

Marine sponge *Hymeniacidon* sp. amphilectane metabolites potently inhibit rat brain microglia thromboxane B2 generation

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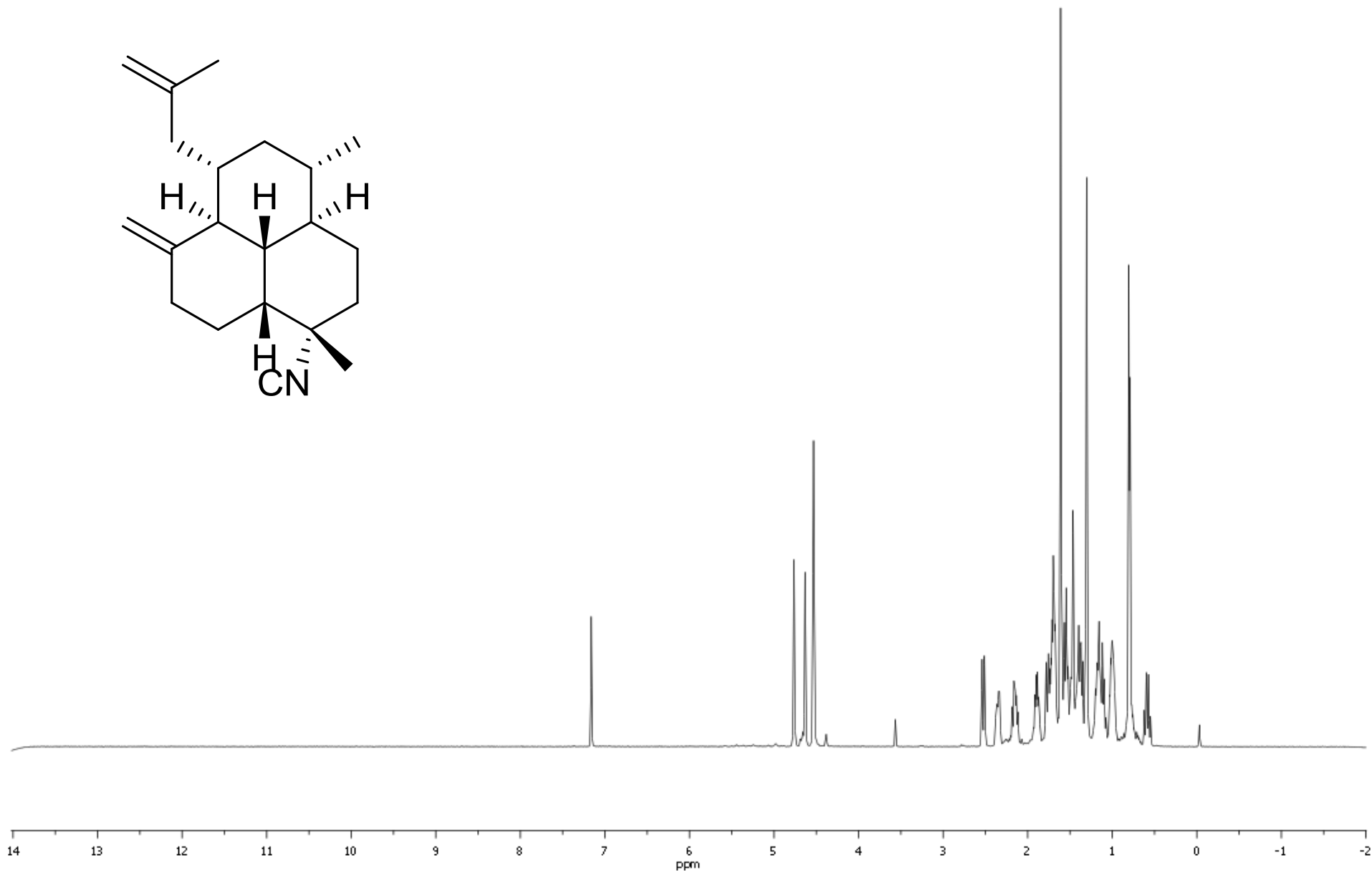
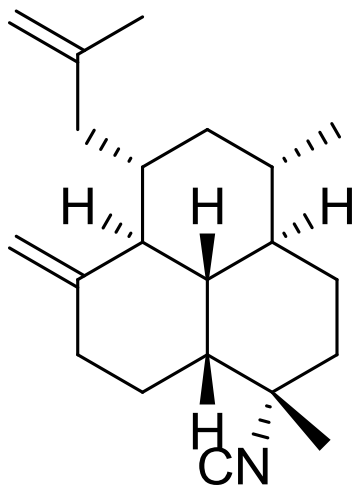
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Supporting Material

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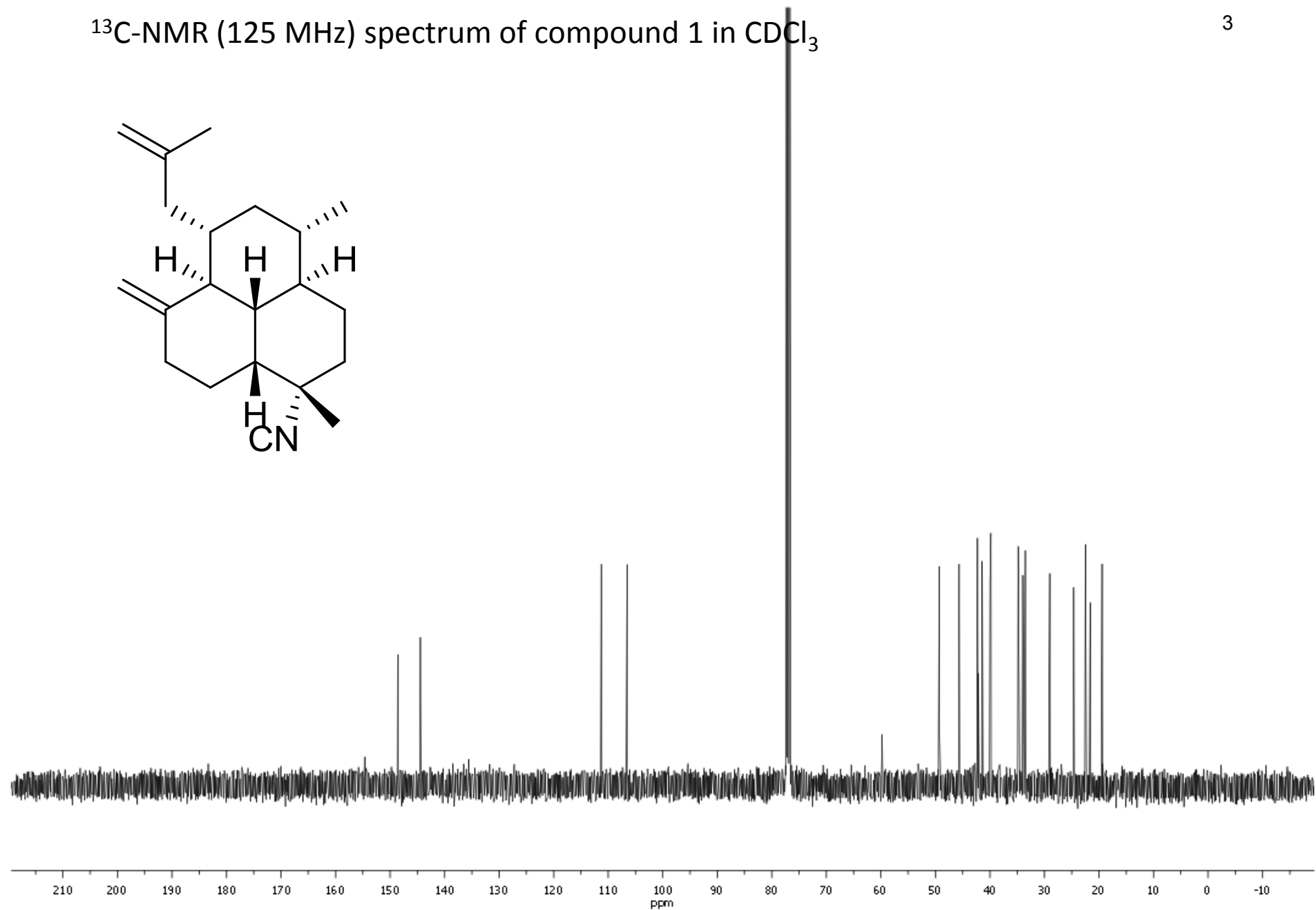
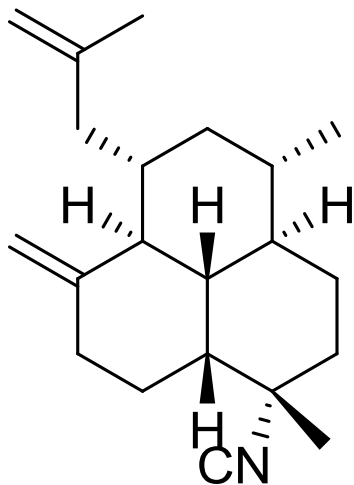
$^1\text{H-NMR}$ (500 MHz) of compound 1 in CDCl_3

2



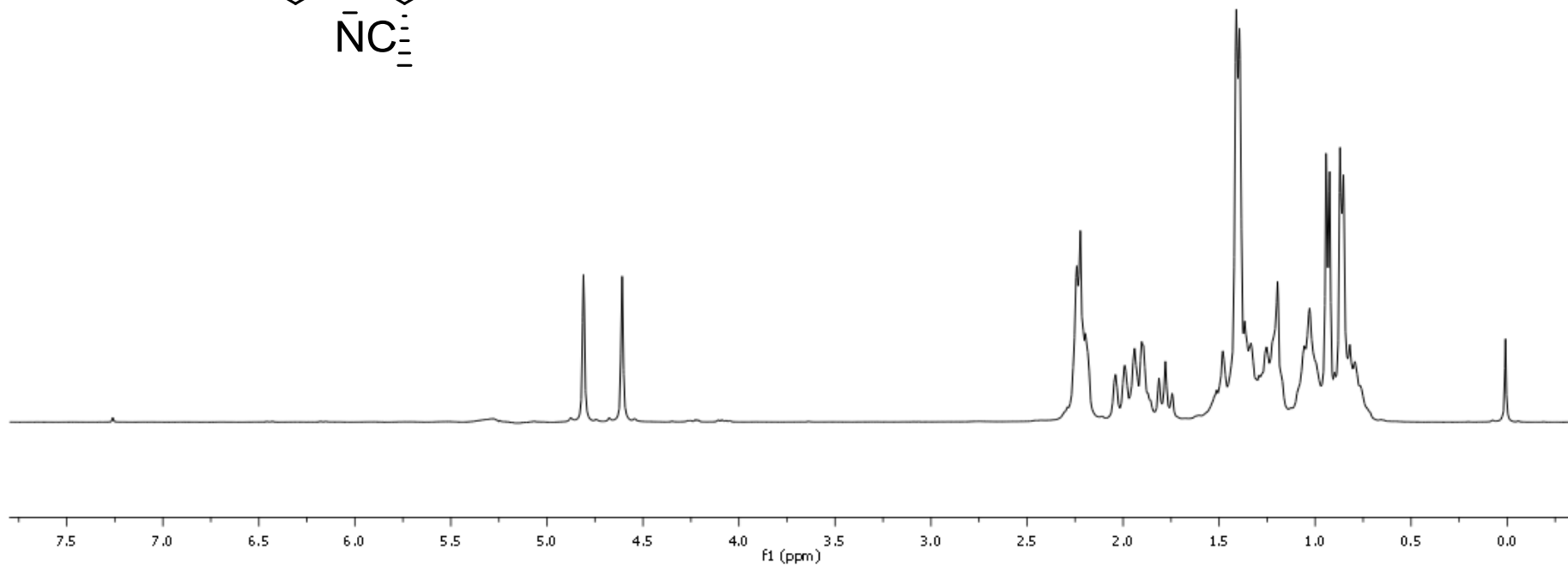
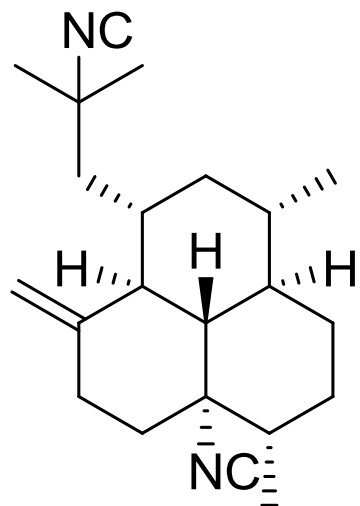
^{13}C -NMR (125 MHz) spectrum of compound 1 in CDCl_3

3



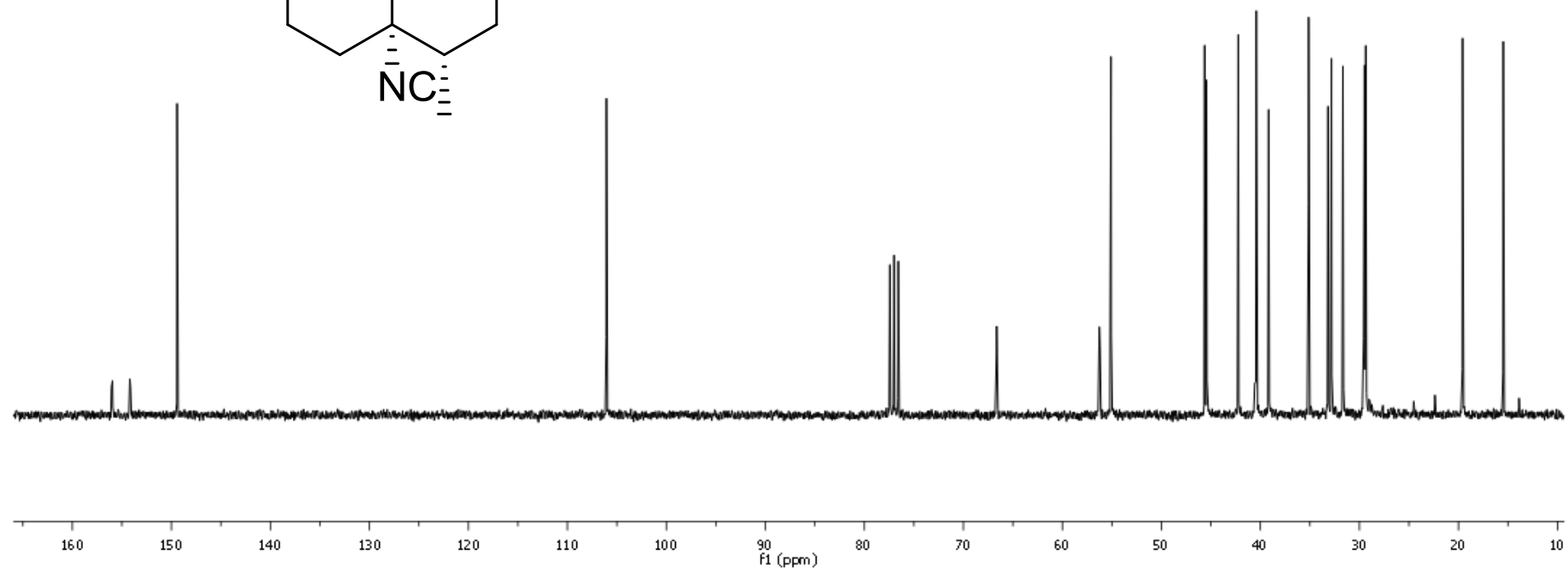
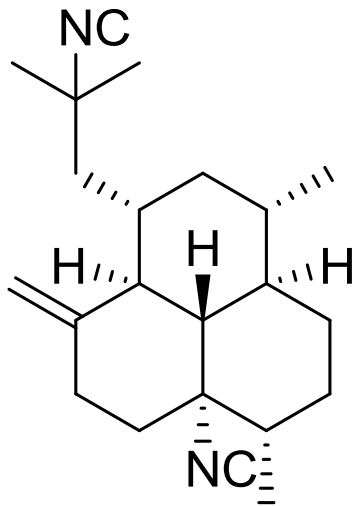
$^1\text{H-NMR}$ (500 MHz) of compound 2 in CDCl_3

4



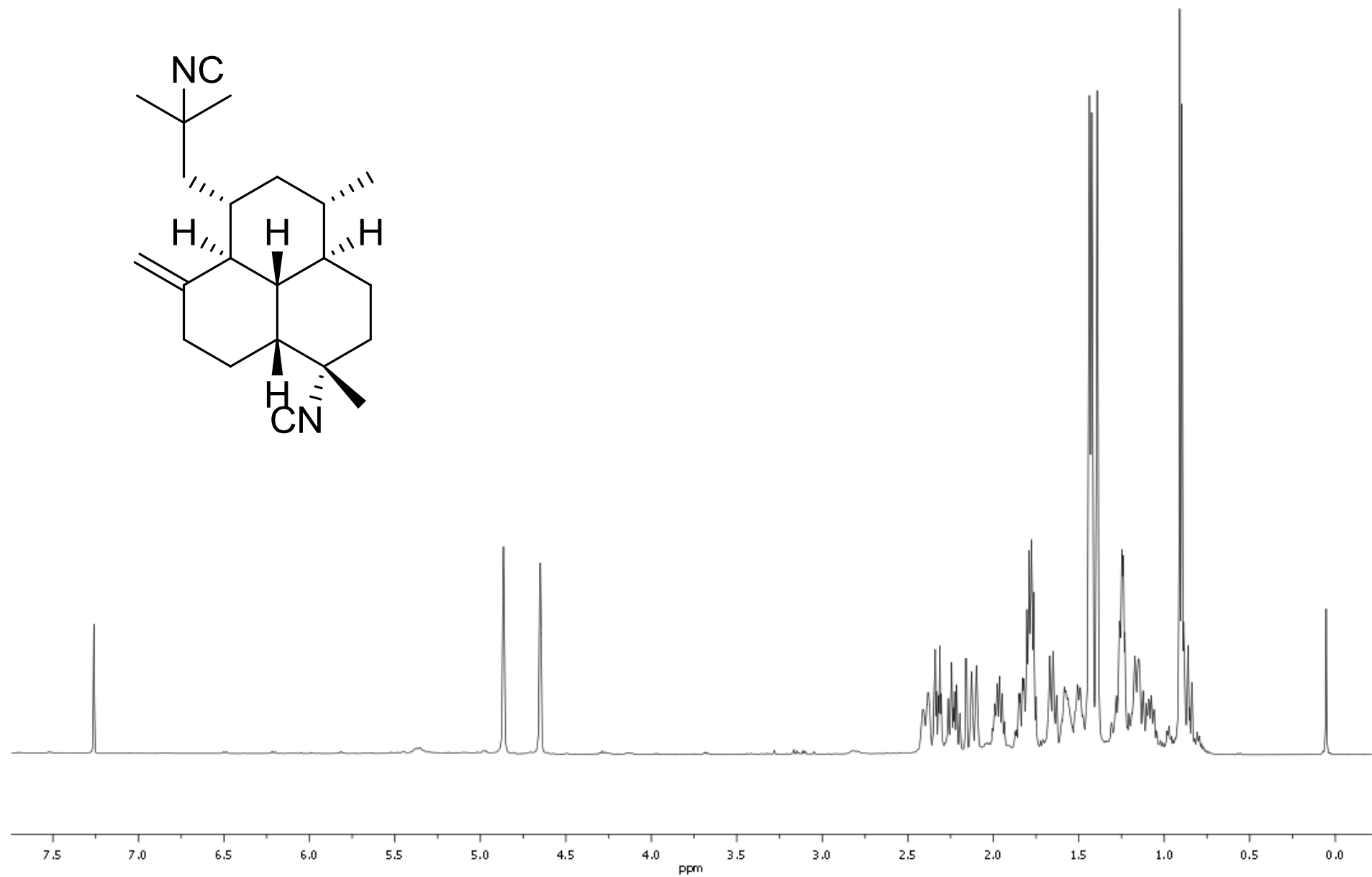
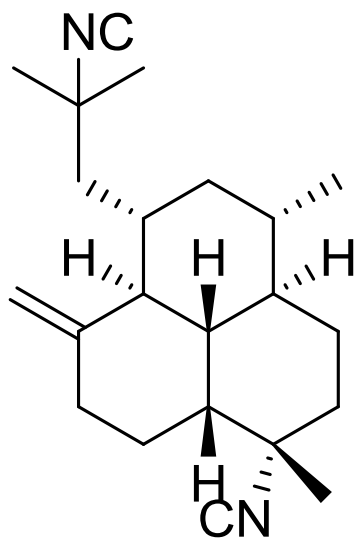
^{13}C -NMR (125 MHz) spectrum of compound 2 in CDCl_3

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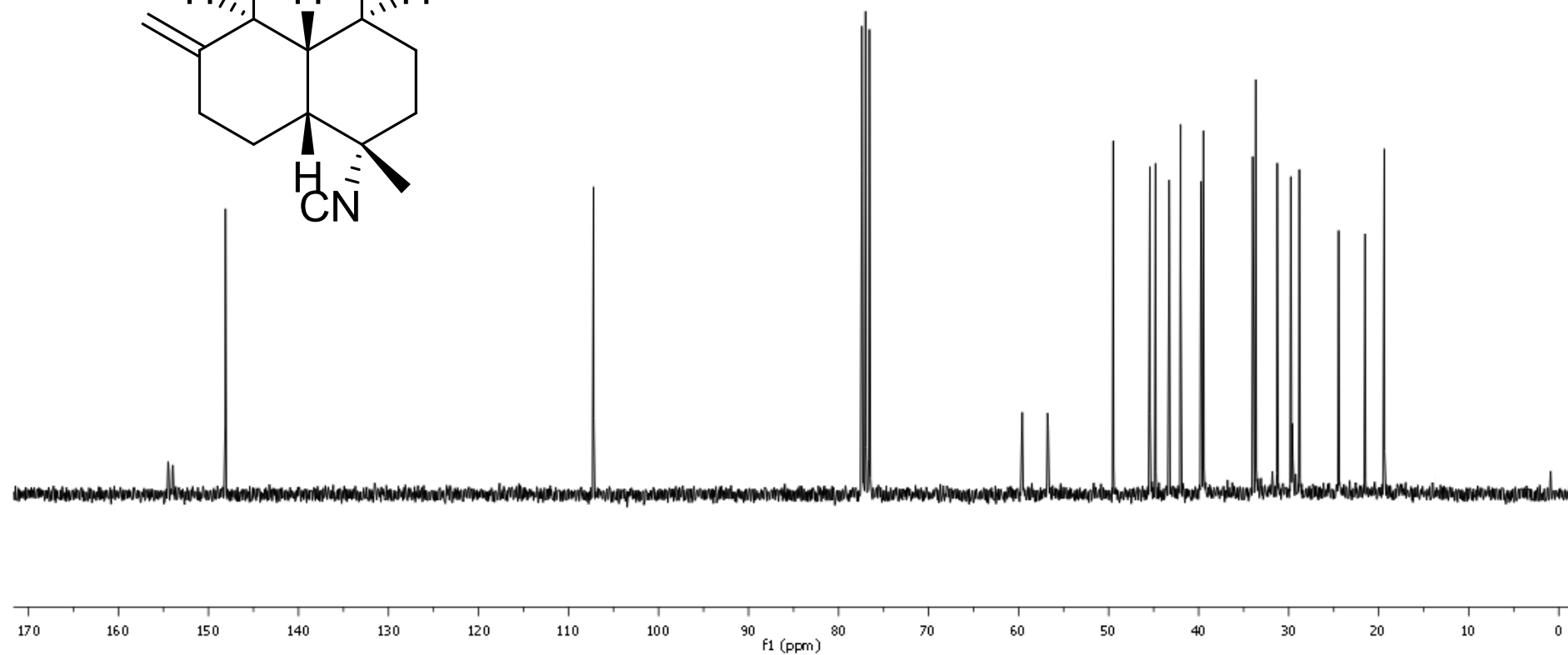
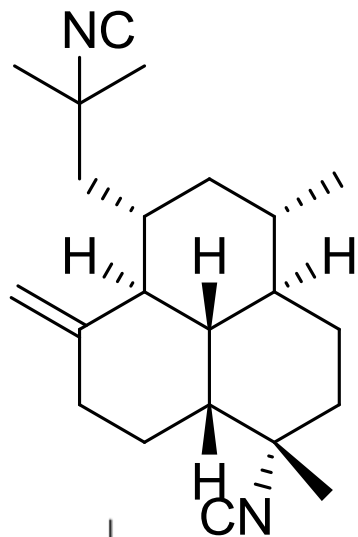
$^1\text{H-NMR}$ (500 MHz) of compound 3 in CDCl_3

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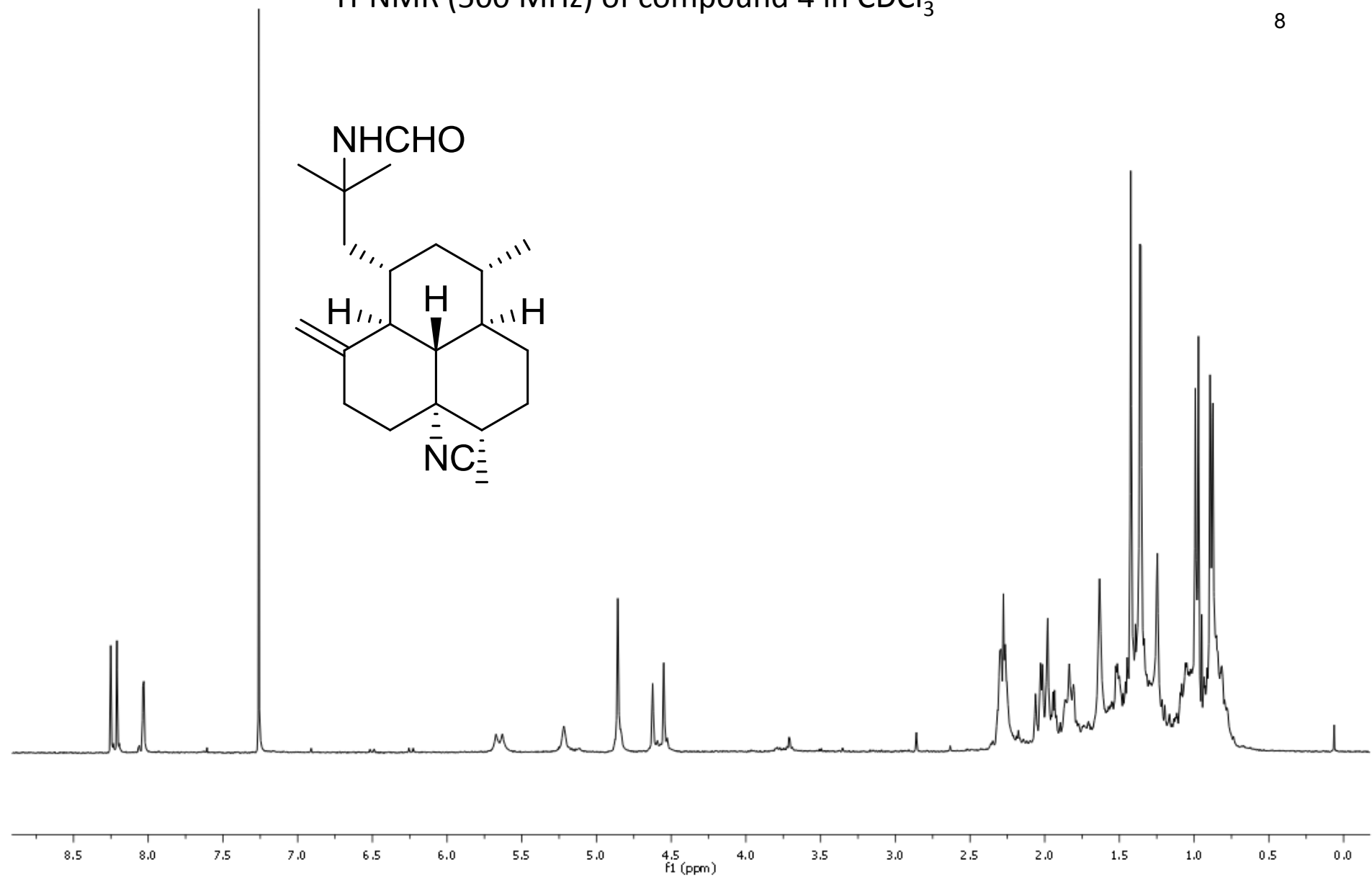
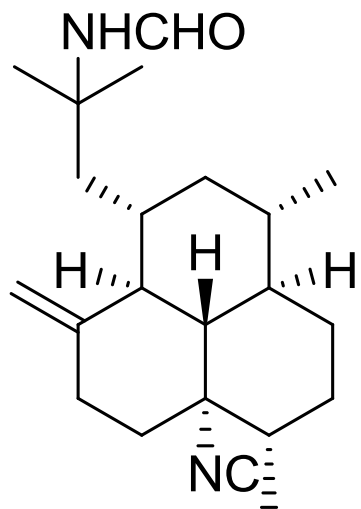
^{13}C -NMR (125 MHz) spectrum of compound 3 in CDCl_3

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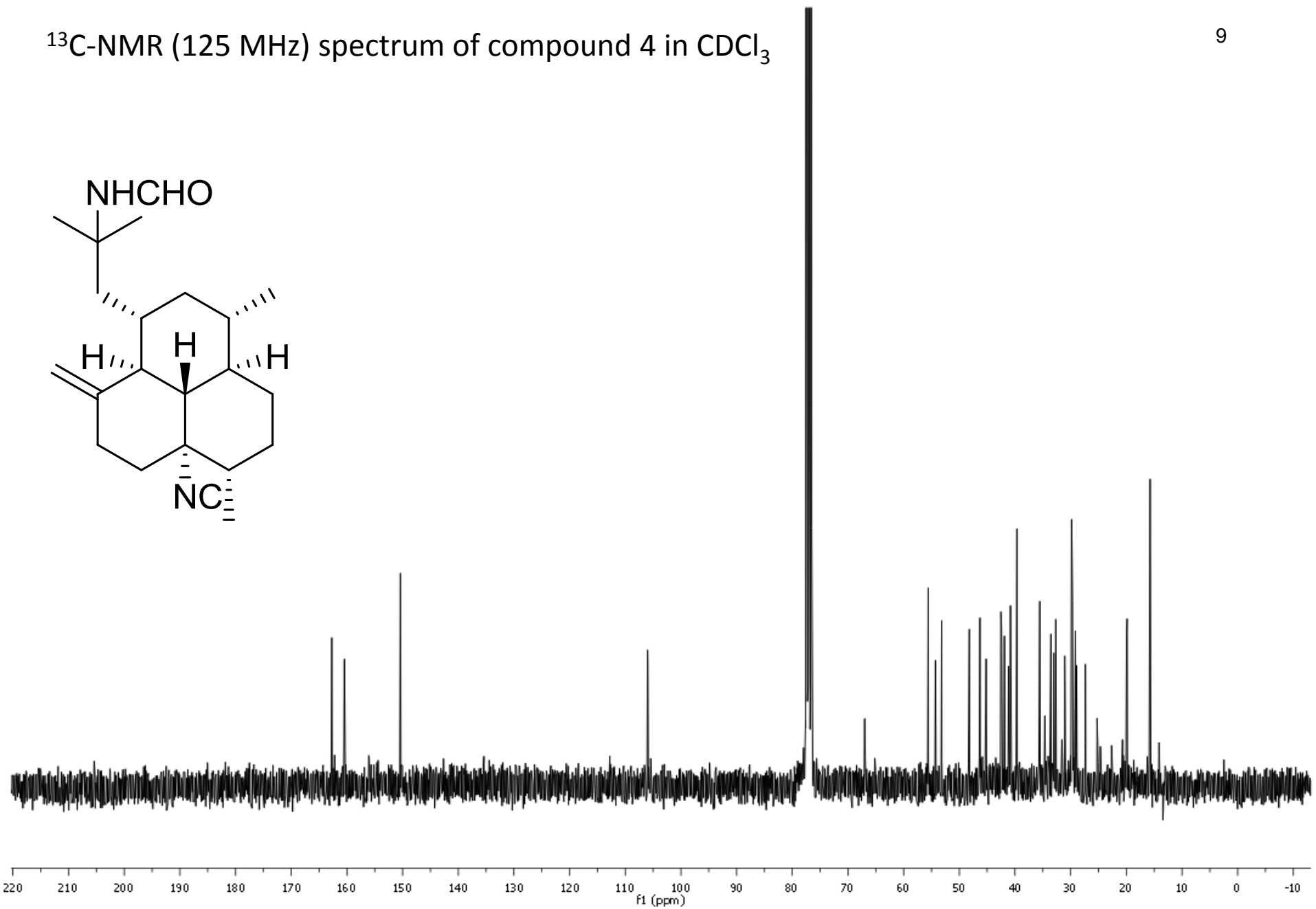
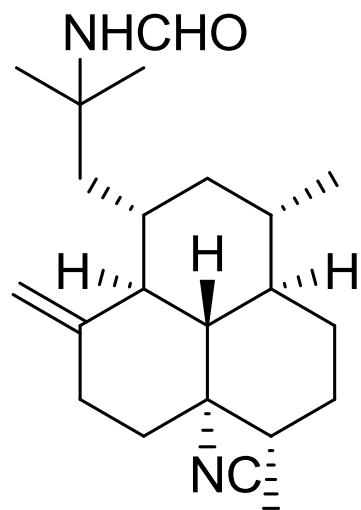
$^1\text{H-NMR}$ (500 MHz) of compound 4 in CDCl_3

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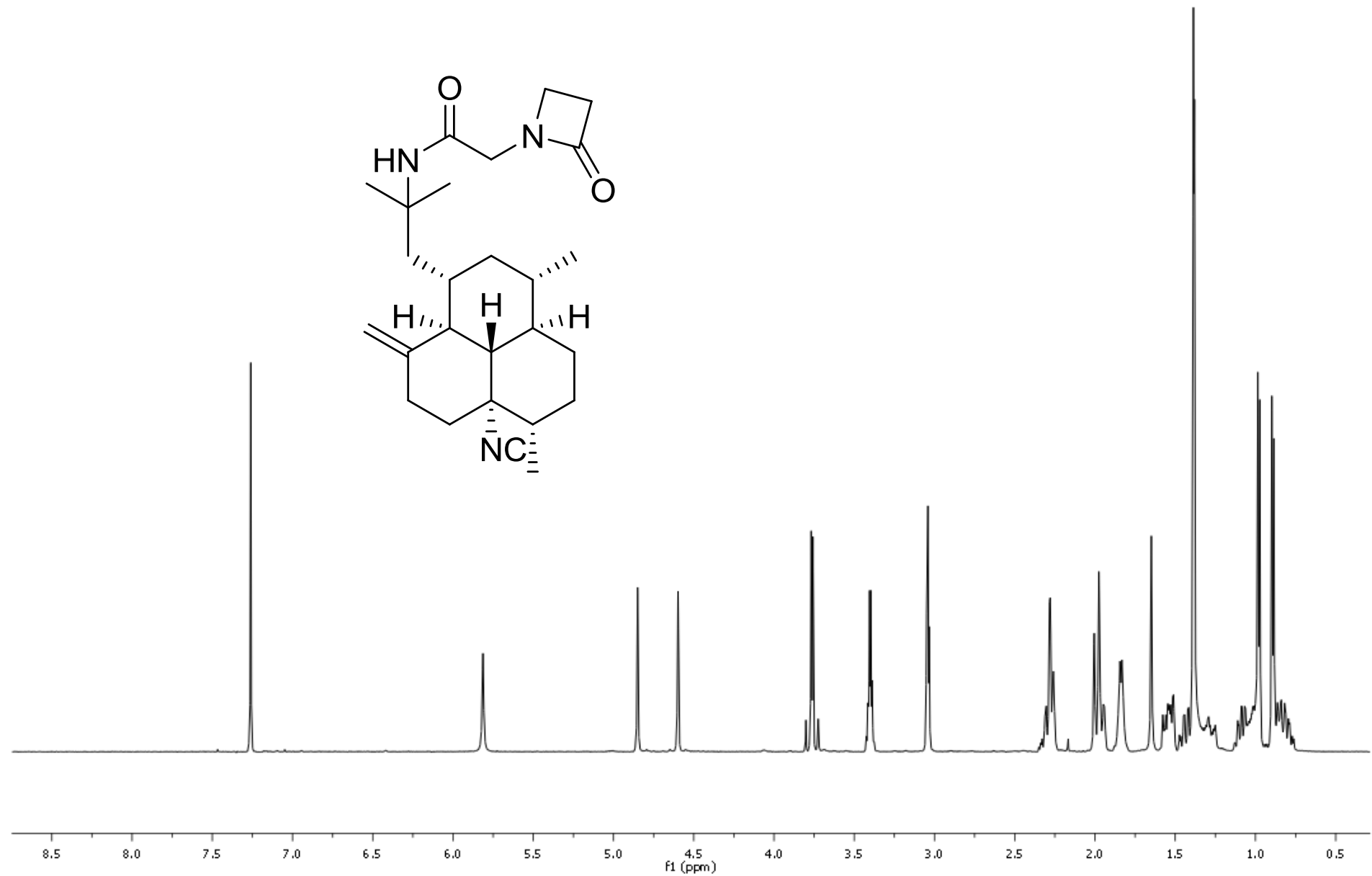
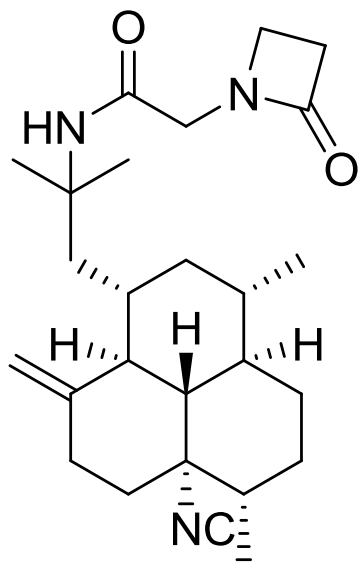
^{13}C -NMR (125 MHz) spectrum of compound 4 in CDCl_3

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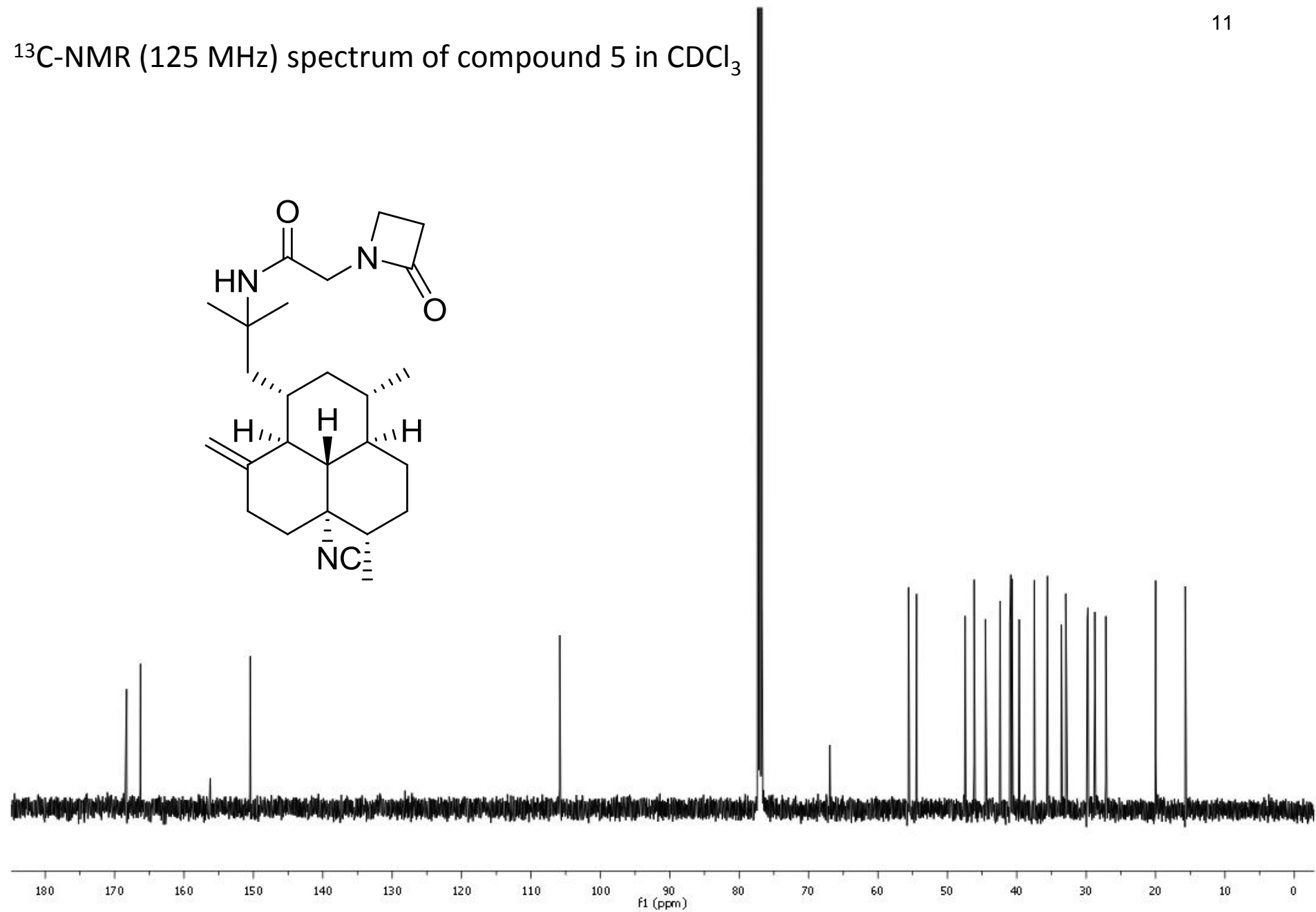
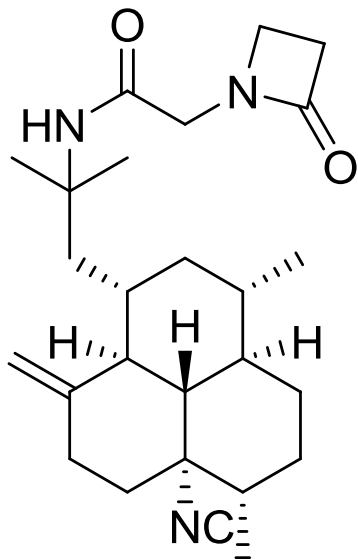


$^1\text{H-NMR}$ (500 MHz) of compound 5 in CDCl_3

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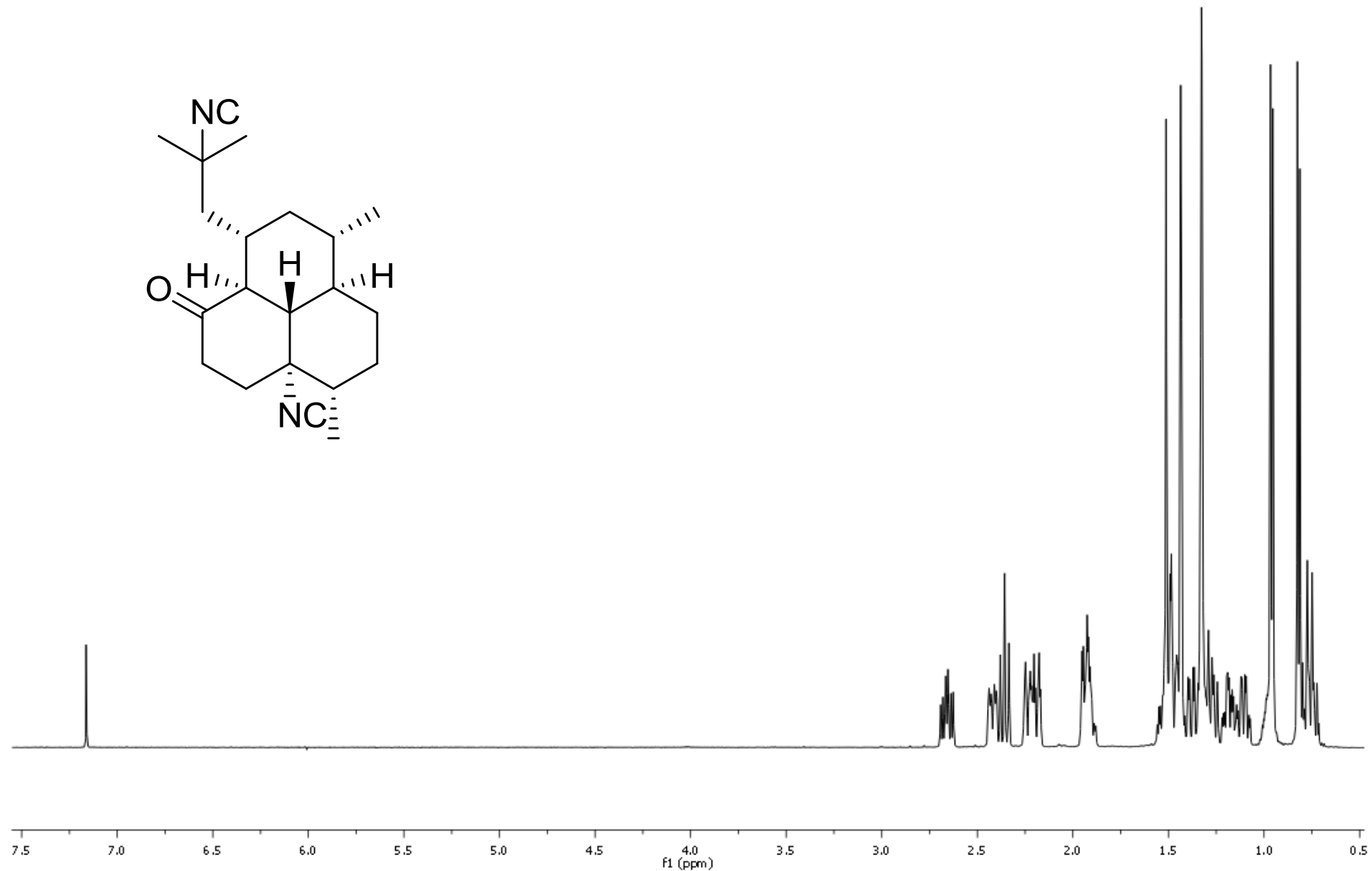
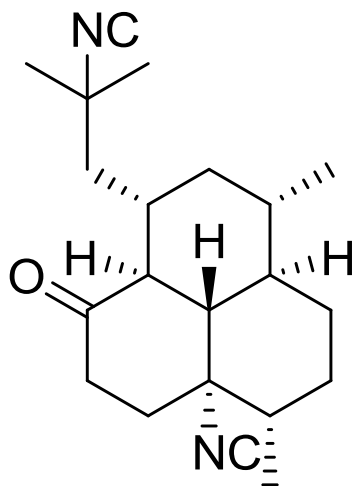


^{13}C -NMR (125 MHz) spectrum of compound 5 in CDCl_3



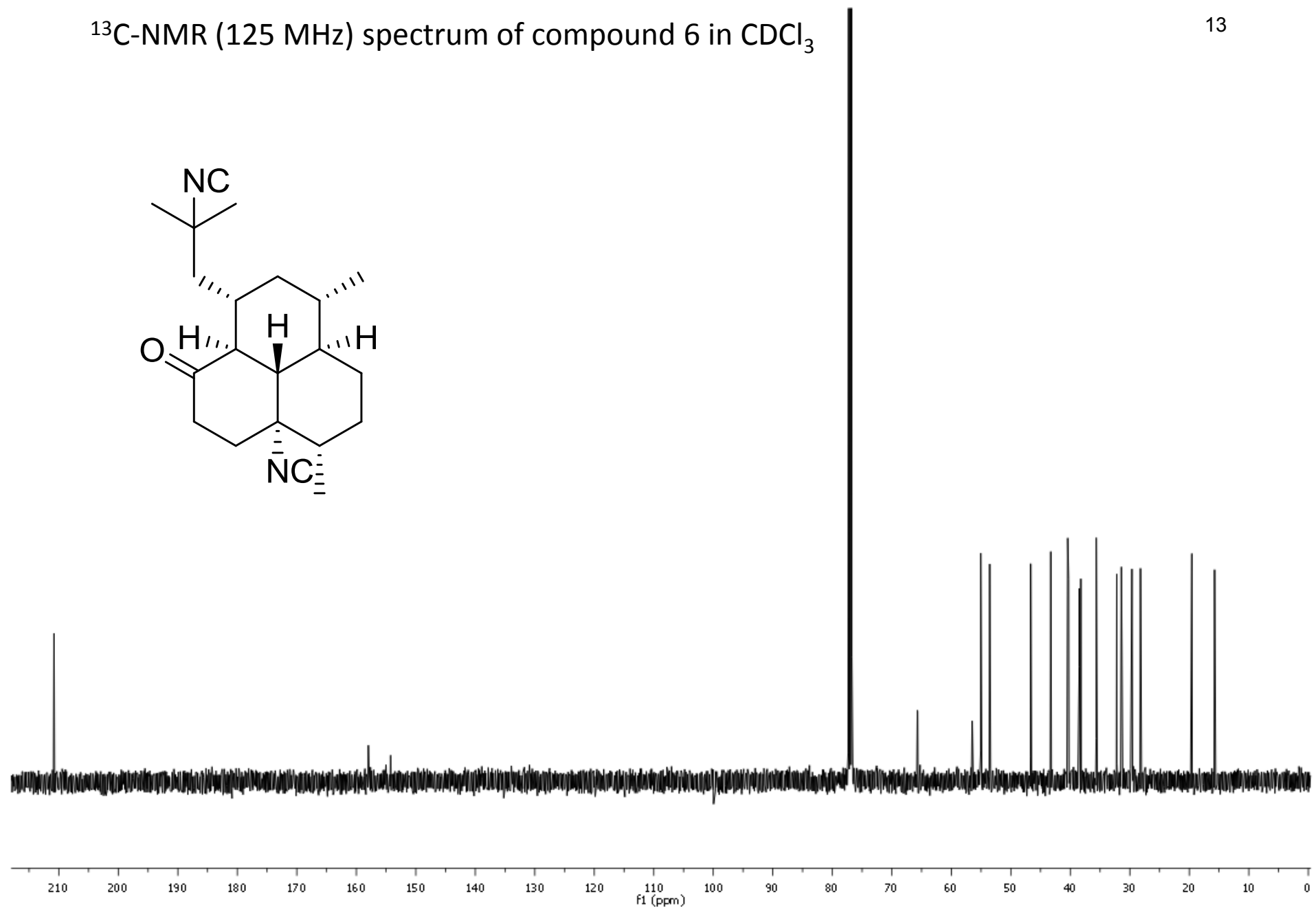
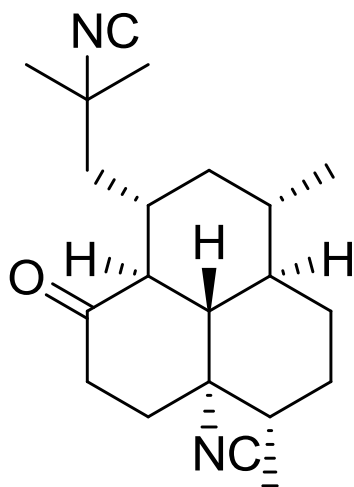
$^1\text{H-NMR}$ (500 MHz) of compound 6 in CDCl_3

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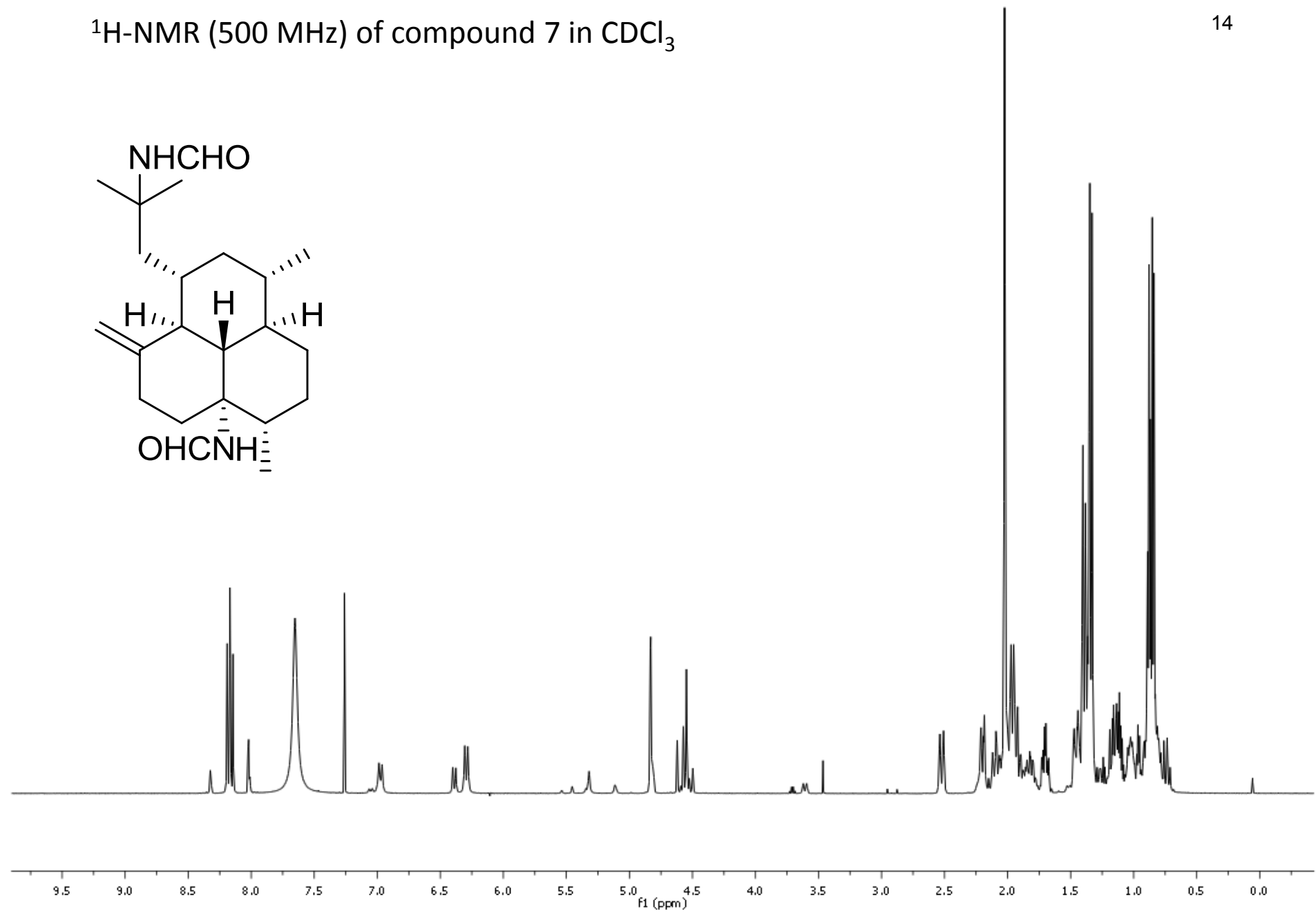
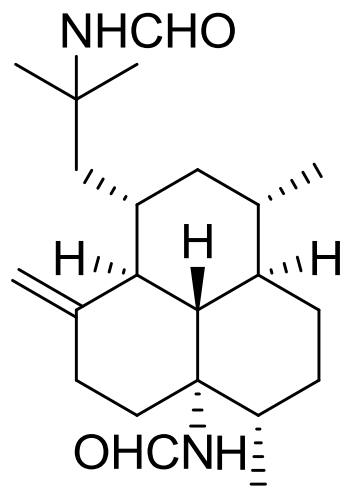
^{13}C -NMR (125 MHz) spectrum of compound 6 in CDCl_3

13

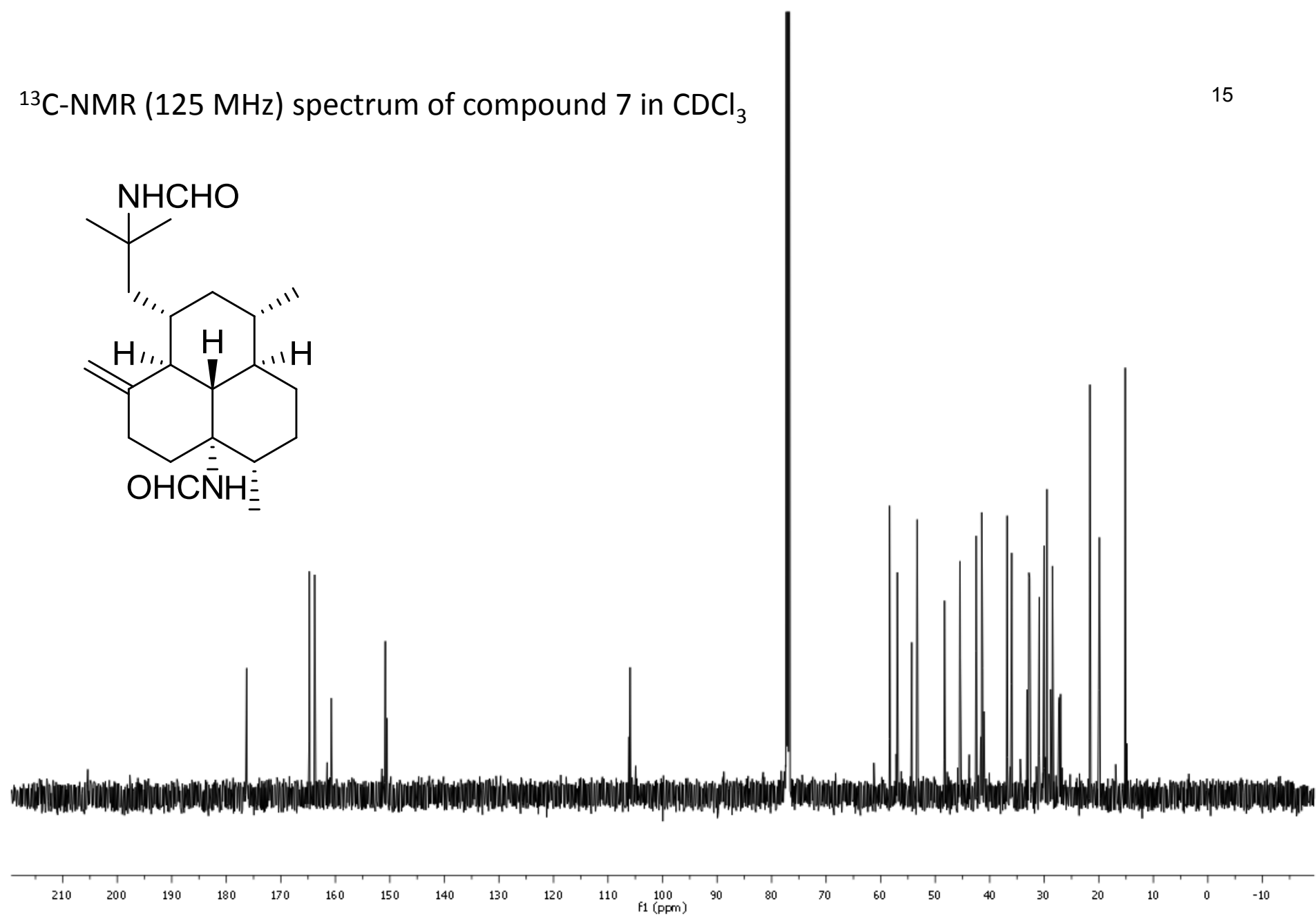
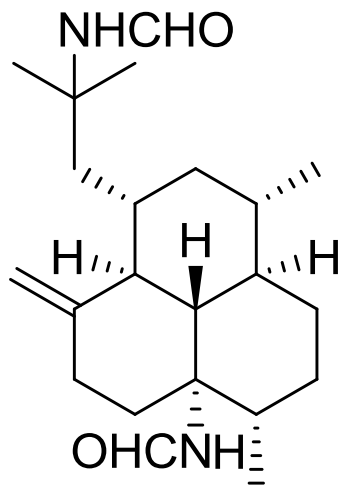


$^1\text{H-NMR}$ (500 MHz) of compound 7 in CDCl_3

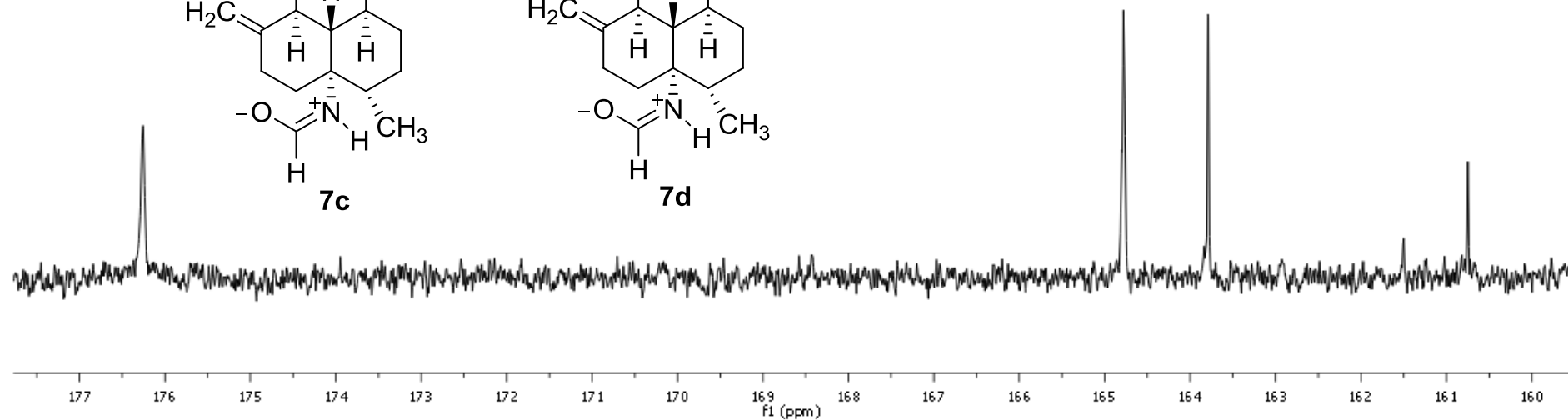
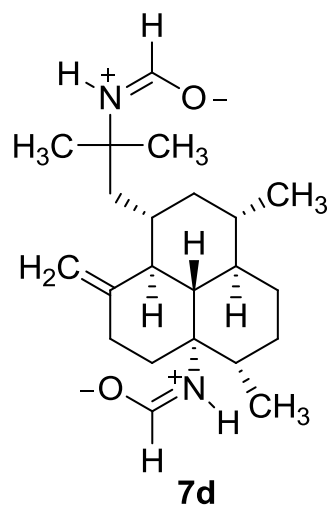
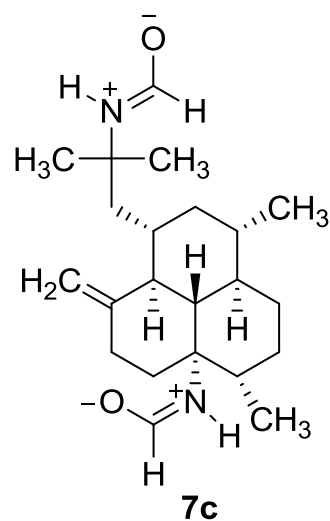
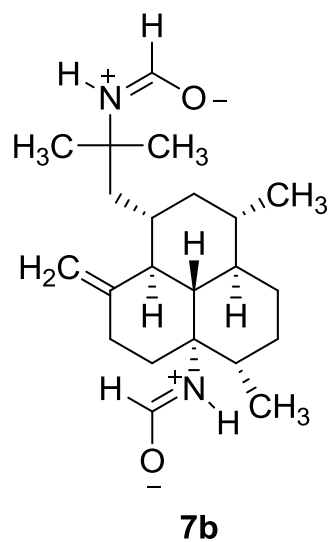
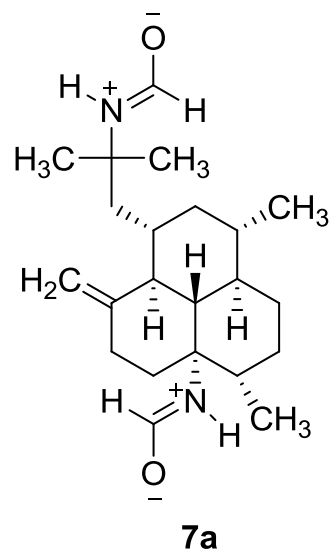
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^{13}C -NMR (125 MHz) spectrum of compound 7 in CDCl_3



Expansion of the ^{13}C -NMR (125 MHz) spectrum of compound 7 in CDCl_3 16



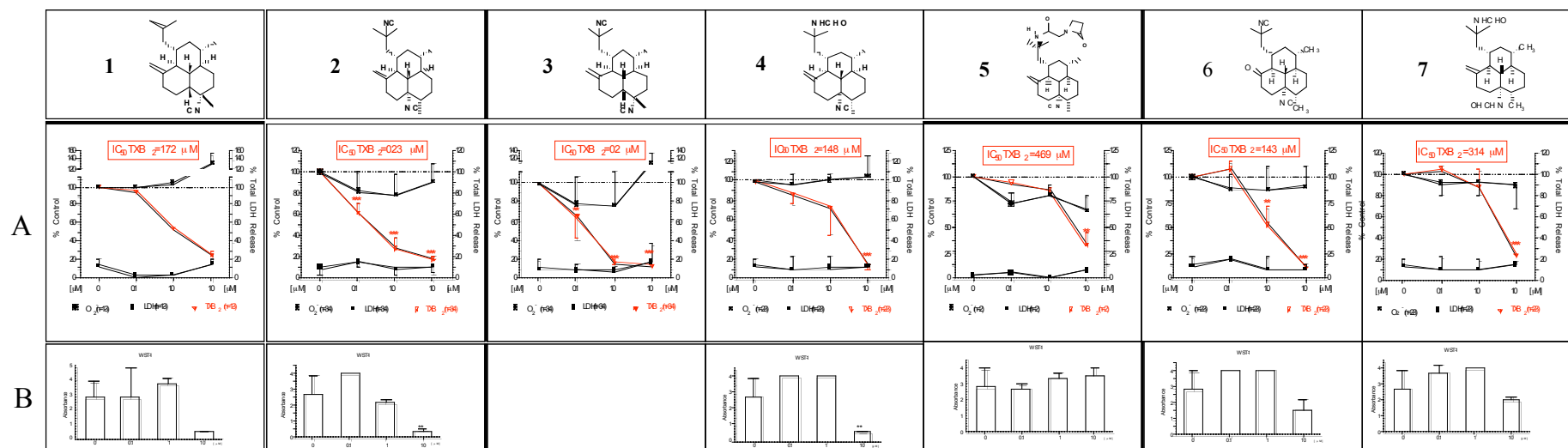


Figure 2. Differential effects of *Hymeniacionon* sp. amphilectane metabolites on PMA (1 μ M) -stimulated O_2^- and TXB₂ generation by LPS-activated rat neonatal microglia. (A) Rat neonatal microglia (200,000 cells/well) were activated with LPS (0.3 ng/mL) for 17 h. Compounds 1-7 were added 15 min before stimulation with PMA (1 μ M). After 70 min, PMA-triggered O_2^- , TXB₂ and LDH release (*short-term* viability) were measured as described in Methods. Data are expressed as percentage of control O_2^- and TXB₂ release triggered by PMA. Data show mean \pm SEM of 2-4 independent experiments. ** P < 0.01, *** P < 0.001. (B) *Long-term* cell viability (2.5-19 h) was determined by the WST-1 assay as described in Methods. Briefly, rat neonatal microglia (10,000 cells/well) plated in LPS-free 96-well cell culture clusters, were treated with compounds 1-7 (0.1 μ M – 10 μ M) or vehicle (DMSO). After 18 h, 20 μ L of the tetrazolium salt WST-1 was added, plates were incubated at 36 $^\circ$ C for 2 h, and reduction of the WST-1 reagent to formazan was measured at 450 nm. Data for compounds 1-7 are from one representative experiment in triplicate. * P < 0.05, ** P < 0.01.