

Doctoral Thesis

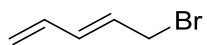
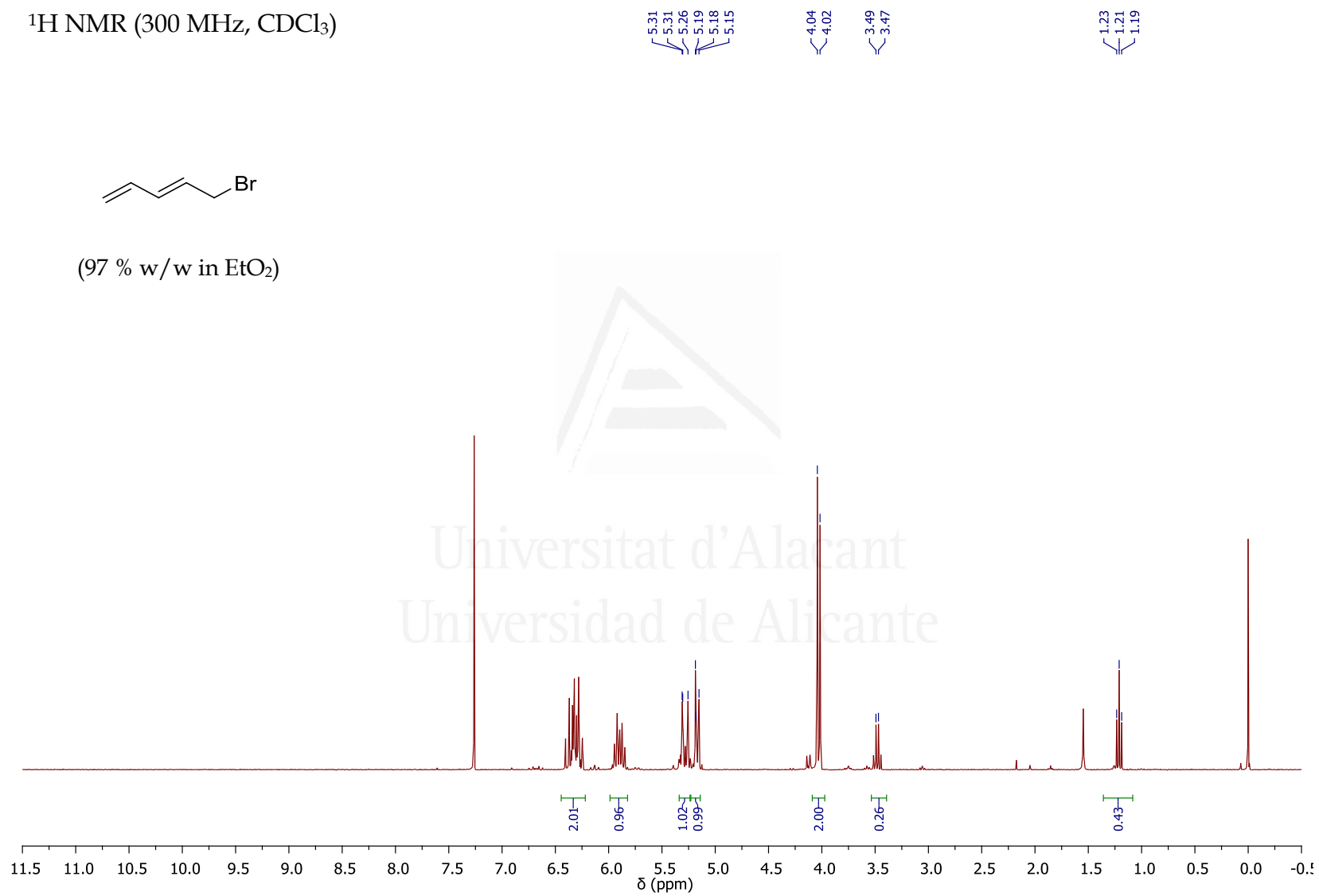
Irene Bosque Martínez

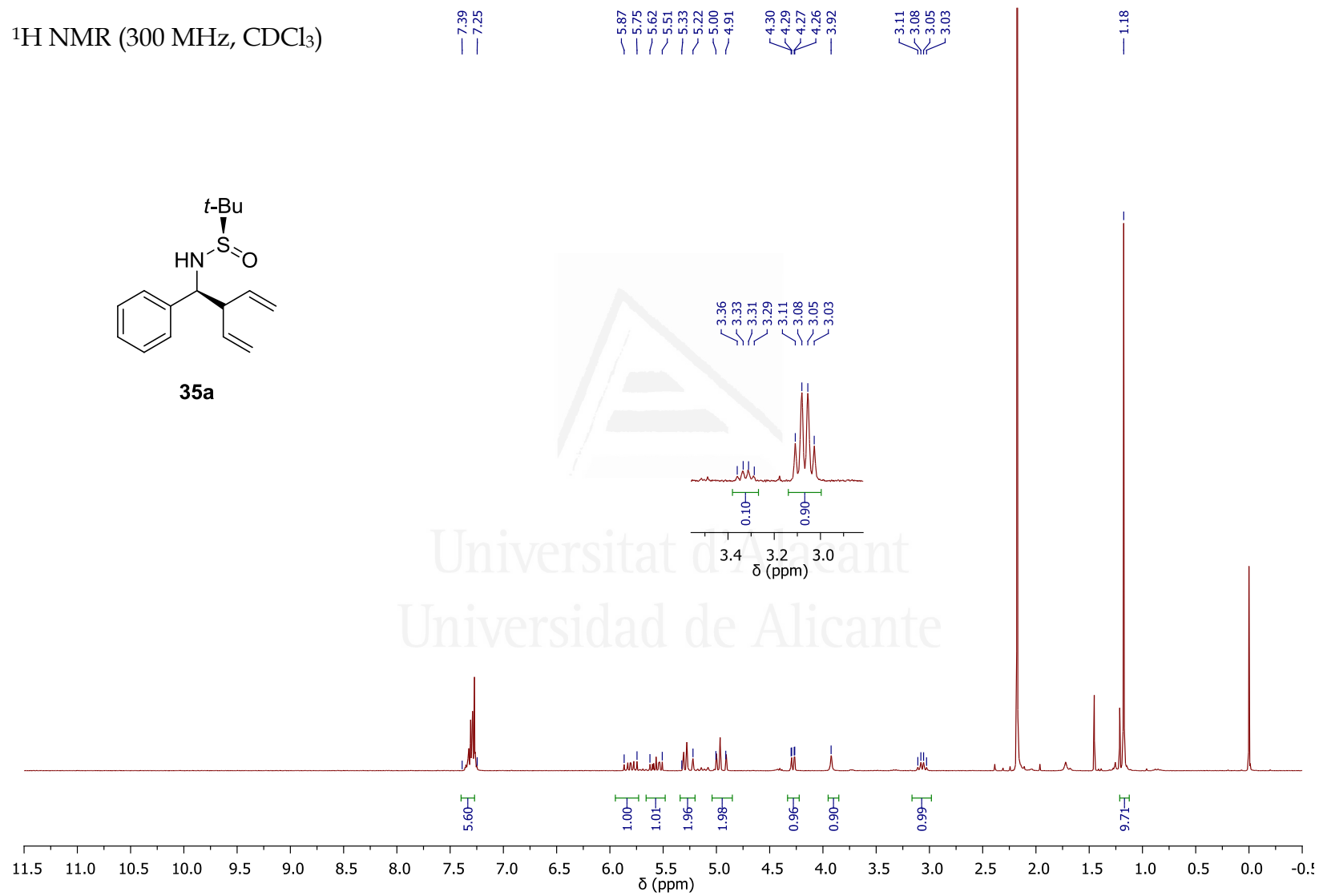
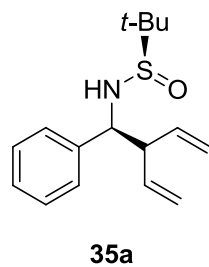
CHAPTER IV:

PENTADIENYLATION OF CARBONYL COMPOUNDS

Supporting Information

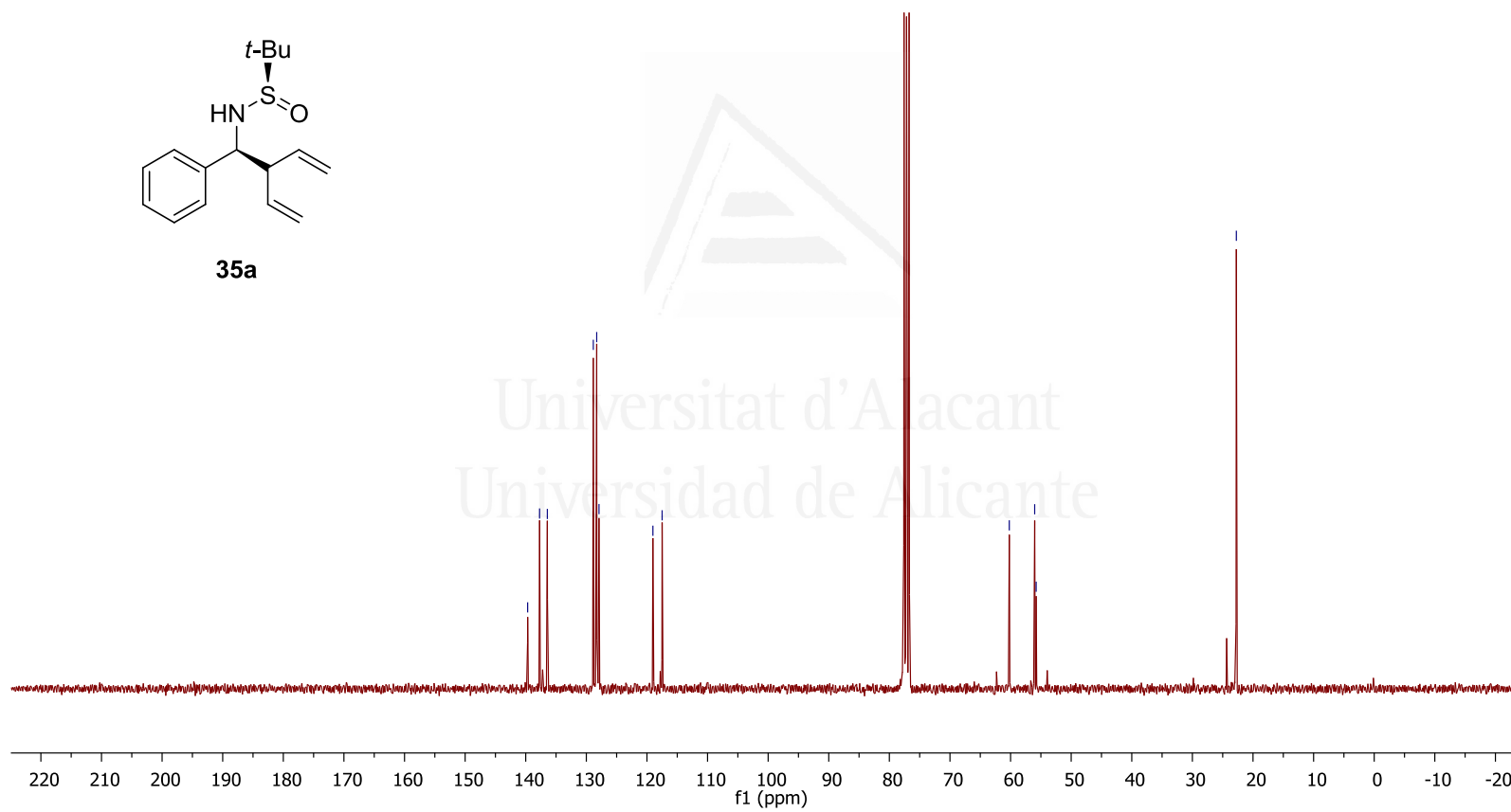
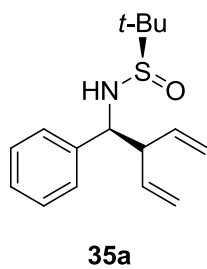
¹ H NMR and ¹³ C NMR spectra of compounds 35	SIII.2
¹ H NMR spectra for MPA-derivatives of compounds 35i and 35j	SIII.27
¹ H NMR and ¹³ C NMR spectra of compounds 36	SIII.31
¹ H NMR and ¹³ C NMR spectra of compounds 37 to 41	SIII.37
COSY and HSQC spectra of compound 41	SIII.51
¹ H NMR and ¹³ C NMR spectra of compound 42 to 45	SIII.53

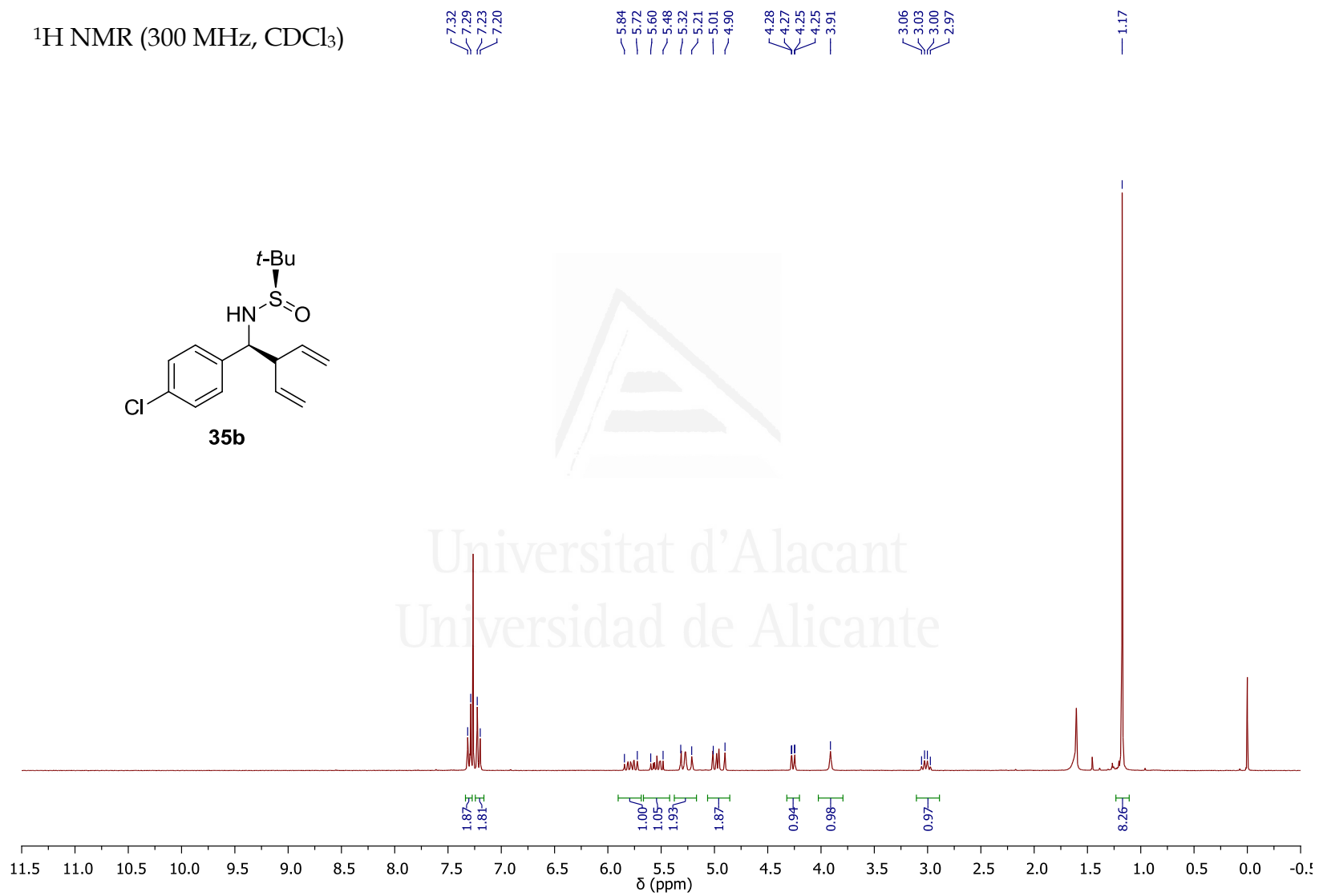
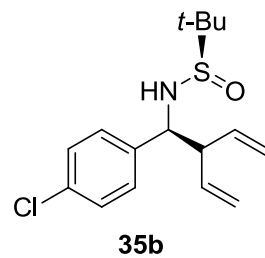
^1H NMR (300 MHz, CDCl_3)(97 % w/w in EtO_2)

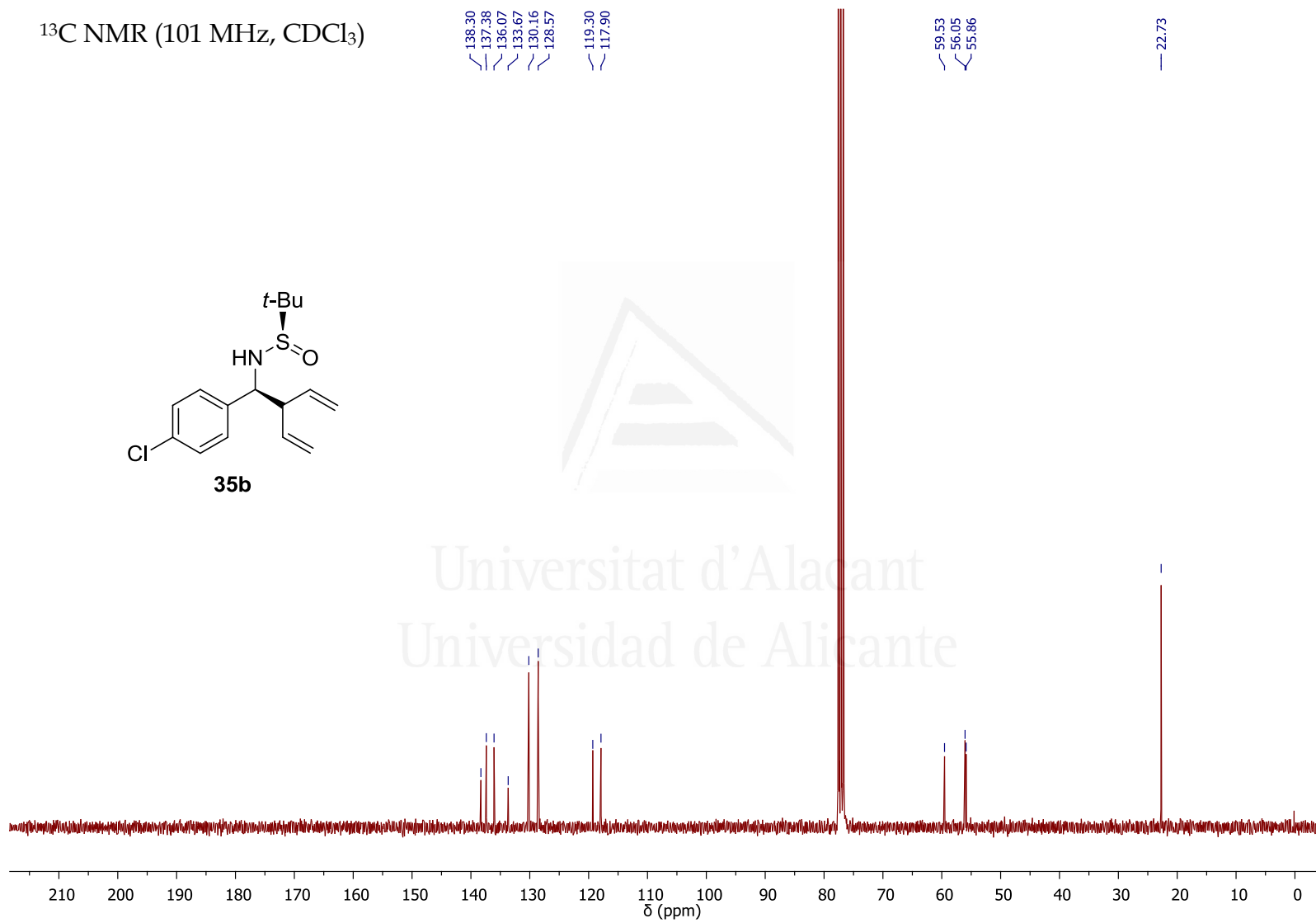
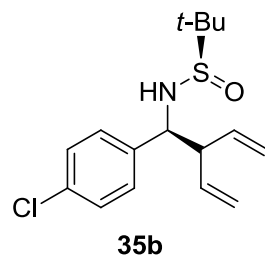
^1H NMR (300 MHz, CDCl_3)

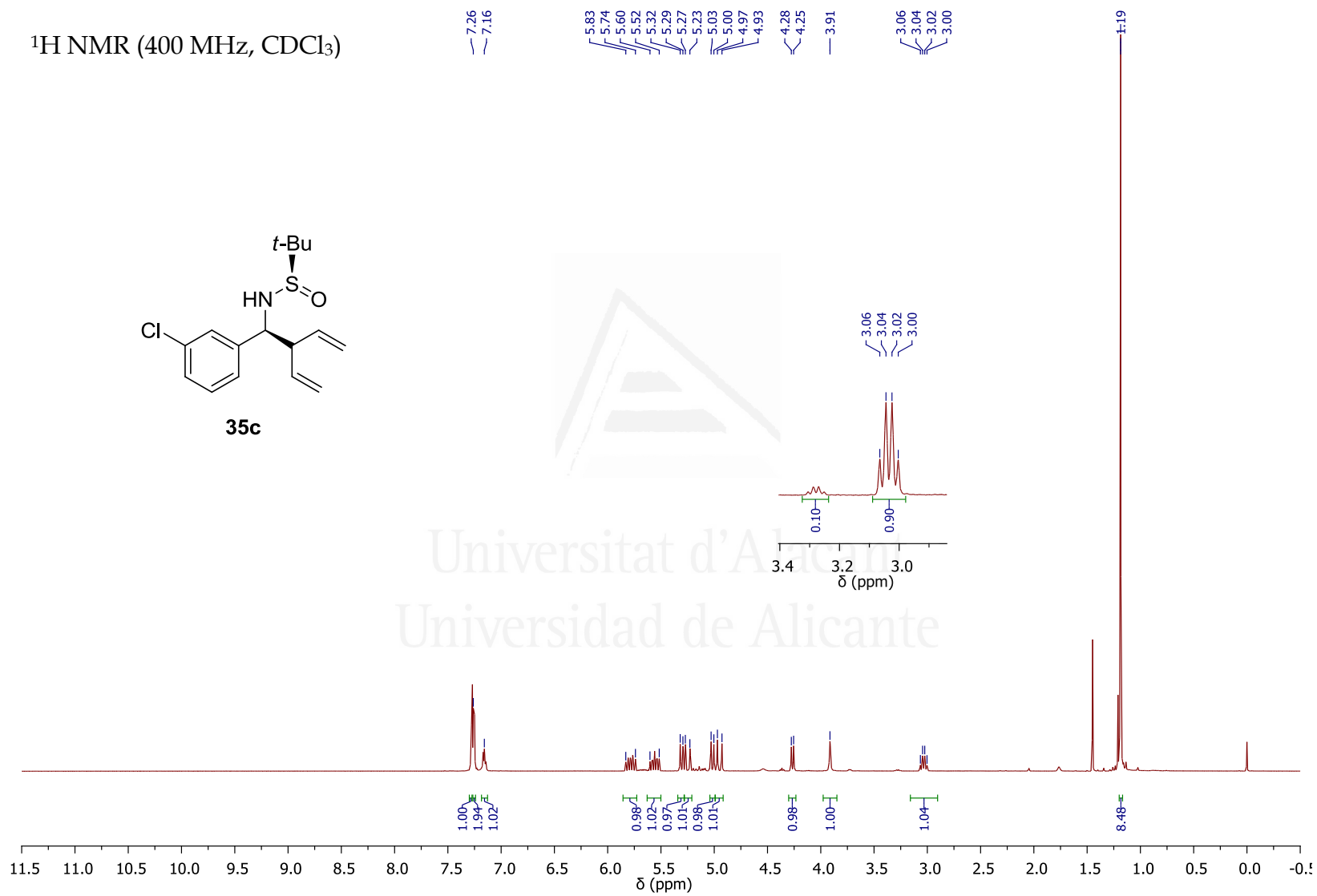
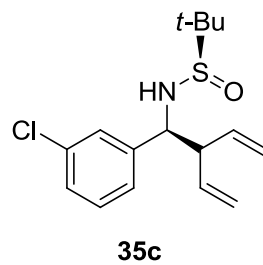
^{13}C NMR (101 MHz, CDCl_3)139.68
137.72
136.44
128.85
128.29
127.91
119.01
117.4960.21
56.02
55.78

22.75



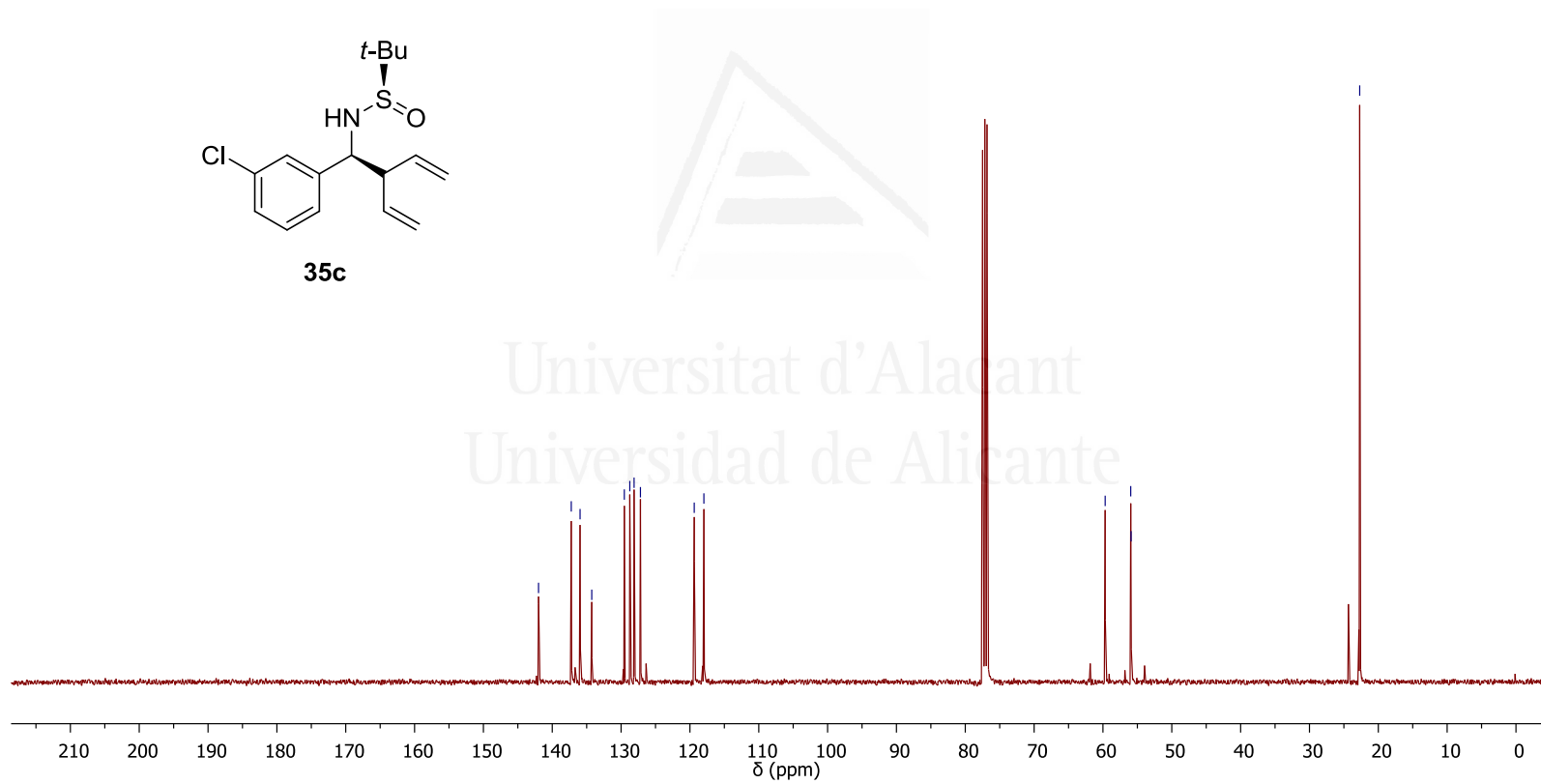
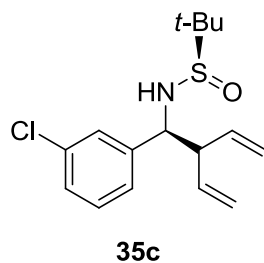
^1H NMR (300 MHz, CDCl_3)

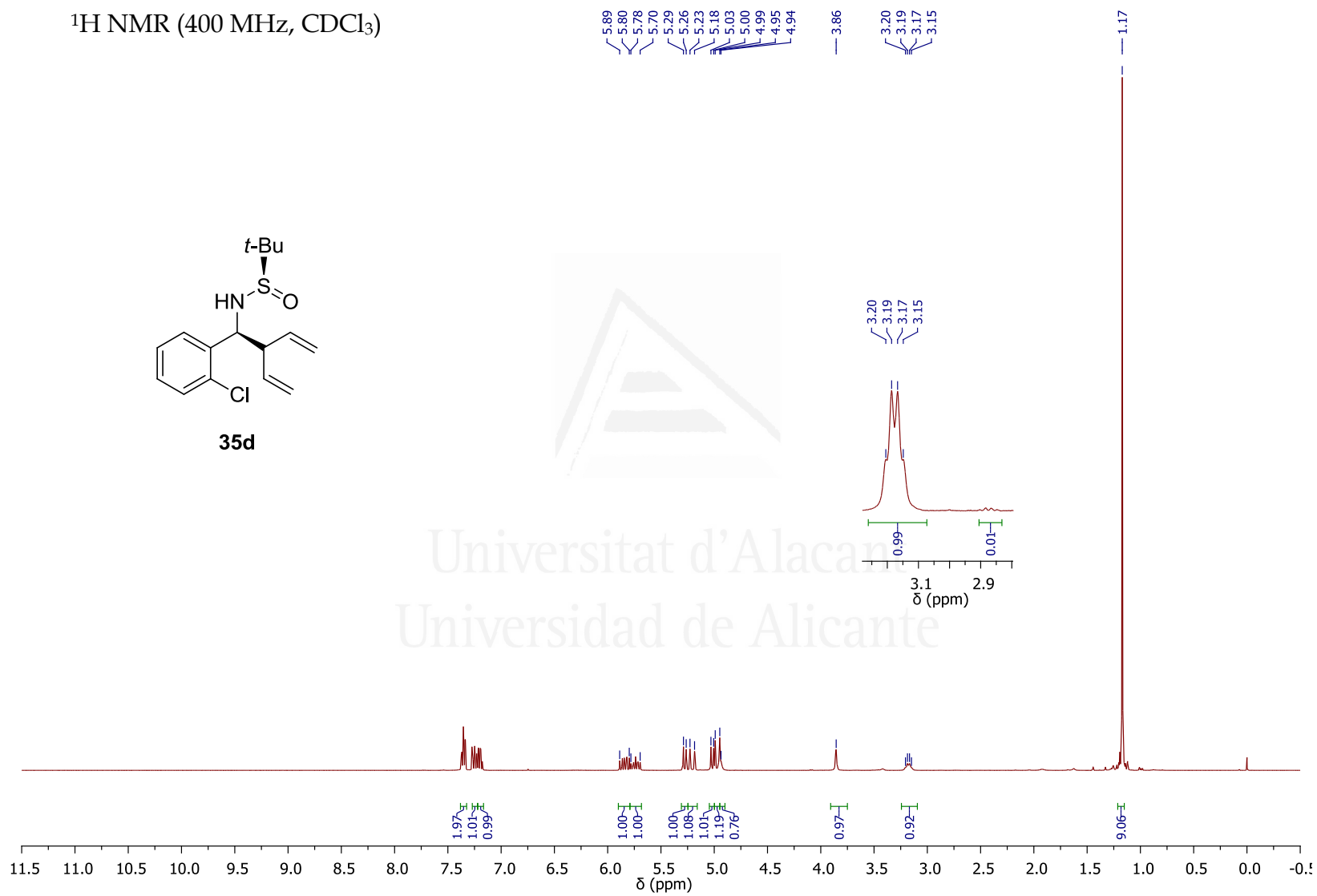
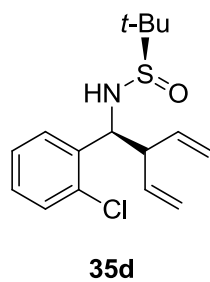
^{13}C NMR (101 MHz, CDCl_3)

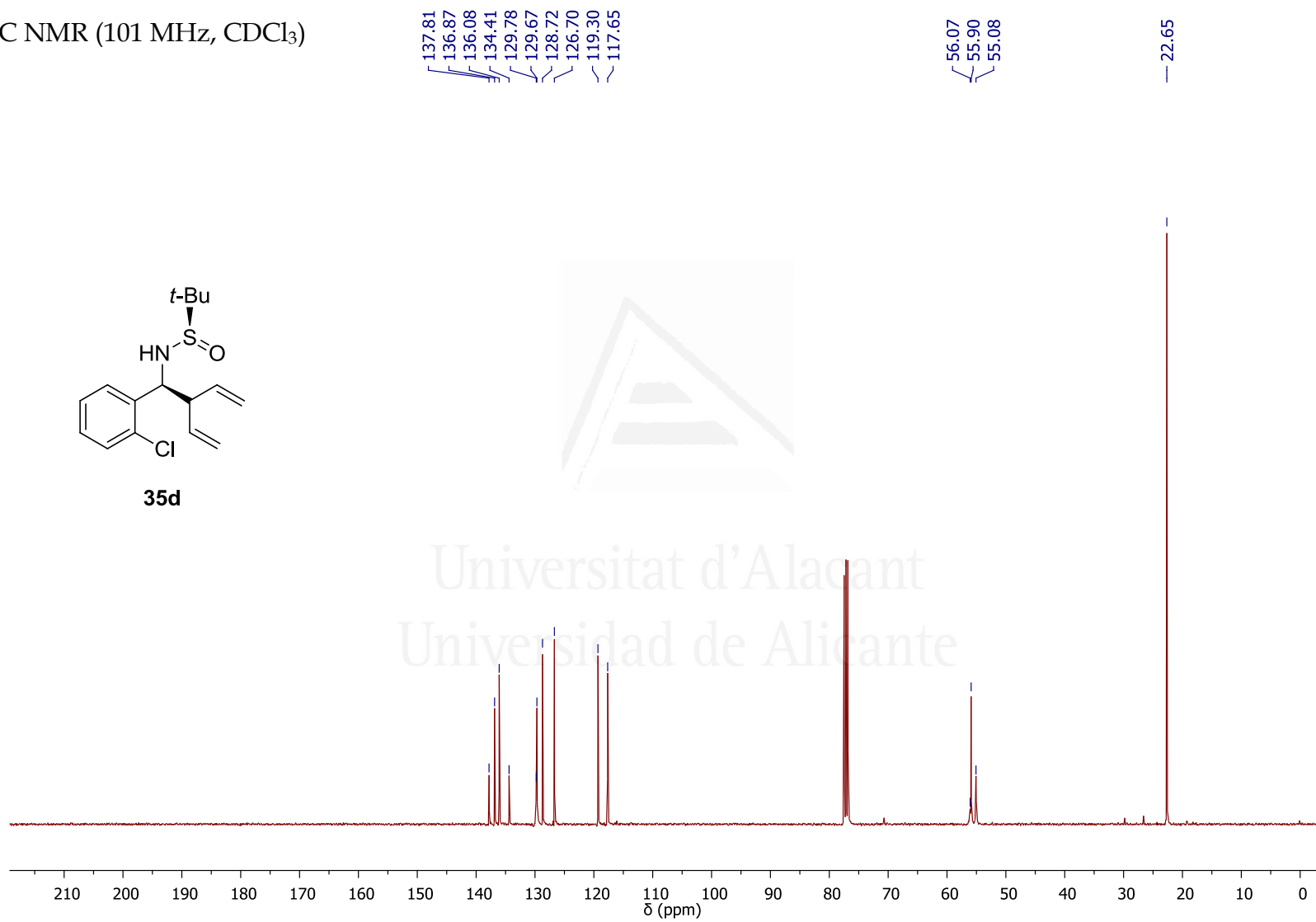
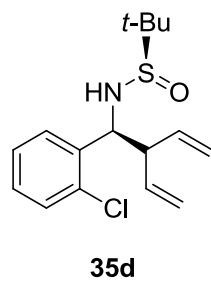
^1H NMR (400 MHz, CDCl_3)

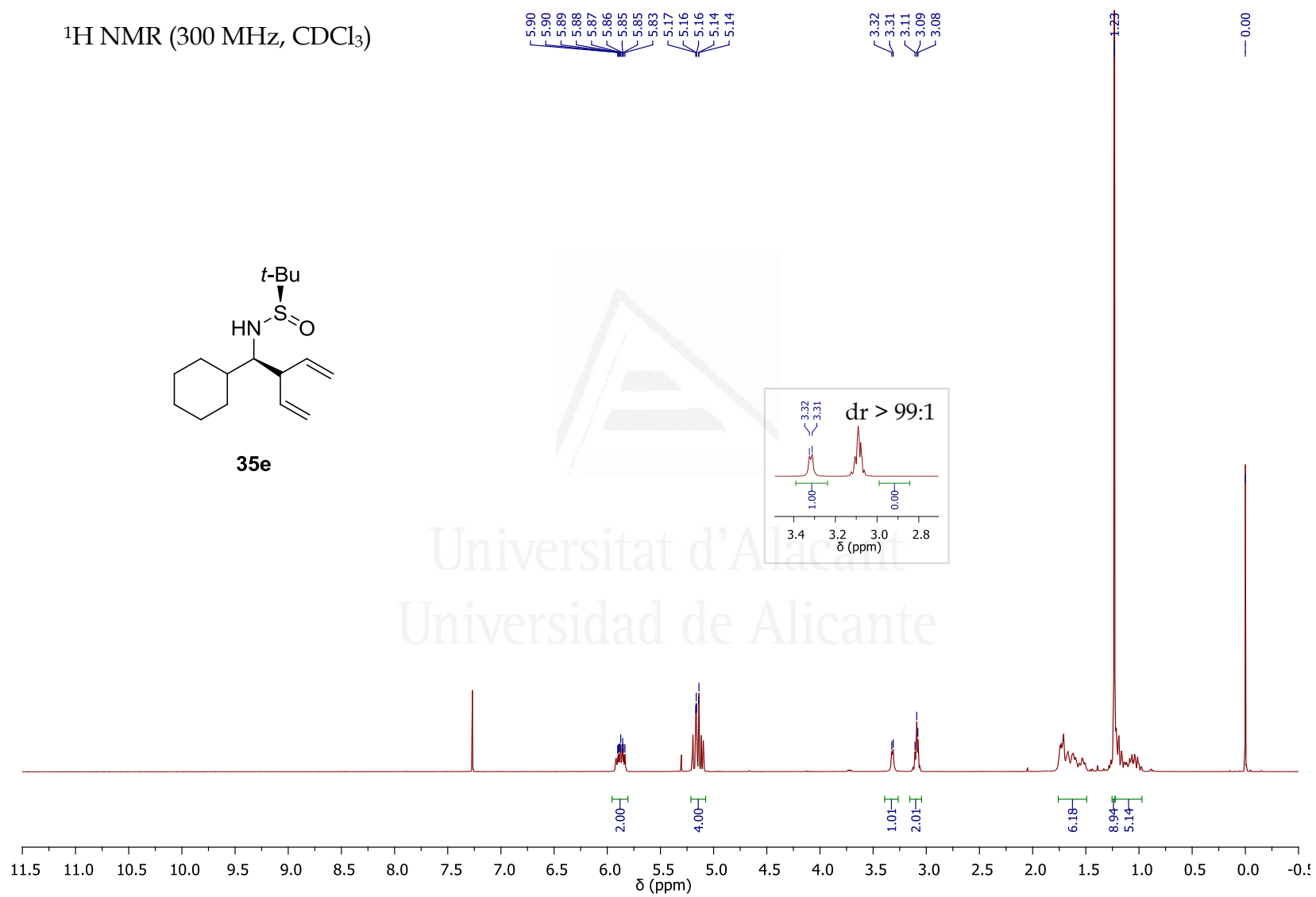
^{13}C NMR (101 MHz, CDCl_3)141.99
137.24
135.96
134.26
129.53
128.74
128.11
127.19
119.37
117.9759.68
55.96
55.91

22.70



^1H NMR (400 MHz, CDCl_3)

^{13}C NMR (101 MHz, CDCl_3)

^1H NMR (300 MHz, CDCl_3)

^{13}C NMR (101 MHz, CDCl_3)138.61
138.10117.38
117.32

77.16

62.69

56.52

52.00

40.70

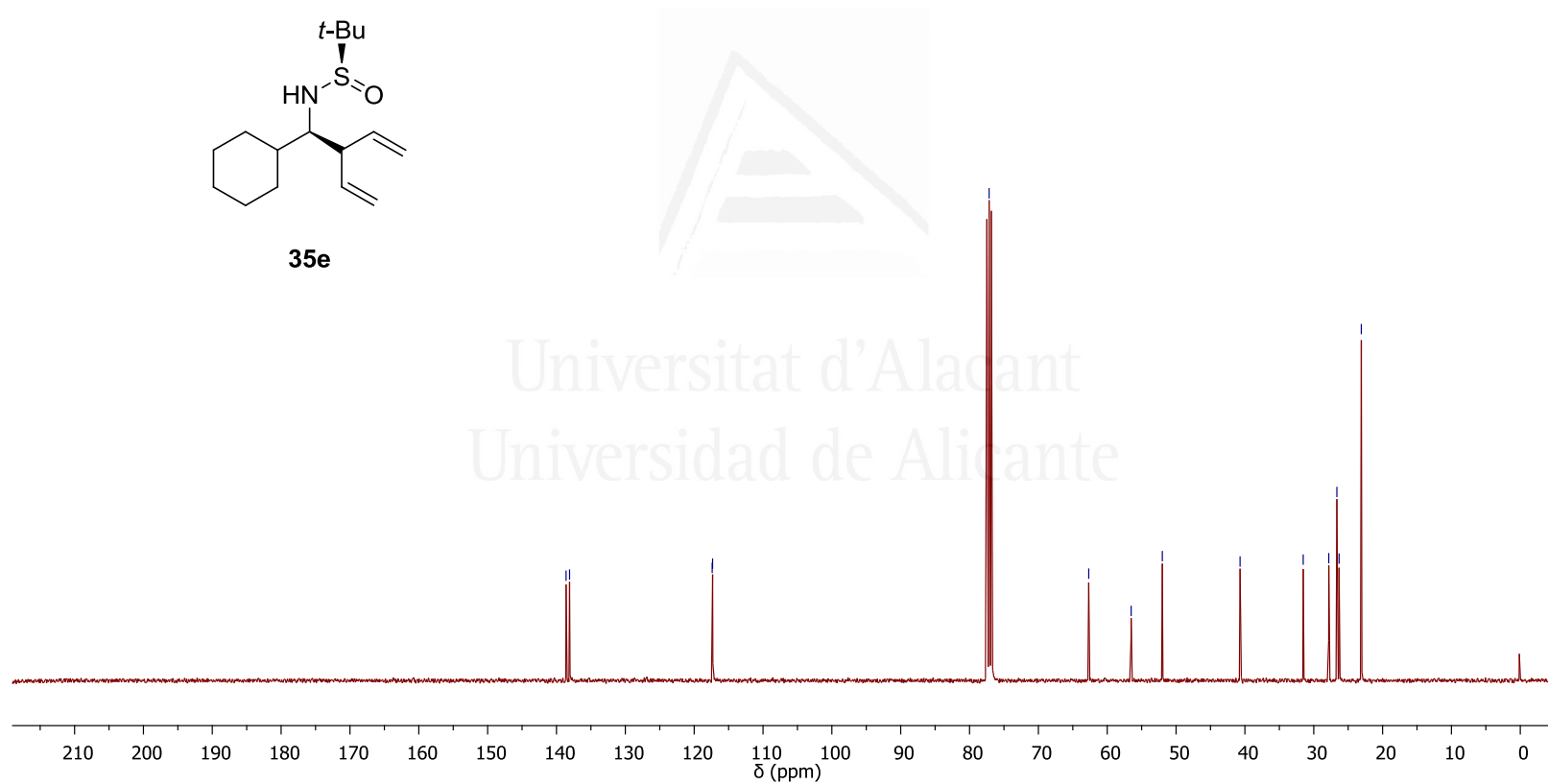
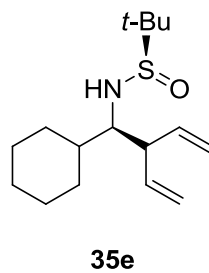
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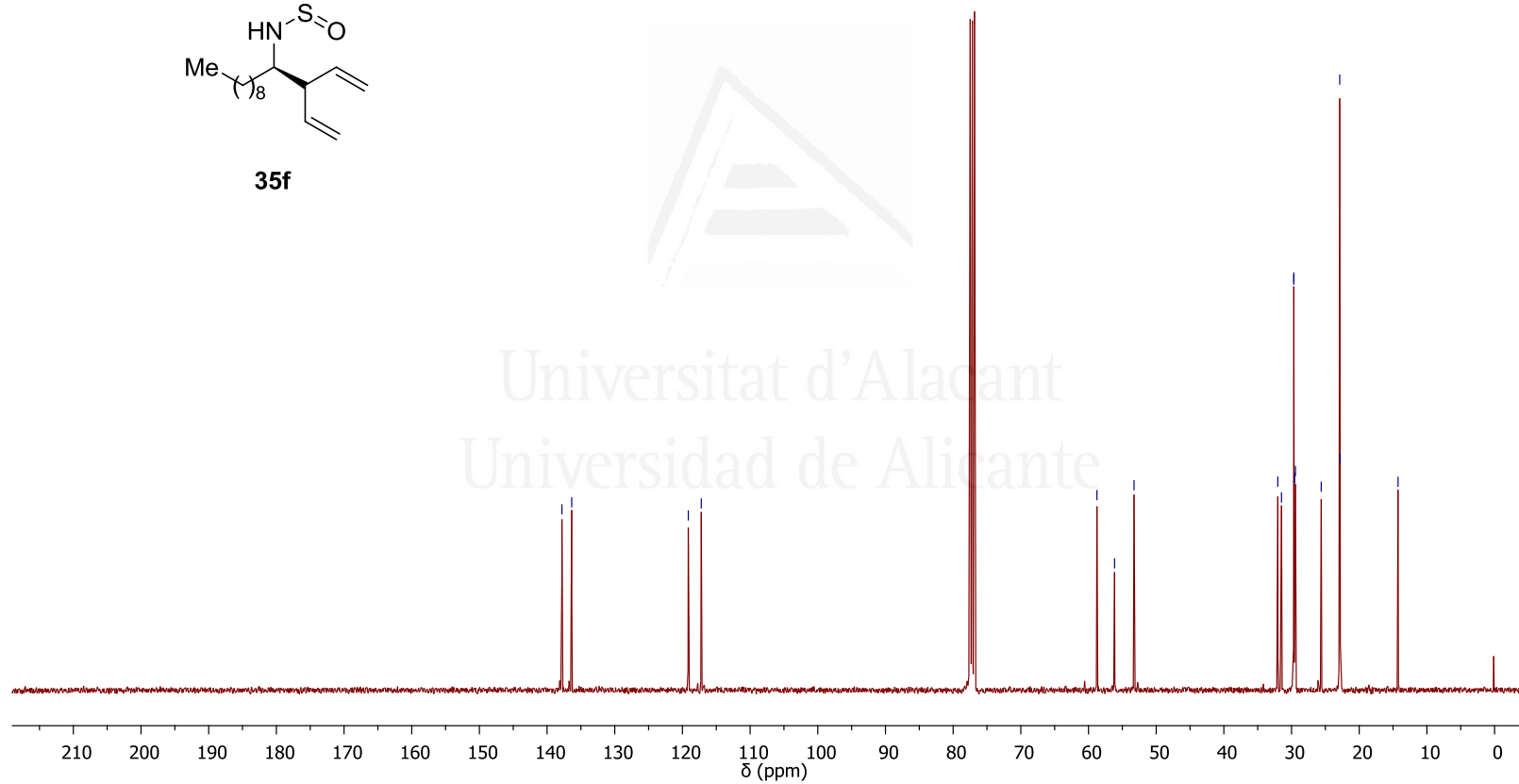
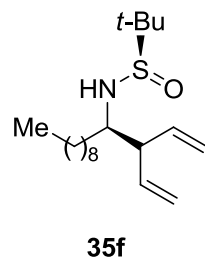
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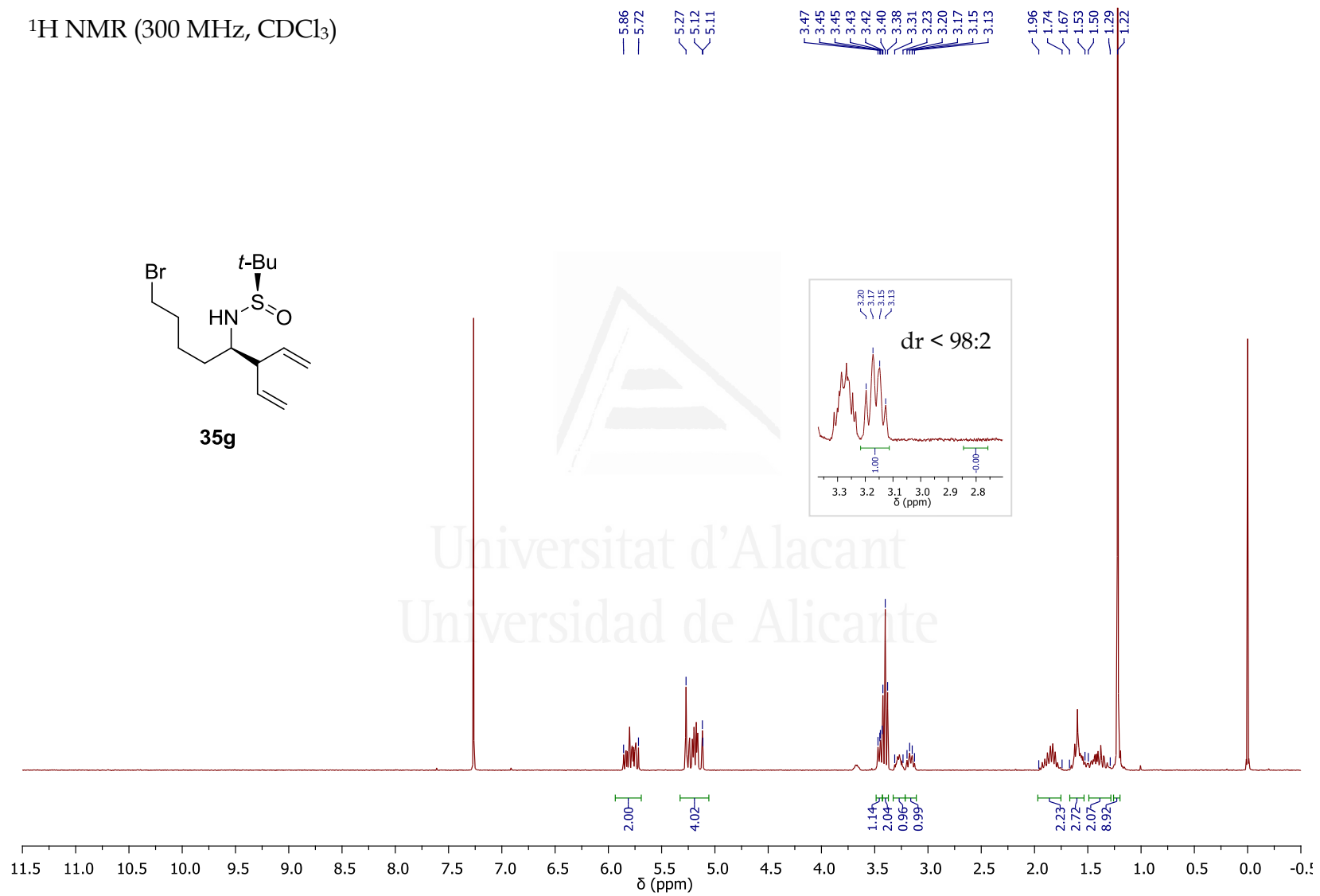
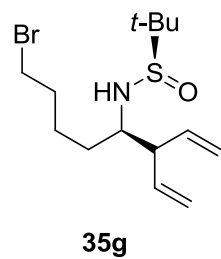
26.64

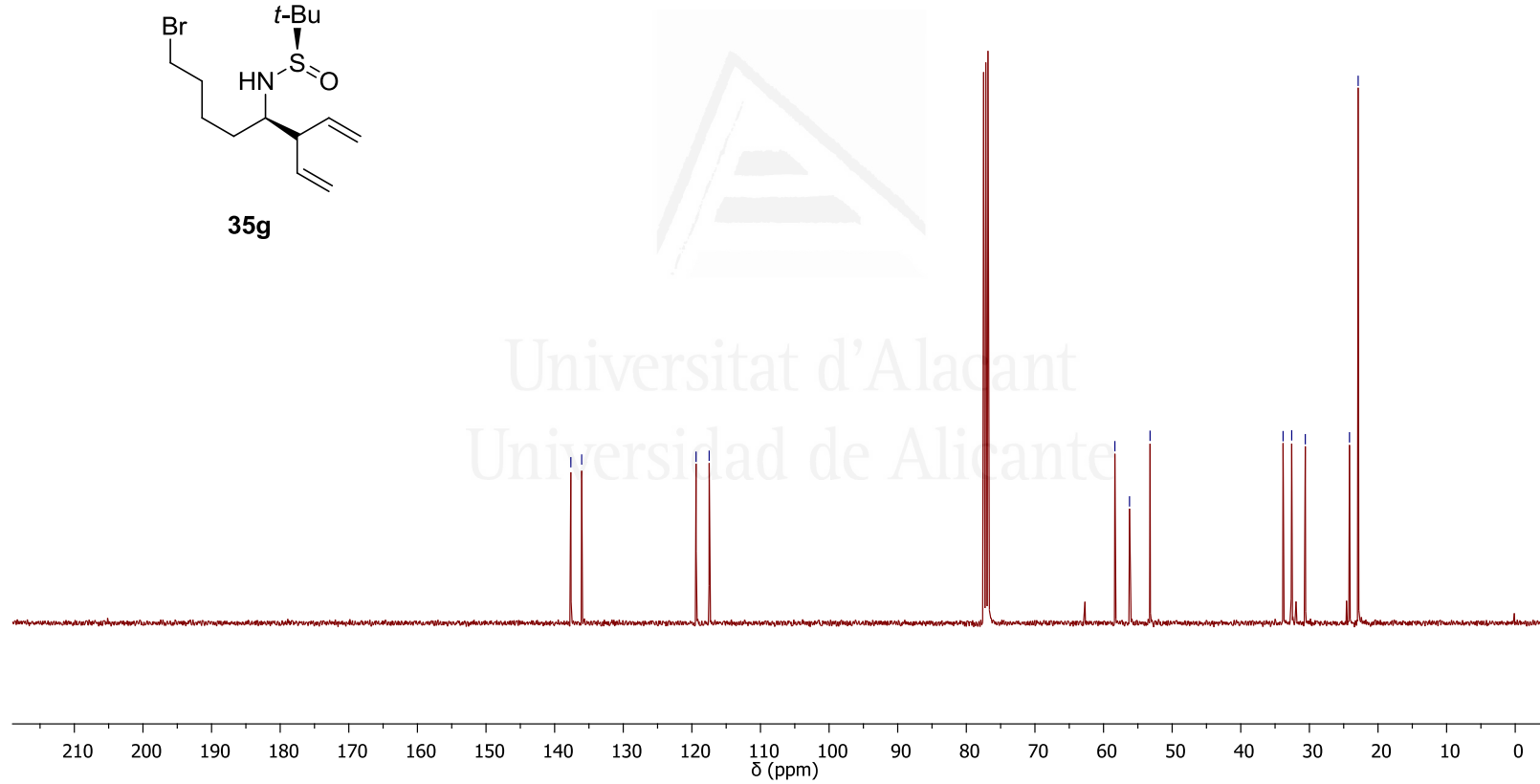
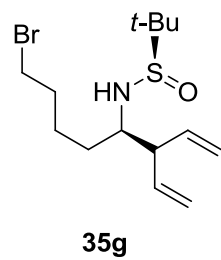
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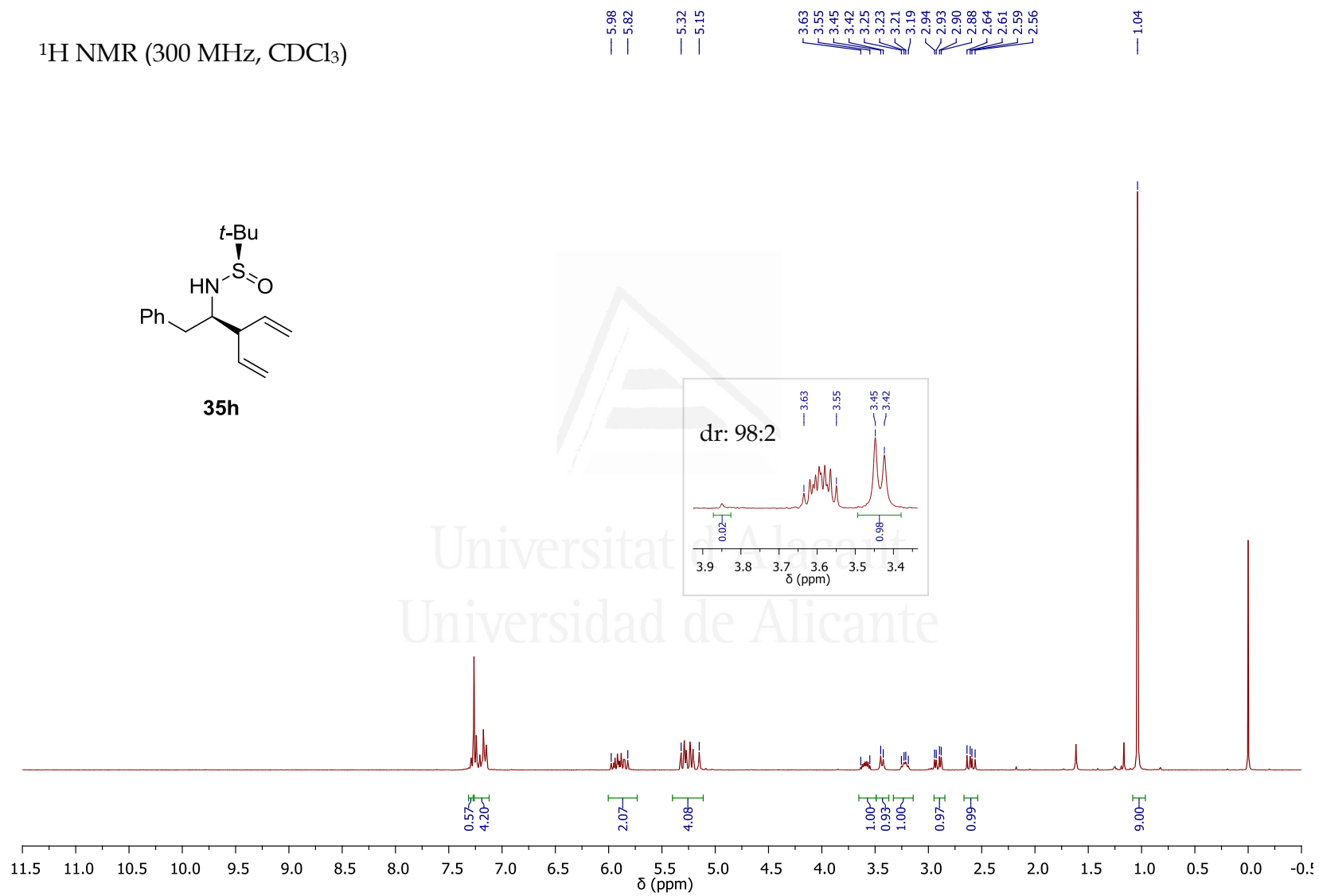
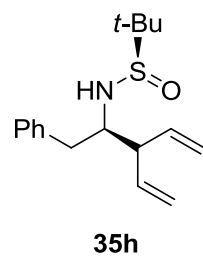
23.09



^{13}C NMR (101 MHz, CDCl_3)137.80
136.36119.13
117.2258.75
56.15
53.2732.03
31.49
29.67
29.67
29.53
29.42
25.61
22.88
22.81
14.26

^1H NMR (300 MHz, CDCl_3)

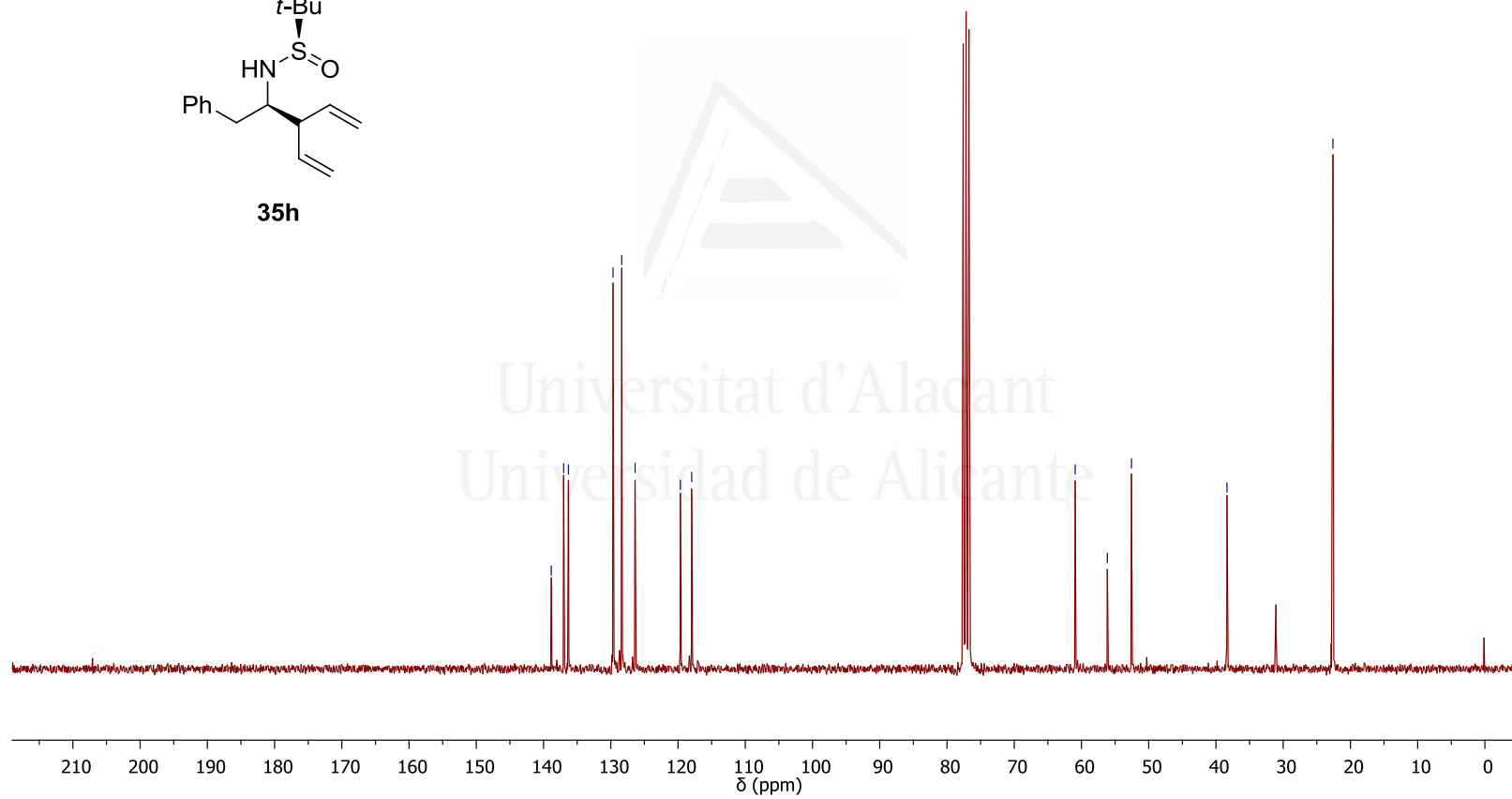
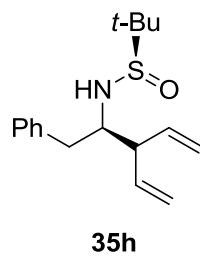
^{13}C NMR (101 MHz, CDCl_3)137.64
136.06119.39
117.4858.35
56.21
53.2233.83
32.57
30.59
24.15
22.89

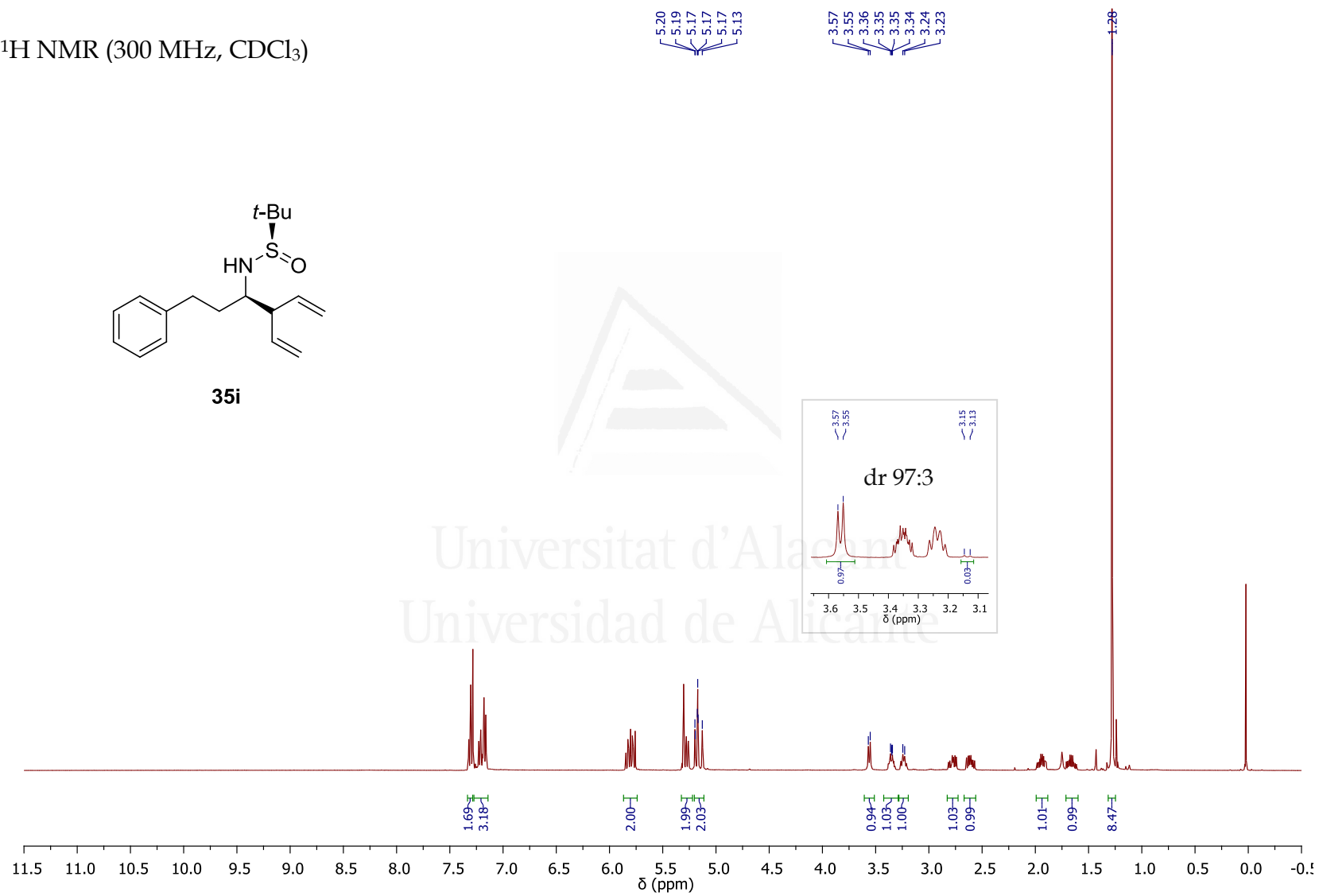
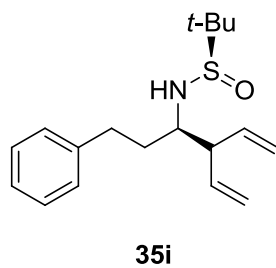
^1H NMR (300 MHz, CDCl_3)

^{13}C NMR (101 MHz, CDCl_3)138.85
137.01
136.30
129.67
128.37
126.39
119.65
117.9760.94
56.15
52.57

38.36

22.60



^1H NMR (300 MHz, CDCl_3)

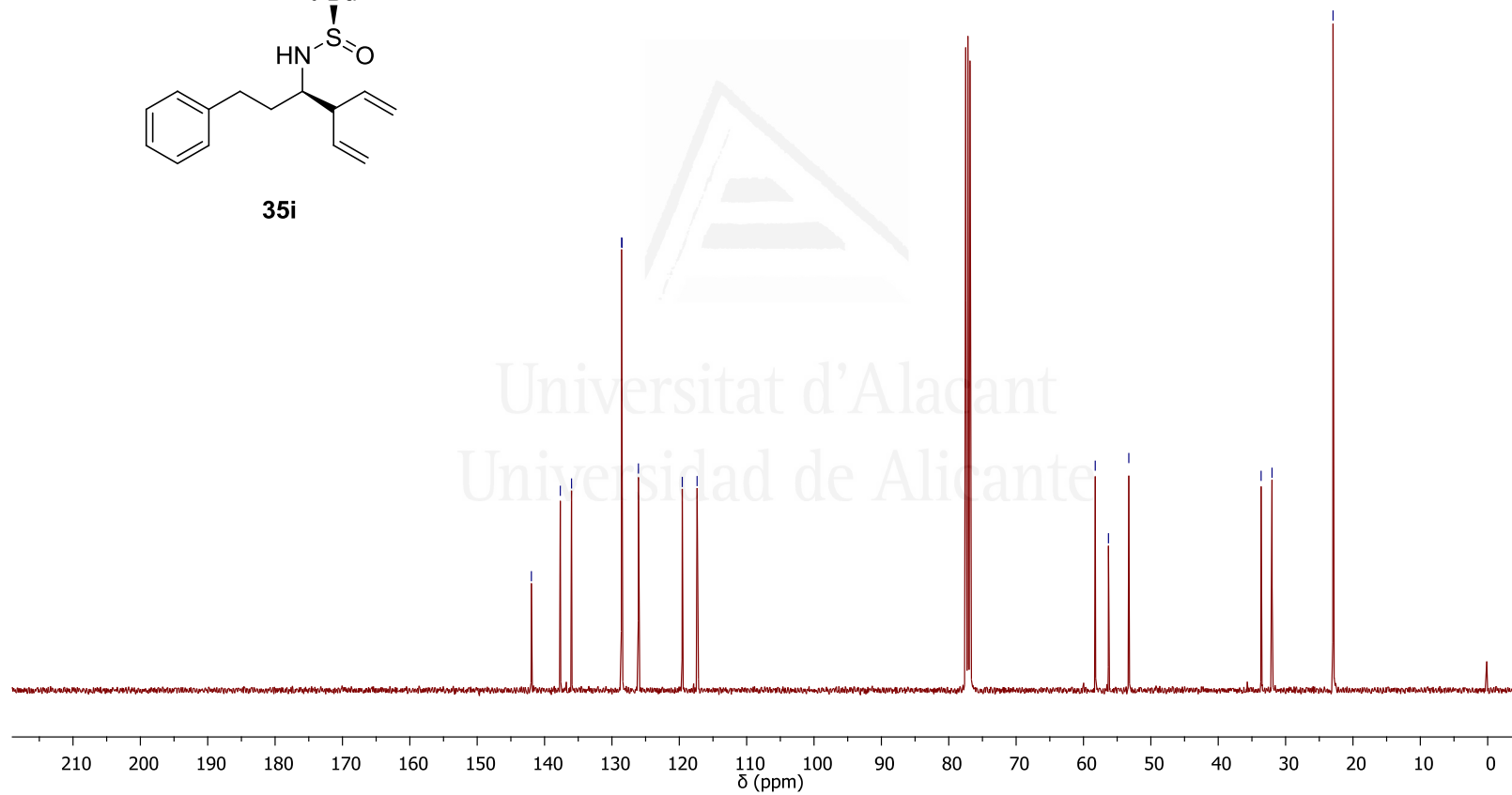
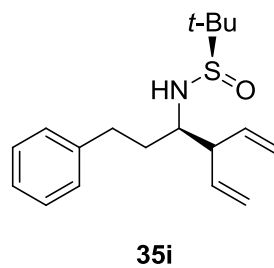
^{13}C NMR (101 MHz, CDCl_3)

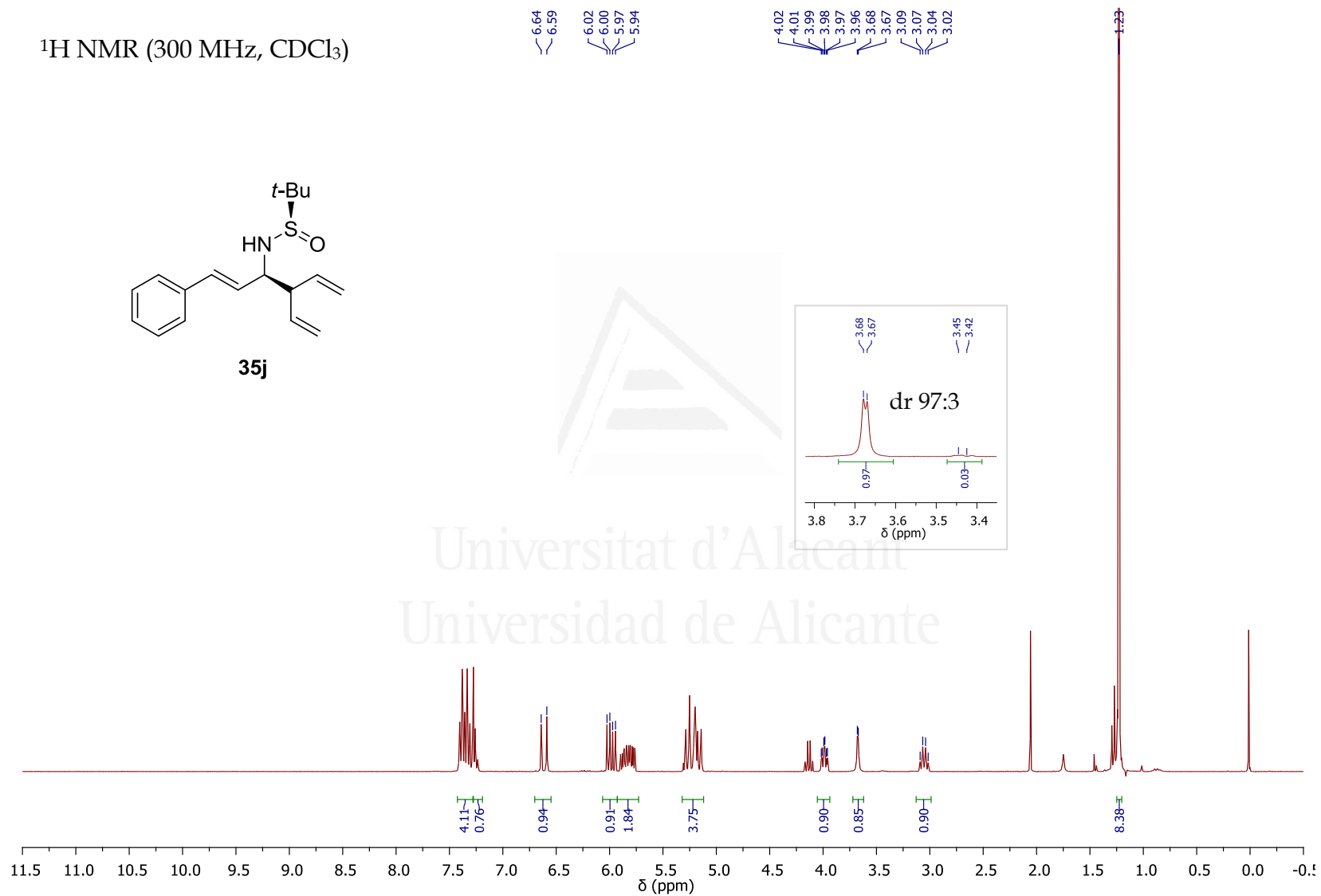
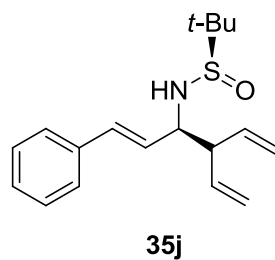
141.96
137.66
136.00
128.57
128.50
126.07
119.56
117.36

58.25
56.29
53.27

33.63
32.01

22.95

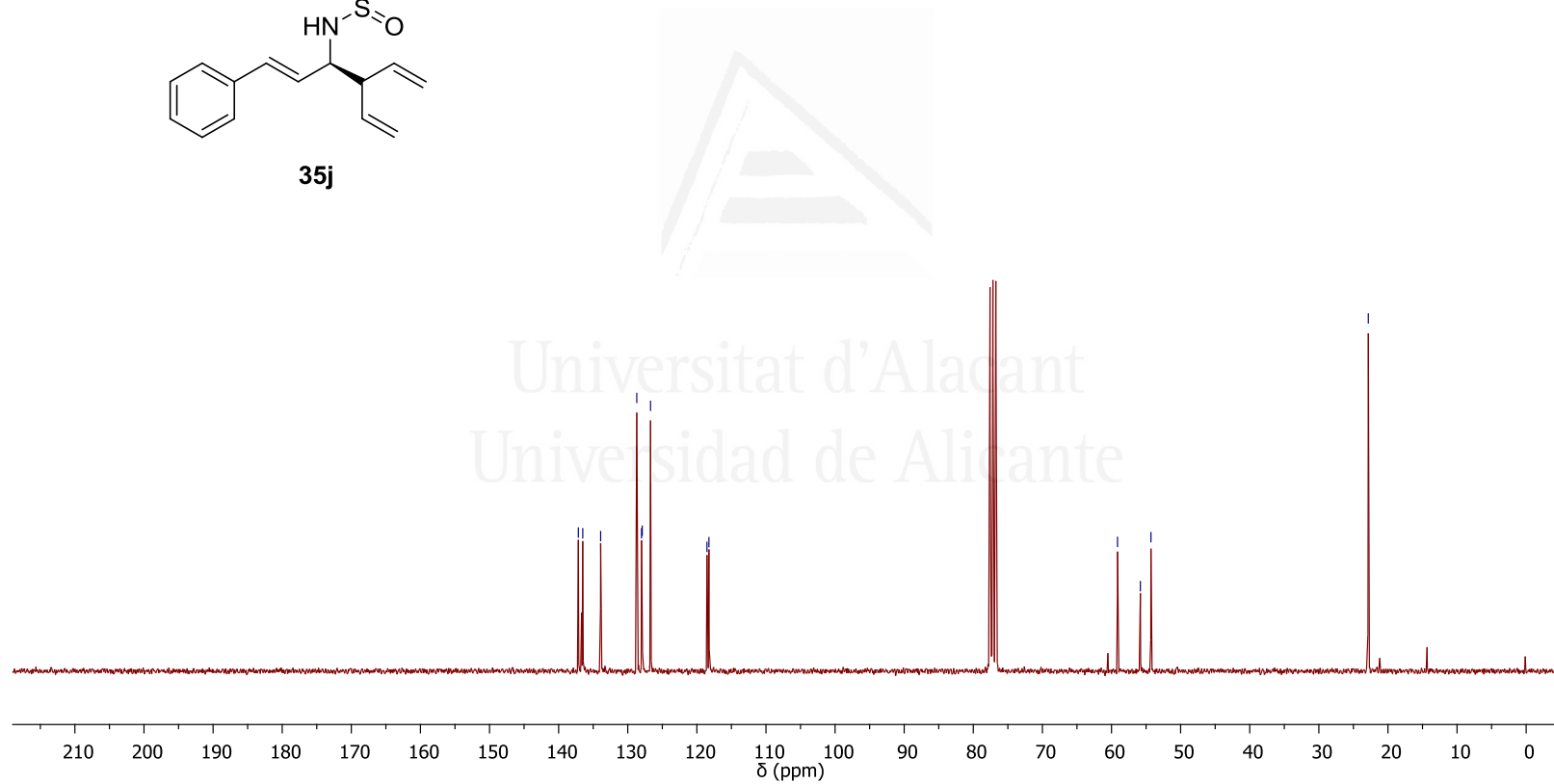
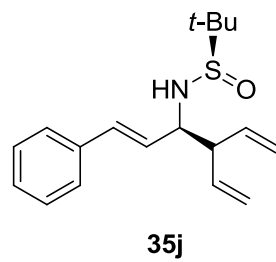


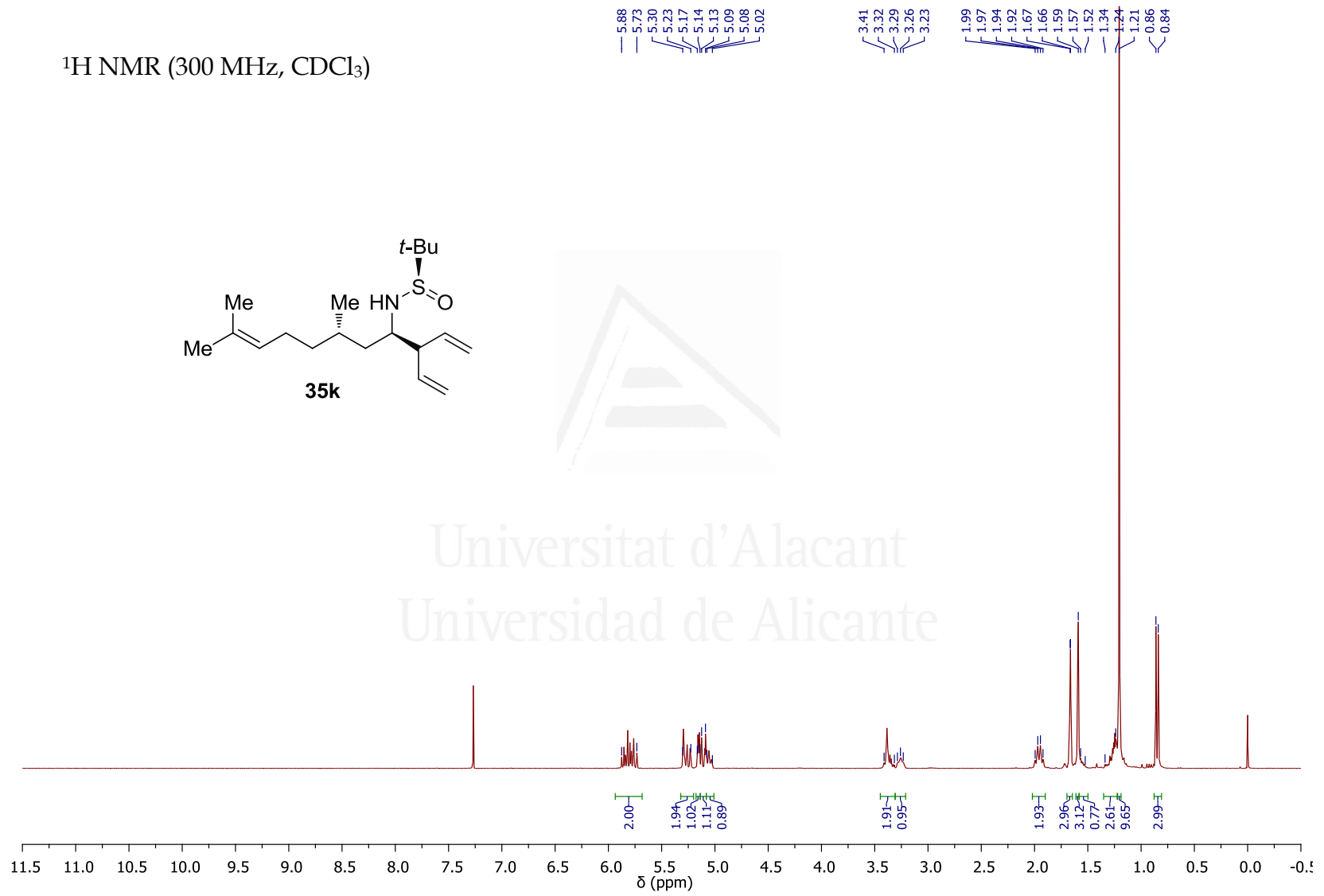
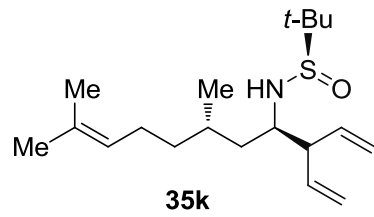
^1H NMR (300 MHz, CDCl_3)

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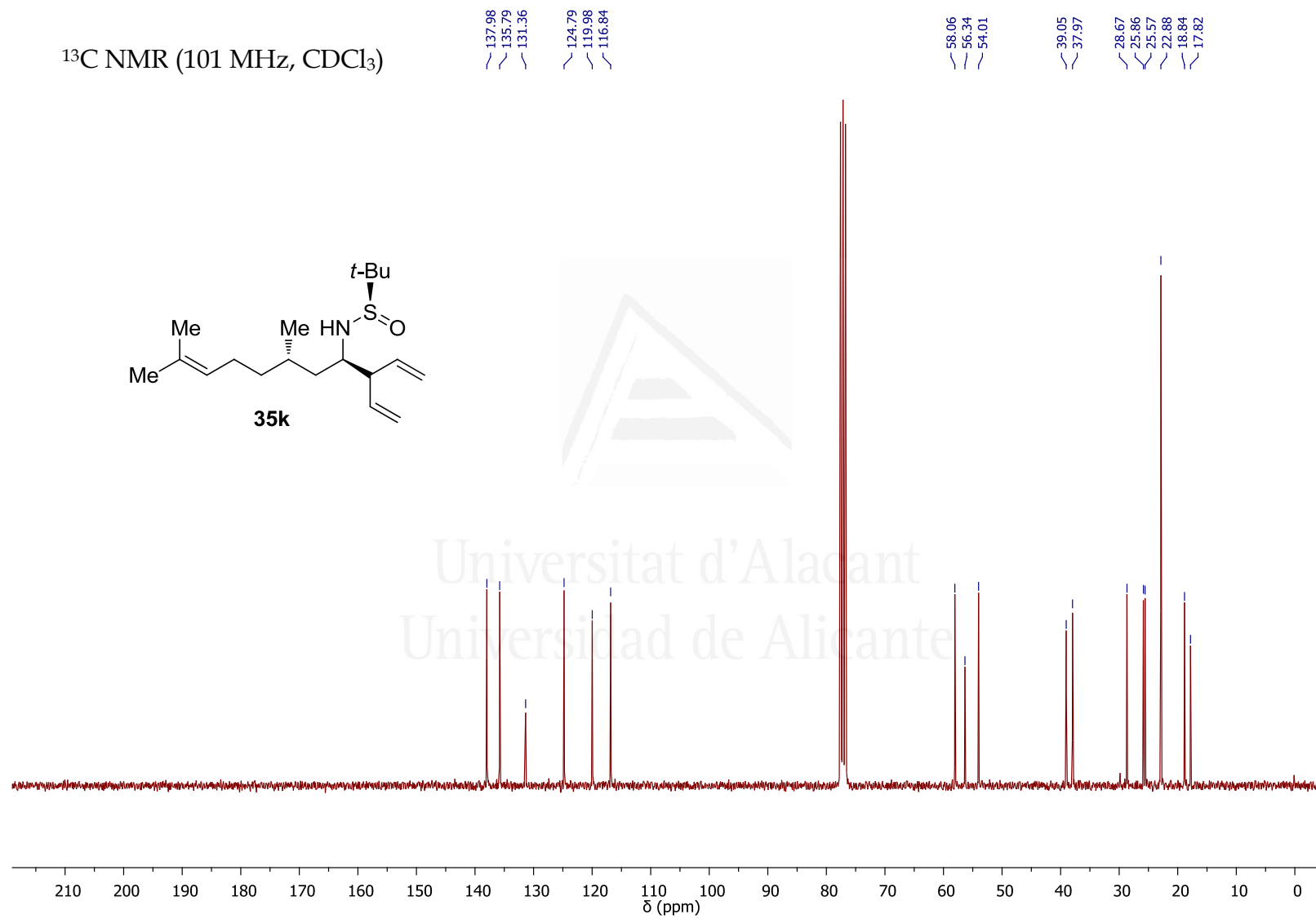
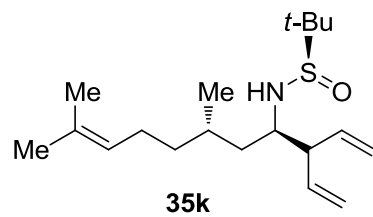
^{13}C NMR (101 MHz, CDCl_3)137.15
136.51
133.92
128.70
128.01
127.90
126.70
118.54
118.2559.13
55.82
54.30

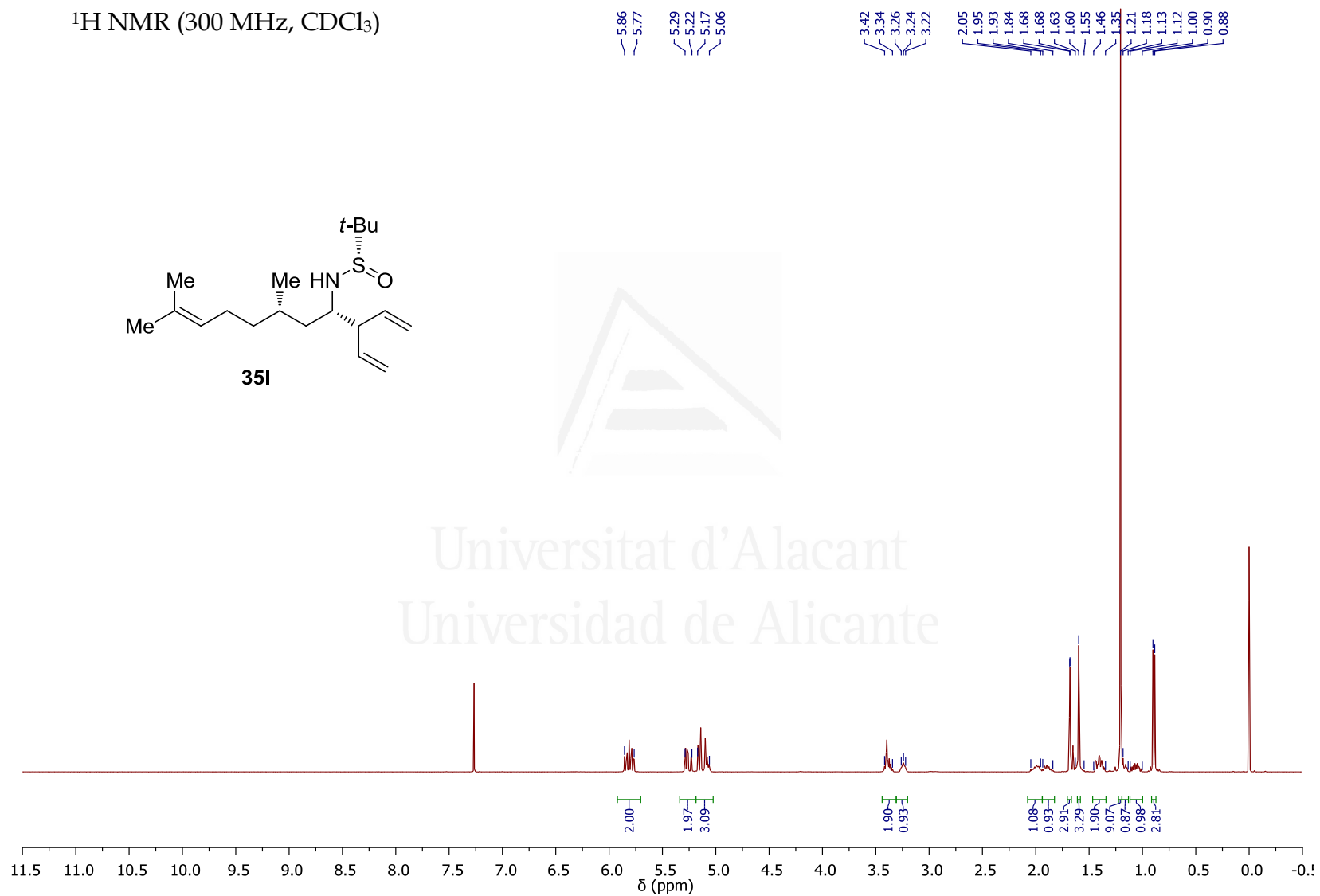
22.84

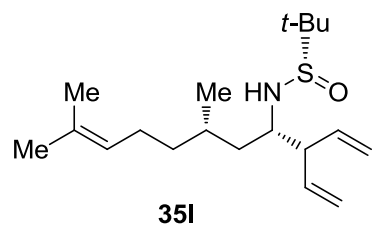
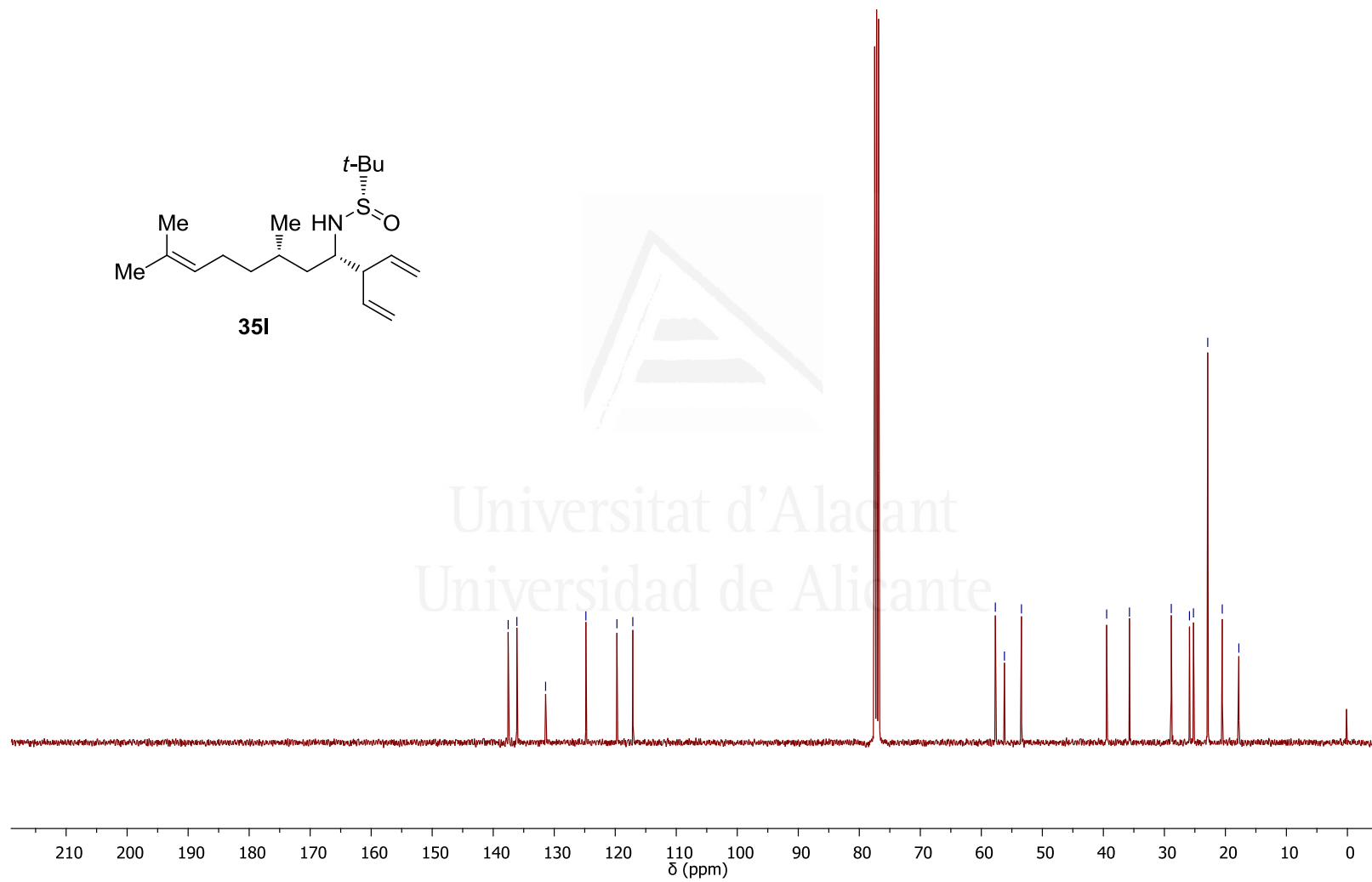


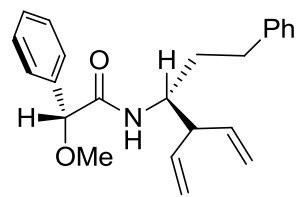
^1H NMR (300 MHz, CDCl_3)

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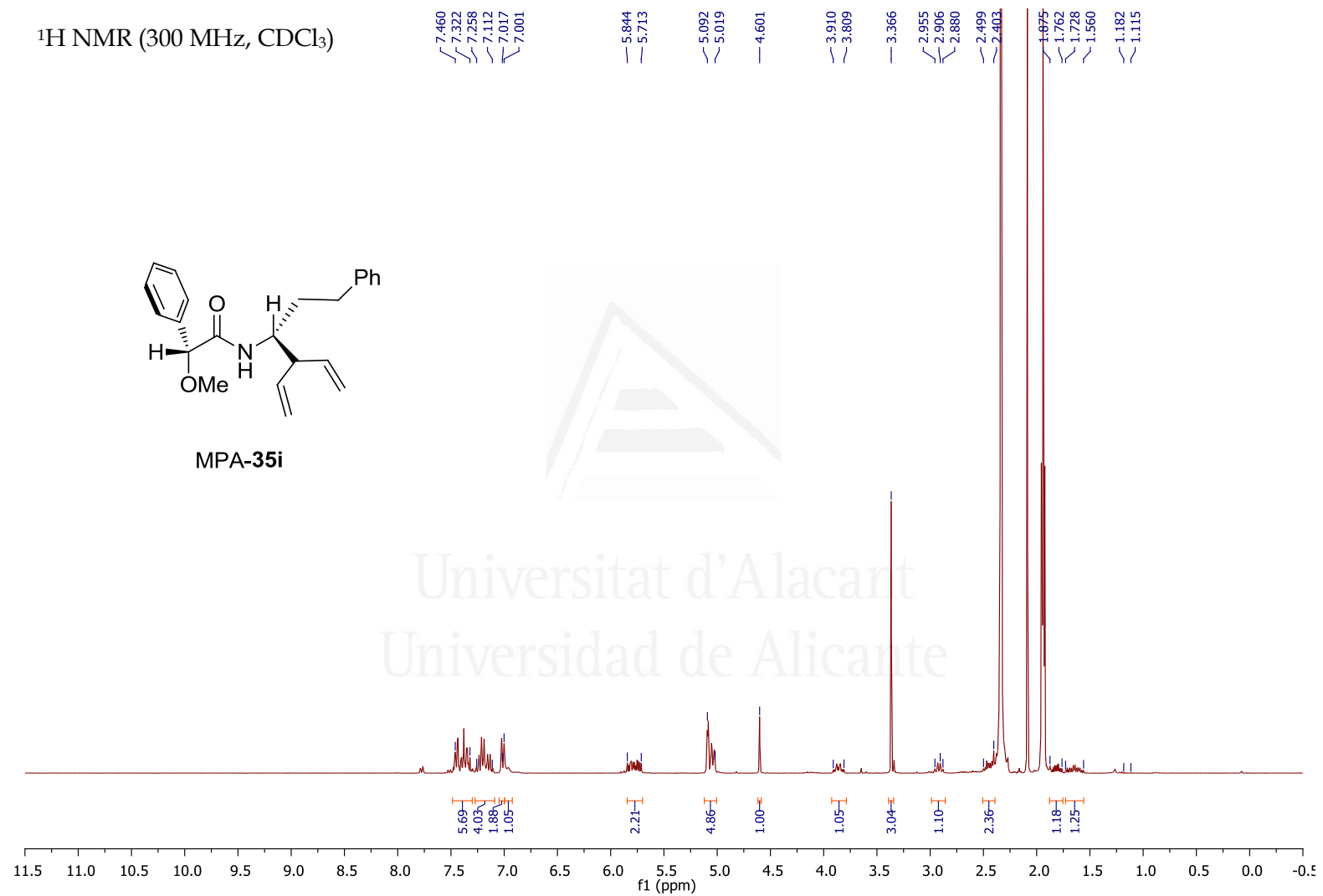
^{13}C NMR (101 MHz, CDCl_3)

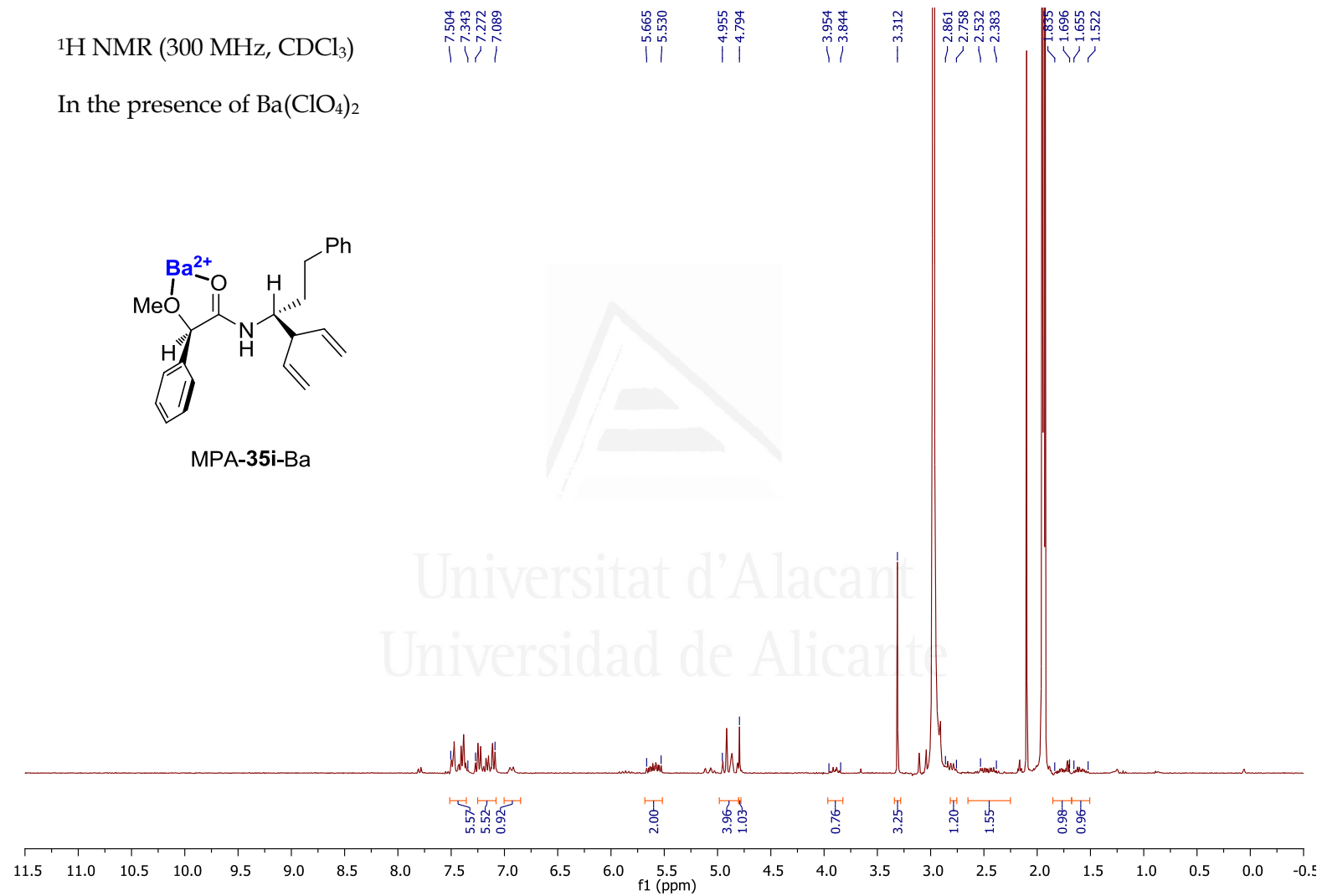
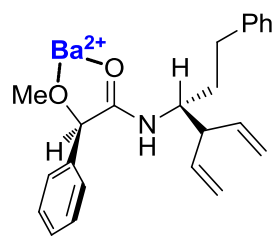


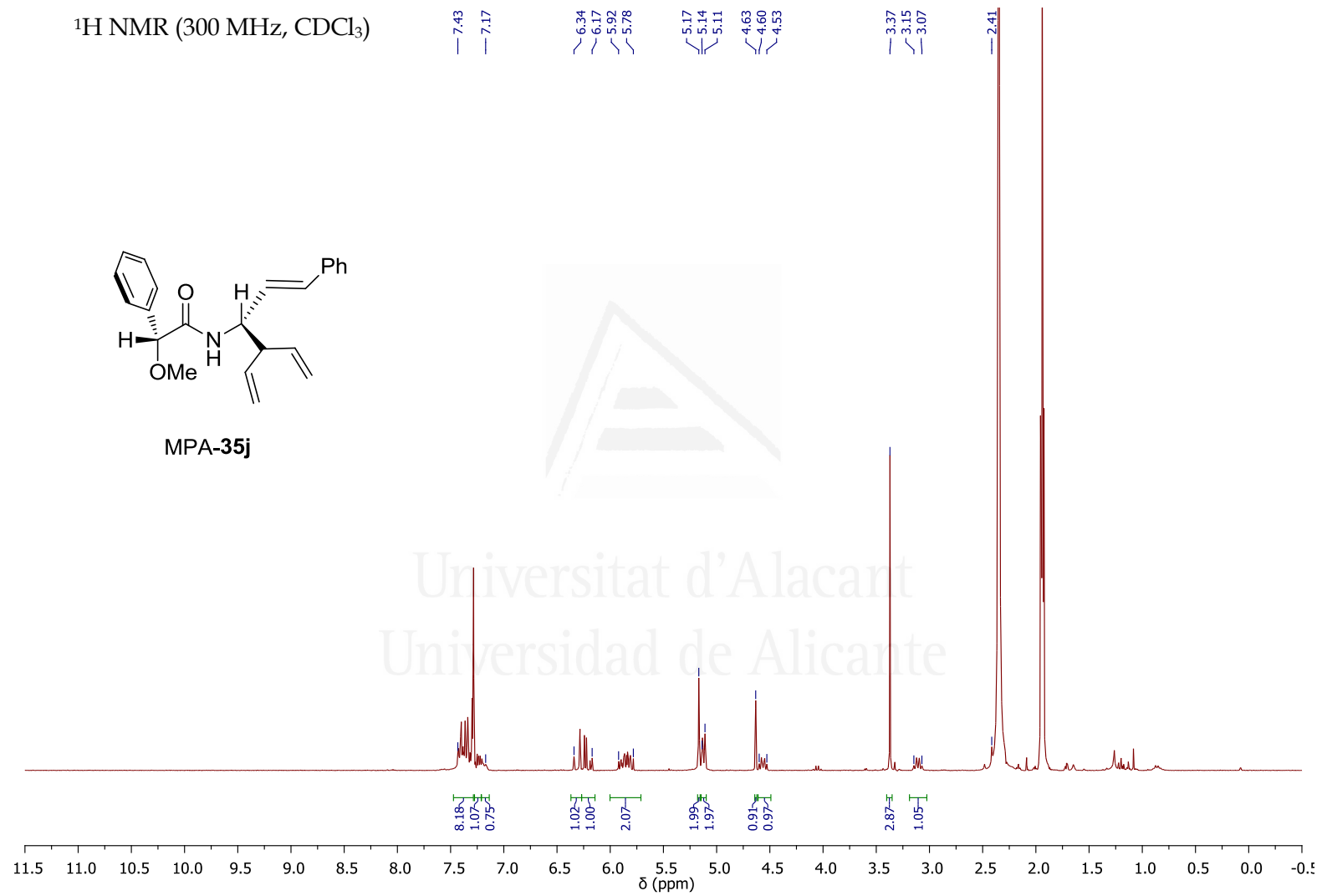
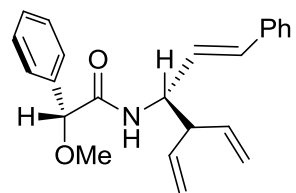
^{13}C NMR (101 MHz, CDCl_3)137.55
136.12
131.41124.81
119.73
117.1257.70
56.21
53.4239.46
35.7228.87
25.89
25.23
22.89
20.51
17.80Universitat d'Alacant
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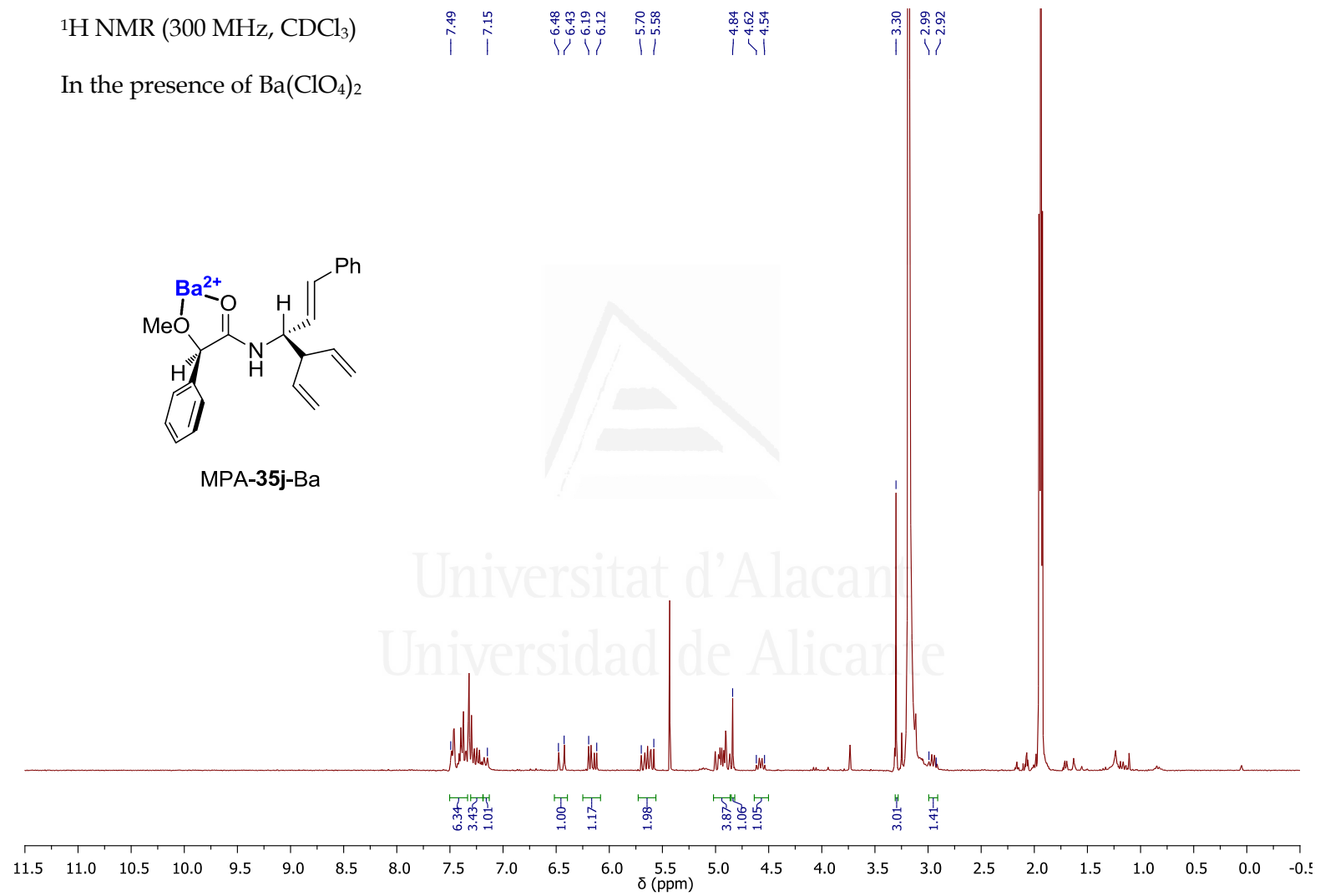
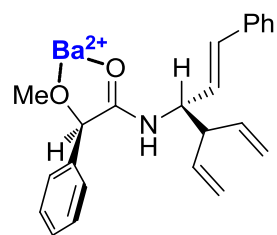
^1H NMR (300 MHz, CDCl_3)

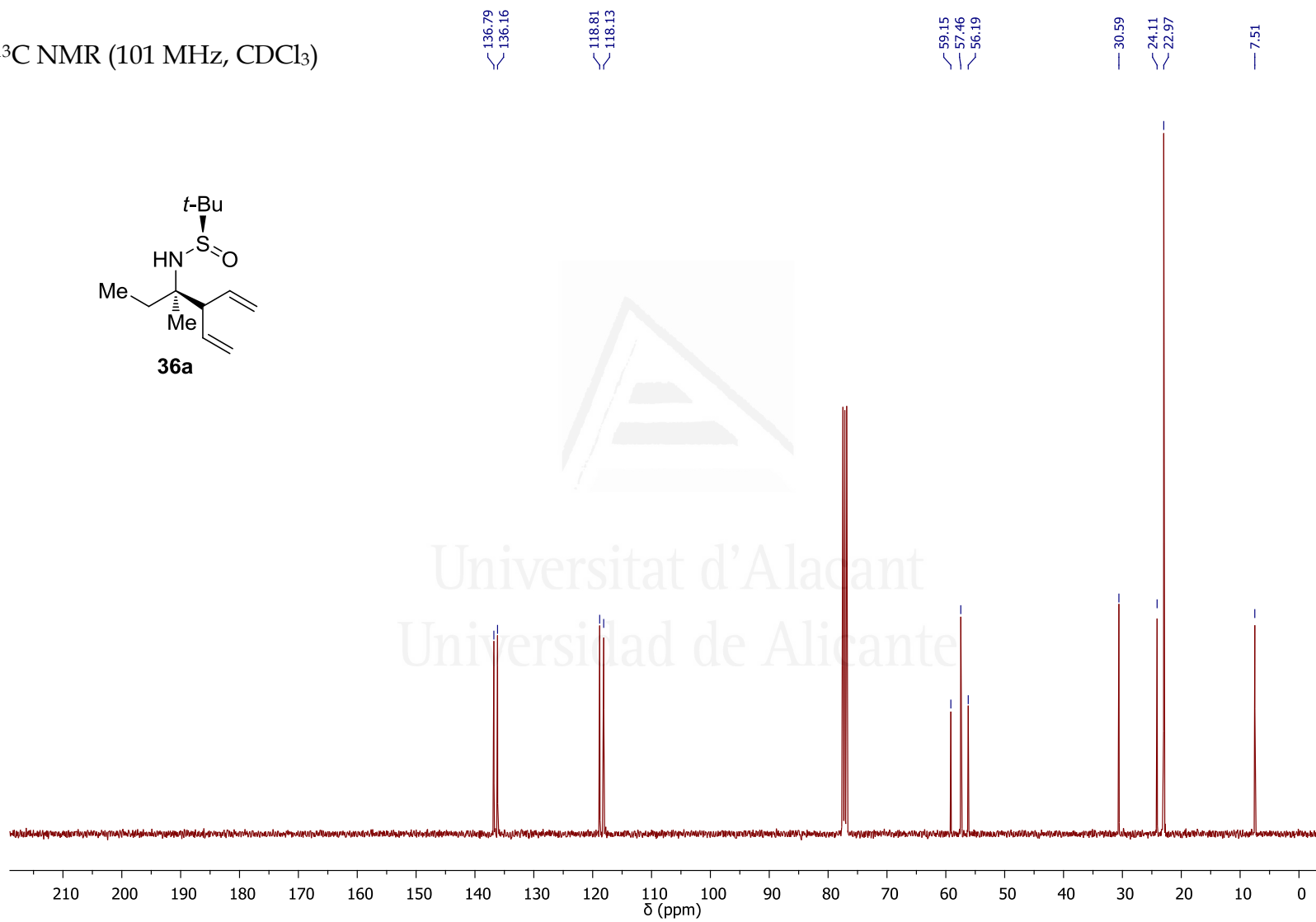
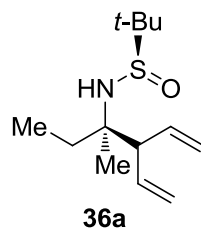
MPA-35i

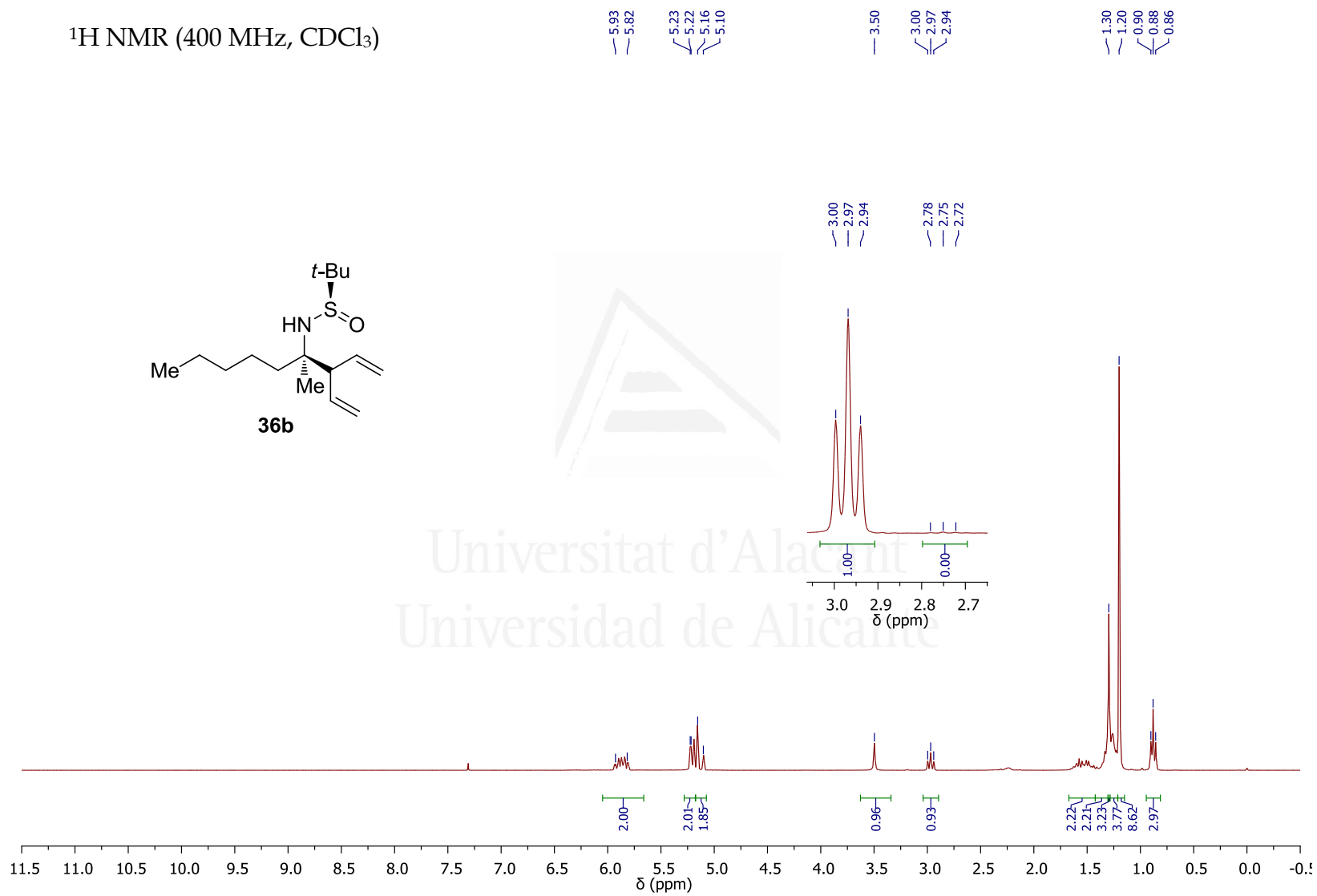


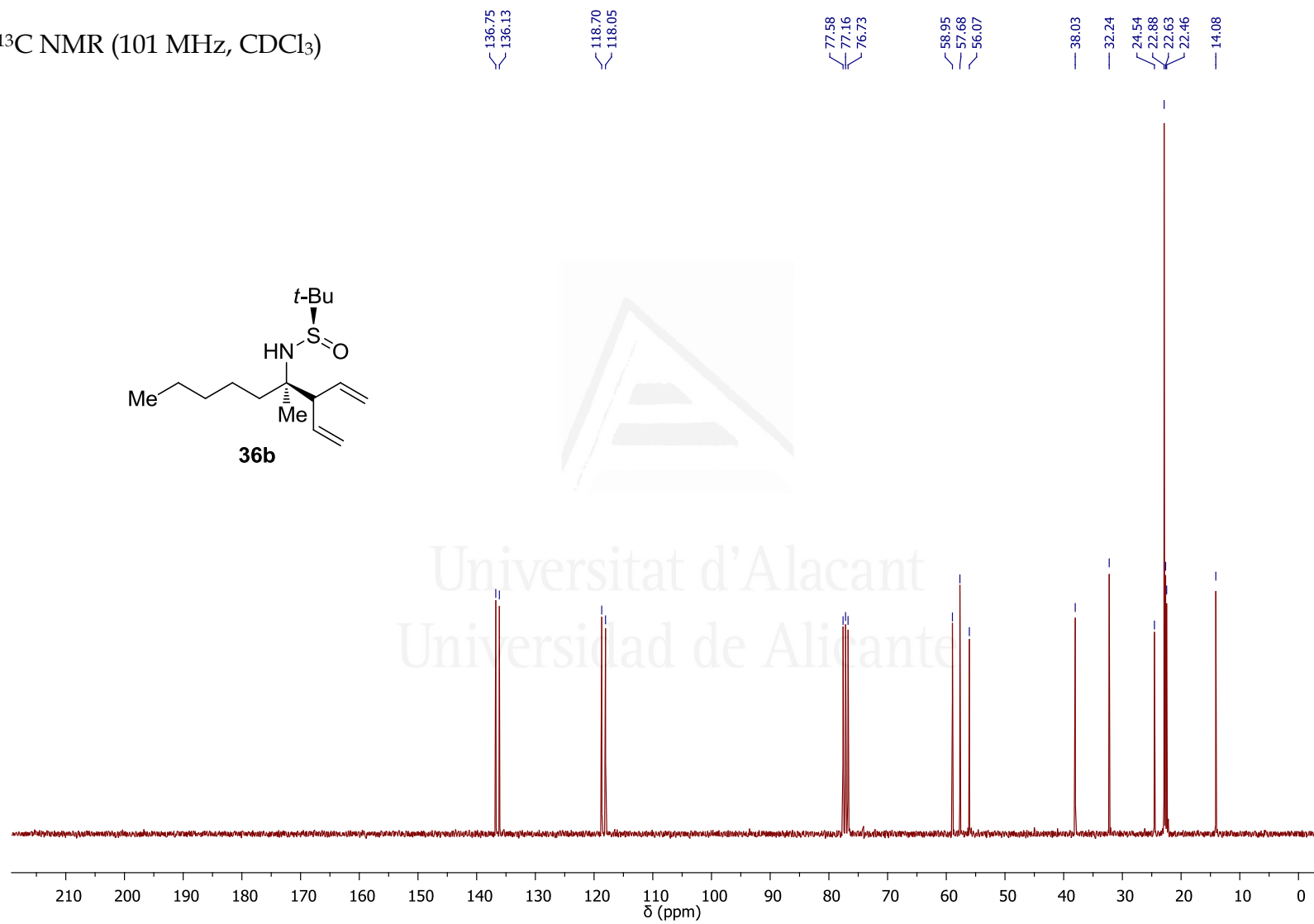
^1H NMR (300 MHz, CDCl_3)In the presence of $\text{Ba}(\text{ClO}_4)_2$ 

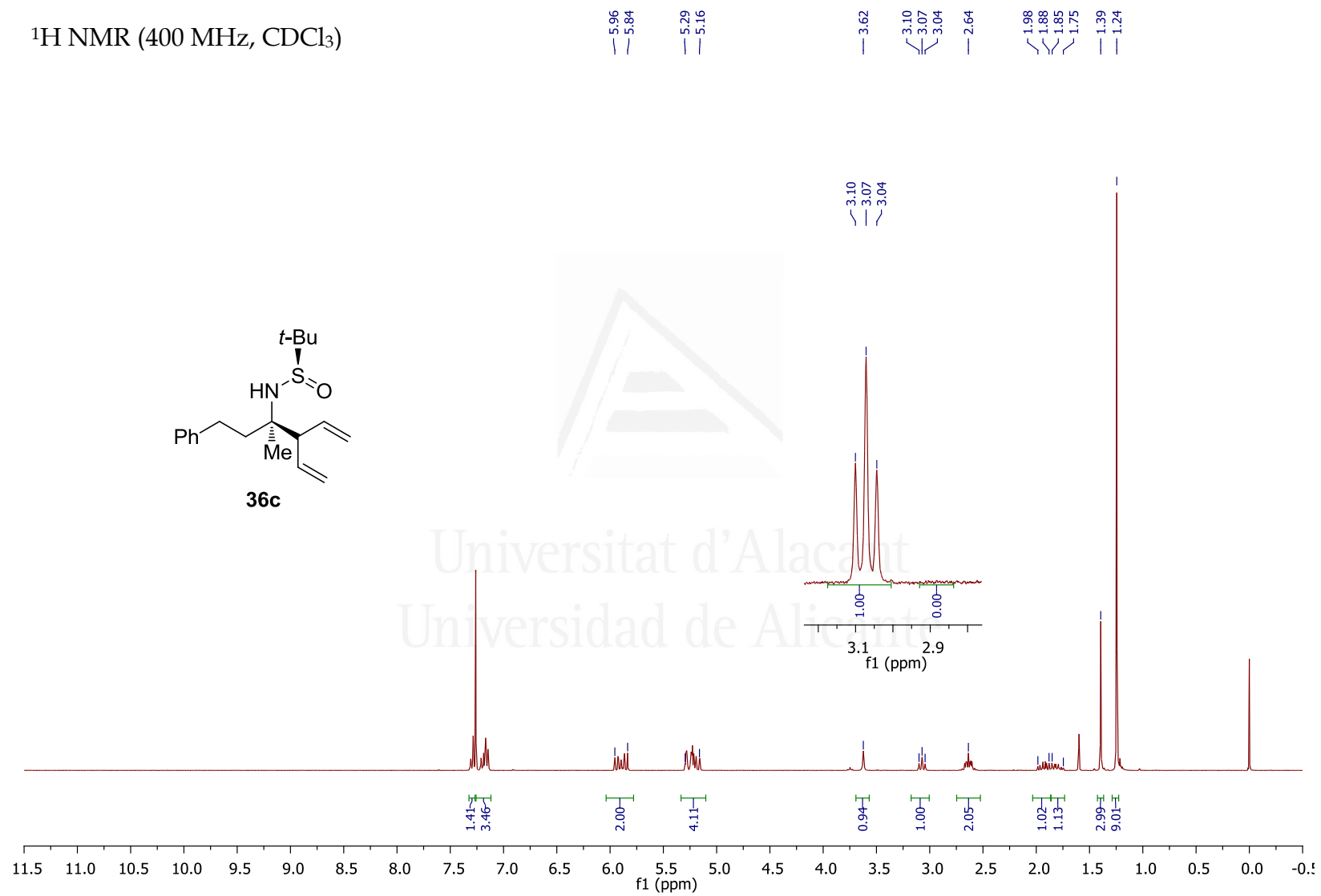
^1H NMR (300 MHz, CDCl_3)

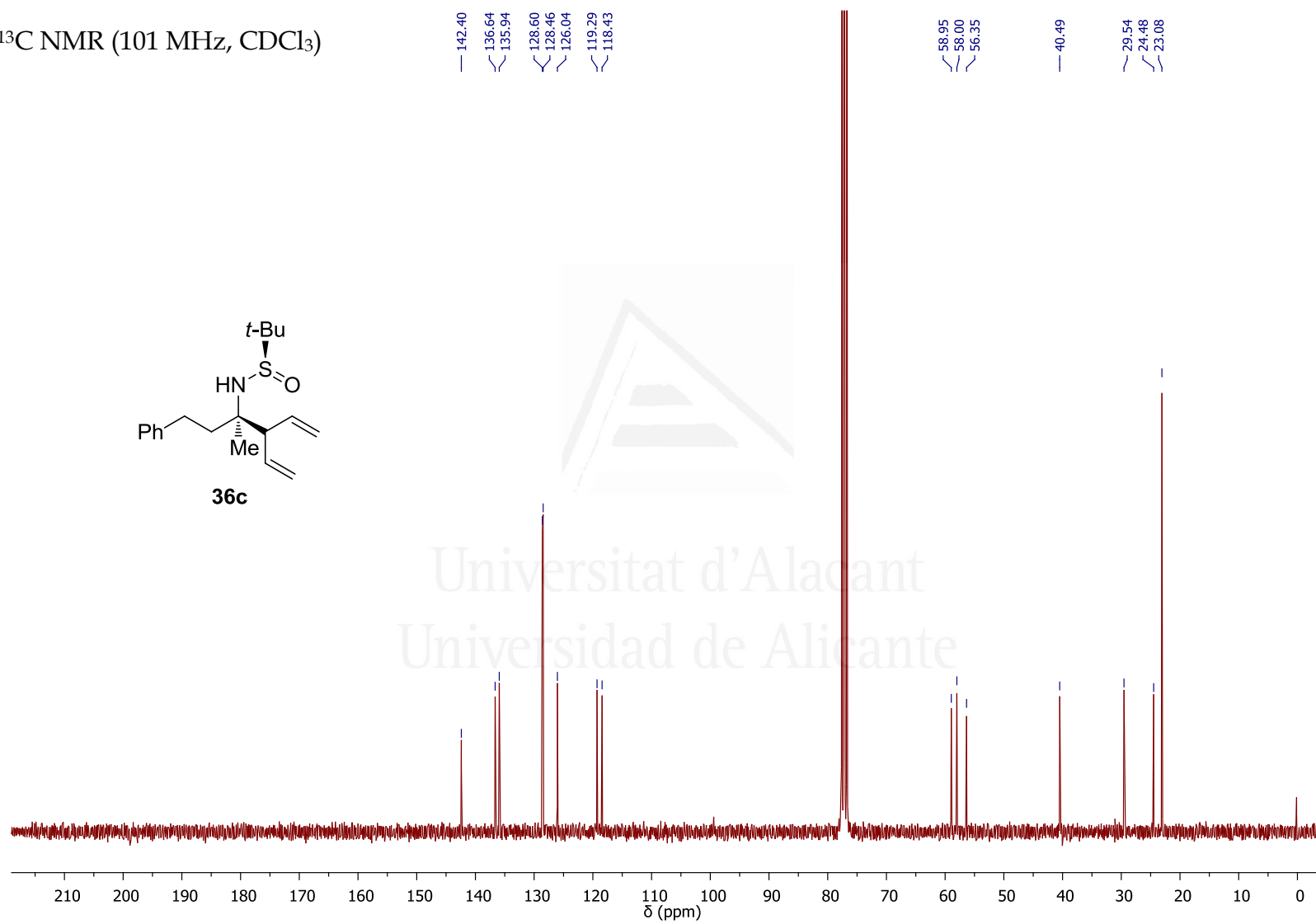
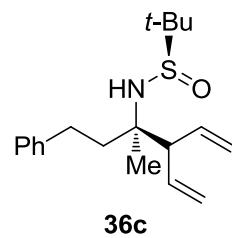
^1H NMR (300 MHz, CDCl_3)In the presence of $\text{Ba}(\text{ClO}_4)_2$ 

^{13}C NMR (101 MHz, CDCl_3)

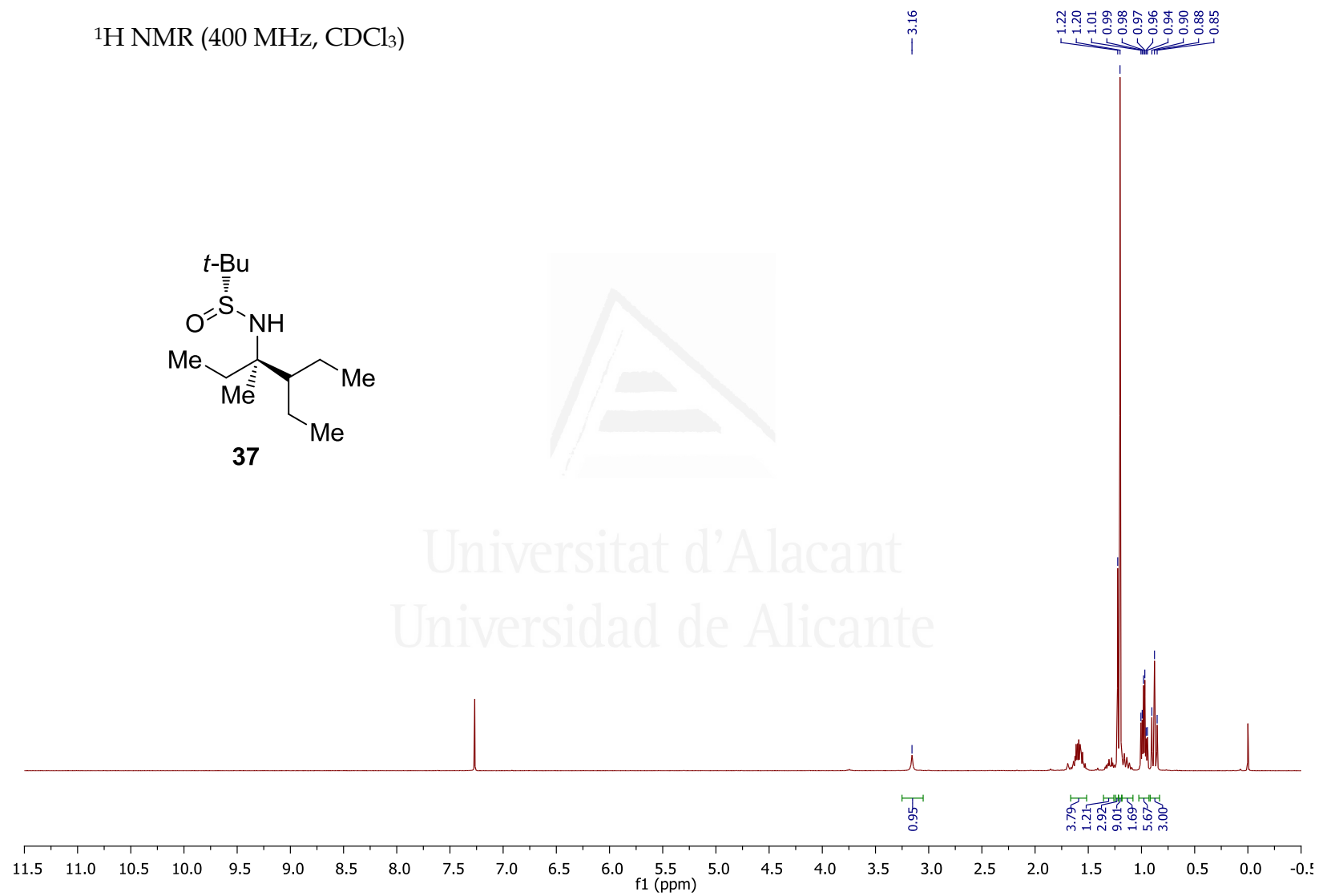
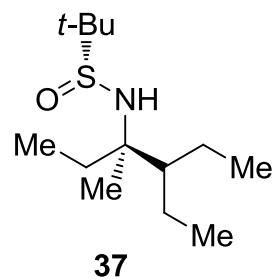
^1H NMR (400 MHz, CDCl_3)

^{13}C NMR (101 MHz, CDCl_3)

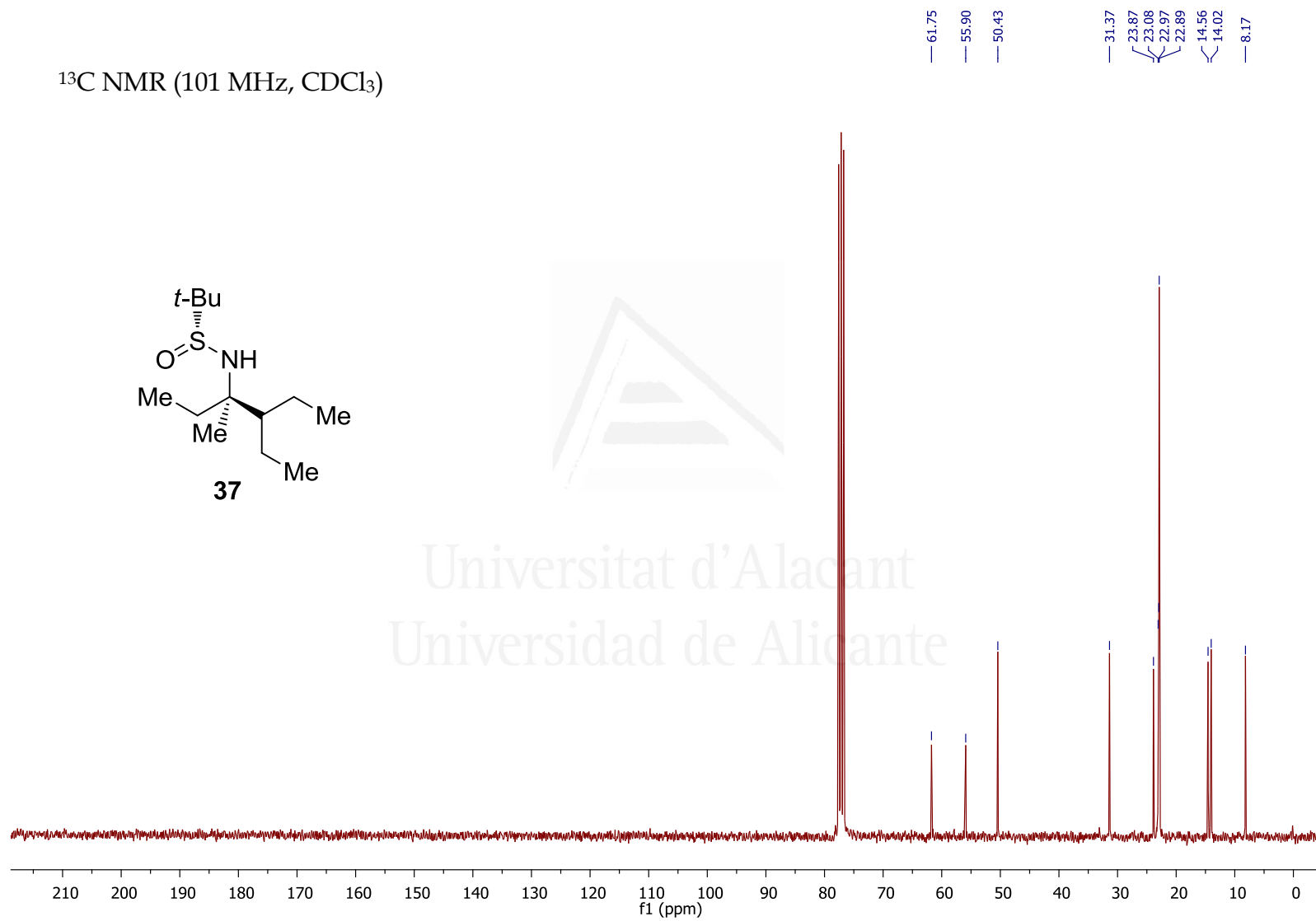
^1H NMR (400 MHz, CDCl_3)

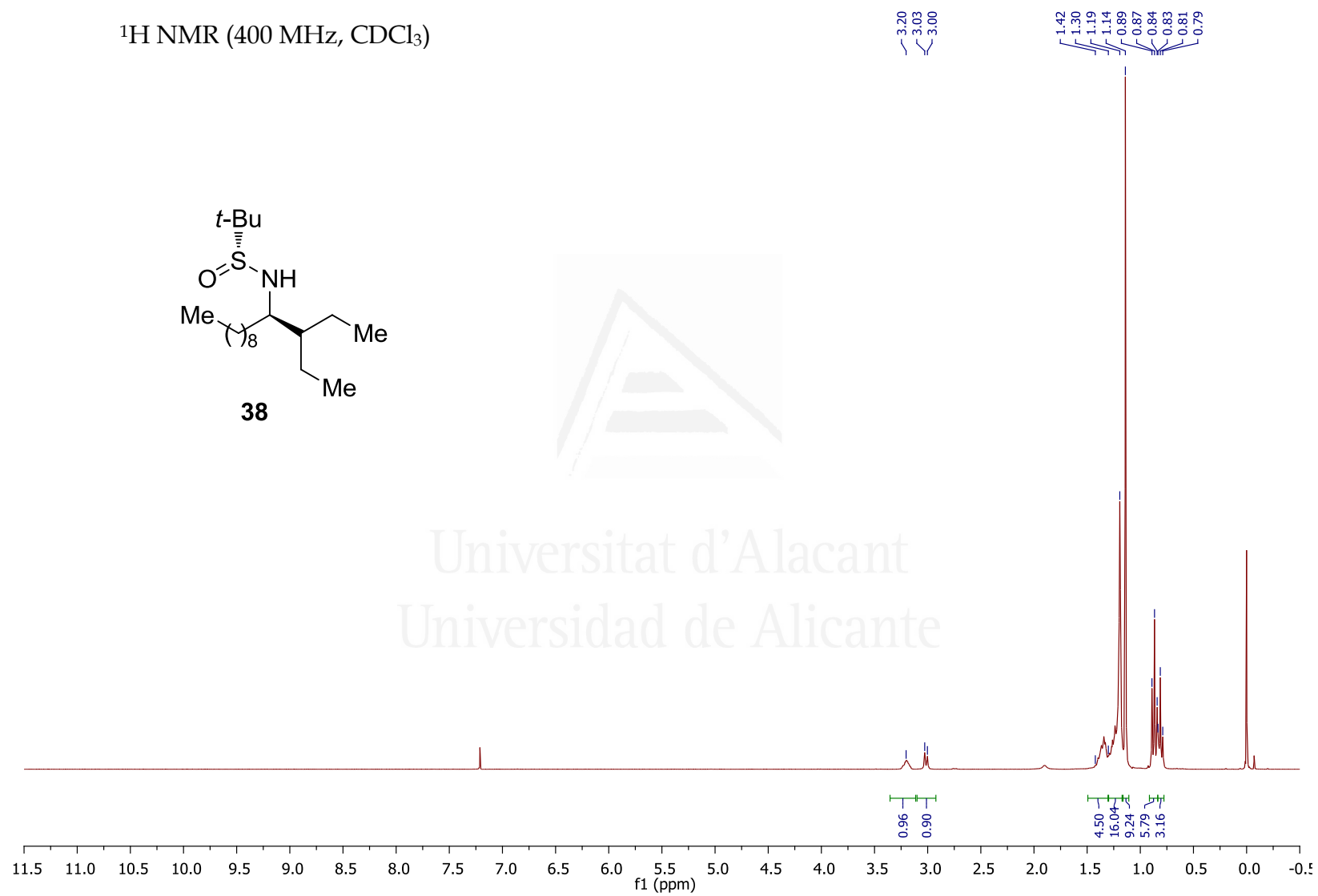
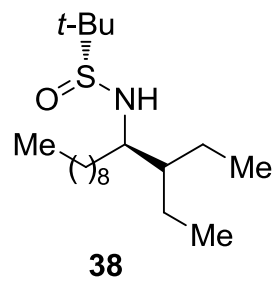
^{13}C NMR (101 MHz, CDCl_3)

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^1H NMR (400 MHz, CDCl_3)

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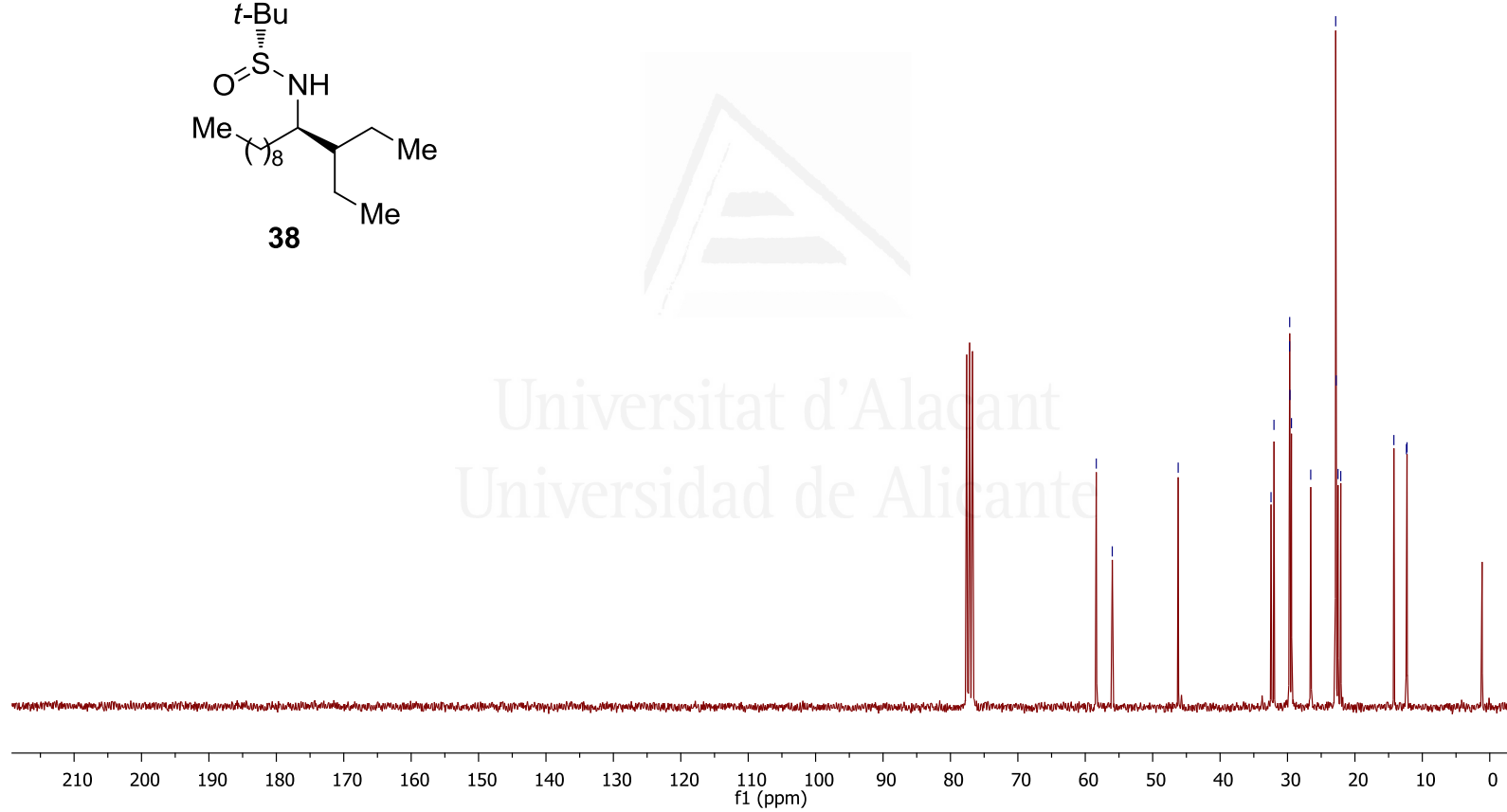
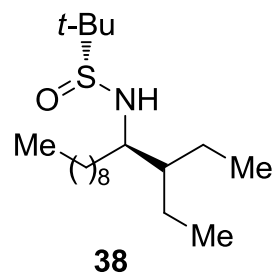
^{13}C NMR (101 MHz, CDCl_3)

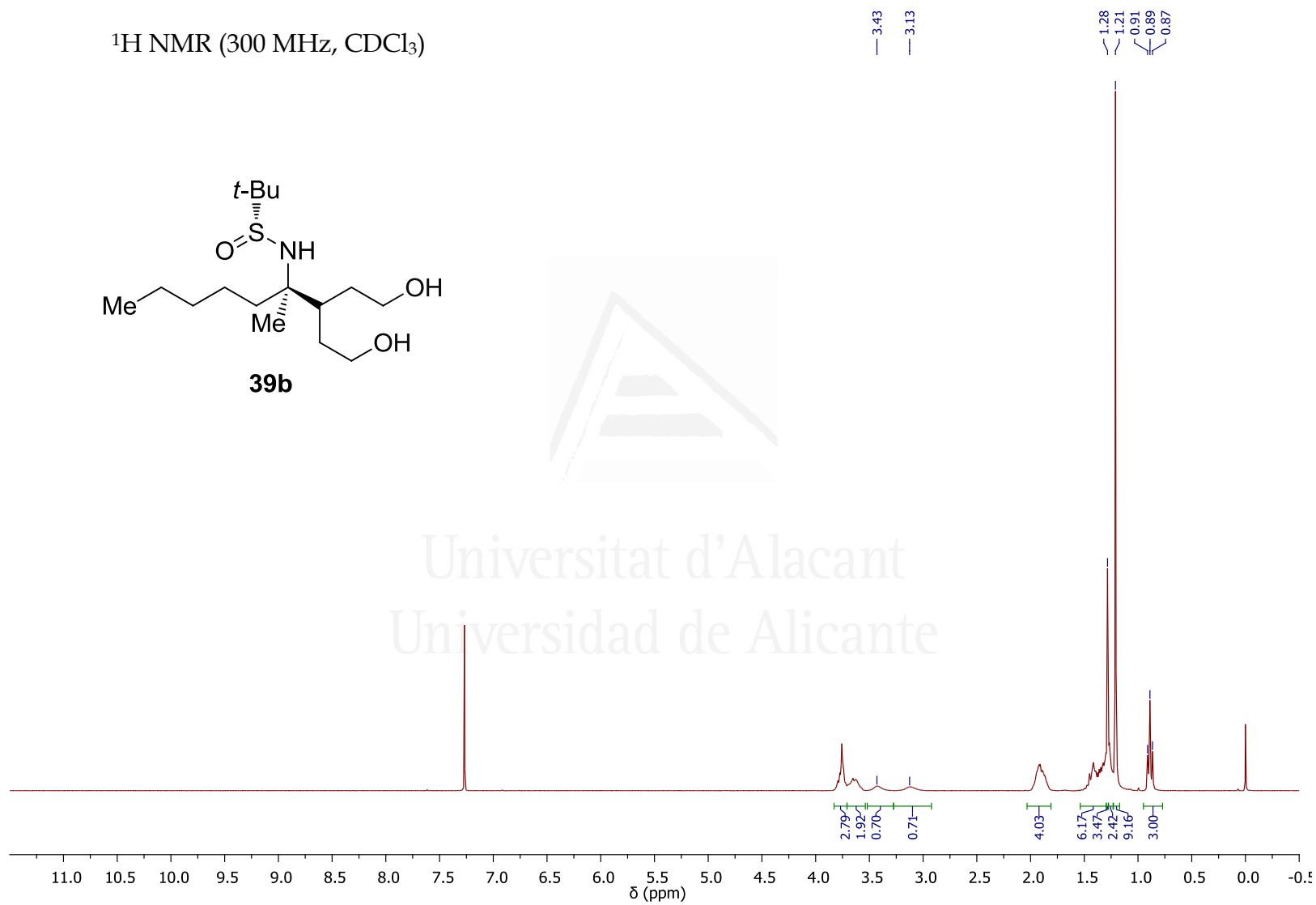
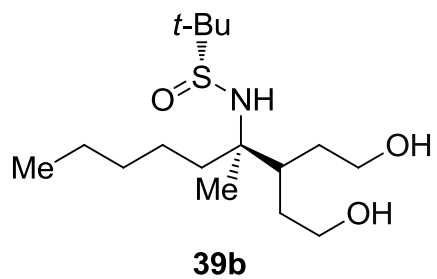
^1H NMR (400 MHz, CDCl_3)

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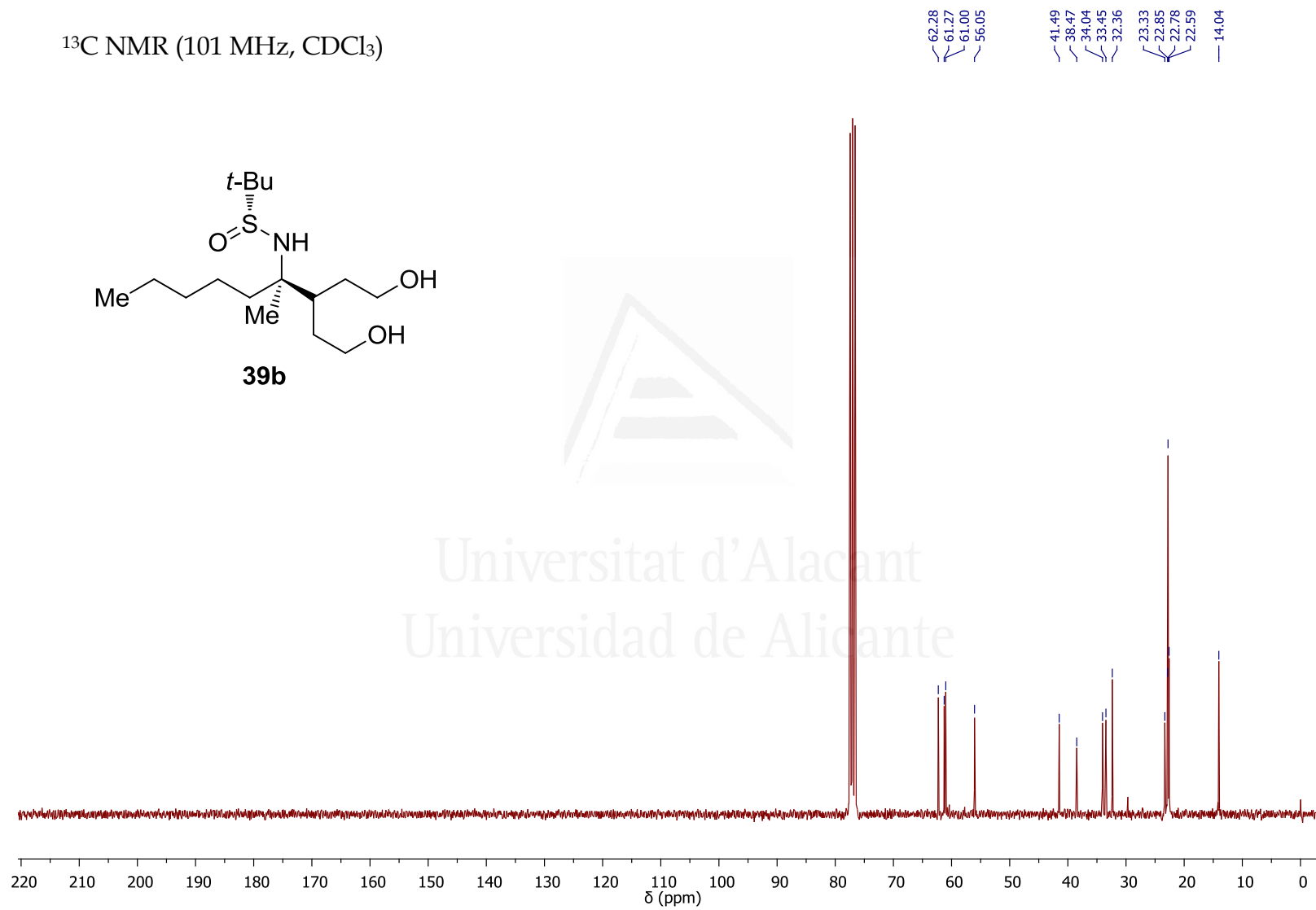
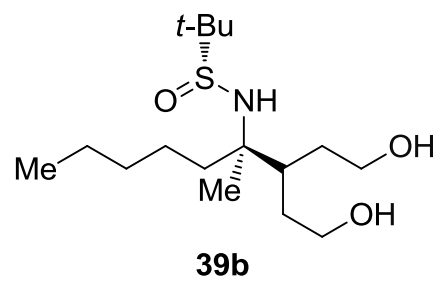
^{13}C NMR (101 MHz, CDCl_3)

58.37
56.00
46.22
32.01
29.70
29.68
29.64
29.41
26.55
22.85
22.79
22.50
22.19
12.36
12.27

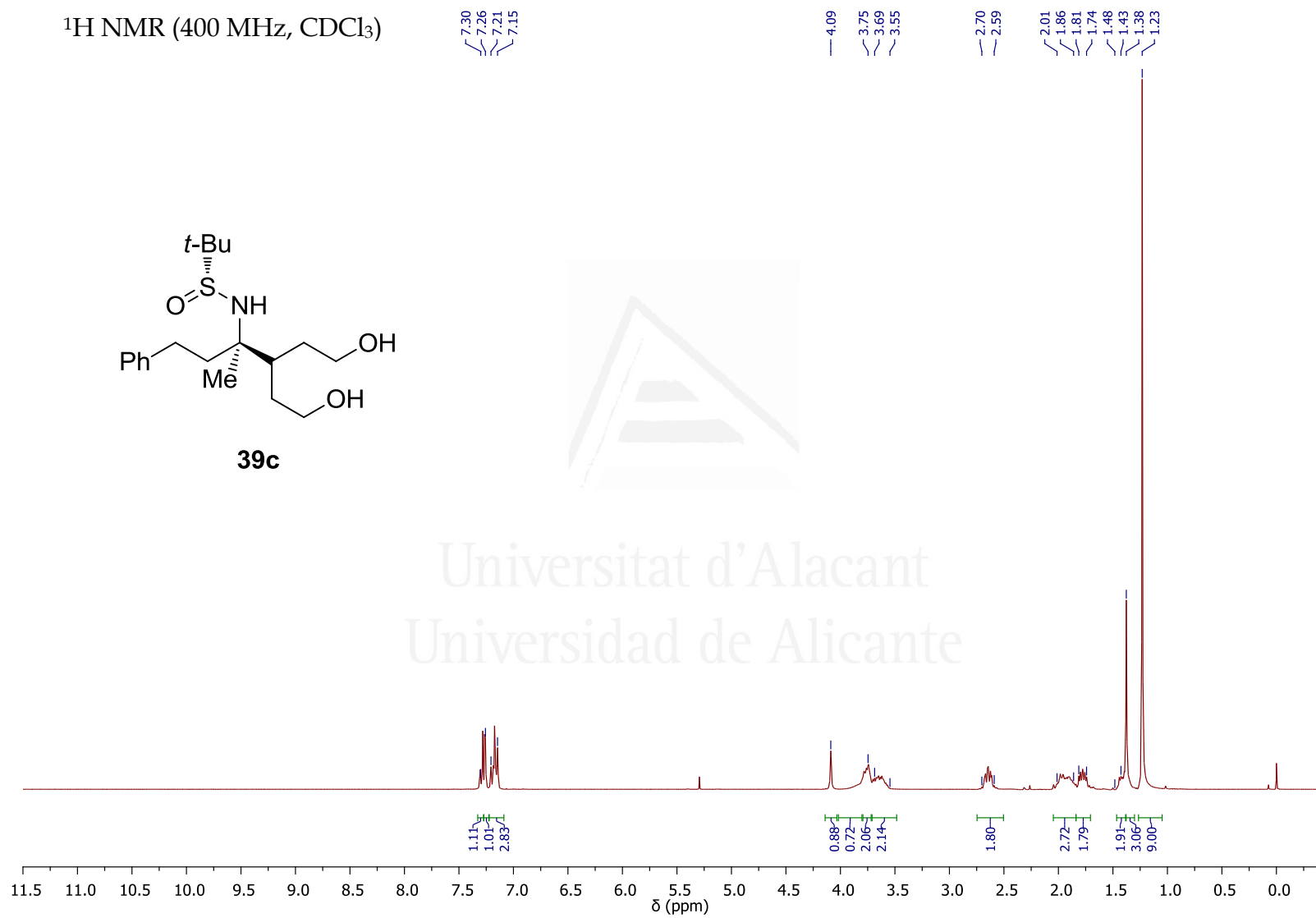
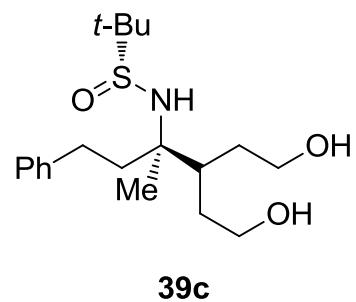


^1H NMR (300 MHz, CDCl_3)

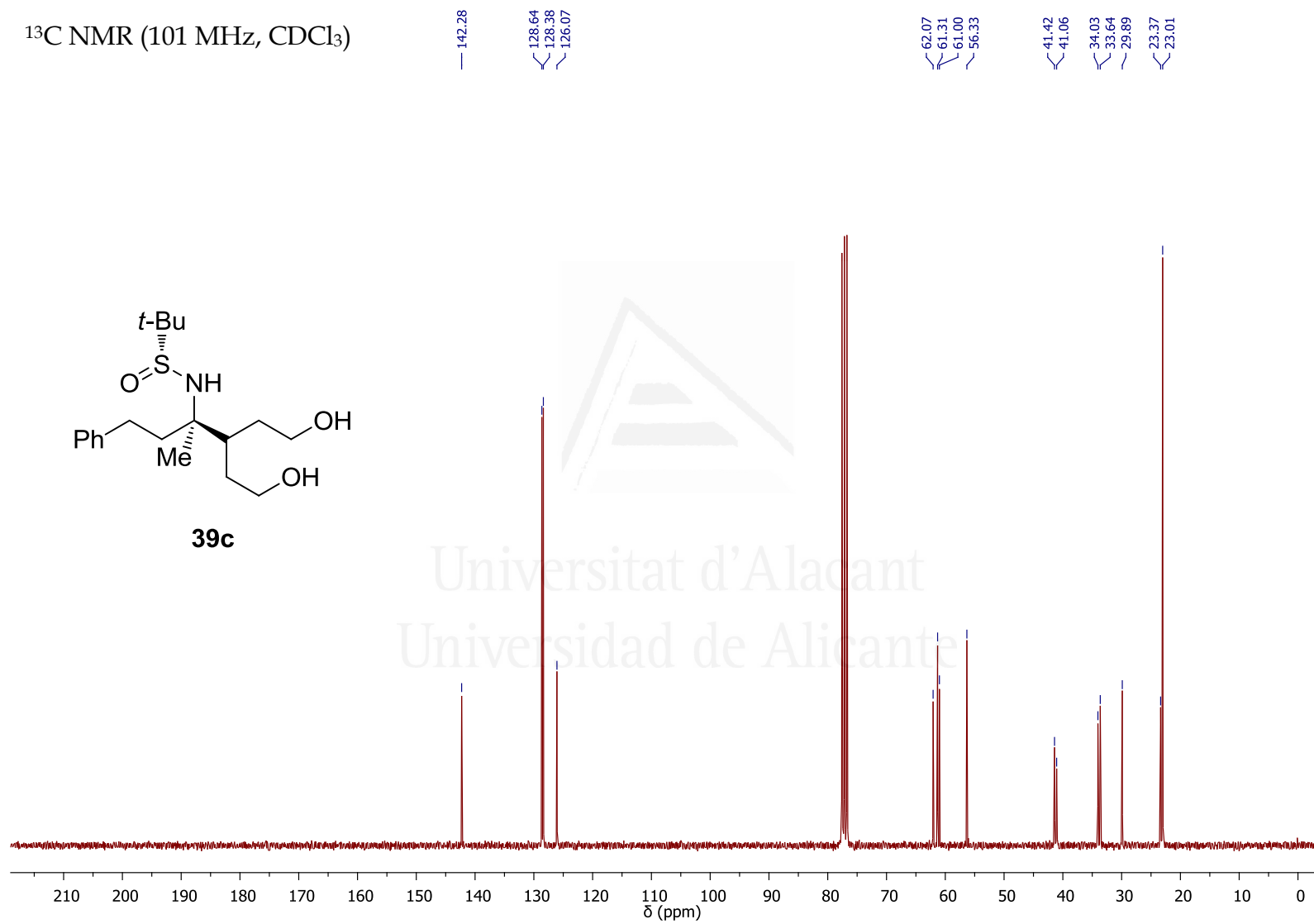
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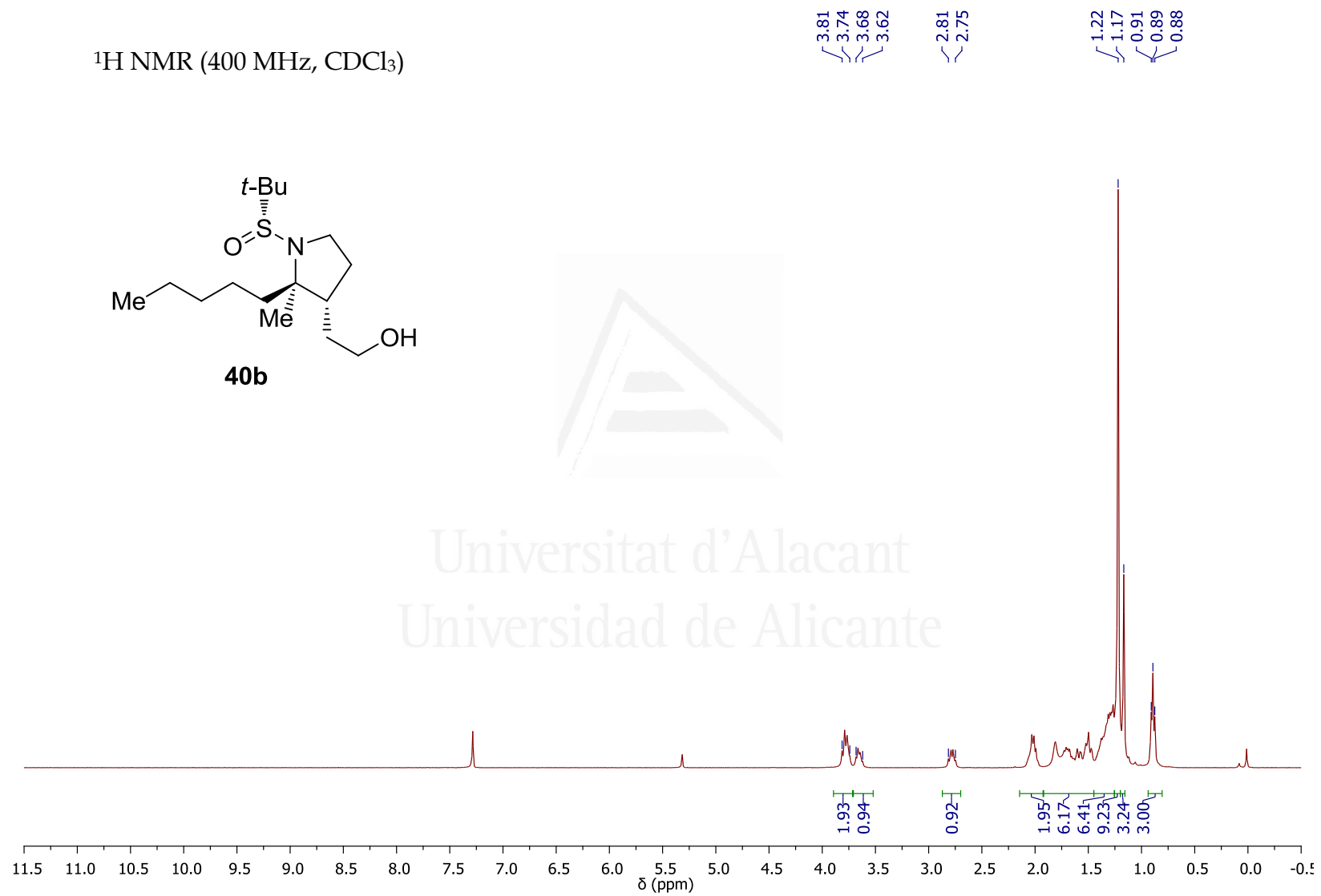
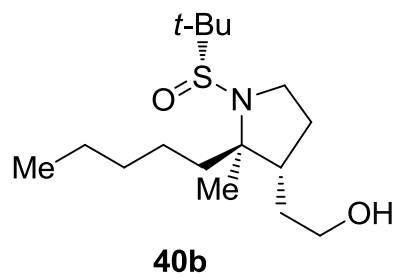
^{13}C NMR (101 MHz, CDCl_3)

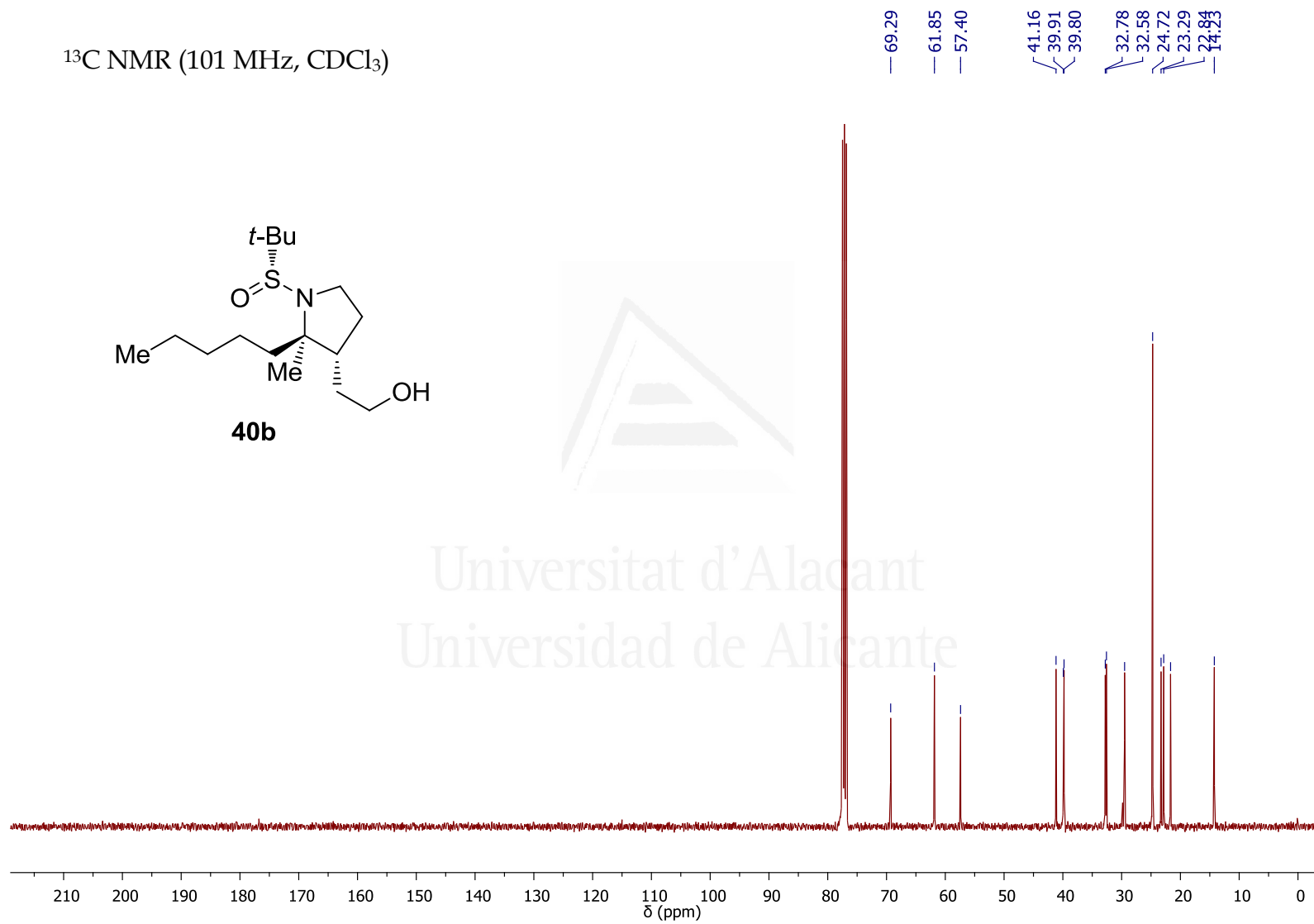
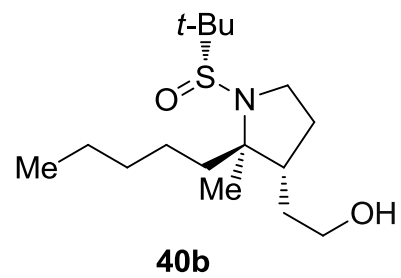
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^1H NMR (400 MHz, CDCl_3)

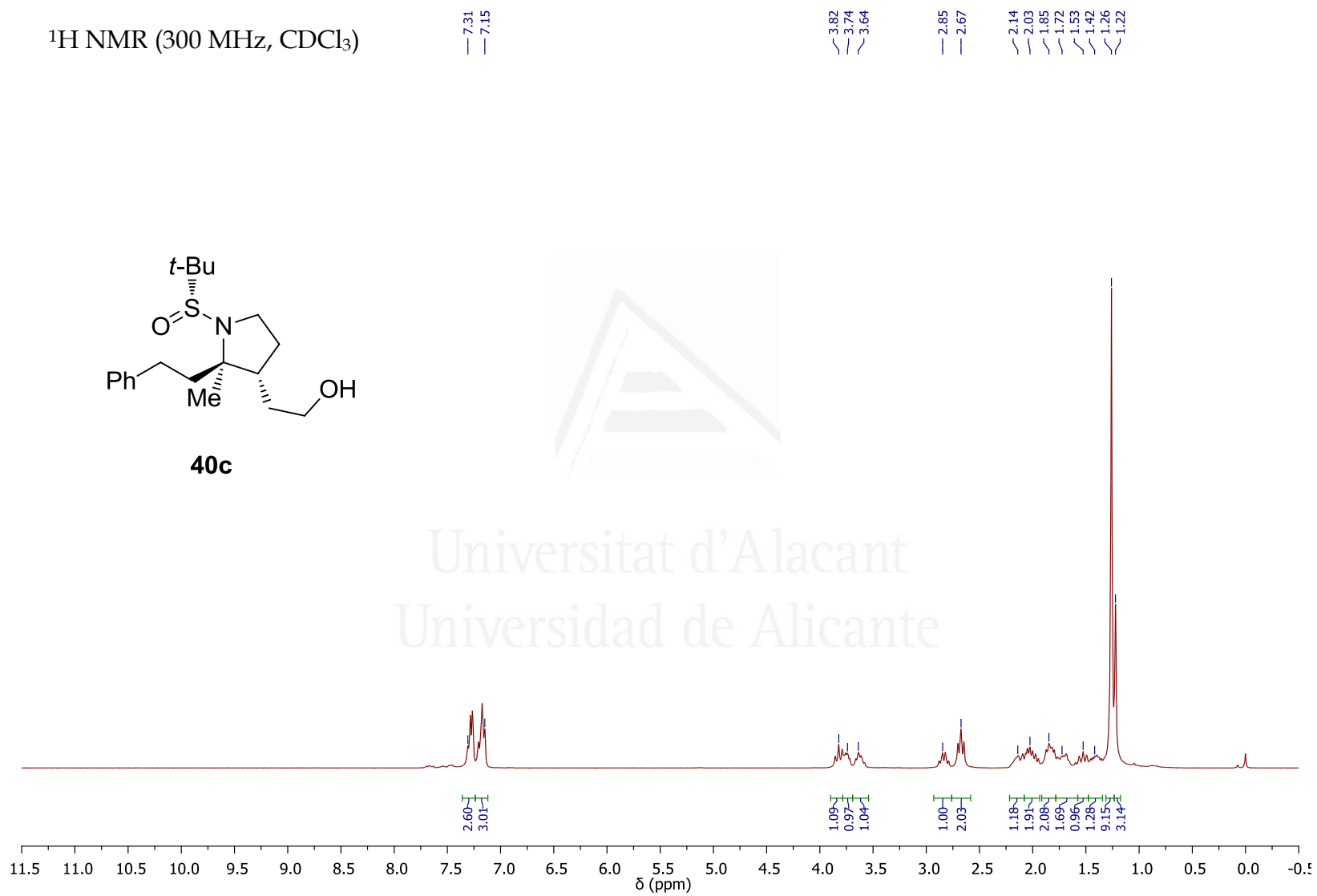
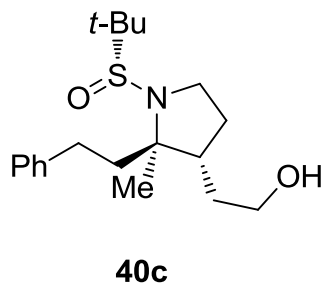
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^{13}C NMR (101 MHz, CDCl_3)

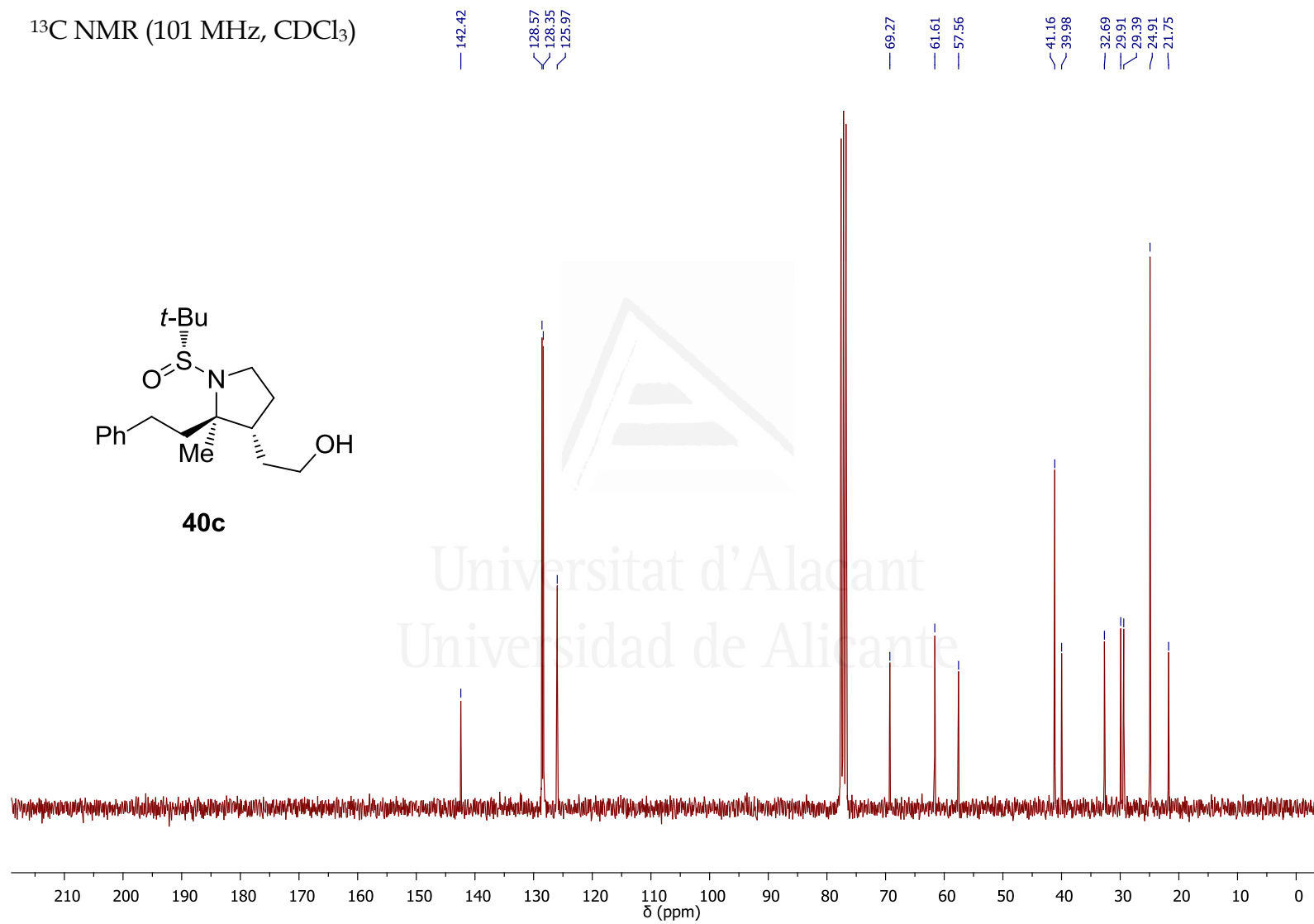
^1H NMR (400 MHz, CDCl_3)

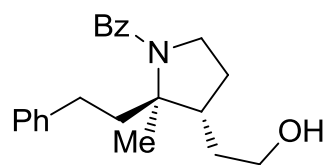
^{13}C NMR (101 MHz, CDCl_3)

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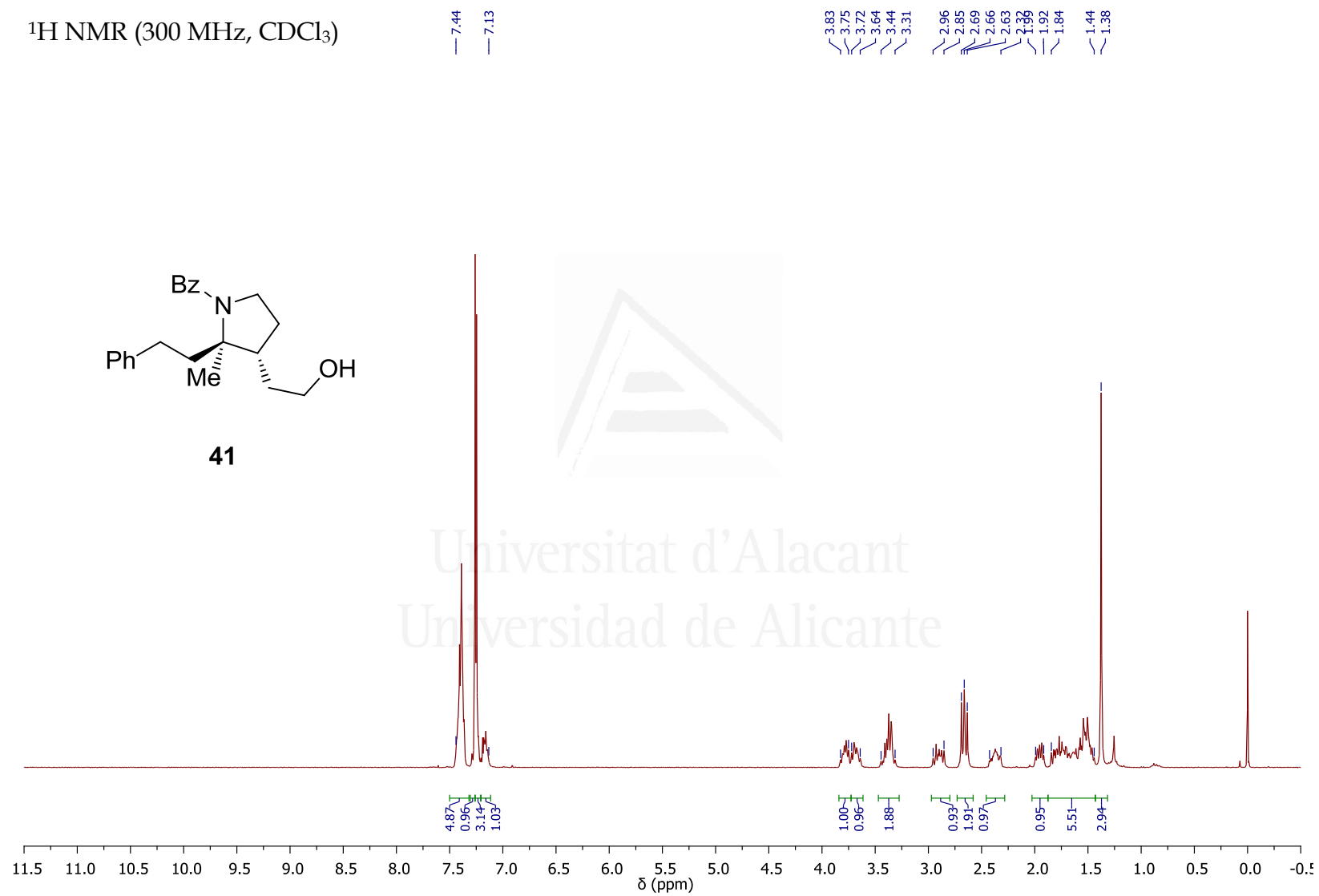
^1H NMR (300 MHz, CDCl_3)

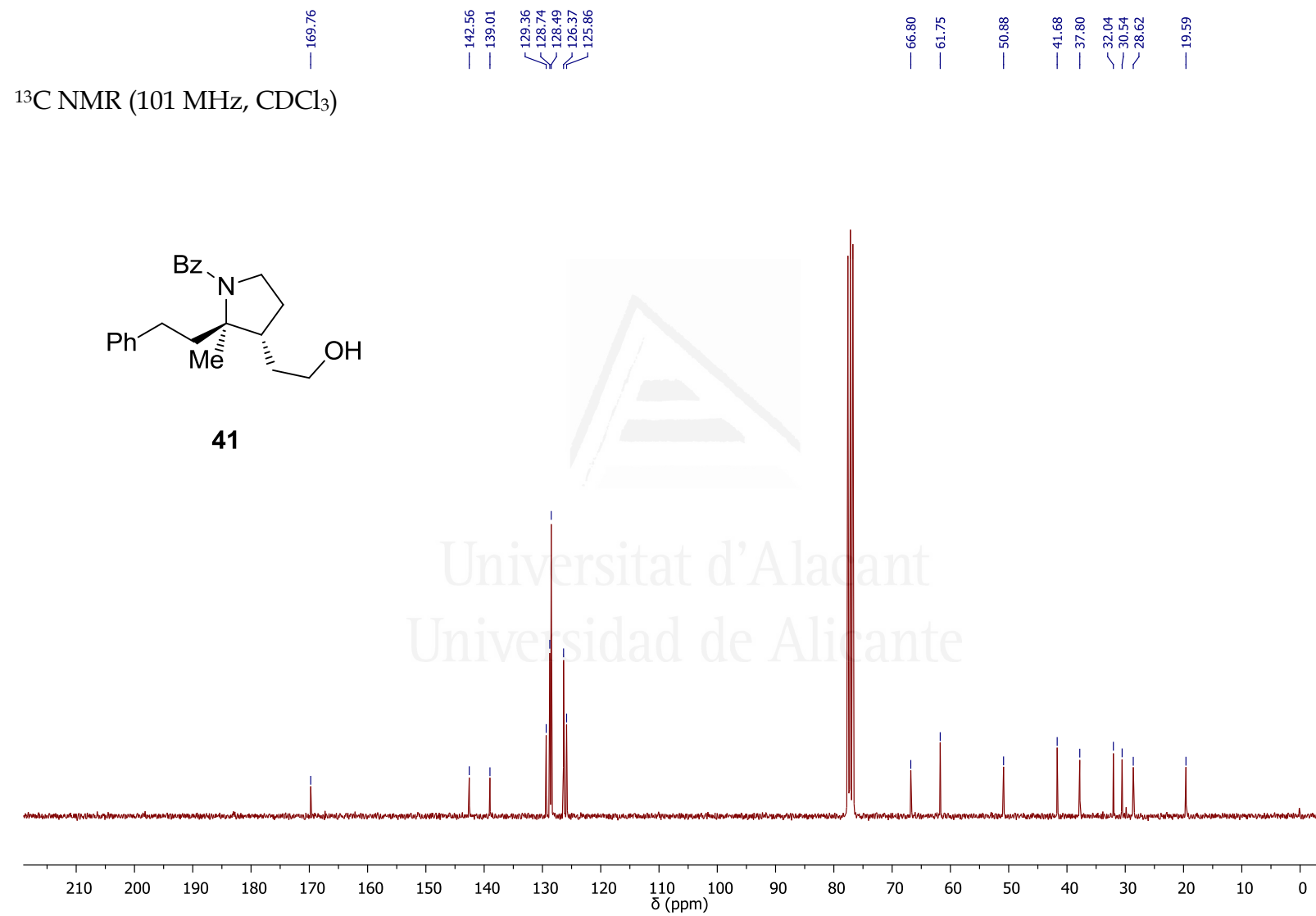
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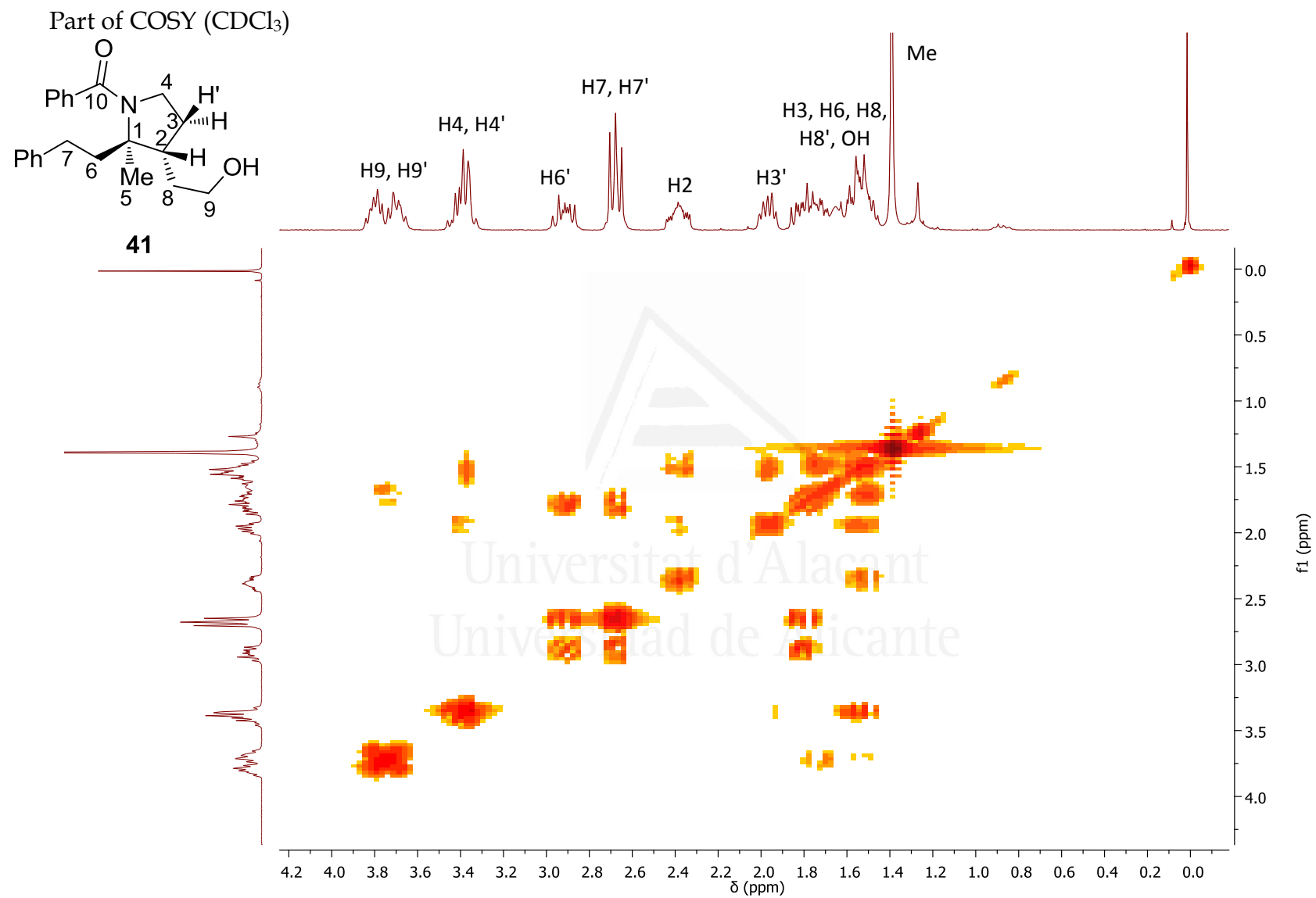
^{13}C NMR (101 MHz, CDCl_3)

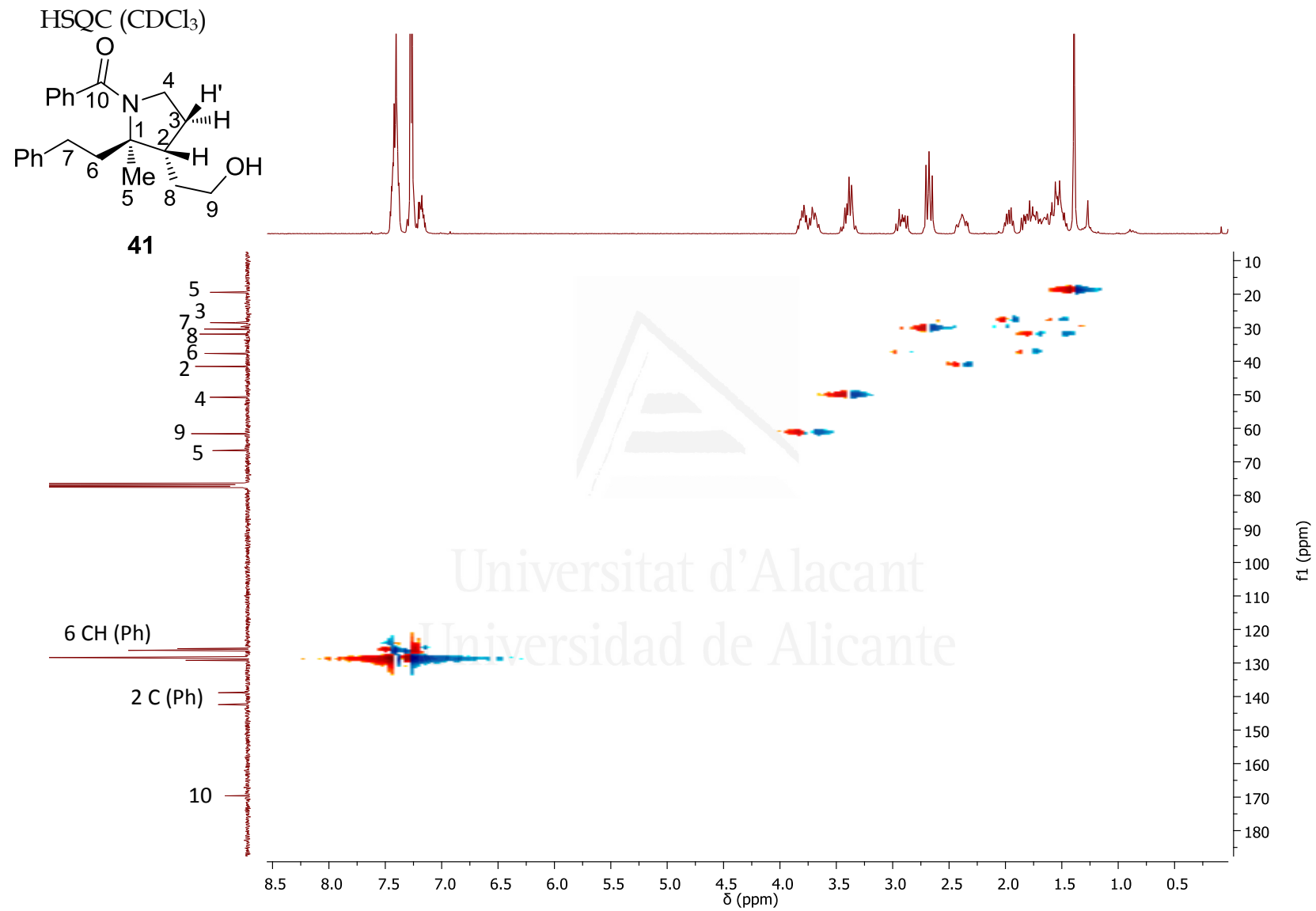
^1H NMR (300 MHz, CDCl_3)

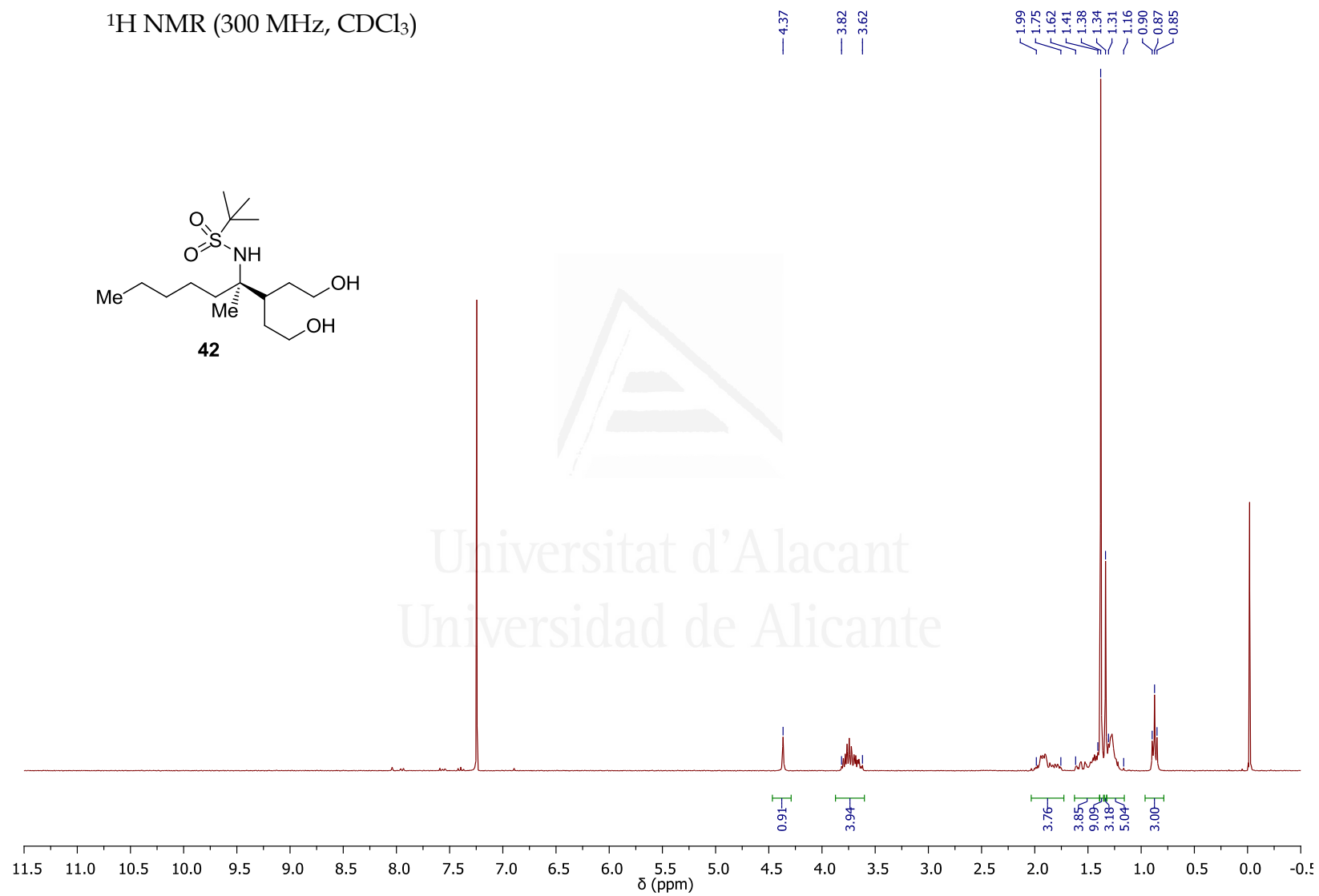
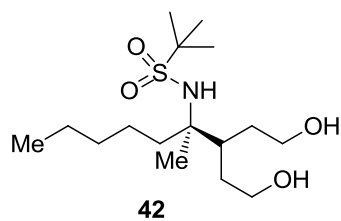
41

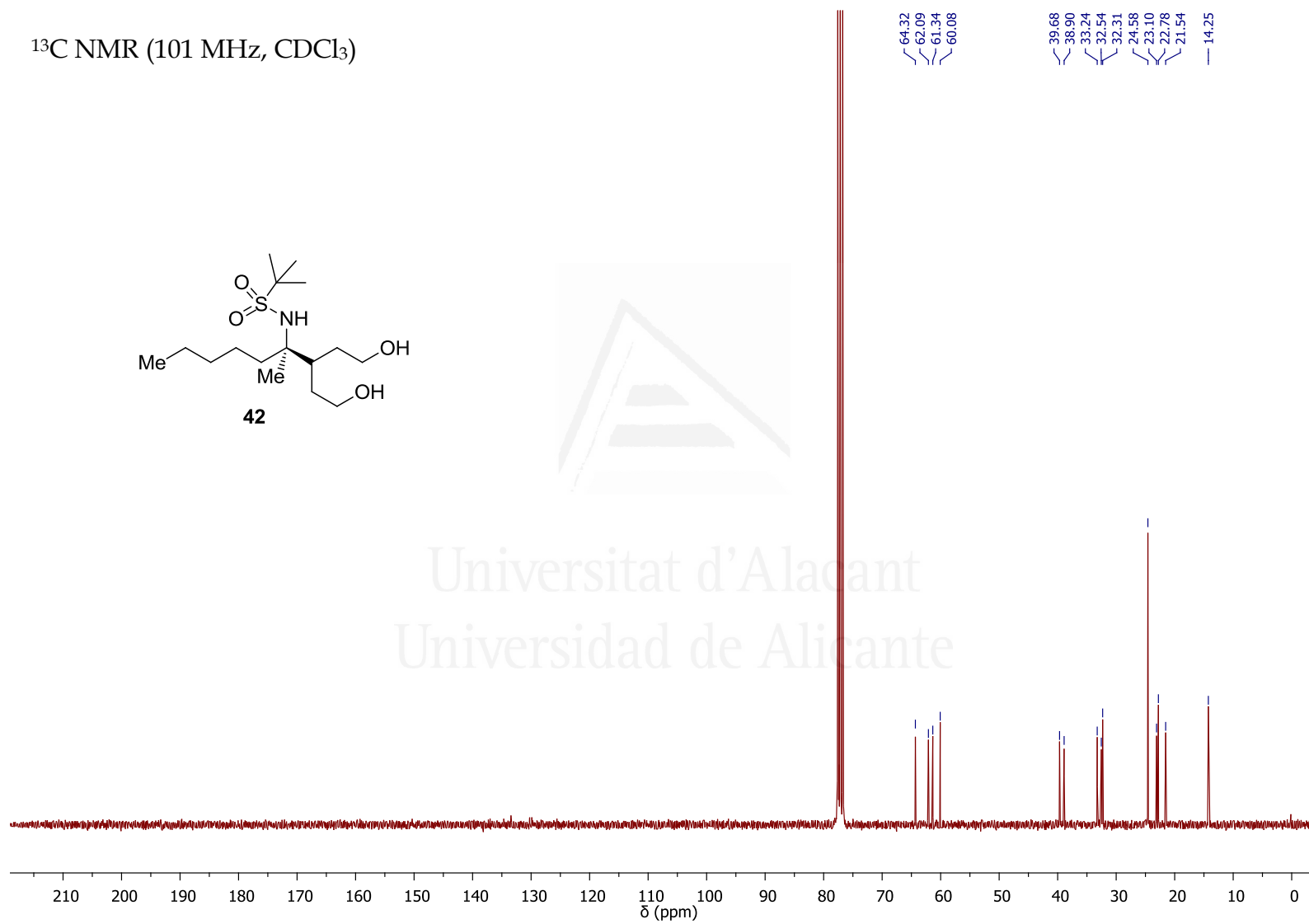
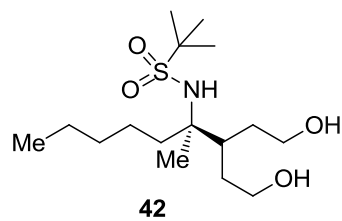




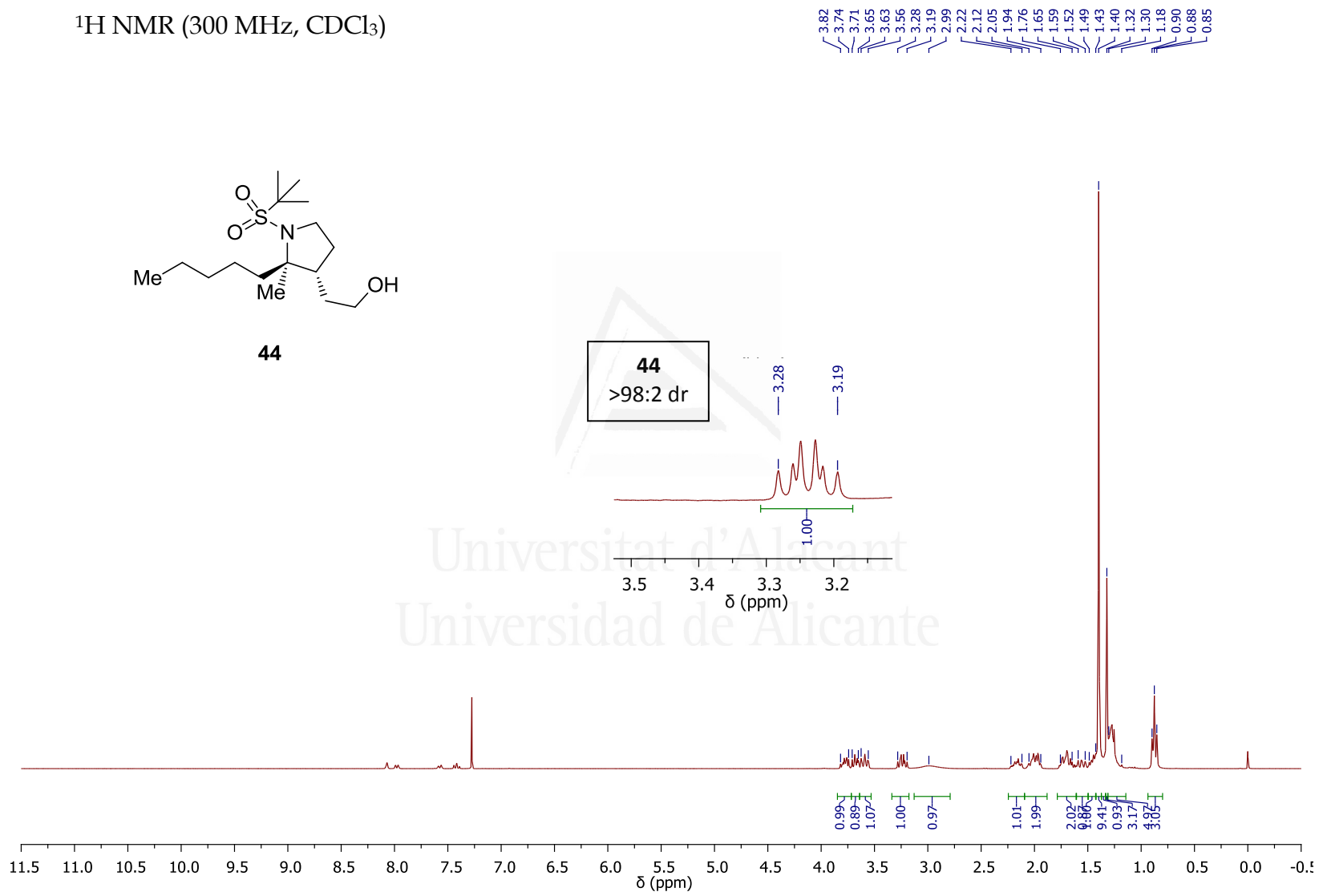


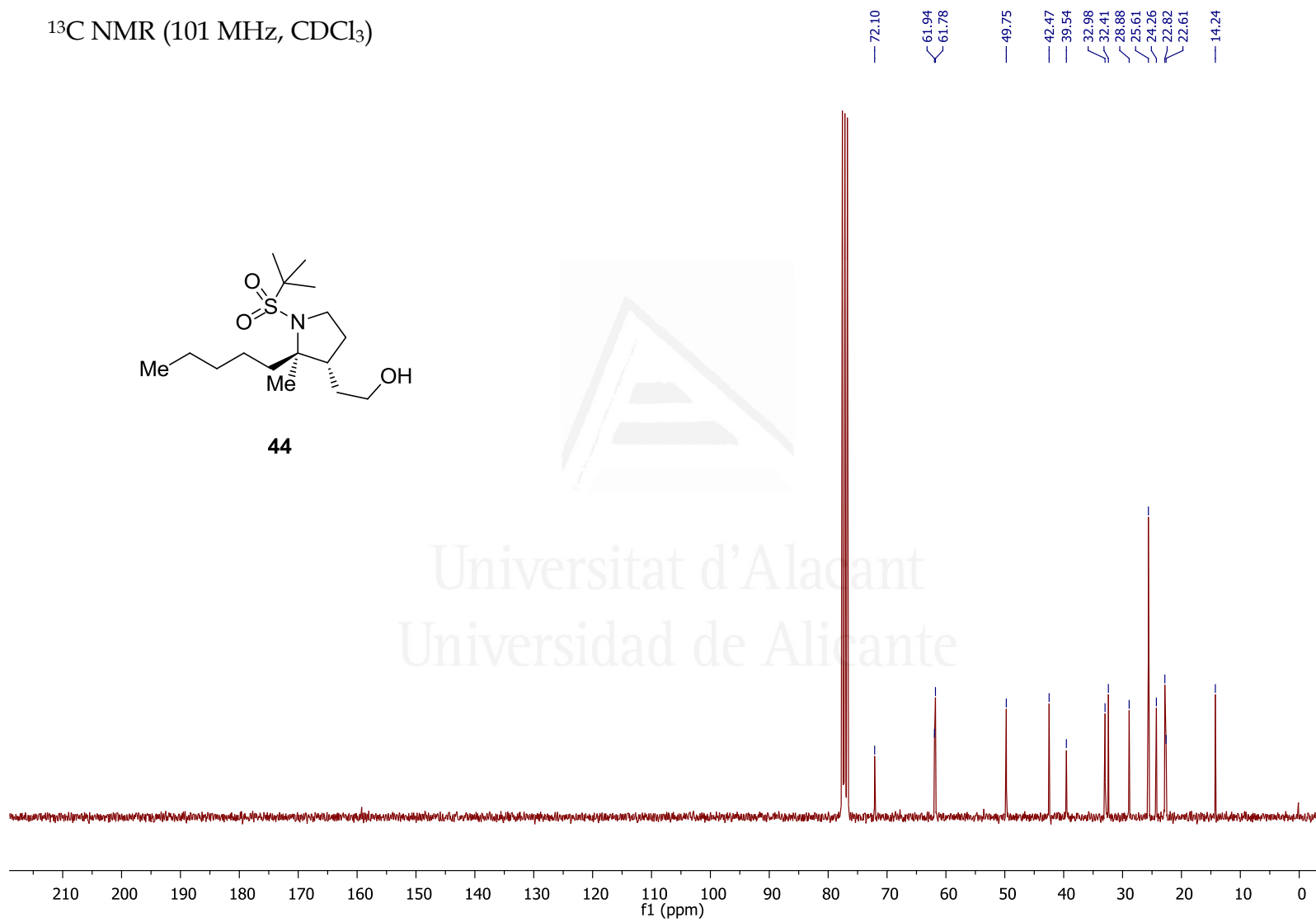
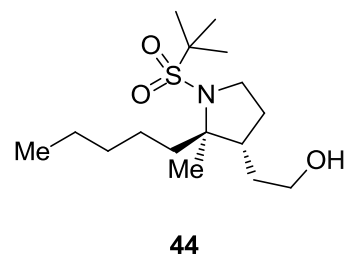


^1H NMR (300 MHz, CDCl_3)

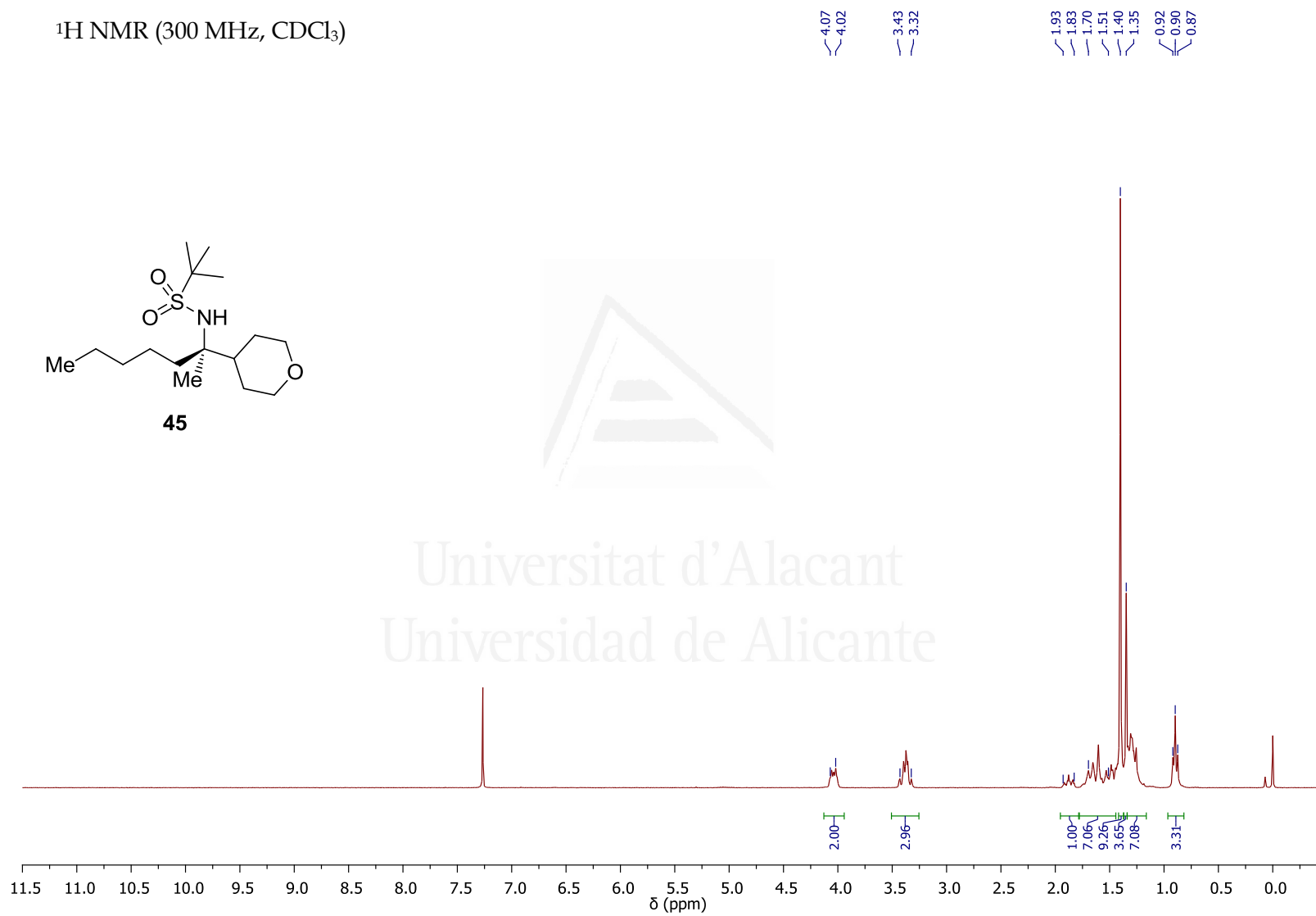
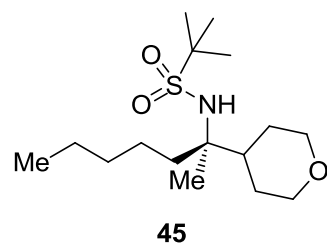
^{13}C NMR (101 MHz, CDCl_3)

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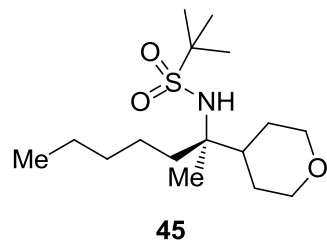
^1H NMR (300 MHz, CDCl_3)

^{13}C NMR (101 MHz, CDCl_3)

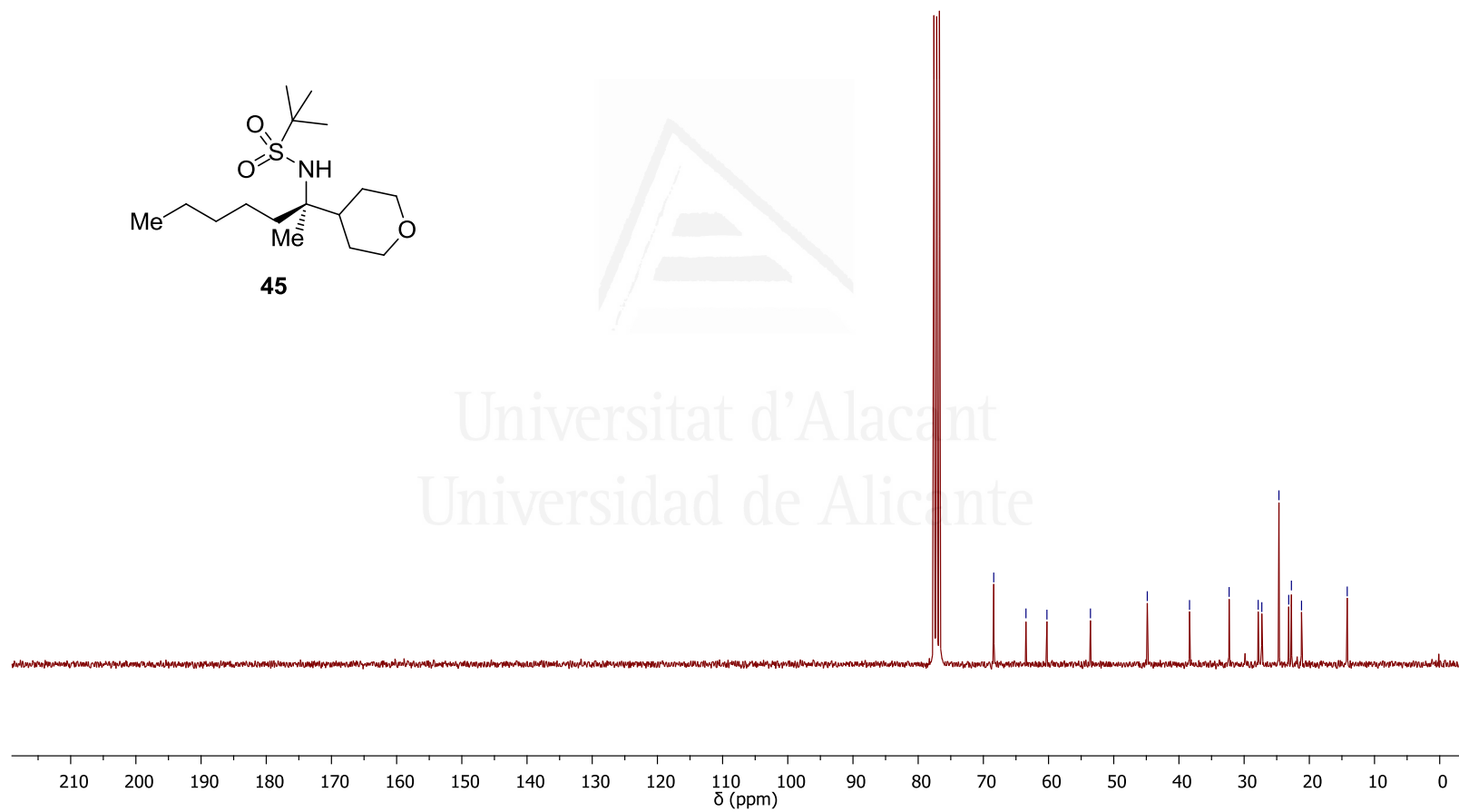
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^1H NMR (300 MHz, CDCl_3)

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^{13}C NMR (101 MHz, CDCl_3)

68.41
63.46
60.25
53.57
44.85
38.37
32.30
27.84
27.29
24.66
23.16
22.75
21.20
14.18



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