

Supporting Information

Full Paper

Completion of the Total Synthesis of Several Bioactive Sarpagine/Macroline Alkaloids Including the Important NF- κ B Inhibitor *N*₄-Methyltalpinine^{#,§}

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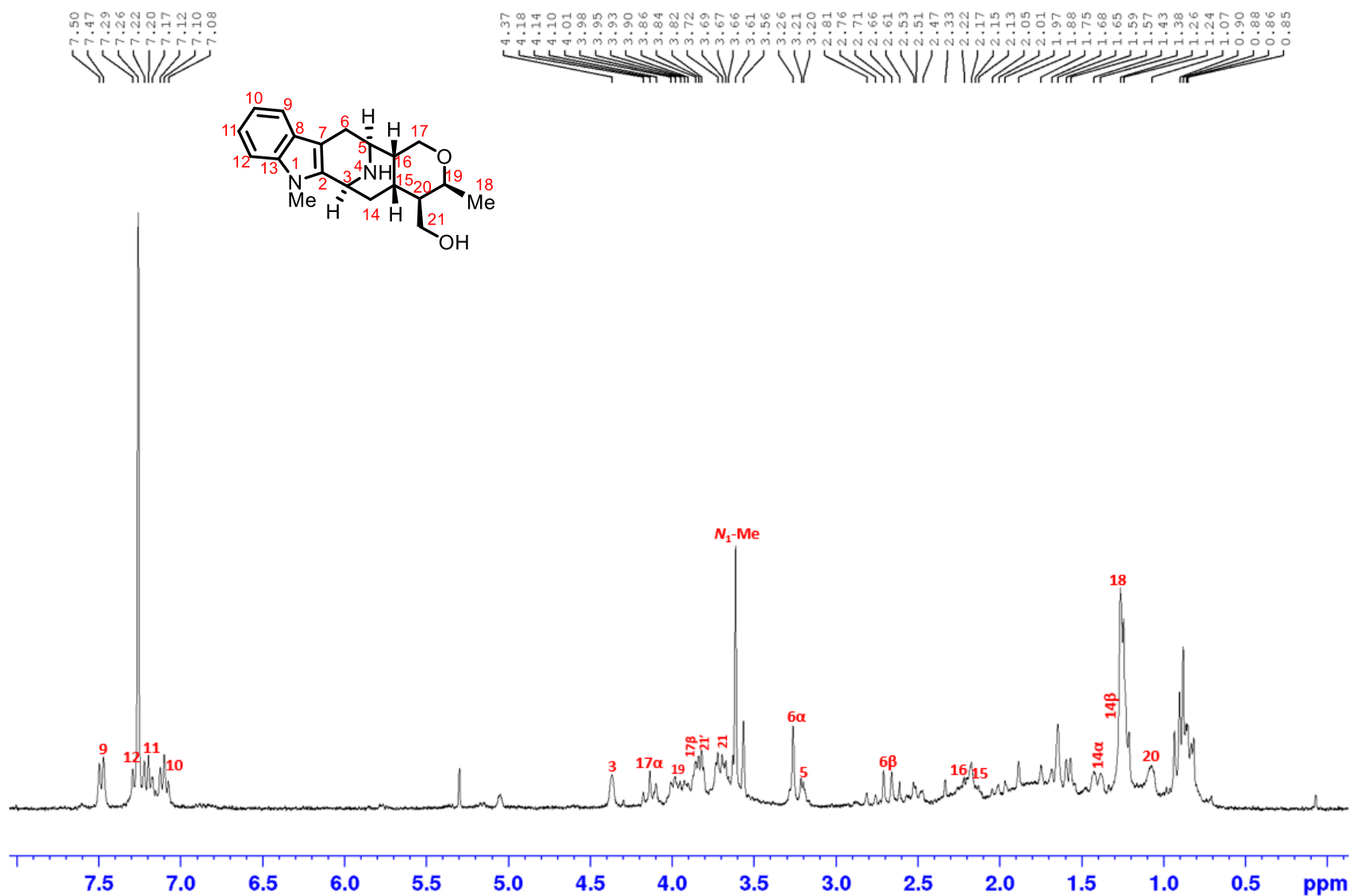
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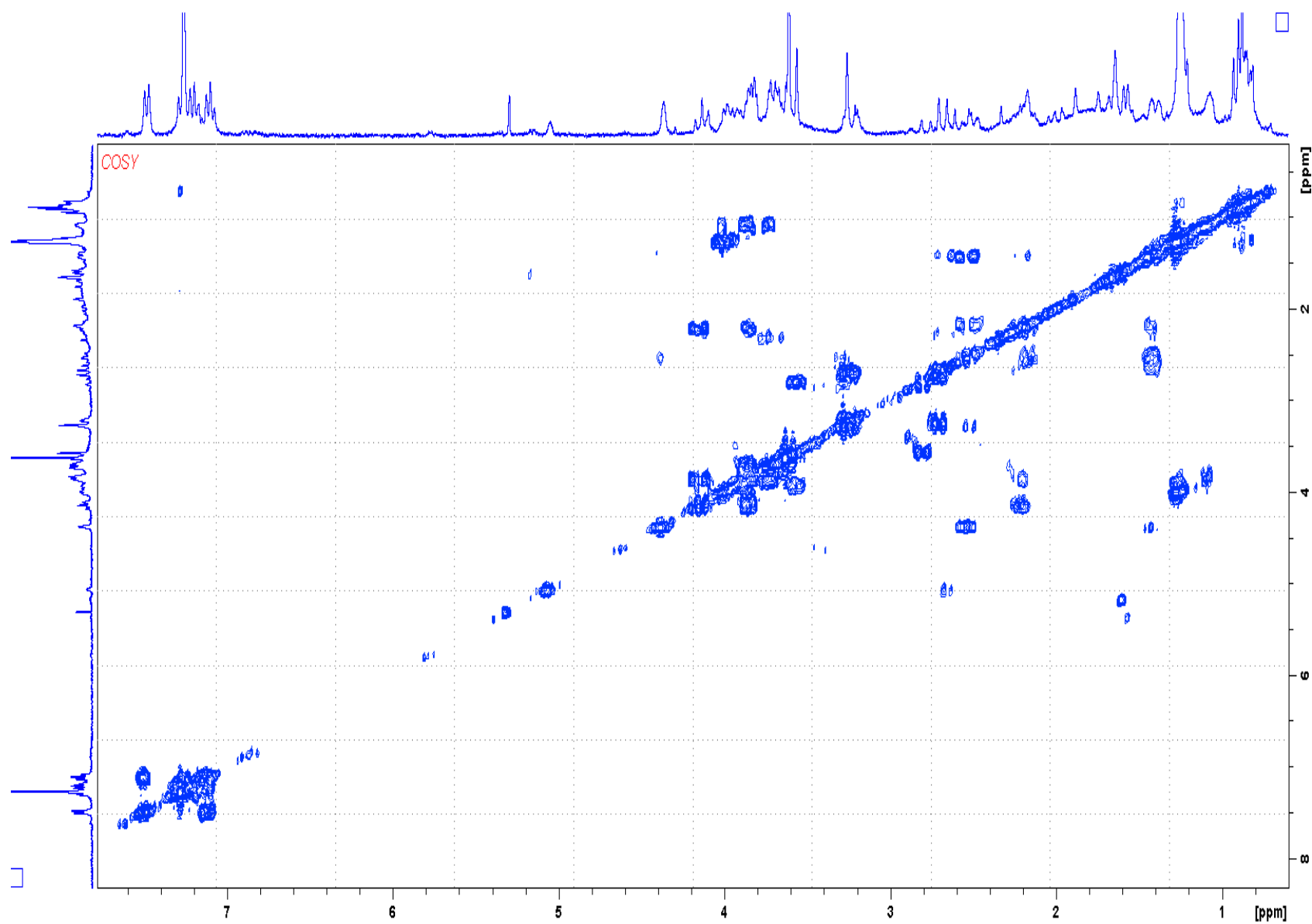
[#]This article is dedicated to Professor Daniel Comins for his outstanding contributions to Heterocyclic Chemistry and science as a whole.

[§]Taken in Parts from MTR's Doctoral Dissertation

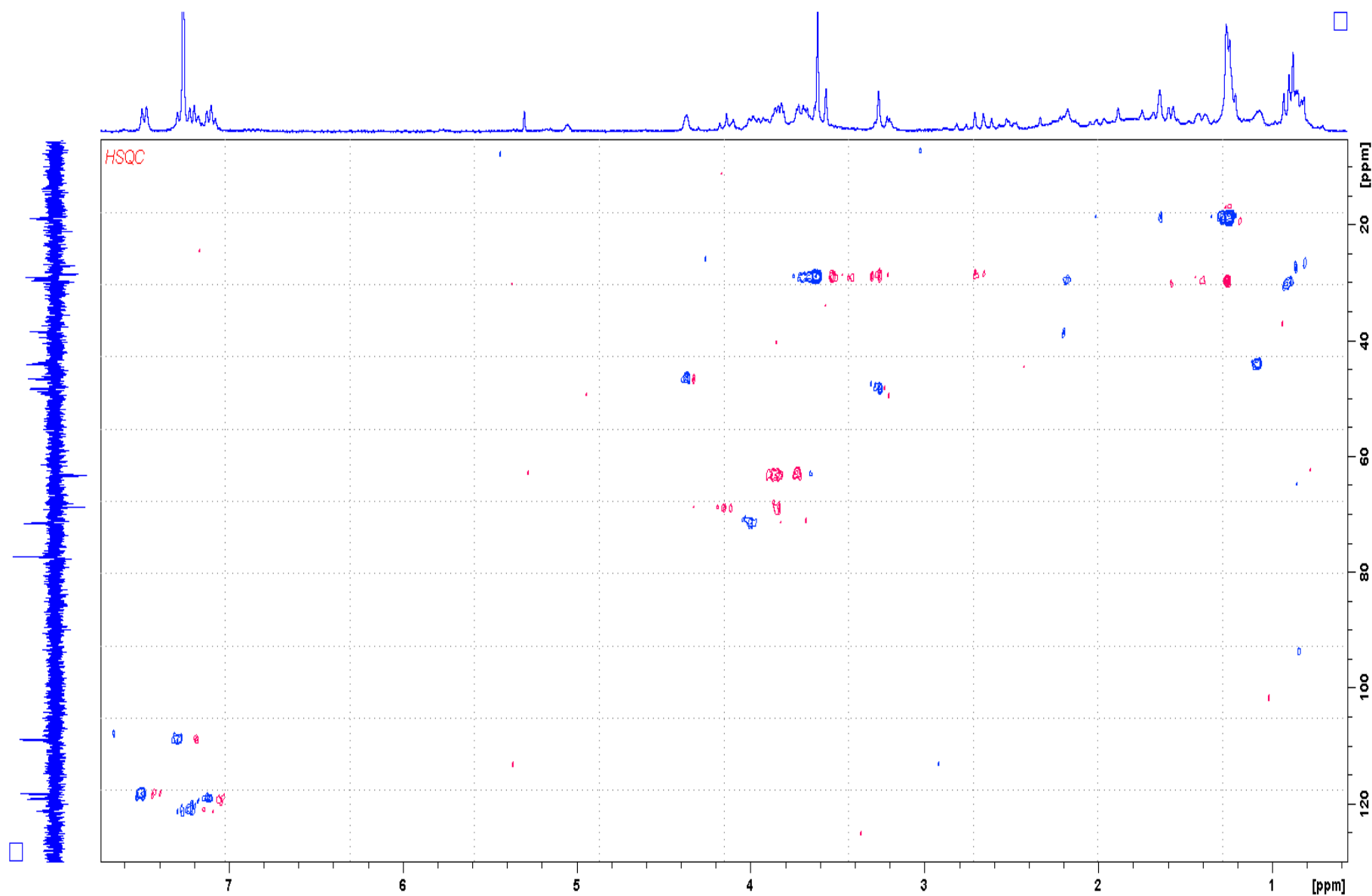
Section	Pages
1-D and 2-D NMR Spectra of alkaloids 6,7,10,11 , and 12	2-23



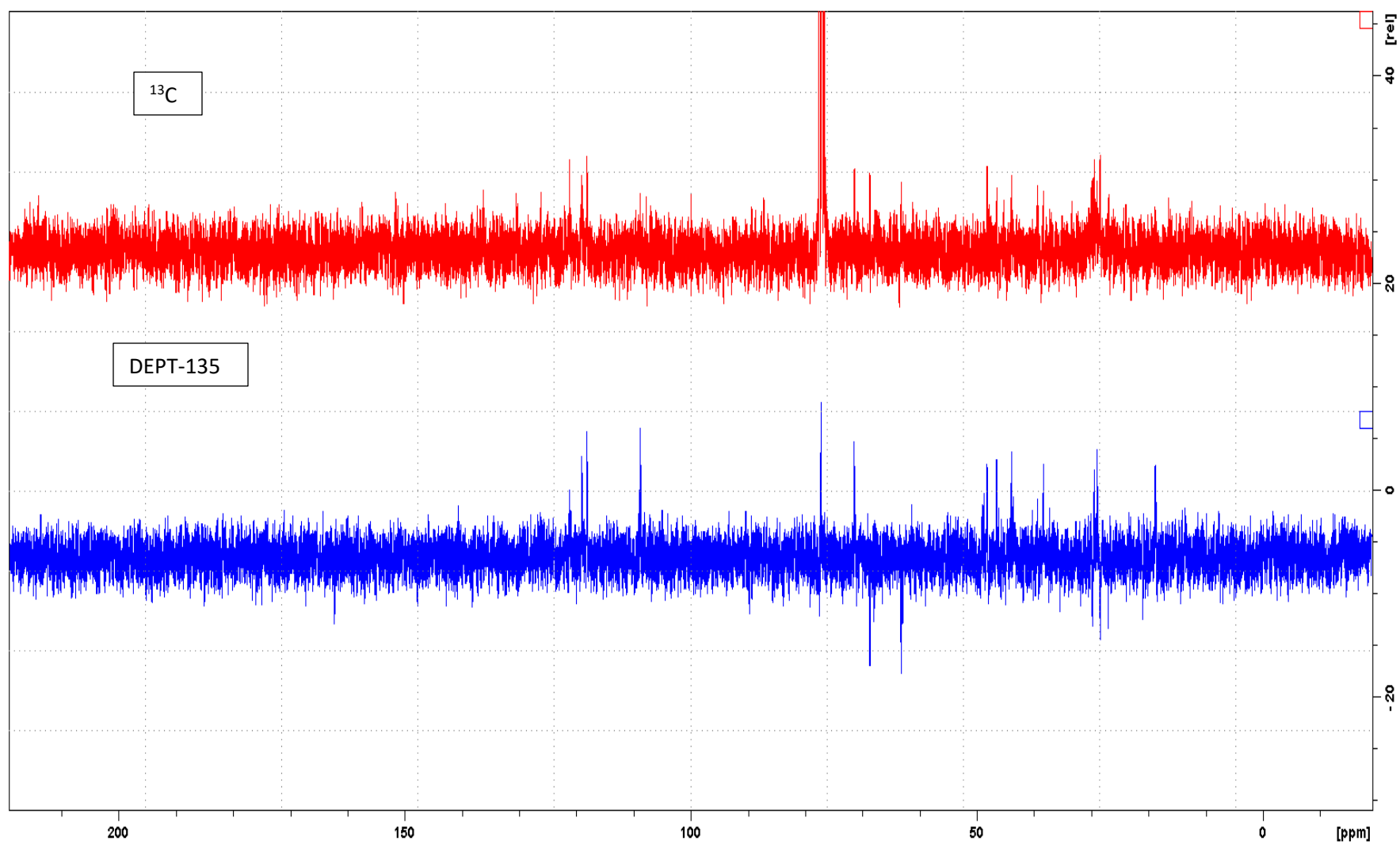
^1H NMR spectrum of macrocarpine F **6** (300 MHz, CDCl_3); Assignment is based on ^1H , DEPT-135, COSY and HSQC NMR correlations



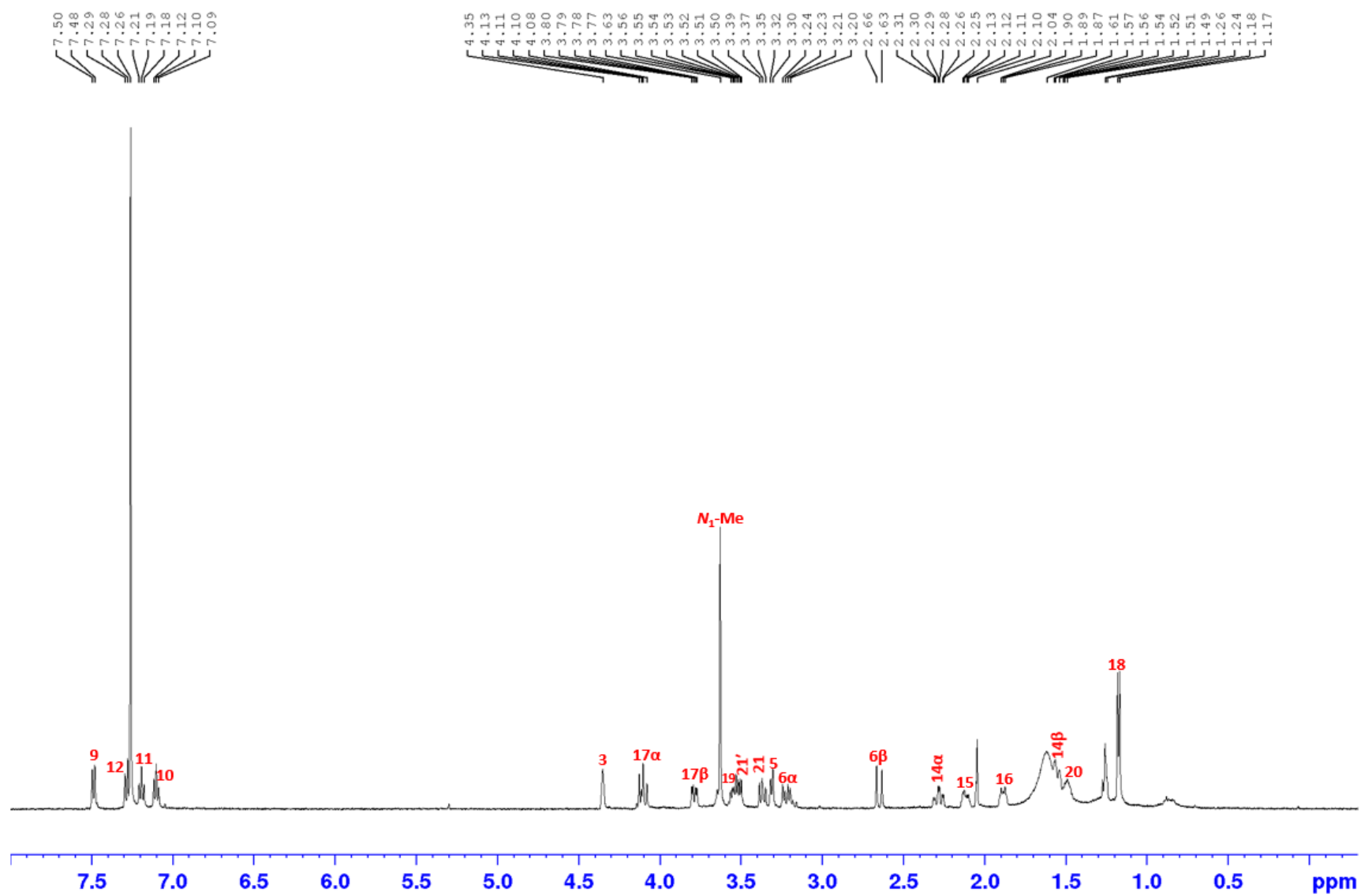
COSY NMR spectrum of macrocarpine F **6** (300 MHz, CDCl₃)



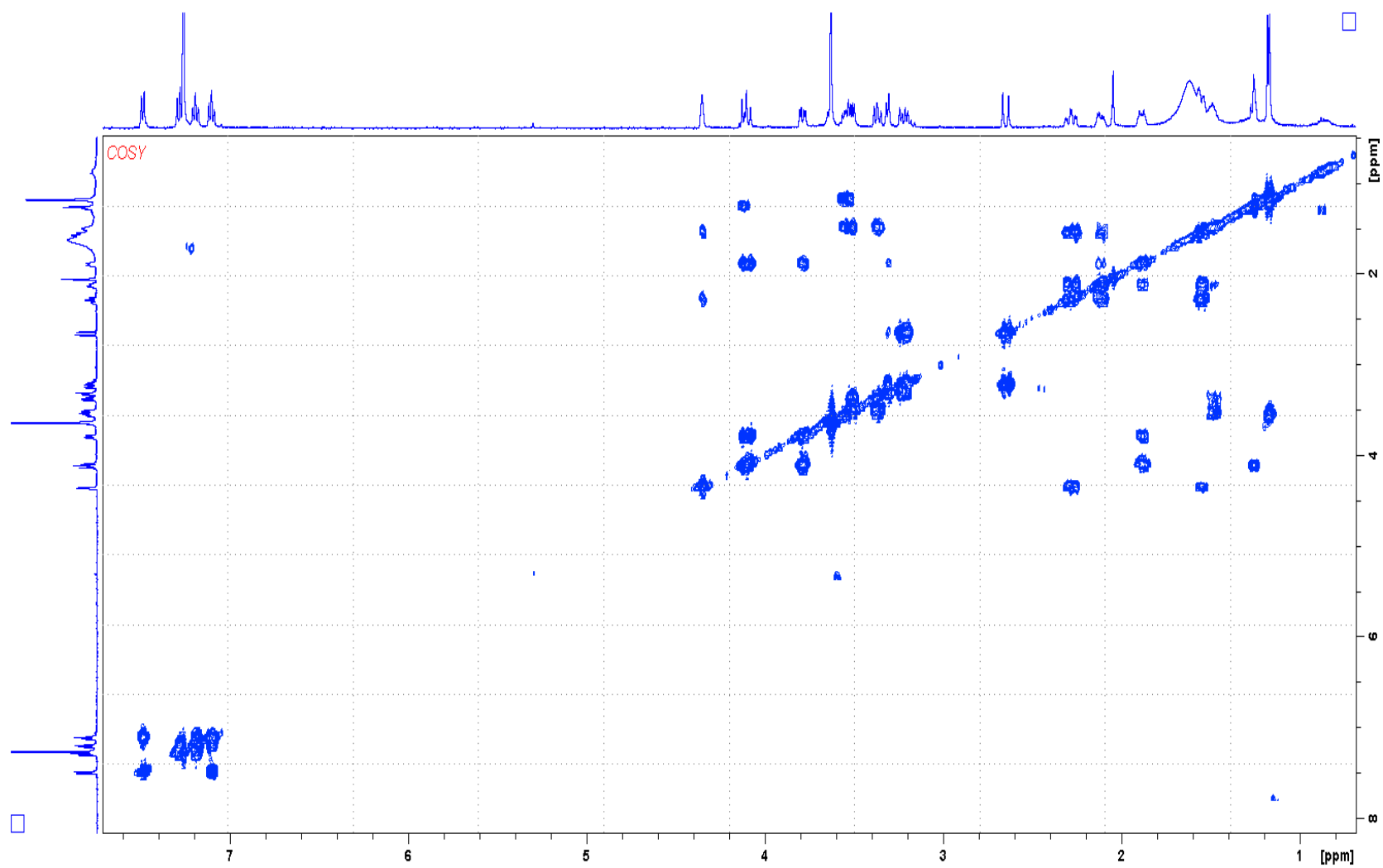
HSQC NMR spectrum of macrocarpine F 6 (300, 75 MHz, CDCl₃)



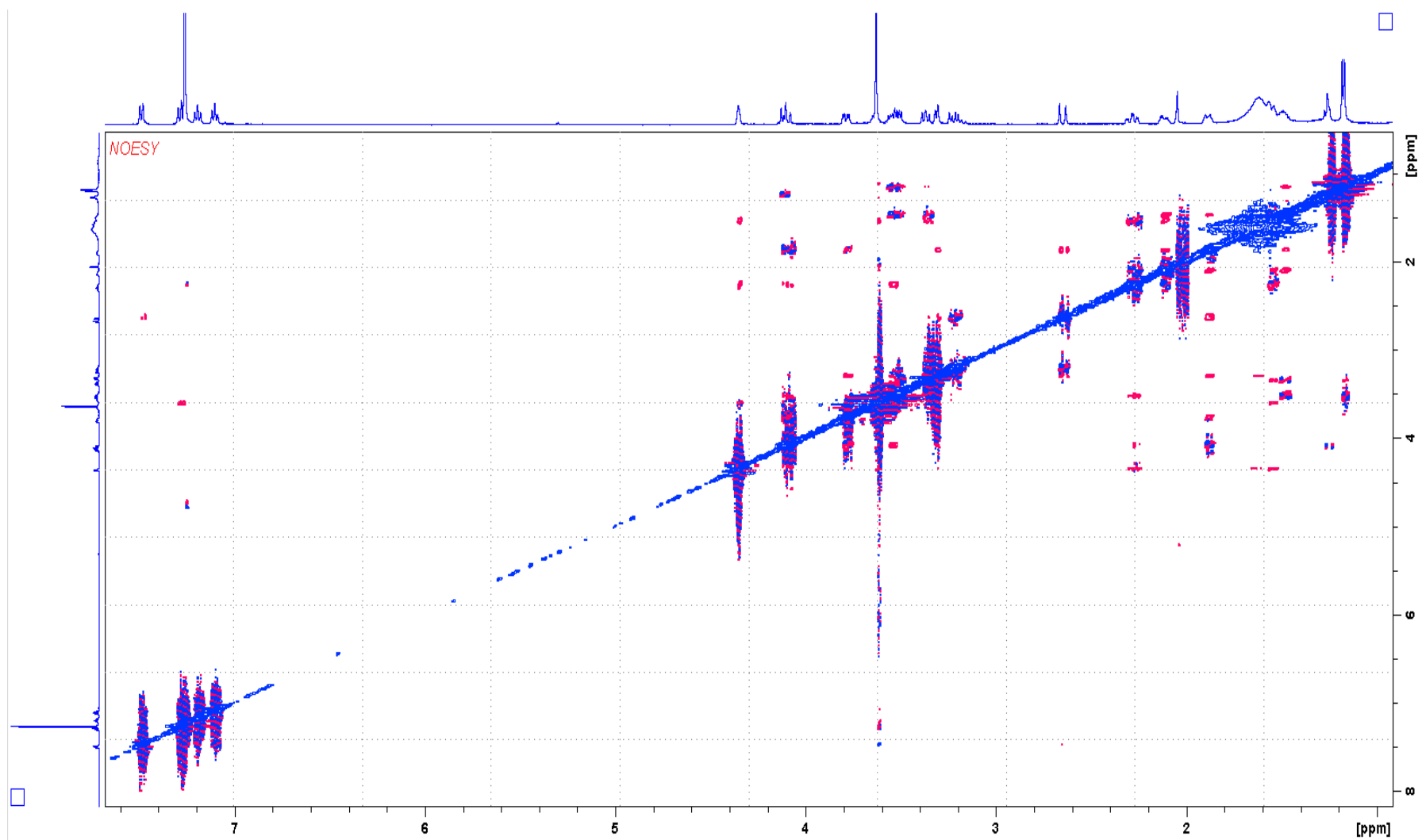
^{13}C and DEPT-135 NMR spectra of macrocarpine F 6 (75 MHz, CDCl_3)



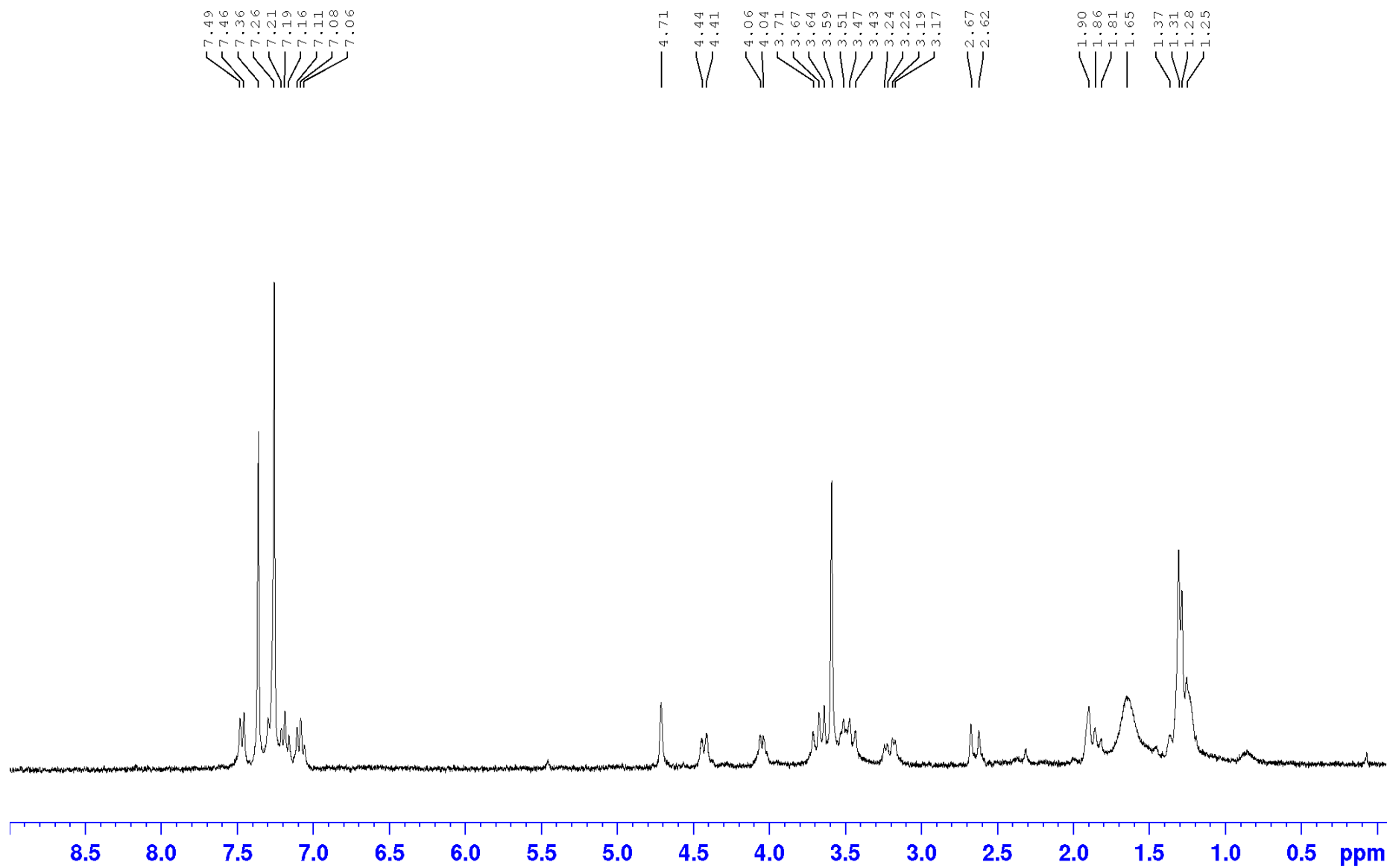
¹H NMR spectrum of synthetic macrocarpine G 7 (500 MHz, CDCl₃)



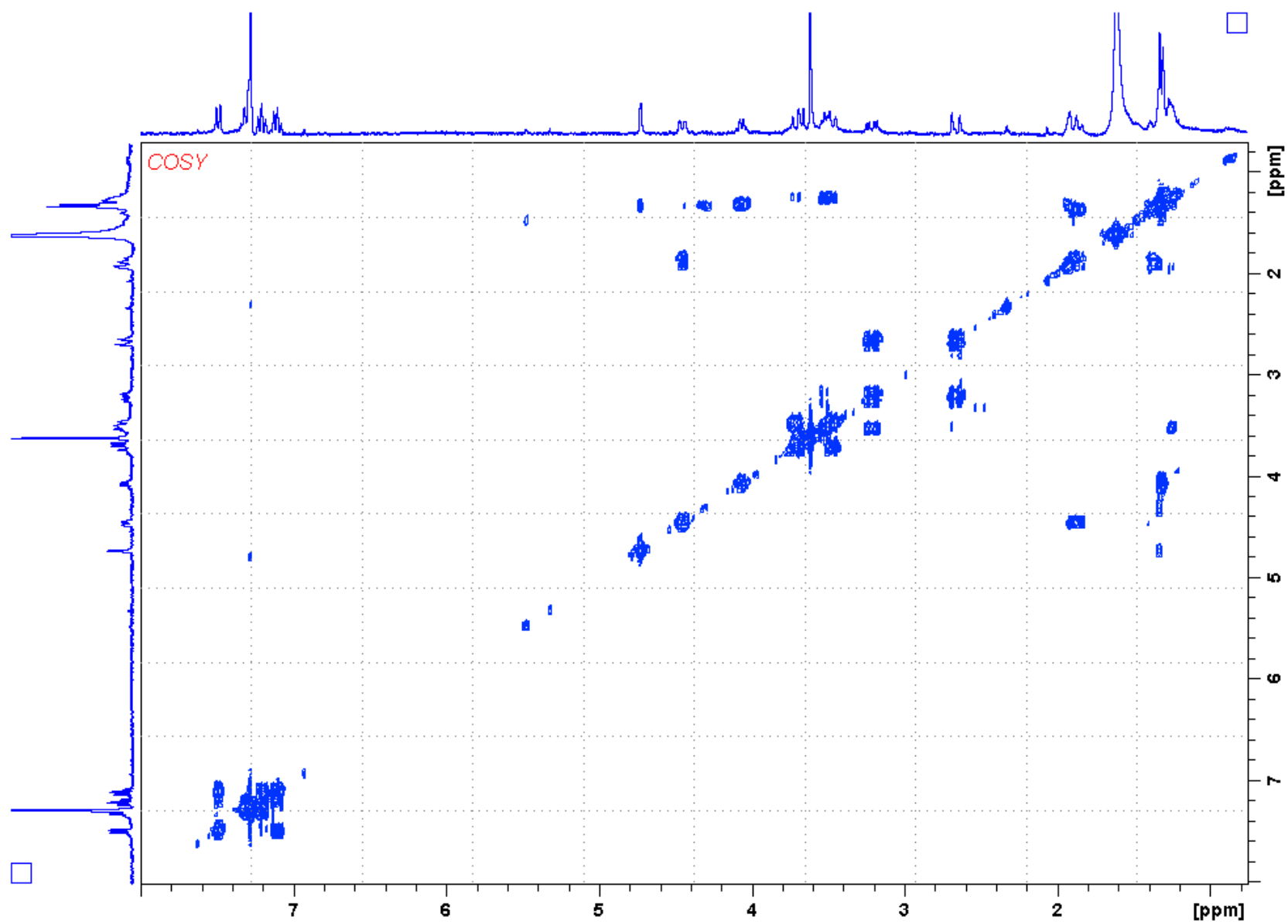
COSY NMR spectrum of synthetic macrocarpine G **7** (500 MHz, CDCl₃)



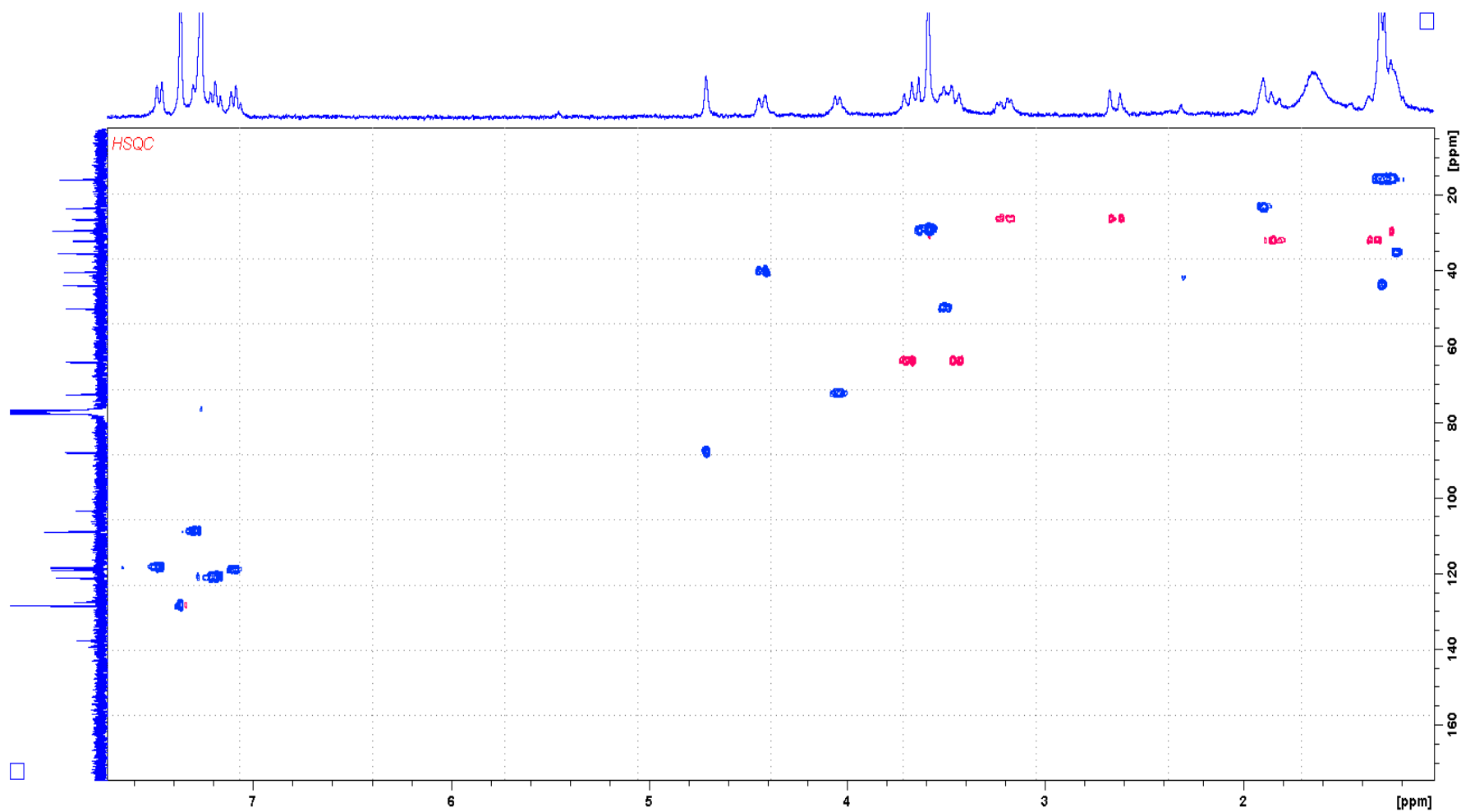
NOESY NMR spectrum of macrocarpine G **7** (500 MHz, CDCl₃)



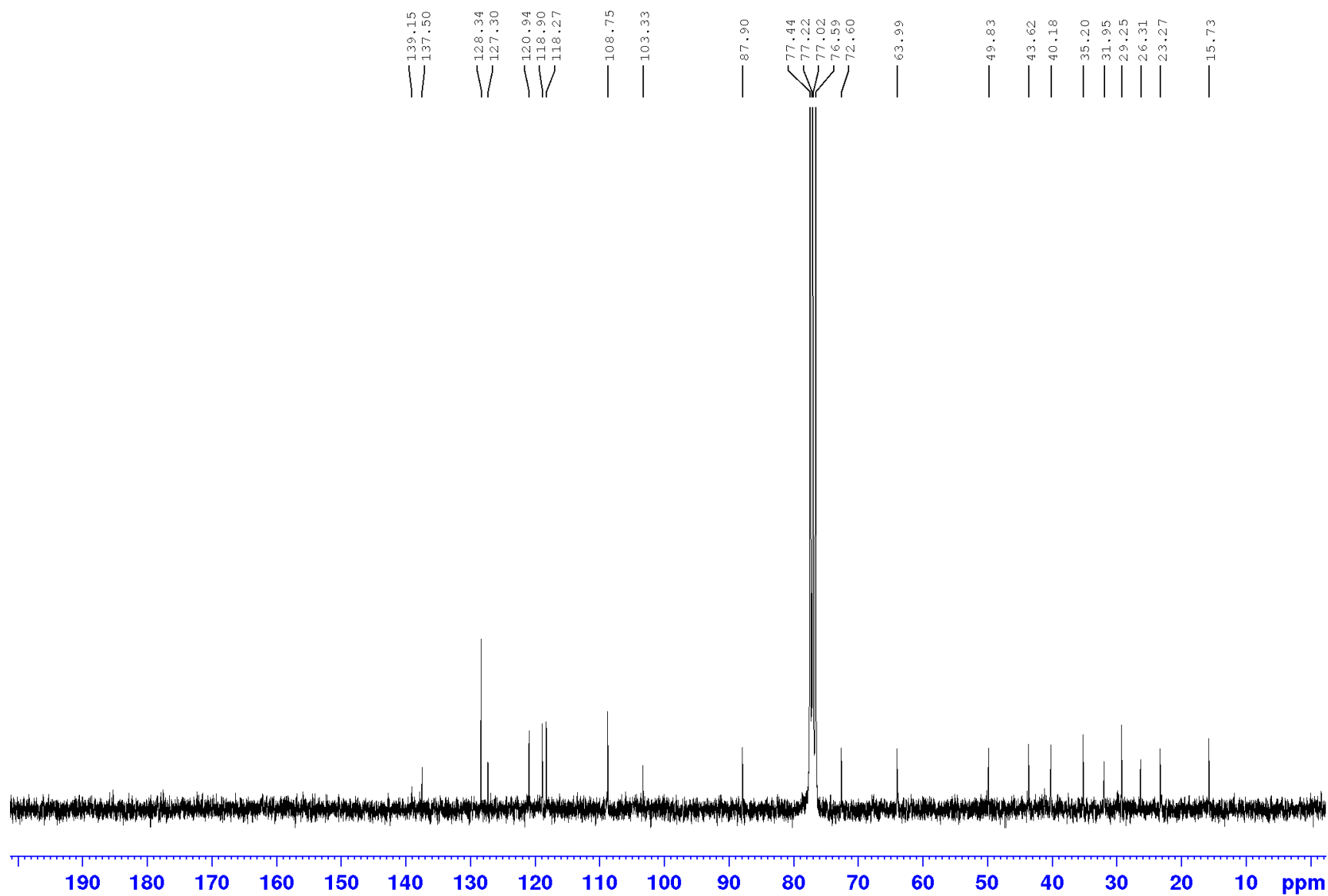
^1H NMR spectrum of talpinine **10** (300 MHz, CDCl_3)



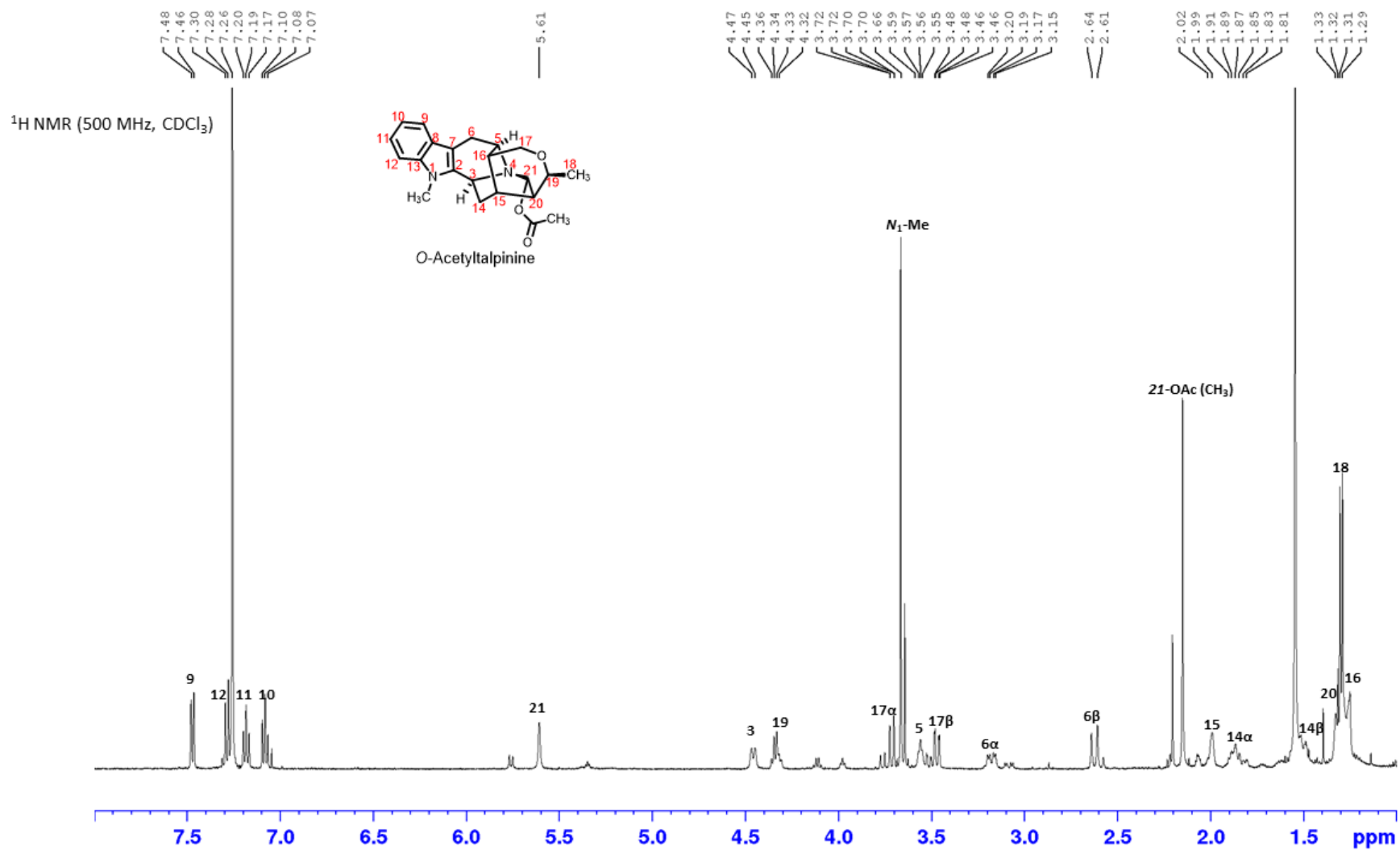
COSY NMR spectrum of talpinine **10** (300 MHz, CDCl_3)



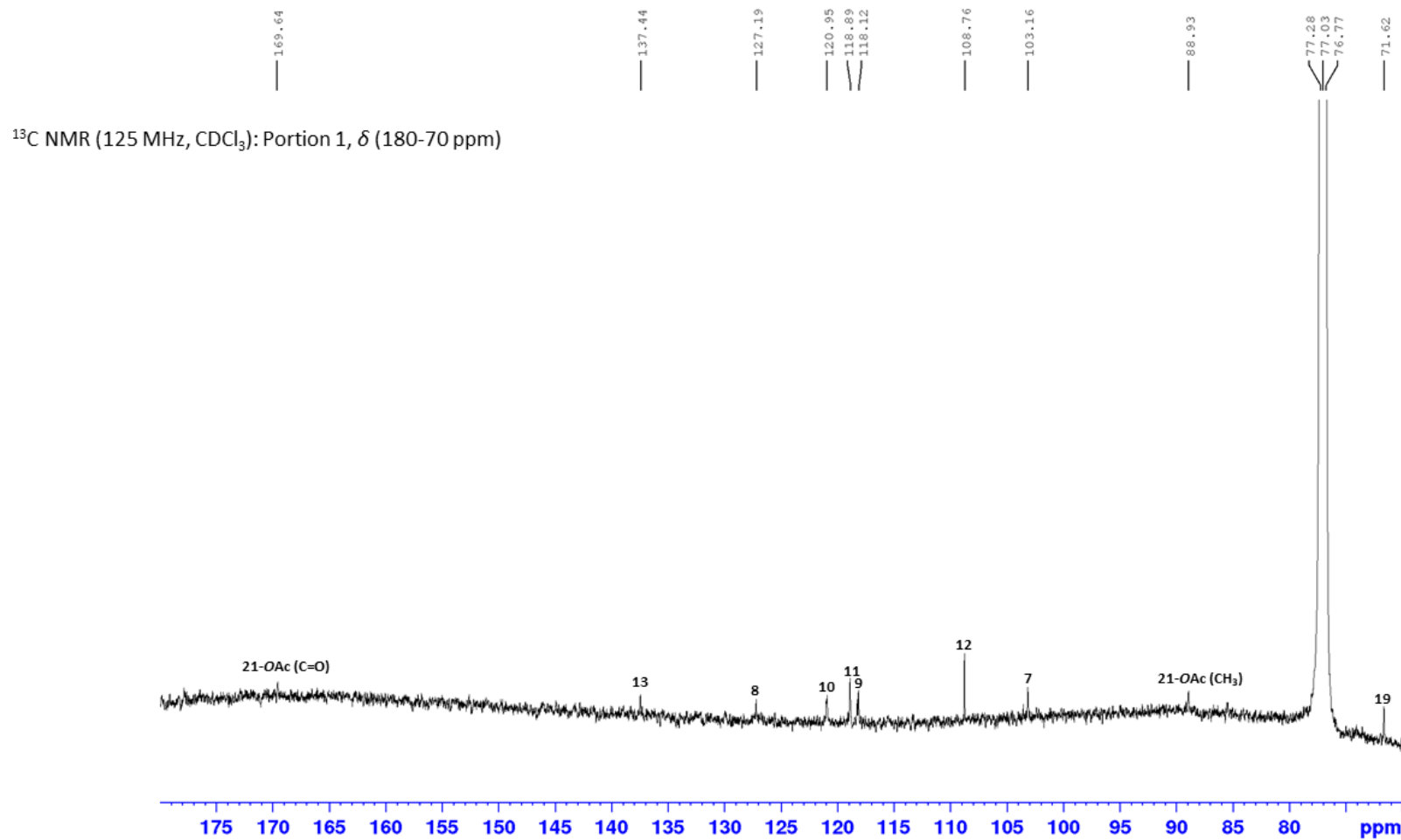
HSQC NMR spectrum of talpinine **10** (300, 75 MHz, CDCl_3)



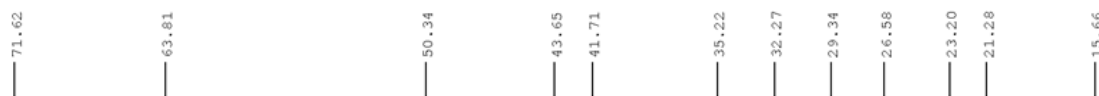
¹³C NMR spectrum of talpinine **10** (75 MHz, CDCl₃)



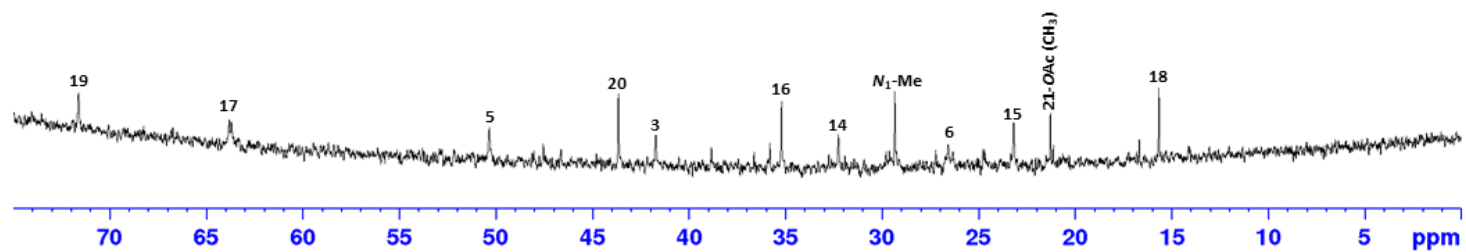
Assigned ¹H spectrum of *O*-acetyltalpinine **11** (500 MHz, CDCl₃). Assignment was based on ¹H, ¹³C and HSQC NMR correlations



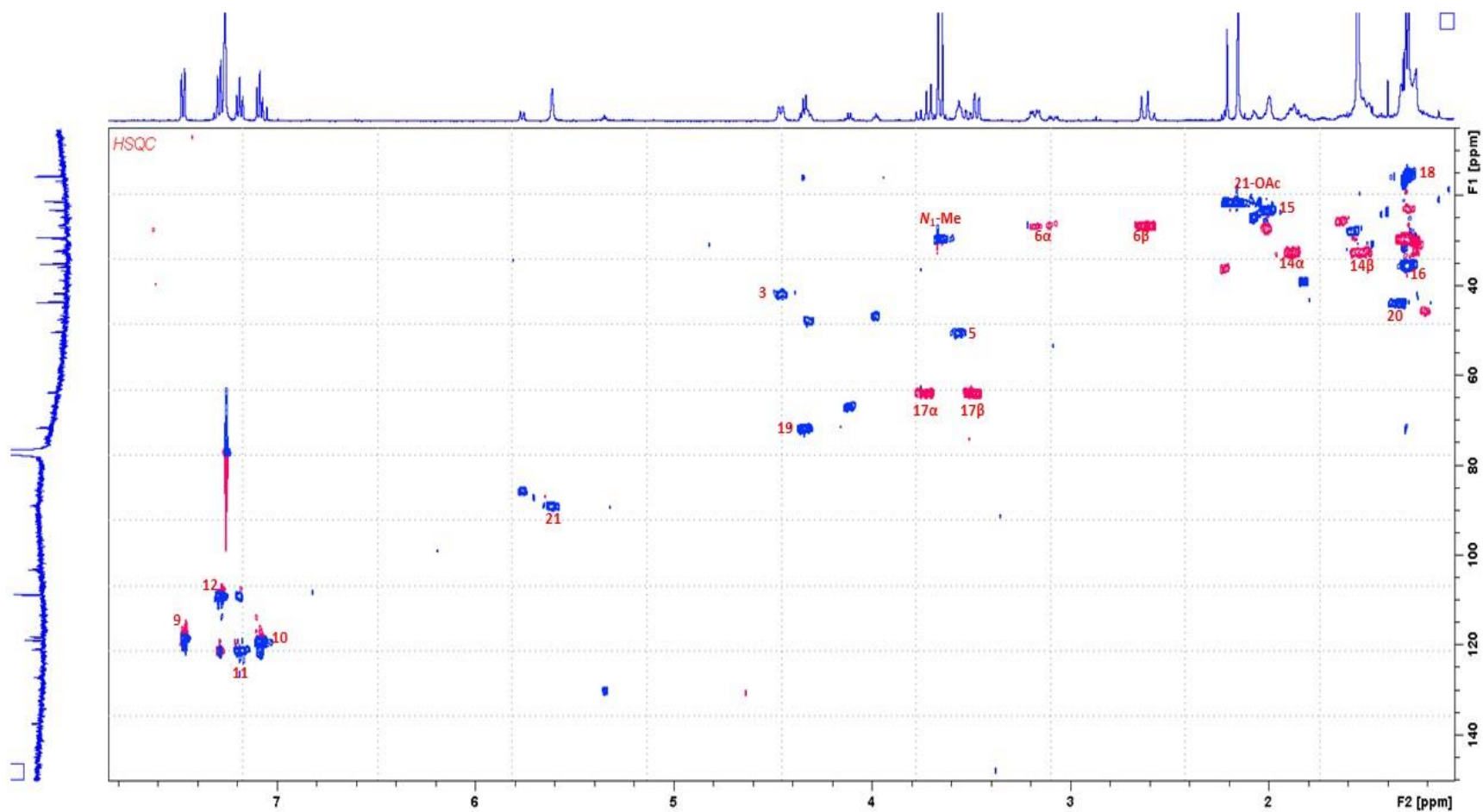
^{13}C NMR spectrum δ 180-70 ppm (125 MHz, CDCl_3) of *O*-acetylaltapinine **11** (Assignment is based on ^1H , ^{13}C and HSQC NMR correlations)



^{13}C NMR (125 MHz, CDCl_3): Portion 2, δ (75-0 ppm)



^{13}C NMR spectrum δ 75-0 ppm (125 MHz, CDCl_3) of *O*-acetylaltapinine **11**



Assigned HSQC NMR spectrum of *O*-Acetylaltapinine **11** (500, 125 MHz, CDCl₃)

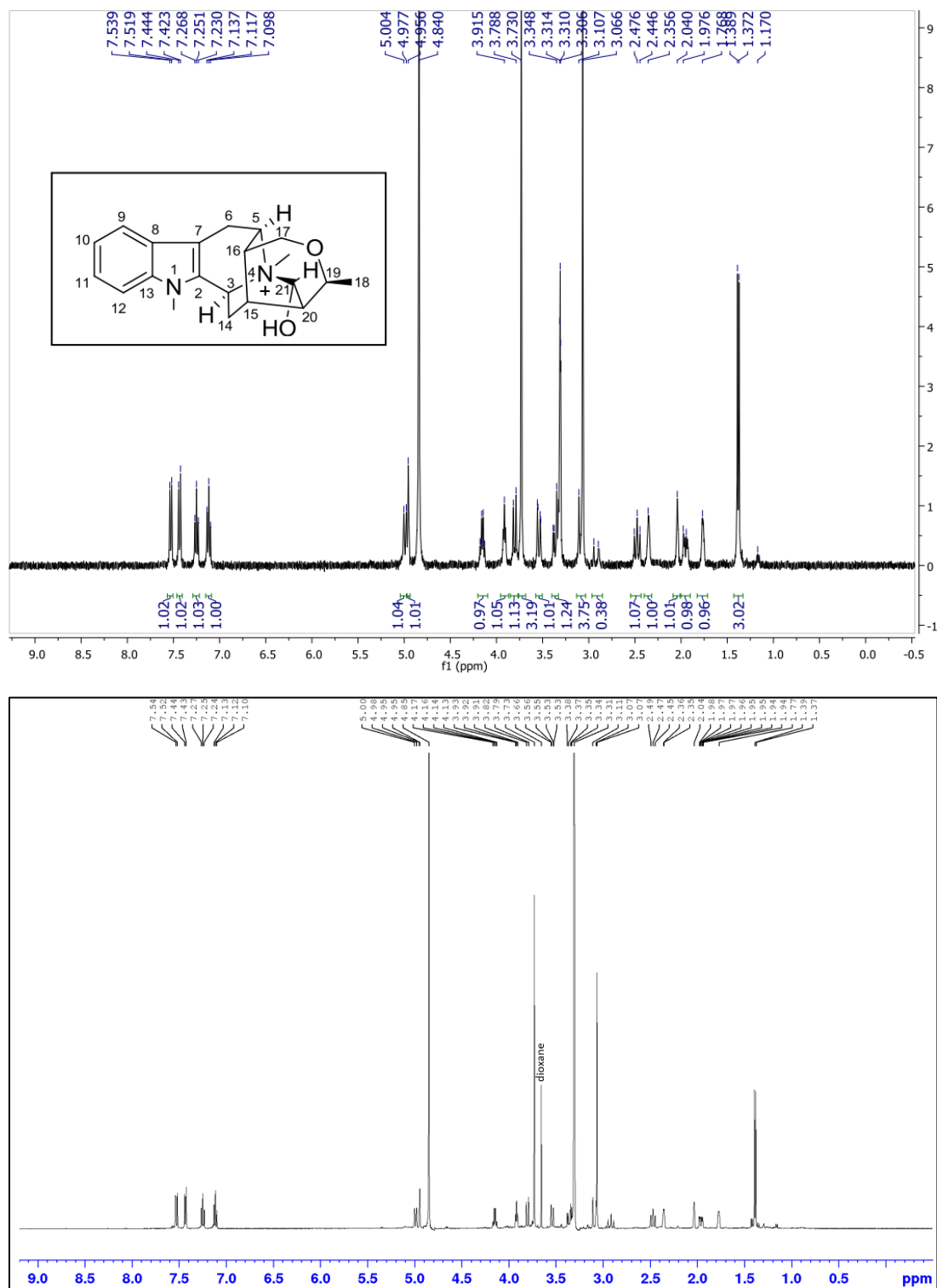
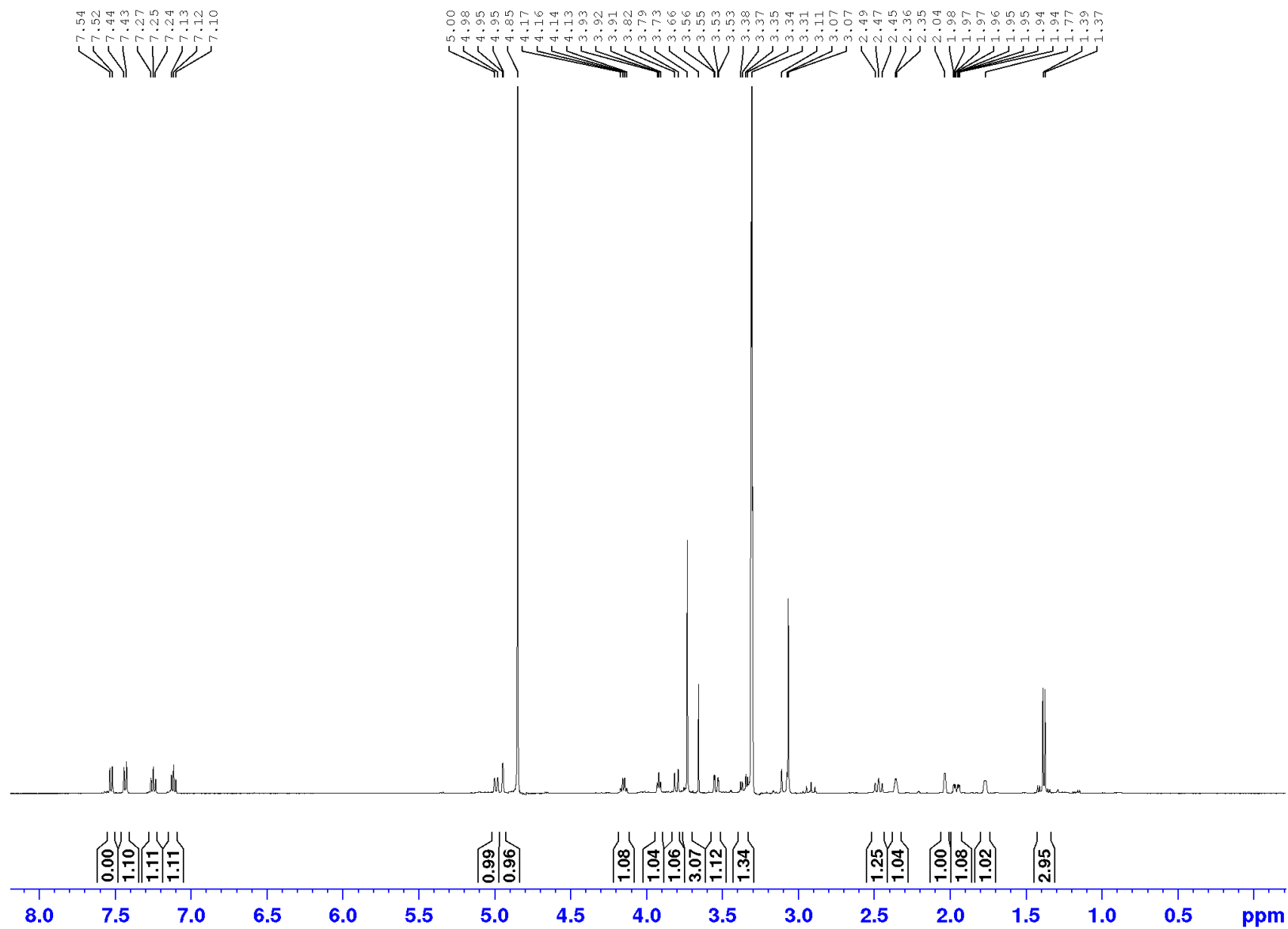
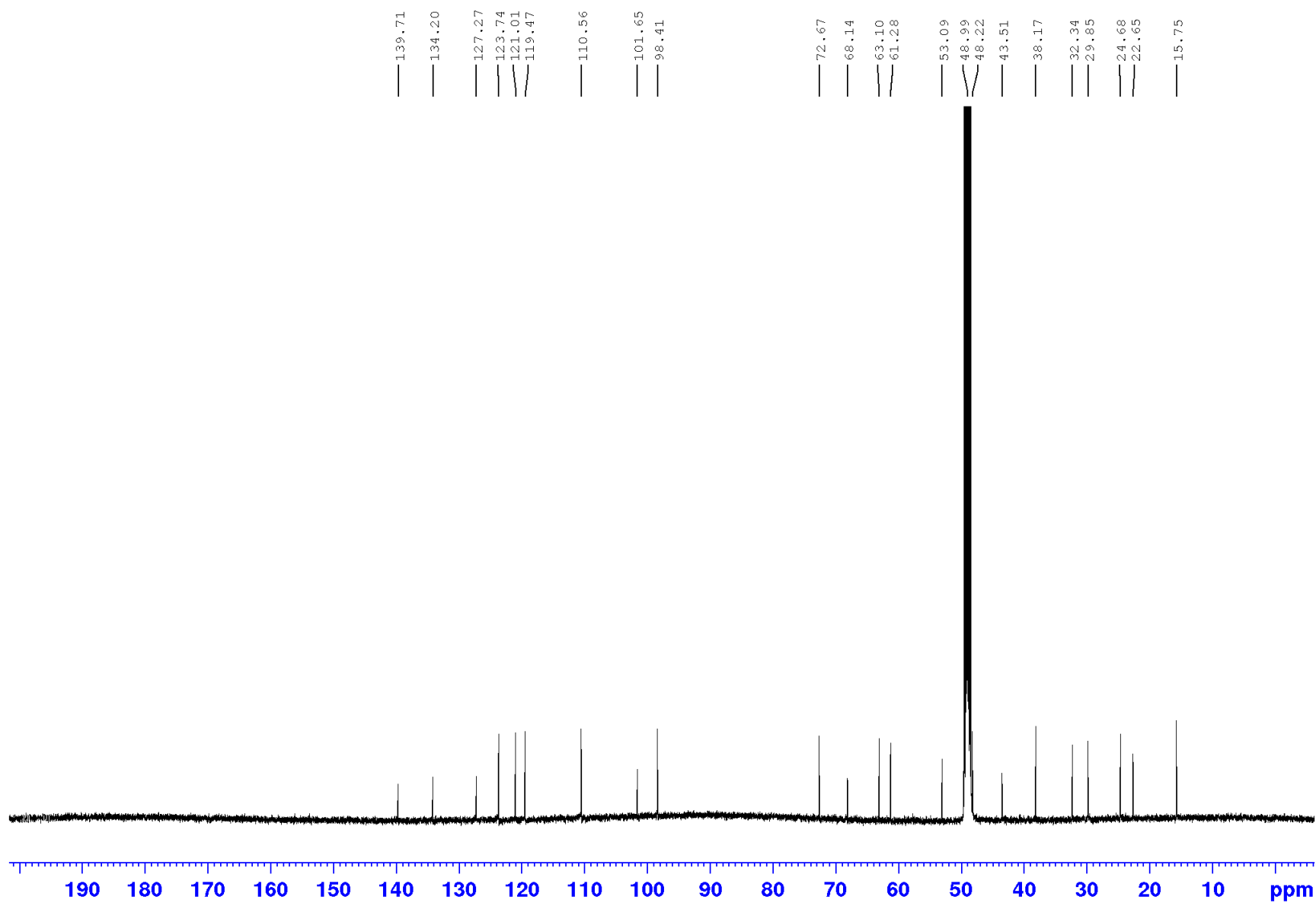


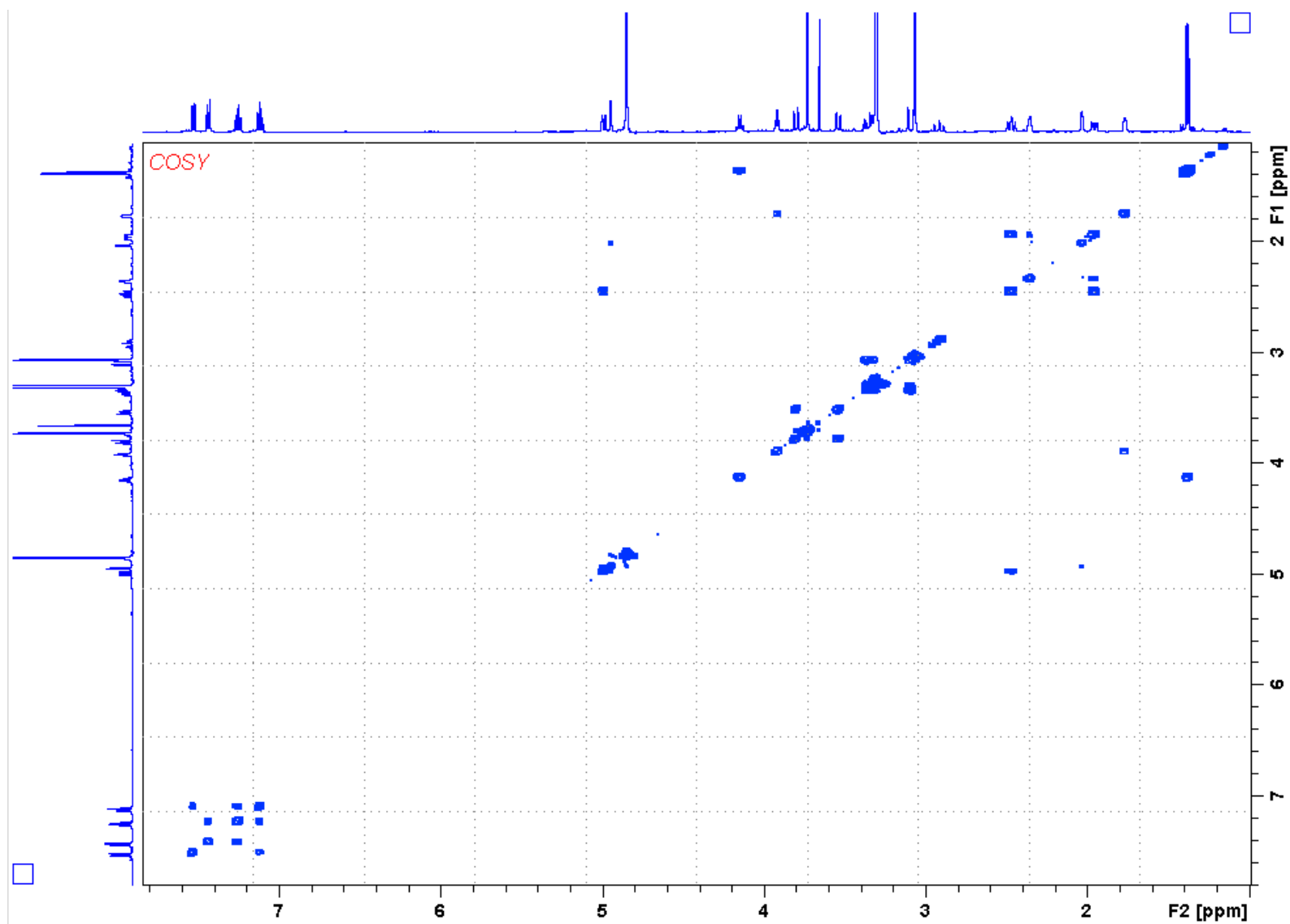
Figure S1. Comparison between the ^1H NMR spectra of natural¹² and synthetic N_4 -methyl talpinine 12.



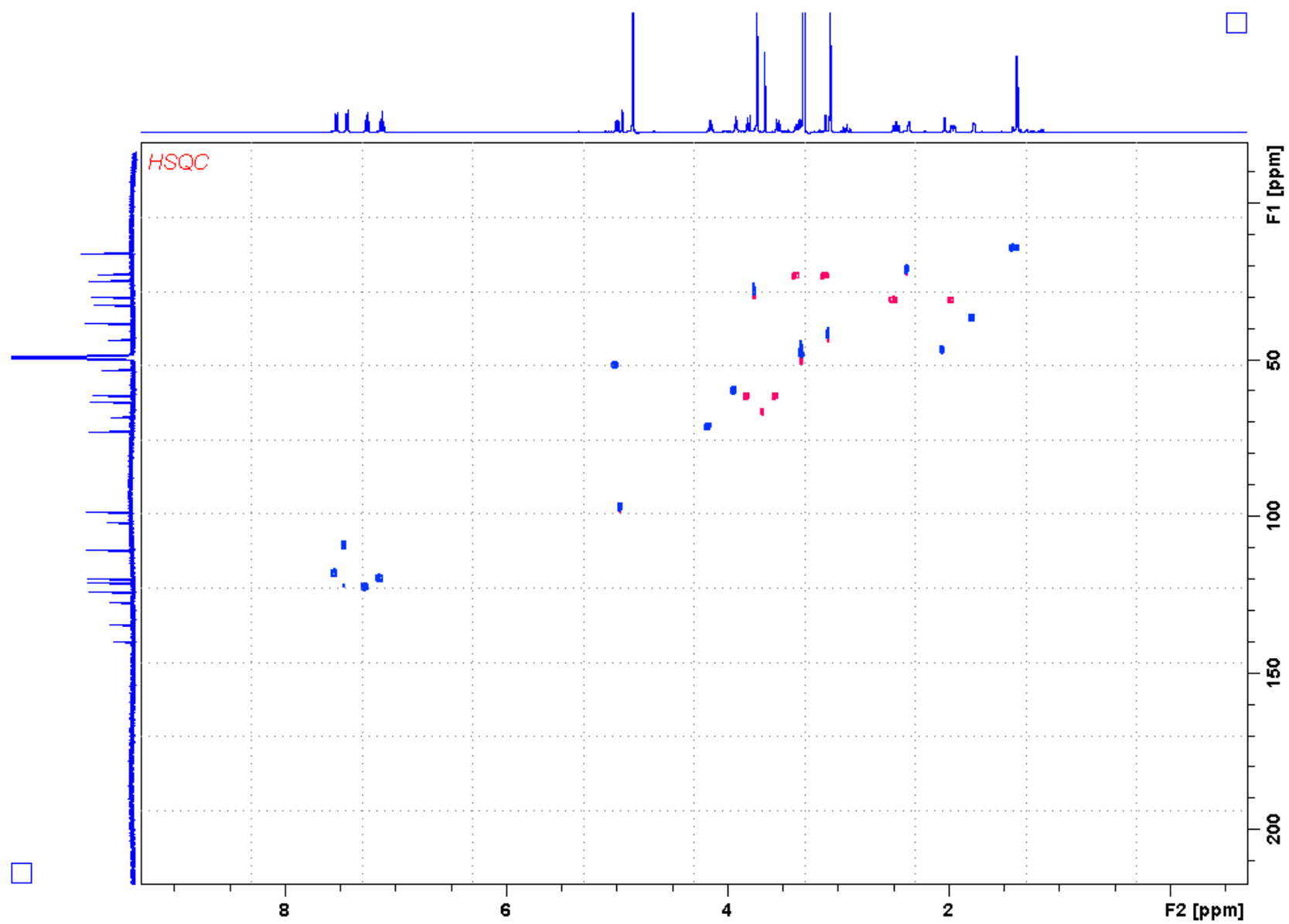
^1H NMR spectrum of synthetic N_4 -methyltalpinine **12** (500 MHz, CD_3OD)



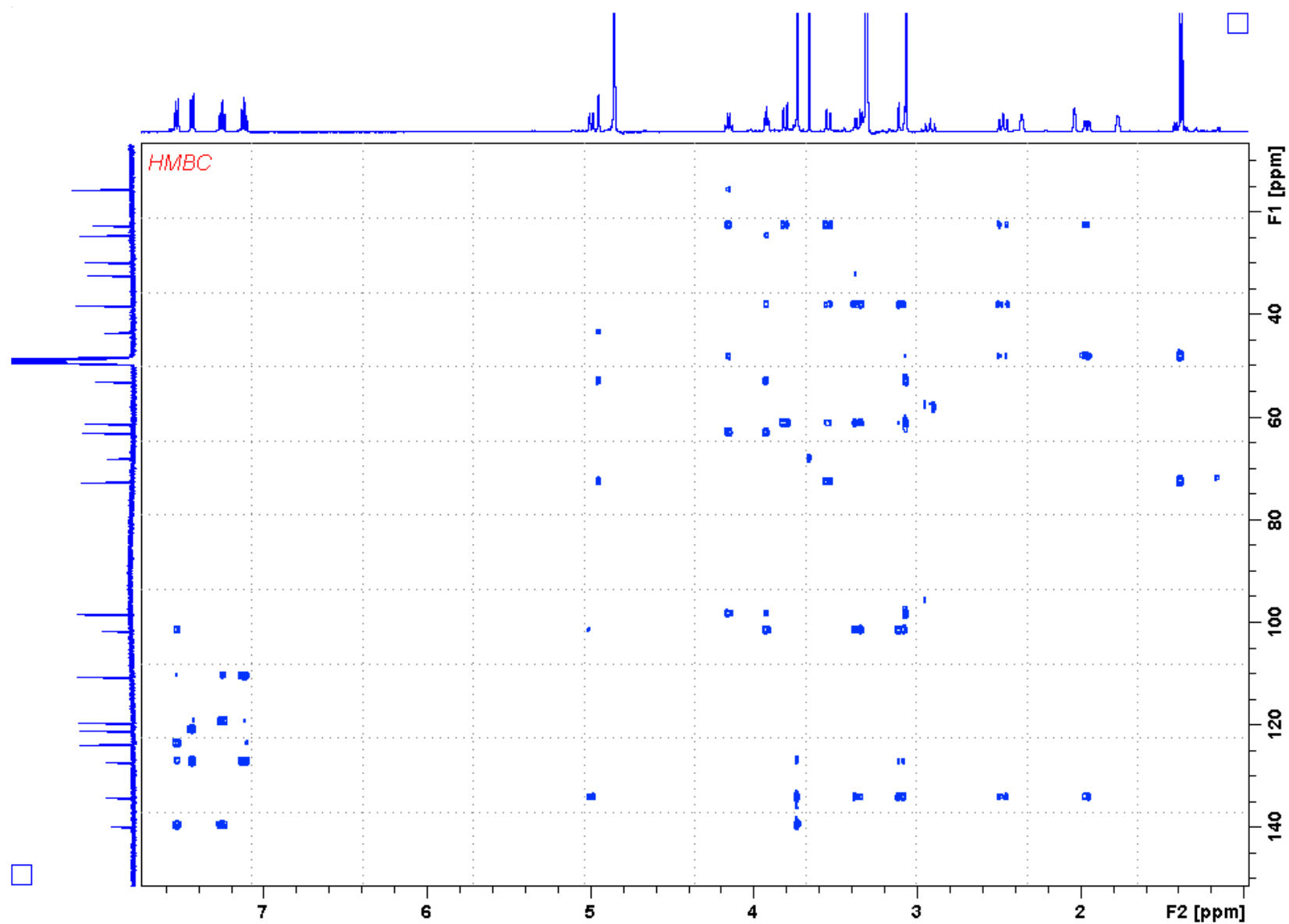
^{13}C NMR spectrum of synthetic *N*₄-methyltalpinine **12** (125 MHz, CD₃OD)



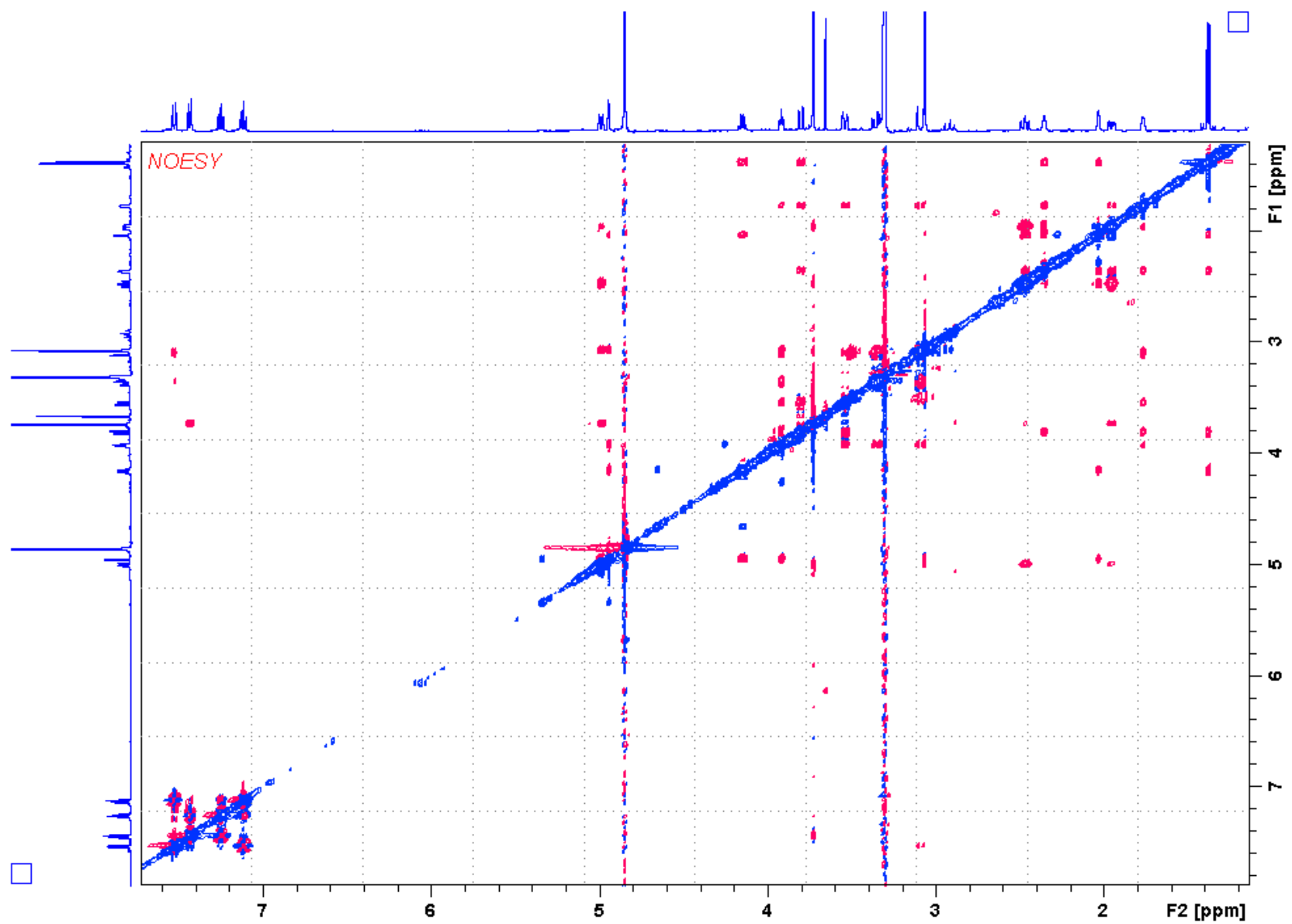
COSY NMR spectrum of synthetic *N*₄-methyltalpinine **12** (500 MHz, CD₃OD)



HSQC NMR spectrum of synthetic *N*₄-methyltalpinine **12** (500, 125 MHz, CD₃OD)



HMBC NMR spectrum of synthetic *N*₄-methyltalpinine **12** (500, 125 MHz, CD₃OD)



NOESY NMR spectrum of synthetic *N*₄-methyltalpinine **12** (500 MHz, CD₃OD)