

Supporting Information File 2

for

Investigation of the electrophilic reactivity of the biologically active marine sesquiterpenoid onchidal and model compounds

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¹H and ¹³C NMR spectra of synthesized compounds

Contents

¹ H NMR spectrum in CDCl ₃ (500 MHz) of <i>N</i> -(2-(2,2-dimethyl-6-methylenecyclohexyl)-1-(1-pentyl-1 <i>H</i> -pyrrol-3-yl)ethyl)pentan-1-amine (7)	S3
¹³ C NMR spectrum in CDCl ₃ (125 MHz) of <i>N</i> -(2-(2,2-dimethyl-6-methylenecyclohexyl)-1-(1-pentyl-1 <i>H</i> -pyrrol-3-yl)ethyl)pentan-1-amine (7)	S4
¹ H NMR spectrum in CDCl ₃ (500 MHz) of <i>N</i> -(2-(2,2-dimethyl-6-methylenecyclohexyl)-1-(1-pentyl-1 <i>H</i> -pyrrol-3-yl)ethyl)pentan-1-amine (8)	S5
¹³ C NMR spectrum in CDCl ₃ (125 MHz) of <i>N</i> -(2-(2,2-dimethyl-6-methylenecyclohexyl)-1-(1-pentyl-1 <i>H</i> -pyrrol-3-yl)ethyl)pentan-1-amine (8)	S6
¹ H NMR spectrum in CDCl ₃ (500 MHz) of <i>N</i> -(2-(2,2-dimethyl-6-methylenecyclohexyl)-1-(1-pentyl-1 <i>H</i> -pyrrol-3-yl)ethyl)pentan-1-amine (8 and 9)	S7
¹³ C NMR spectrum in CDCl ₃ (125 MHz) of <i>N</i> -(2-(2,2-dimethyl-6-methylenecyclohexyl)-1-(1-pentyl-1 <i>H</i> -pyrrol-3-yl)ethyl)pentan-1-amine (8 and 9)	S8
¹ H NMR spectrum in CDCl ₃ (500 MHz) of (<i>E</i>)-2-hexylidenesuccinaldehyde (11)	S9
¹³ C NMR spectrum in CDCl ₃ (125 MHz) of (<i>E</i>)-2-hexylidenesuccinaldehyde (11)	S10

¹ H NMR spectrum in CDCl ₃ (500 MHz) of (1 <i>E</i> ,3 <i>E</i>)-3-formylnona-1,3-dien-1-yl acetate (13)	S11
¹³ C NMR spectrum in CDCl ₃ (125 MHz) of (1 <i>E</i> ,3 <i>E</i>)-3-formylnona-1,3-dien-1-yl acetate (13)	S12
¹ H NMR spectrum in CDCl ₃ (400 MHz) of (<i>E</i>)-2-(2-cyclohexylethylidene)succinaldehyde (15)	S13
¹³ C NMR spectrum in CDCl ₃ (100 MHz) of (<i>E</i>)-2-(2-cyclohexylethylidene)succinaldehyde (15)	S14
¹ H NMR spectrum in CDCl ₃ (400 MHz) of (<i>Z</i>)-2-(2-cyclohexylethylidene)succinaldehyde (16)	S15
¹³ C NMR spectrum in CDCl ₃ (100 MHz) of (<i>Z</i>)-2-(2-cyclohexylethylidene)succinaldehyde (16)	S16
¹ H NMR spectrum in CDCl ₃ (400 MHz) of (1 <i>E</i> ,3 <i>E</i>)-5-cyclohexyl-3-formylpenta-1,3-dien-1-yl acetate (17)	S17
¹³ C NMR spectrum in CDCl ₃ (100 MHz) of (1 <i>E</i> ,3 <i>E</i>)-5-cyclohexyl-3-formylpenta-1,3-dien-1-yl acetate (17)	S18
¹ H NMR spectrum in CDCl ₃ (300 MHz) of (<i>E</i>)-diethyl 2-hexylidenesuccinate (20)	S19
¹³ C NMR spectrum in CDCl ₃ (75 MHz) of (<i>E</i>)-diethyl 2-hexylidenesuccinate (20)	S20
¹ H NMR spectrum in CDCl ₃ (300 MHz) of (<i>Z</i>)-diethyl 2-hexylidenesuccinate (21)	S21
¹³ C NMR spectrum in CDCl ₃ (75 MHz) of (<i>Z</i>)-diethyl 2-hexylidenesuccinate (21)	S22
¹ H NMR spectrum in CDCl ₃ (500 MHz) of (<i>E</i>)-2-hexylidenebutane-1,4-diol (22)	S23
¹³ C NMR spectrum in CDCl ₃ (125 MHz) of (<i>E</i>)-2-hexylidenebutane-1,4-diol (22)	S24
¹ H NMR spectrum in CDCl ₃ (500 MHz) of (<i>Z</i>)-2-hexylidenebutane-1,4-diol (23)	S25
¹³ C NMR spectrum in CDCl ₃ (125 MHz) of (<i>Z</i>)-2-hexylidenebutane-1,4-diol (23)	S26
¹ H NMR spectrum in CDCl ₃ (500 MHz) of (<i>E</i>)-diethyl 2-(2-cyclohexylethylidene)succinate (25)	S27
¹³ C NMR spectrum in CDCl ₃ (125 MHz) of (<i>E</i>)-diethyl 2-(2-cyclohexylethylidene)succinate (25)	S28
¹ H NMR spectrum in CDCl ₃ (500 MHz) of (<i>Z</i>)-diethyl 2-(2-cyclohexylethylidene)succinate (26)	S29
¹³ C NMR spectrum in CDCl ₃ (125 MHz) of (<i>Z</i>)-diethyl 2-(2-cyclohexylethylidene)succinate (26)	S30
¹ H NMR spectrum in CDCl ₃ (500 MHz) of (<i>E</i>)-2-(2-cyclohexylethylidene)butane-1,4-diol (27)	S31
¹³ C NMR spectrum in CDCl ₃ (125 MHz) of (<i>E</i>)-2-(2-cyclohexylethylidene)butane-1,4-diol (27)	S32
¹ H NMR spectrum in CDCl ₃ (500 MHz) of (<i>Z</i>)-2-(2-cyclohexylethylidene)butane-1,4-diol (28)	S33
¹³ C NMR spectrum in CDCl ₃ (125 MHz) of (<i>Z</i>)-2-(2-cyclohexylethylidene)butane-1,4-diol (28)	S34
¹ H NMR spectrum in CDCl ₃ (400 MHz) of <i>N</i> -pentyl-1-(1-pentyl-1 <i>H</i> -pyrrol-3-yl)hexan-1-amine (29)	S35
¹ H NMR spectrum in CDCl ₃ (500 MHz) of <i>N</i> -pentyl-1-(1-pentyl-1 <i>H</i> -pyrrol-3-yl)hexan-1-amine (30)	S36
¹³ C NMR spectrum in CDCl ₃ (125 MHz) of <i>N</i> -pentyl-1-(1-pentyl-1 <i>H</i> -pyrrol-3-yl)hexan-1-amine (30)	S37
¹ H NMR spectrum in CDCl ₃ (500 MHz) of <i>N</i> -(2-cyclohexyl-1-(1-pentyl-1 <i>H</i> -pyrrol-3-yl)ethyl)pentan-1-amine (31)	S38
¹³ C NMR spectrum in CDCl ₃ (125 MHz) of <i>N</i> -(2-cyclohexyl-1-(1-pentyl-1 <i>H</i> -pyrrol-3-yl)ethyl)pentan-1-amine (31)	S39
¹ H NMR spectrum in CDCl ₃ (400 MHz) of <i>N</i> -(2-cyclohexyl-1-(1-pentyl-1 <i>H</i> -pyrrol-3-yl)ethyl)pentan-1-amine (32)	S40
¹³ C NMR spectrum in CDCl ₃ (100 MHz) of <i>N</i> -(2-cyclohexyl-1-(1-pentyl-1 <i>H</i> -pyrrol-3-yl)ethyl)pentan-1-amine (32)	S41

¹³C NMR spectrum (CDCl₃) of N-(2-(2,2-dimethyl-6-methylenecyclohexyl)-1-(1-pentyl-1H-pyrrol-3-yl)ethyl)pentan-1-amine

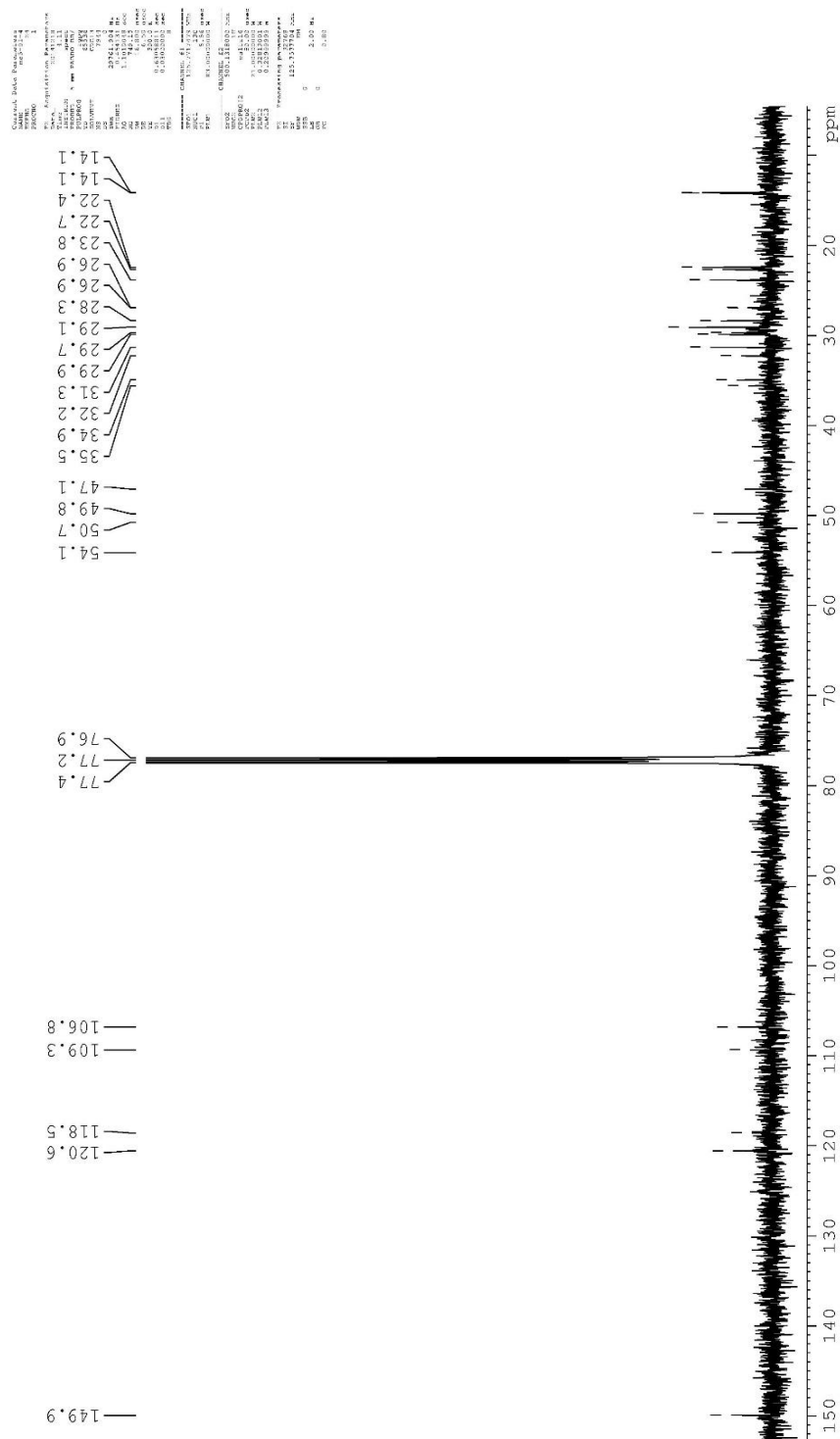


Figure 2 ¹³C NMR spectrum in CDCl₃ (125 MHz) of N-(2-(2,2-dimethyl-6-methylenecyclohexyl)-1-(1-pentyl-1H-pyrrol-3-yl)ethyl)pentan-1-amine (7).



S6

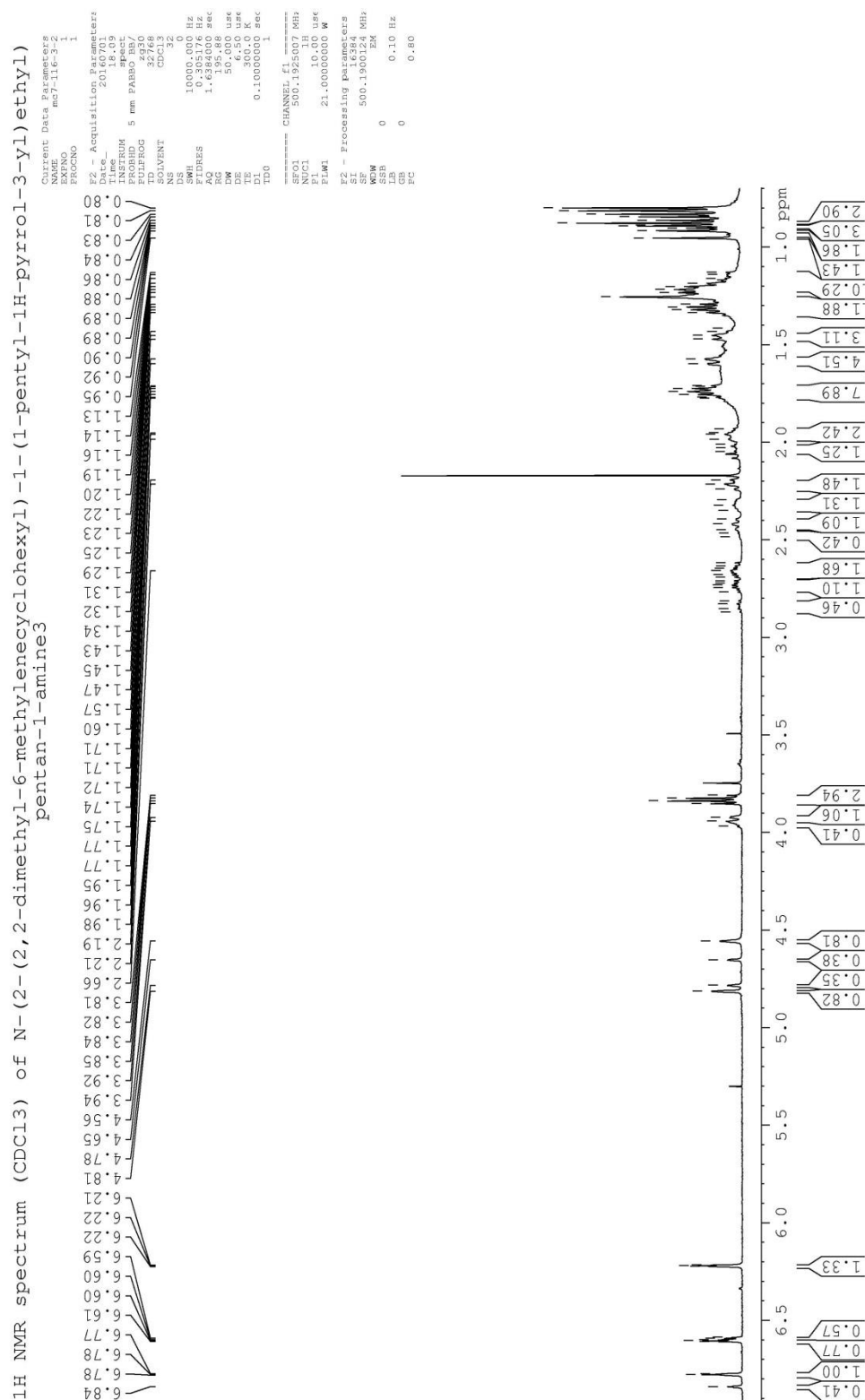


Figure 5 ¹H NMR spectrum in CDCl₃ (500 MHz) of N-(2-(2,2-dimethyl-6-methylenecyclohexyl)-1-(1-pentyl-1H-pyrrol-3-yl)ethyl)pentan-1-amine (**8** and **9**).



Figure 6 ^{13}C NMR spectrum in CDCl_3 (125 MHz) of *N*-(2-(2,2-dimethyl-6-methylenecyclohexyl)-1-(1-pentyl-1*H*-pyrrol-3-yl)ethyl)pentan-1-amine (**8** and **9**).

¹H NMR spectrum (CDCl₃) of (E)-2-hexylidenesuccinic aldehyde

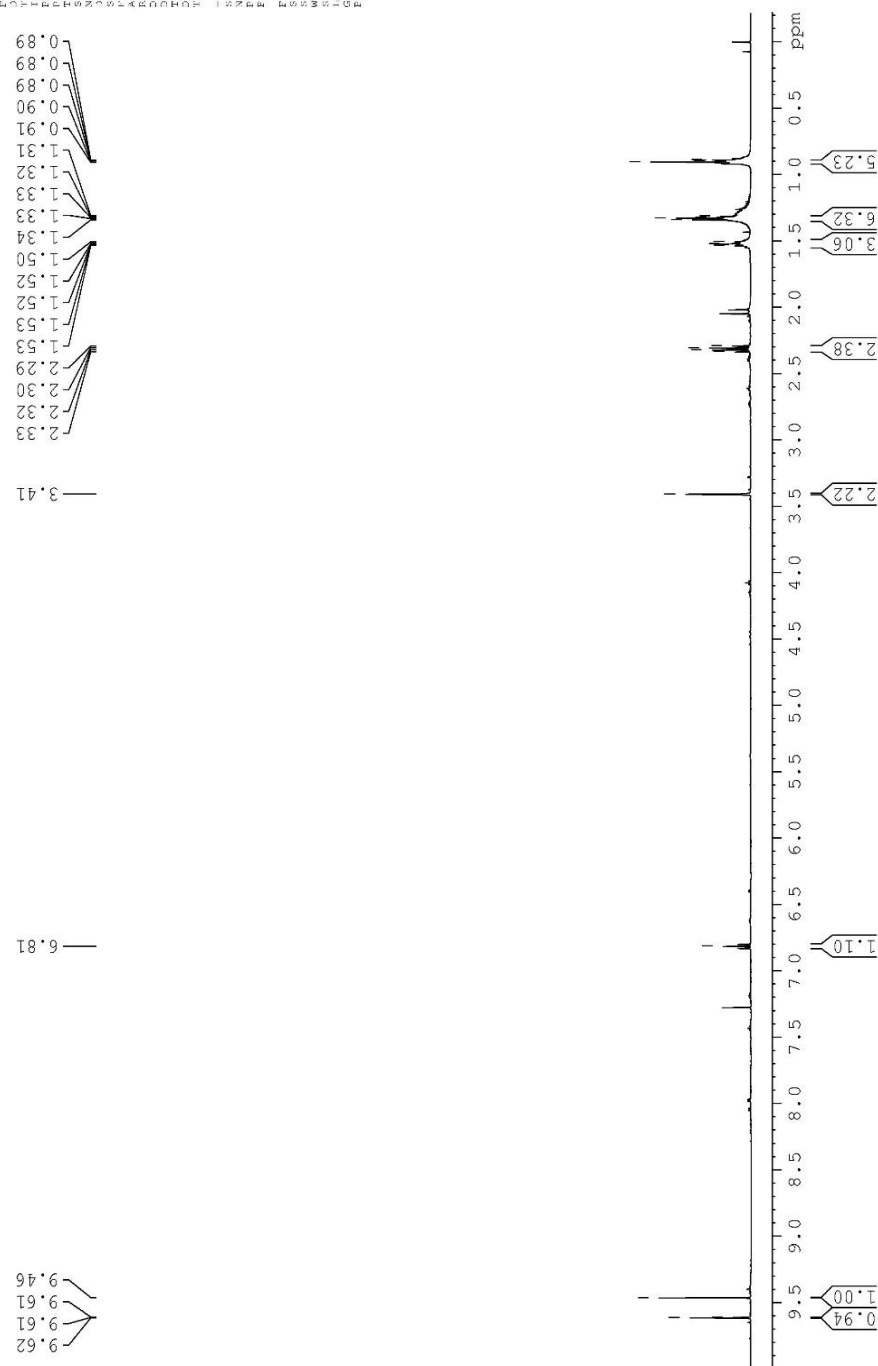


Figure 7 ¹H NMR spectrum in CDCl₃ (500 MHz) of (E)-2-hexylidenesuccinaldehyde (**11**).

^{13}C NMR spectrum (CDCl_3) of (E)-2-hexylidenesuccinic aldehyde

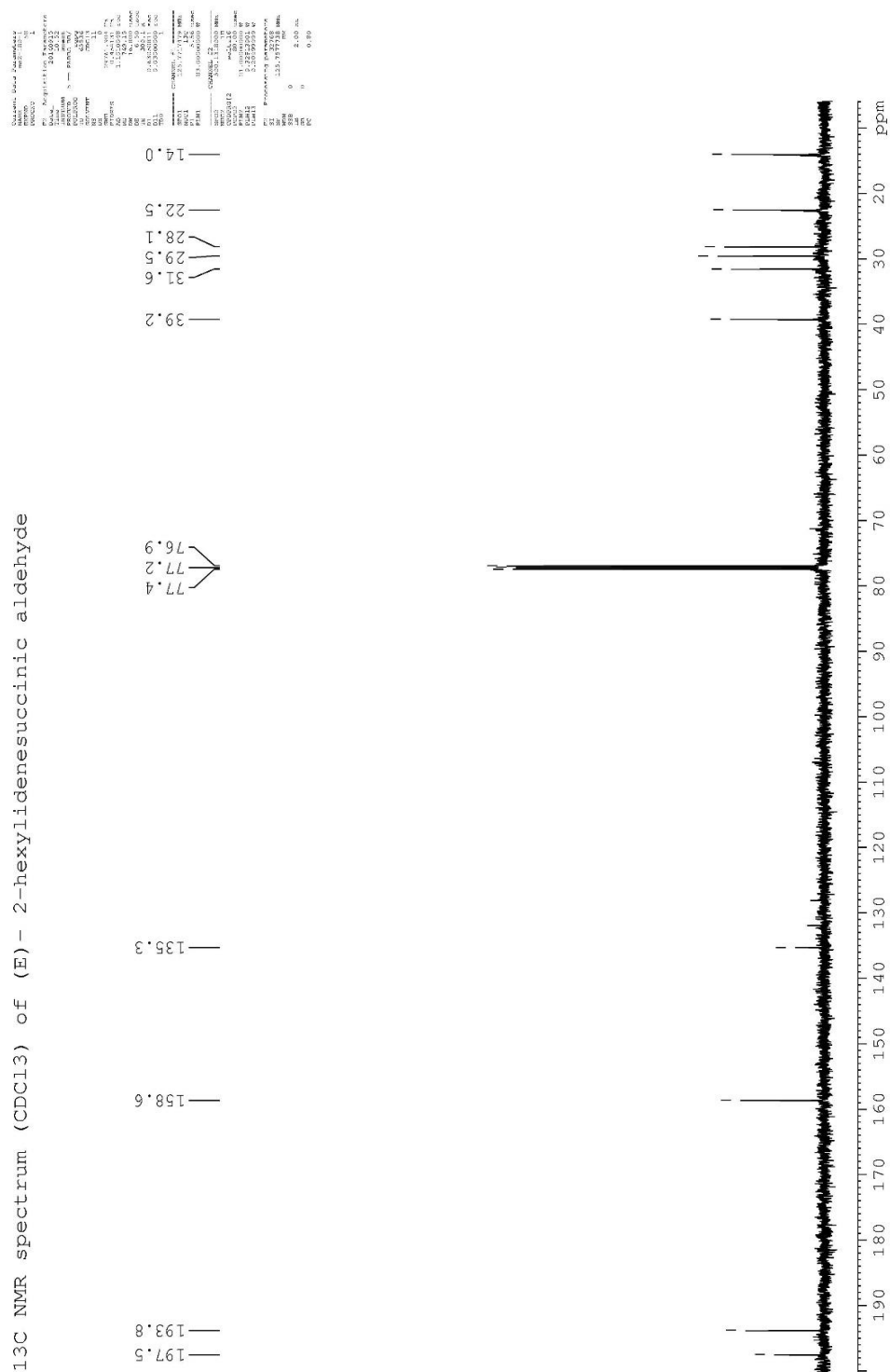


Figure 8 ^{13}C NMR spectrum in CDCl_3 (125 MHz) of (E)-2-hexylidenesuccinaldehyde (**11**).

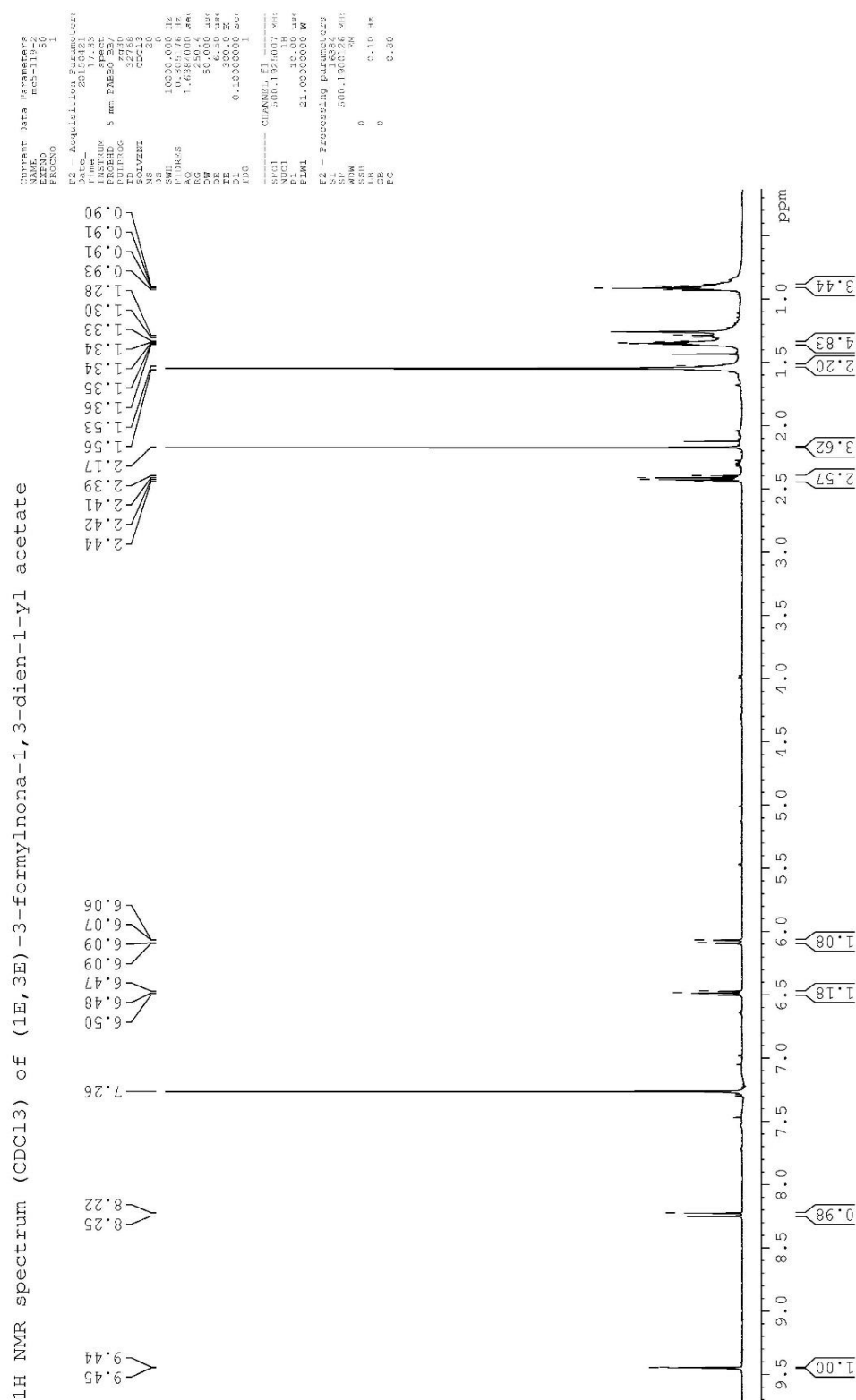


Figure 9 ¹H NMR spectrum in CDCl₃ (500 MHz) of (1E,3E)-3-formylnona-1,3-dien-1-yl acetate (**13**).

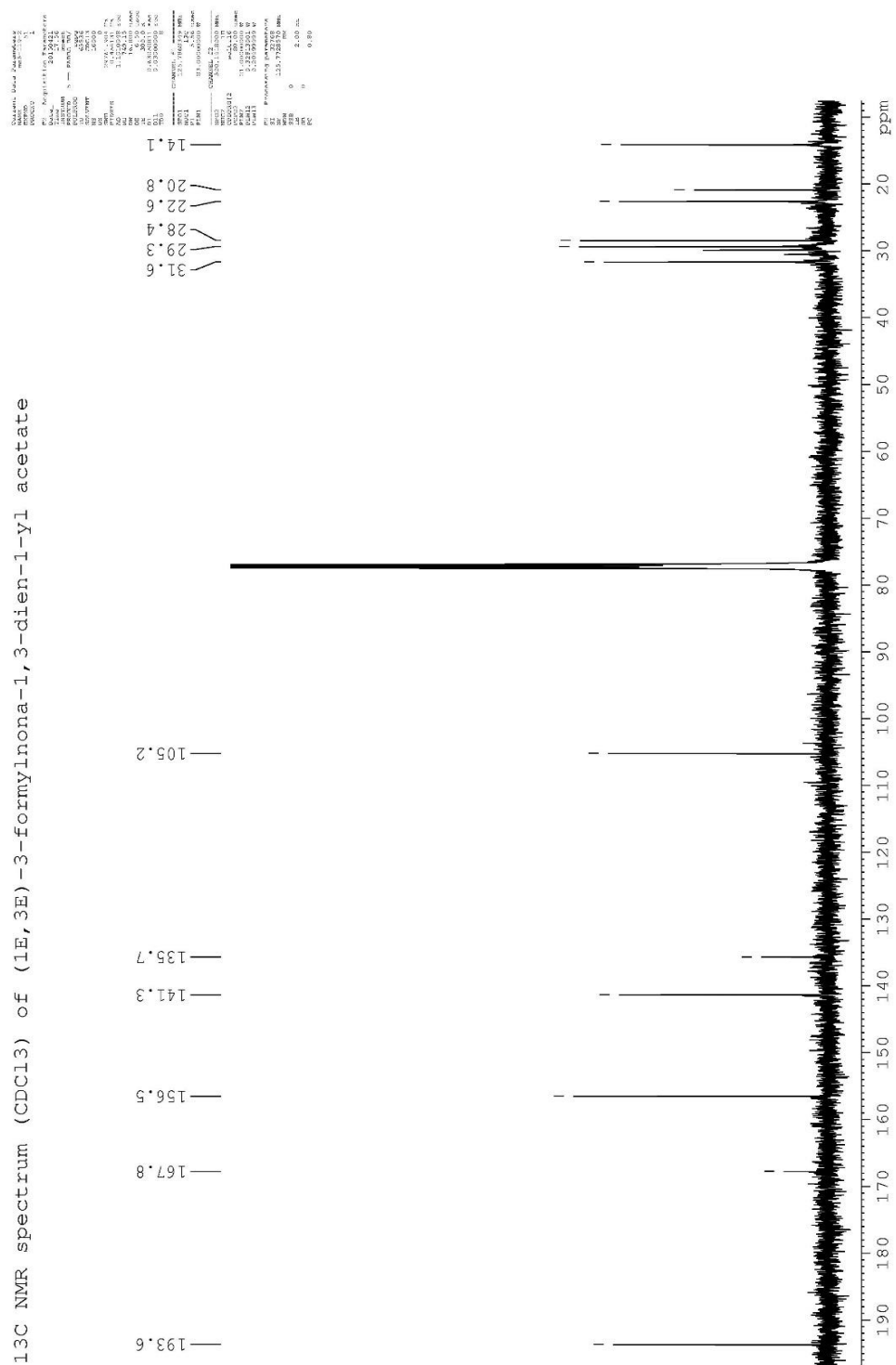


Figure 10 ¹³C NMR spectrum in CDCl₃ (125 MHz) of (1E,3E)-3-formylnona-1,3-dien-1-yl acetate (**13**).

¹³C NMR spectrum (CDCl₃) of (E)-2-(2-cyclohexylethylidene)succinaldehyde (**15**)

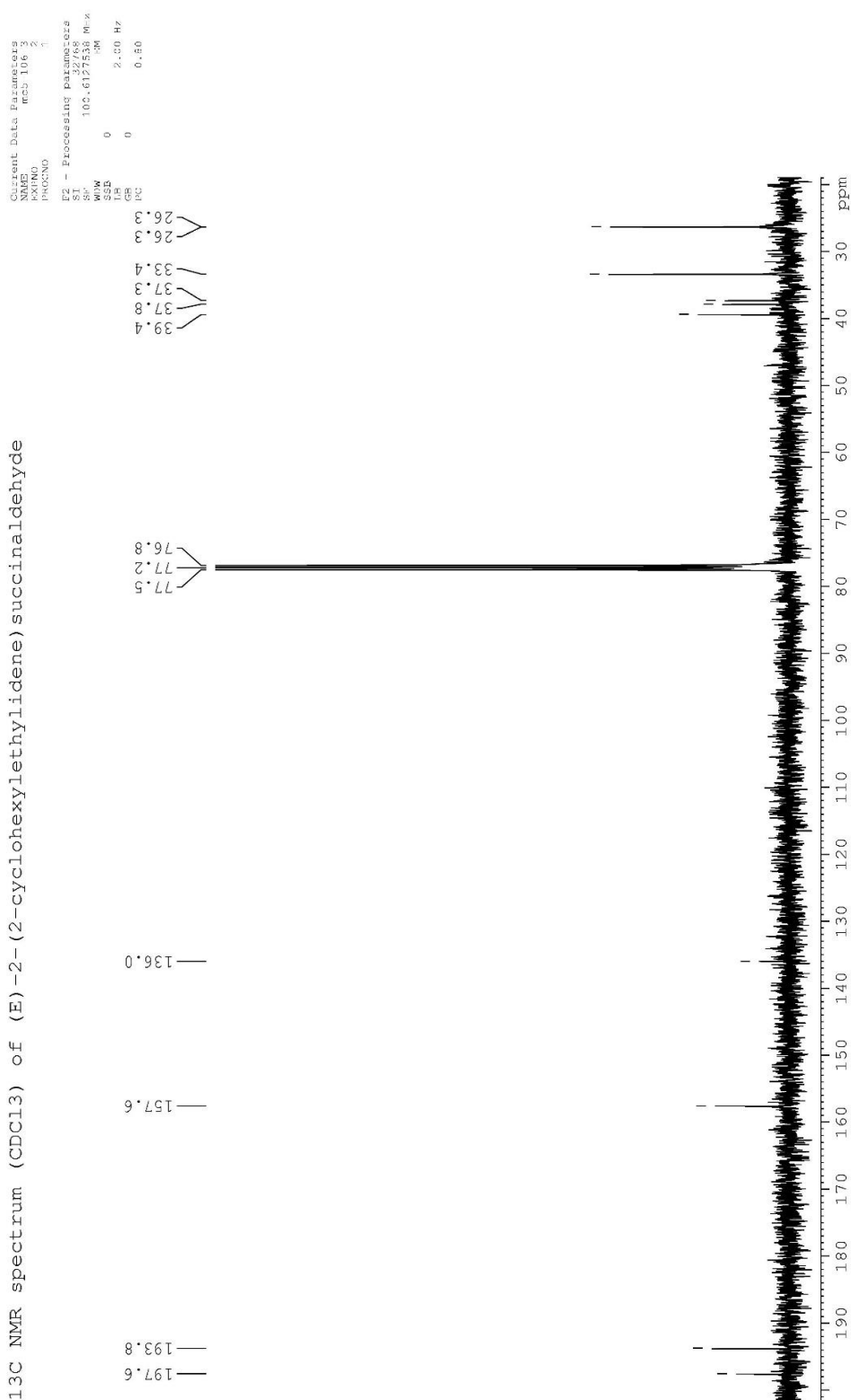


Figure 12 ¹³C NMR spectrum in CDCl₃ (100 MHz) of (E)-2-(2-cyclohexylethylidene)succinaldehyde (**15**).

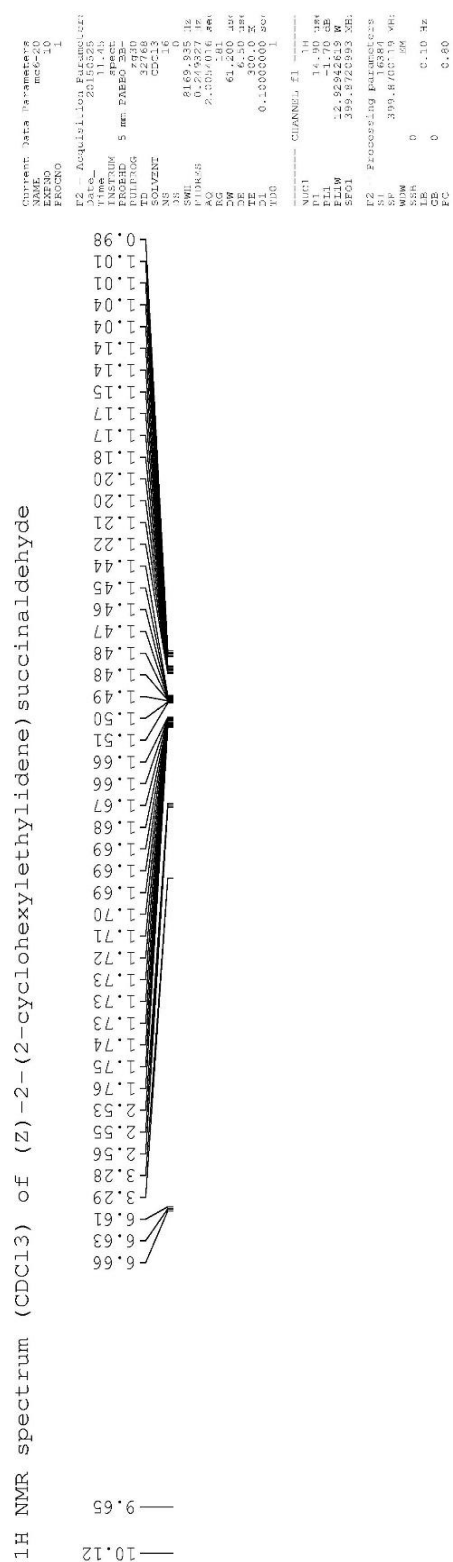


Figure 13 ¹H NMR spectrum in CDCl₃ (400 MHz) of (Z)-2-(2-cyclohexylethylidene)succinaldehyde (**16**).

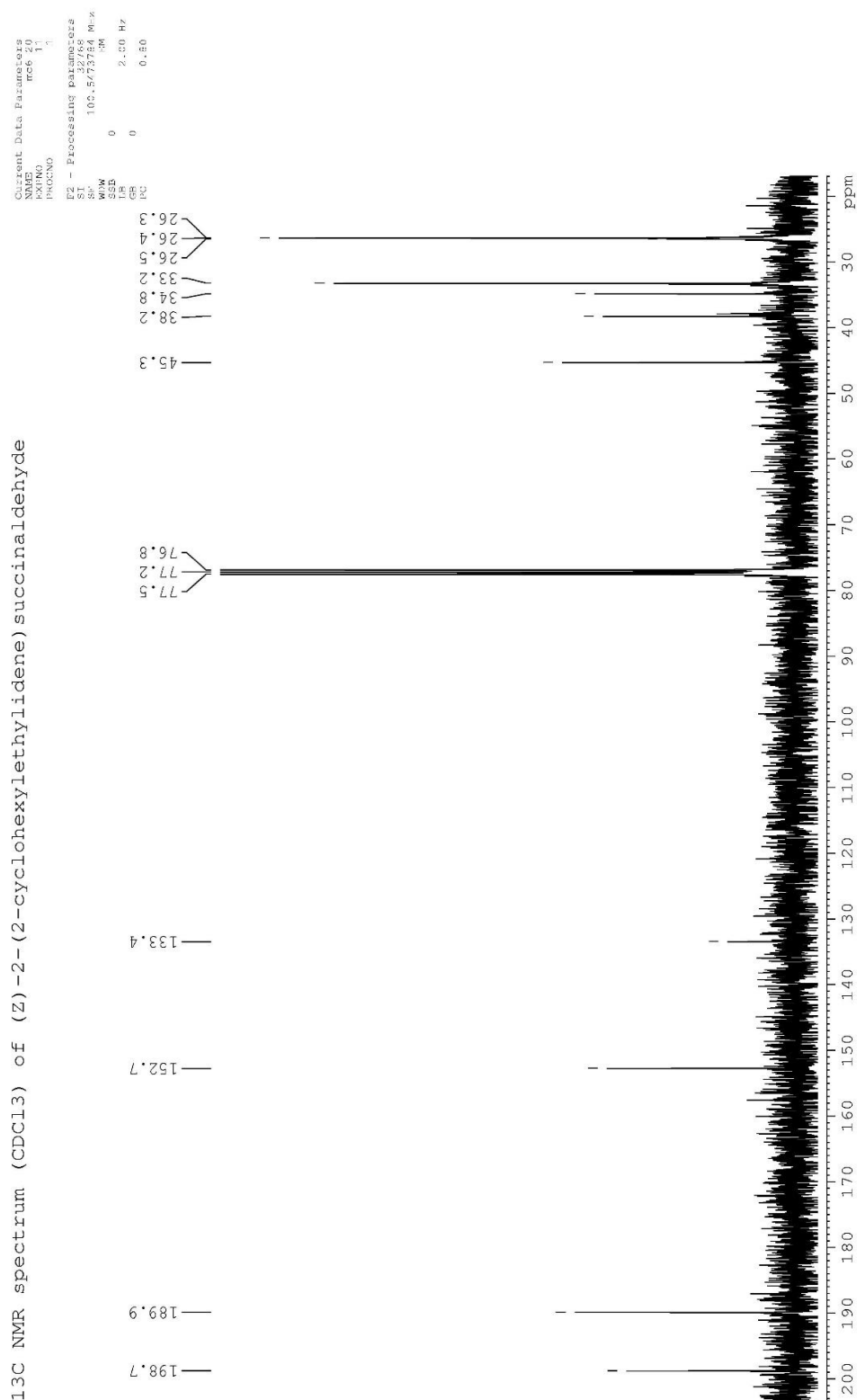


Figure 14 ¹³C NMR spectrum in CDCl₃ (100 MHz) of (Z)-2-(2-cyclohexylethylidene)succinaldehyde (**16**).

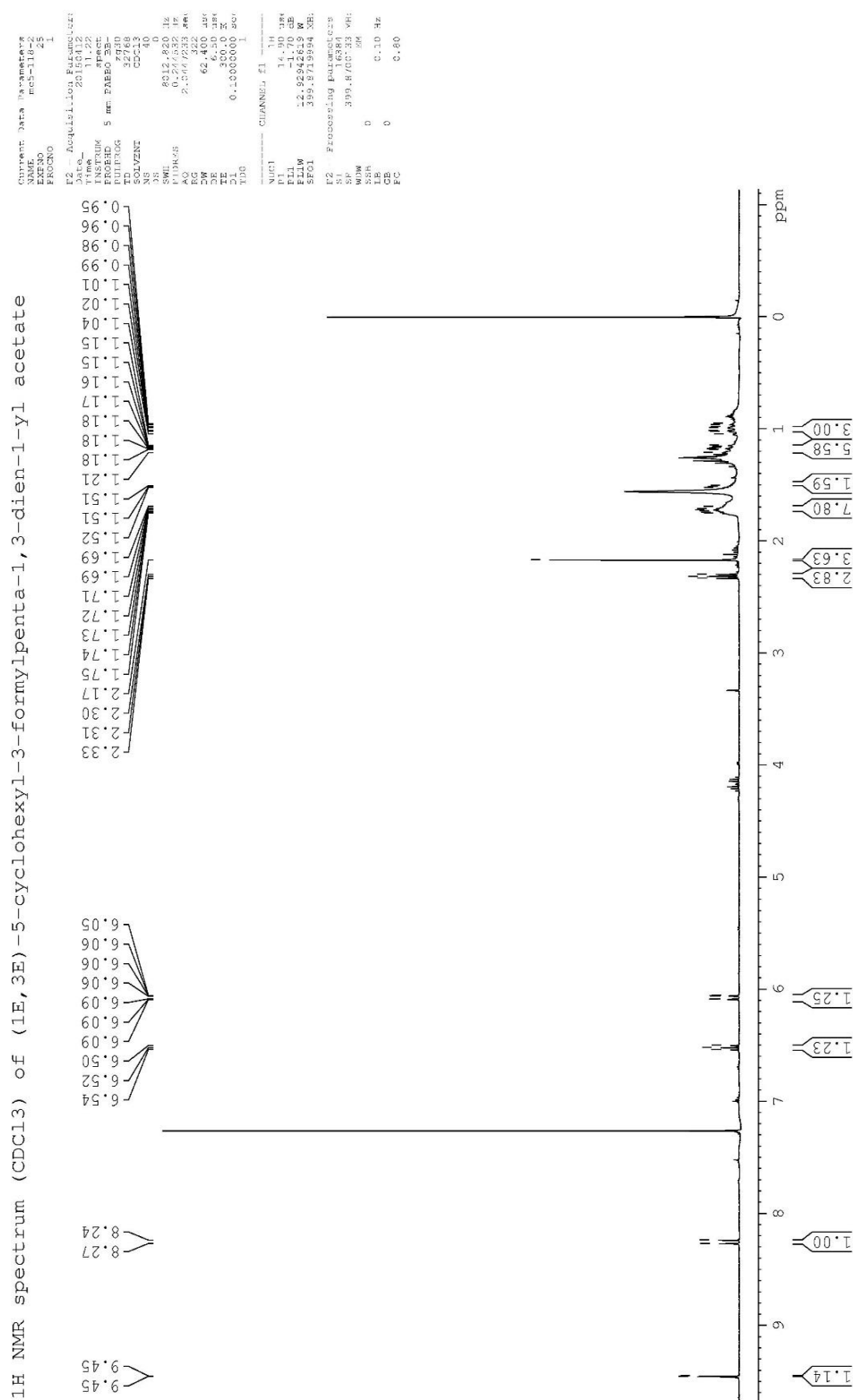


Figure 15 ¹H NMR spectrum in CDCl₃ (400 MHz) of (1E,3E)-5-cyclohexyl-3-formylpenta-1,3-dien-1-yl acetate (17).

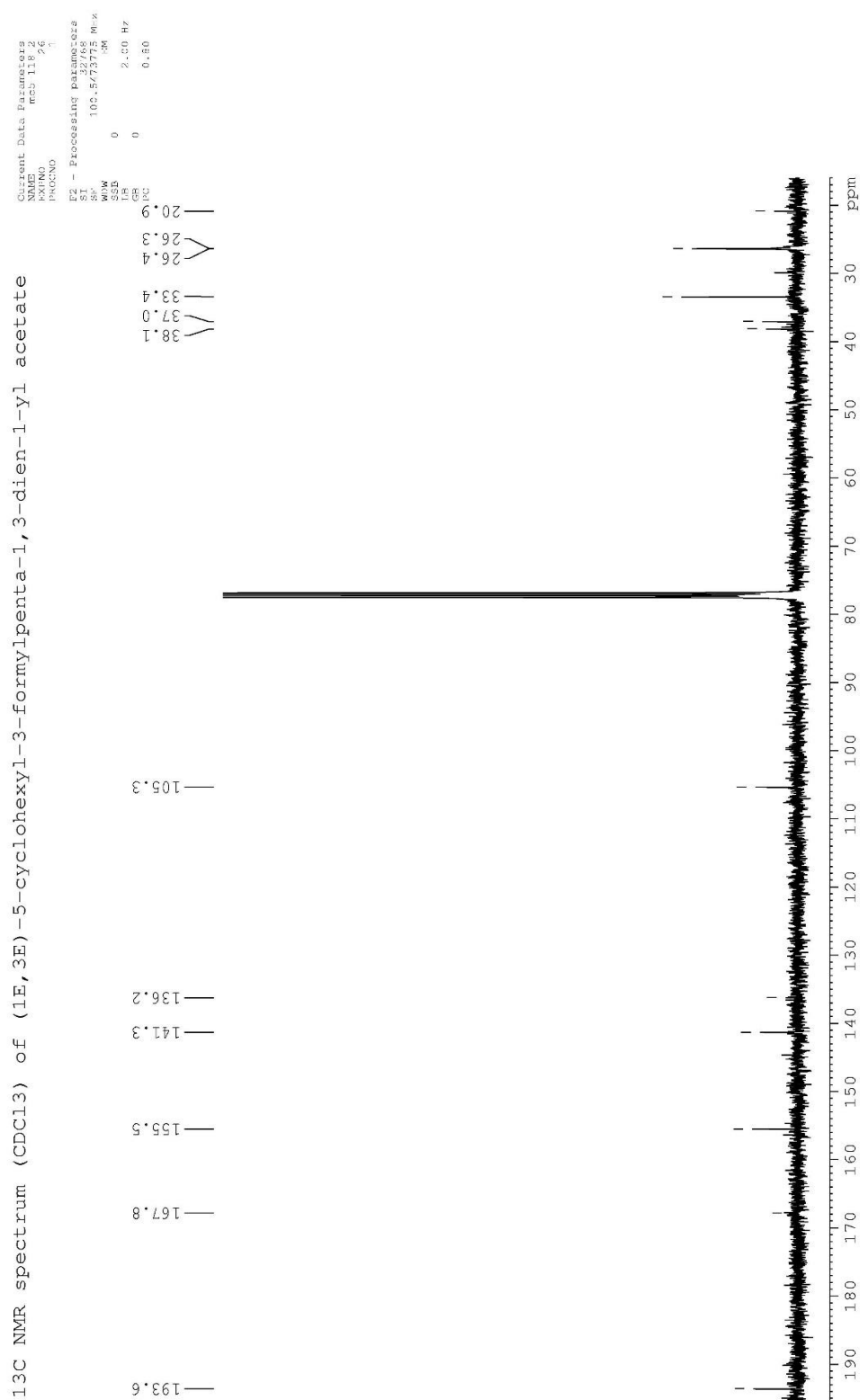


Figure 16 ¹³C NMR spectrum in CDCl₃ (100 MHz) of (1E,3E)-5-cyclohexyl-3-formylpenta-1,3-dien-1-yl acetate (17).

¹H NMR spectrum (CDCl₃) of (E)-Diethyl 2-hexylidenesuccinate

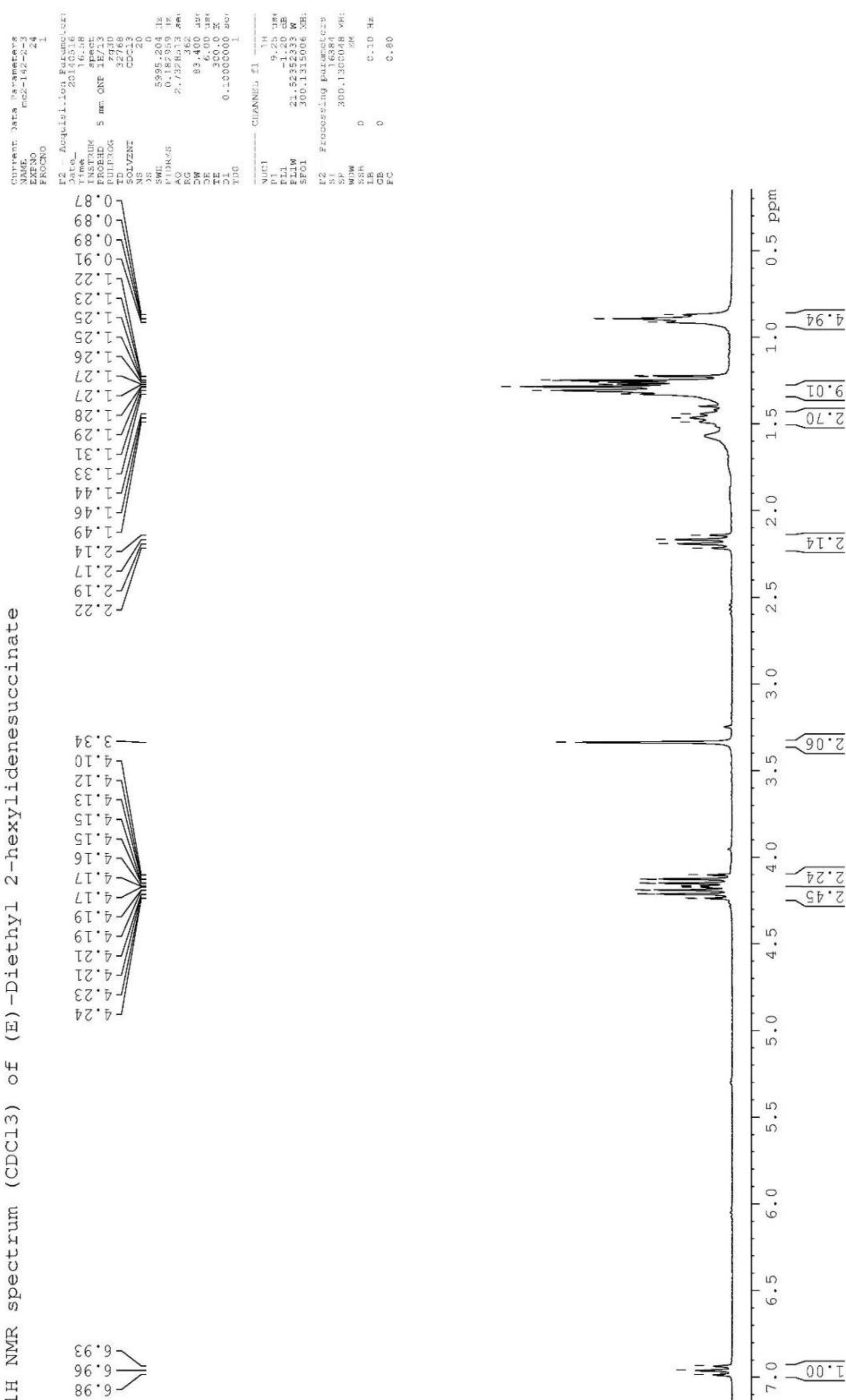


Figure 17 ¹H NMR spectrum in CDCl₃ (300 MHz) of (E)-diethyl 2-hexylidenesuccinate (**20**).

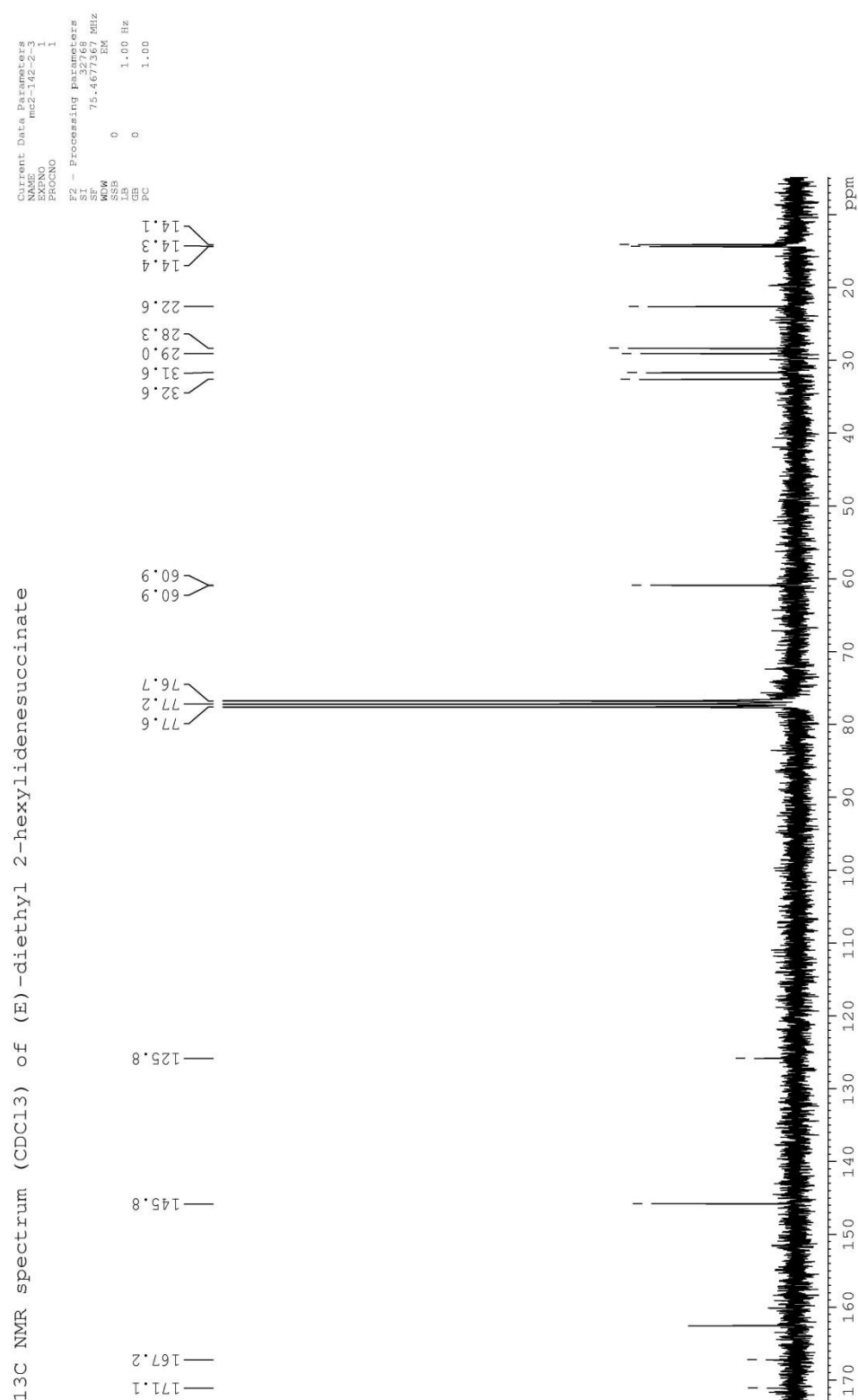
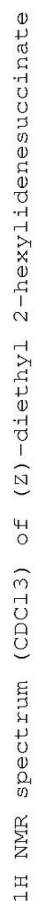


Figure 18 ¹³C NMR spectrum in CDCl₃ (75 MHz) of (E)-diethyl 2-hexylidenesuccinate (**20**).



S21

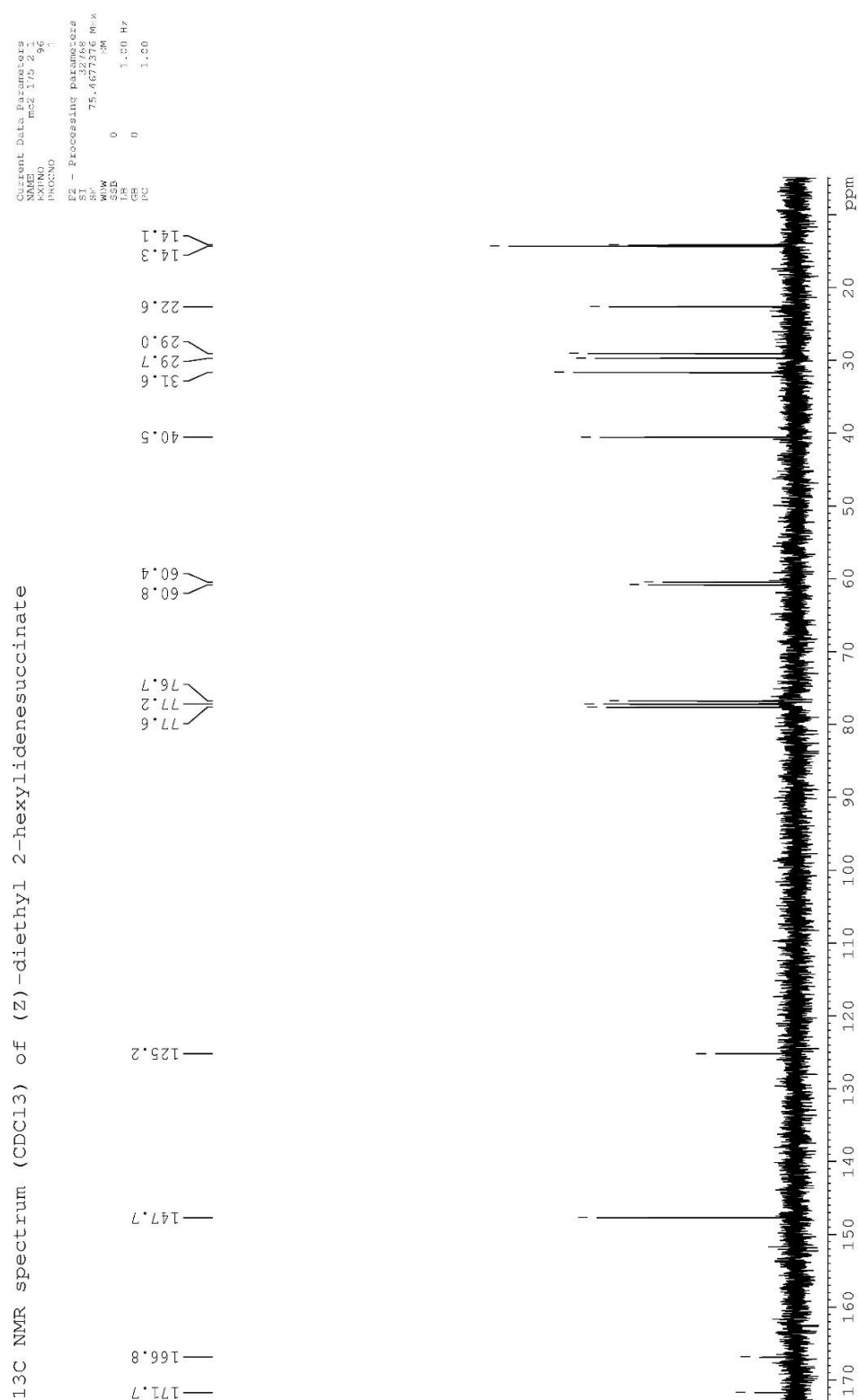


Figure 20 ¹³C NMR spectrum in CDCl₃ (75 MHz) of (Z)-diethyl 2-hexylidenesuccinate (**21**).

¹H NMR spectrum (CDCl₃) of (E)-2-hexylidenebutane-1,4-diol

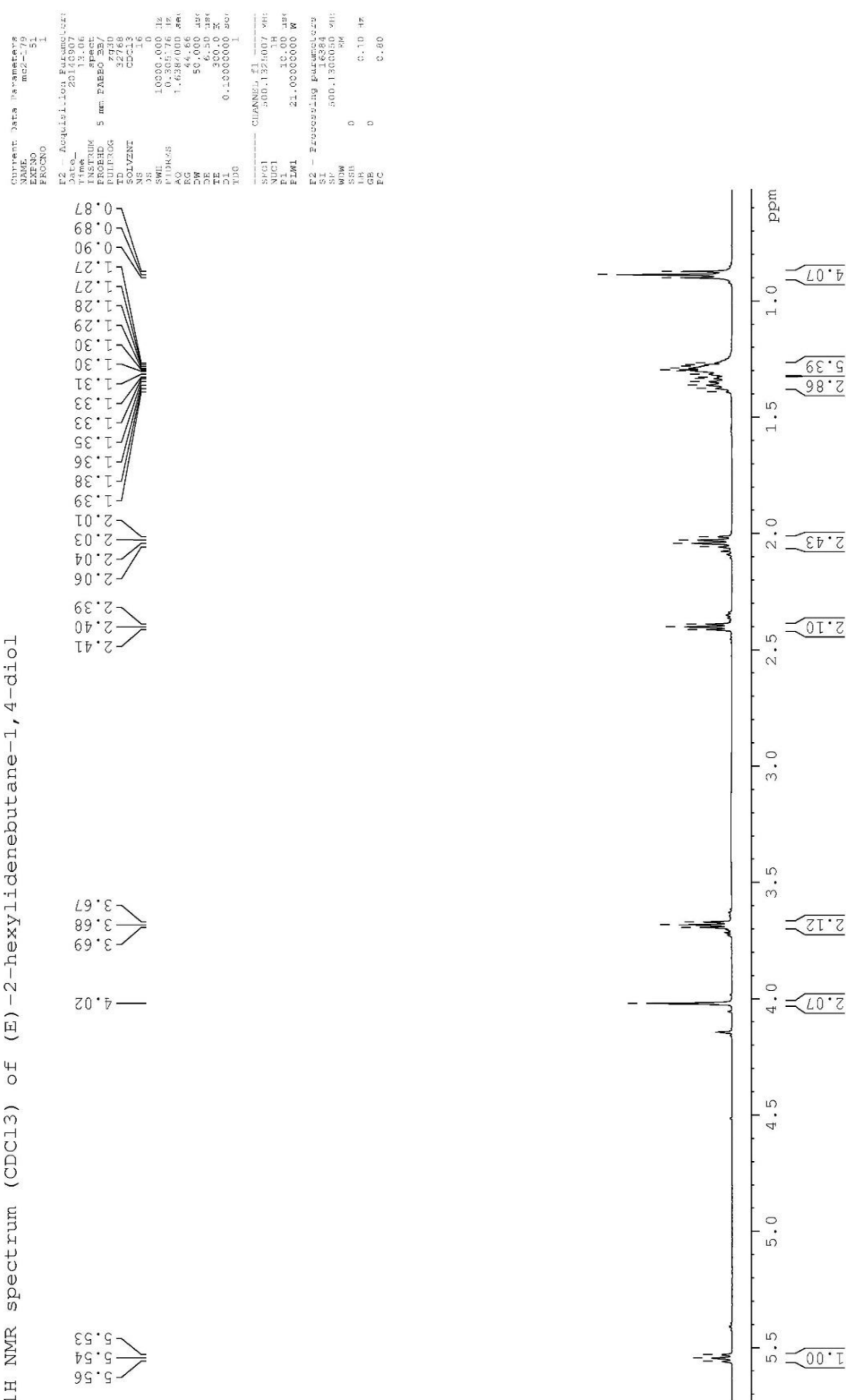
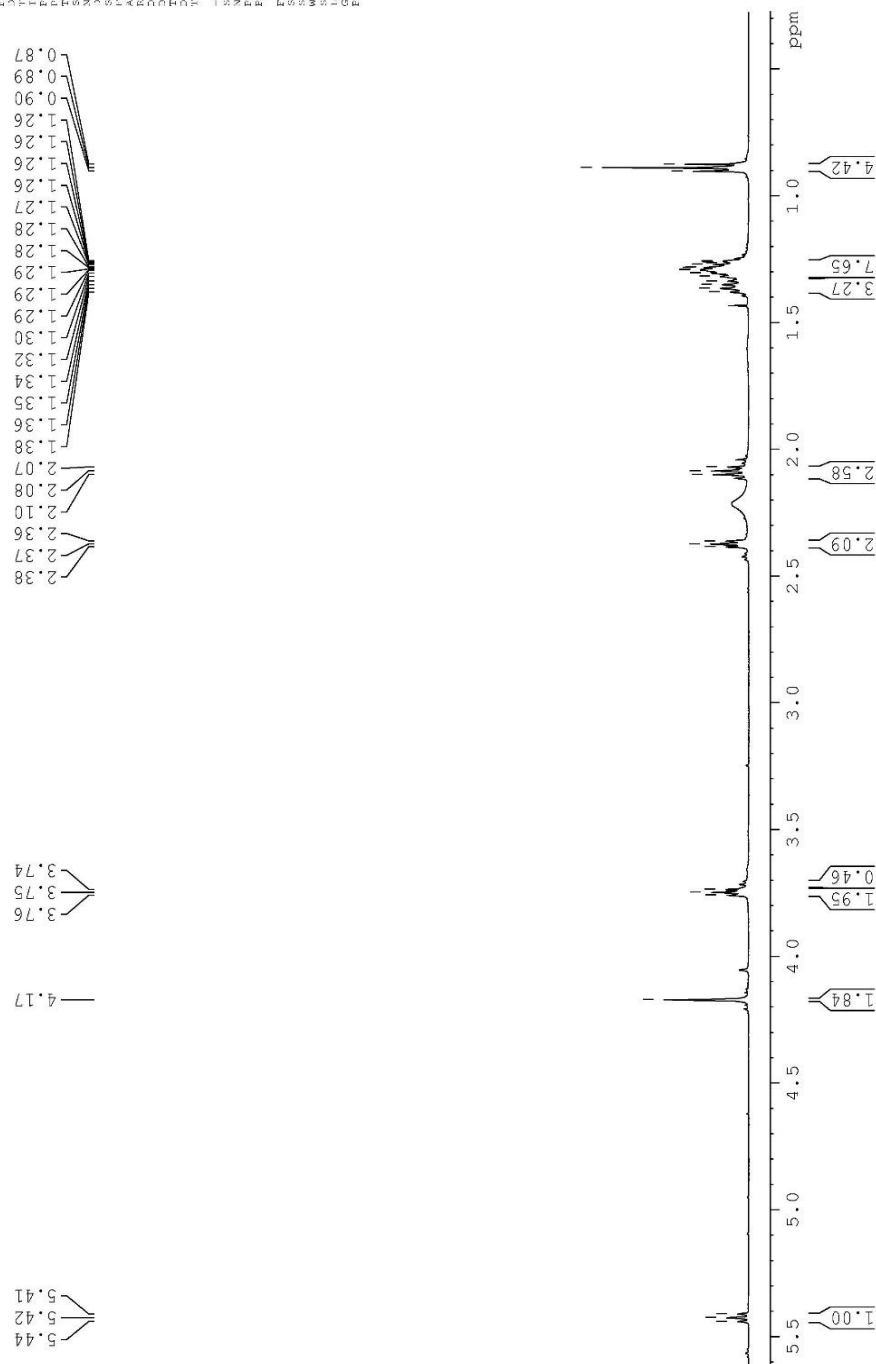


Figure 21 ¹H NMR spectrum in CDCl₃ (500 MHz) of (E)-2-hexylidenebutane-1,4-diol (**22**).

¹H NMR spectrum (CDCl₃) of (Z)-2-hexylidenebutane-1,4-diol



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Figure 23 ¹H NMR spectrum in CDCl₃ (500 MHz) of (Z)-2-hexylidenebutane-1,4-diol (**23**).

¹³C NMR spectrum (CDCl₃) of (Z)-2-hexylidenebutane-1,4-diol

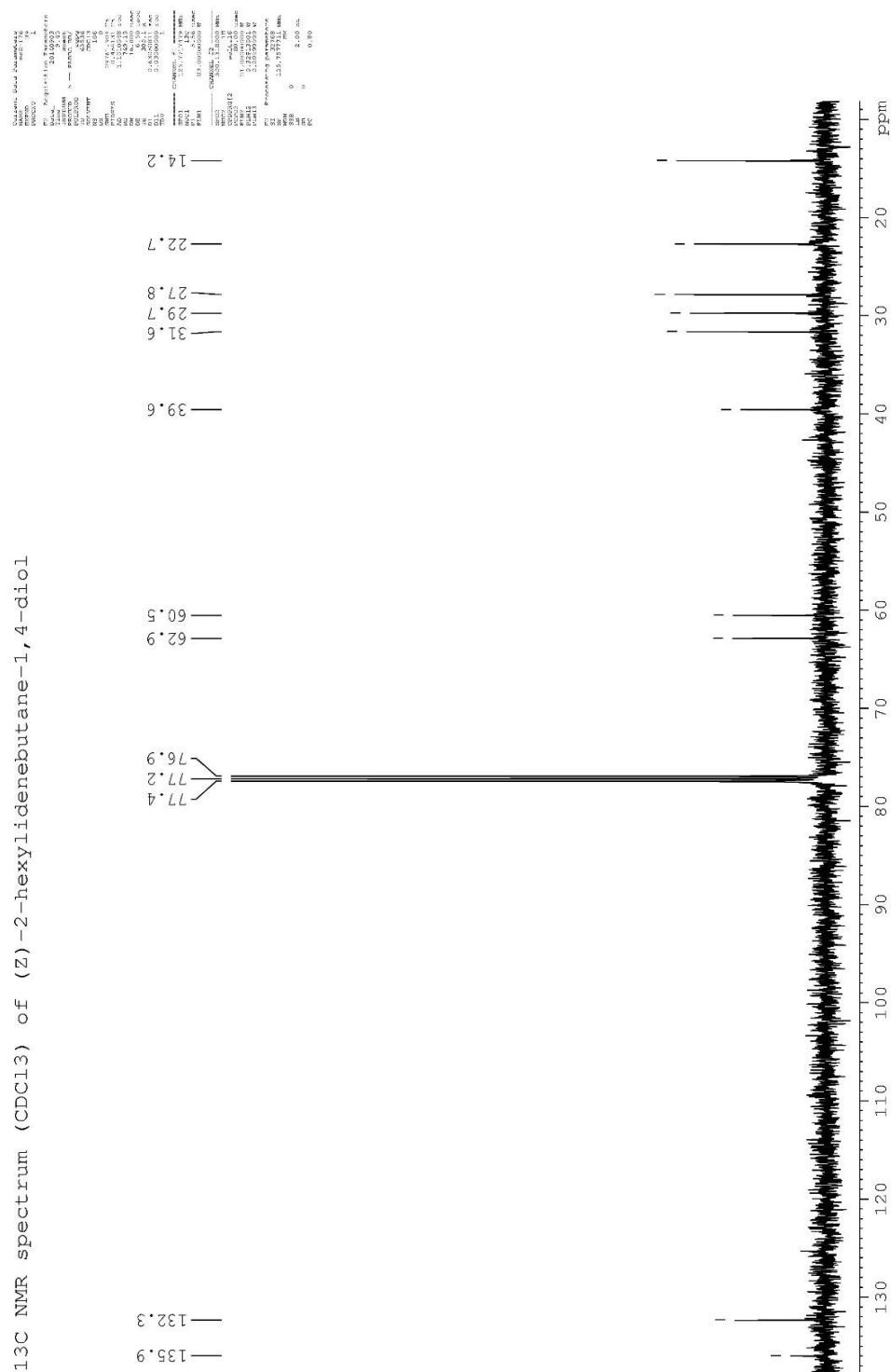


Figure 24 ¹³C NMR spectrum in CDCl₃ (125 MHz) of (Z)-2-hexylidenebutane-1,4-diol (**23**).

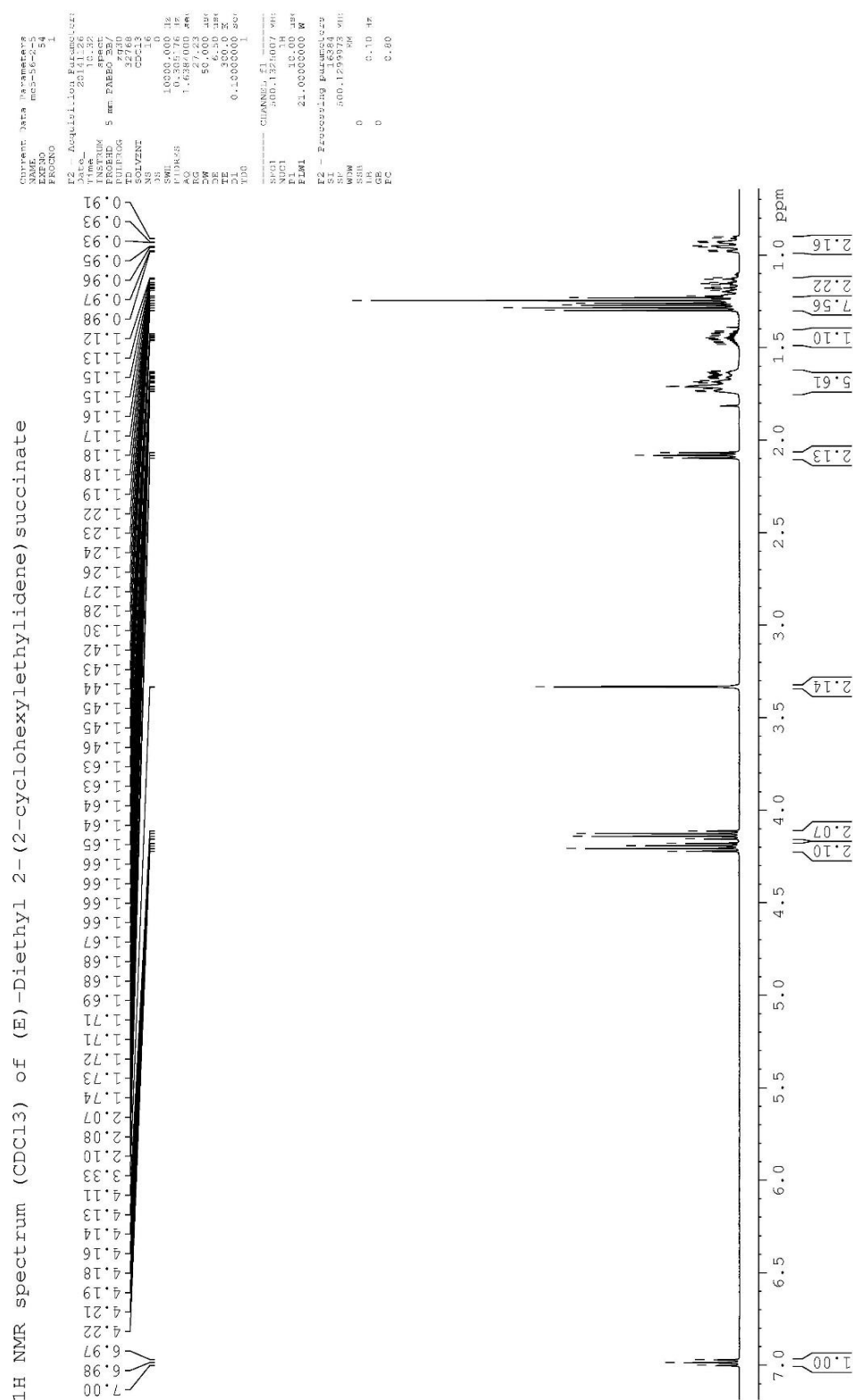


Figure 25 ¹H NMR spectrum in CDCl₃ (500 MHz) of (E)-diethyl 2-(2-cyclohexylethylidene)succinate (25).

¹³C NMR spectrum (CDCl₃) of (E)-Diethyl 2-(2-cyclohexylethylidene)succinate

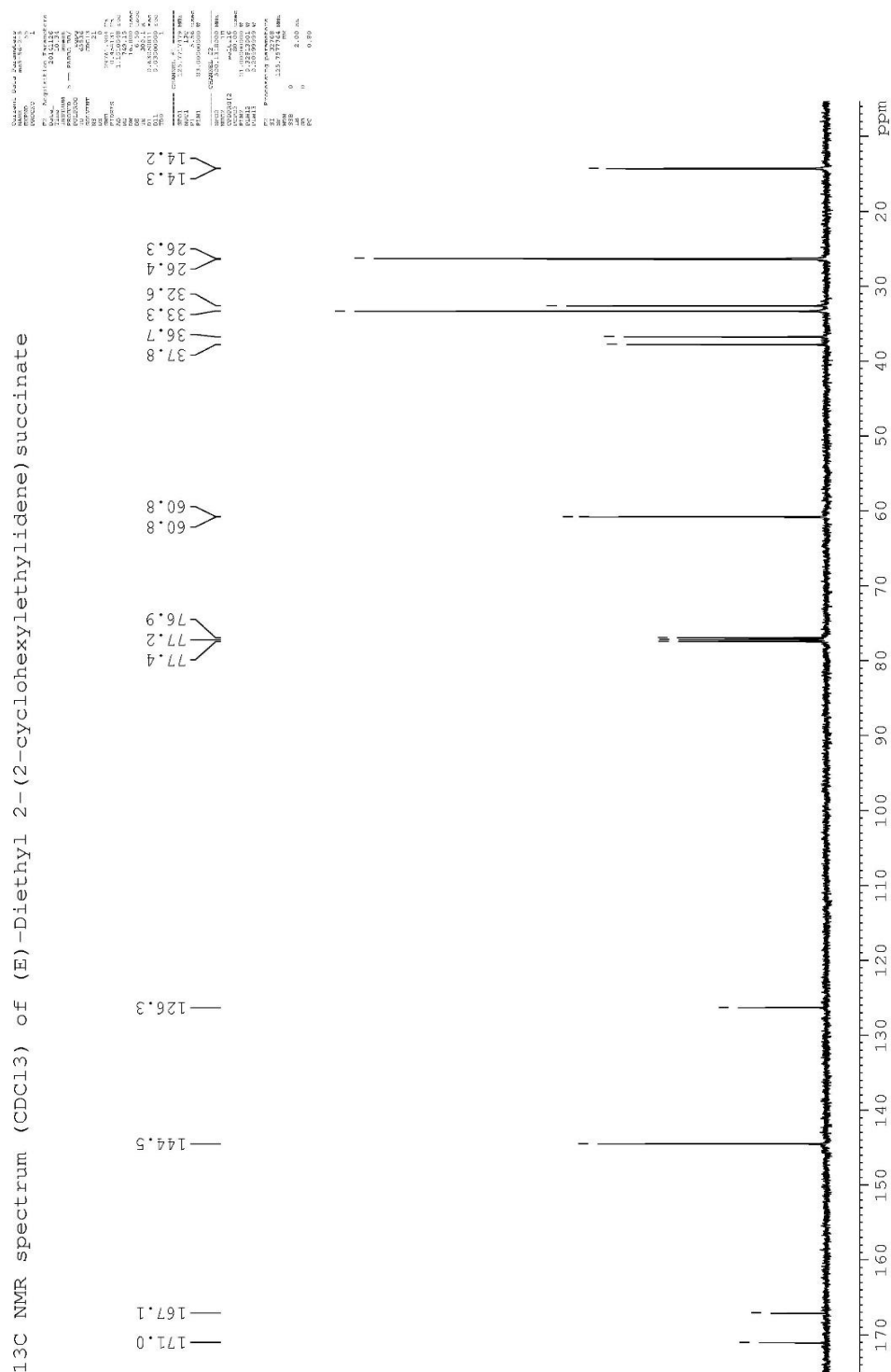


Figure 26 ¹³C NMR spectrum in CDCl₃ (125 MHz) of (E)-diethyl 2-(2-cyclohexylethylidene)succinate (**25**).

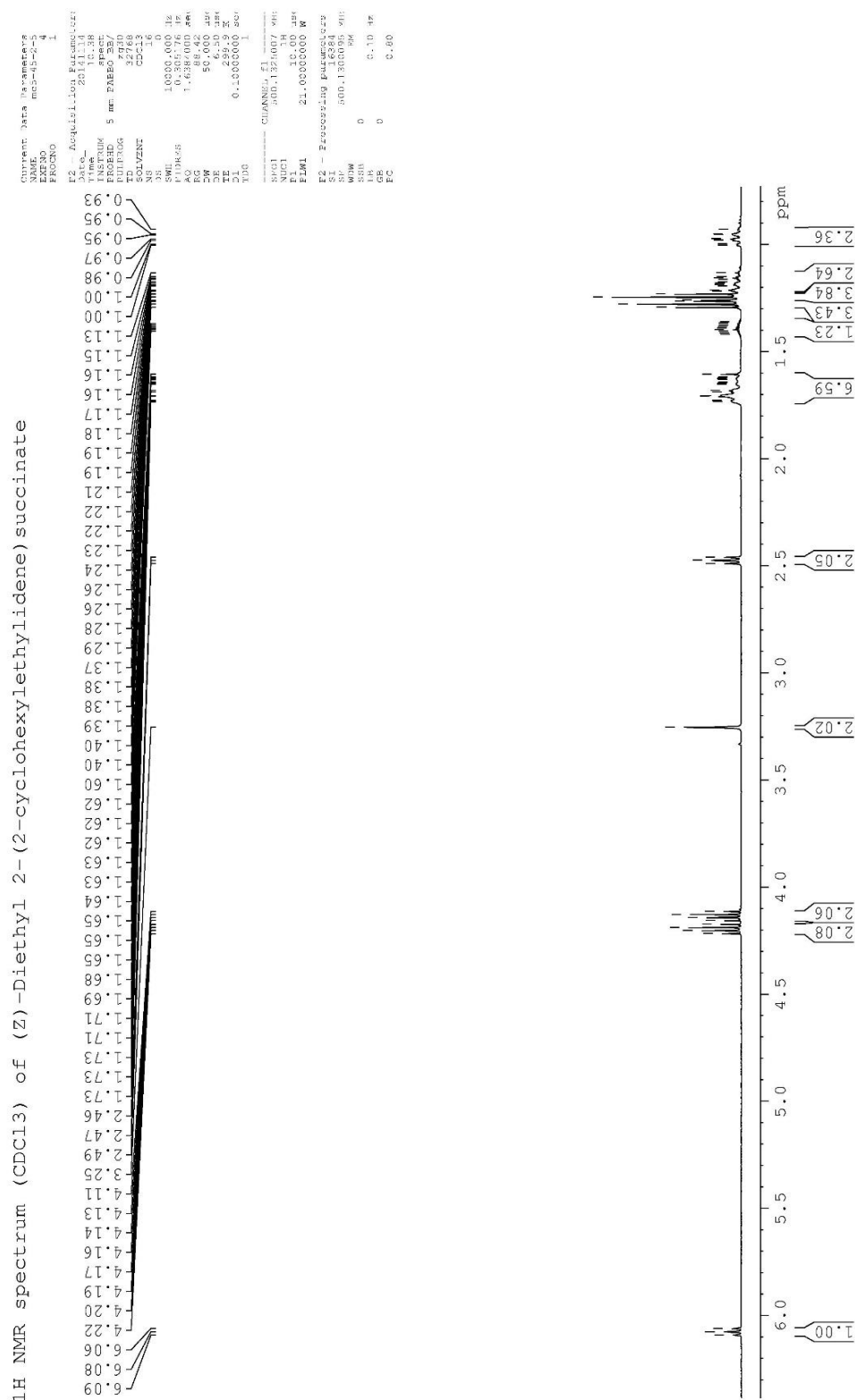


Figure 27 ¹H NMR spectrum in CDCl₃ (500 MHz) of (Z)-diethyl 2-(2-cyclohexylethylidene)succinate (**26**).

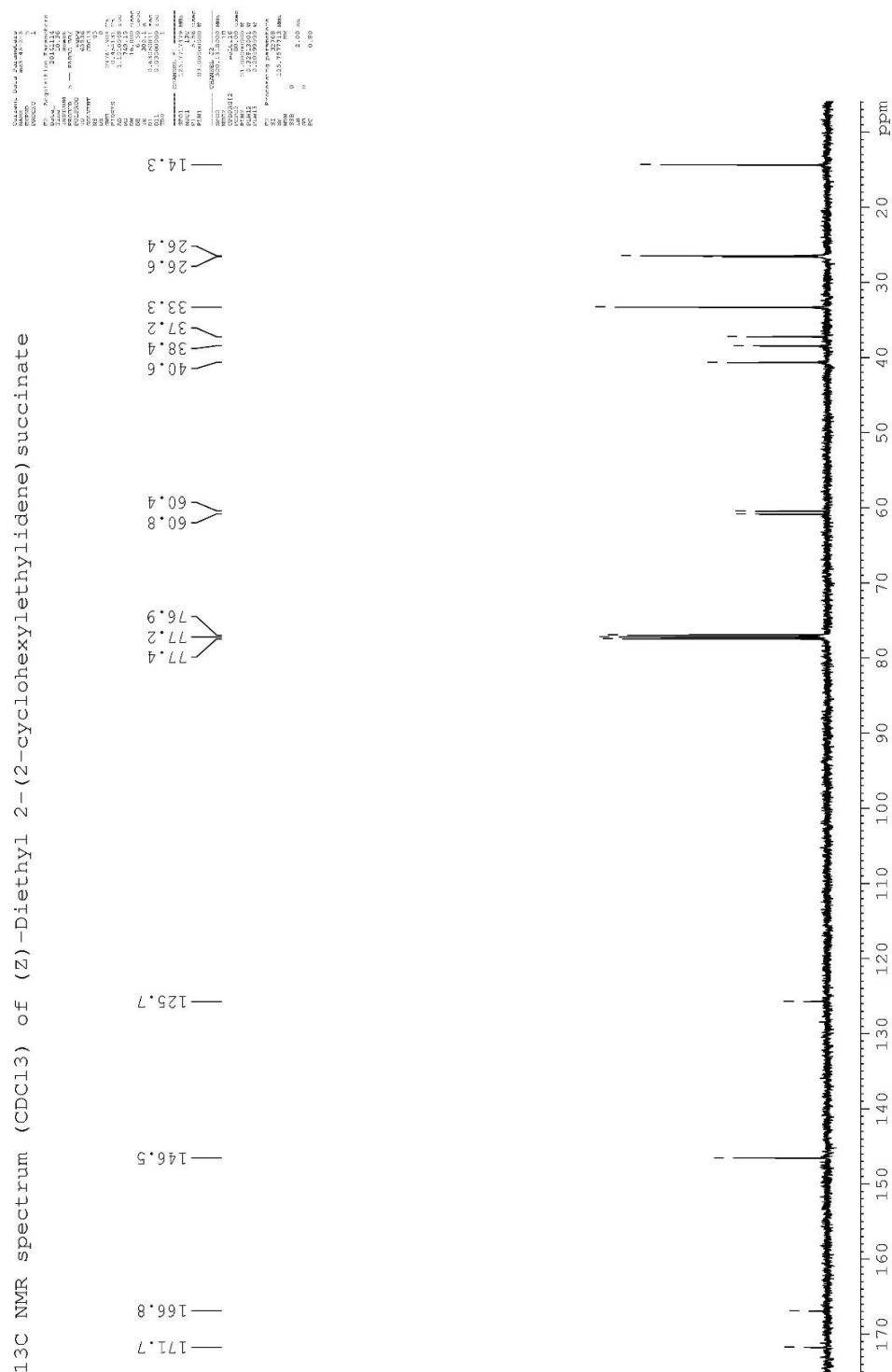


Figure 28 ¹³C NMR spectrum in CDCl₃ (125 MHz) of (Z)-diethyl 2-(2-cyclohexylethylidene)succinate (**26**).

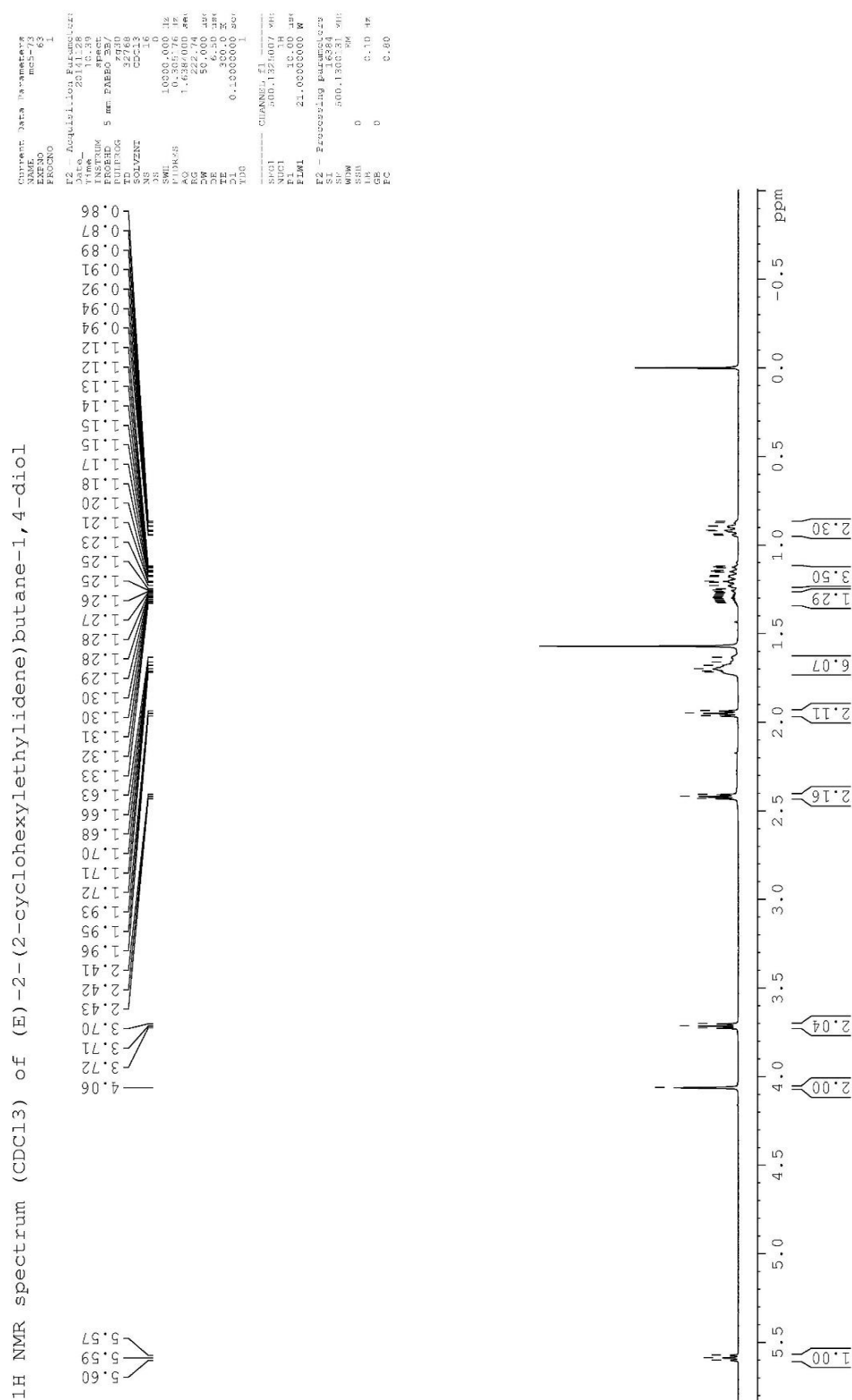


Figure 29 ¹H NMR spectrum in CDCl₃ (500 MHz) of (E)-2-(2-cyclohexylethylidene)butane-1,4-diol (**27**).

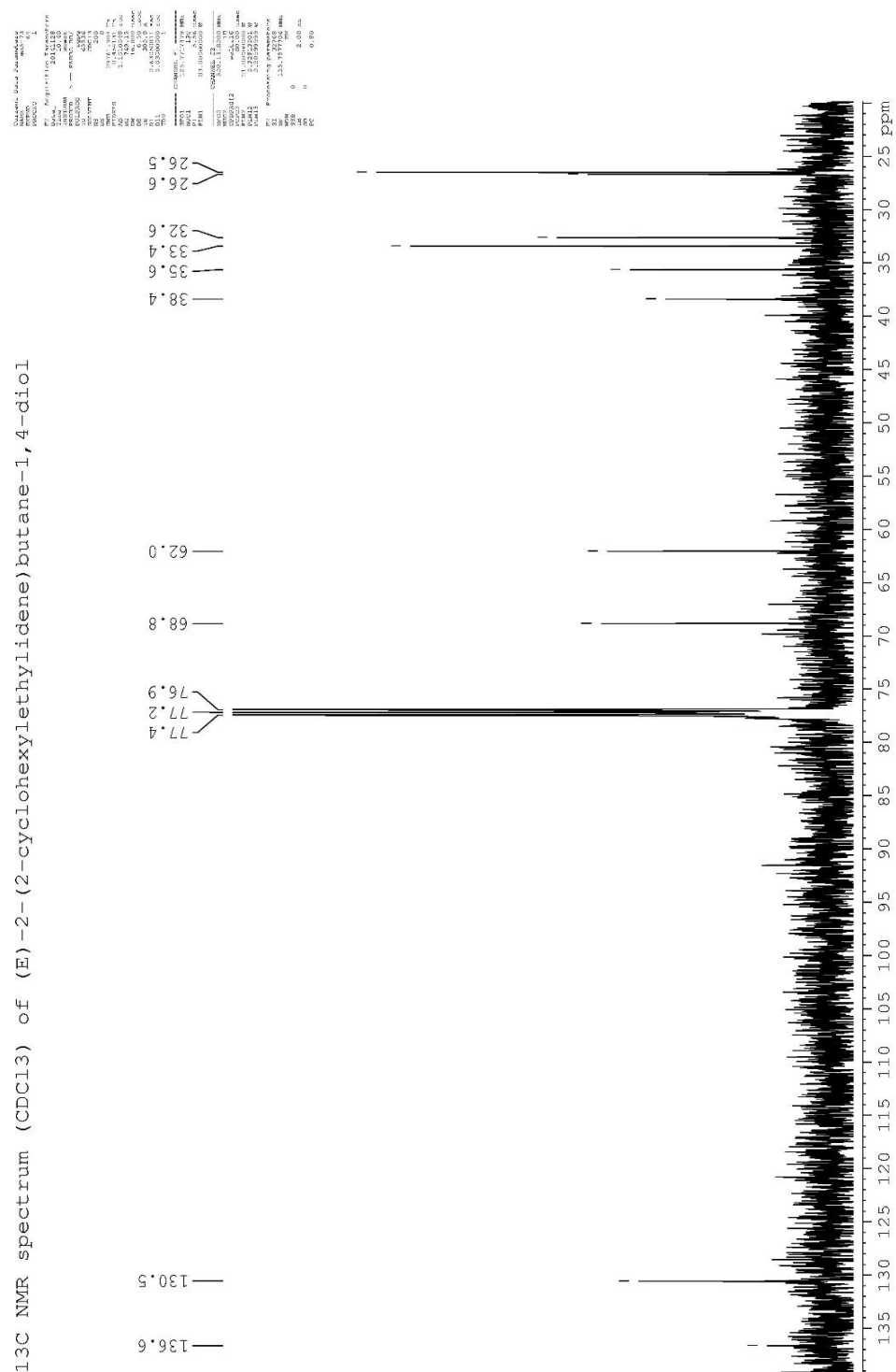


Figure 30 ¹³C NMR spectrum in CDCl₃ (125 MHz) of (E)-2-(2-cyclohexylethylidene)butane-1,4-diol (**27**).

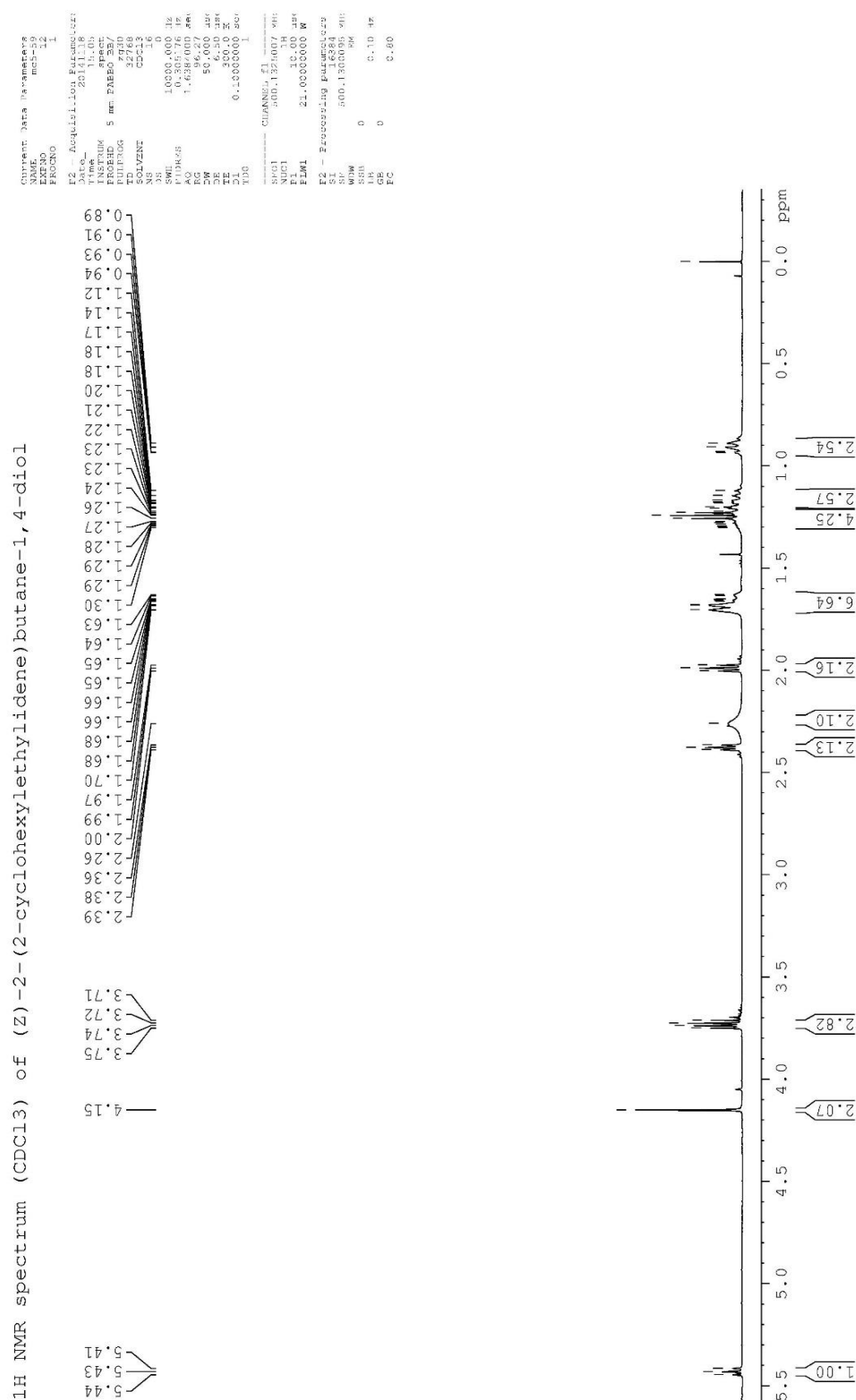


Figure 31 ¹H NMR spectrum in CDCl₃ (500 MHz) of (Z)-2-(2-cyclohexylethylidene)butane-1,4-diol (**28**).

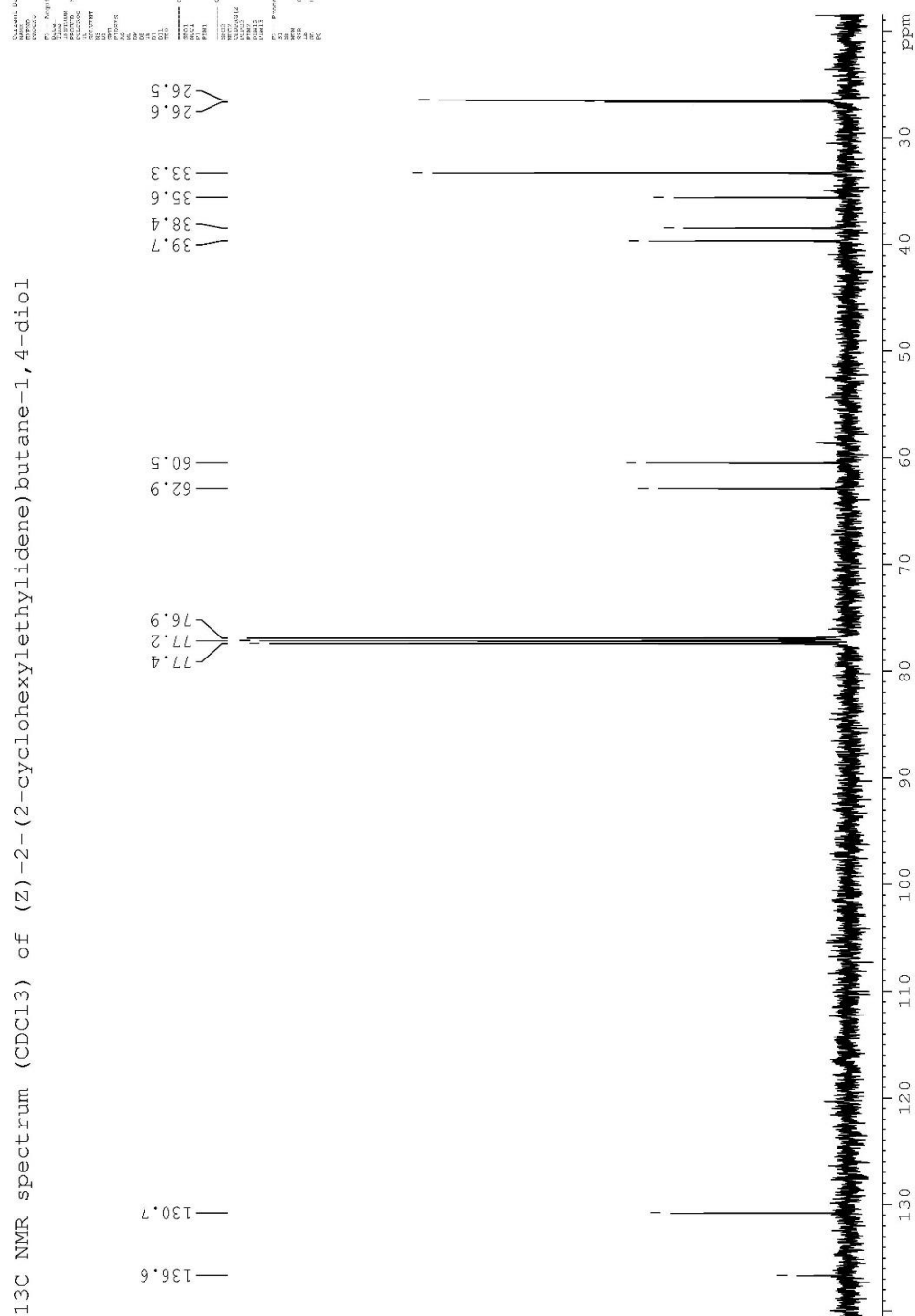


Figure 32 ¹³C NMR spectrum in CDCl₃ (125 MHz) of (Z)-2-(2-(2-cyclohexylethylidene)butane-1,4-diol (**28**).

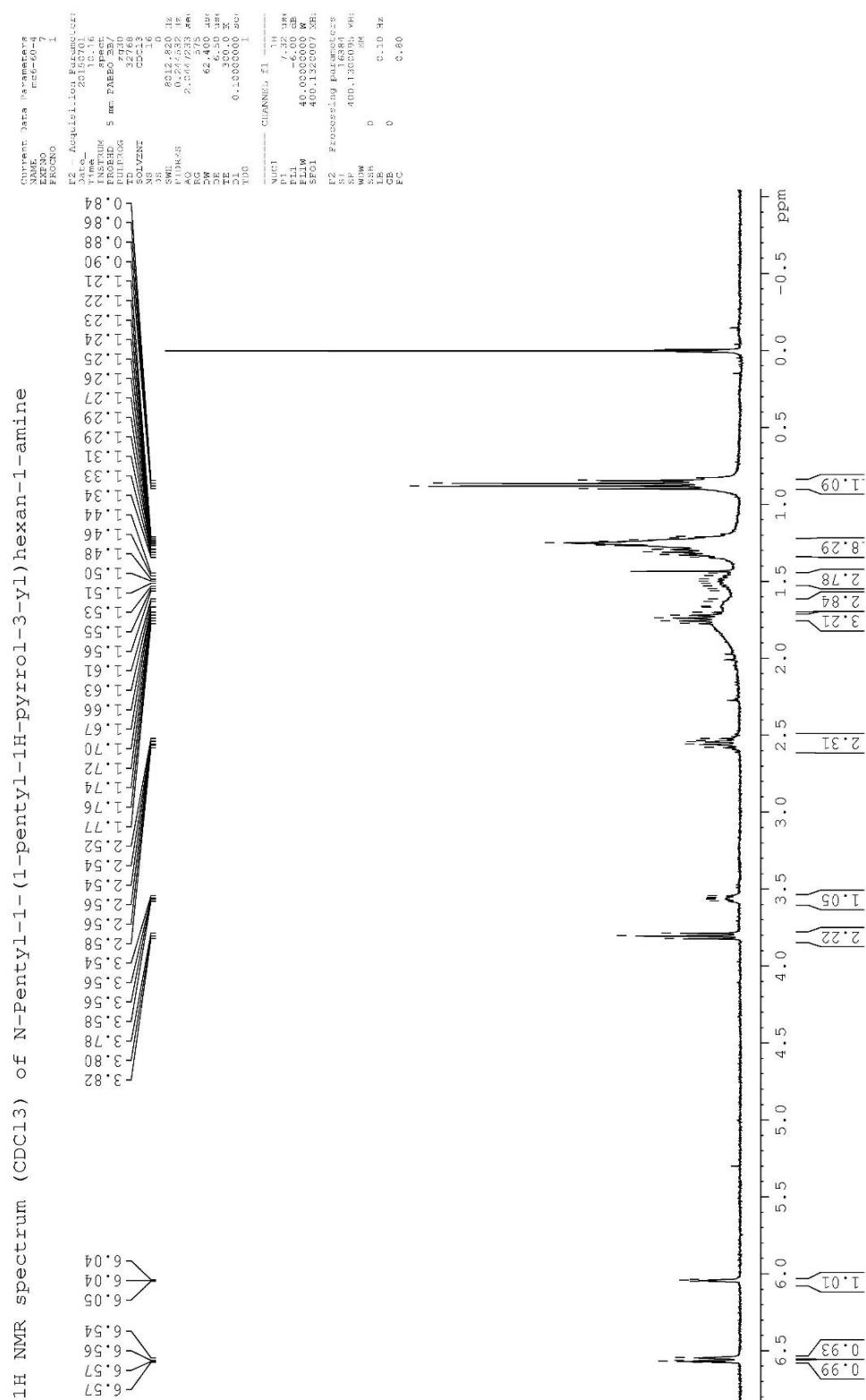


Figure 33 ¹H NMR spectrum in CDCl₃ (400 MHz) of N-pentyl-1-(1-pentyl-1H-pyrrol-3-yl)hexan-1-amine (**29**).

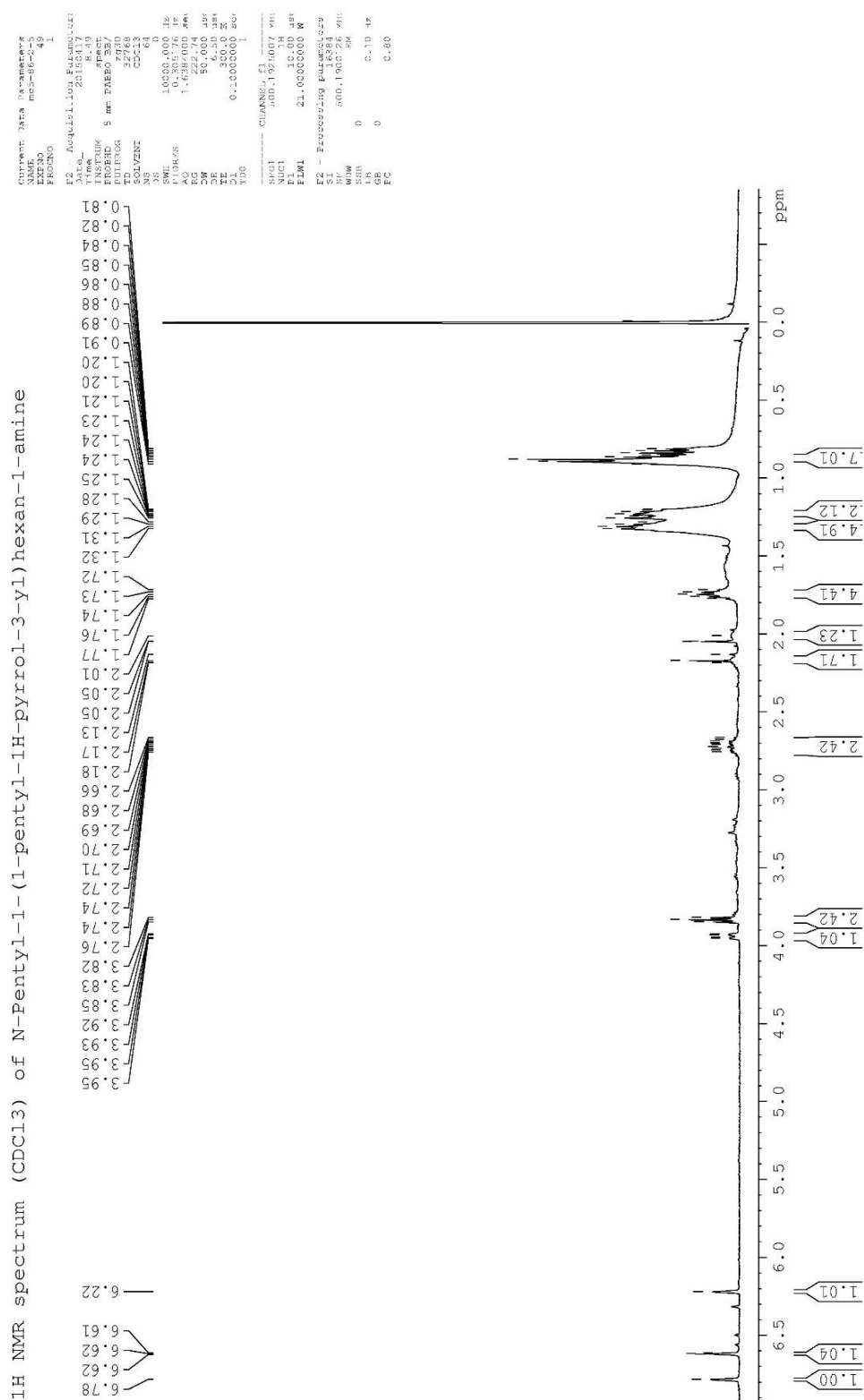


Figure 34 ¹H NMR spectrum in CDCl₃ (500 MHz) of N-pentyl-1-(1-pentyl-1H-pyrrol-3-yl)hexan-1-amine (**30**).

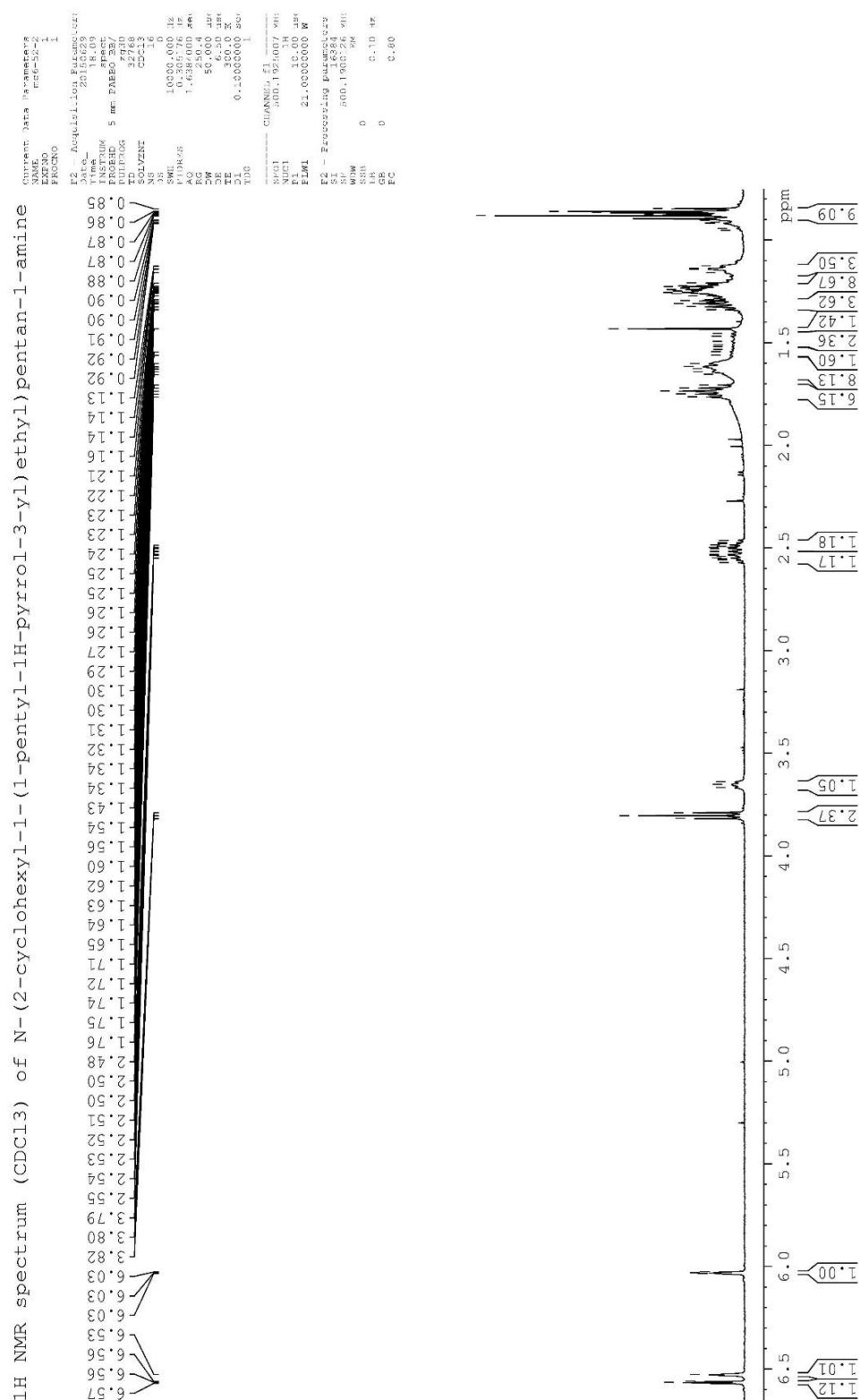


Figure 36 ¹H NMR spectrum in CDCl₃ (500 MHz) of N-(2-cyclohexyl-1-(1-pentyl-1H-pyrrol-3-yl)ethyl)pentan-1-amine (**31**).



S39

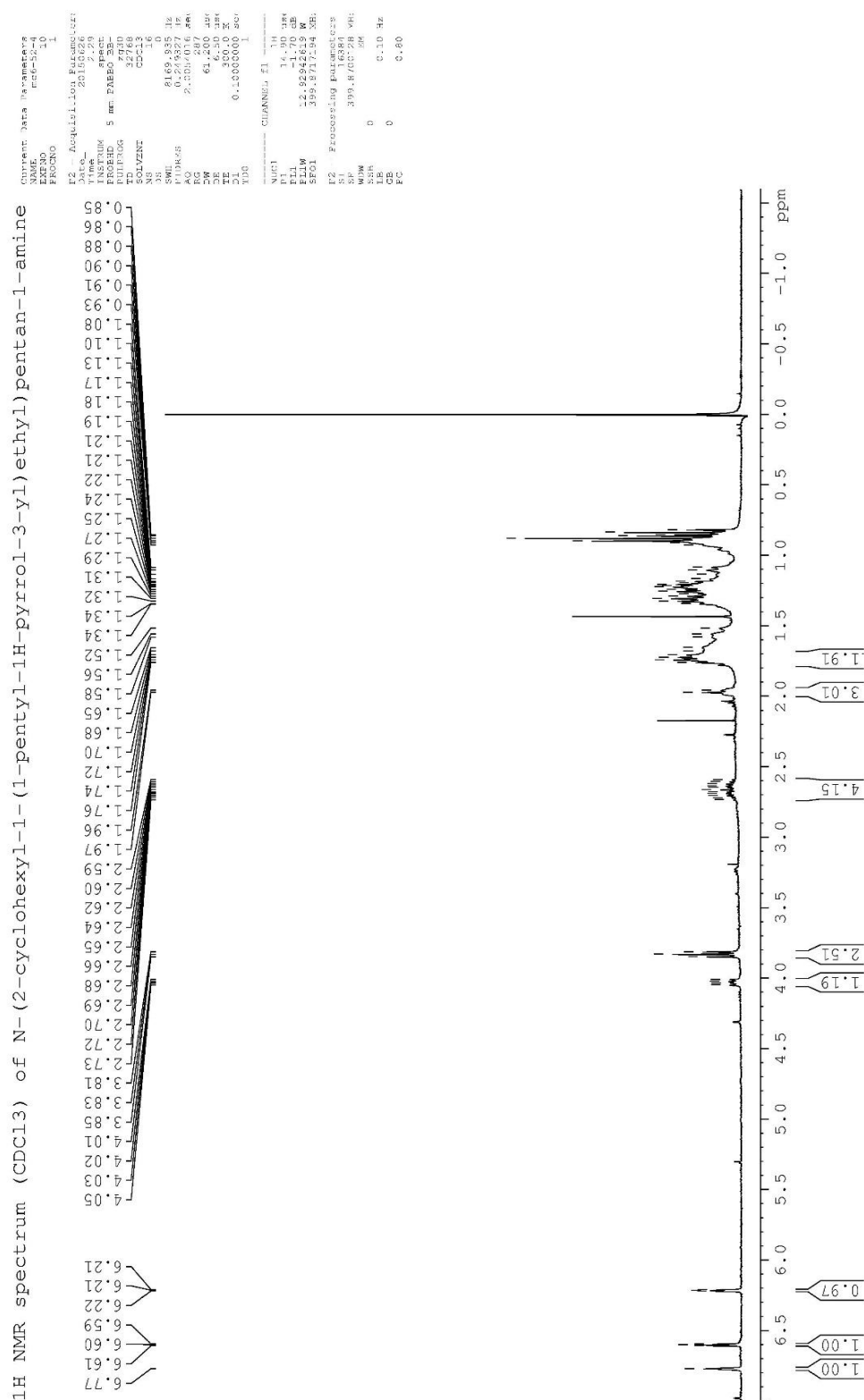


Figure 38 ¹H NMR spectrum in CDCl₃ (400 MHz) of N-(2-cyclohexyl-1-(1-pentyl-1H-pyrrol-3-yl)ethyl)pentan-1-amine (**32**).

¹³C NMR spectrum (CDCl₃) of *N*-(2-cyclohexyl-1-(1-pentyl-1*H*-pyrrol-3-yl)ethyl)pentan-1-amine

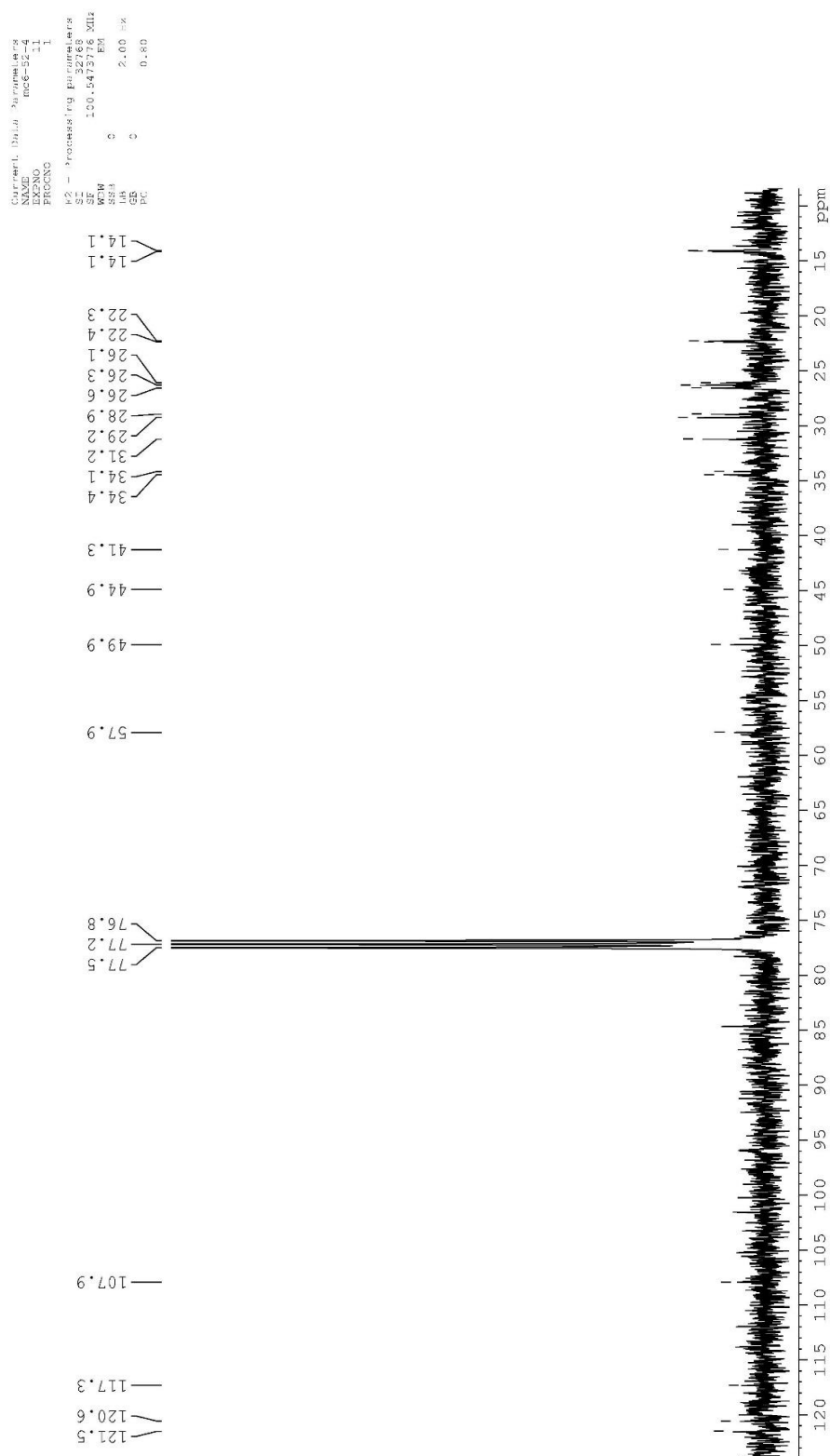


Figure 39 ¹³C NMR spectrum in CDCl₃ (100 MHz) of *N*-(2-cyclohexyl-1-(1-pentyl-1*H*-pyrrol-3-yl)ethyl)pentan-1-amine (**32**).