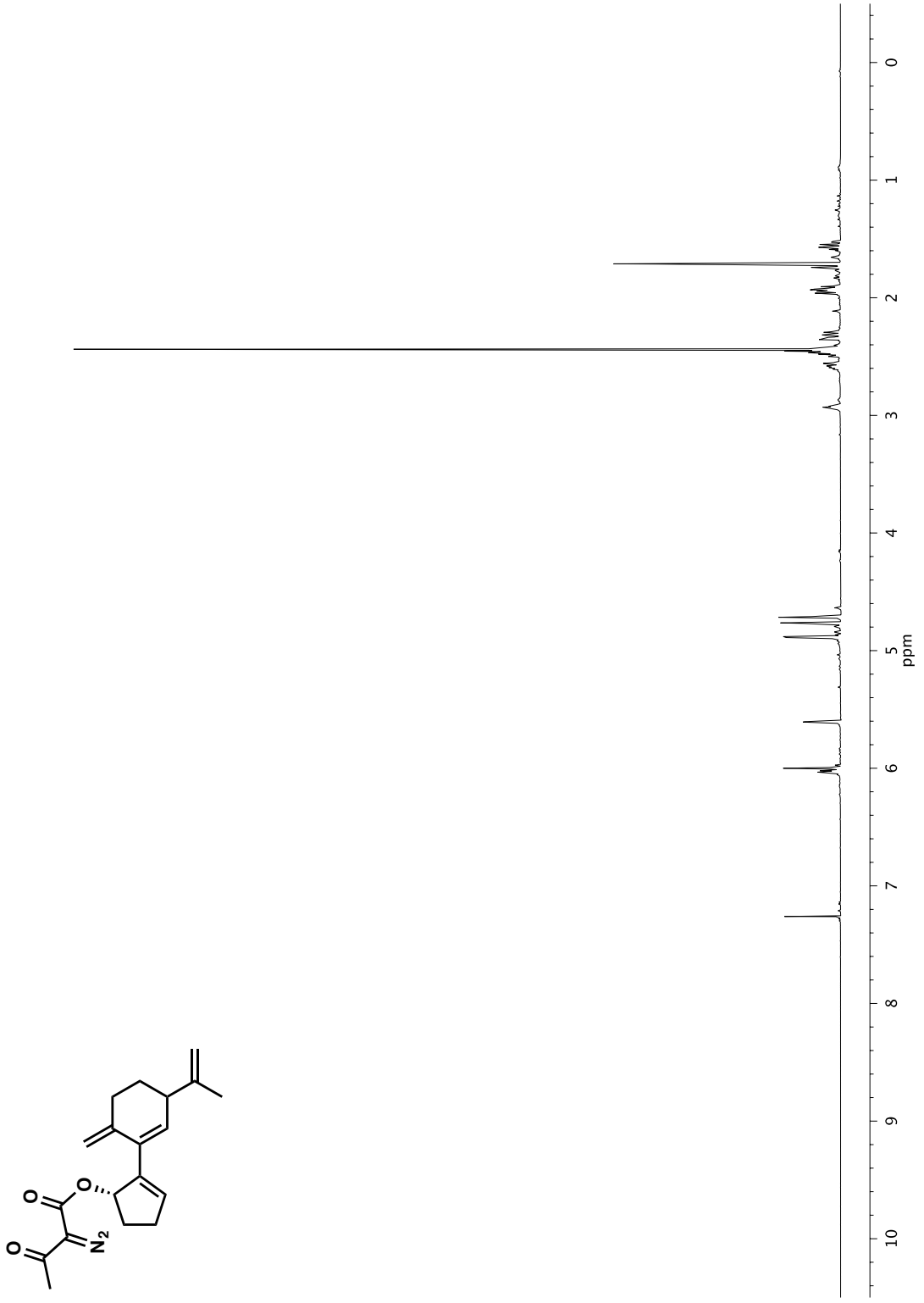

Figure A2.13 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **34**

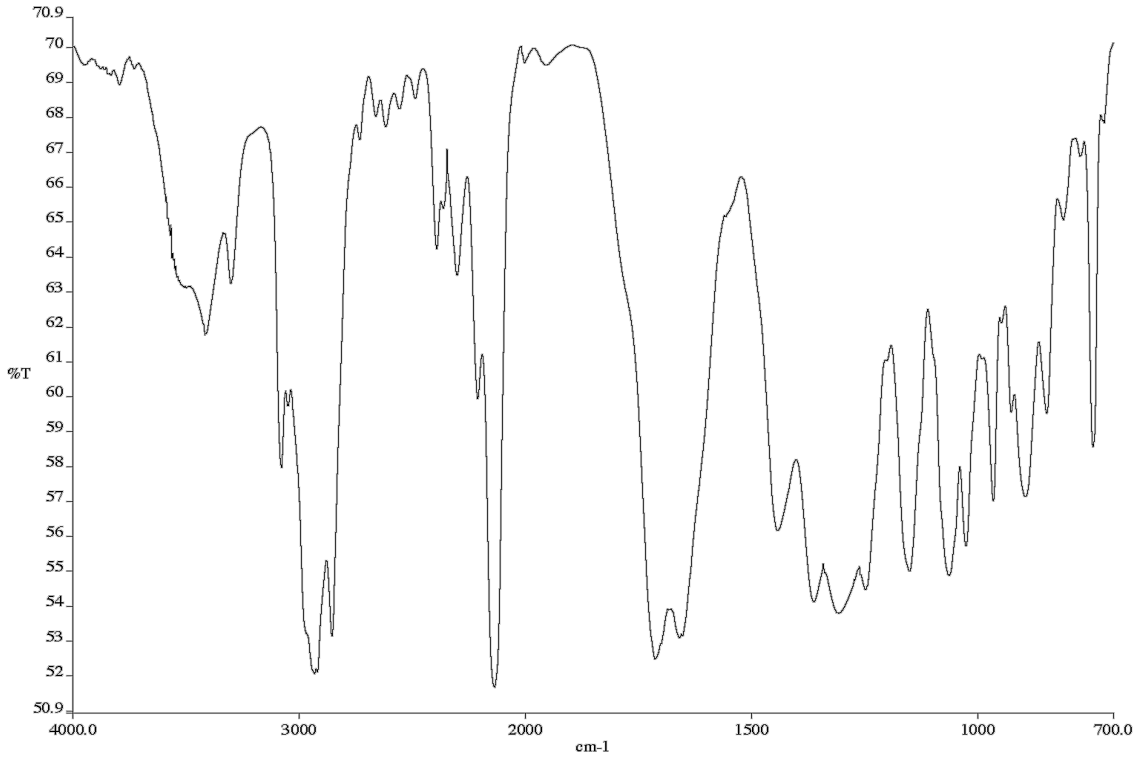

Figure A2.14 Infrared spectrum (Thin Film, NaCl) of compound **34**

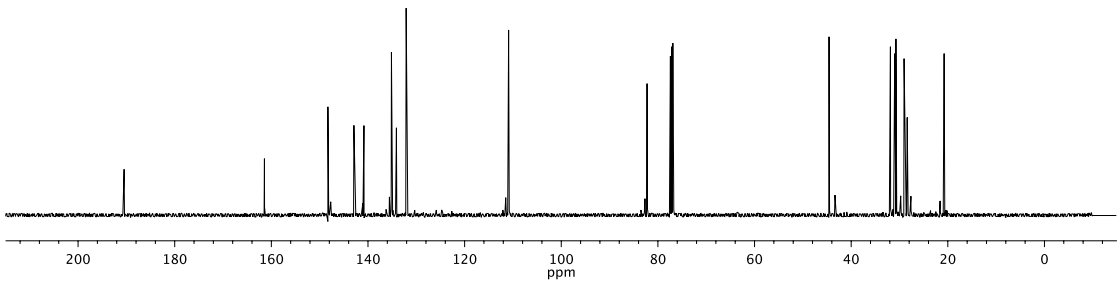

Figure A2.15 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **34**

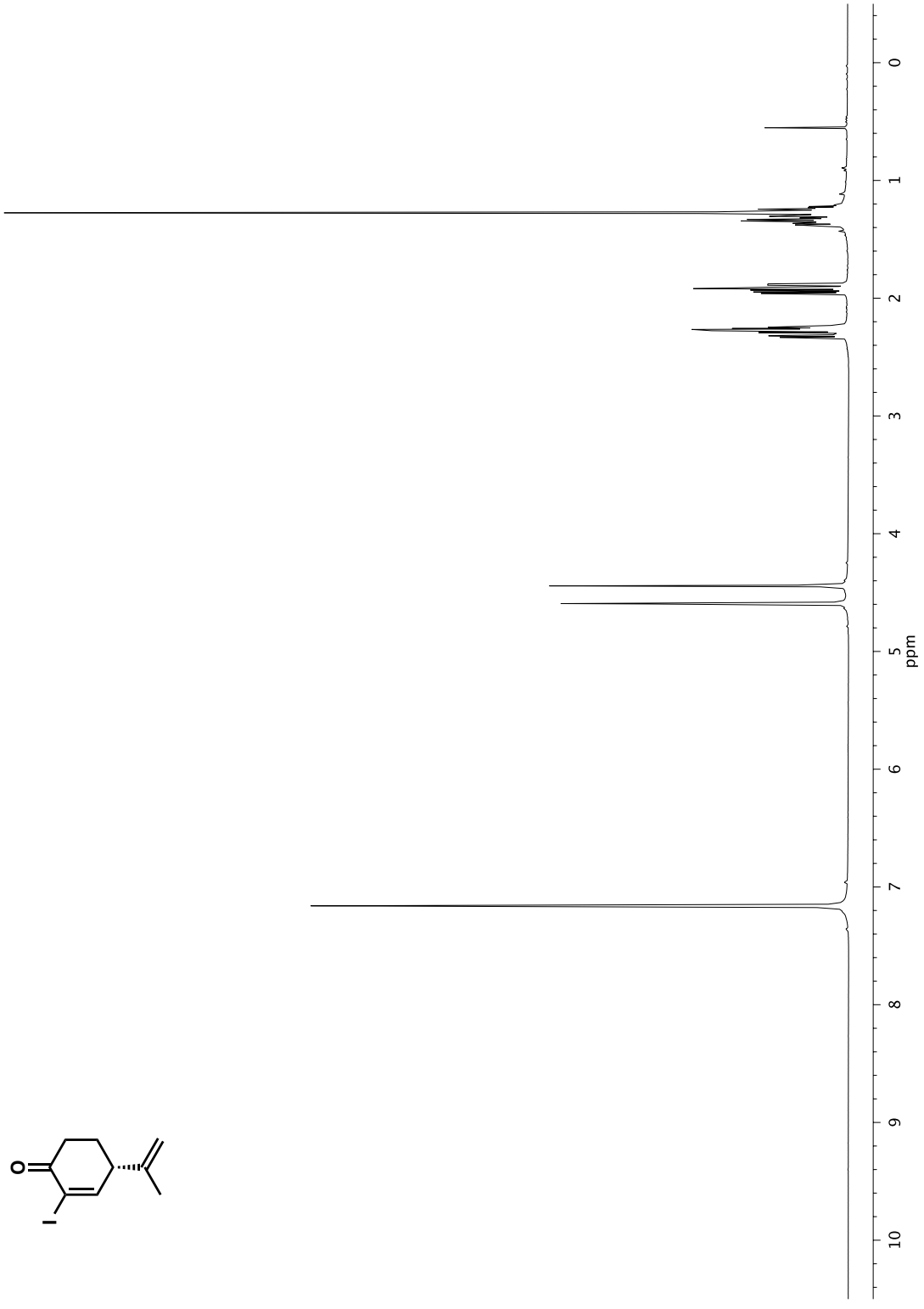

Figure A2.16 ^{1}H NMR (400 MHz, C_6D_6) of compound **38**

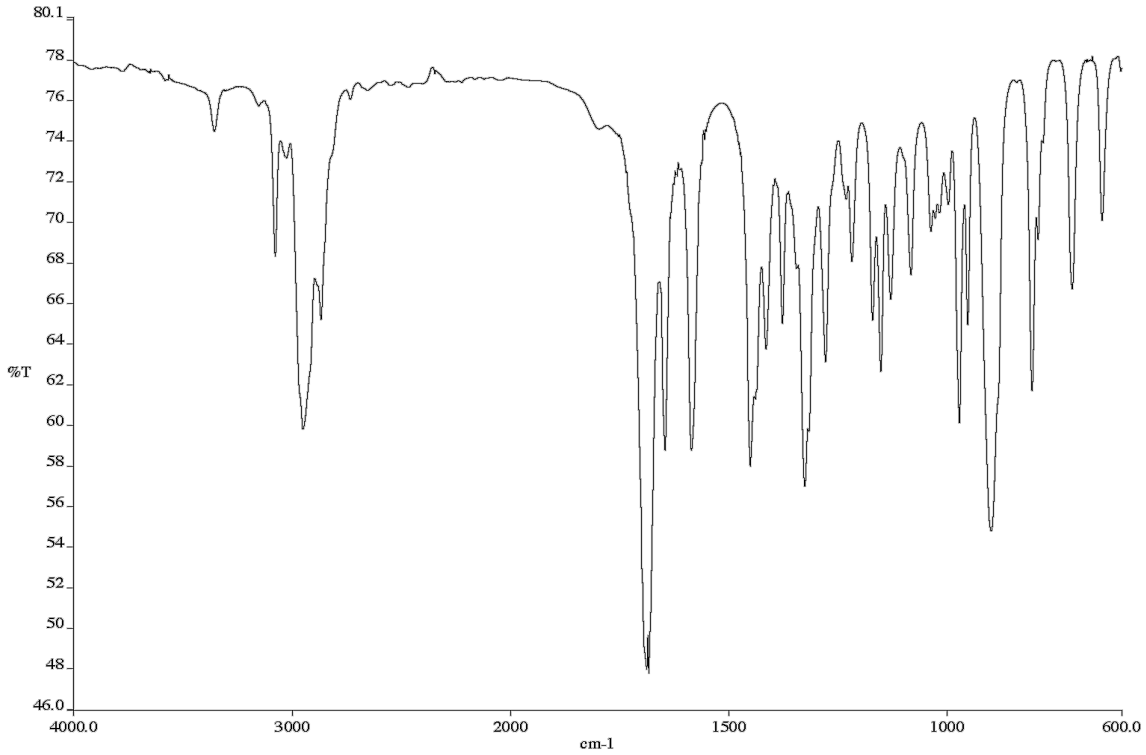

Figure A2.17 Infrared spectrum (Thin Film, NaCl) of compound **38**

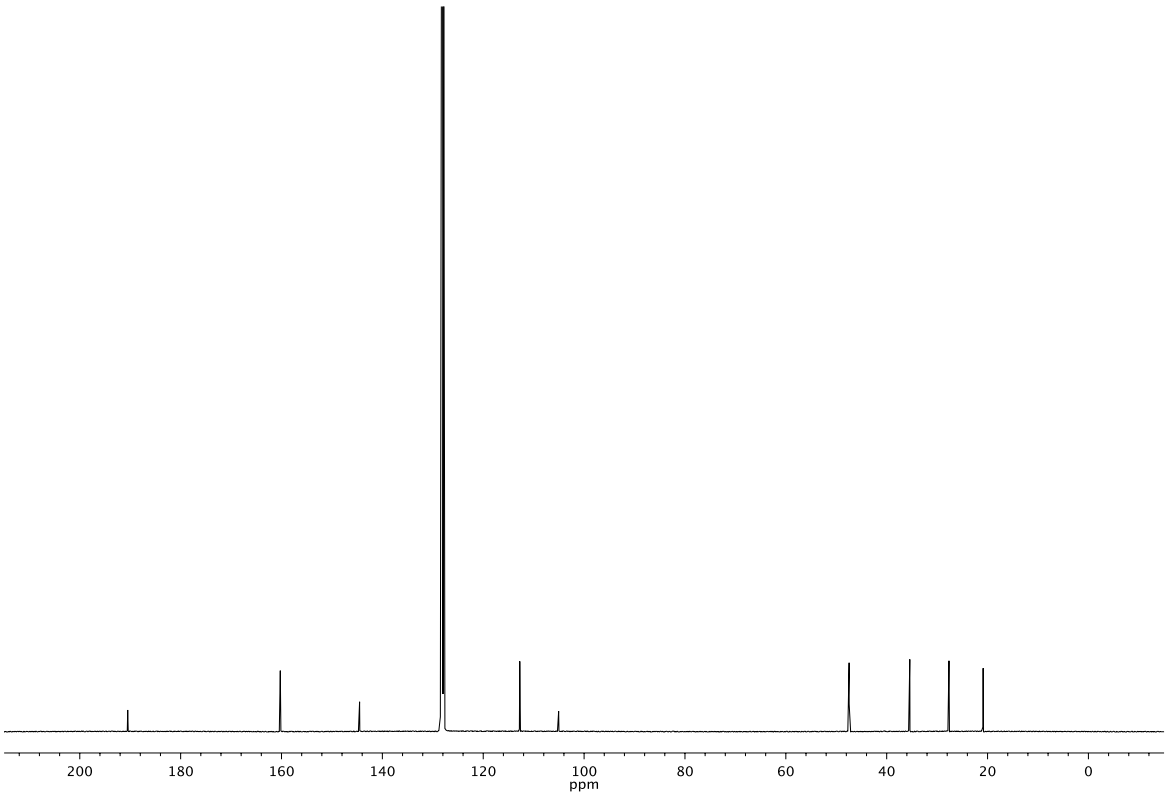

Figure A2.18 ^{13}C NMR (101 MHz, C_6D_6) of compound **38**

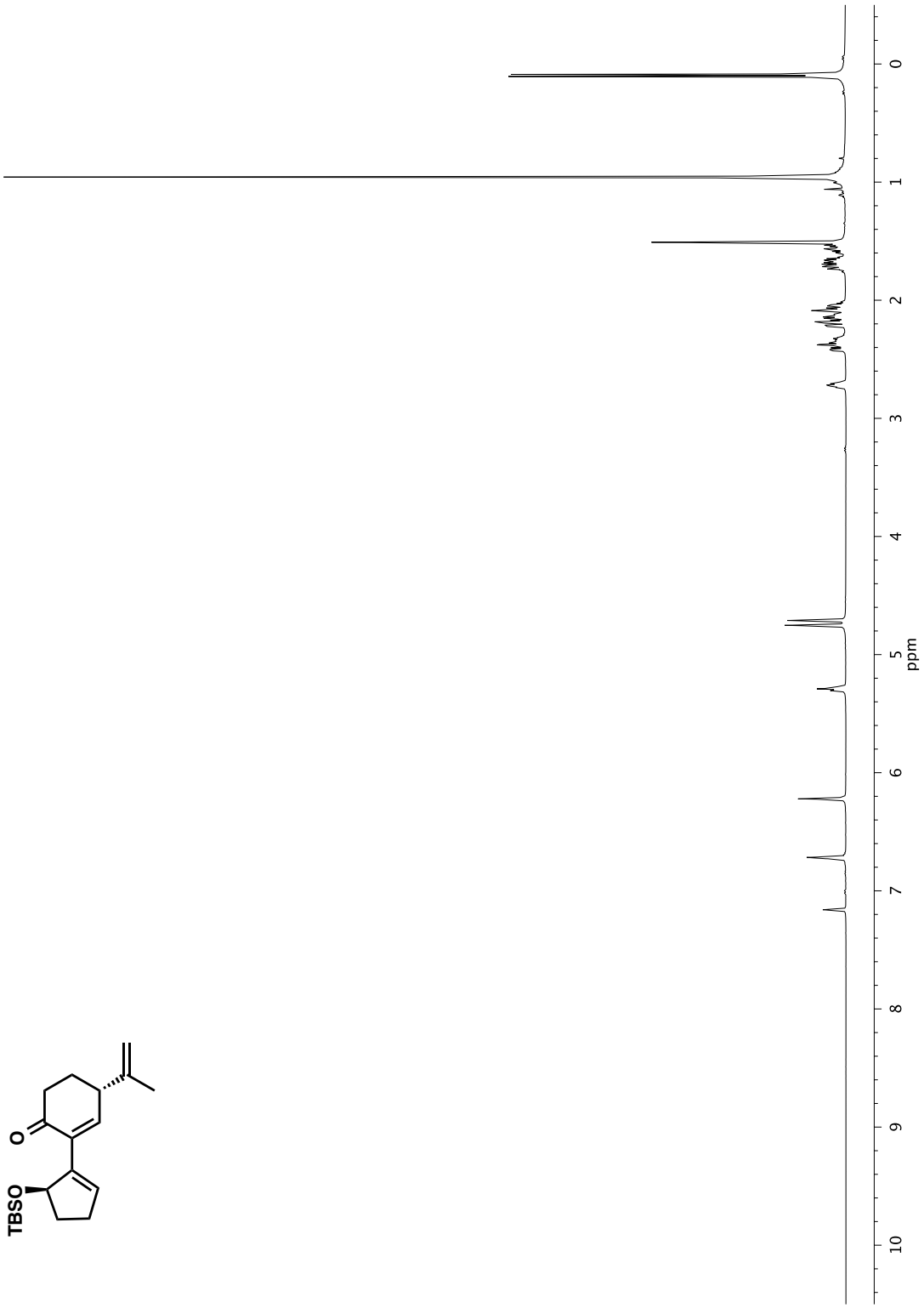

Figure A2.19 ^{1}H NMR (400 MHz, C_6D_3) of compound **39**

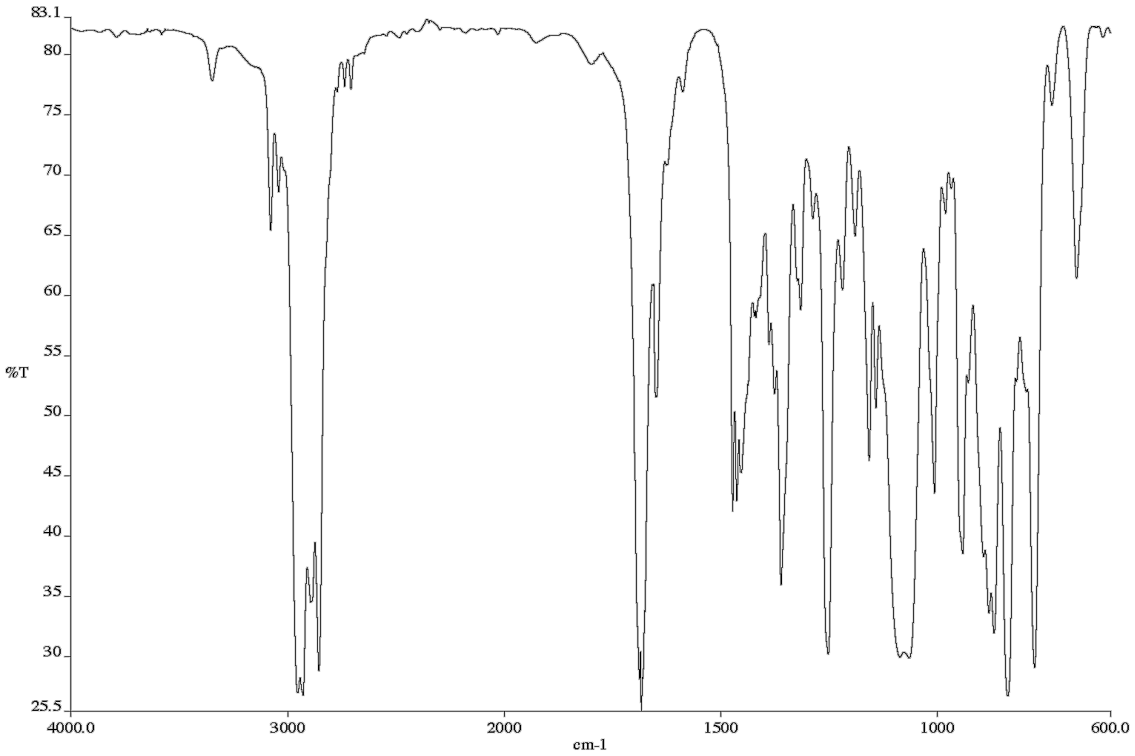

Figure A2.20 Infrared spectrum (Thin Film, NaCl) of compound **39**

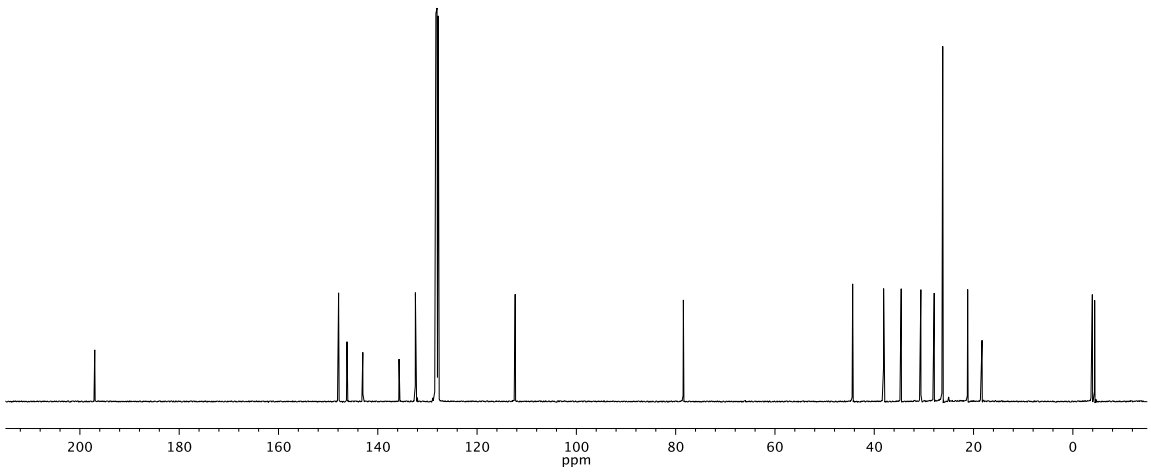

Figure A2.21 ^{13}C NMR (101 MHz, C_6D_6) of compound **39**

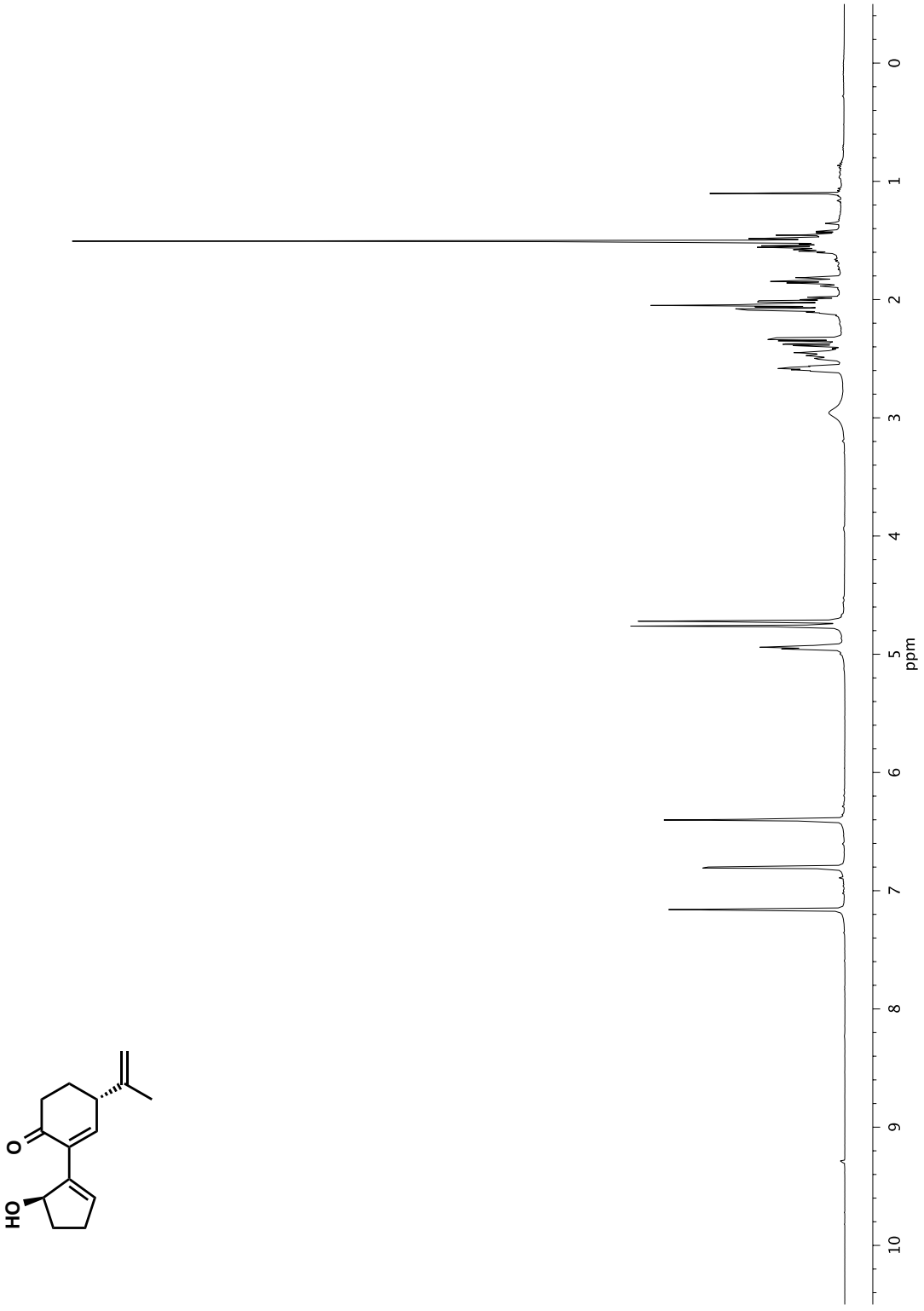

Figure A2.22 ^{1}H NMR (400 MHz, C_6D_6) of compound **88**

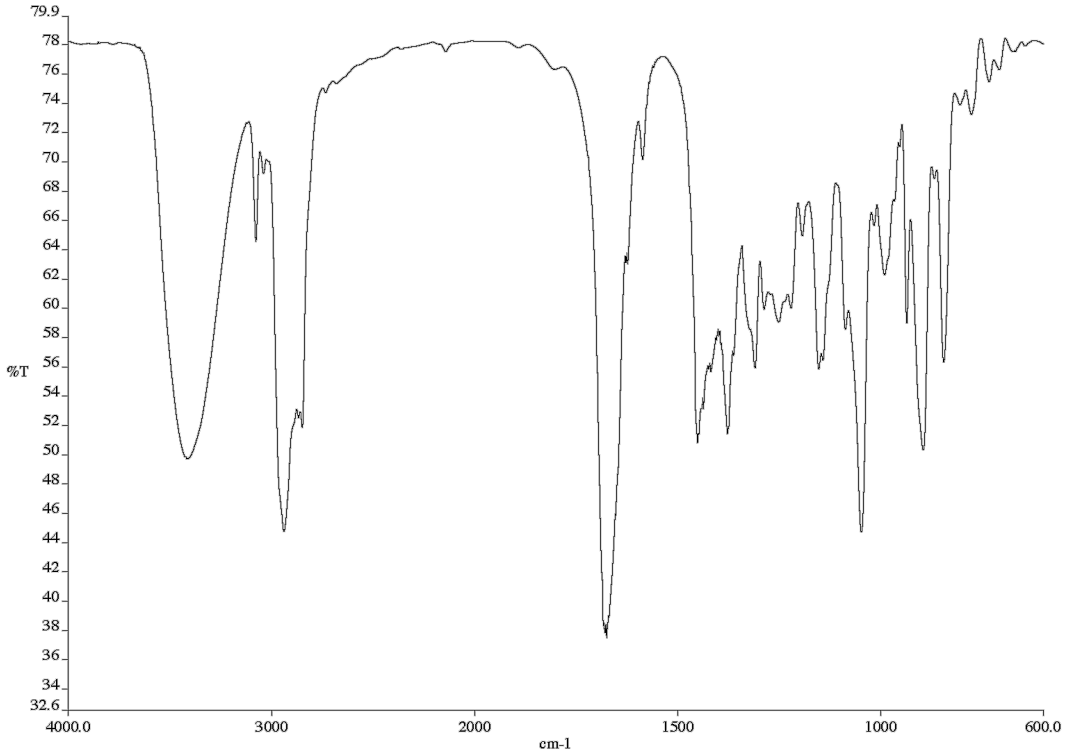

Figure A2.23 Infrared spectrum (Thin Film, NaCl) of compound **88**

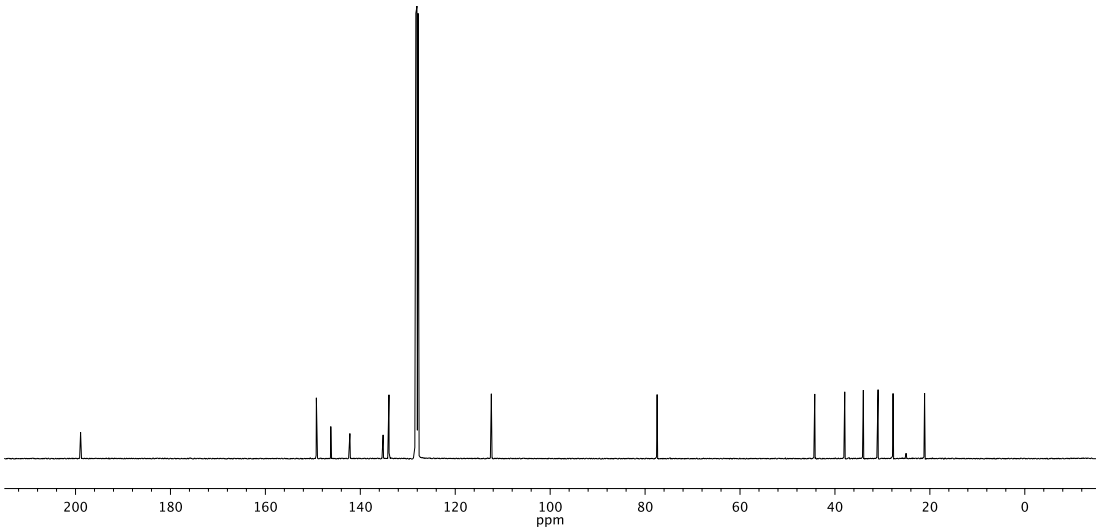

Figure A2.24 ^{13}C NMR (101 MHz, $CDCl_3$) of compound **88**

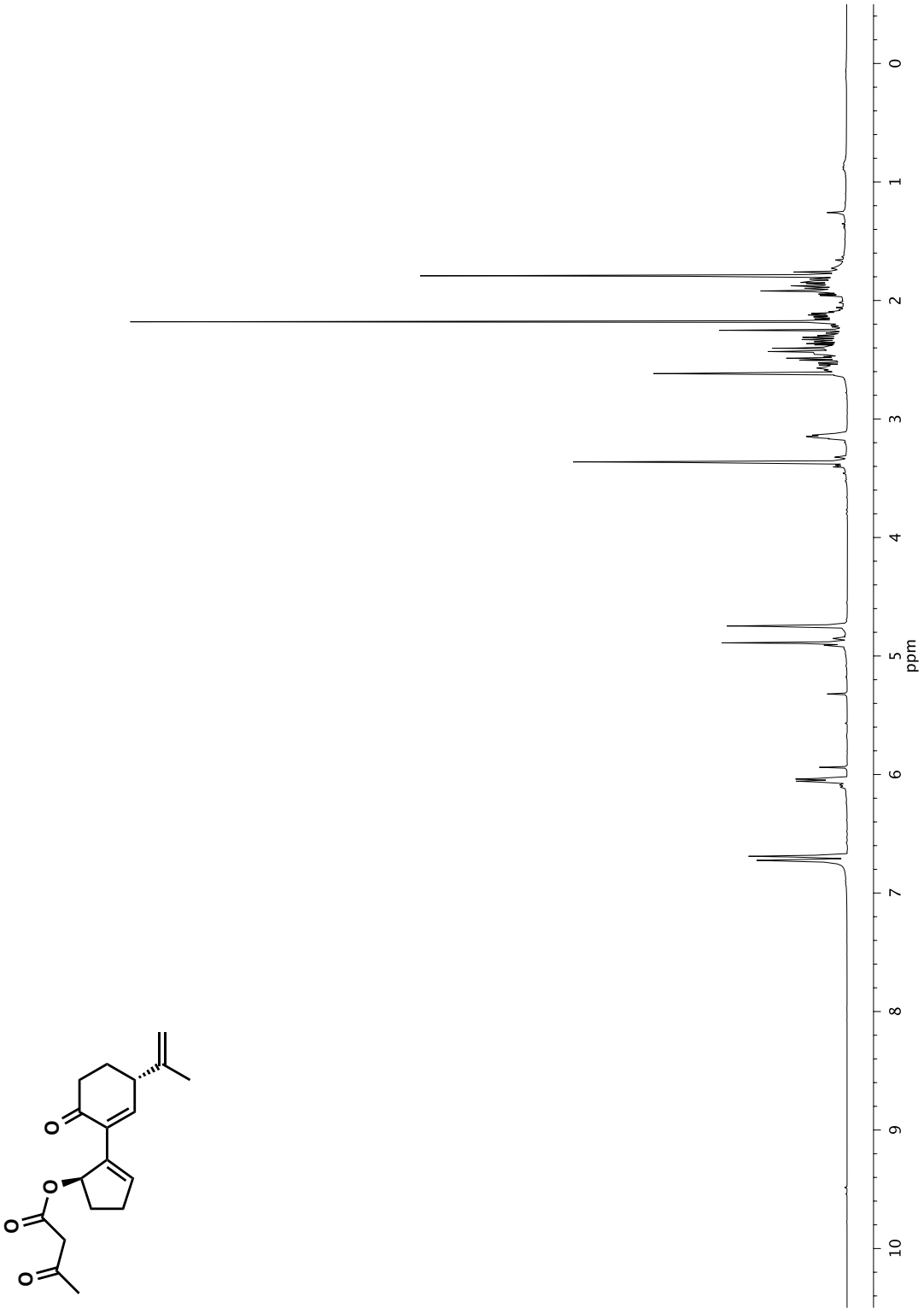

Figure A2.25 ^{1}H NMR (400 MHz, CD_2Cl_2) of compound **40**

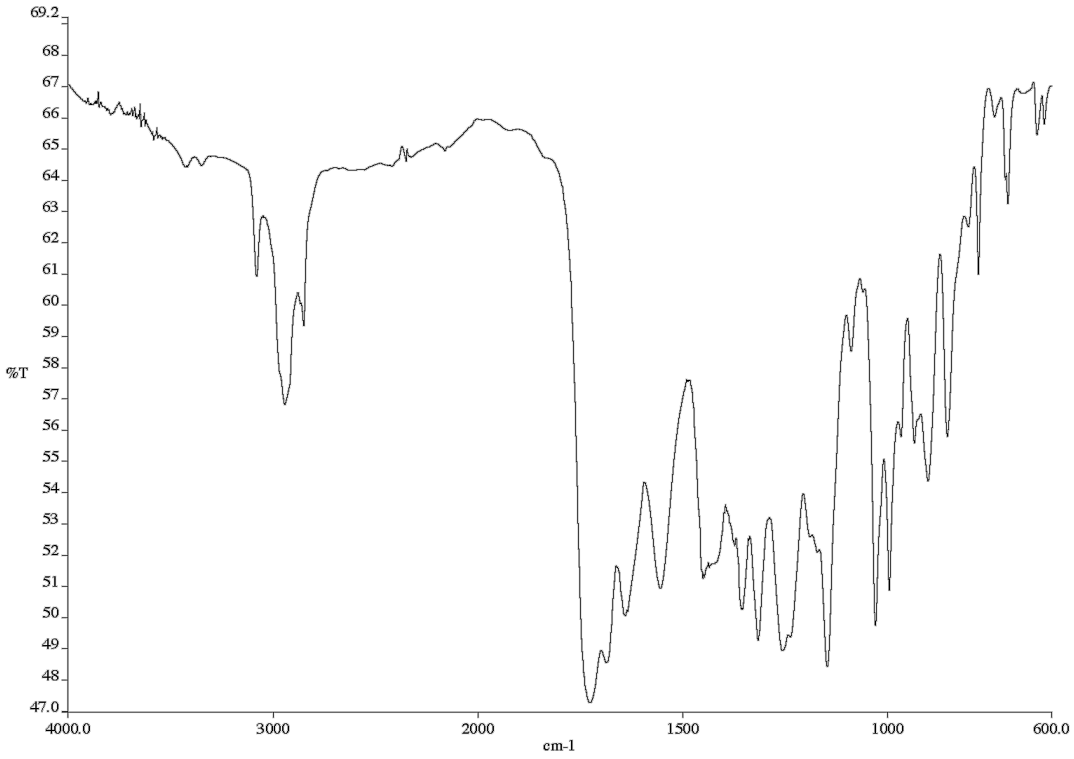

Figure A2.26 Infrared spectrum (Thin Film, NaCl) of compound **40**

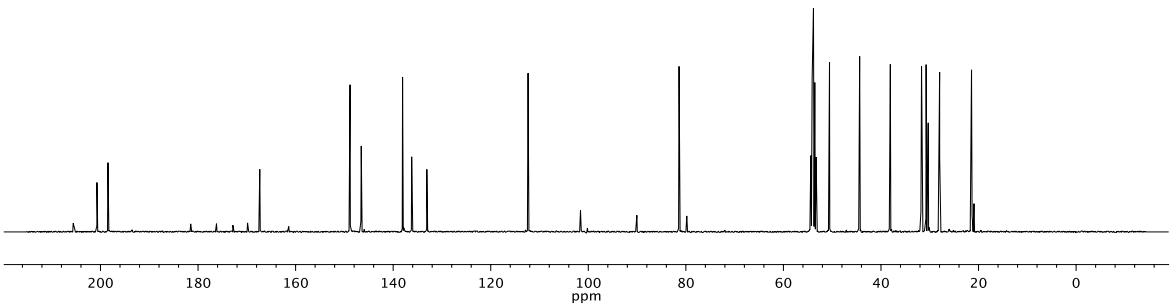

Figure A2.27 ^{13}C NMR (101 MHz, CD_2Cl_2) of compound **40**

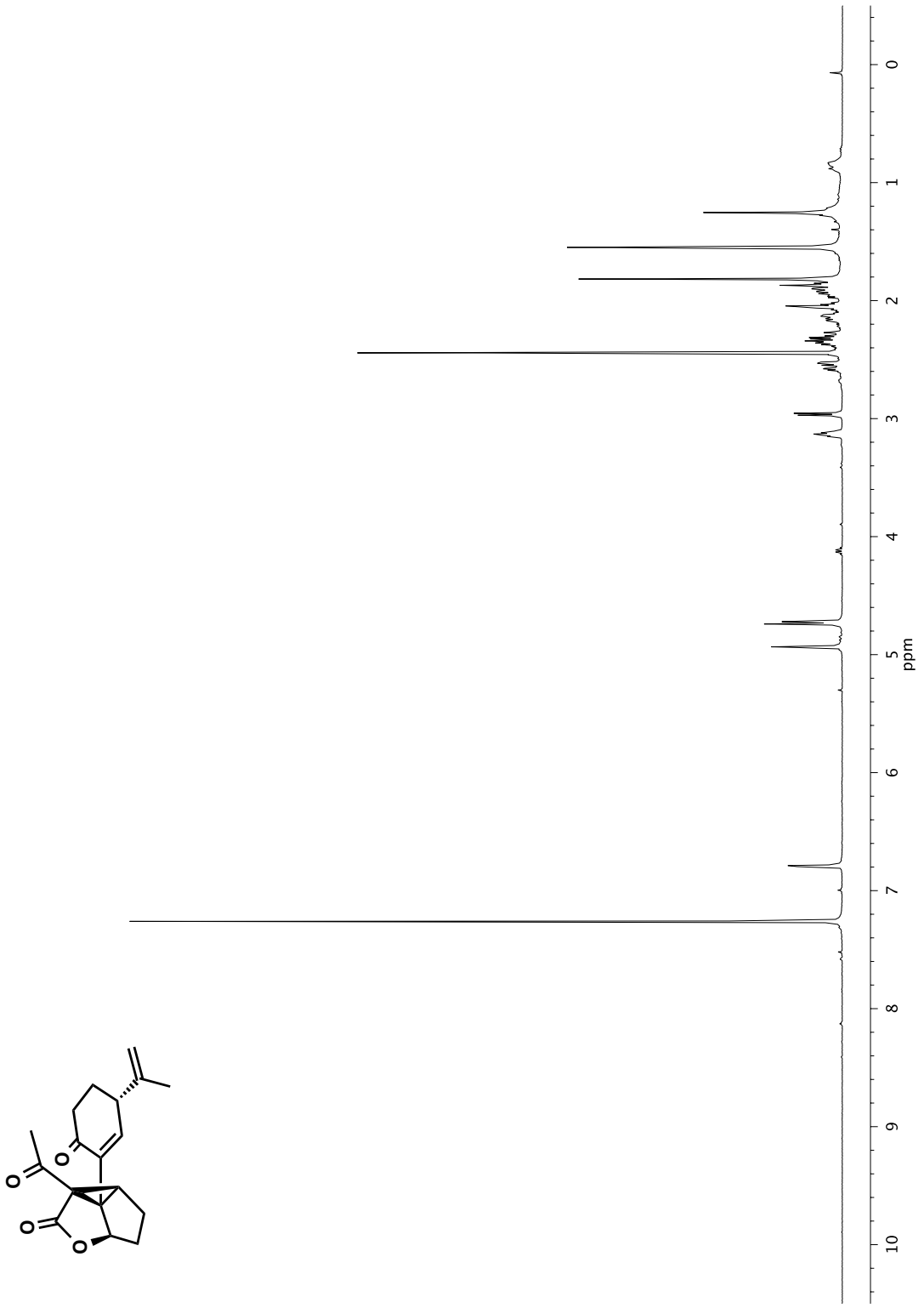

Figure A2.28 ^{1}H NMR (400 MHz, $CDCl_3$) of compound **41**

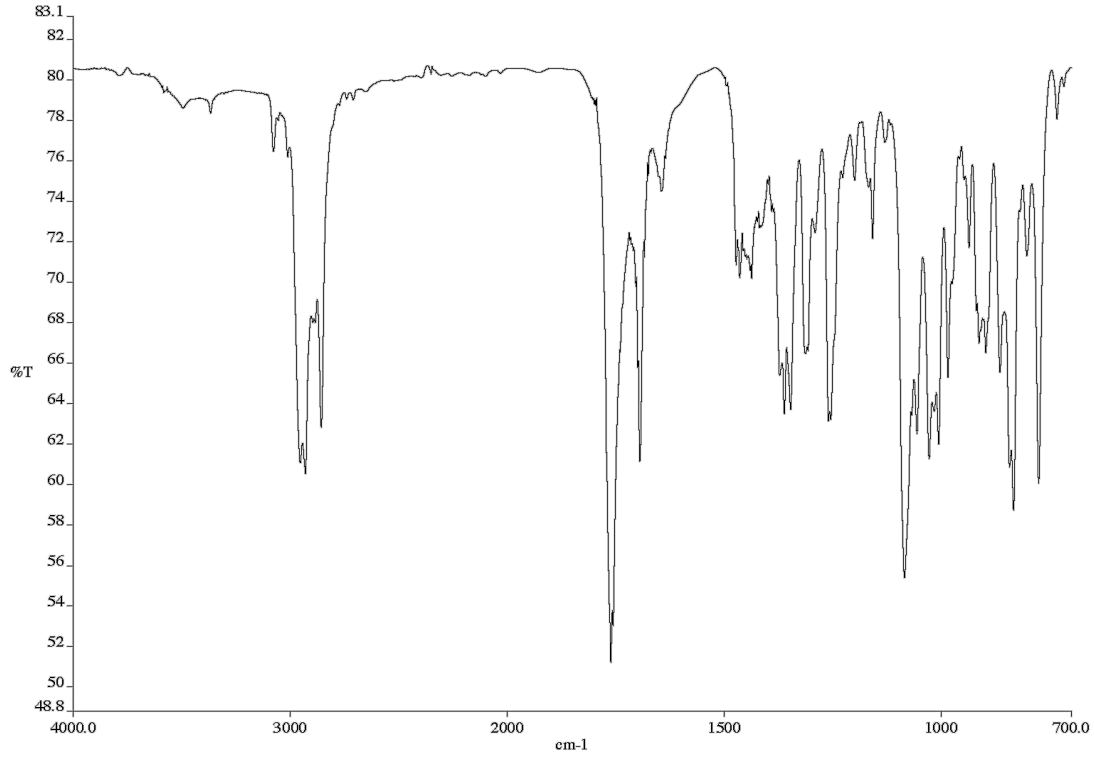

Figure A2.29 Infrared spectrum (Thin Film, NaCl) of compound **41**

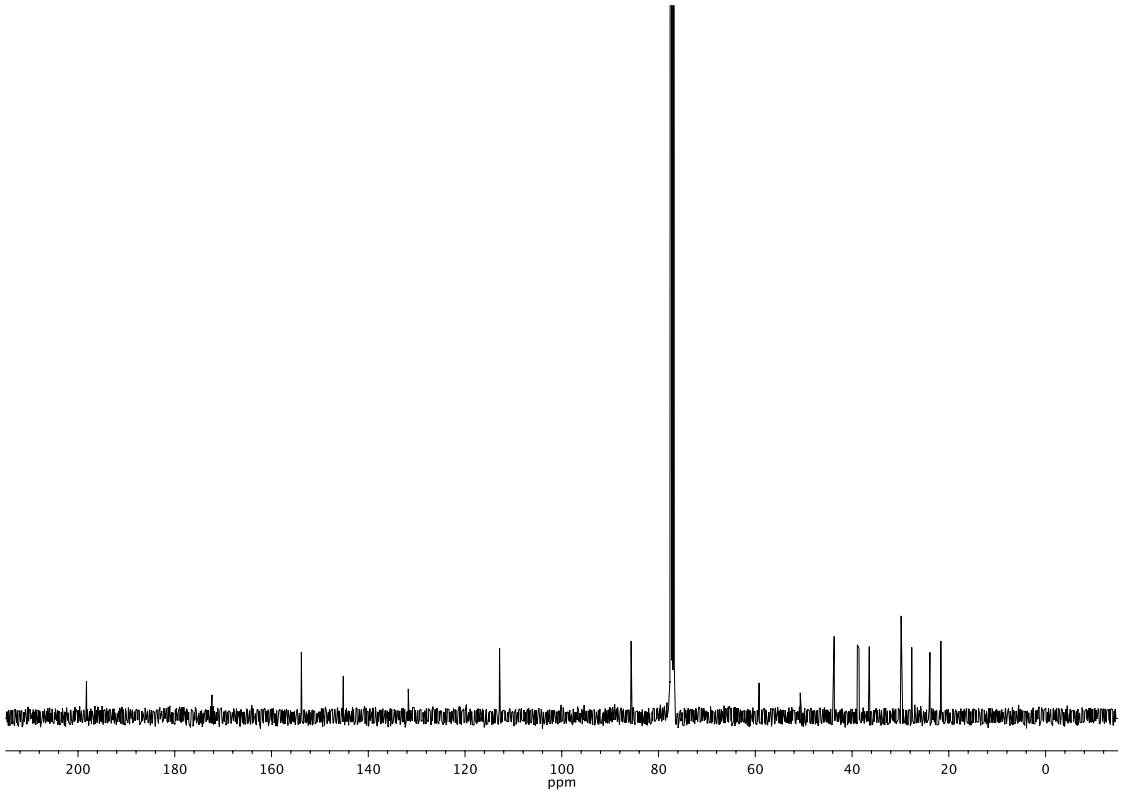

Figure A2.30 ^{13}C NMR (101 MHz, $CDCl_3$) of compound **41**

Figure A2.31 ^{1}H NMR (400 MHz, $CDCl_3$) of compound **42**

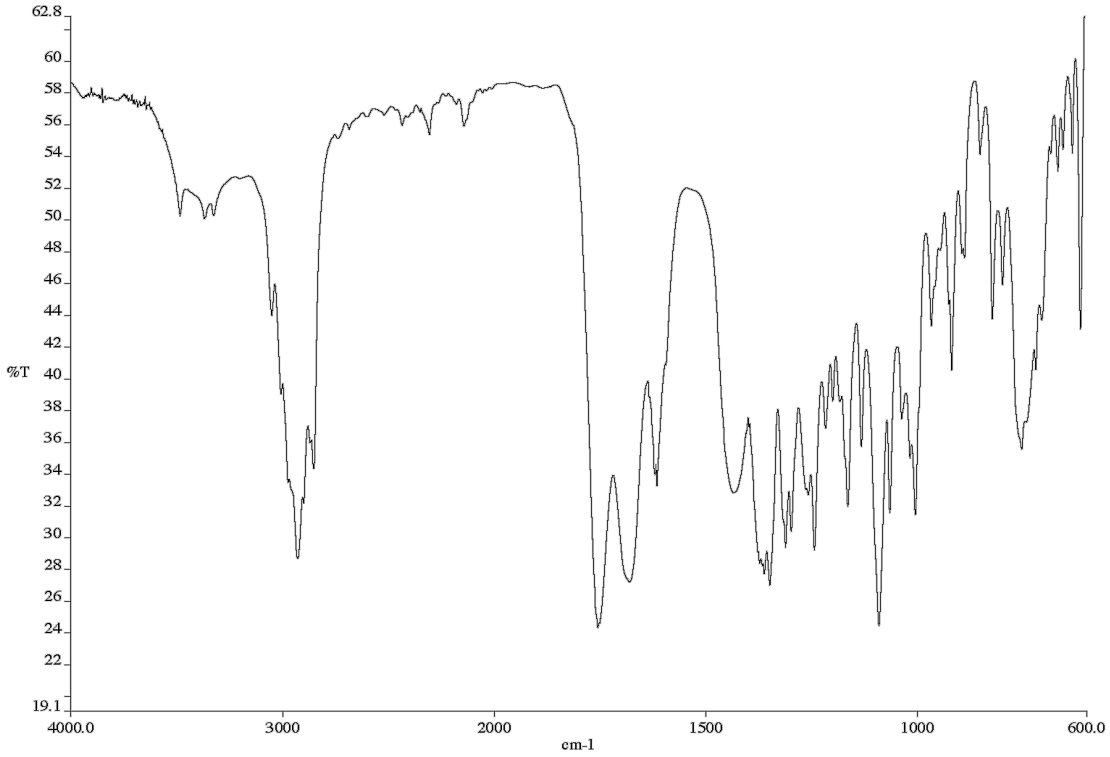

Figure A2.32 Infrared spectrum (Thin Film, NaCl) of compound **42**

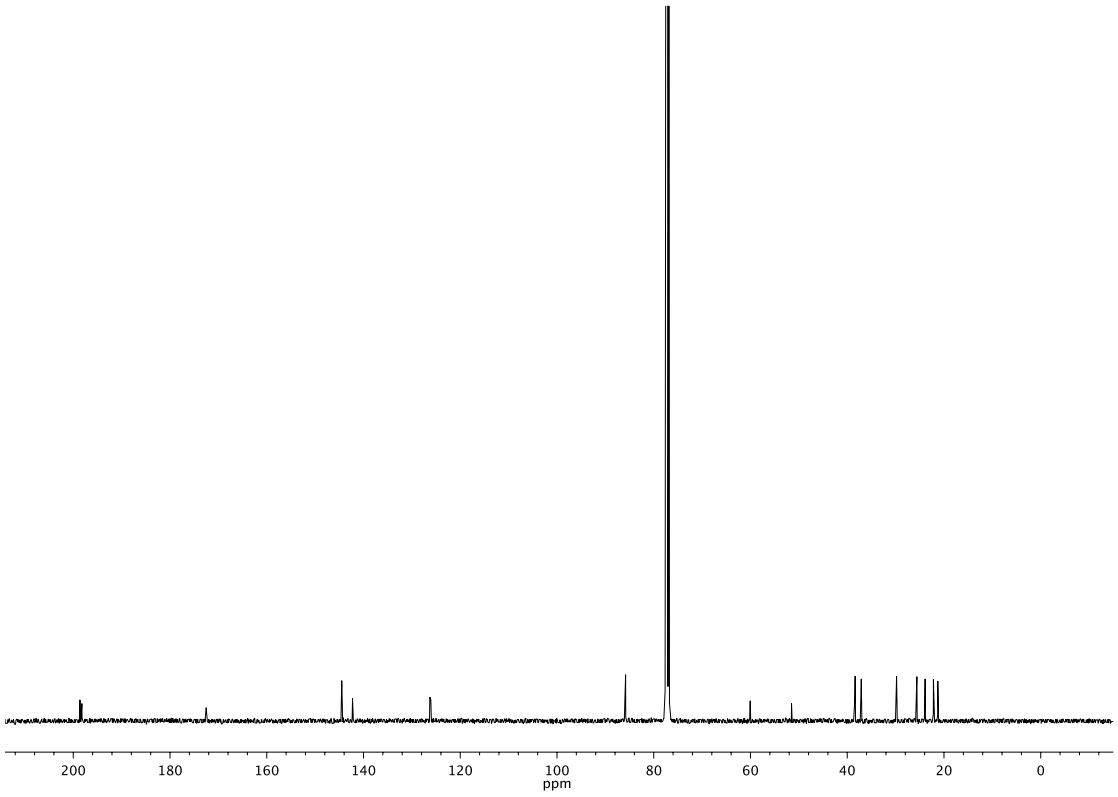

Figure A2.33 ^{13}C NMR (101 MHz, $CDCl_3$) of compound **42**

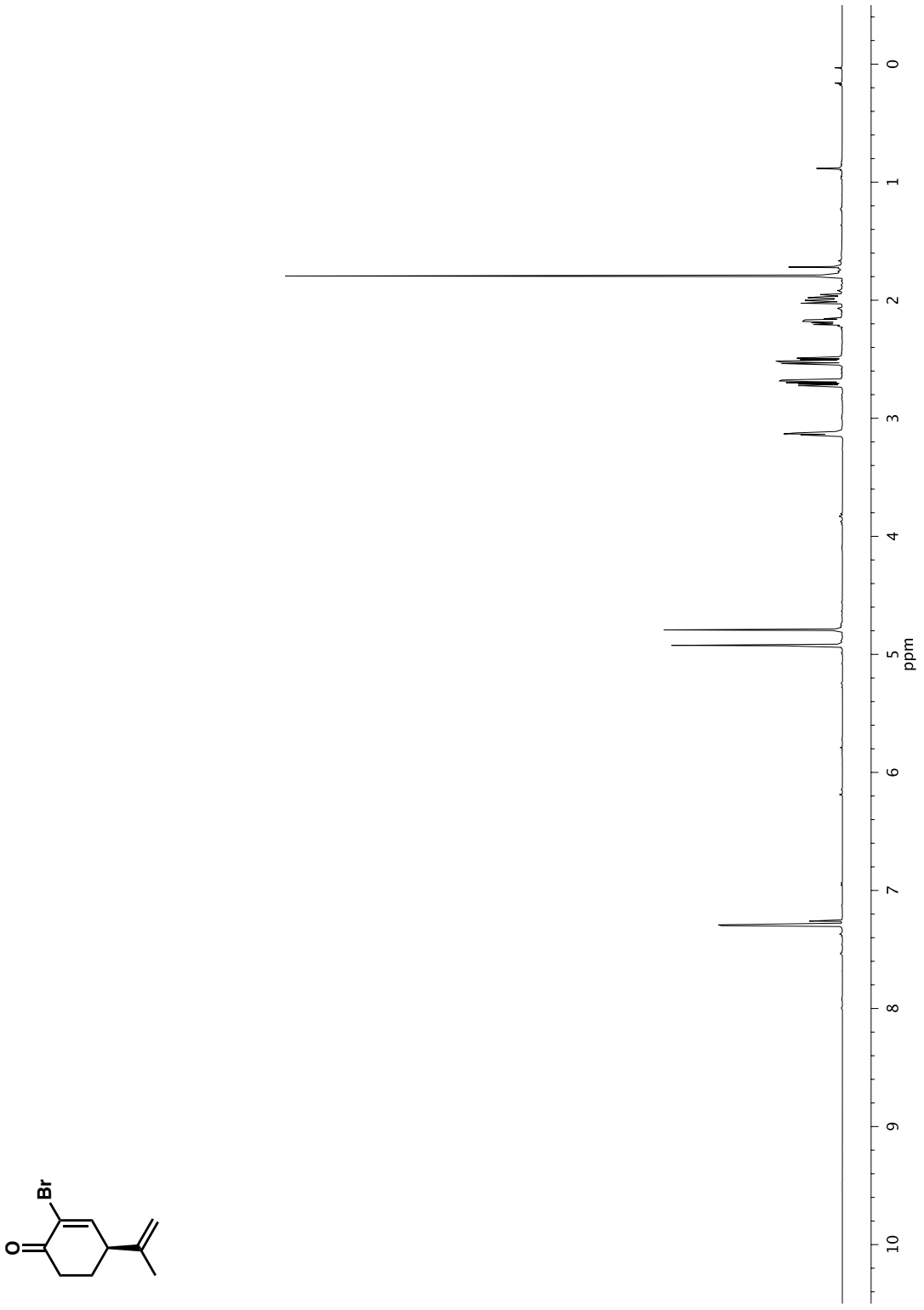

Figure A2.34 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **43**

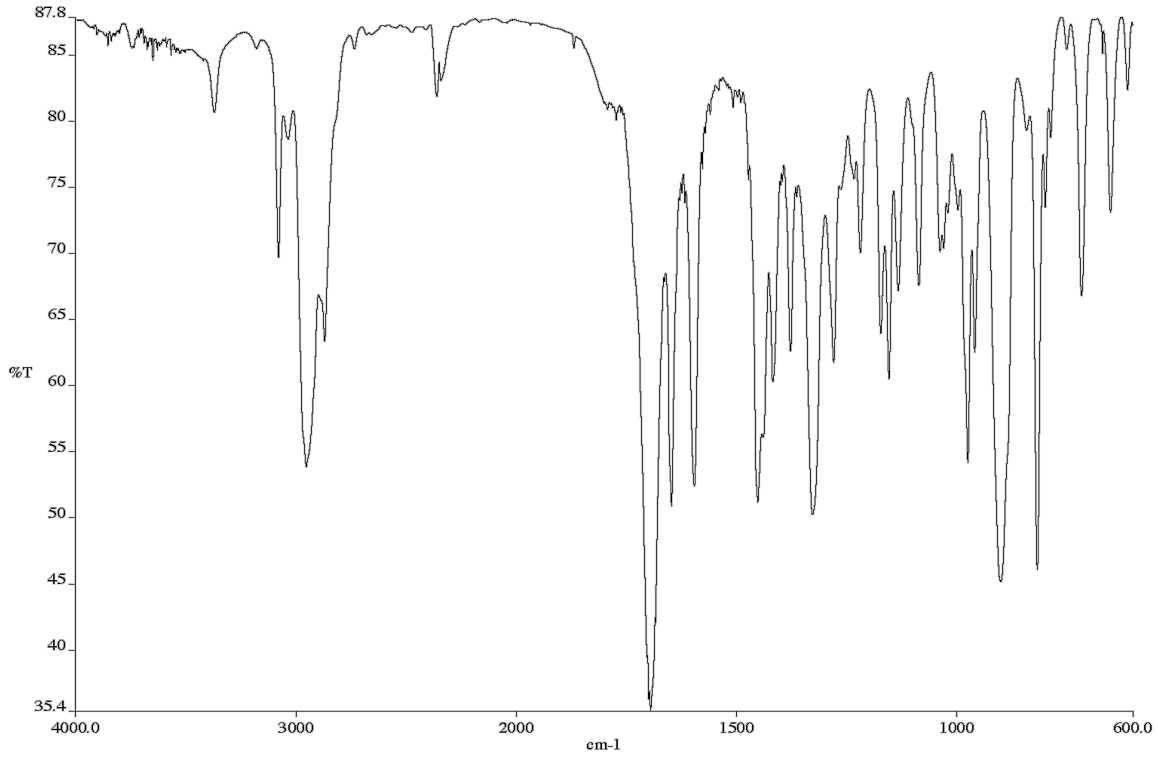

Figure A2.35 Infrared spectrum (Thin Film, NaCl) of compound **43**

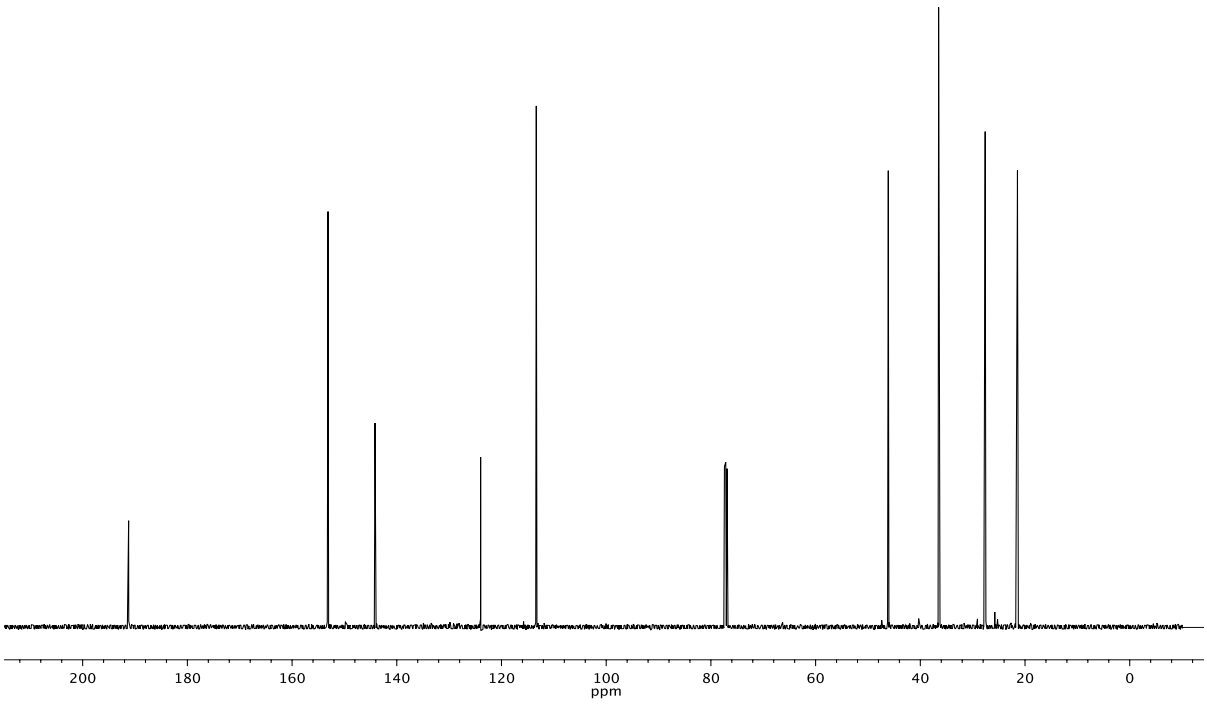

Figure A2.36 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **43**

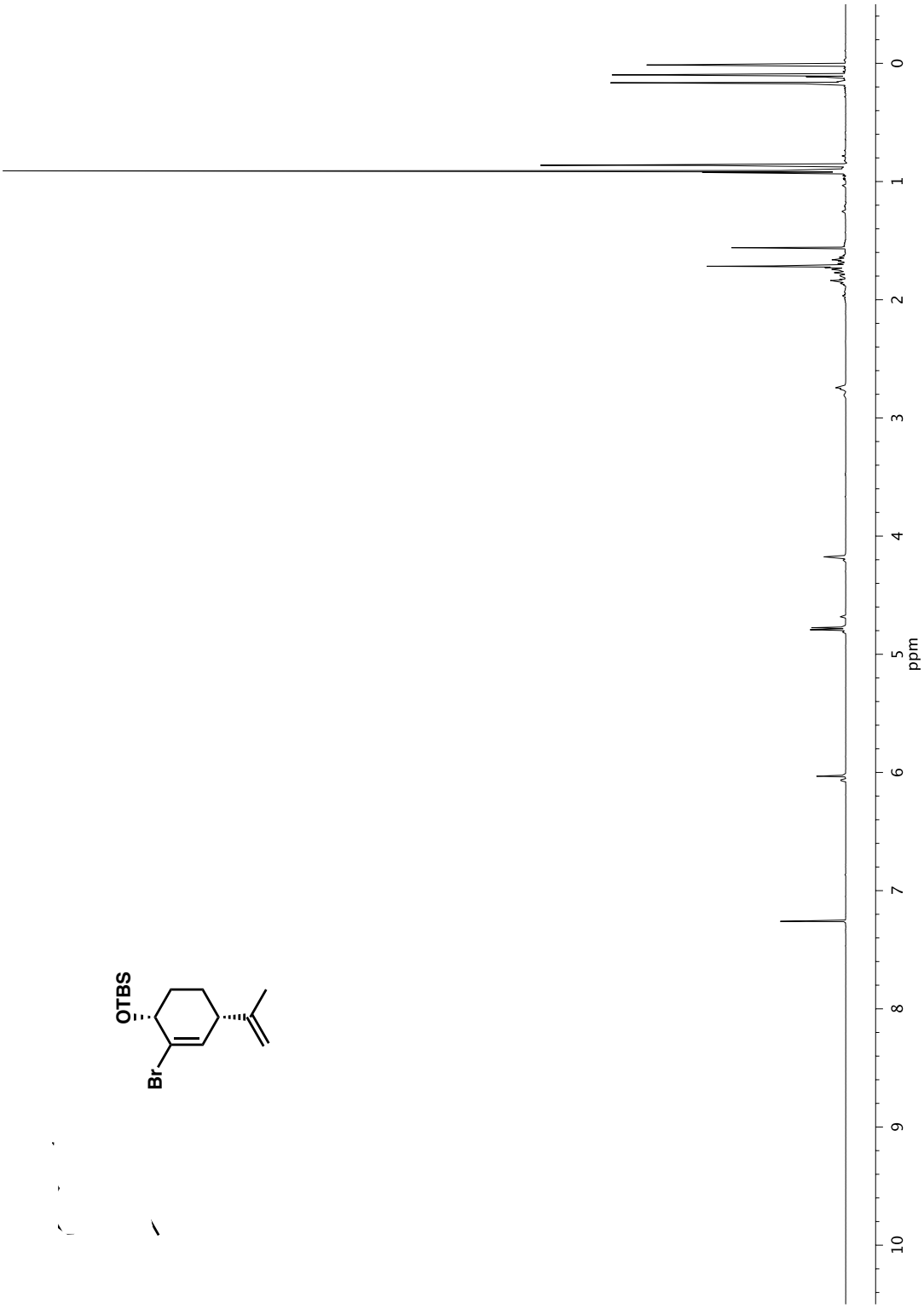

Figure A2.37 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **21**

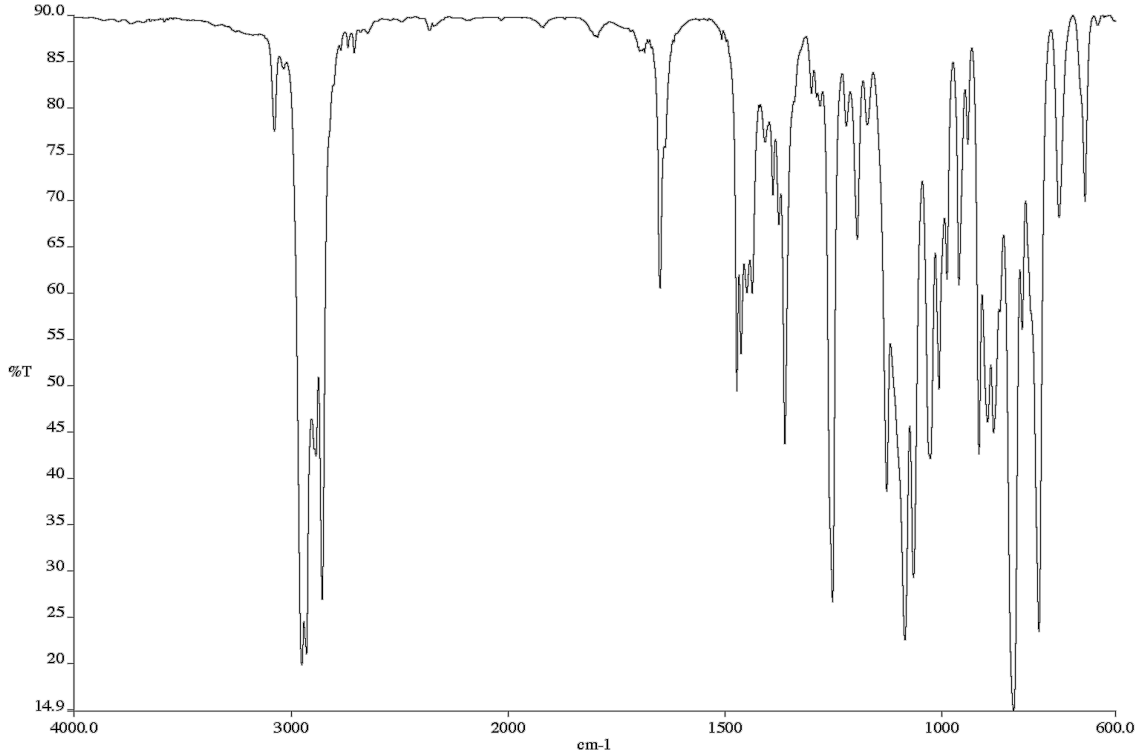

Figure A2.38 Infrared spectrum (Thin Film, NaCl) of compound **21**

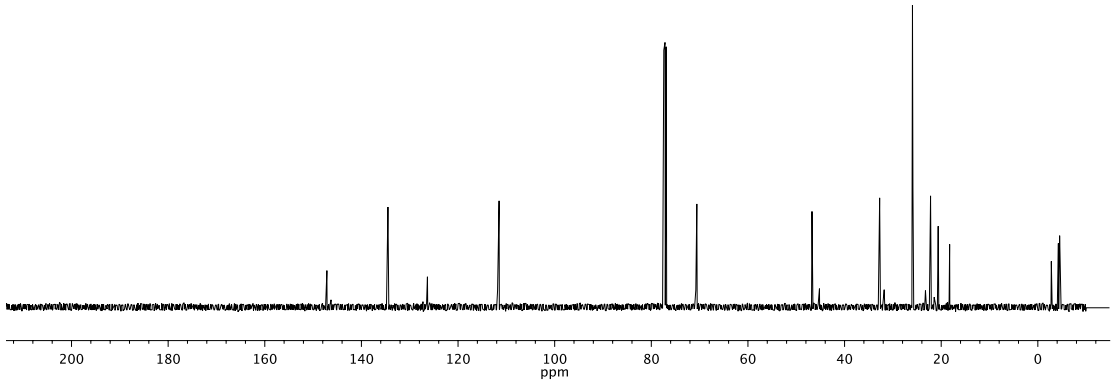

Figure A2.39 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **21**

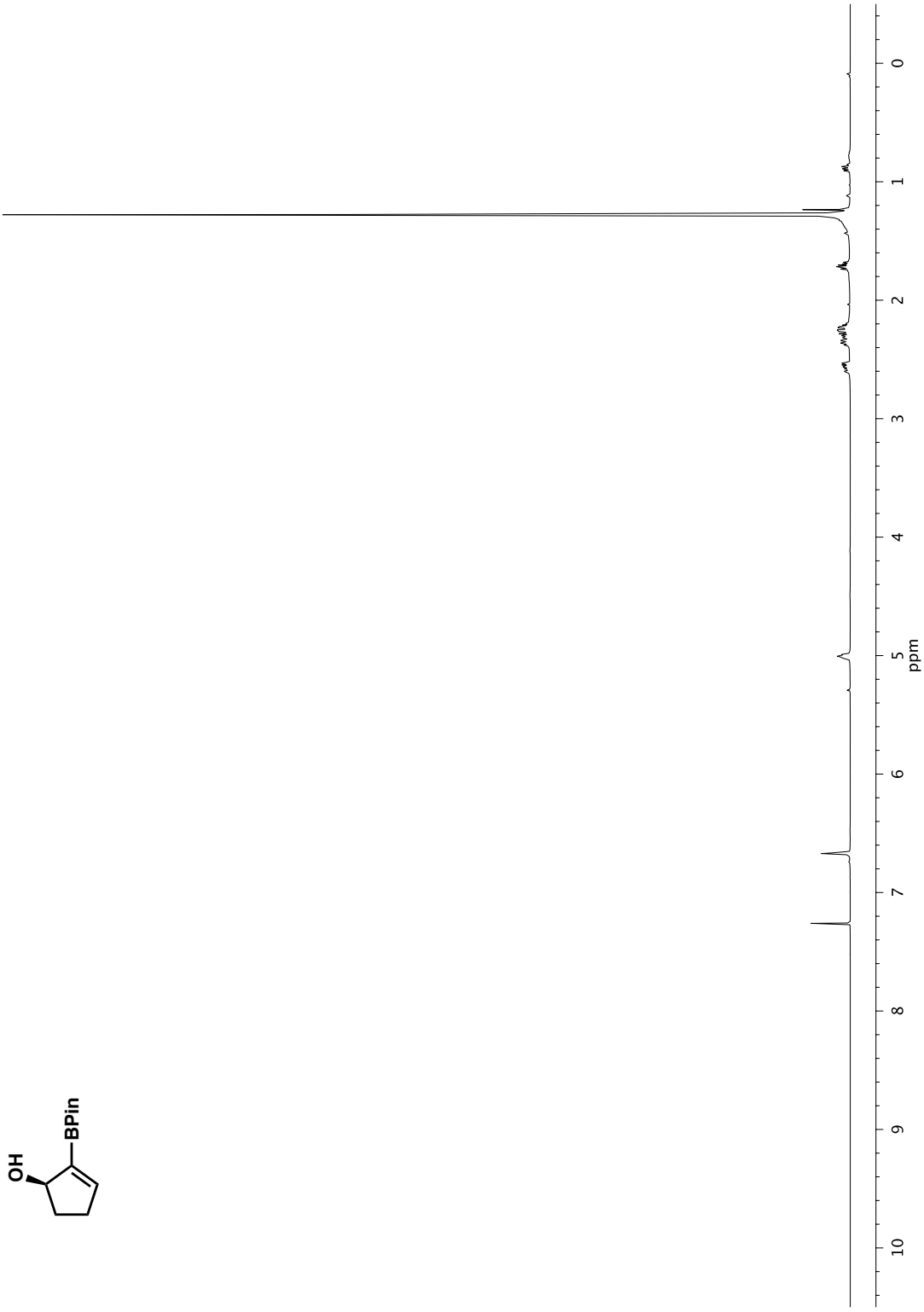

Figure A2.40 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **44**

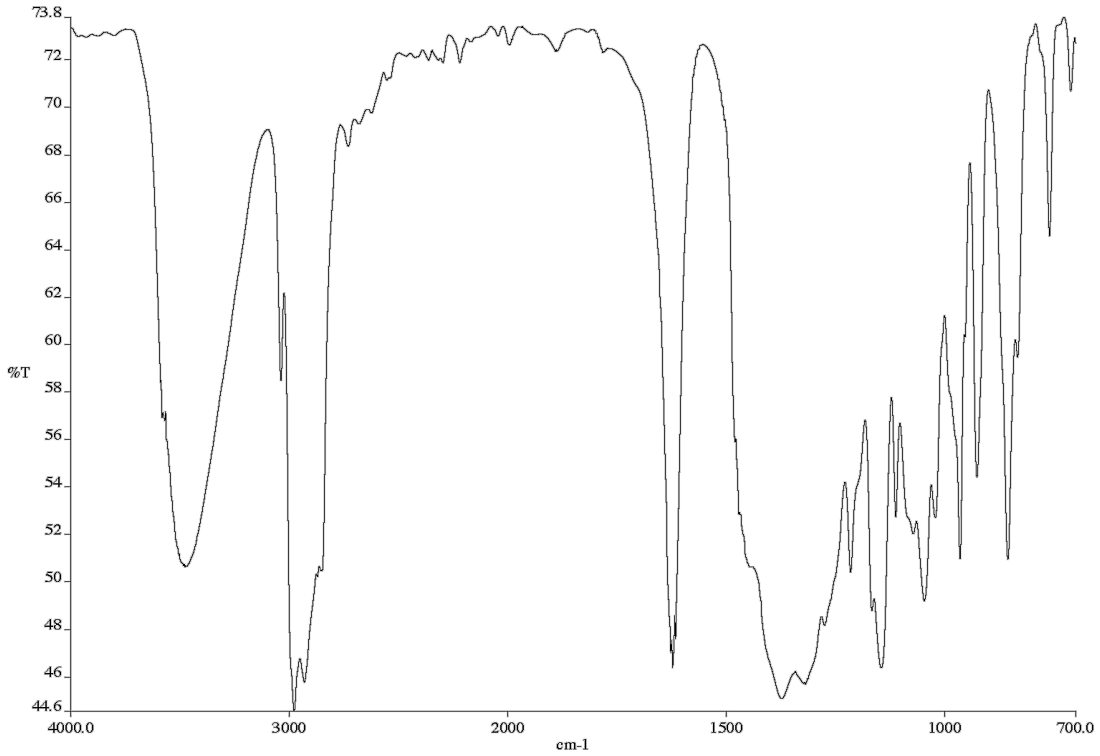

Figure A2.41 Infrared spectrum (Thin Film, NaCl) of compound **44**

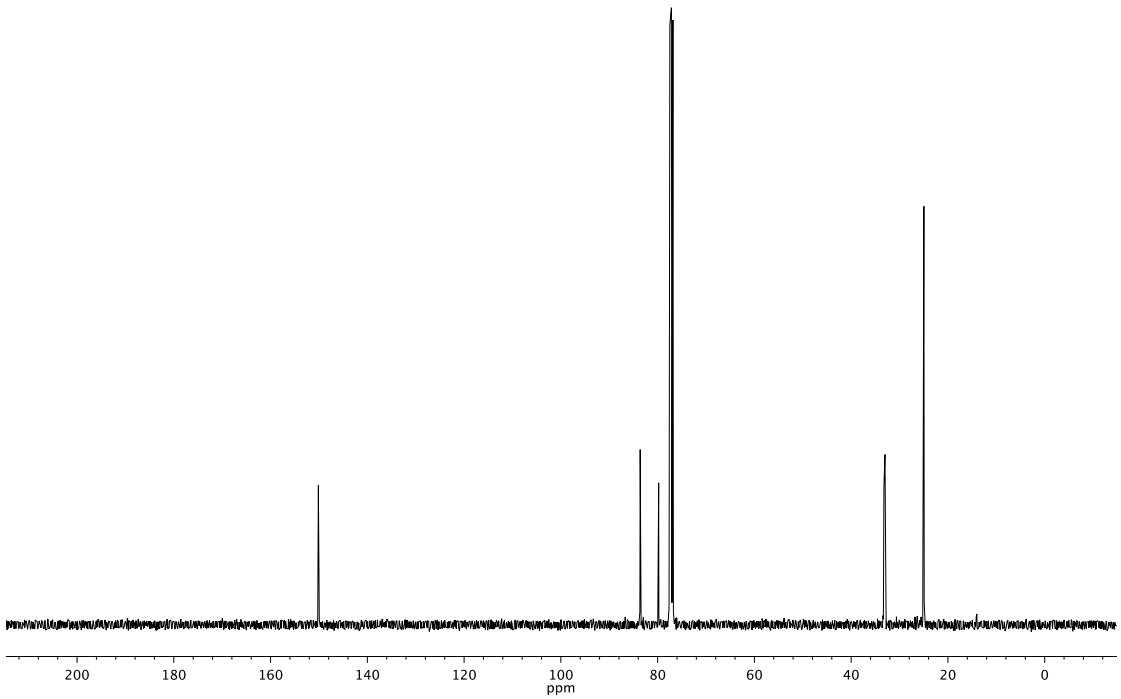

Figure A2.42 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **44**

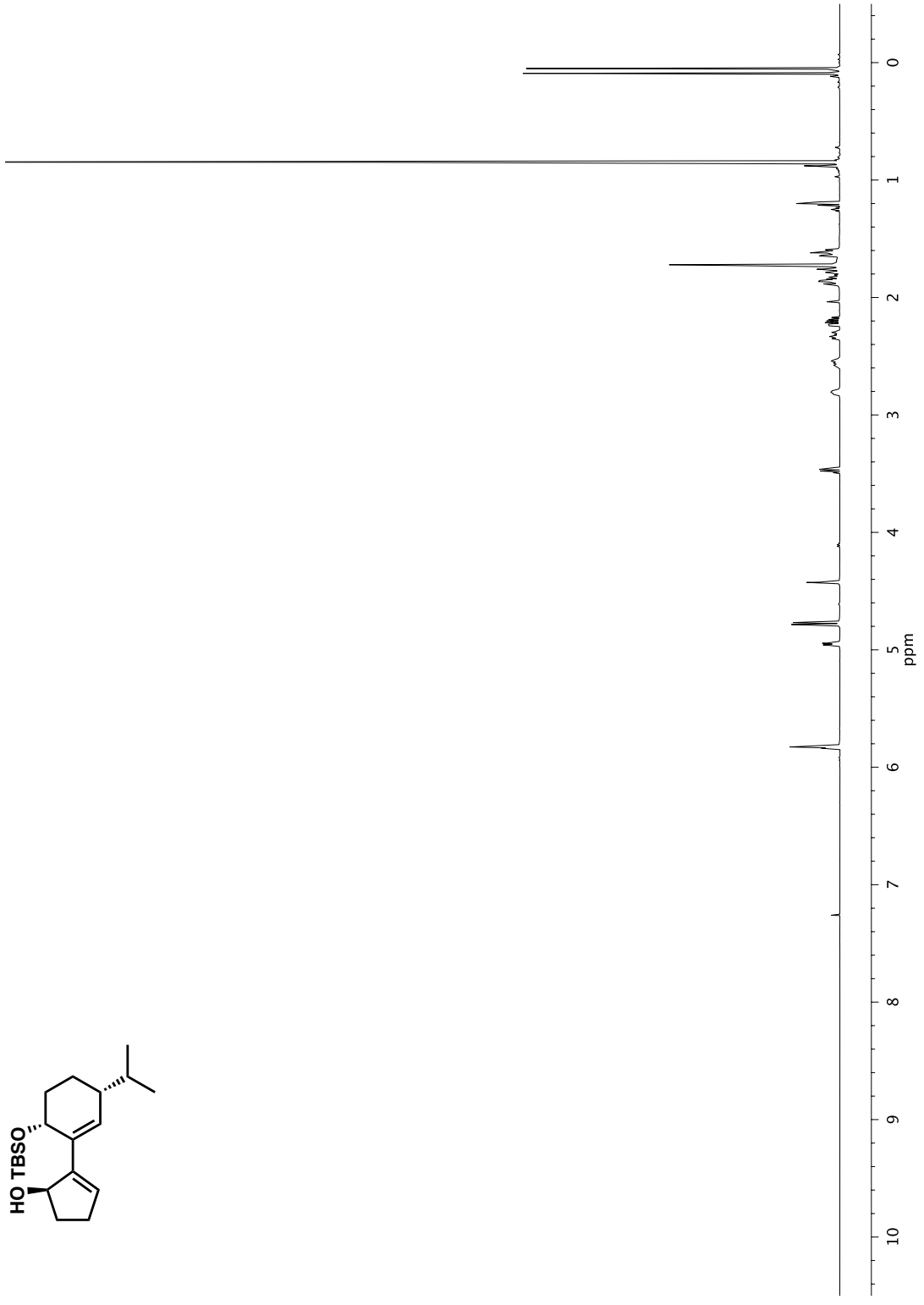

Figure A2.43 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **19**

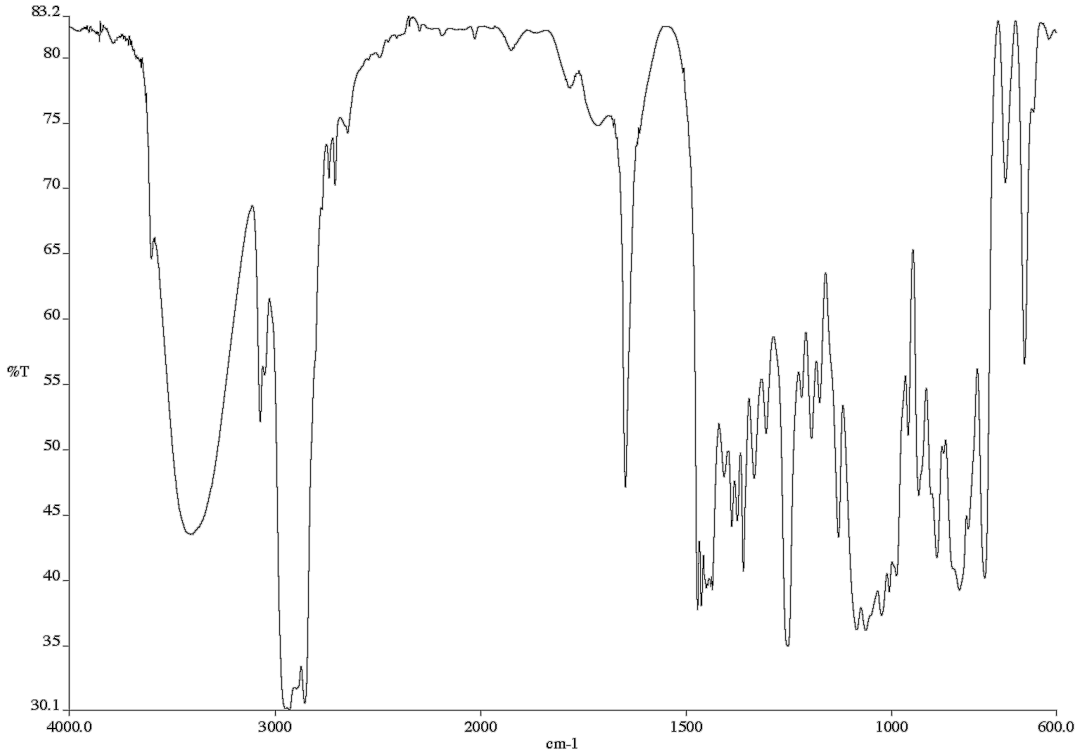

Figure A2.44 Infrared spectrum (Thin Film, NaCl) of compound **19**

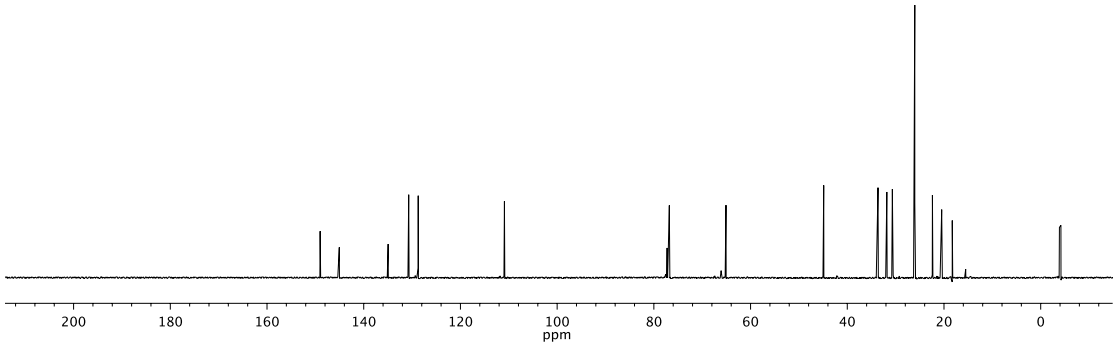

Figure A2.45 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **19**

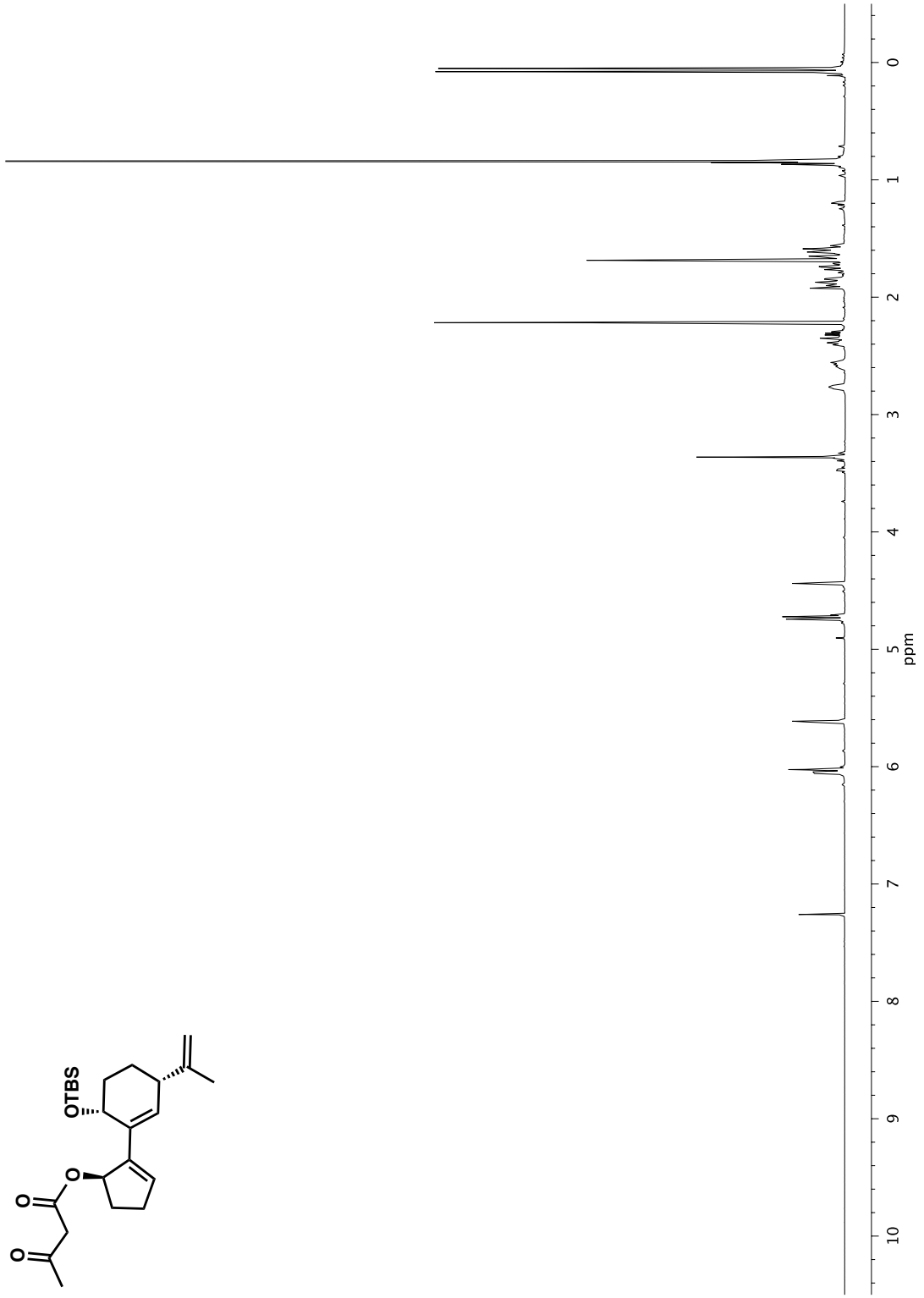

Figure A2.46 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **45**

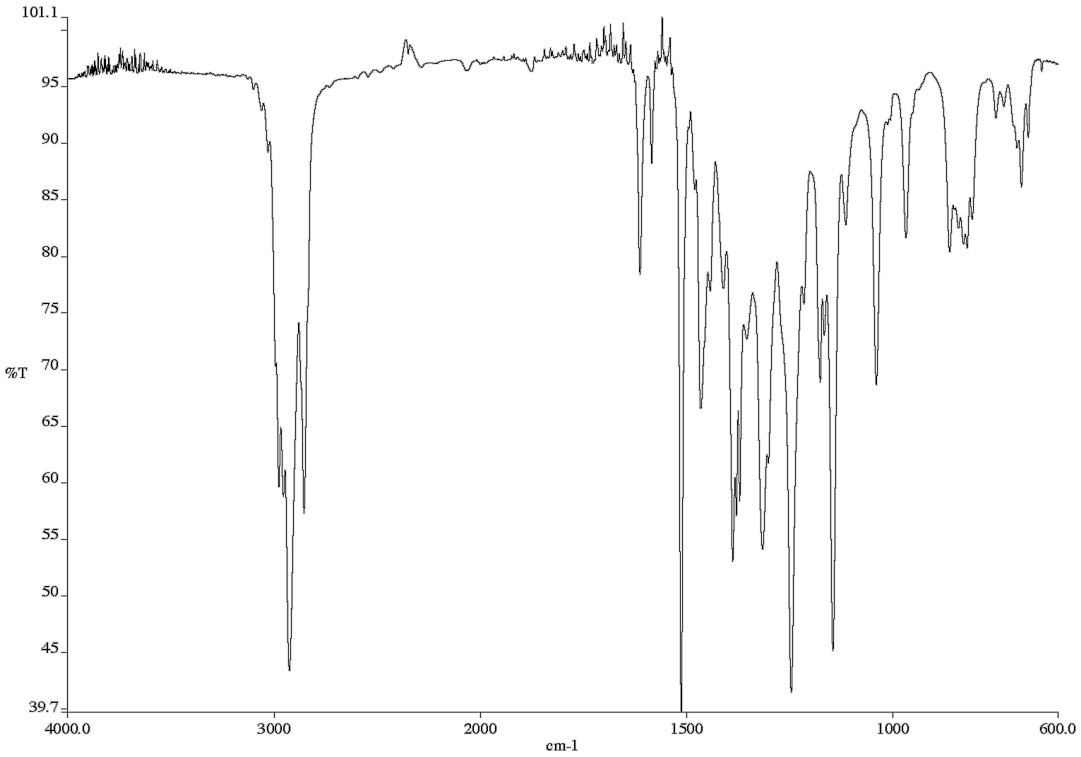

Figure A2.47 Infrared spectrum (Thin Film, NaCl) of compound **45**

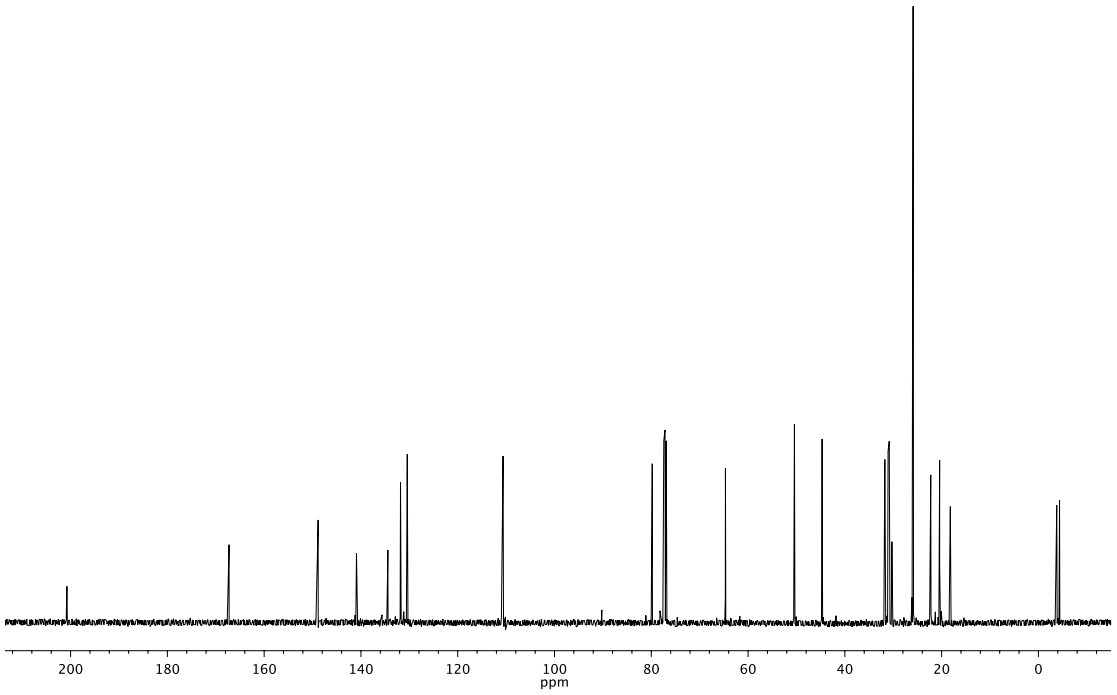

Figure A2.48 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **45**

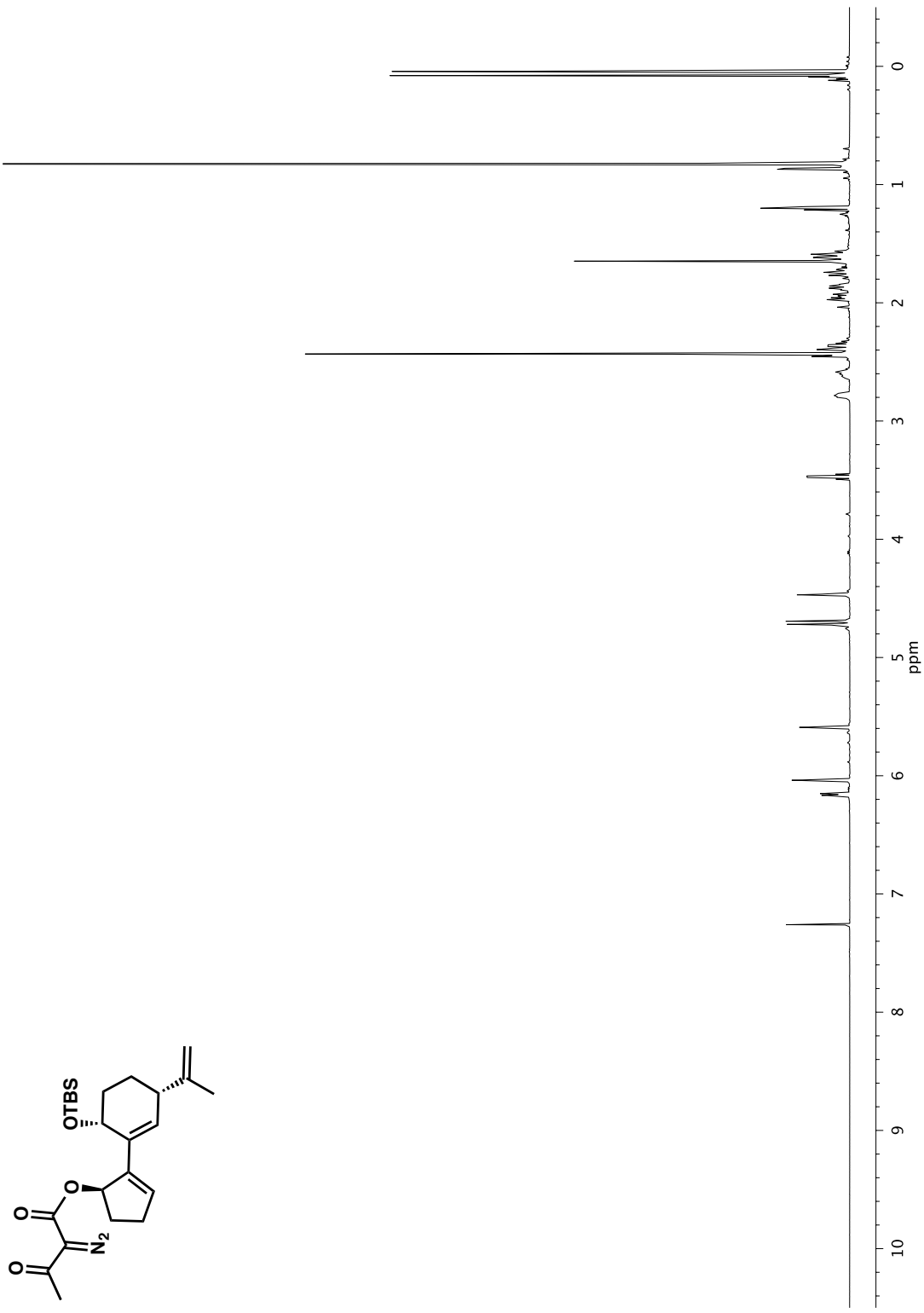

Figure A2.49 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **18**

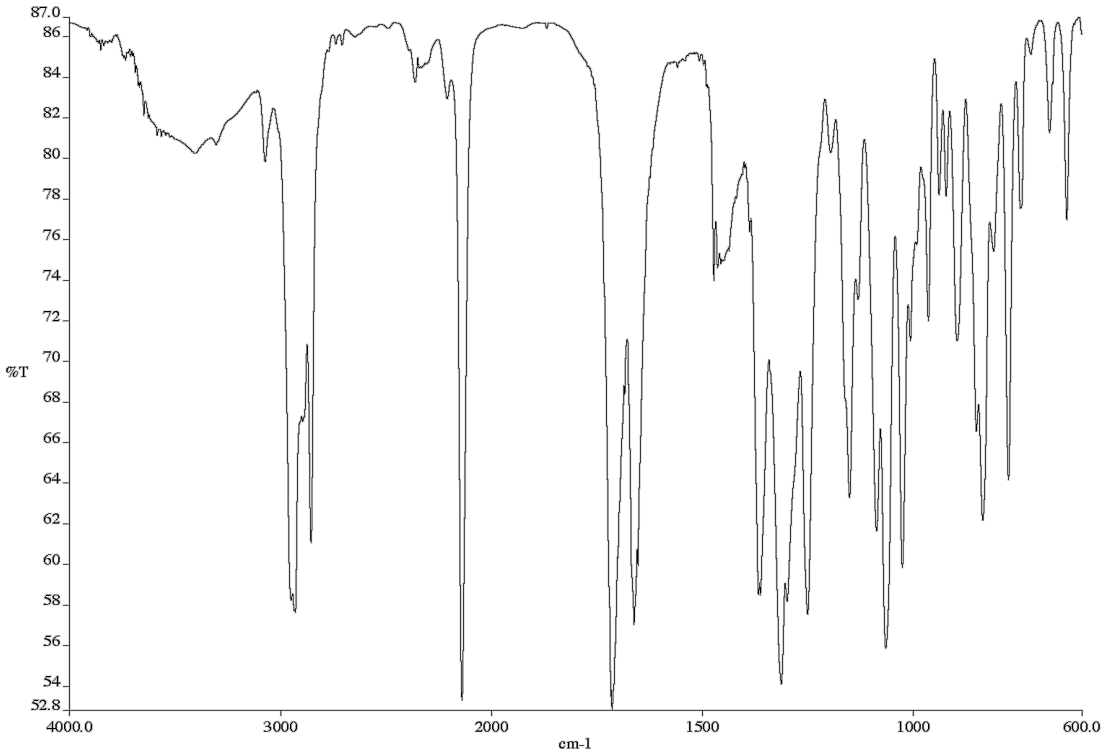

Figure A2.50 Infrared spectrum (Thin Film, NaCl) of compound **18**

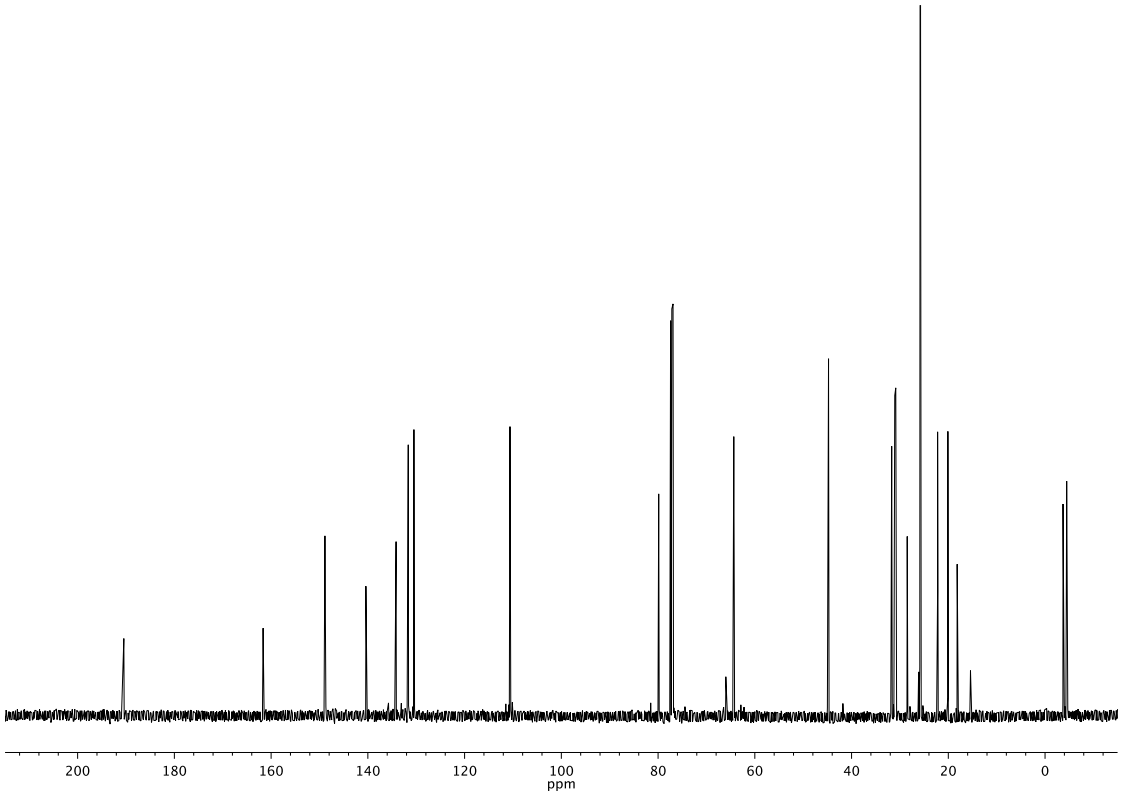

Figure A2.51 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **18**

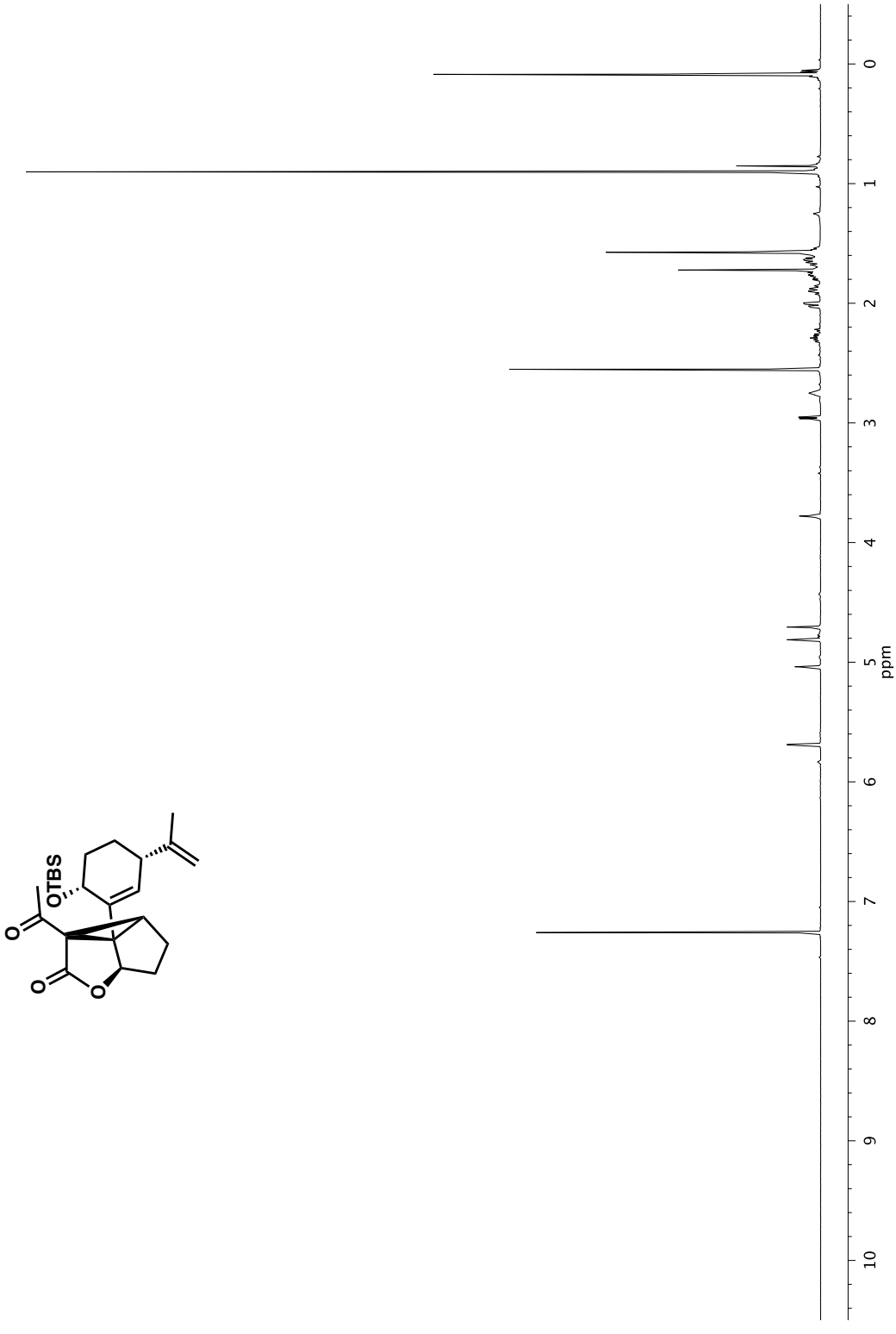

Figure A2.52 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **46**

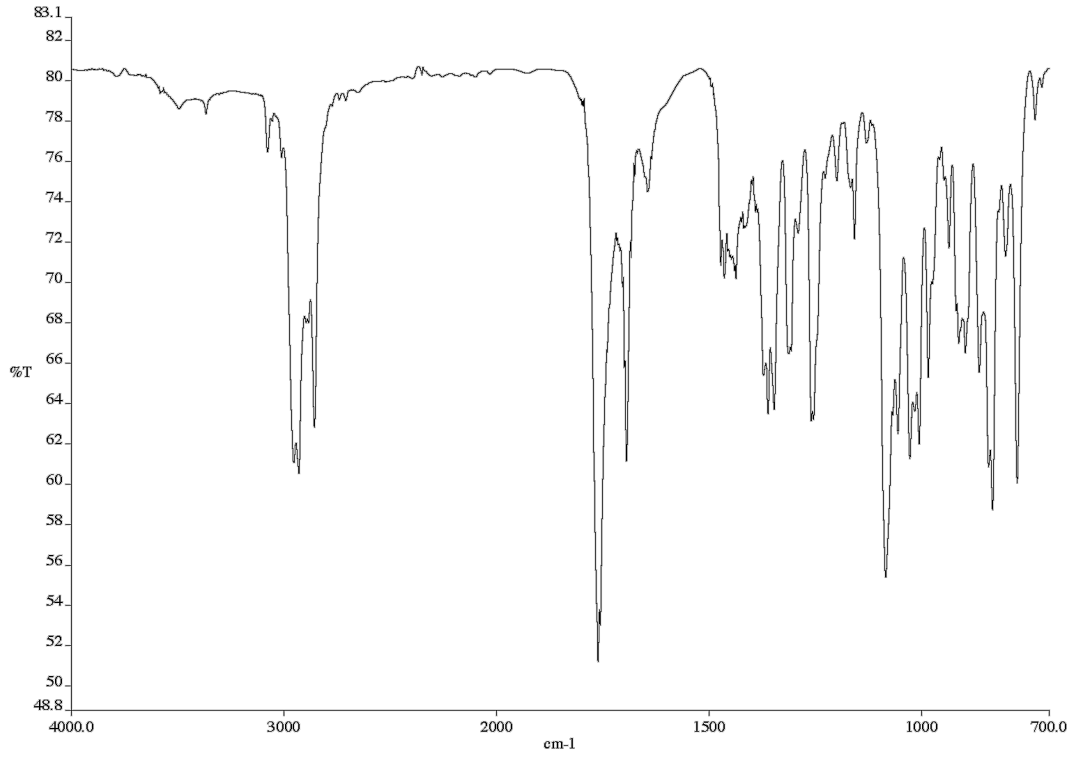

Figure A2.53 Infrared spectrum (Thin Film, NaCl) of compound **46**

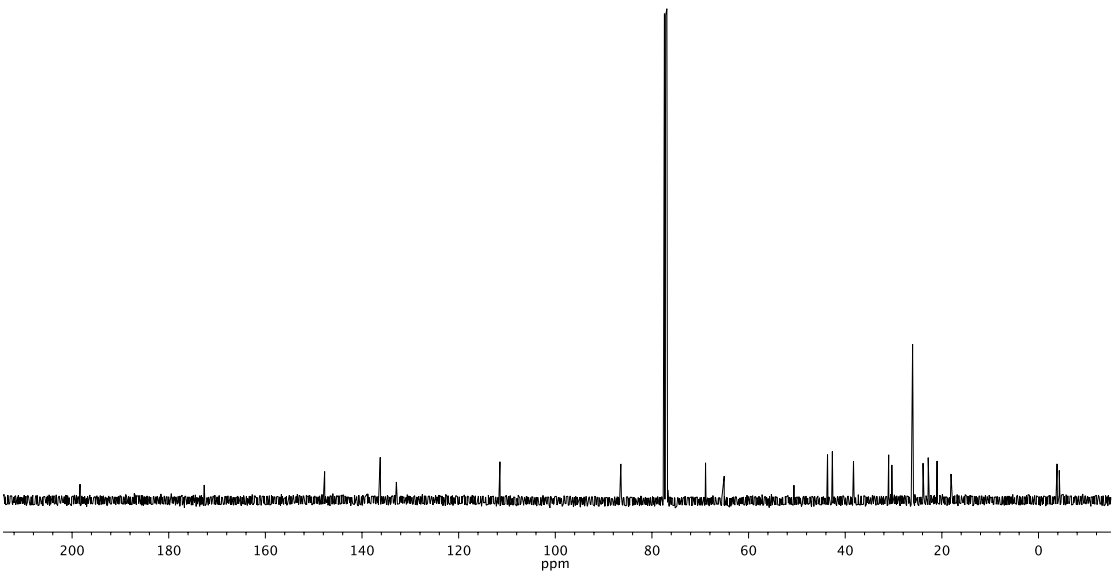

Figure A2.54 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **46**

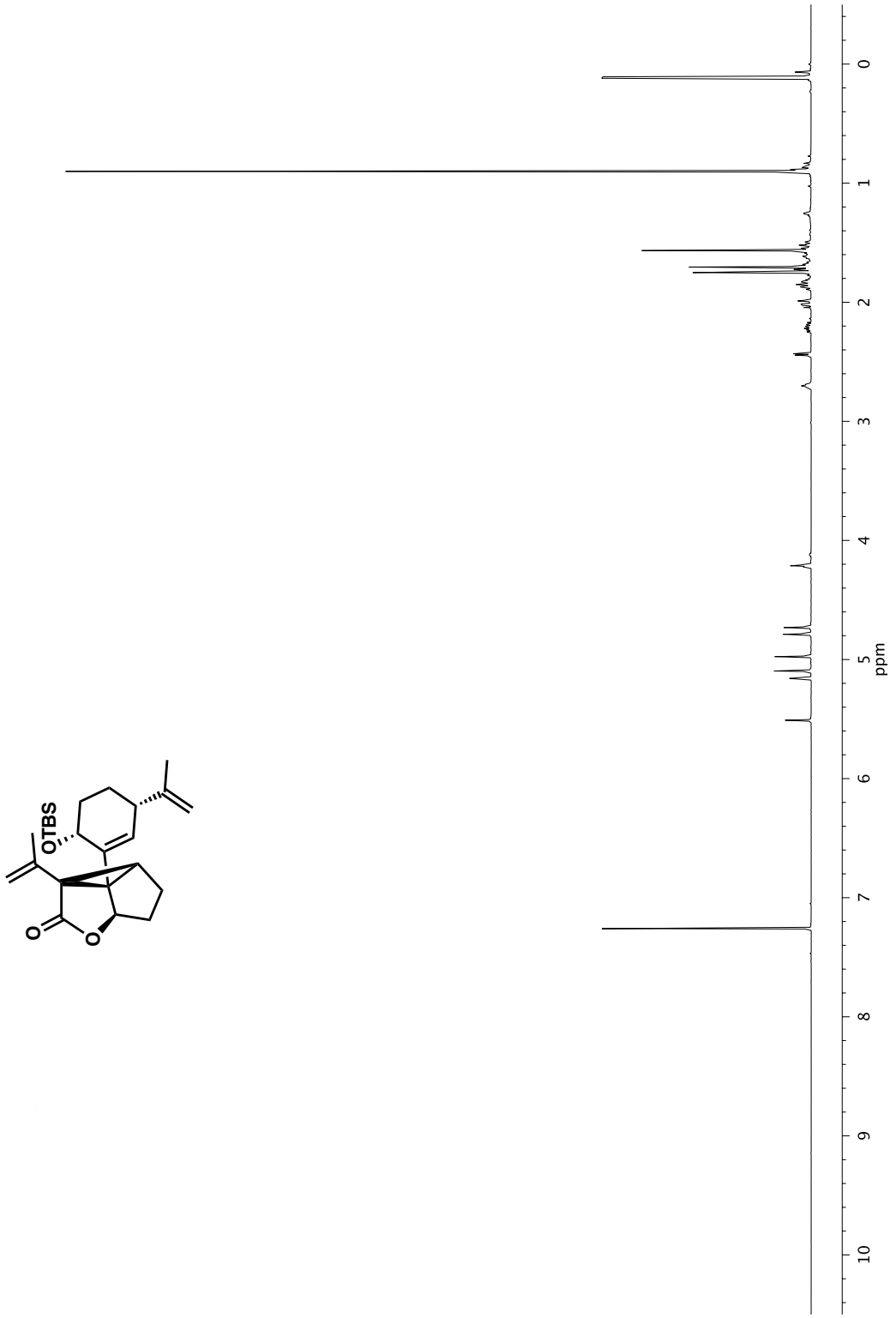

Figure A2.55 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **47**

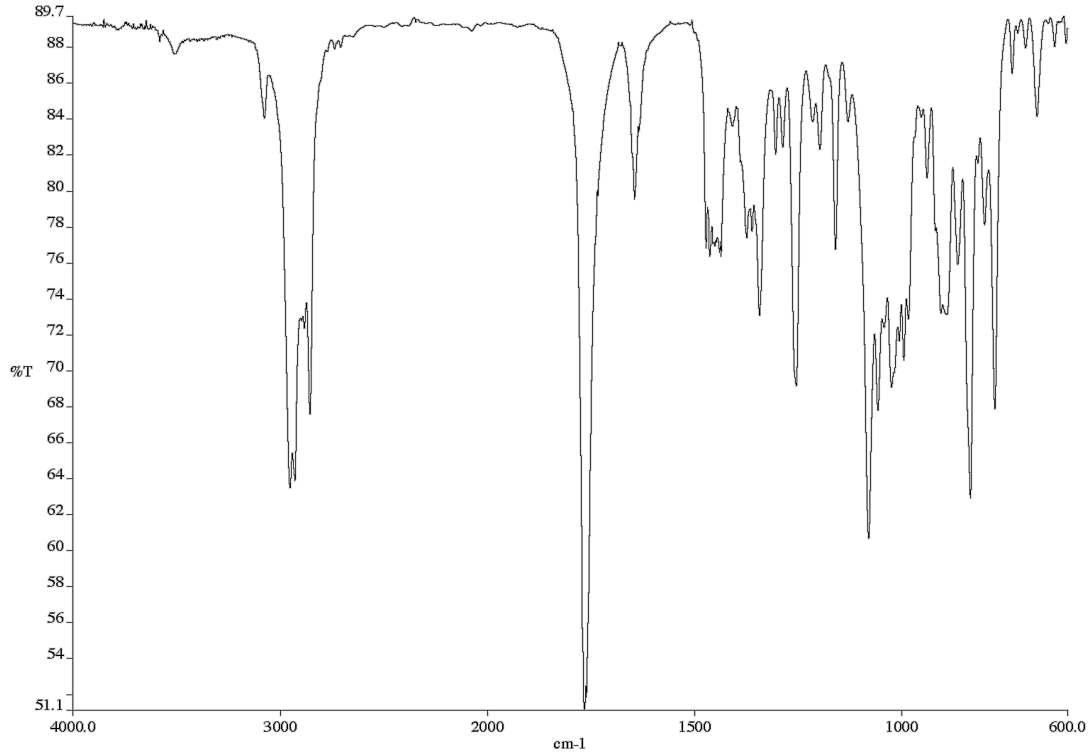

Figure A2.56 Infrared spectrum (Thin Film, NaCl) of compound **47**

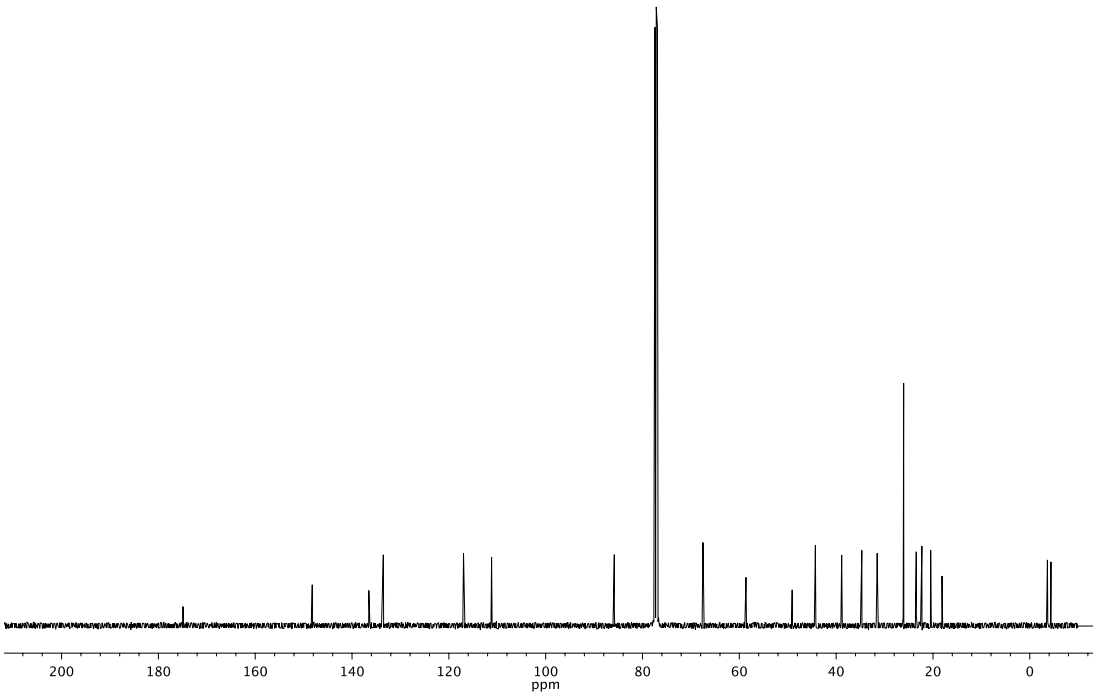

Figure A2.57 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **47**

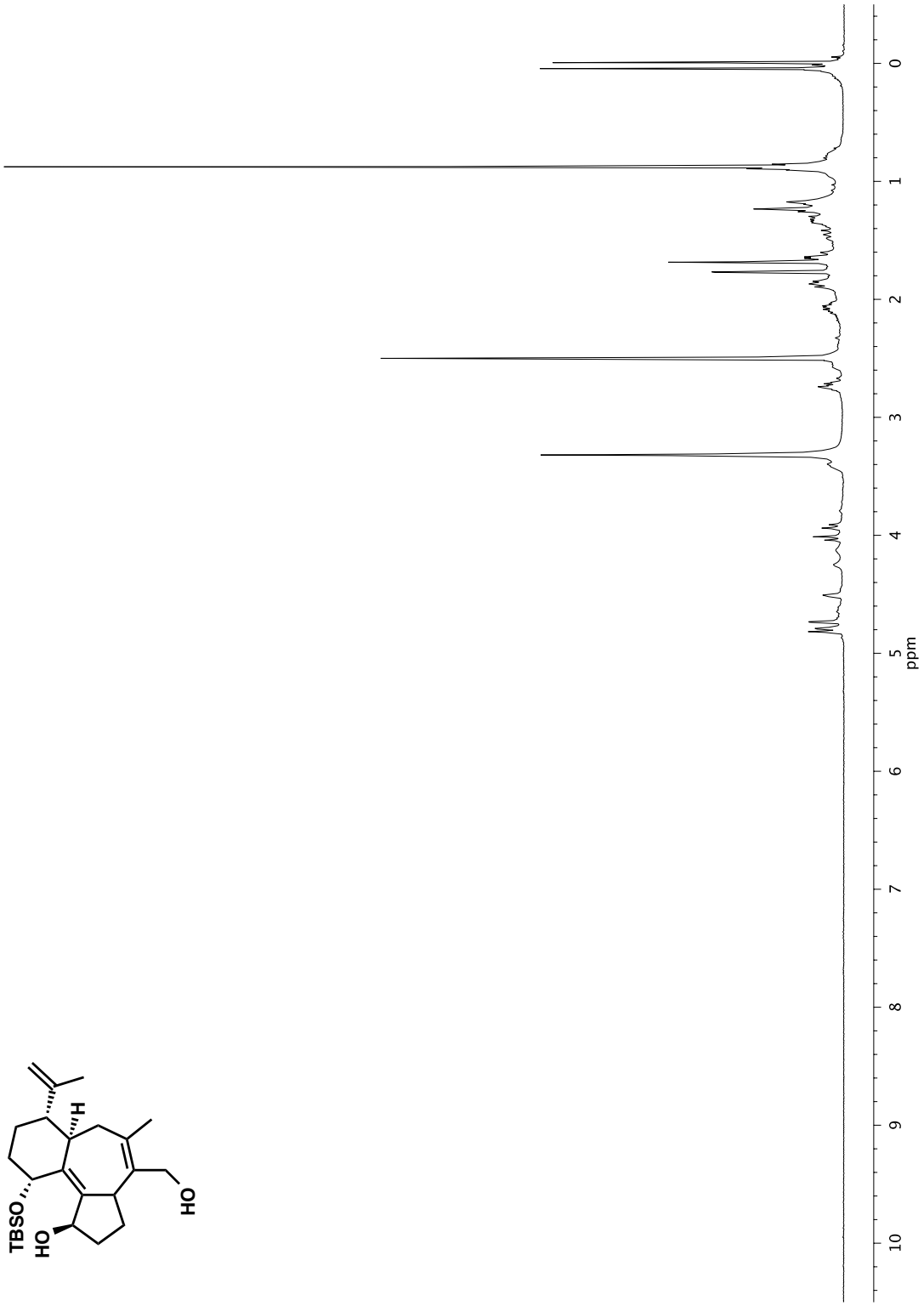

Figure A2.58 ^{1}H NMR (500 MHz, DMSO-*d6*) of compound **49**

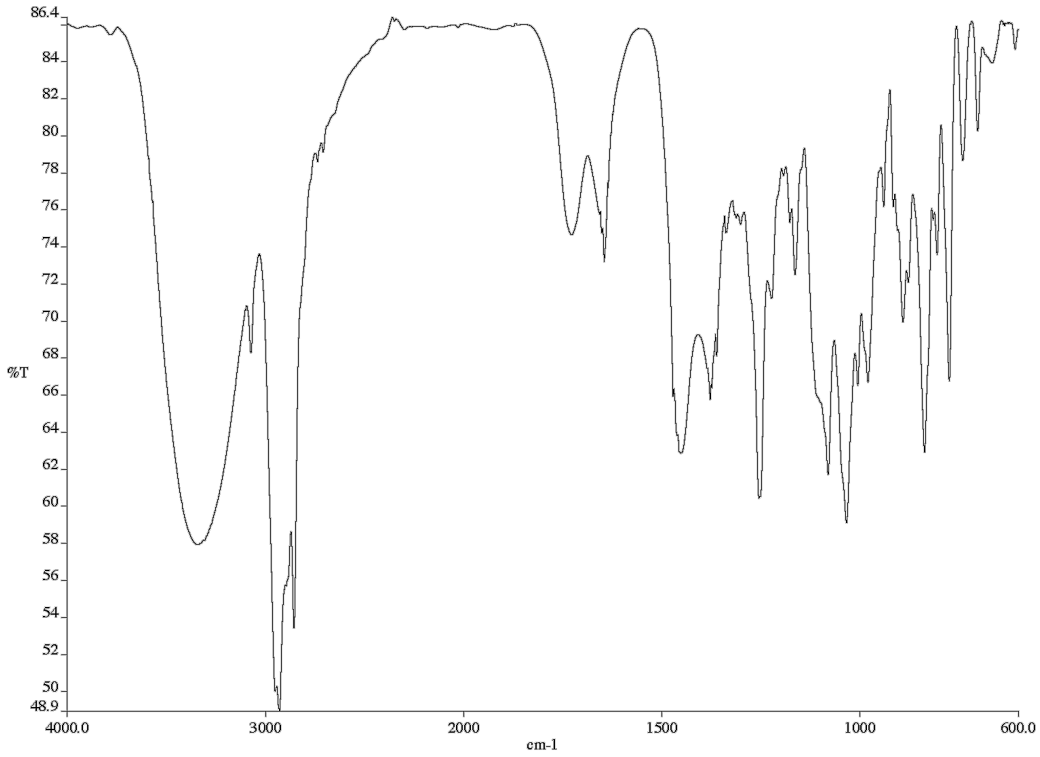

Figure A2.59 Infrared spectrum (Thin Film, NaCl) of compound **49**

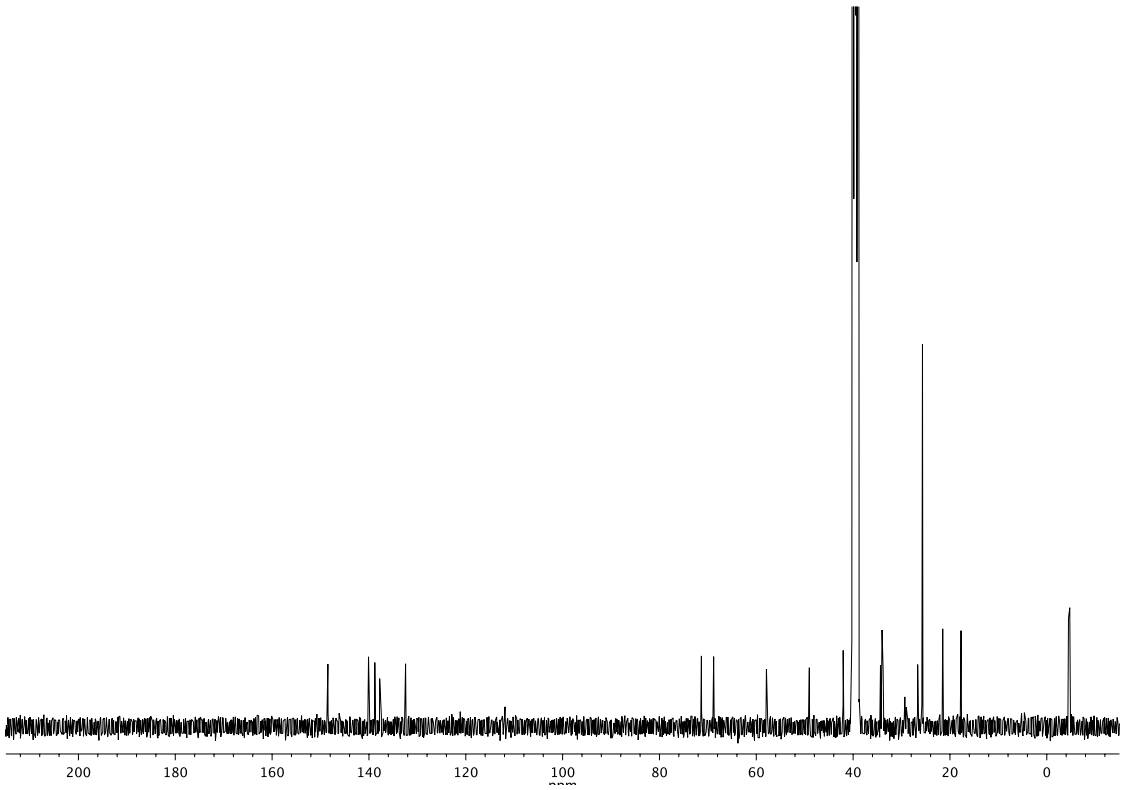

Figure A2.60 ^{13}C NMR (126 MHz, DMSO-*d6*) of compound **49**

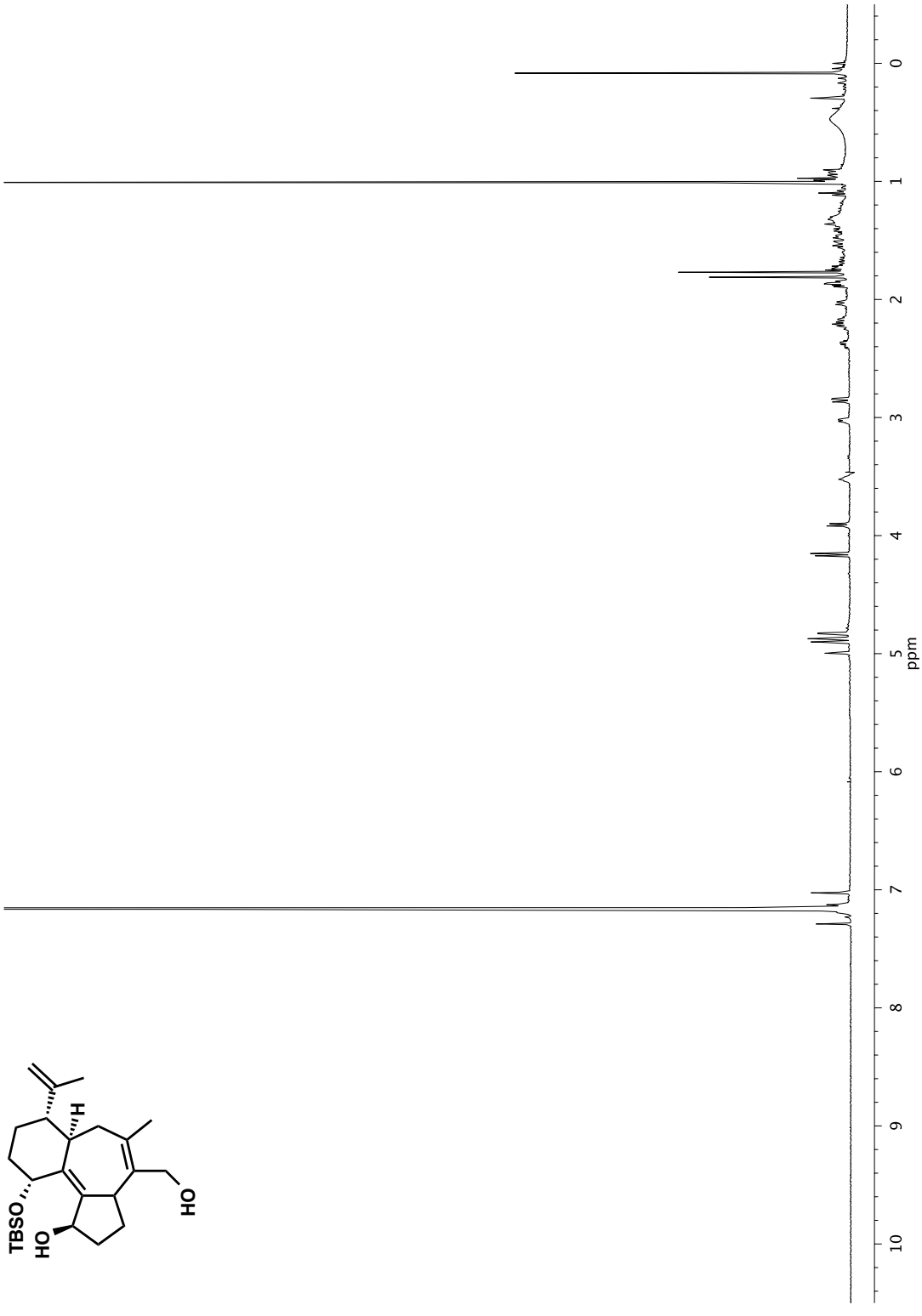

Figure A2.61 ^{1}H NMR (500 MHz, C_6D_6) of compound **49**

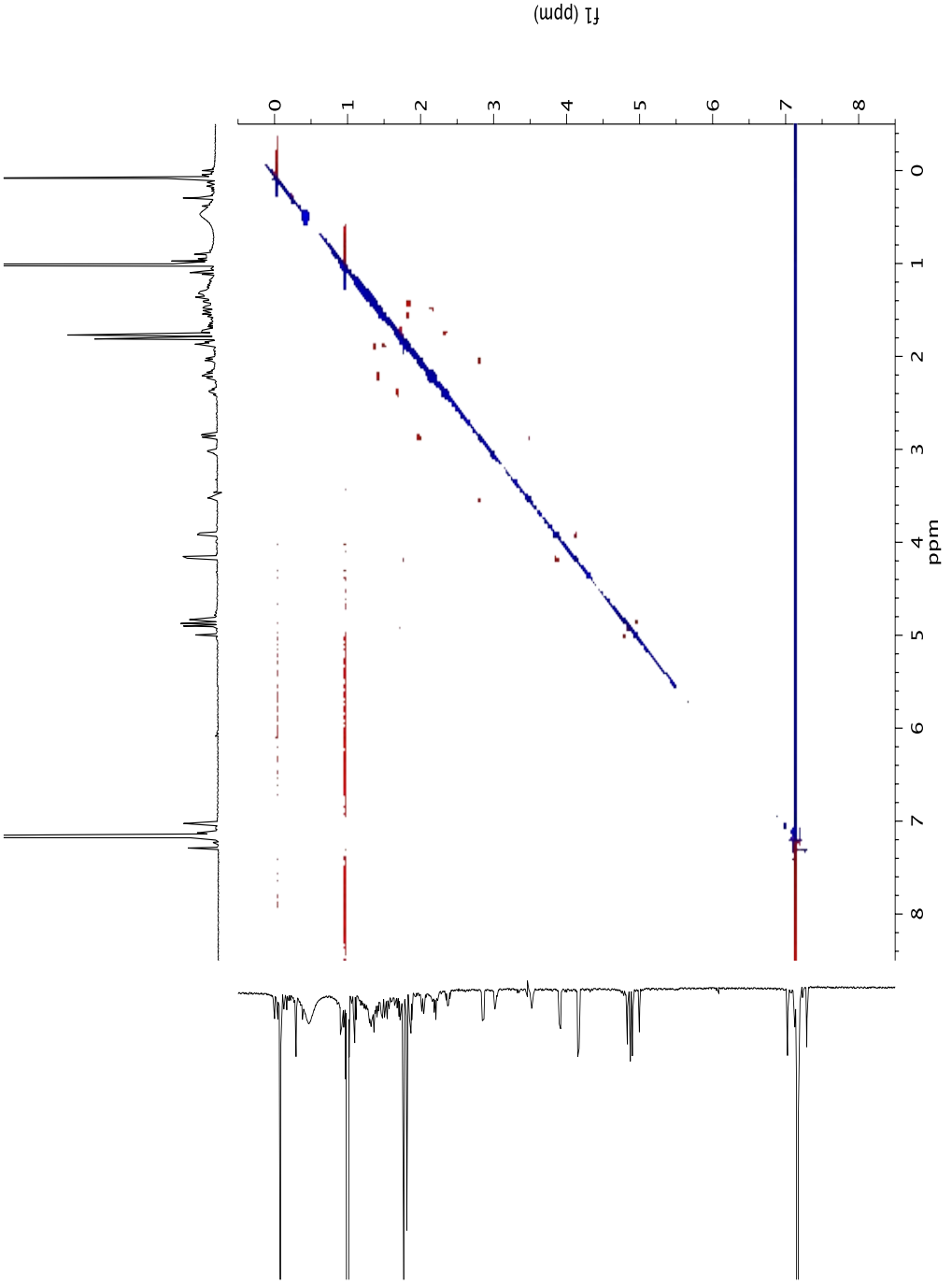

Figure A2.62 NOESY (600 MHz, C_6D_6) of compound **49**

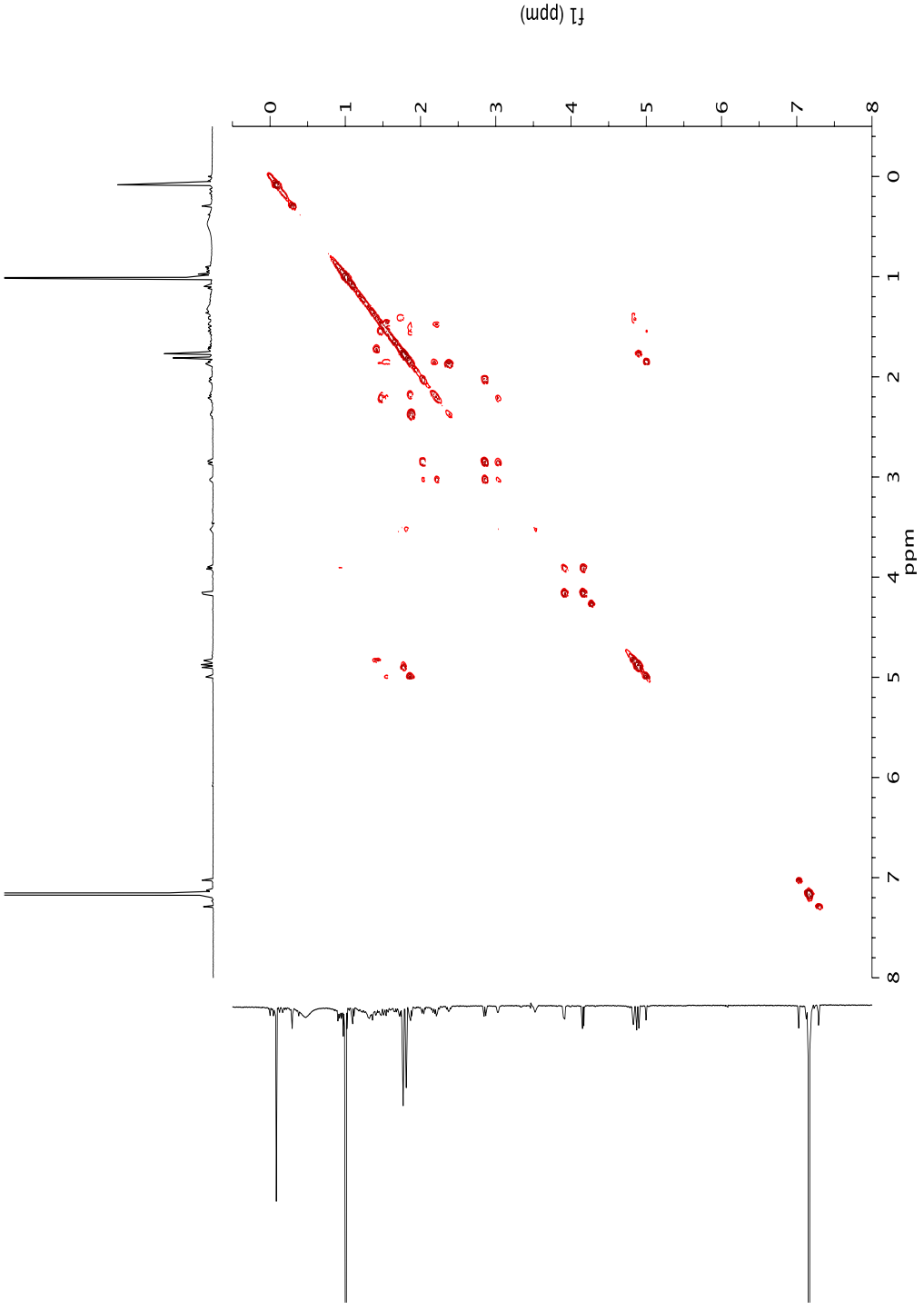

Figure A2.63 ^{1}H–^{1}H gCOSY NMR (600 MHz, C_6D_6) of compound **49**

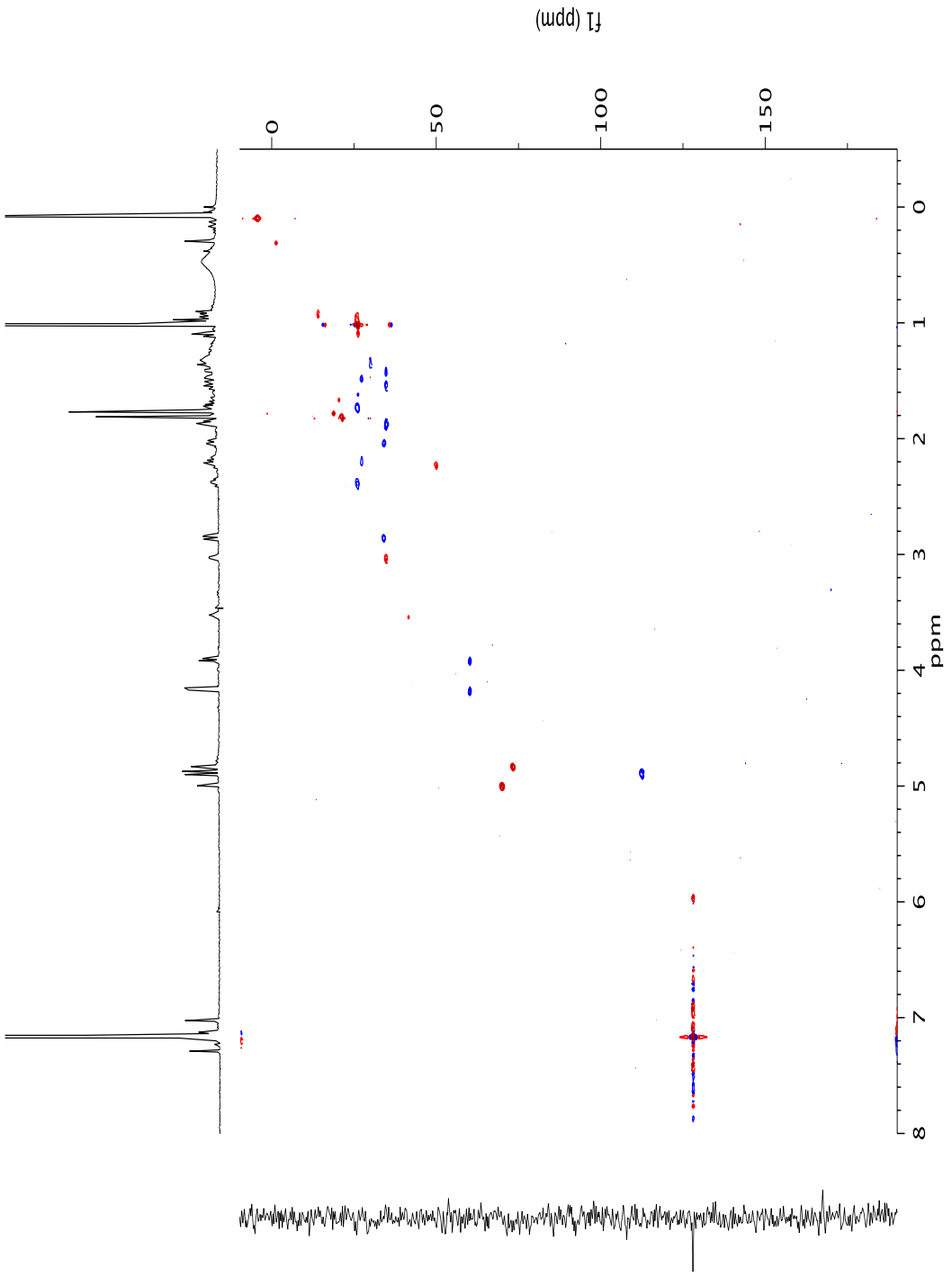

Figure A2.64 ^{1}H–^{13}C HSQC NMR (600 MHz, C_6D_6) of compound **49**

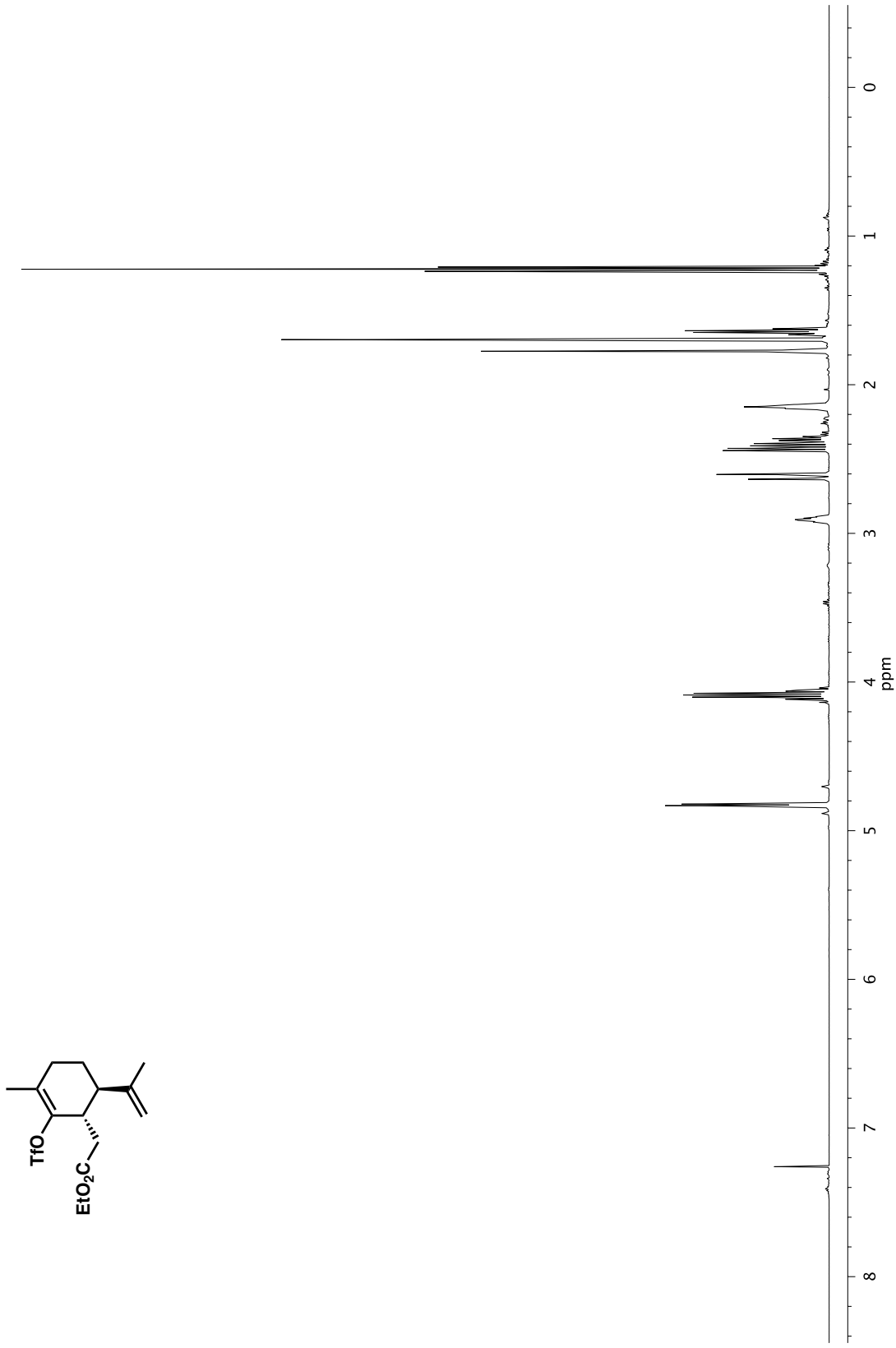

Figure A2.65 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **60**

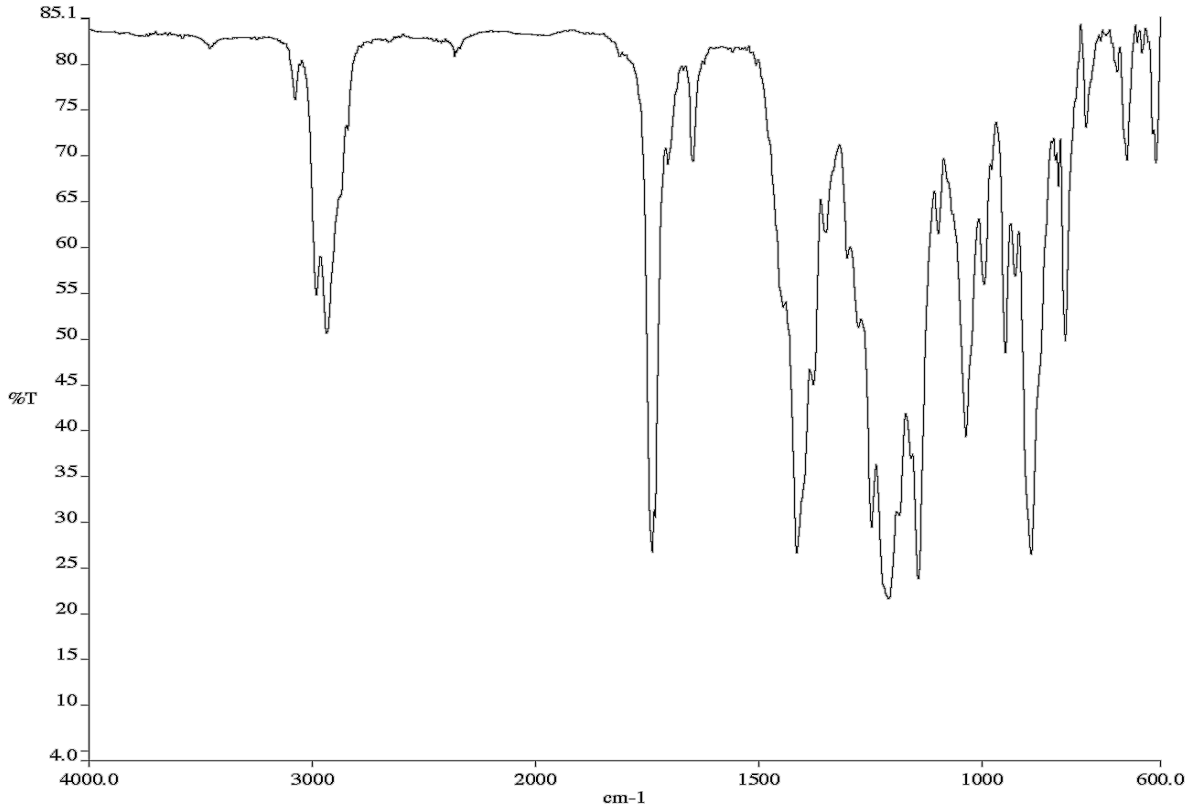

Figure A2.66 Infrared spectrum (Thin Film, NaCl) of compound **60**

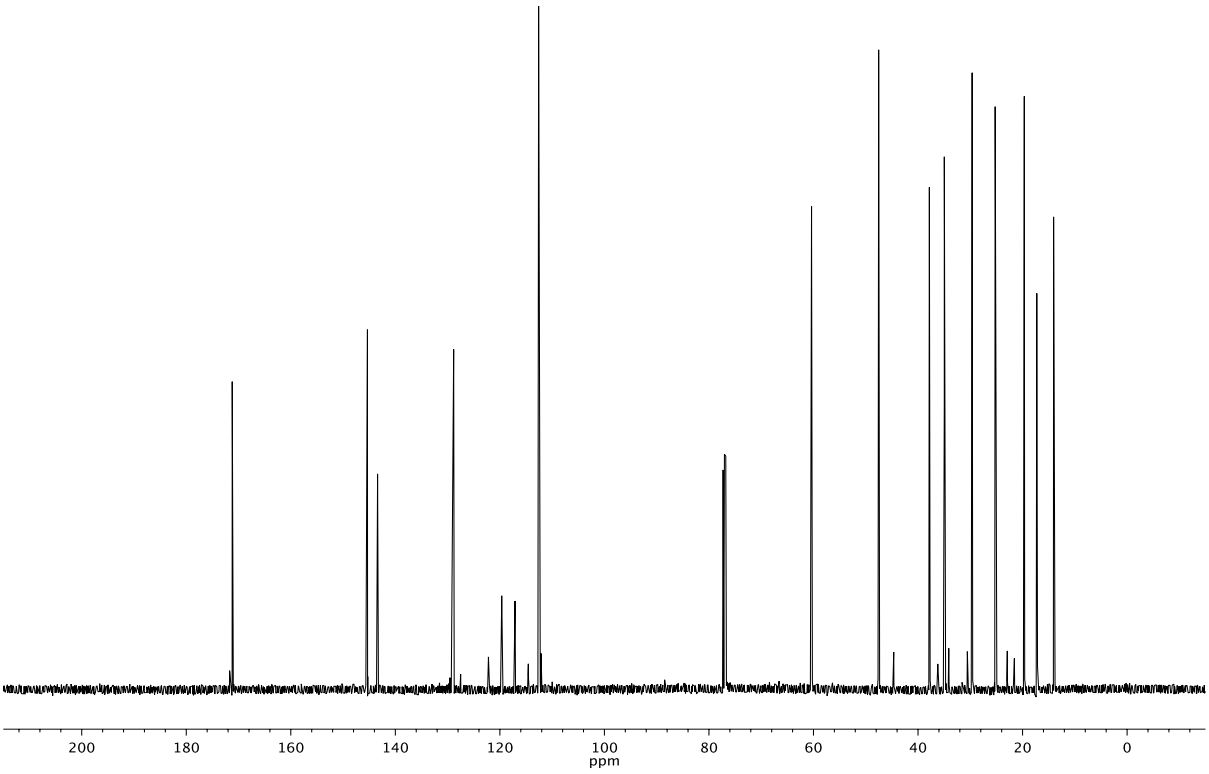

Figure A2.67 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **60**

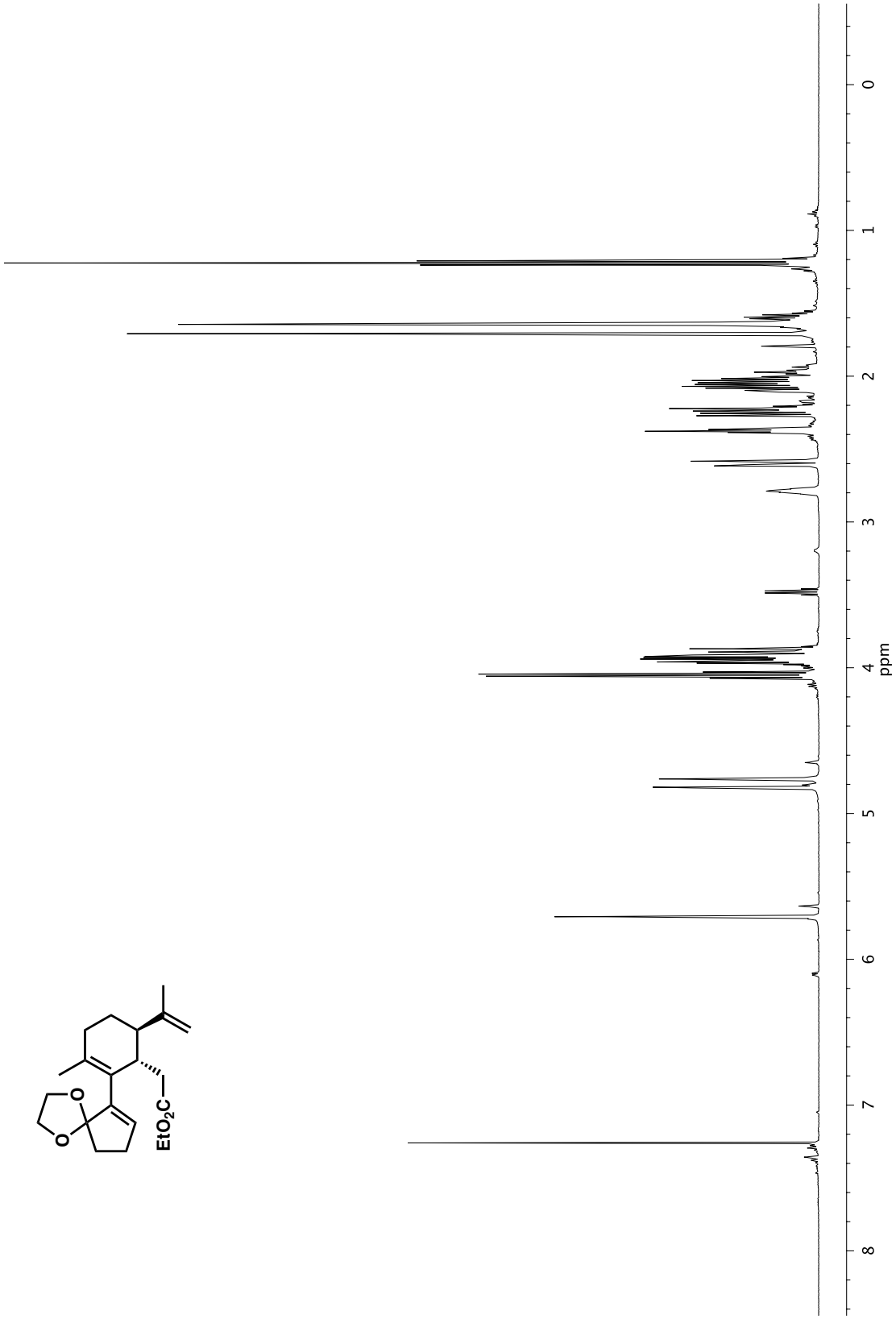

Figure A2.68 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **58**

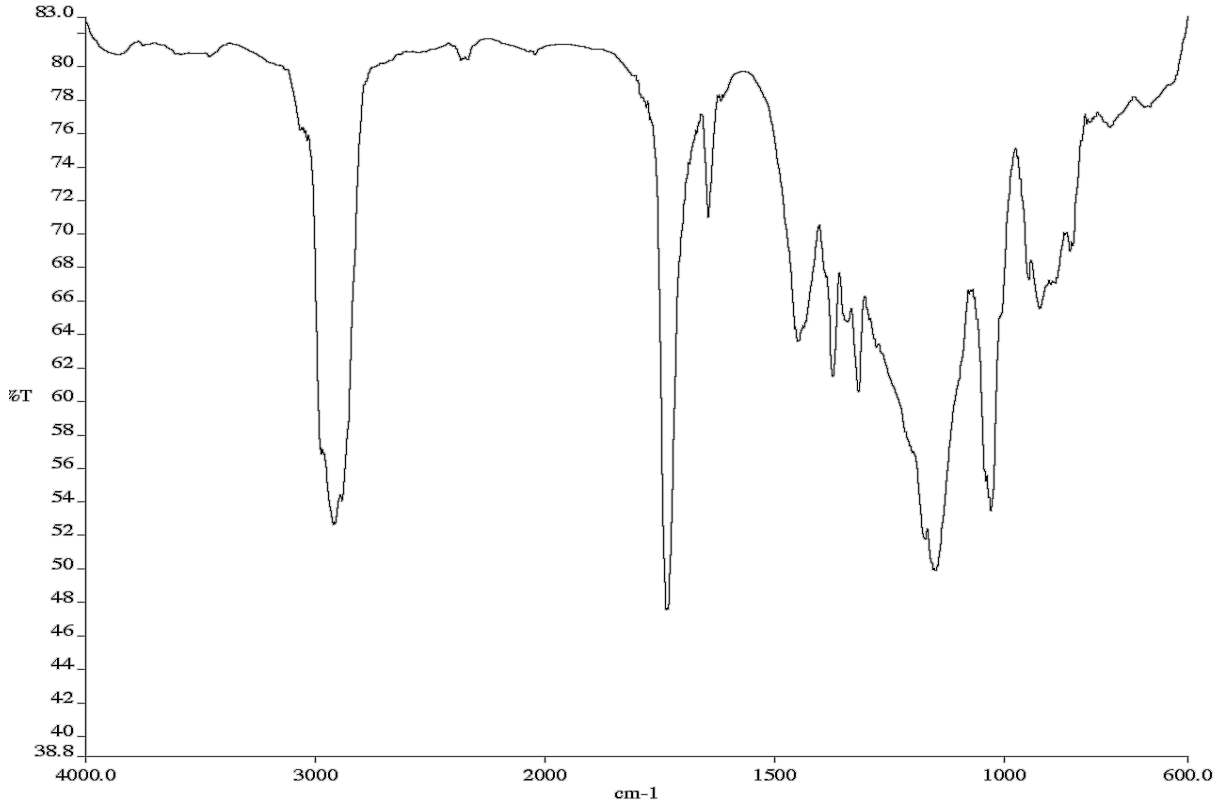

Figure A2.69 Infrared spectrum (Thin Film, NaCl) of compound **58**

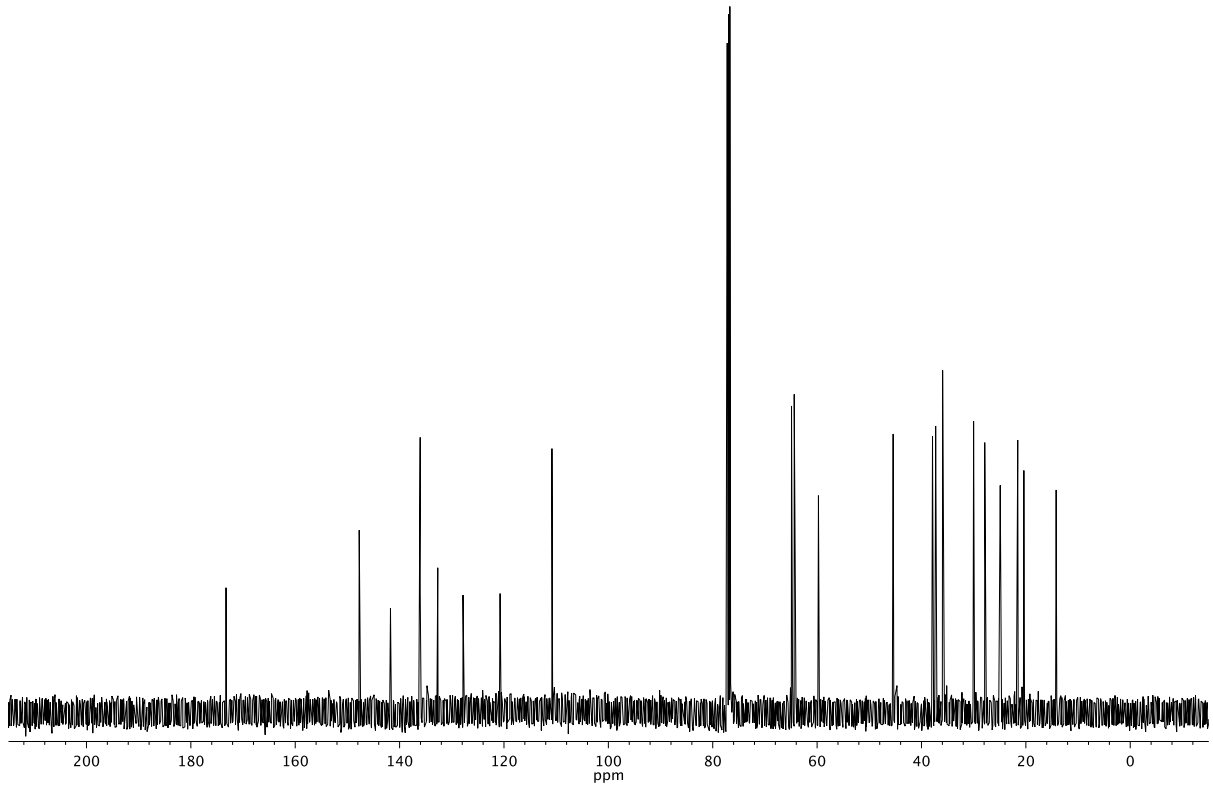

Figure A2.70 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **58**

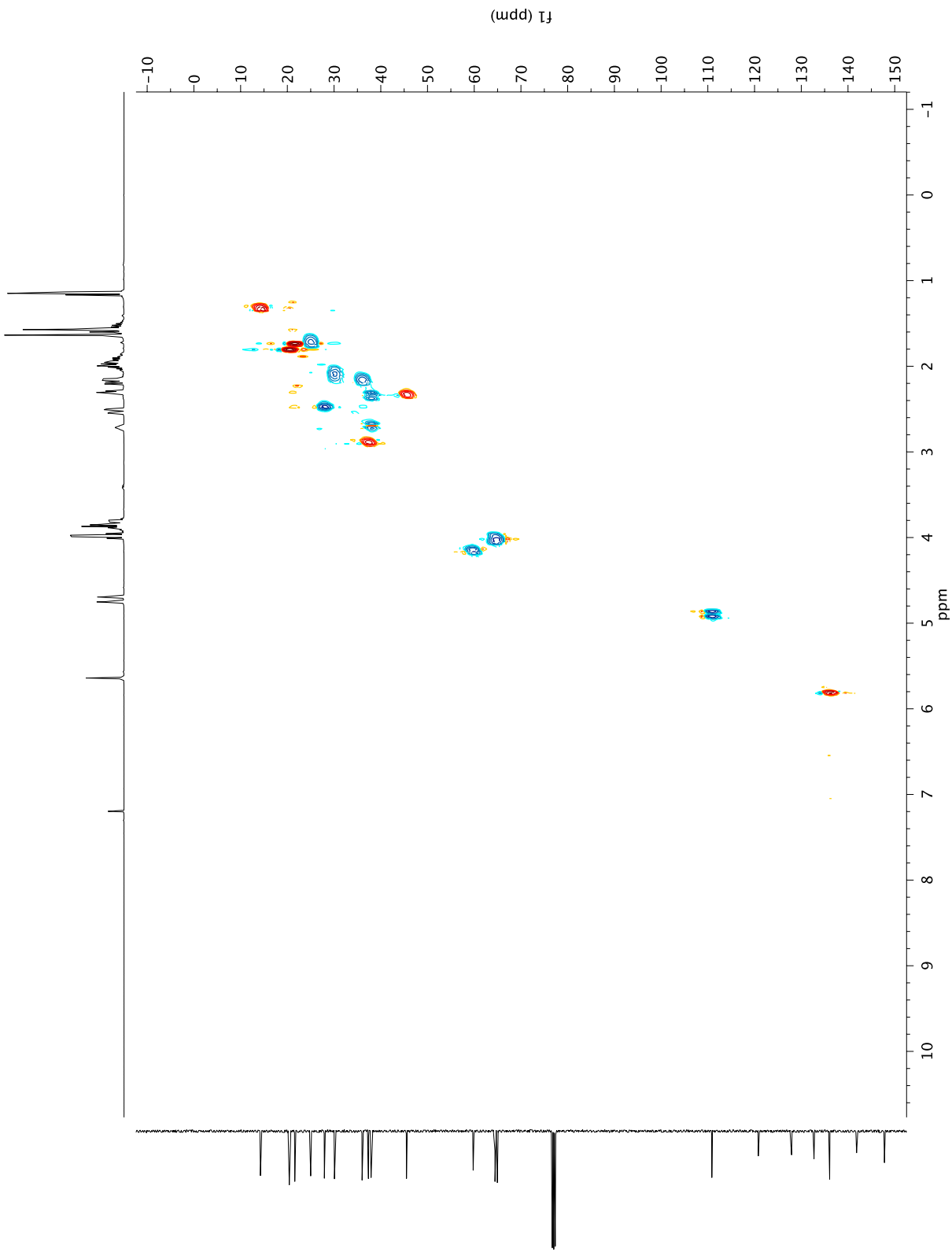

Figure A2.71 ^{1}H–^{13}C HSQC NMR (400 MHz, $CDCl_3$) of compound **58**

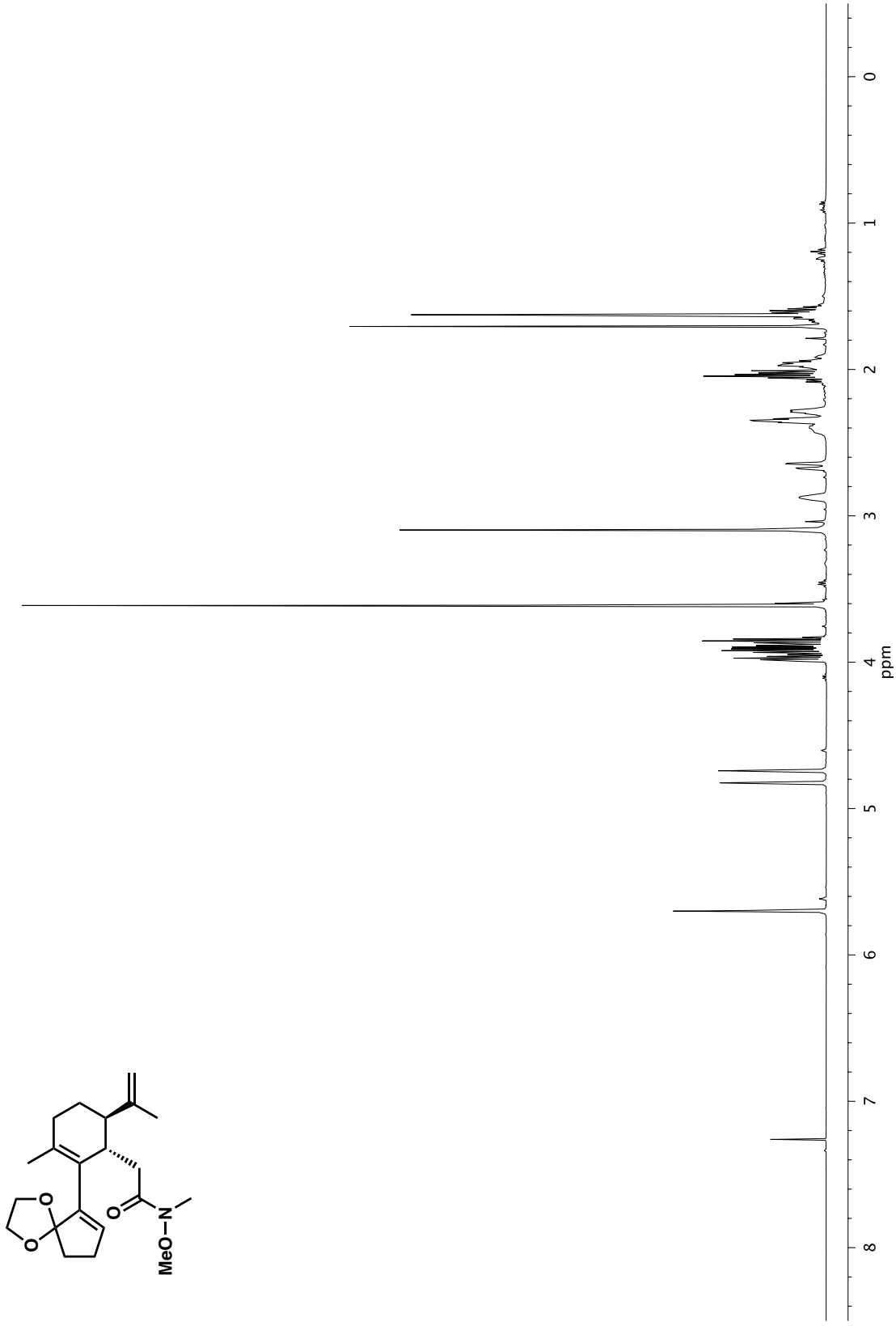

Figure A2.72 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **67**

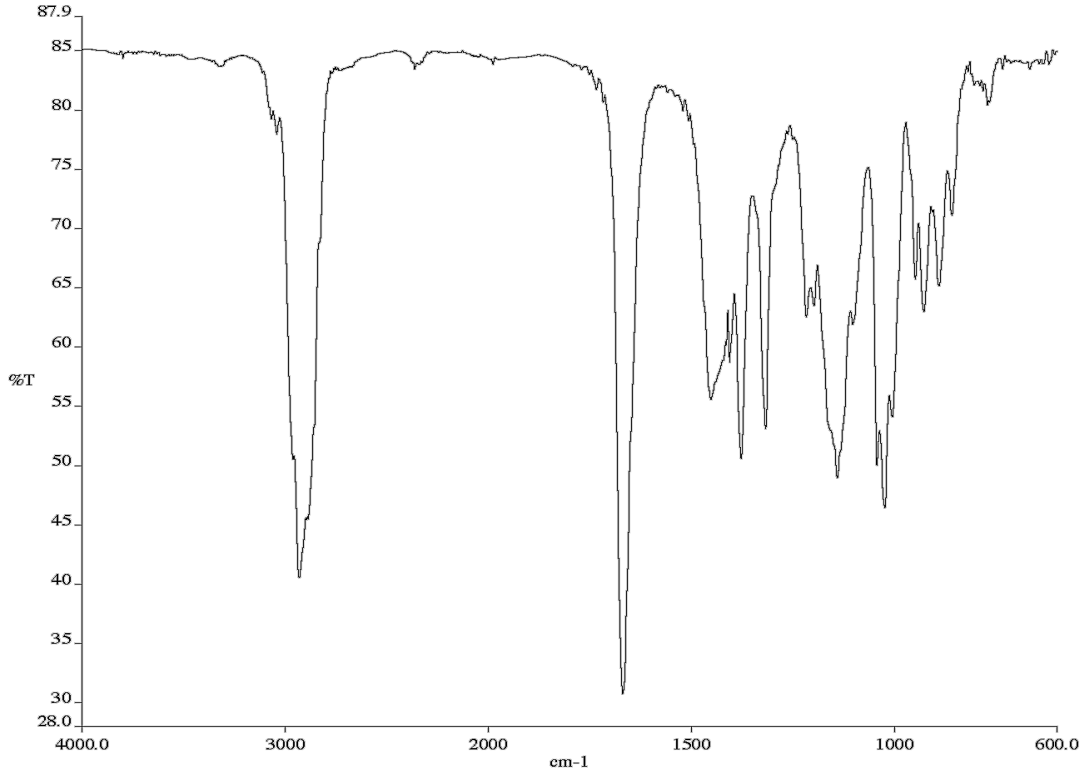

Figure A2.73 Infrared spectrum (Thin Film, NaCl) of compound **67**

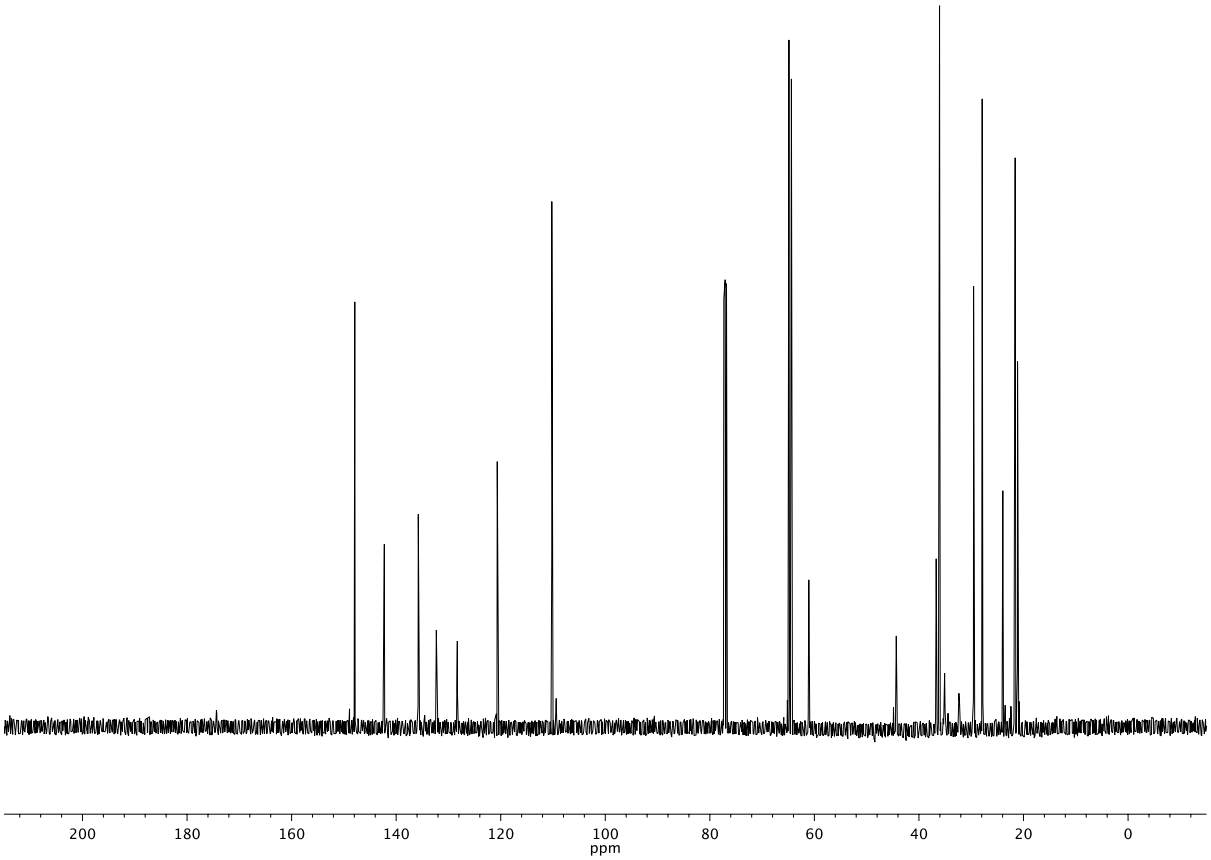

Figure A2.74 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **67**

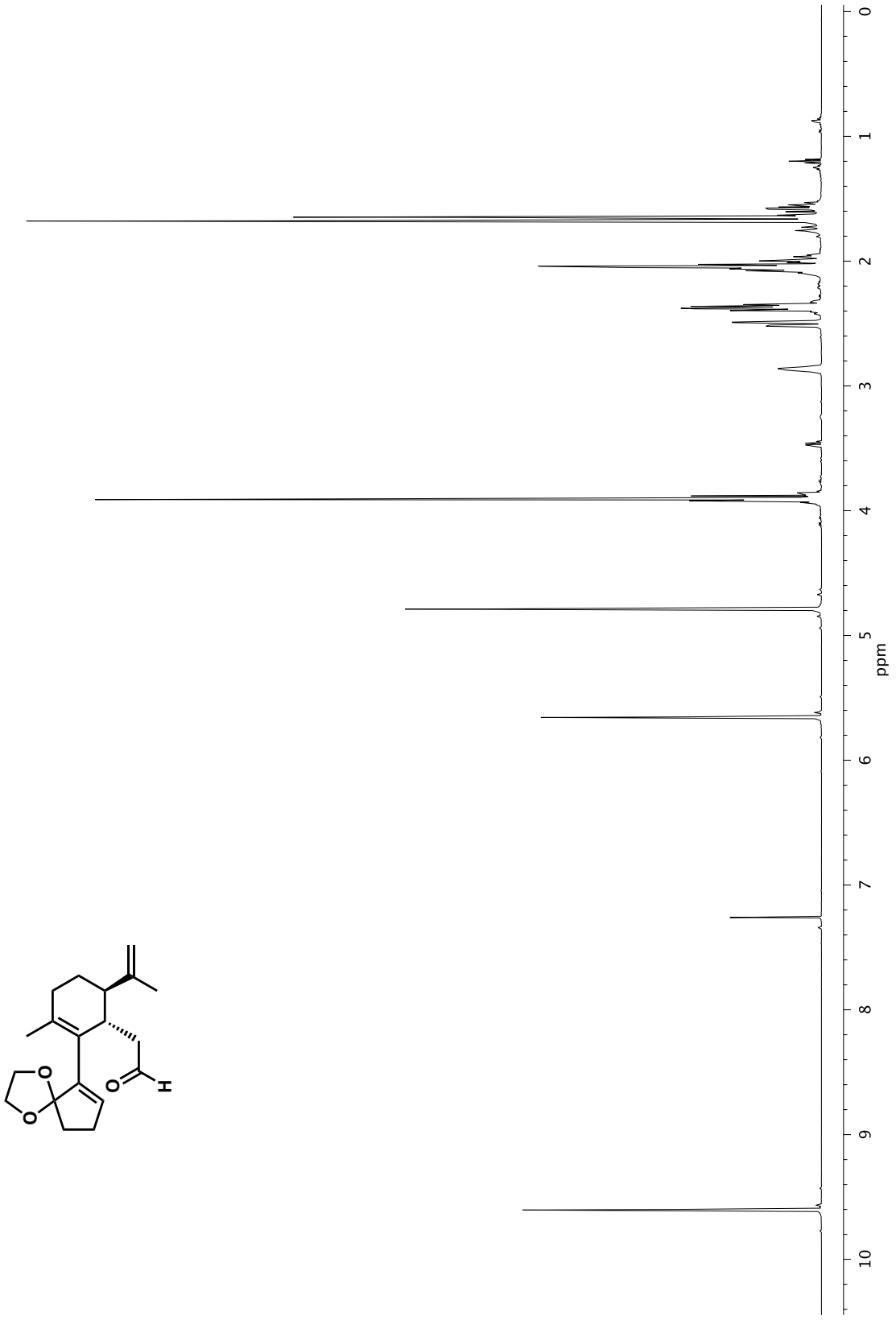

Figure A2.75 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **68**

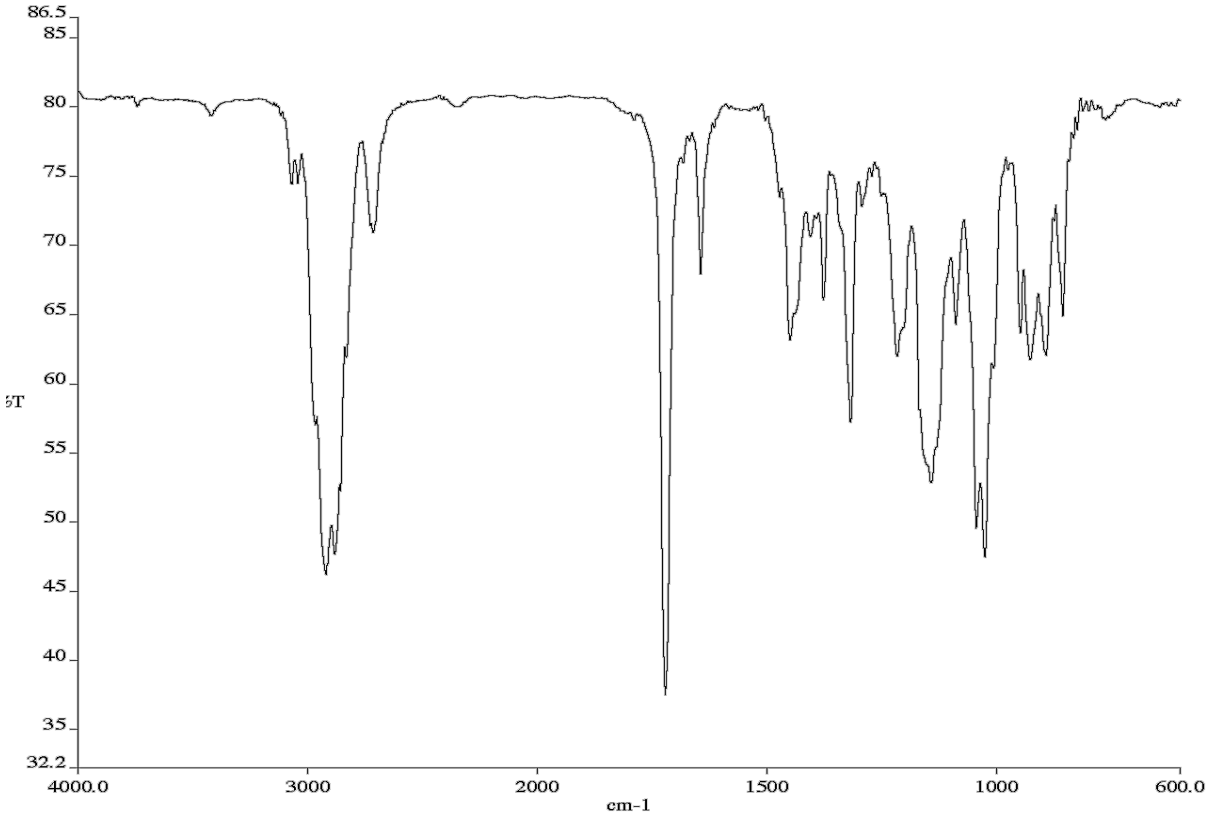

Figure A2.76 Infrared spectrum (Thin Film, NaCl) of compound **68**

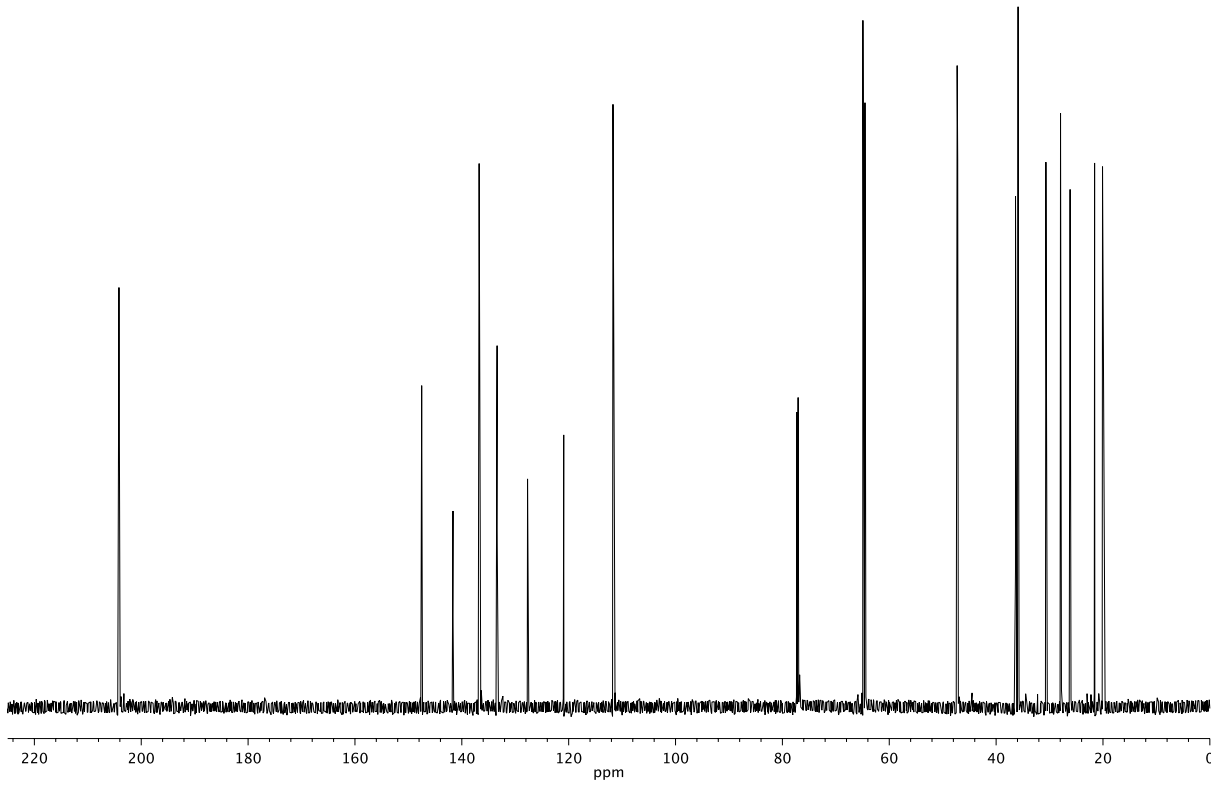

Figure A2.77 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **68**

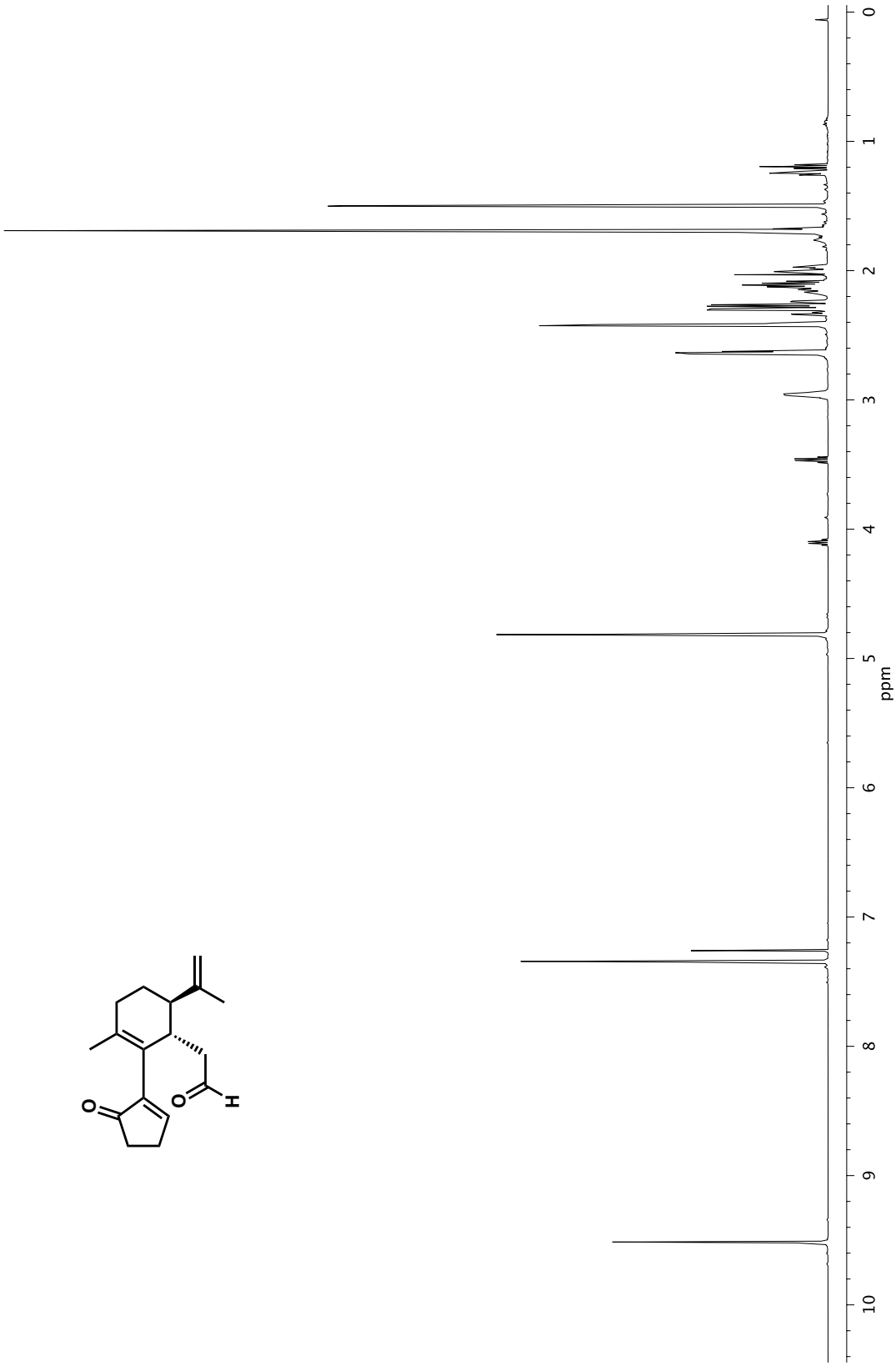

Figure A2.78 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **57**

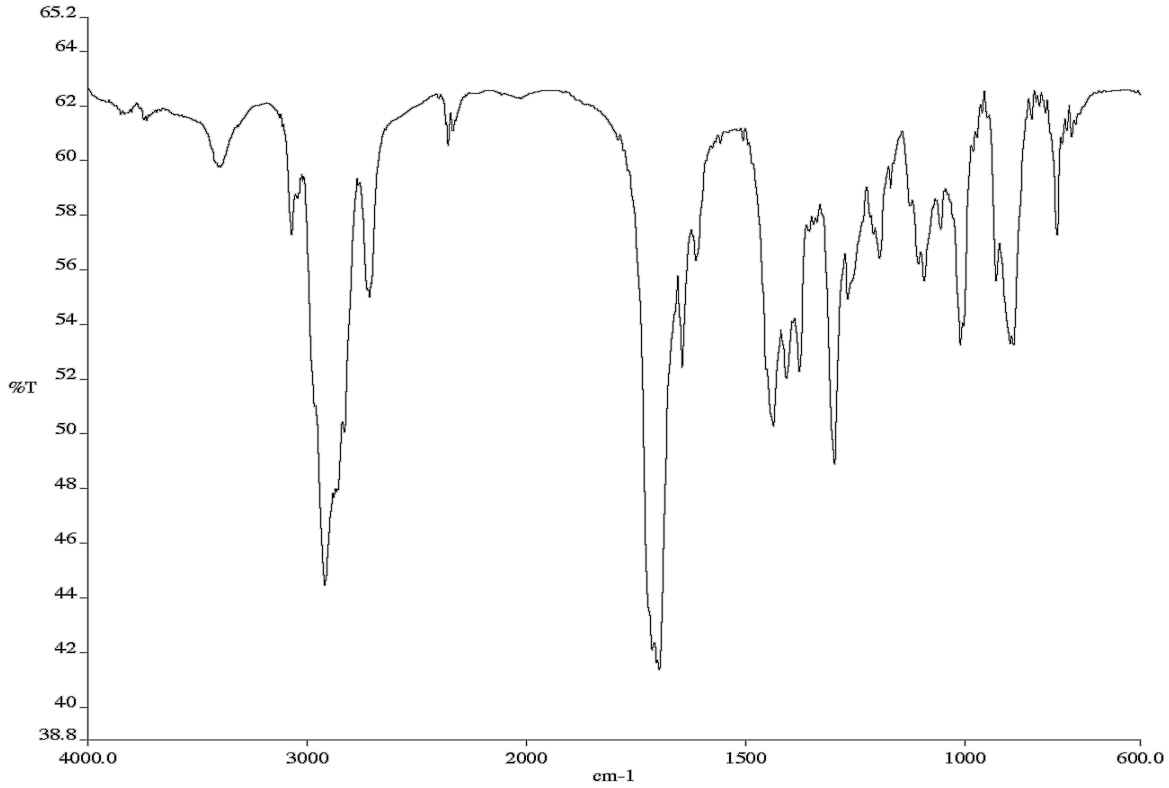

Figure A2.79 Infrared spectrum (Thin Film, NaCl) of compound **57**

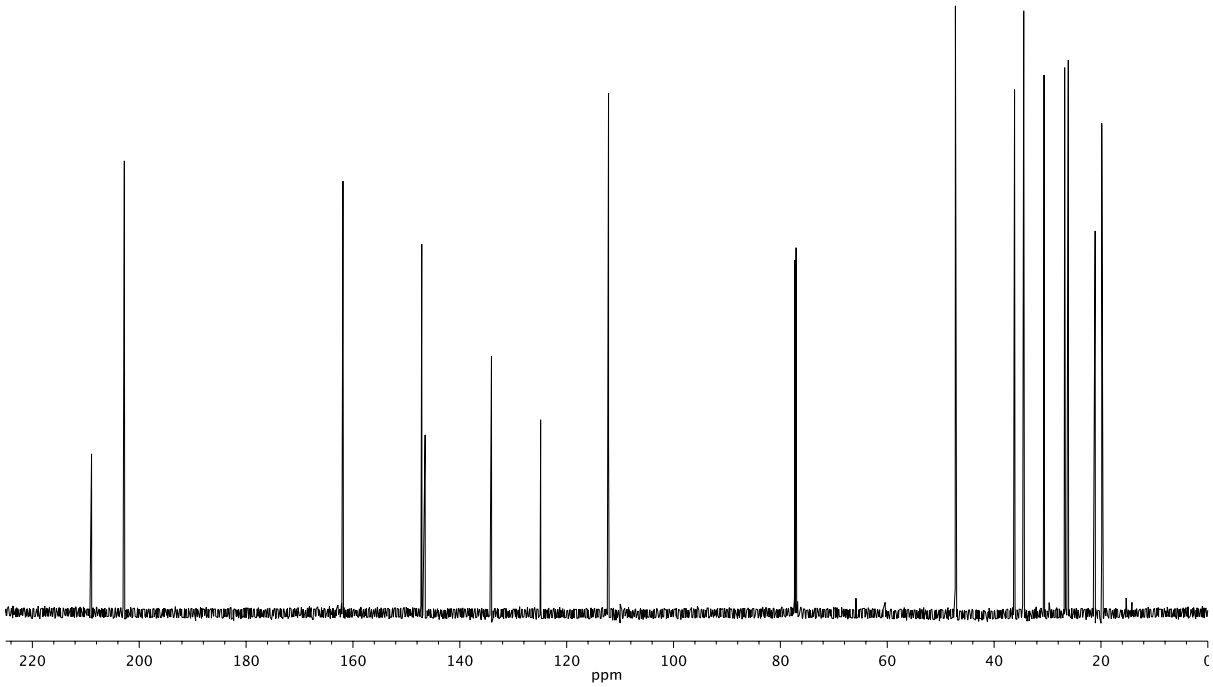

Figure A2.80 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **57**

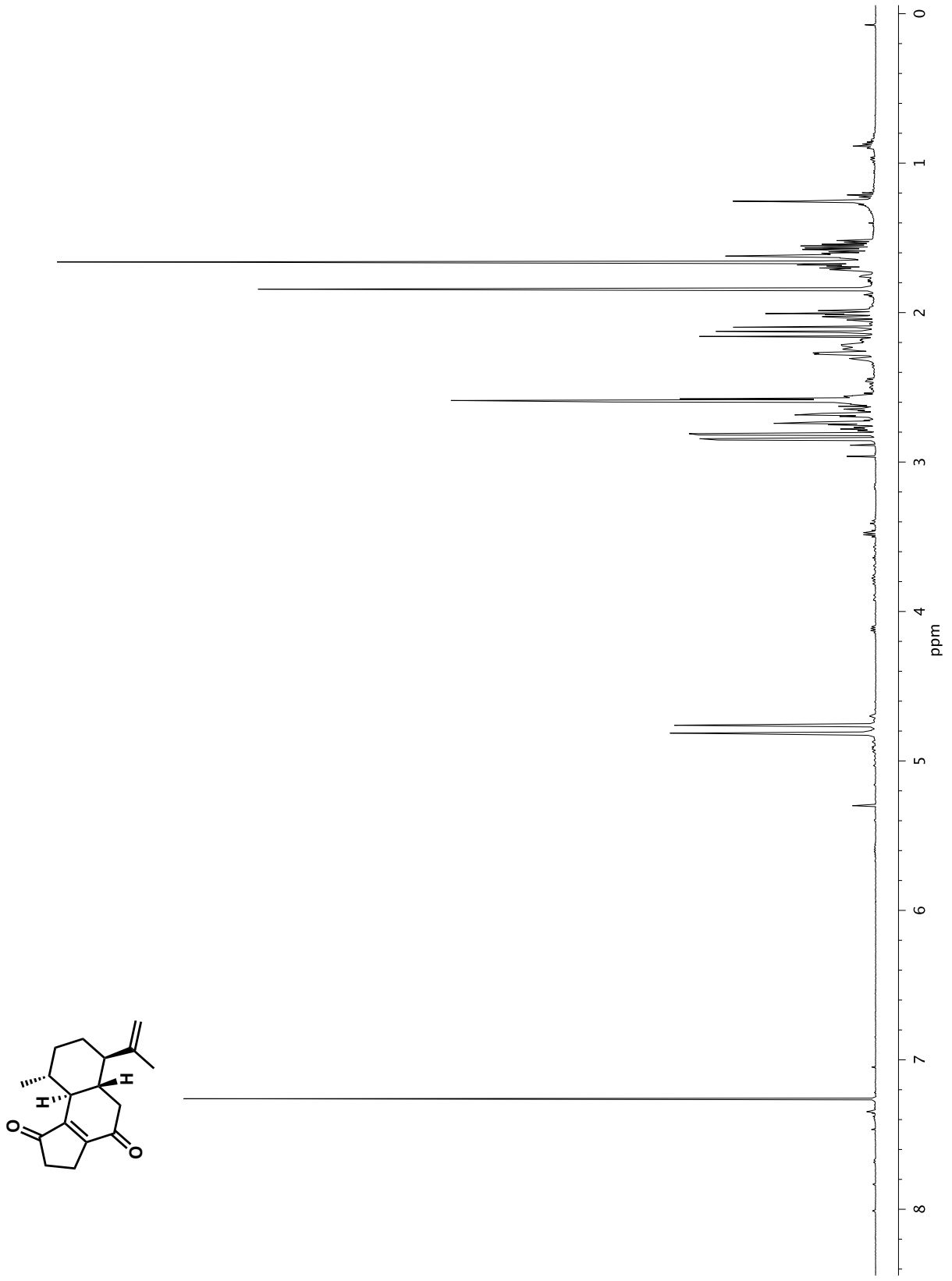

Figure A2.81 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **63**

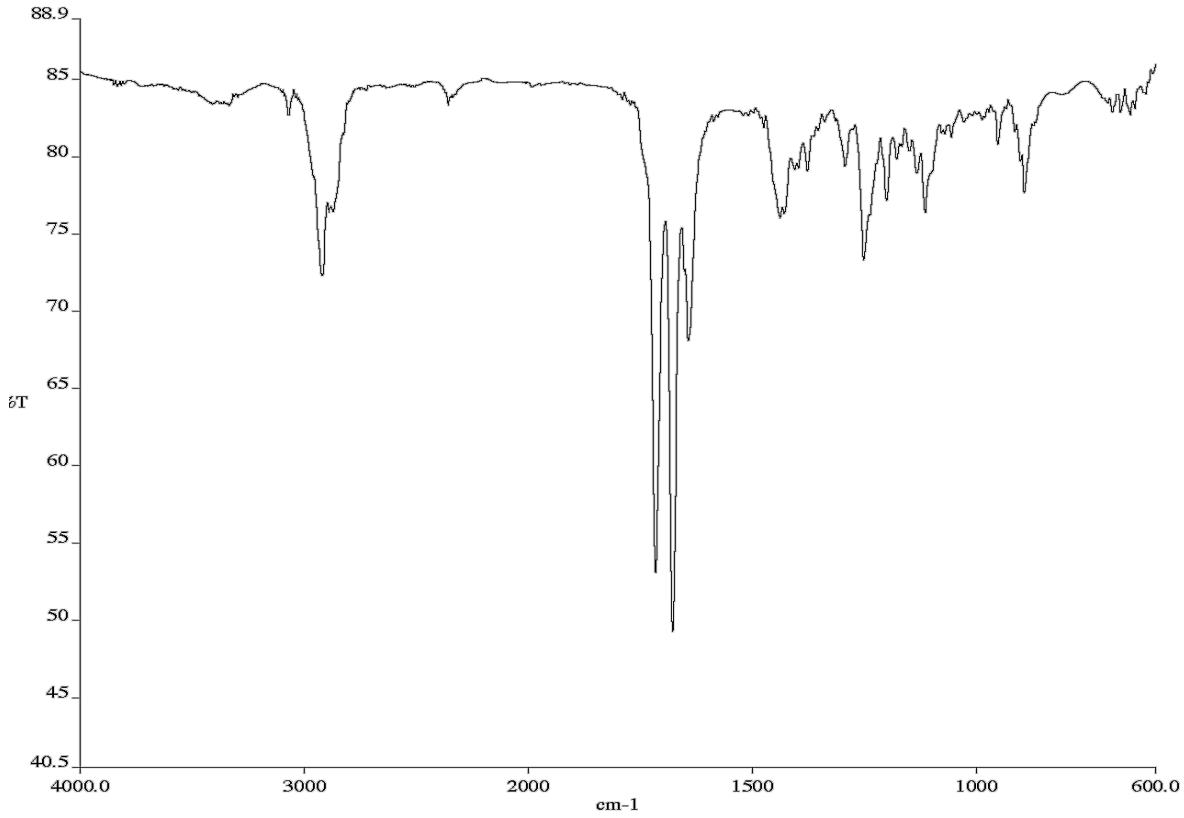

Figure A2.82 Infrared spectrum (Thin Film, NaCl) of compound **63**

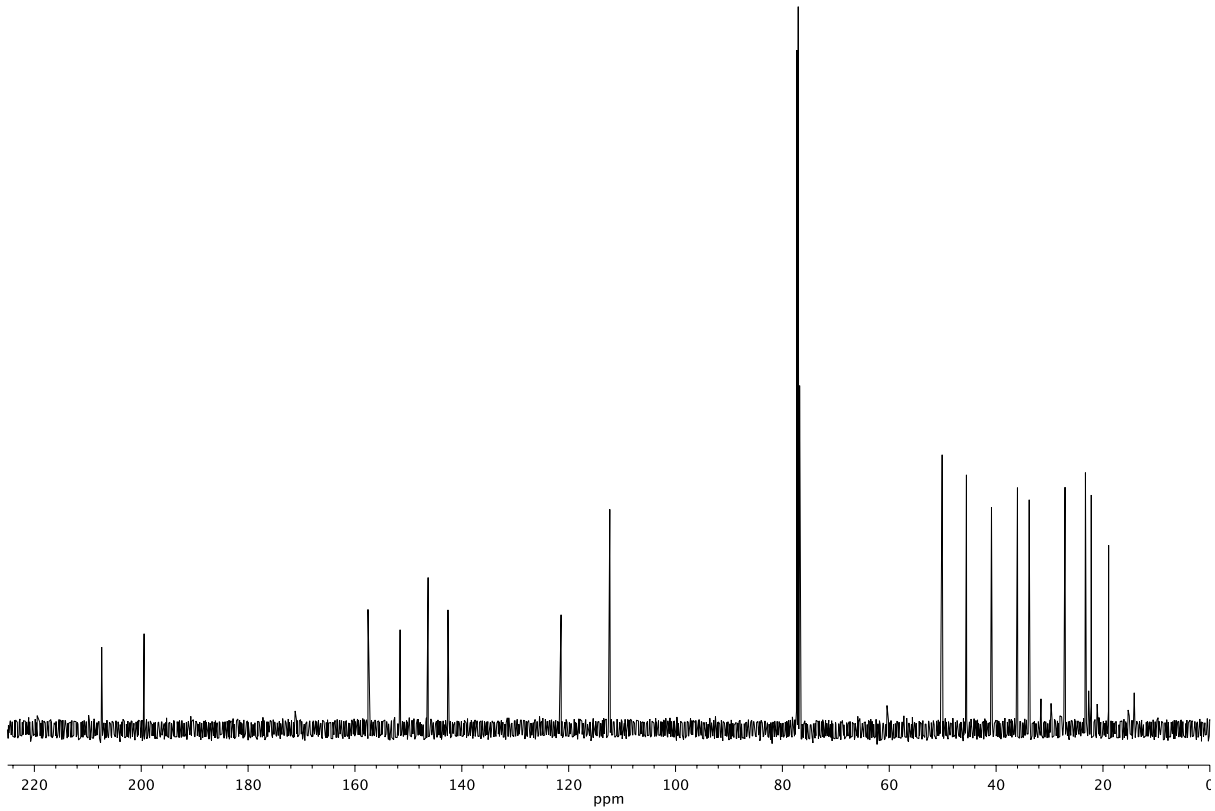

Figure A2.83 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **63**

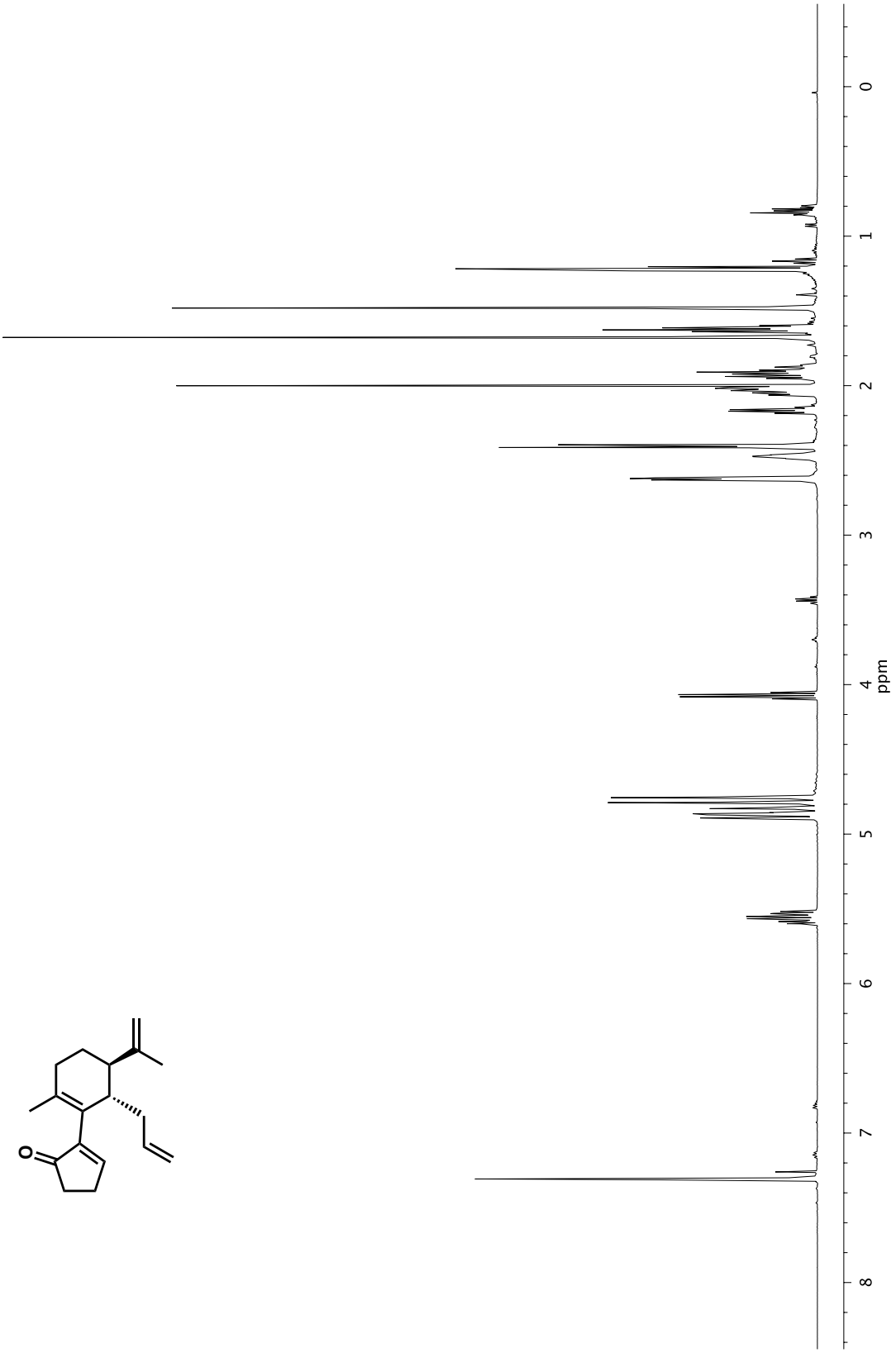

Figure A2.84 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **72**

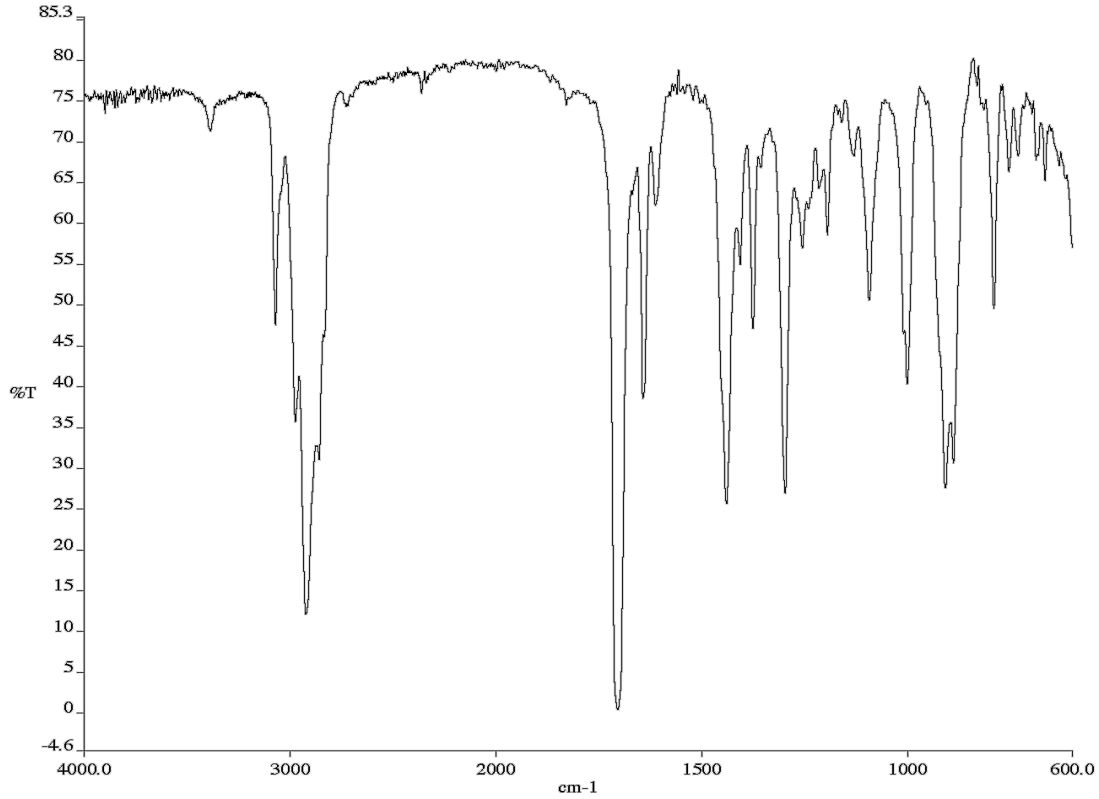

Figure A2.85 Infrared spectrum (Thin Film, NaCl) of compound **72**

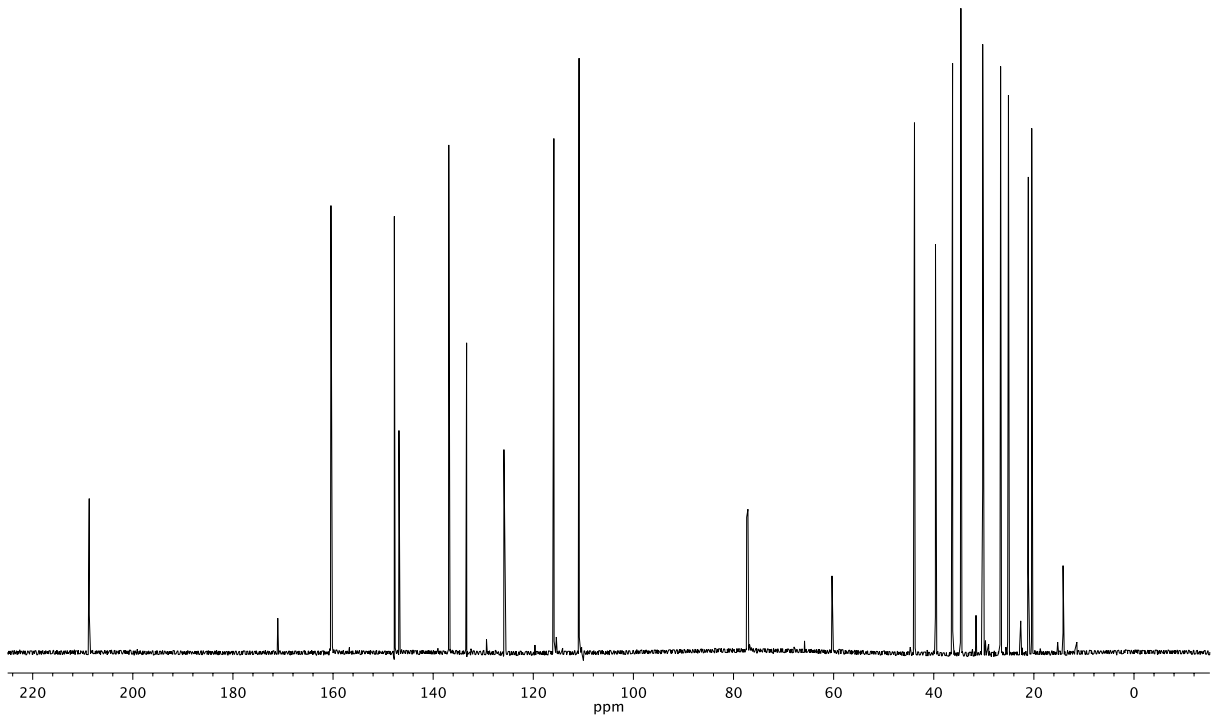

Figure A2.86 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **72**

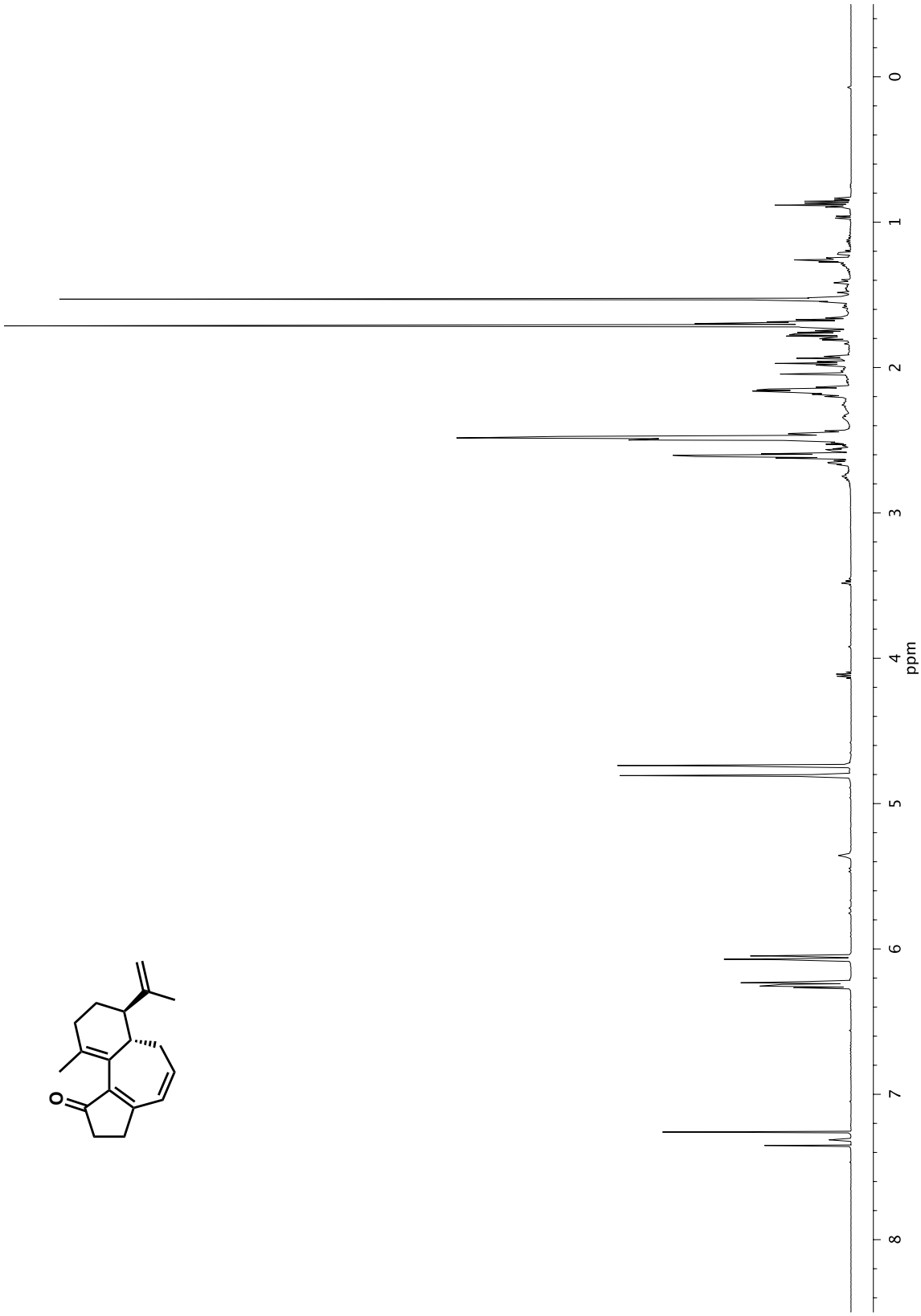

Figure A2.87 ^{1}H NMR (500 MHz, $CDCl_3$) of compound **73**

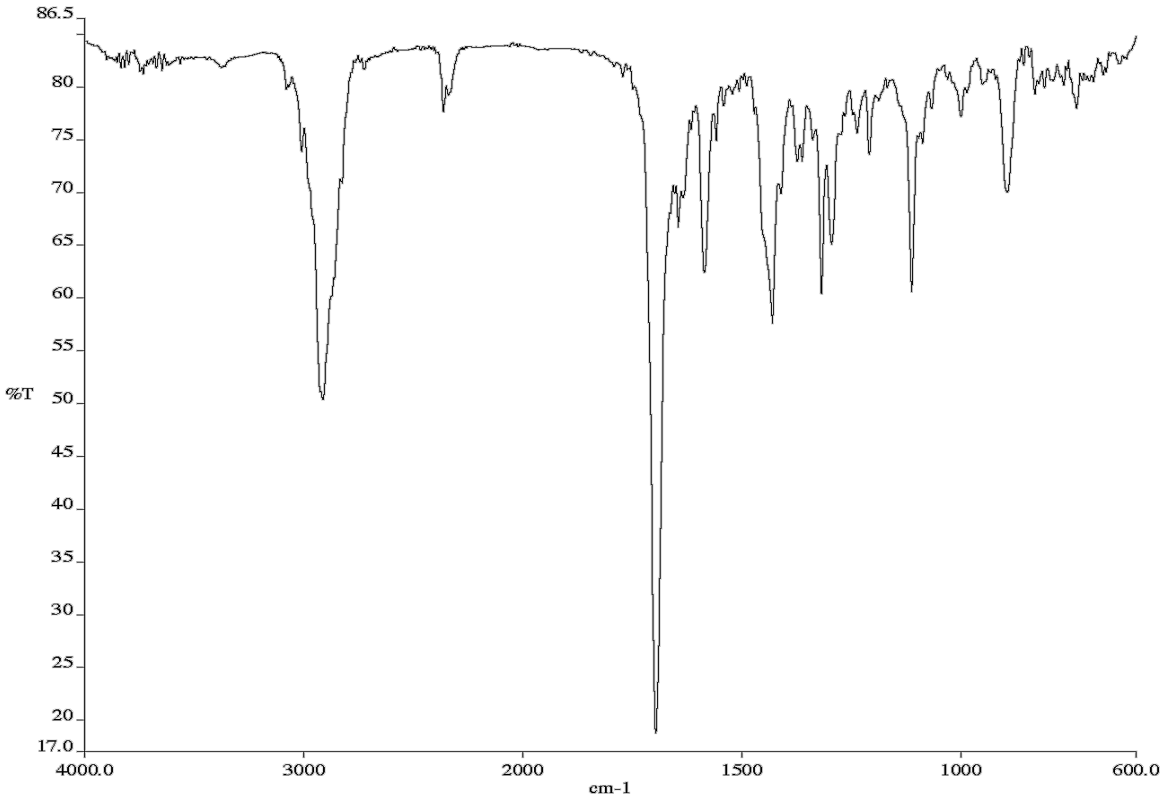

Figure A2.88 Infrared spectrum (Thin Film, NaCl) of compound **73**

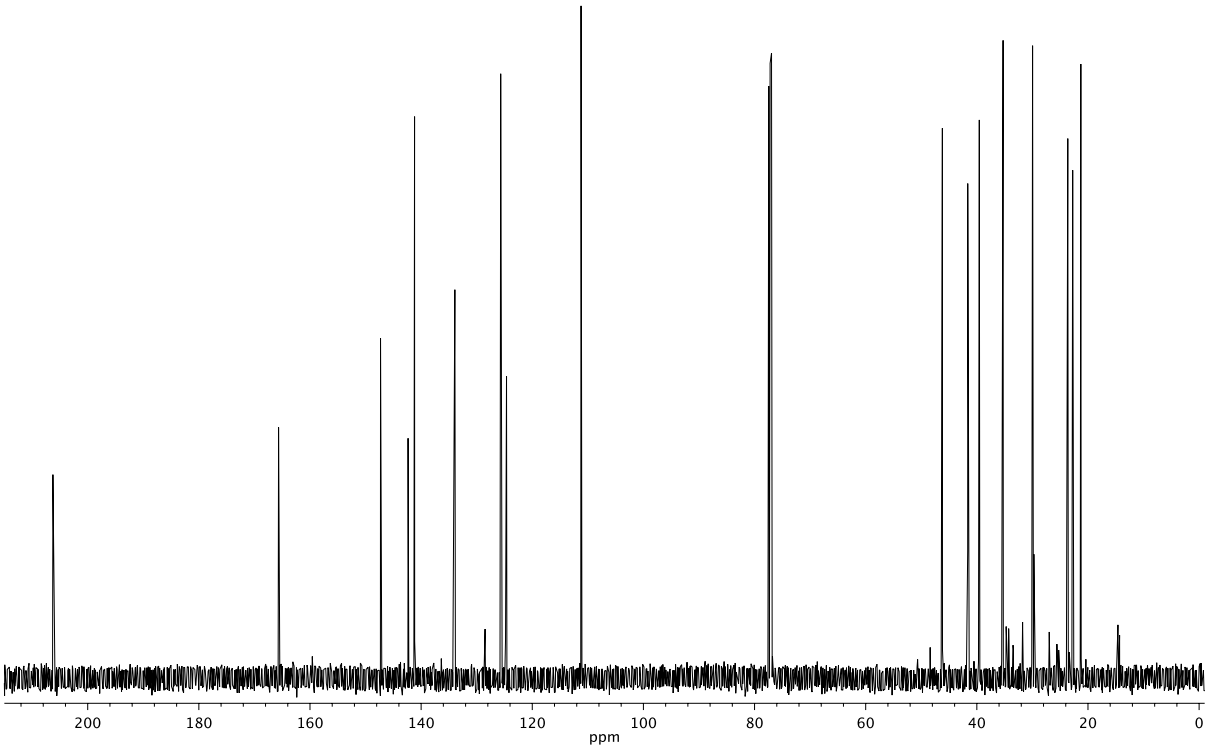

Figure A2.89 ^{13}C NMR (126 MHz, $CDCl_3$) of compound **73**

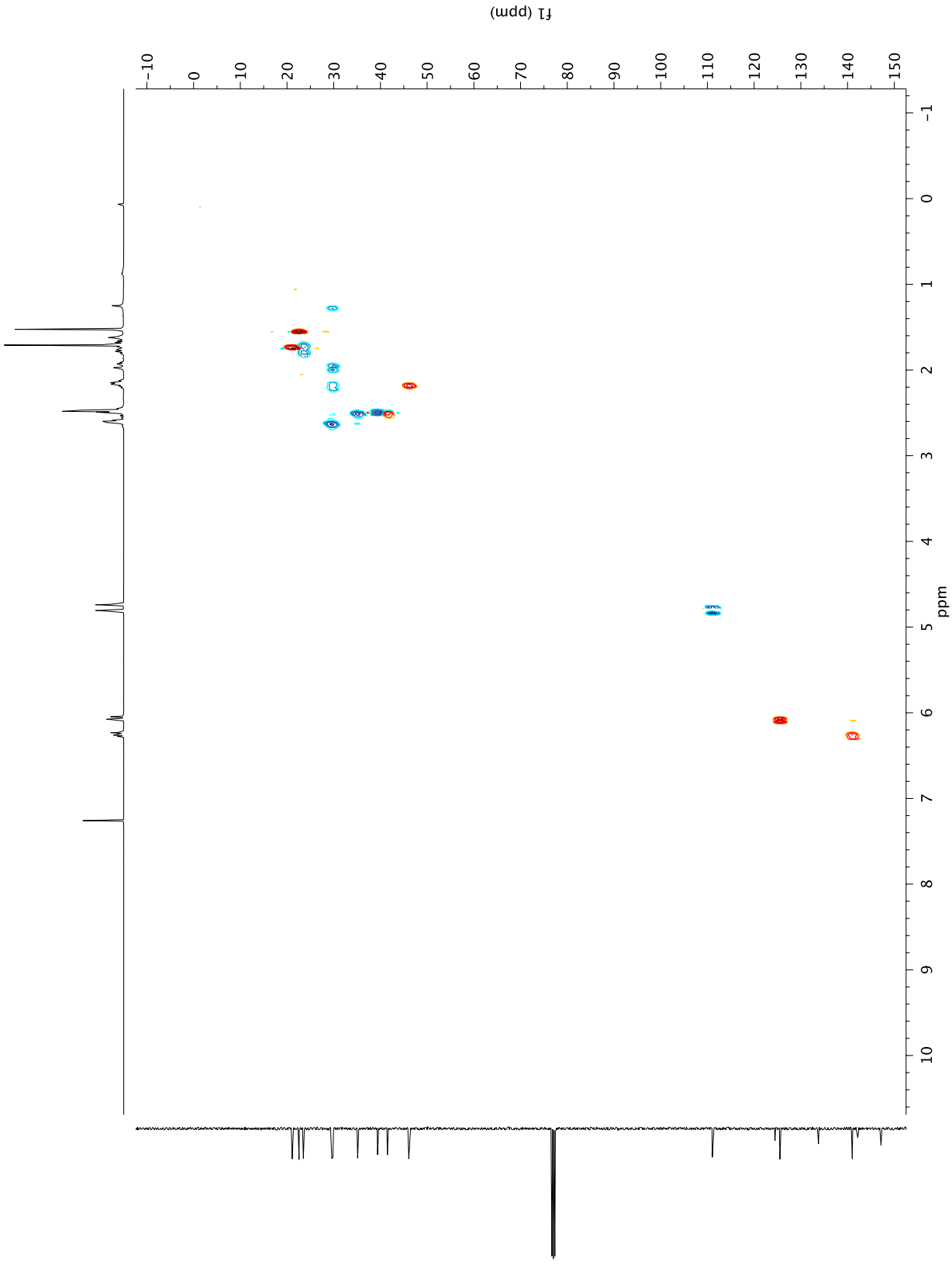

Figure A2.90 ^{1}H–^{13}C HSQC NMR (400 MHz, $CDCl_3$) of compound **73**