

รายการอ้างอิง

สุรินทร์ มัจฉาธิพ. 2532. สัตว์ชายฝั่งทะเลไทย. กรุงเทพมหานคร : สำนักพิมพ์แพรวพริษา.



ศูนย์วิทยทรัพยากร
จุฬาลงกรณ์มหาวิทยาลัย

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APPENDIX

ศูนย์วิทยทรัพยากร
จุฬาลงกรณ์มหาวิทยาลัย



จุฬาลงกรณ์มหาวิทยาลัย

Figure 6 A Thai marine sponge *Petrosia* sp.

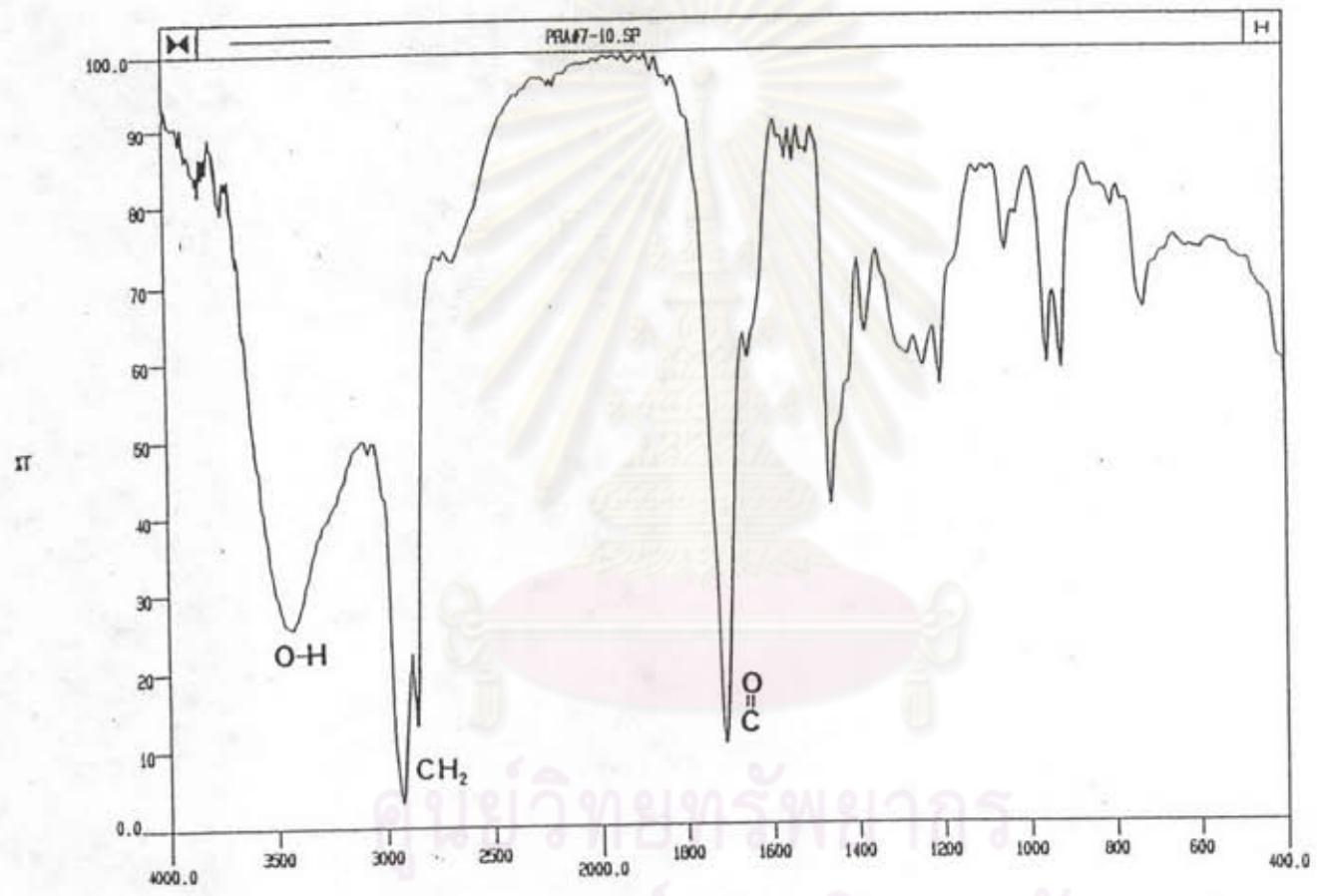


Figure 7 The infrared absorption spectrum of the pool B-2

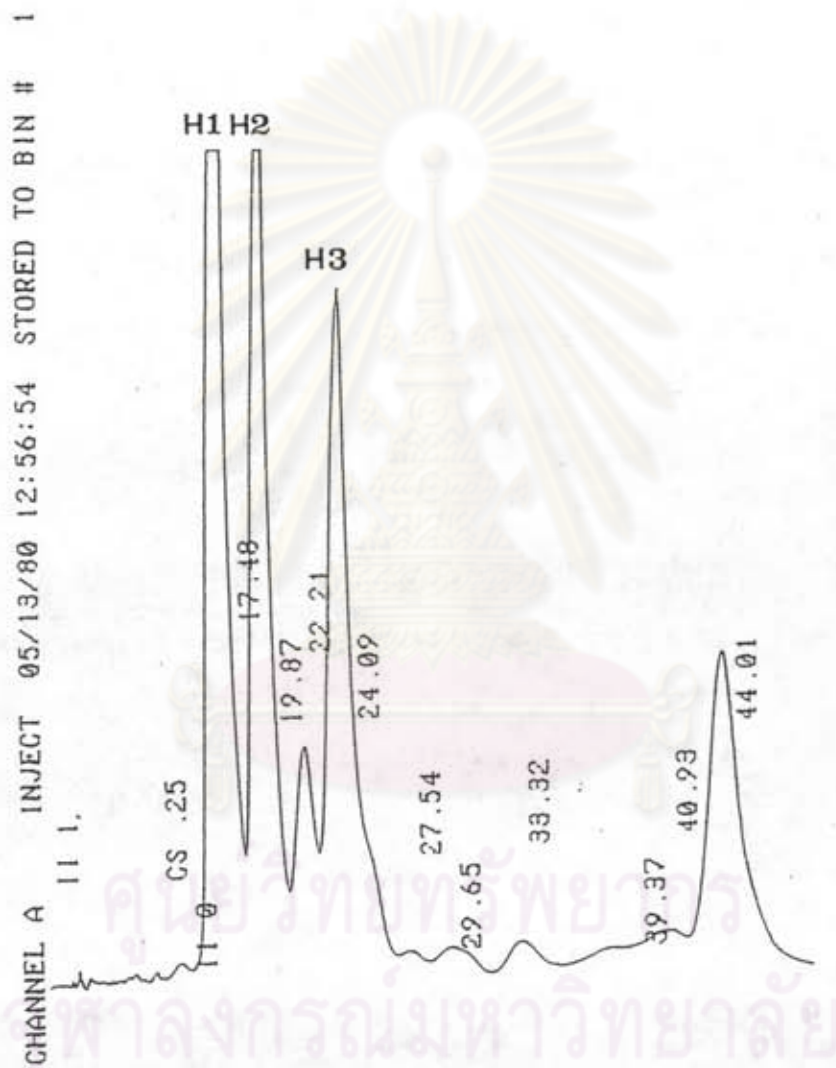


Figure 8 The HPLC chromatogram of the pool B-22

Mobile phase: Acetonitrile/Water 75/25

Stationary phase: Bondac10C18 (7.8 × 300 mm)

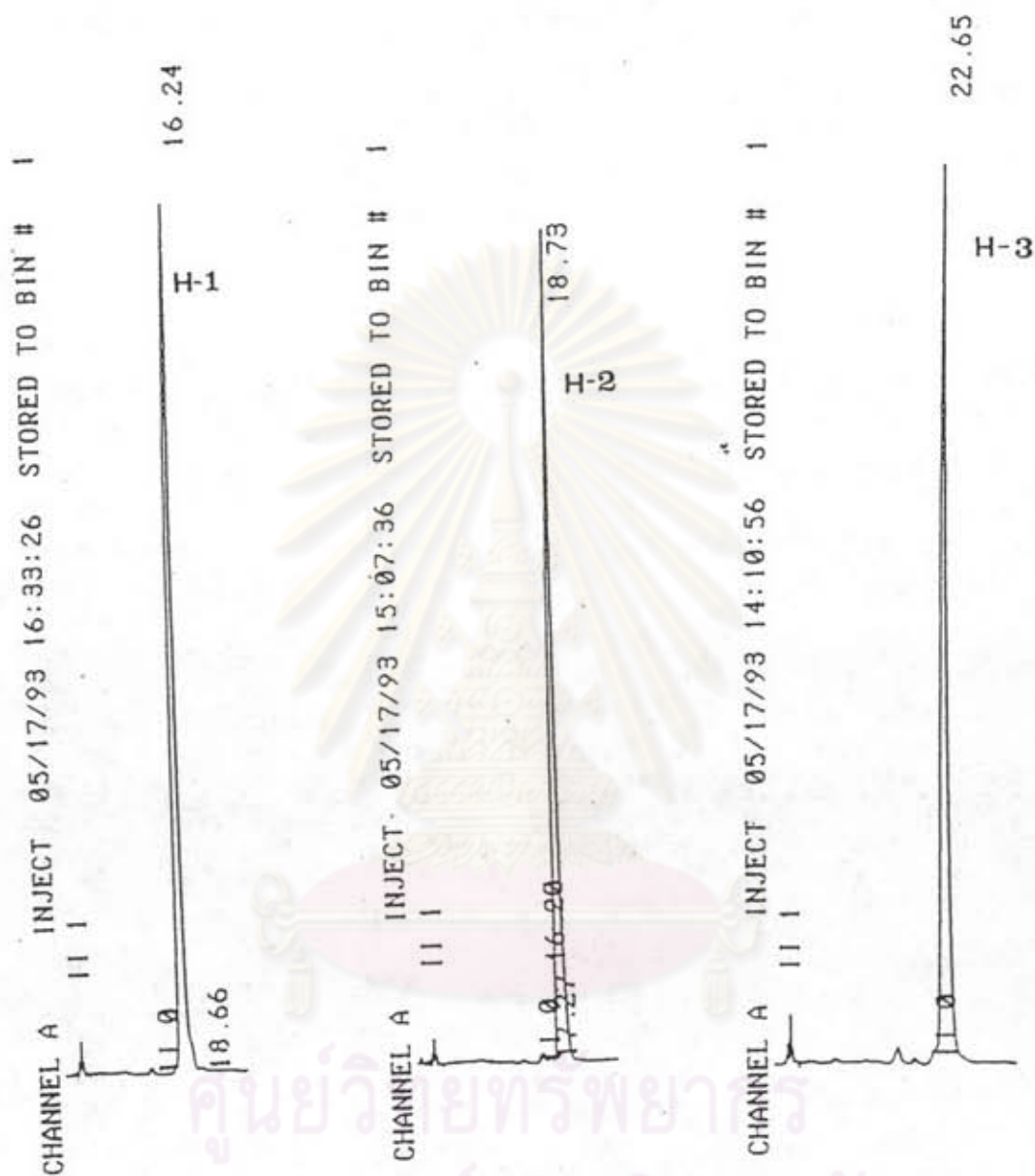


Figure 9 The HPLC chromatograms of compounds H-1, H-2, and H-3

Mobile phase: Acetonitrile/Water 80/20

Stationary phase: S10ODS2 Phase Sep (4.6 × 250 mm)

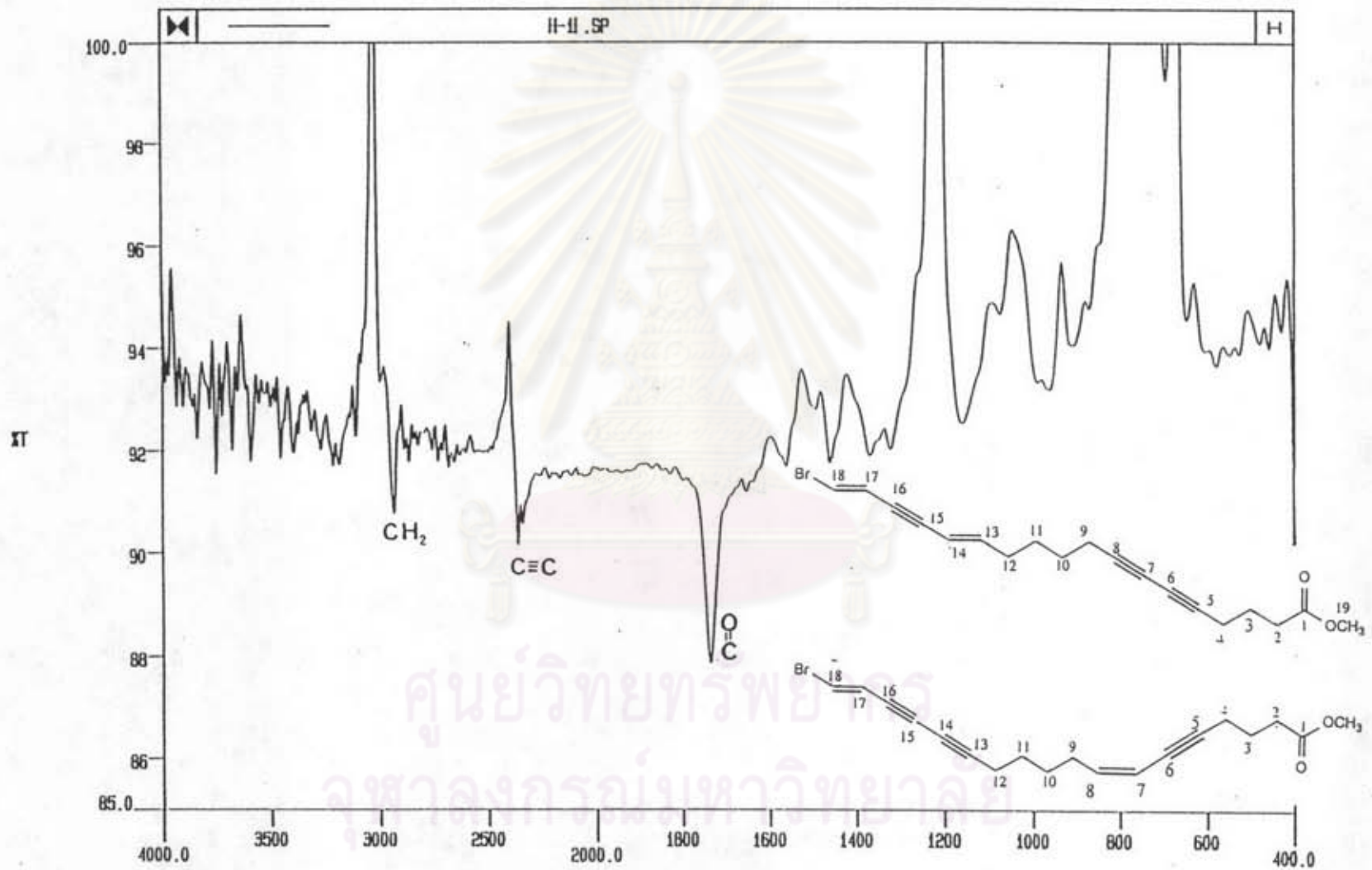


Figure 10 The infrared absorption spectrum of II-1

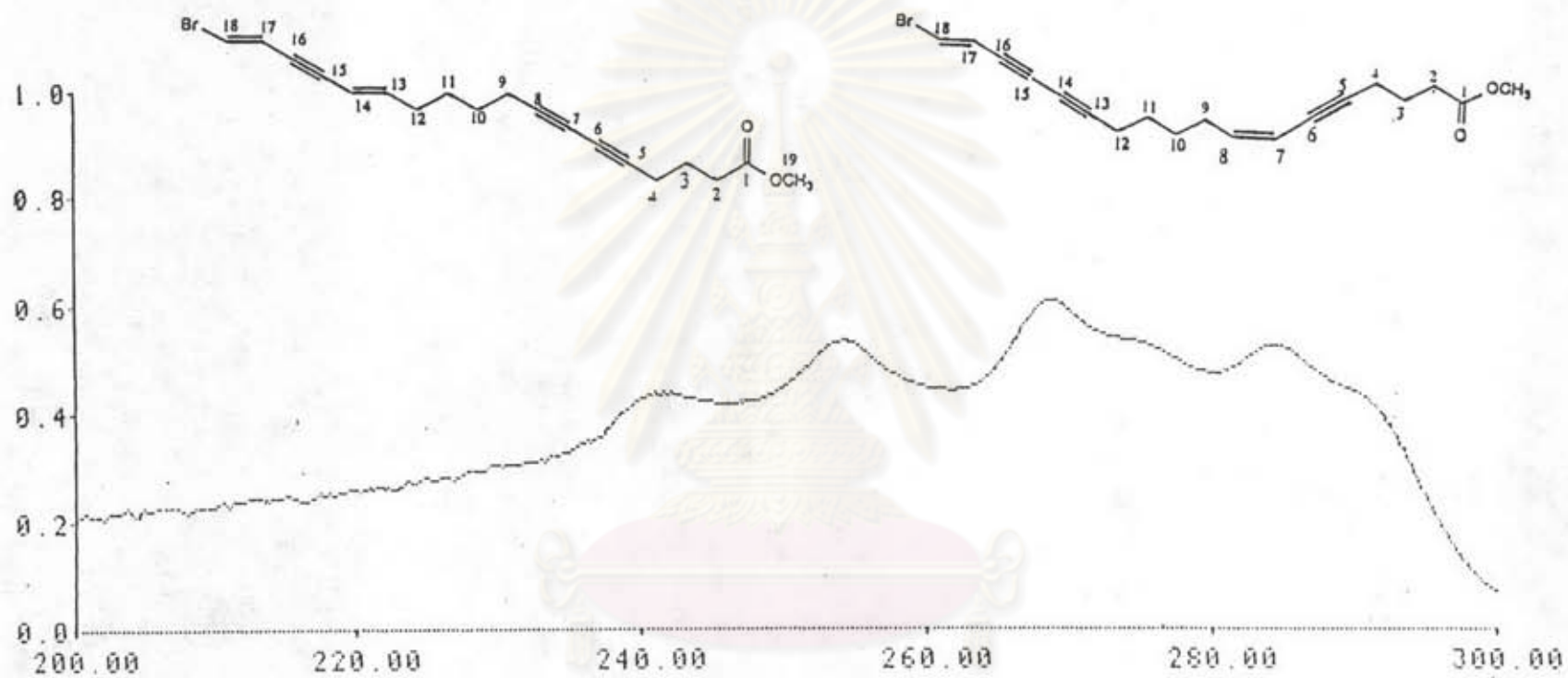


Figure 11 The ultraviolet absorption spectrum of H-I in chloroform

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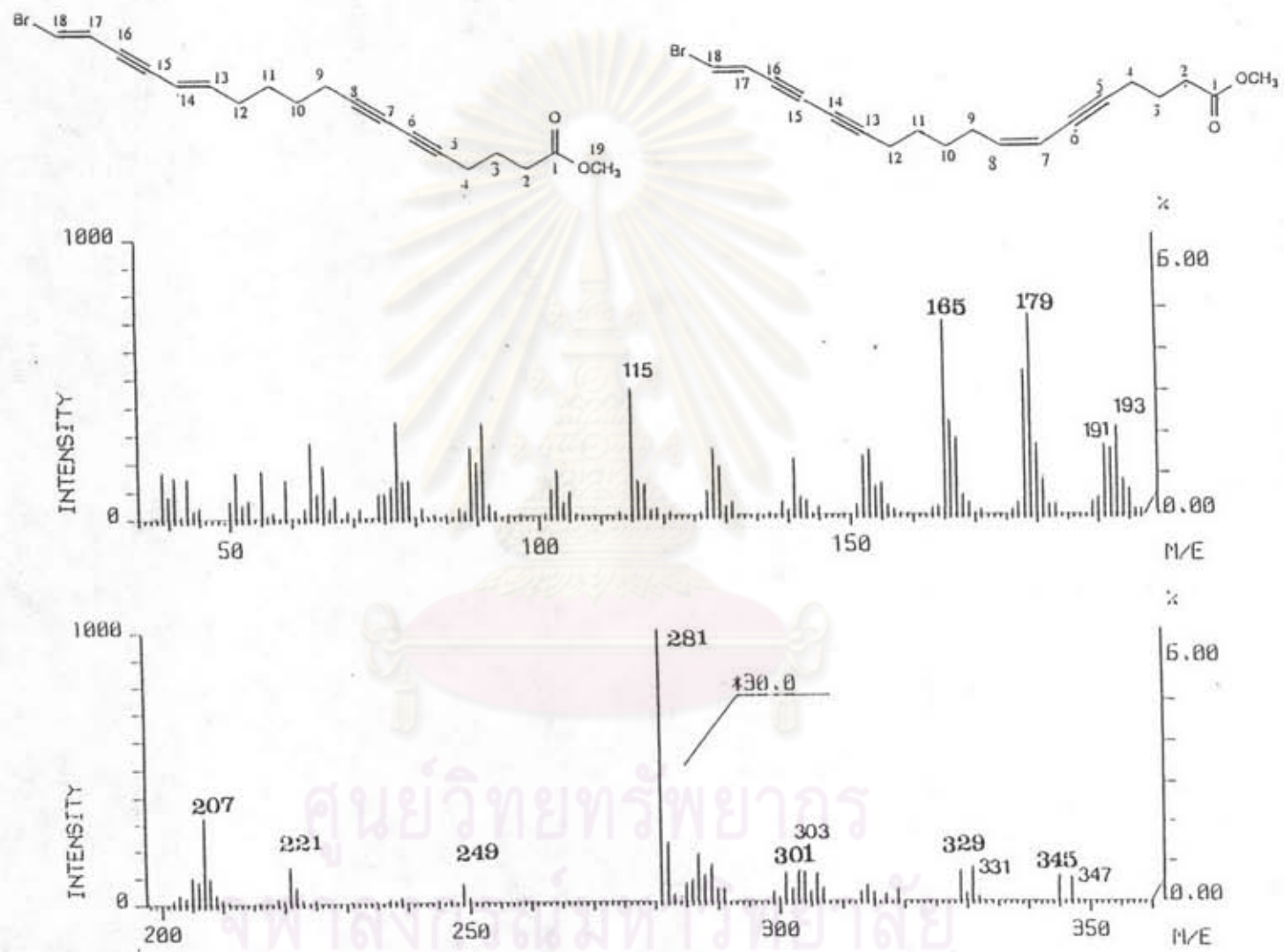


Figure 12 The EI mass spectrum of II-1

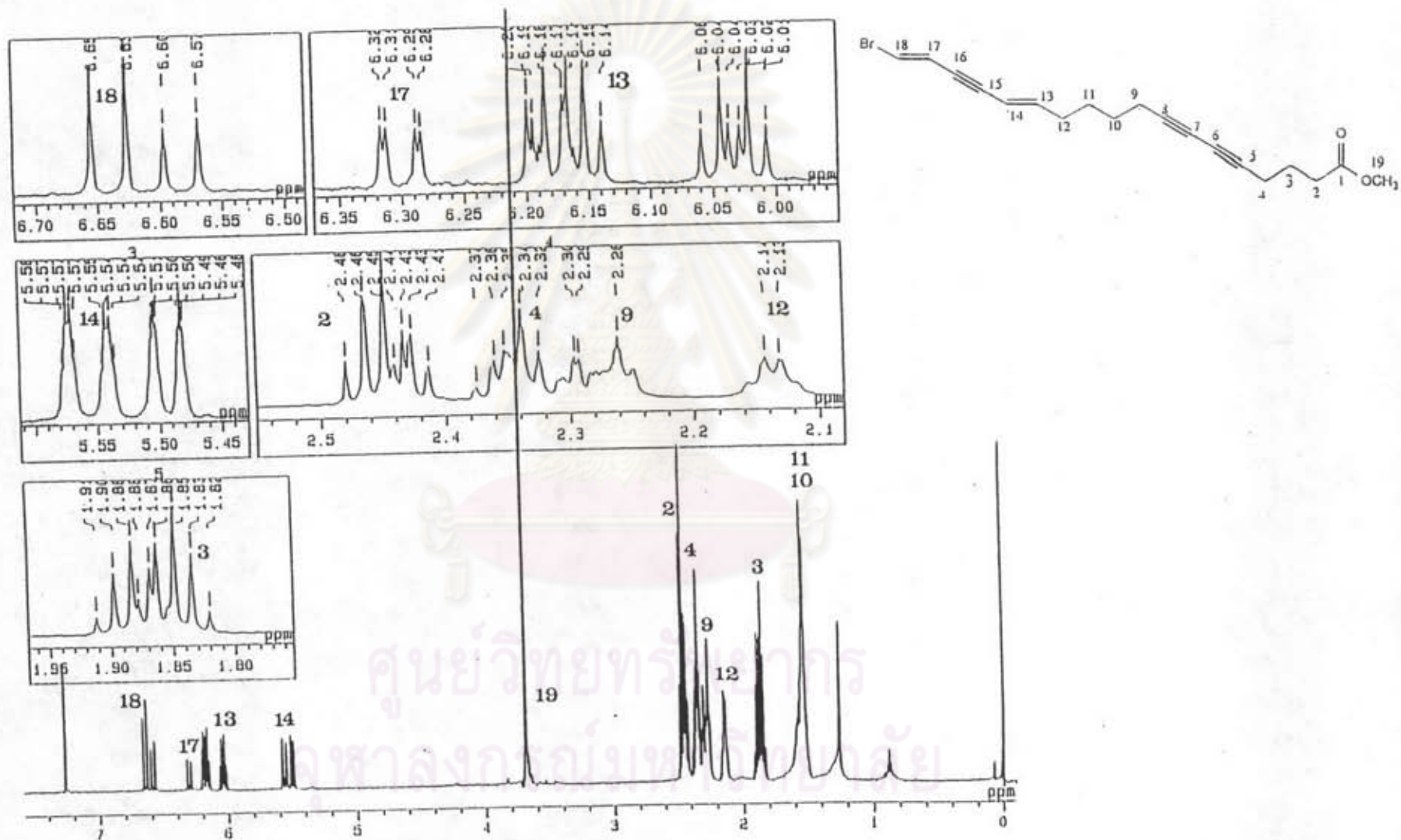


Figure 13 The 500 MHz ^{11}B -NMR spectrum of II-1A in deuterated chloroform

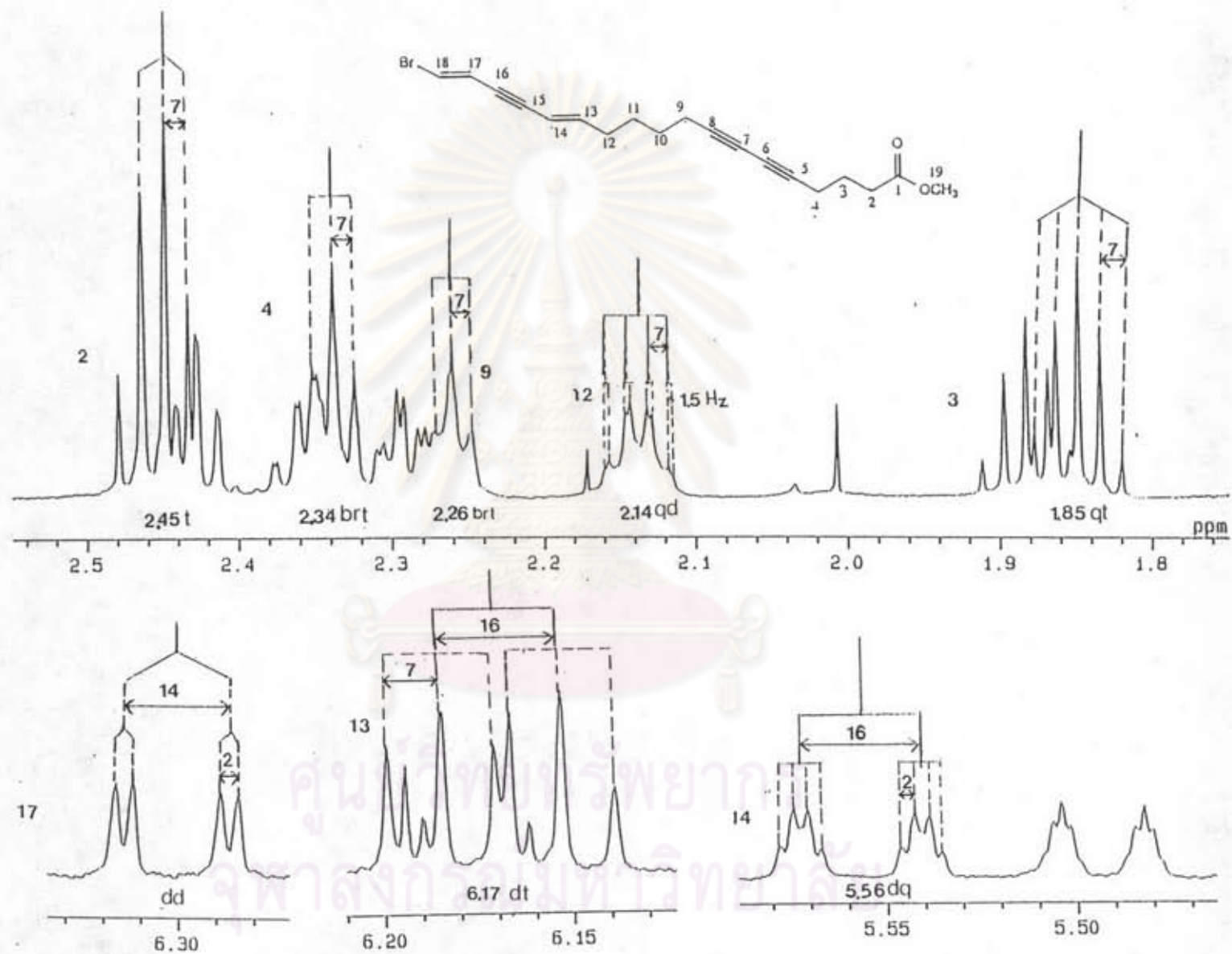


Figure 14 The expansion of 500 MHz $^1\text{H-NMR}$ spectrum of II-1A in deuterated chloroform

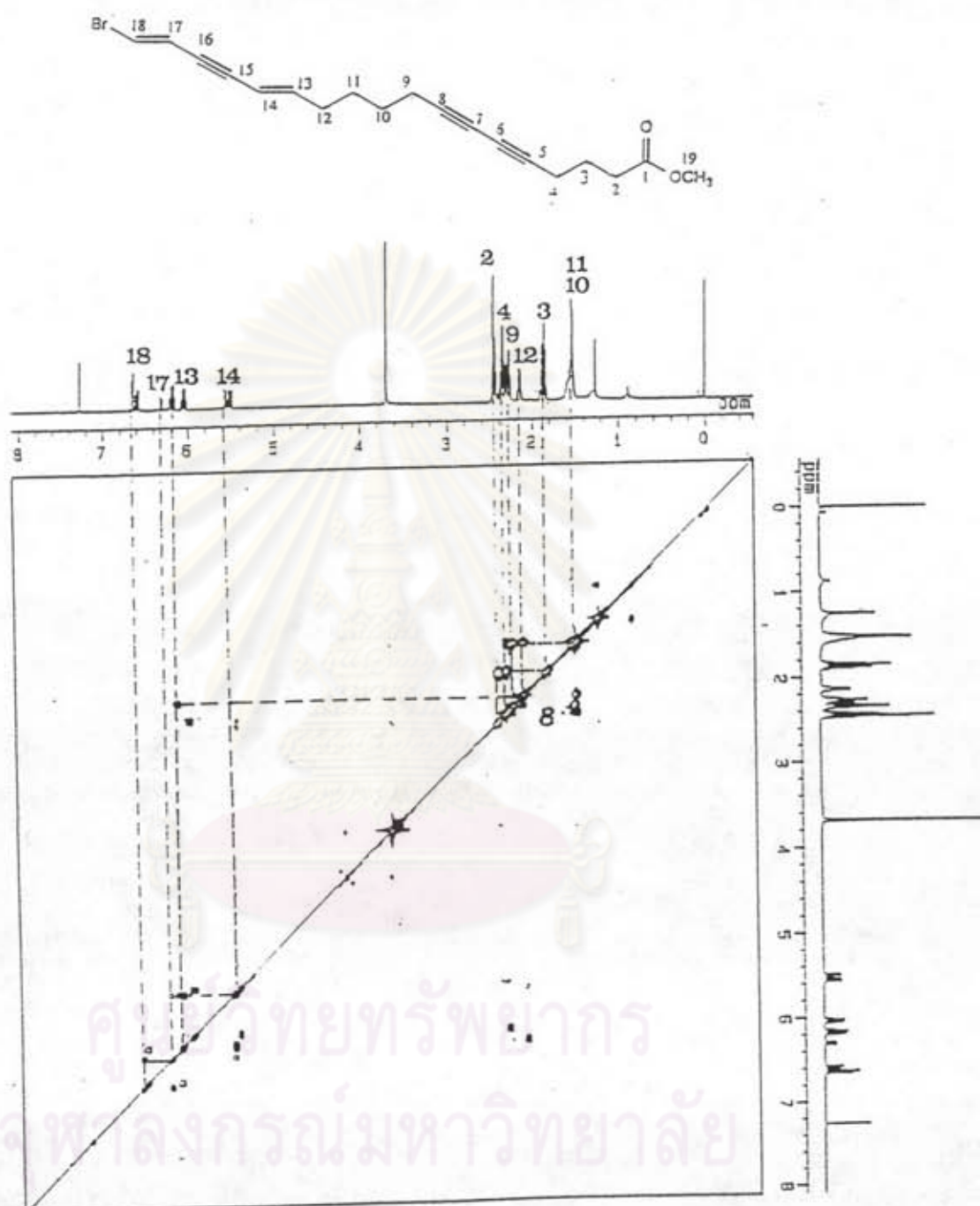


Figure 15 The 500 MHz ^1H - ^1H COSY spectrum of H-1A in deuterated chloroform

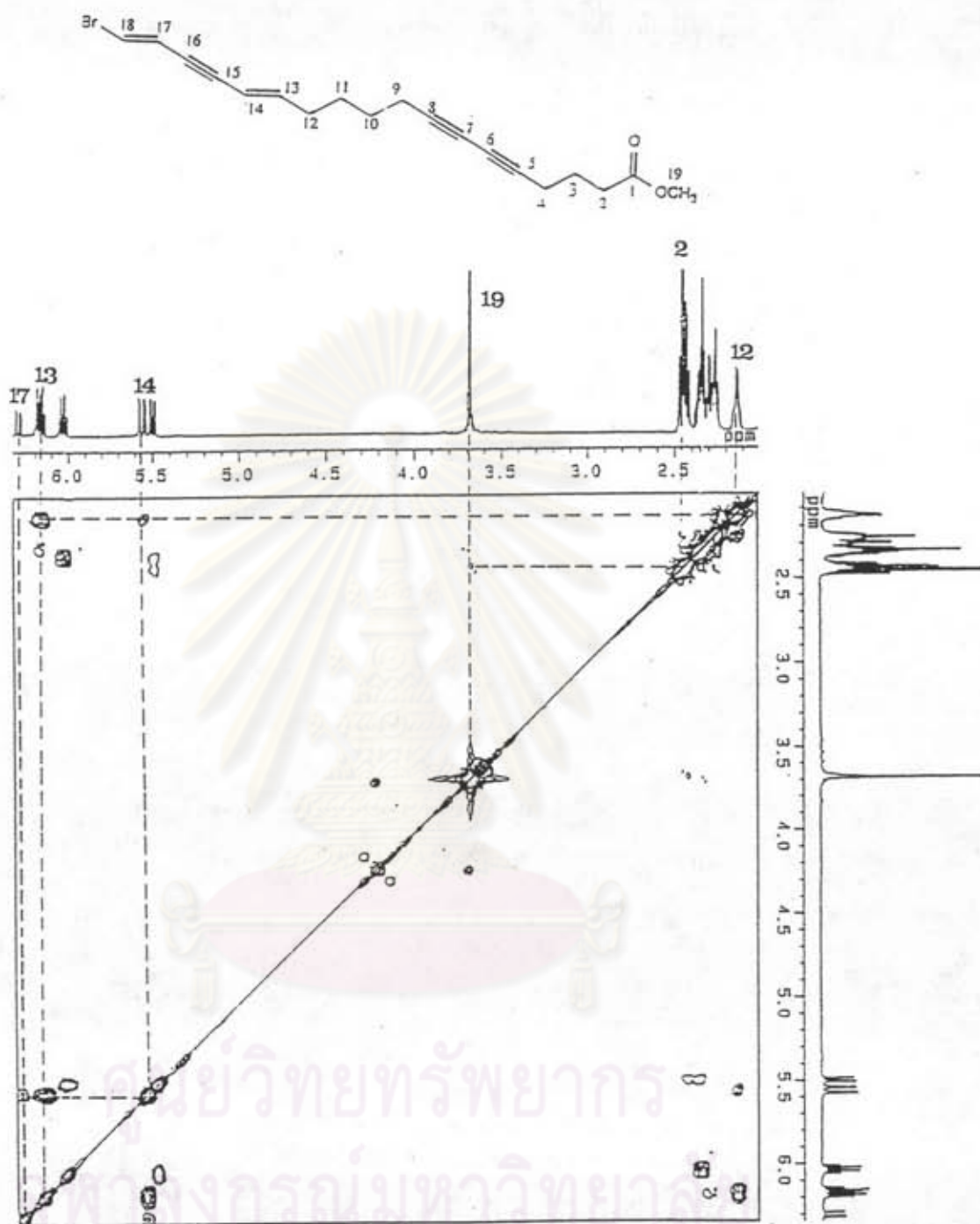


Figure 16 The expansion (δ 2.1 to 6.3 ppm) of 500 MHz ^1H - ^1H COSY spectrum of H-1A in deuterated chloroform.

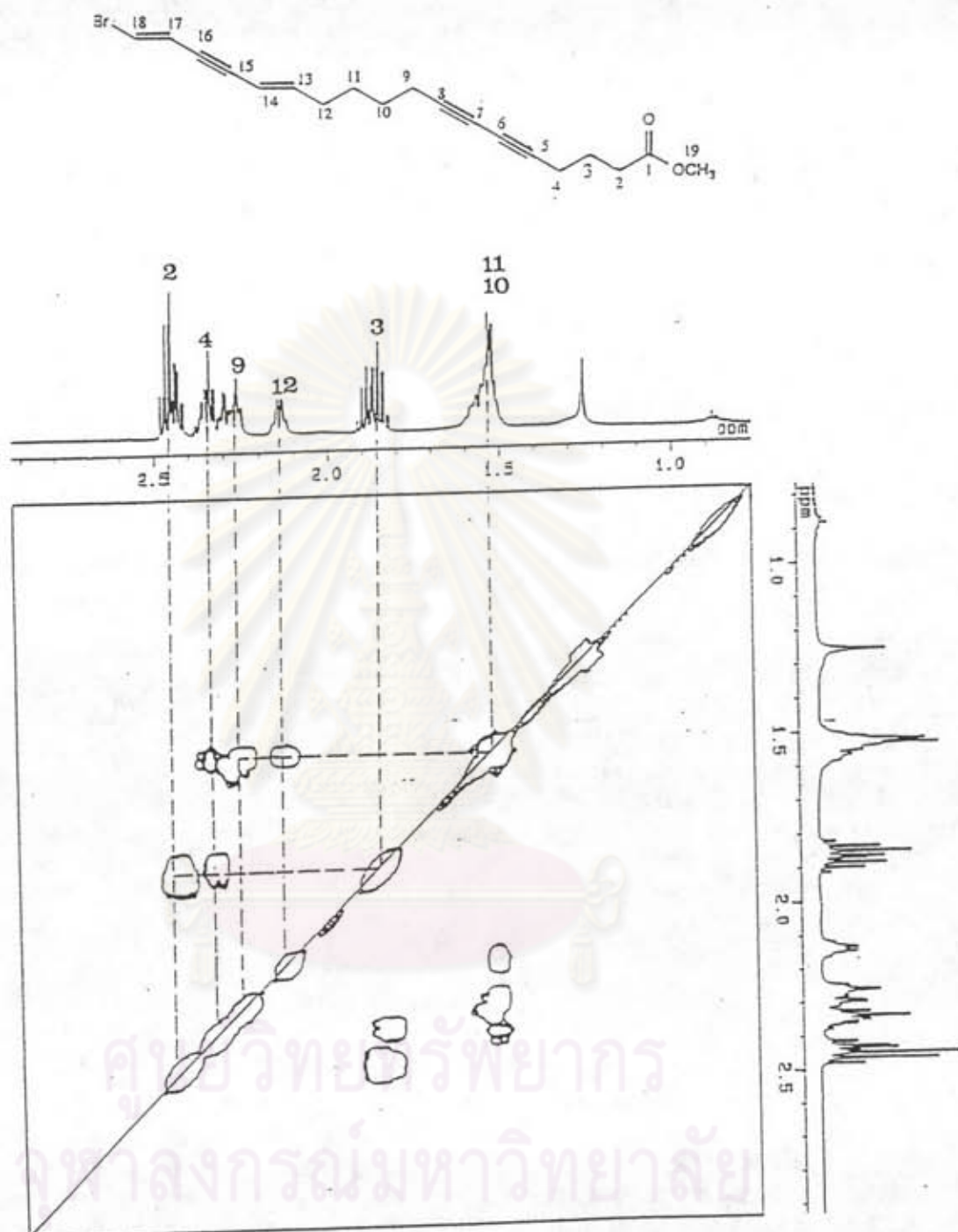


Figure 17 The expansion (δ 0.9 to 2.9 ppm) of 500 MHz ^1H - ^1H COSY spectrum; of H-1A in deuterated chloroform

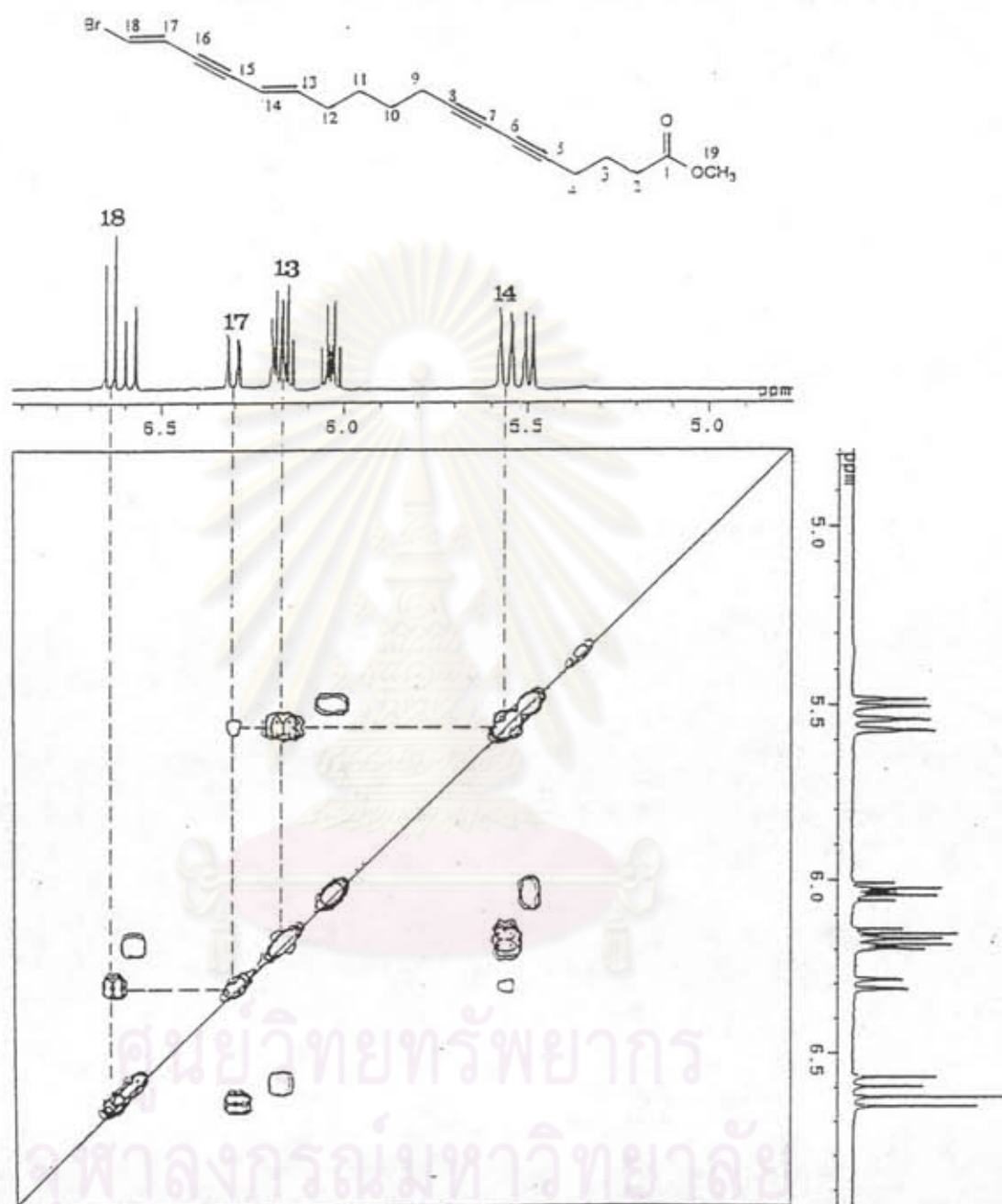


Figure 18 The expansion (δ 4.9 to 6.9 ppm) of 500 MHz ^1H - ^1H COSY spectrum of H-1A in deuterated chloroform

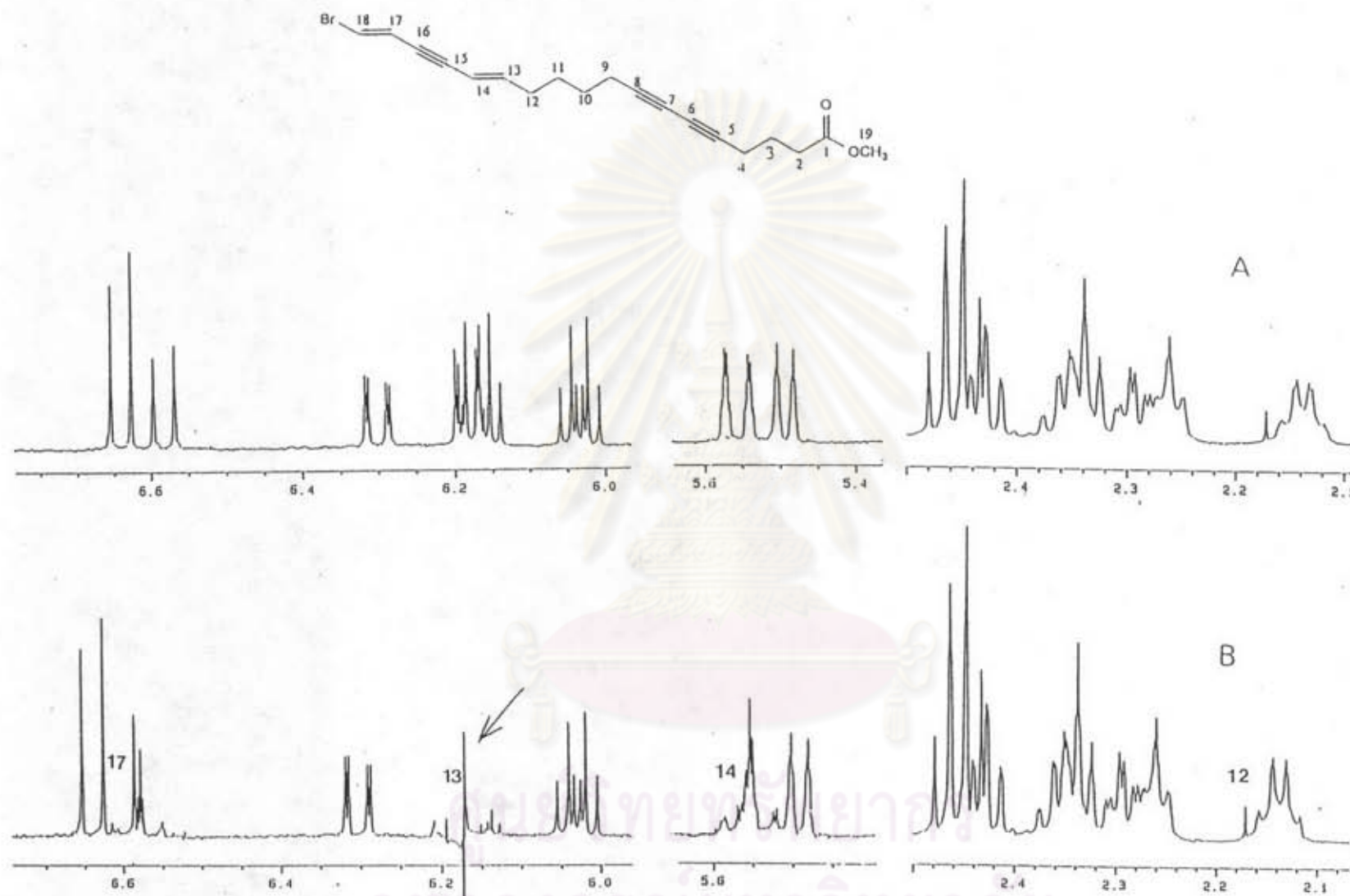


Figure 19 The 500 MHz ^1H -NMR partial spectra of II-1A: selective ^1H decoupling experiment, irradiation at δ 6.17 ppm

A. reference spectrum

B. irradiated spectrum at δ 6.17 ppm

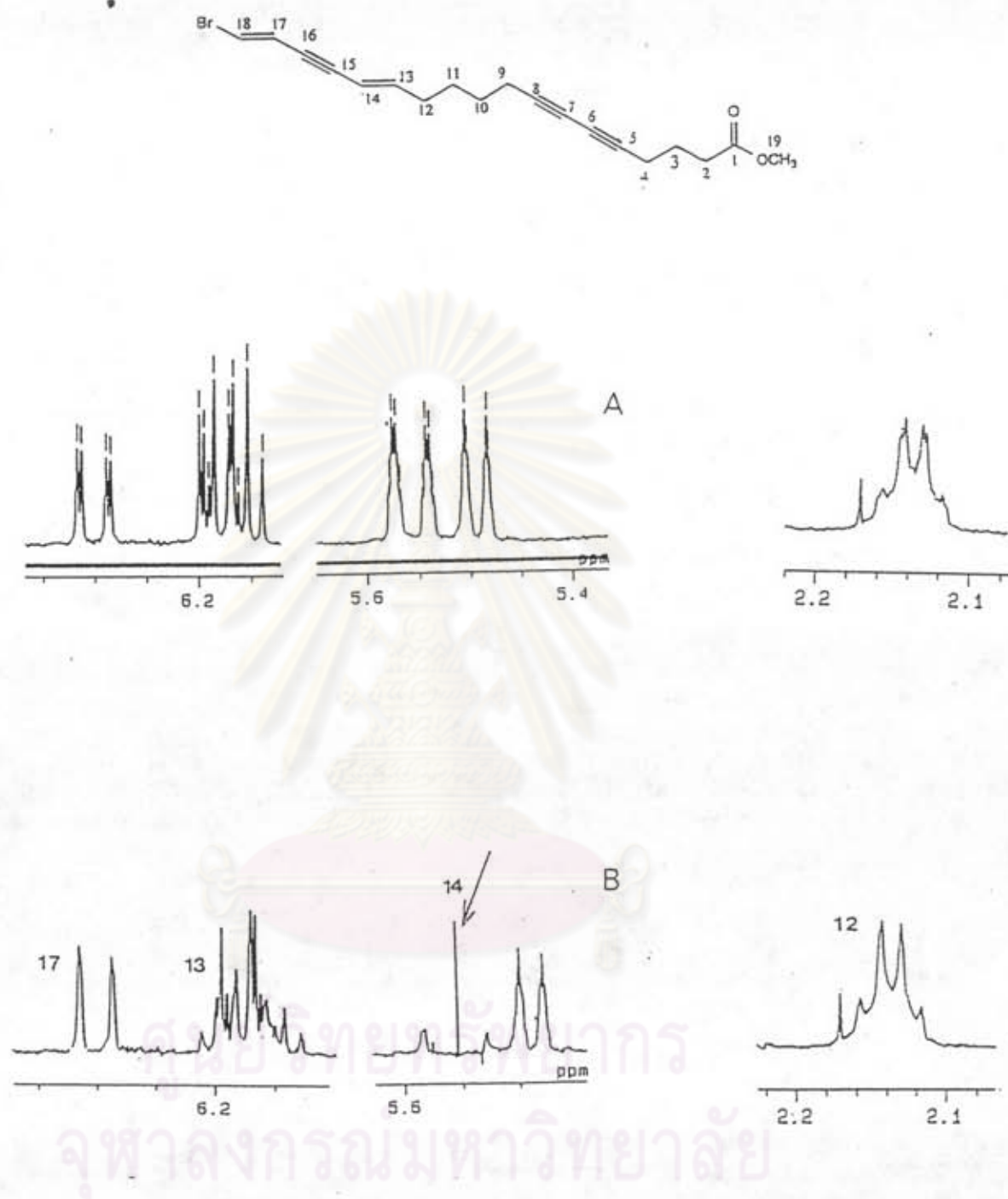


Figure 20 The 500 MHz ^1H -NMR partial spectra of H-1A: selective ^1H decoupling experiment, irradiation at δ 5.55 ppm

A. reference spectrum

B. irradiated spectrum at δ 5.55 ppm

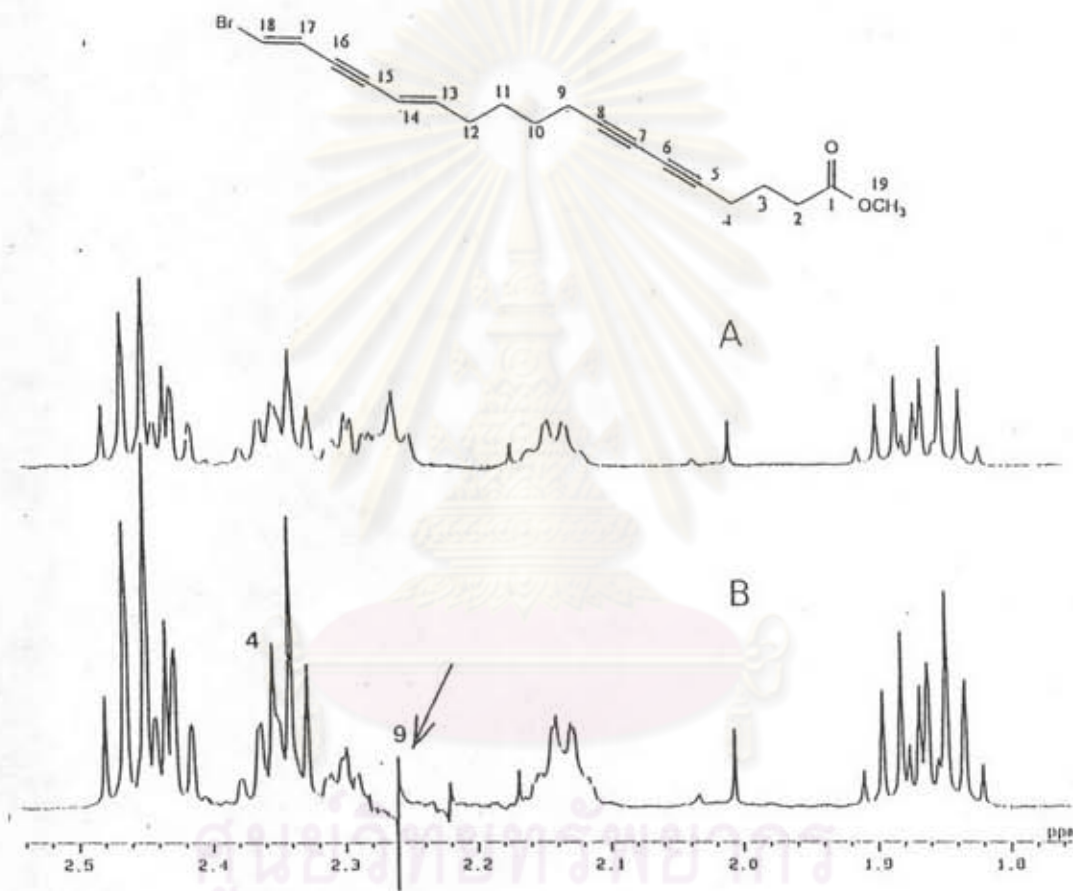


Figure 21 The 500 MHz $^1\text{H-NMR}$ partial spectra of II-1A: selective ^1H decoupling experiment, irradiation at δ 2.26 ppm

A. reference spectrum

B. irradiated spectrum at δ 2.26 ppm

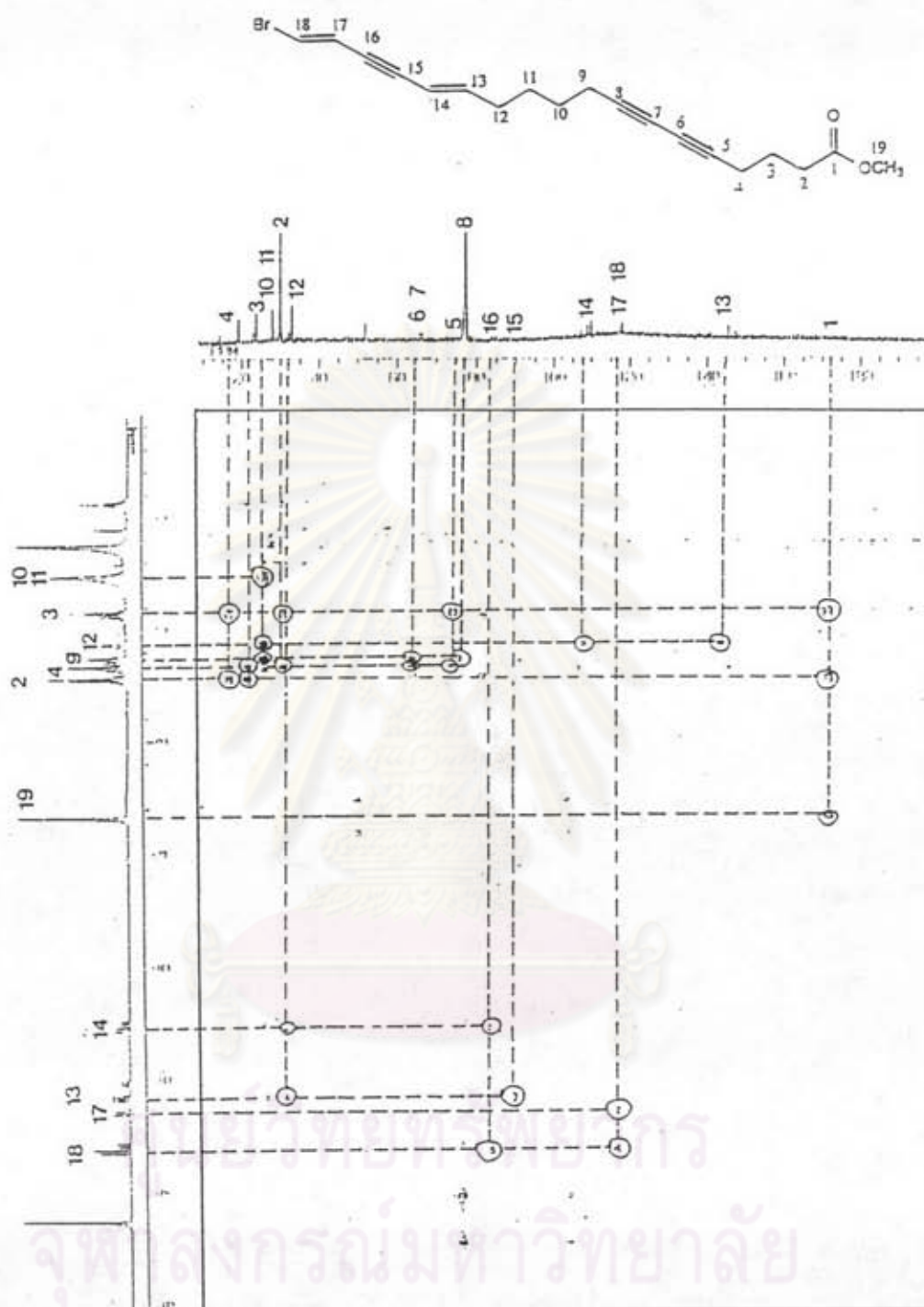


Figure 22 The 500 MHz HMBC spectrum of H-1A in deuterated chloroform

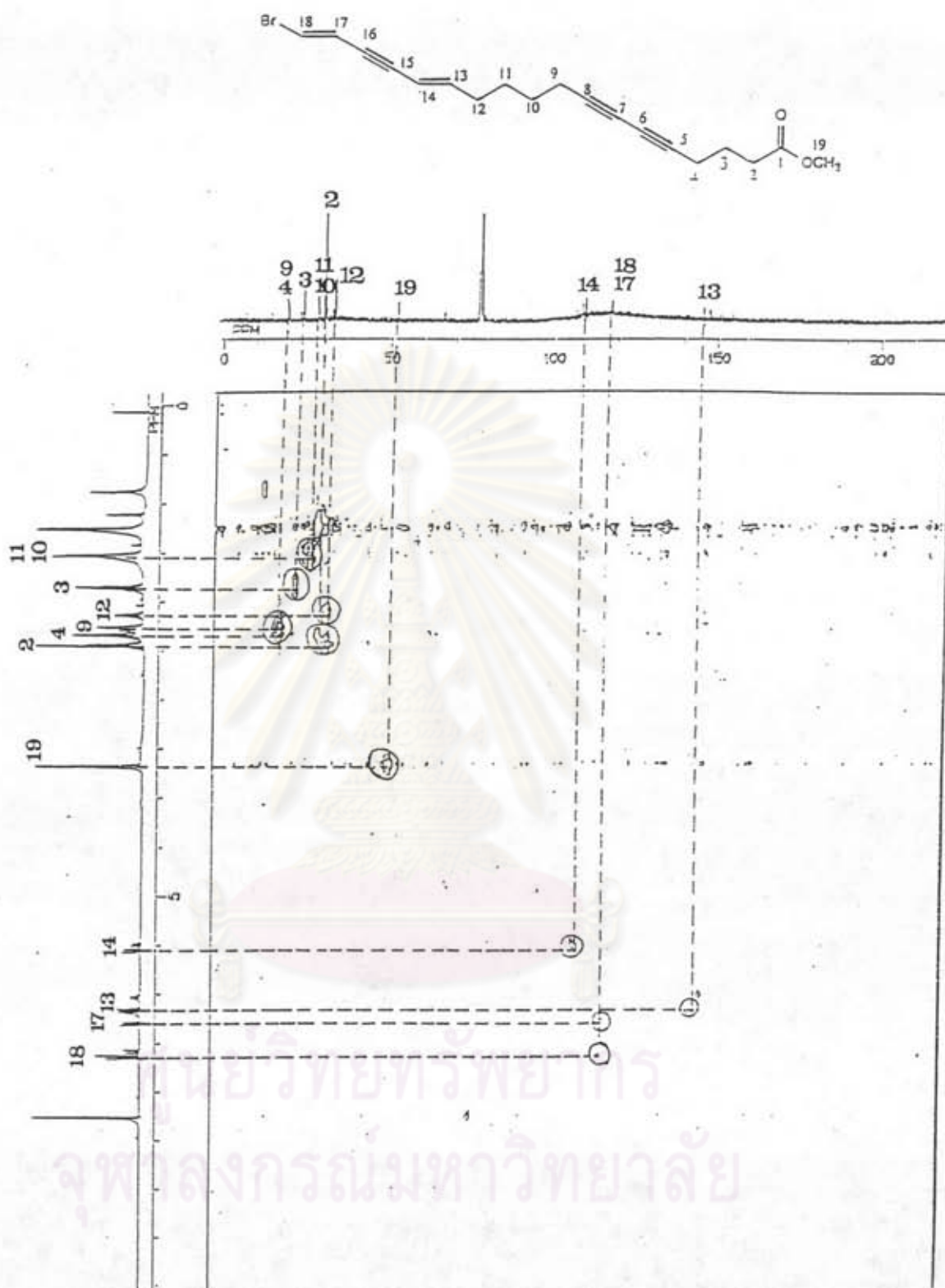


Figure 23 The 500 MHz HMQC spectrum of H-1A in deuterated chloroform

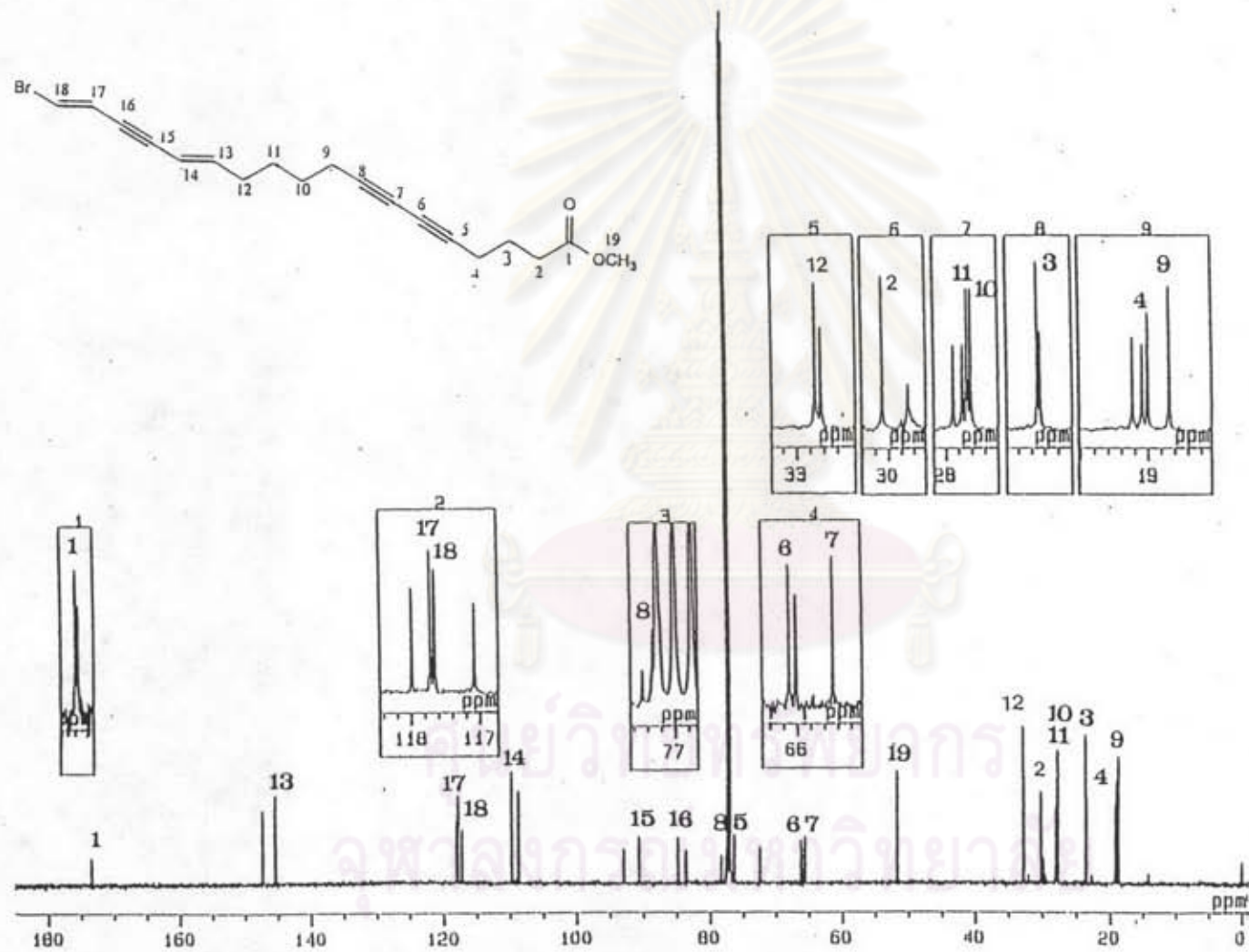


Figure 24 The 125 MHz ^{13}C -NMR spectrum of H-1A in deuterated chloroform

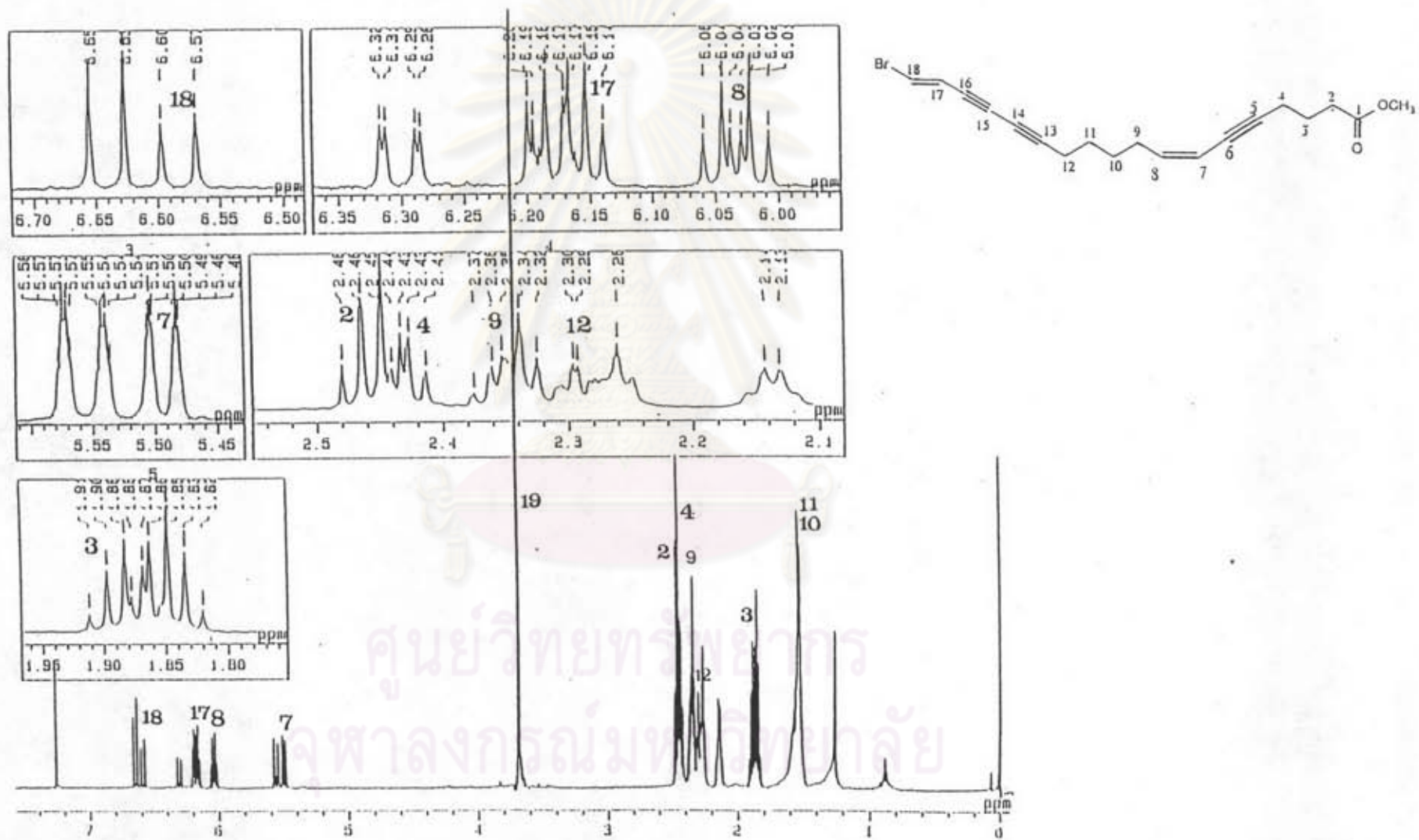


Figure 25 The 500 MHz $^1\text{H-NMR}$ spectrum of II-1B in deuterated chloroform

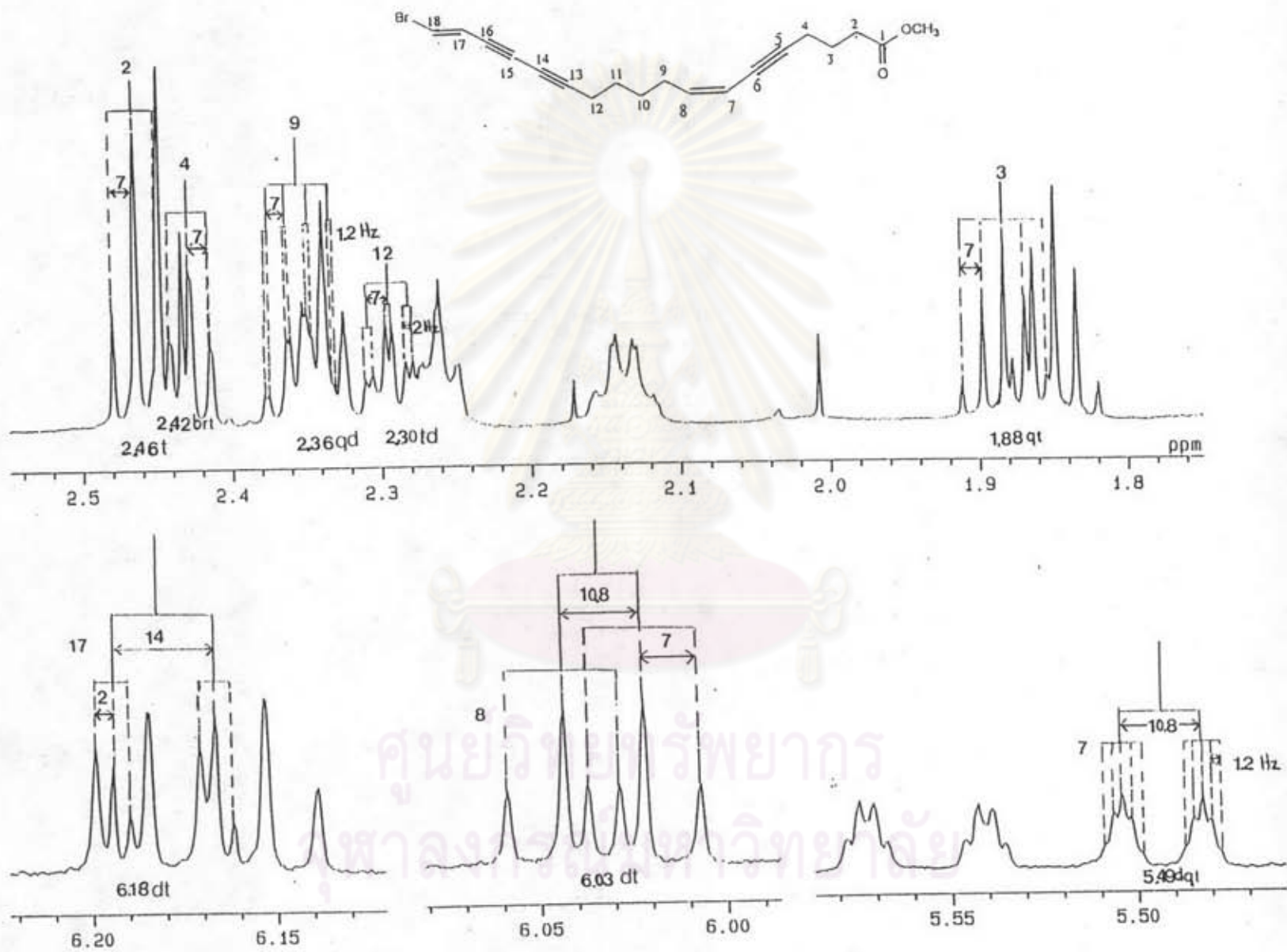


Figure 26 The expansion of 500 MHz $^1\text{H-NMR}$ spectrum of II-1B in deuterated chloroform

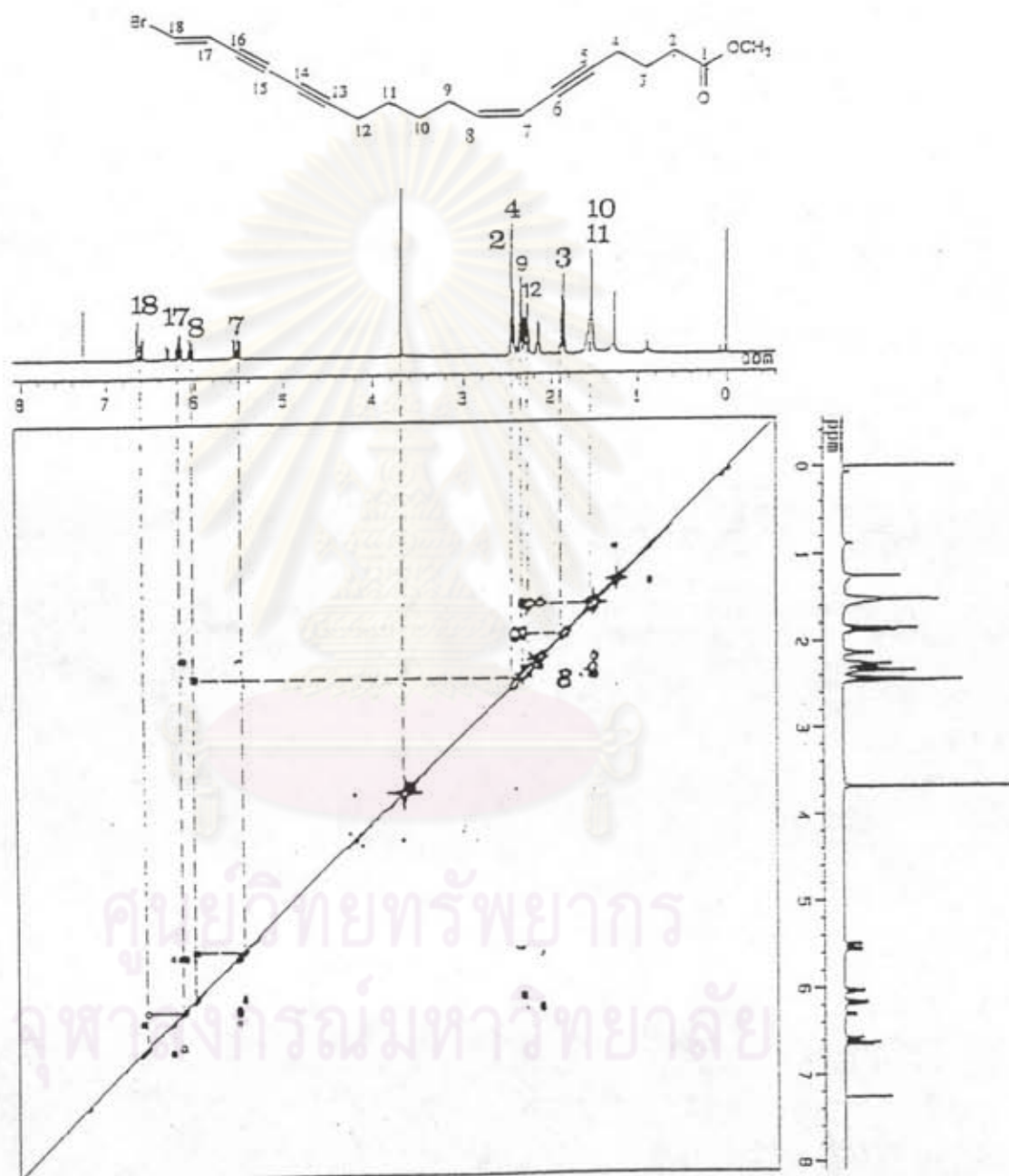


Figure 27 The 500 MHz ^1H - ^1H COSY spectrum of H-1B in deuterated chloroform

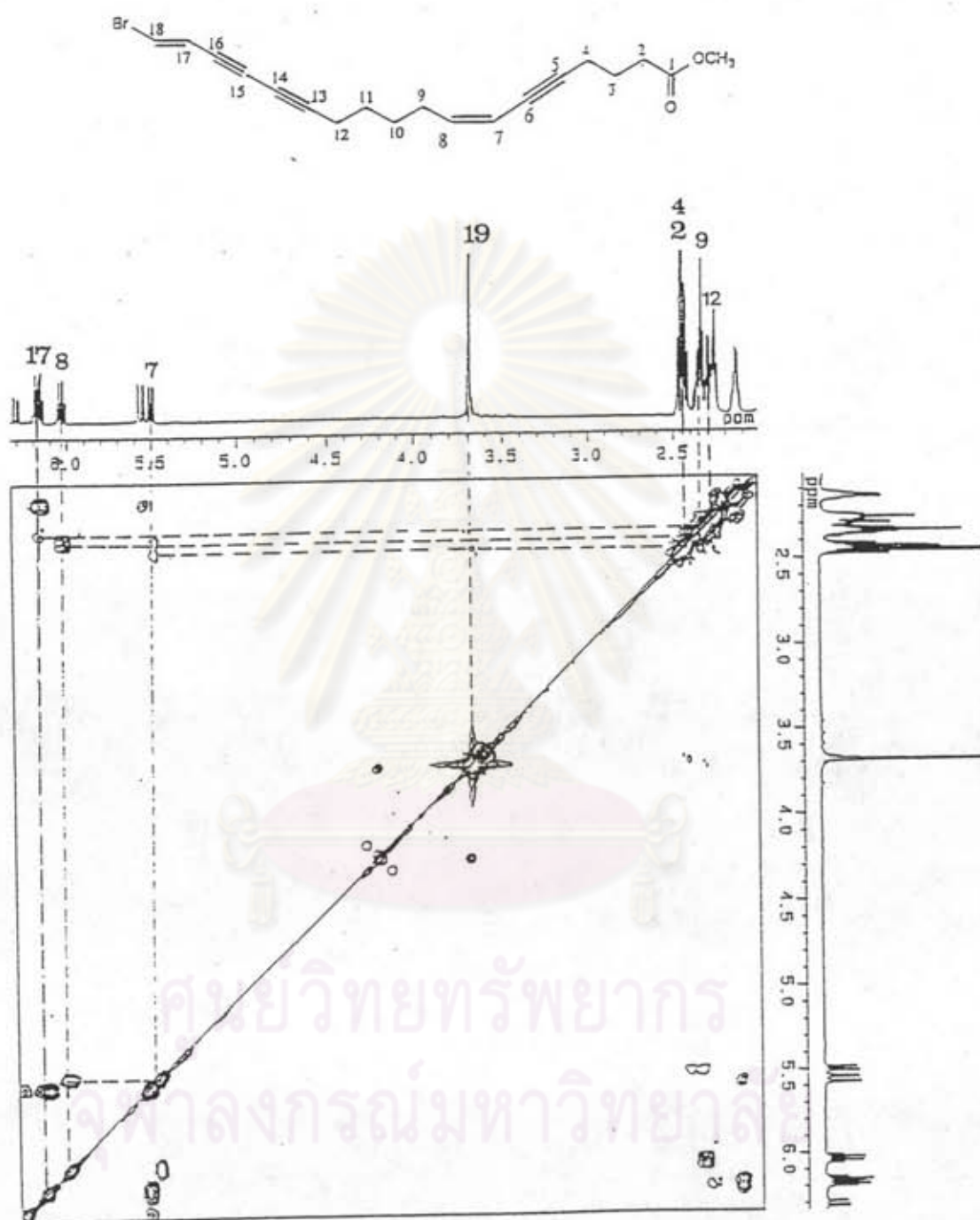


Figure 28 The expansion (δ 2.1 to 6.3 ppm) of 500 MHz ^1H - ^1H COSY spectrum of H-1B in deuterated chloroform

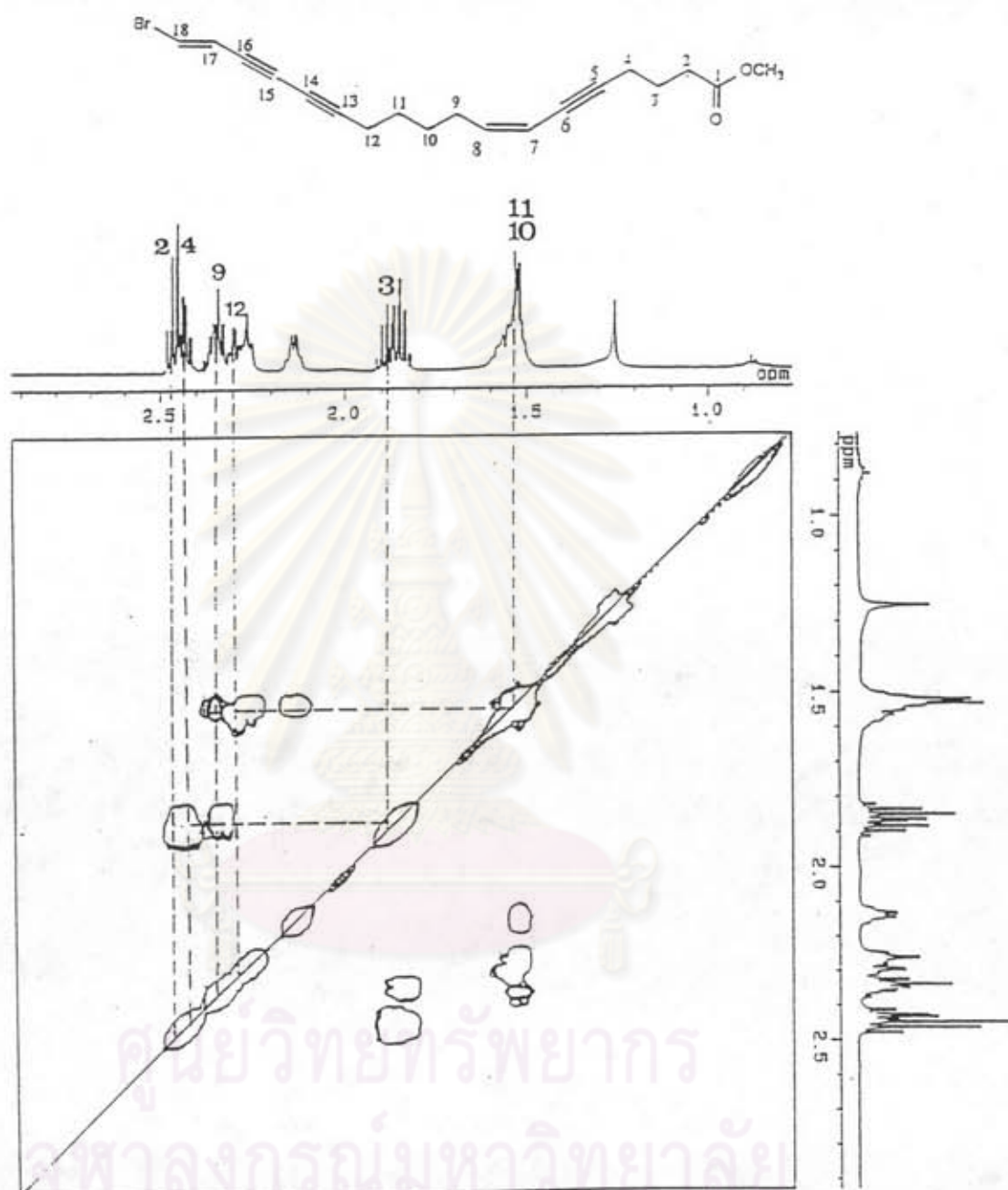


Figure 29 The expansion (δ 0.9 to 2.9 ppm) of 500 MHz ^1H - ^1H COSY spectrum of H-1B in deuterated chloroform

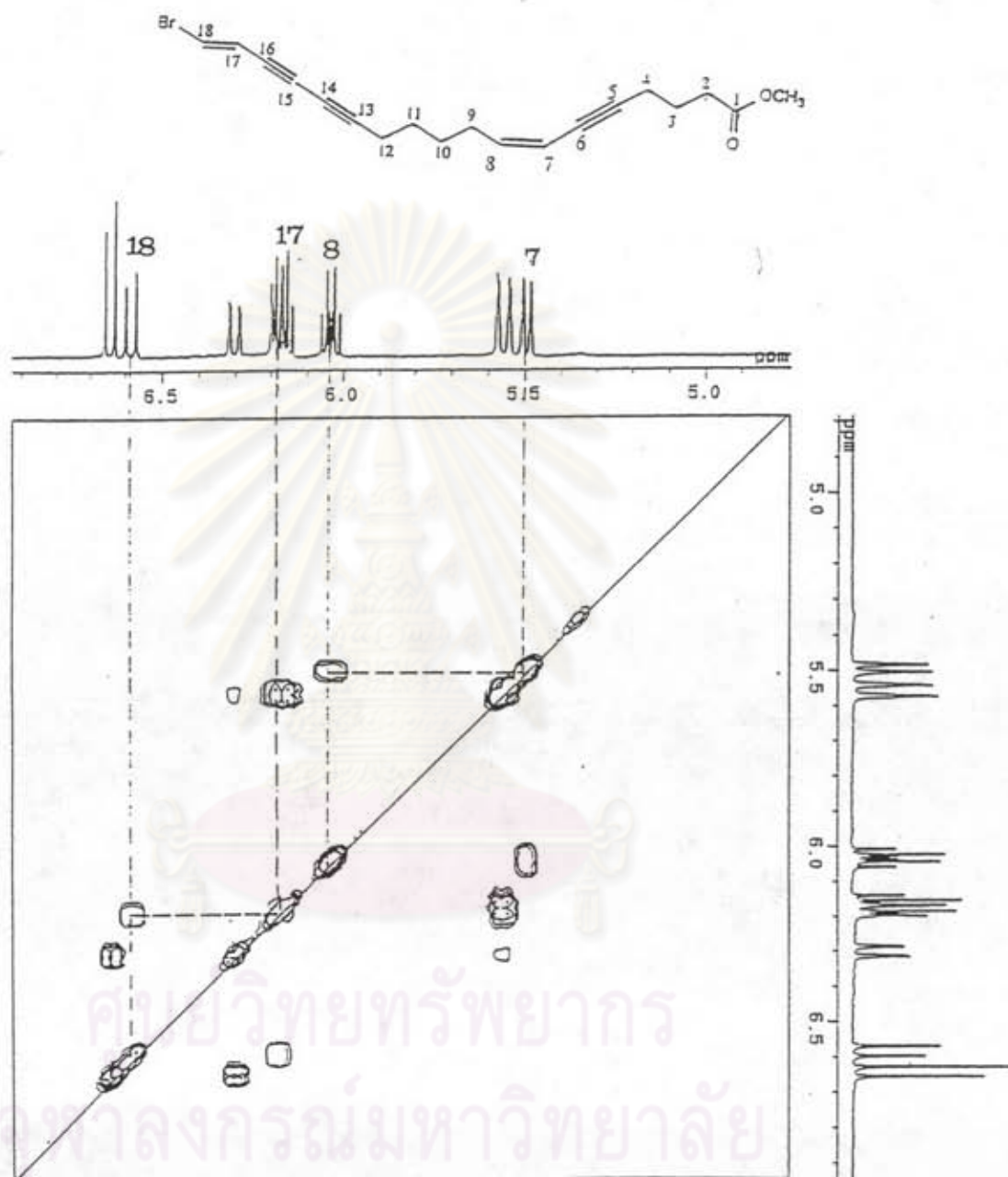


Figure 30 The expansion (δ 4.9 to 6.9 ppm) of 500 MHz ^1H - ^1H COSY spectrum of H-1B in deuterated chloroform

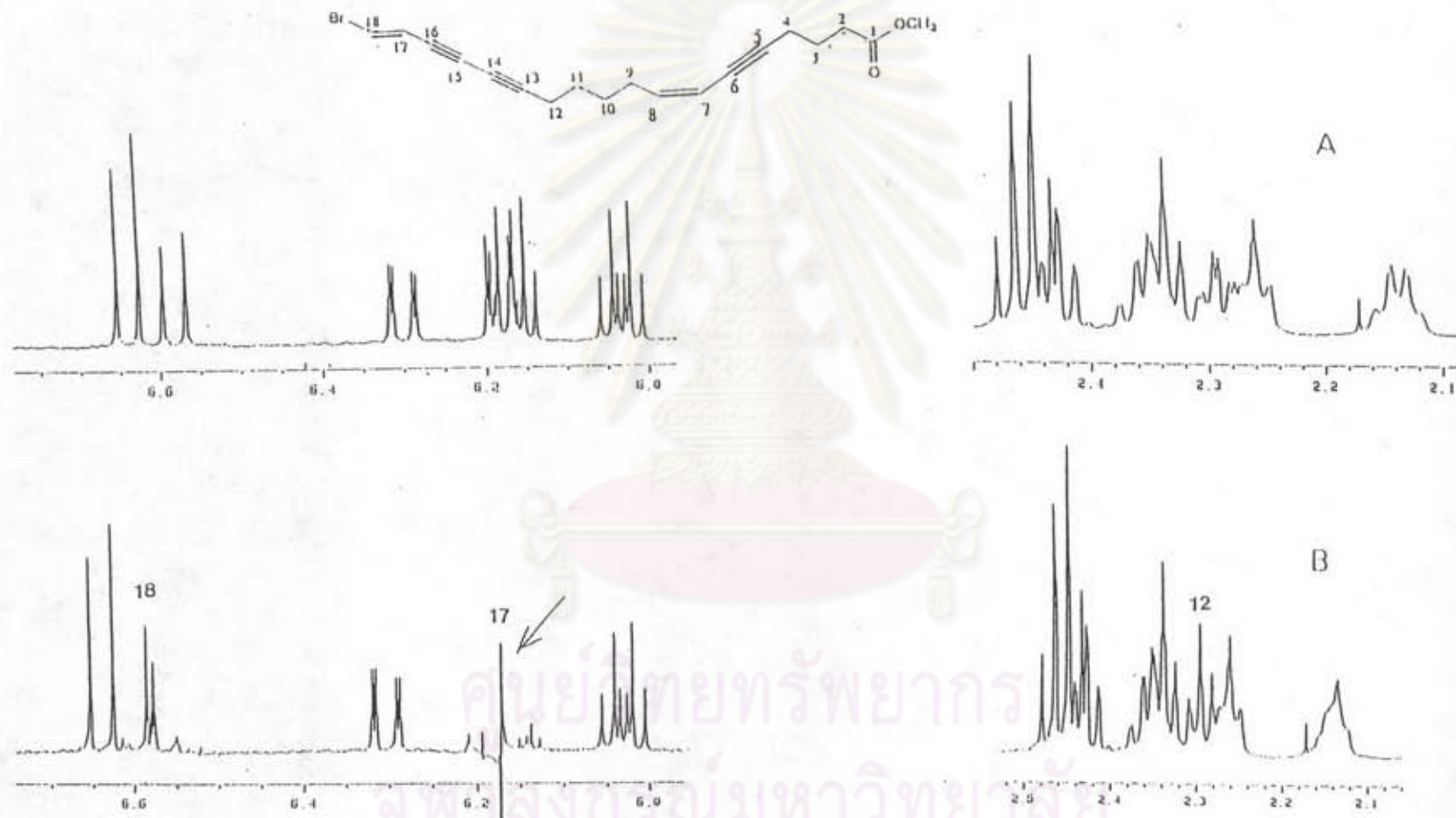


Figure 31 The 500 MHz ^1H -NMR partial spectra of II-1B: selective ^1H decoupling experiment, irradiation at δ 6.17 ppm

A. reference spectrum

B. irradiated spectrum at δ 6.17 ppm

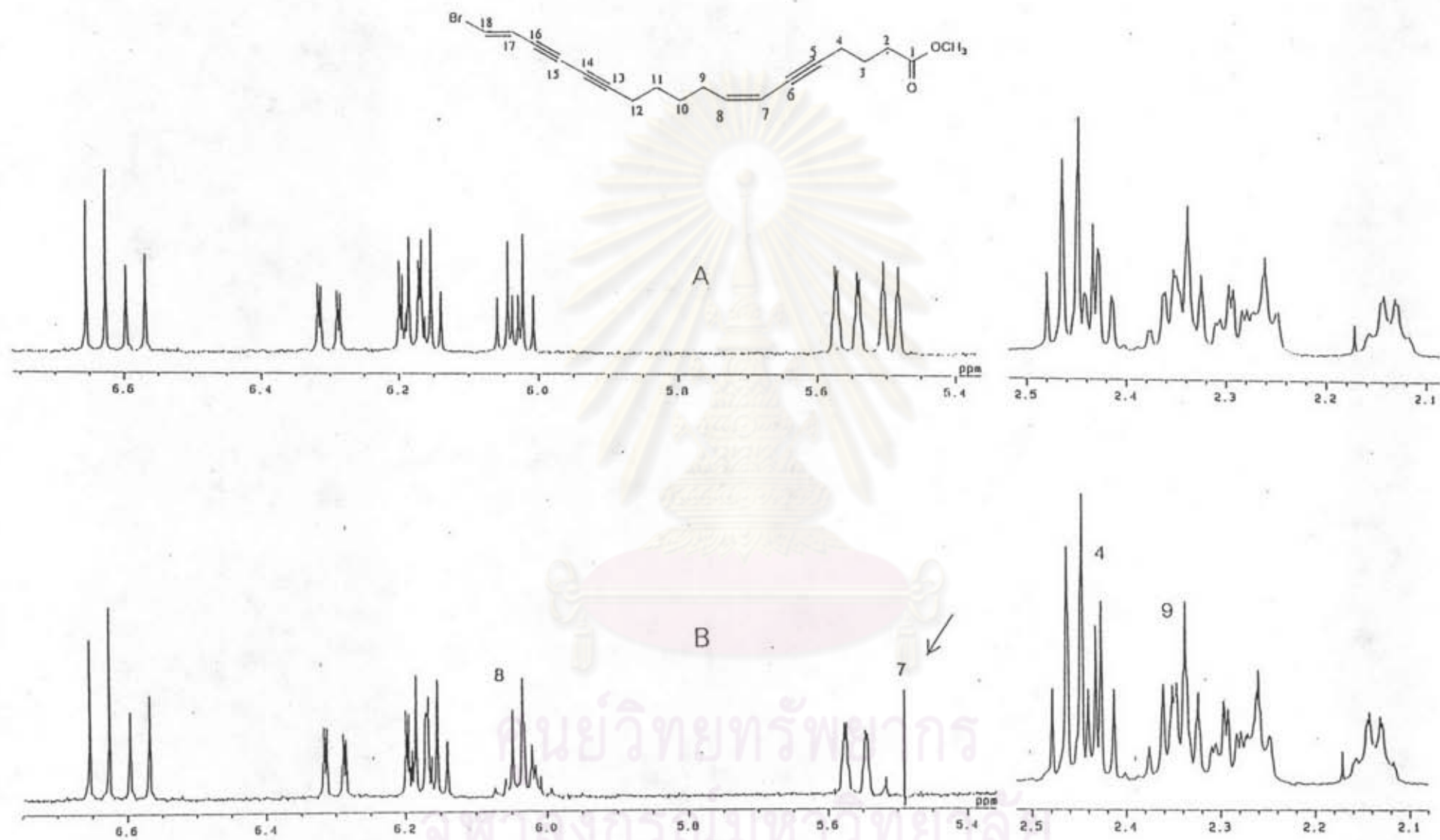


Figure 32 The 500 MHz ^1H -NMR partial spectra of II-1B: selective ^1H decoupling experiment, irradiation at δ 5.50 ppm

A. reference spectrum

B. irradiated spectrum at δ 5.50 ppm

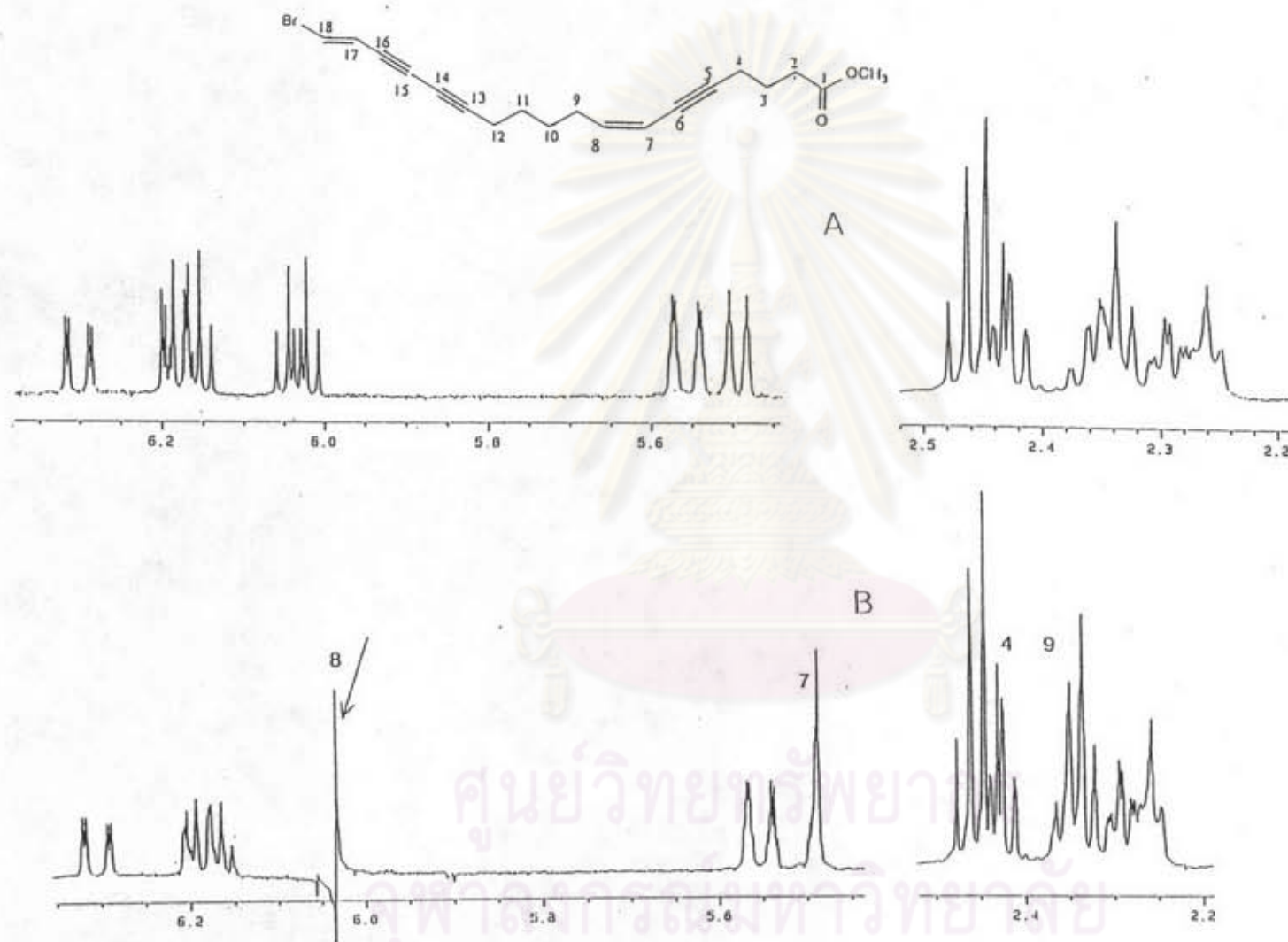


Figure 33 The 500 MHz $^1\text{H-NMR}$ partial spectra of II-1B: selective ^1H decoupling experiment, irradiation at δ 6.03 ppm

A. reference spectrum

B. irradiated spectrum at δ 6.03 ppm

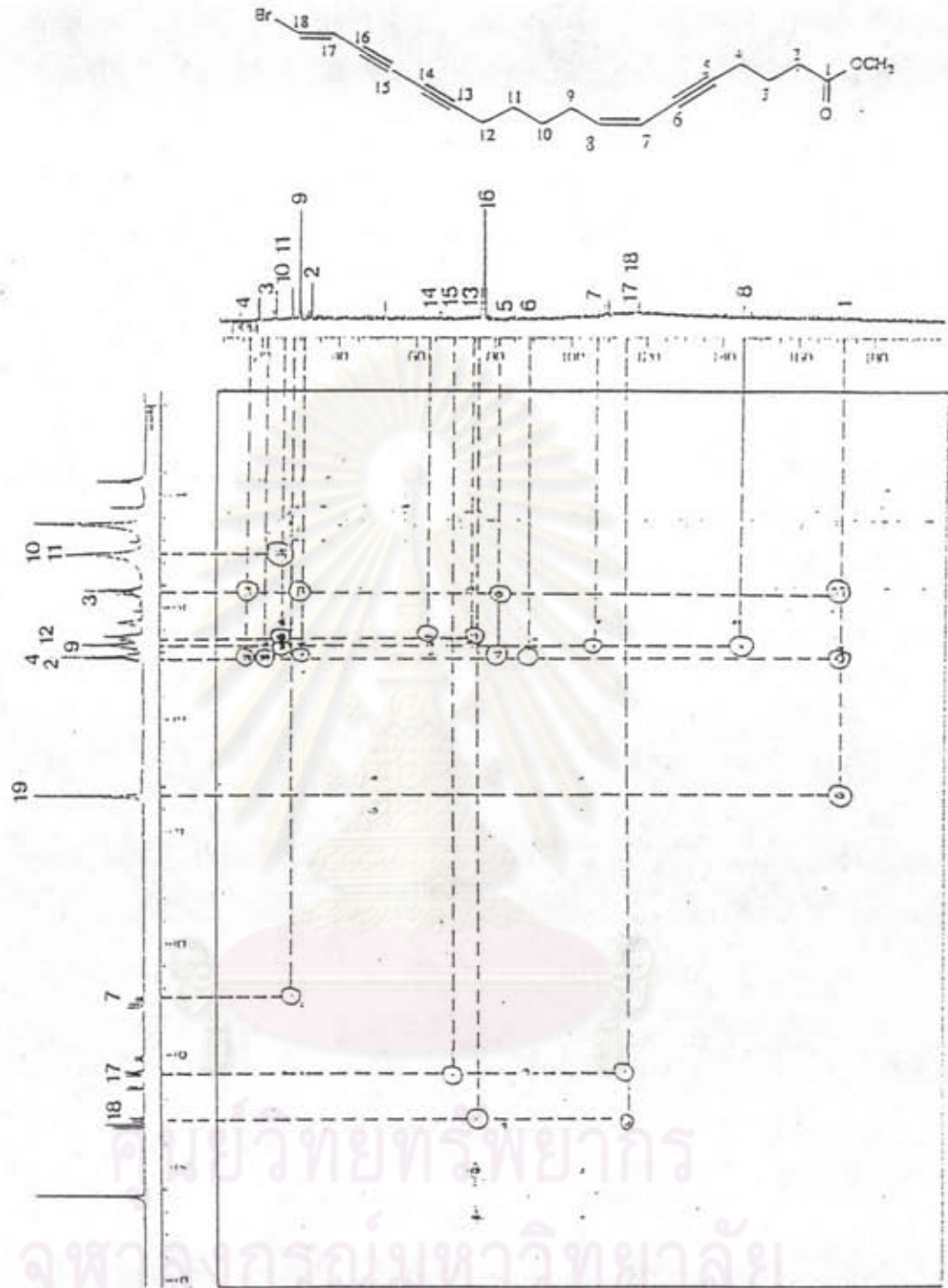


Figure 34 The 500 MHz HMBC spectrum of H-1B in deuterated chloroform

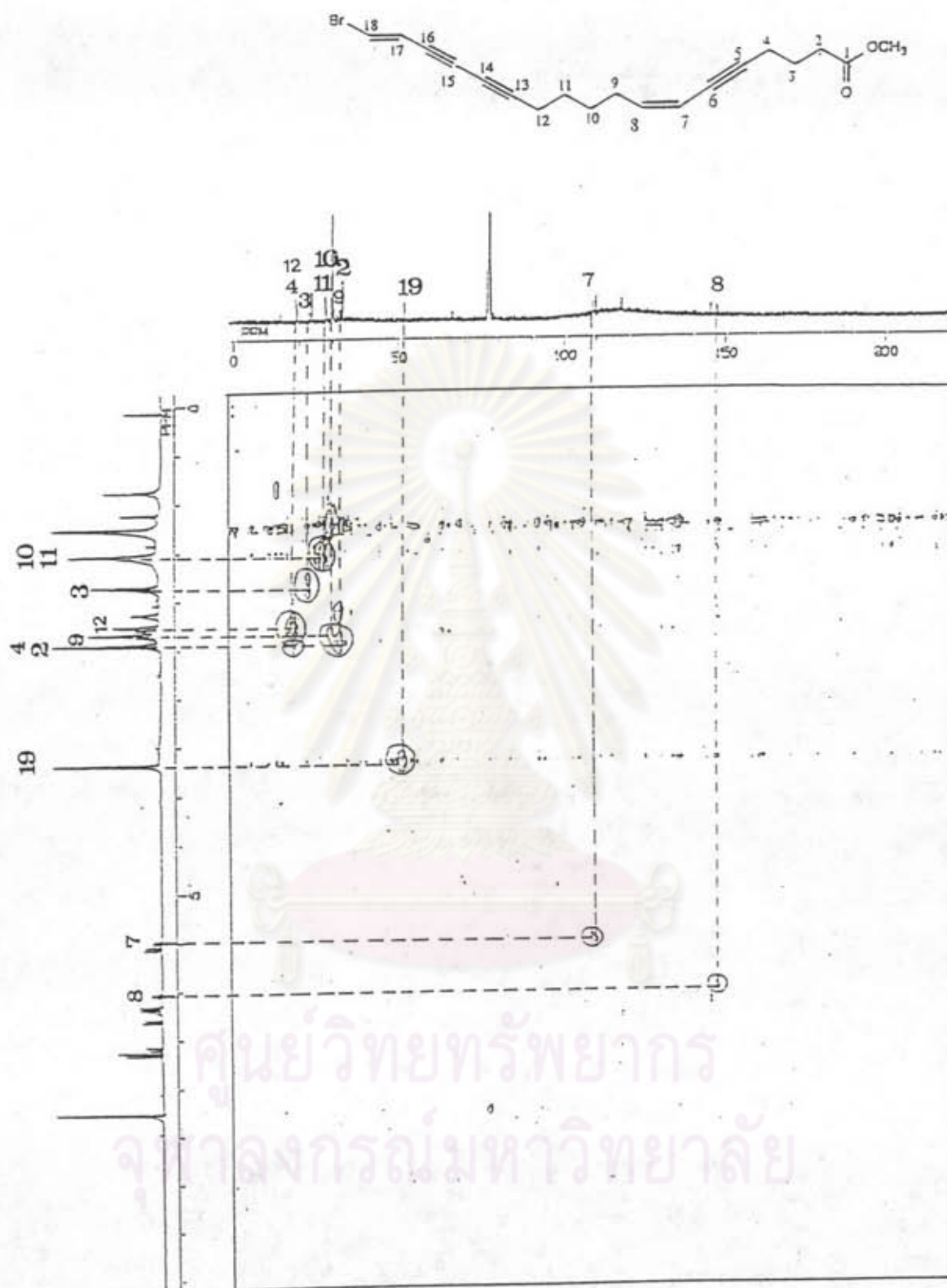


Figure 35 The 500 MHz HMQC spectrum of H-1B in deuterated chloroform

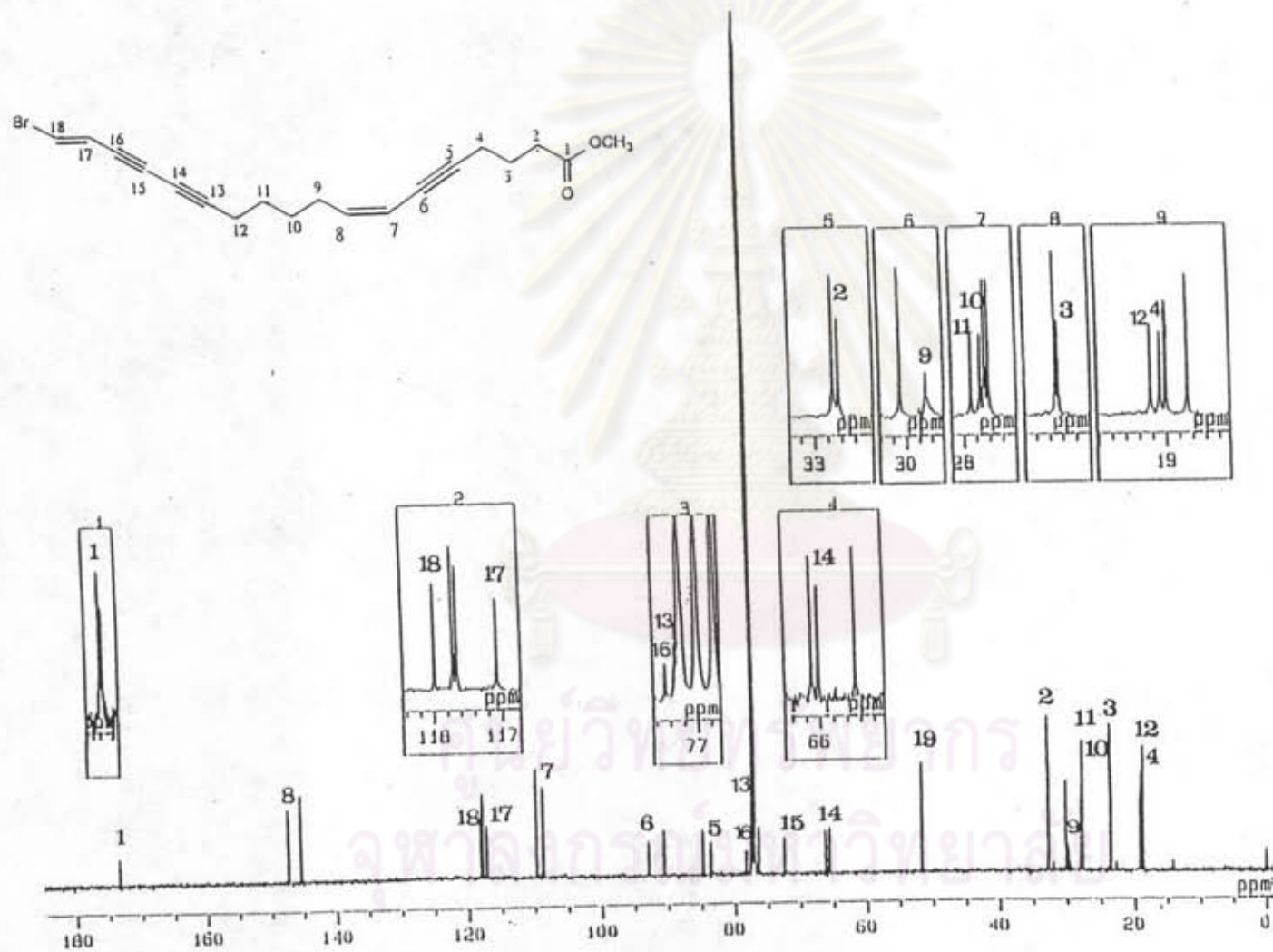


Figure 36 The 125 MHz ^{13}C -NMR spectrum of H-1B in deuterated chloroform

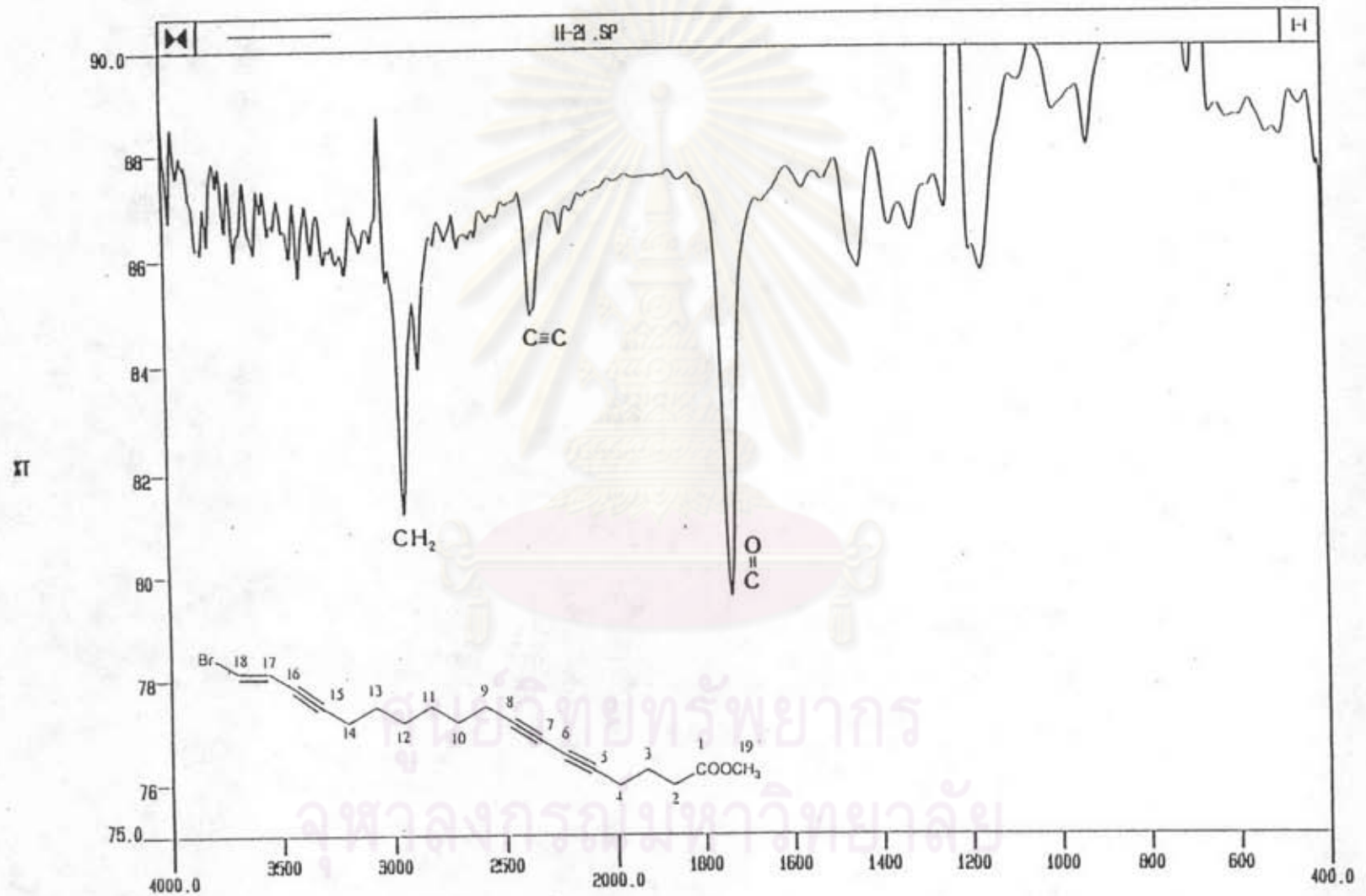


Figure 37 The infrared absorption spectrum of II-2

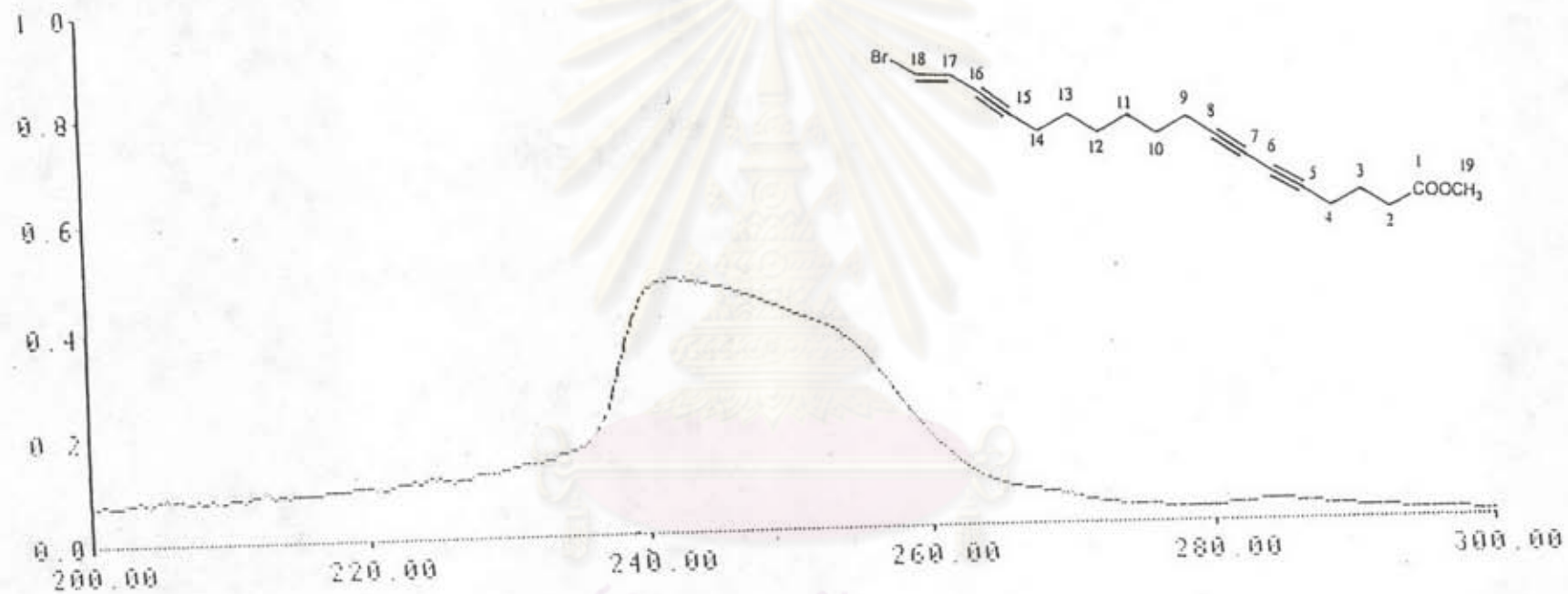


Figure 38 The ultraviolet absorption spectrum of II-2 in chloroform

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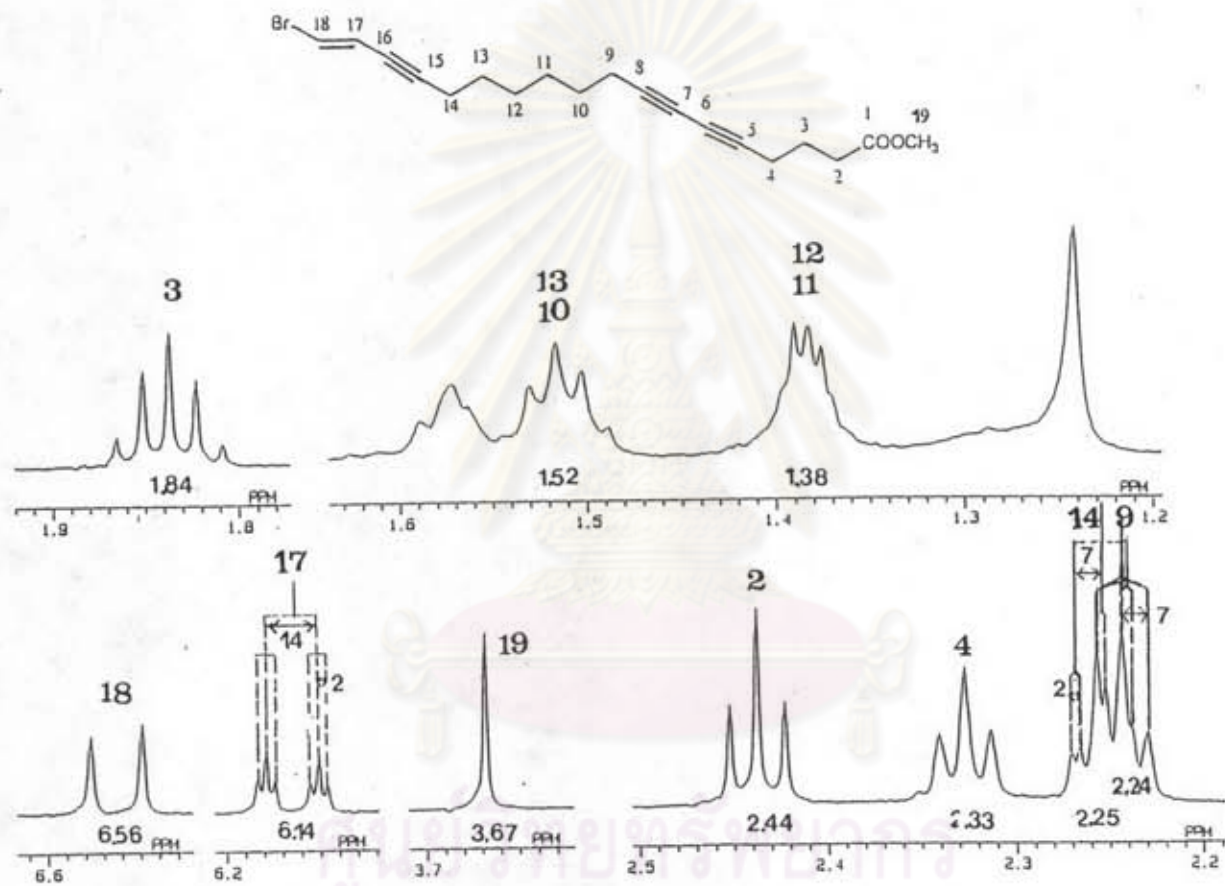


Figure 41 The expansion of 500 MHz ¹H-NMR spectrum of II-2 in deuterated chloroform.

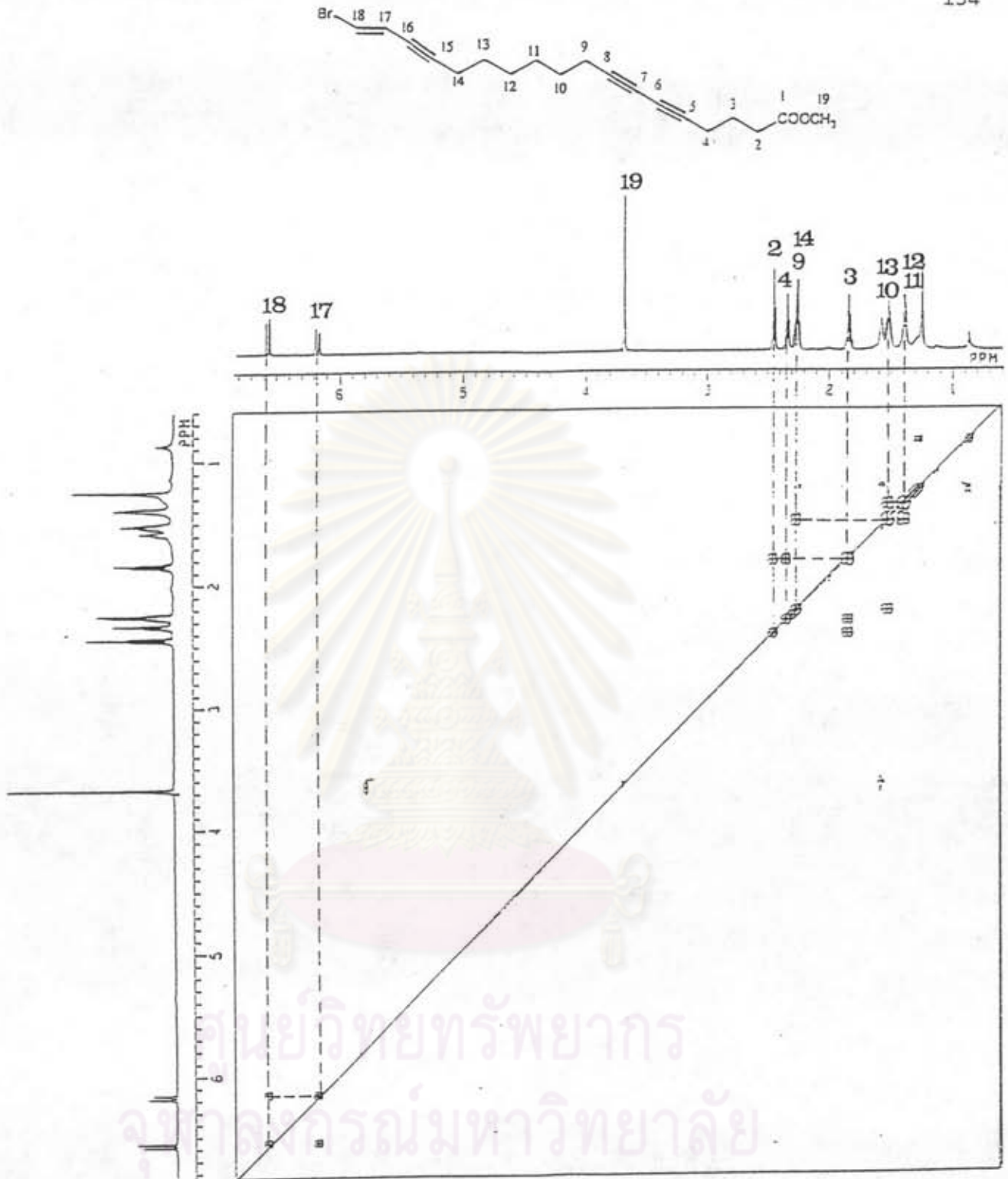


Figure 42 The 500 MHz ¹H-¹H COSY spectrum of H-2 in deuterated chloroform

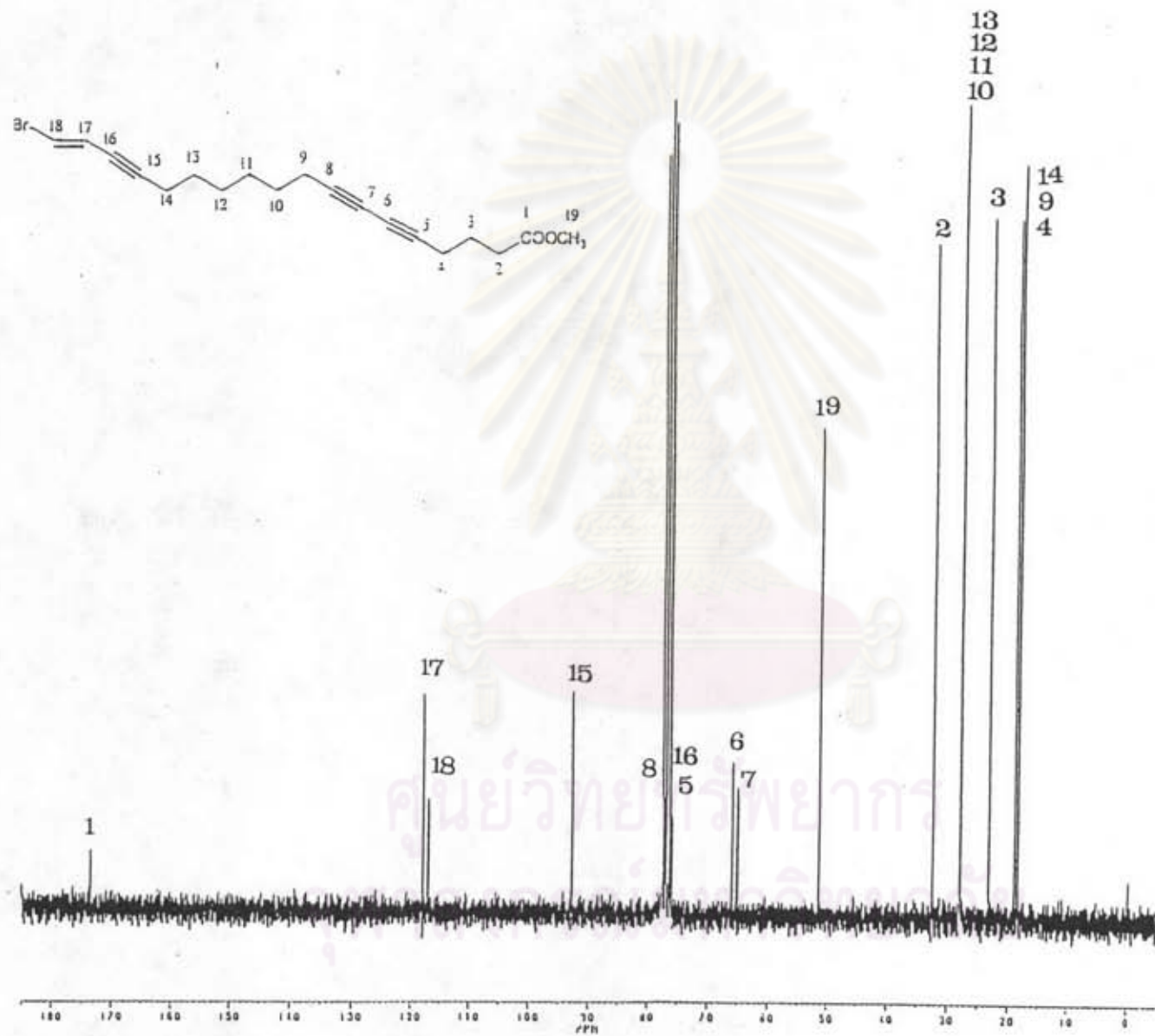


Figure 44 The 50 MHz ^{13}C -NMR spectrum of II-2 in deuterated chloroform

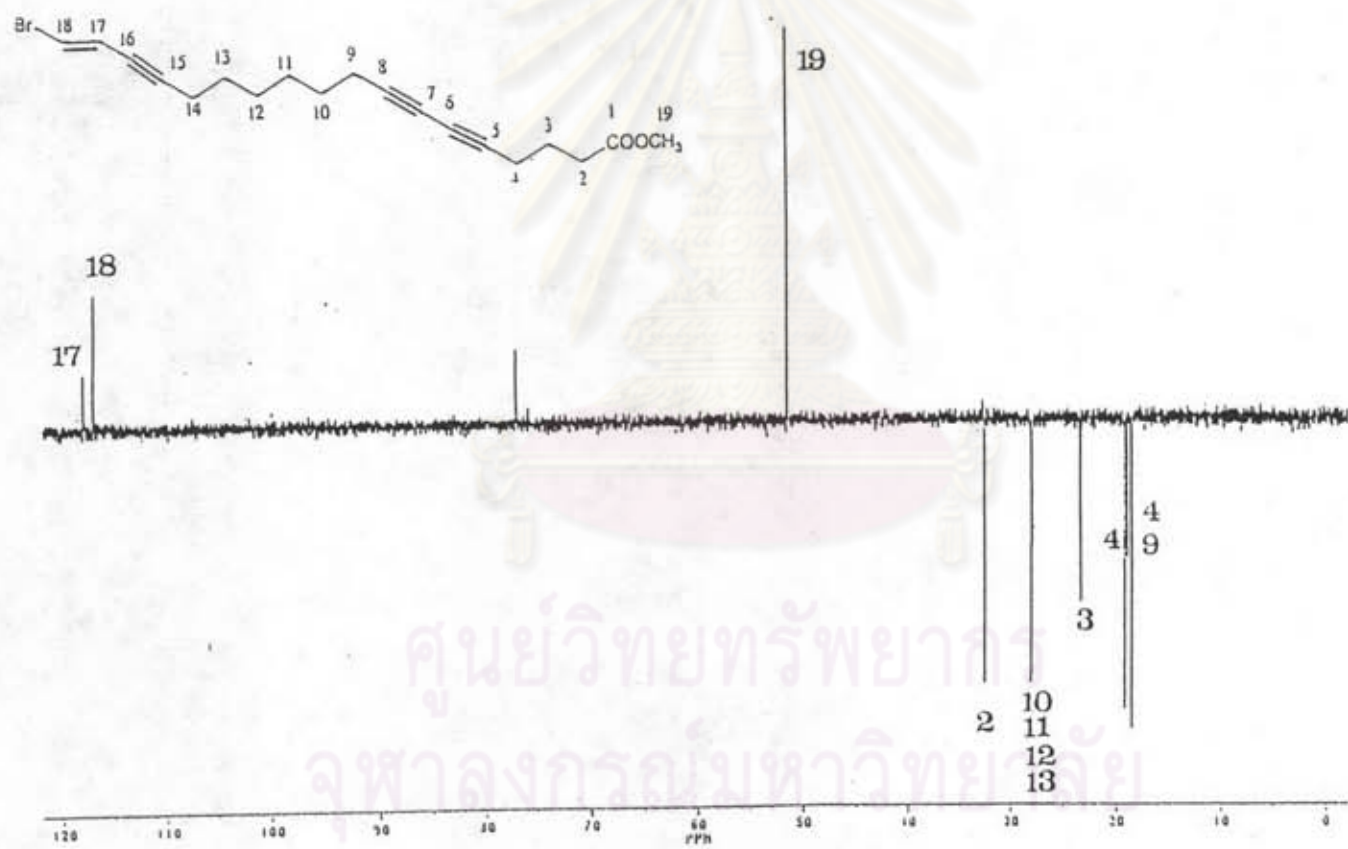


Figure 45 The 50 MHz DEPT 135° spectrum of II-2 in deuterated chloroform

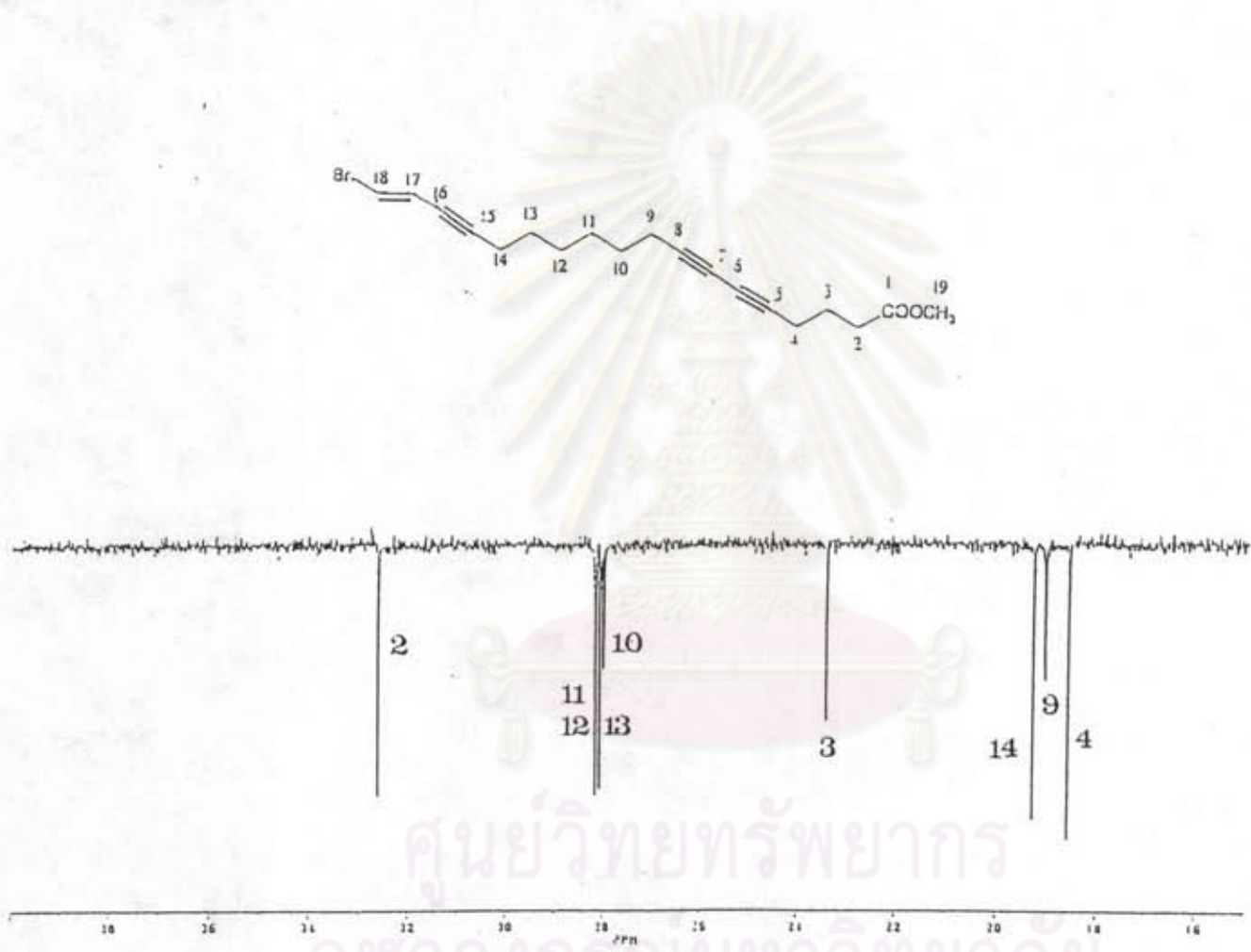


Figure 46 The expansion (δ 16 to 39 ppm) of 50 MHz DEPT 135° spectrum of II-2 in deuterated chloroform

VITA

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