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Figure 1 *Artocarpus lakoocha* Roxb.



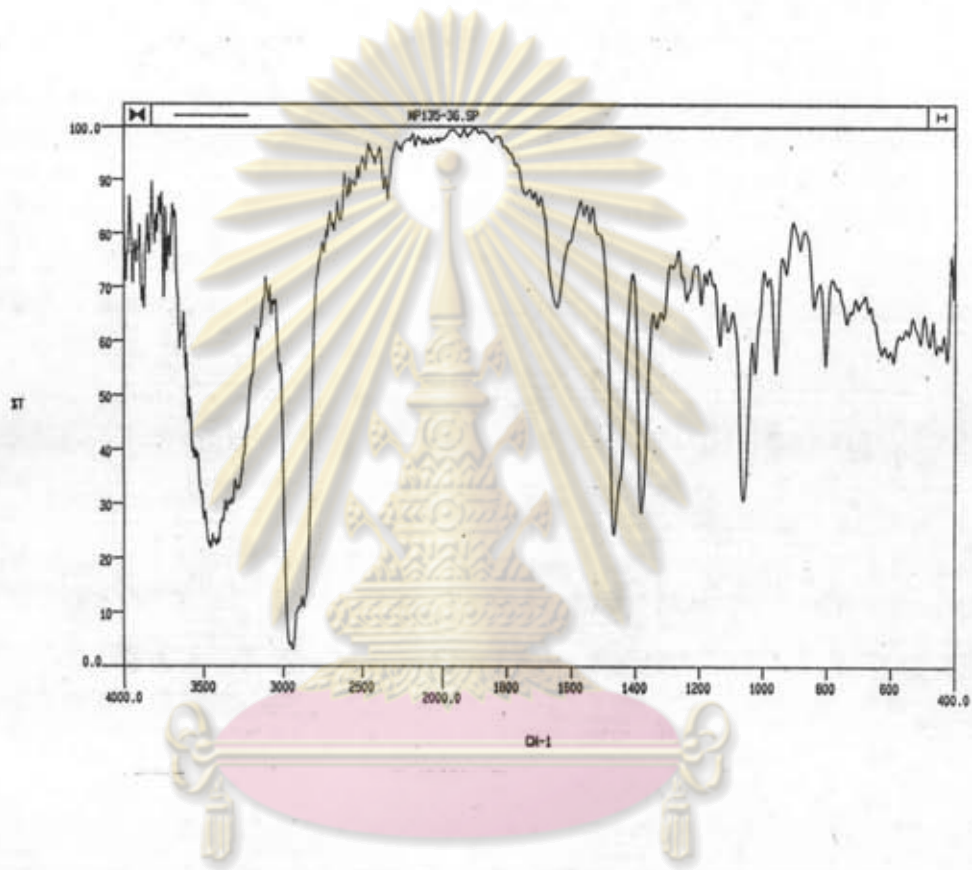
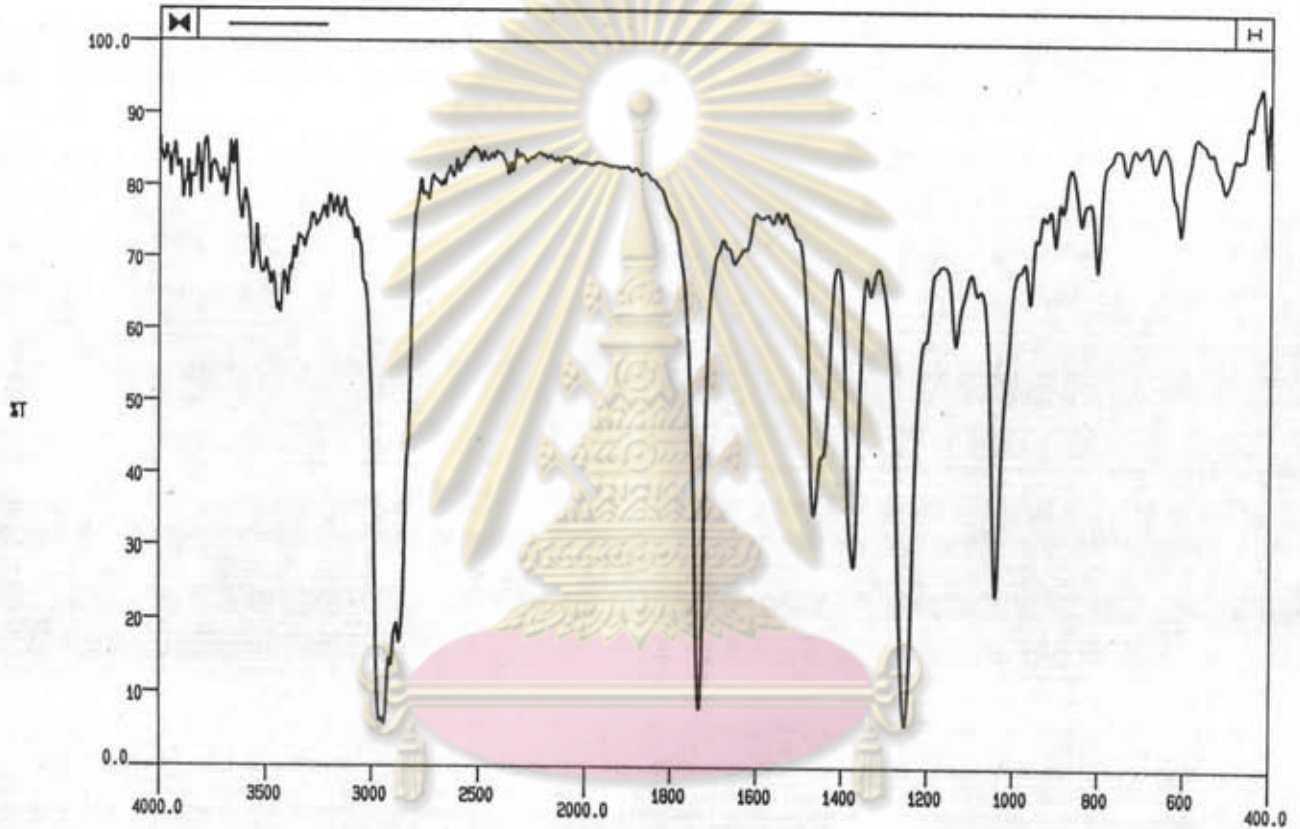


Figure 2 The IR spectrum of AA-4 (KBr-disc).

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Figure 3 The IR spectrumn of AA-4Ac (KBr-disc).



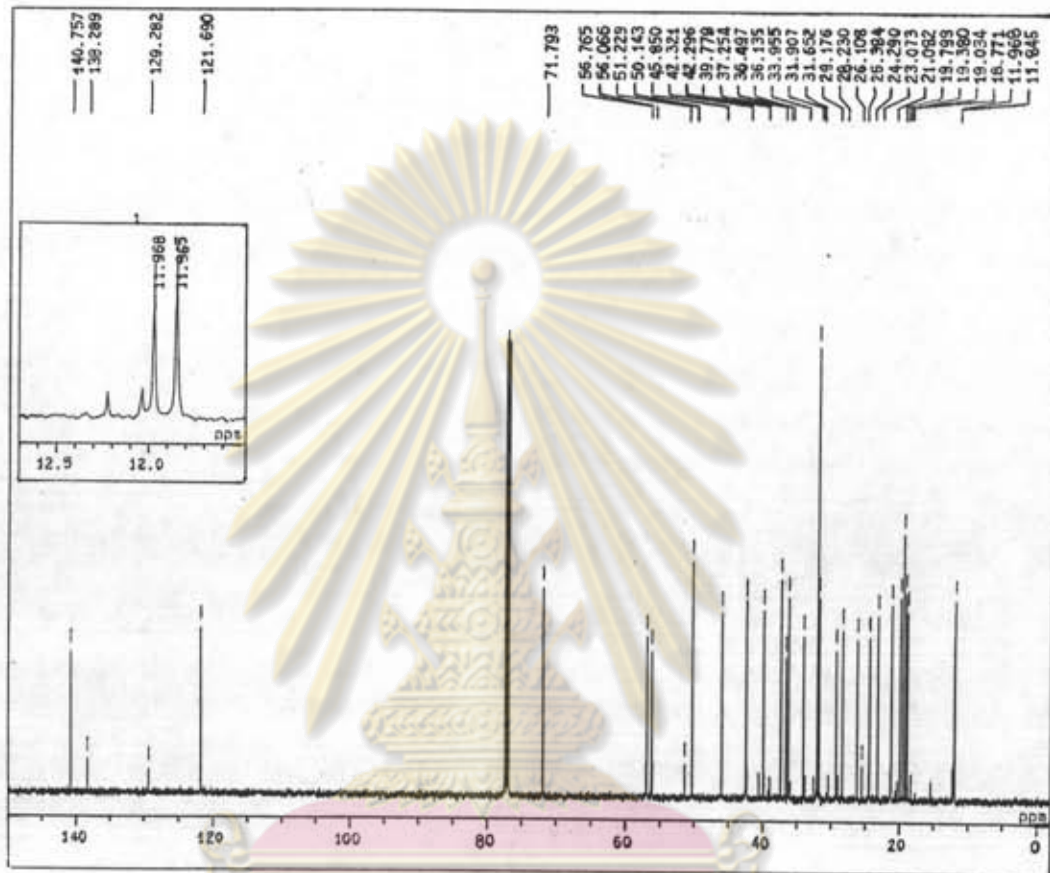


Figure 4 The 125 MHz  $^{13}\text{C}$  NMR spectrum of AA-4 in Chloroform- $d_1$ .

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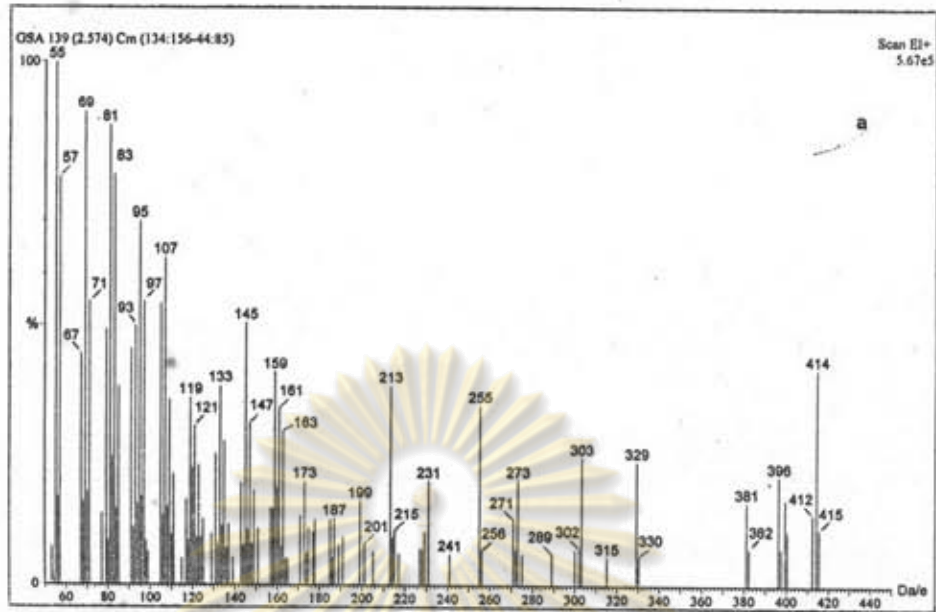


Figure 5 The EIMS spectrum of a) AA-4

b)  $\beta$ -sitosterol



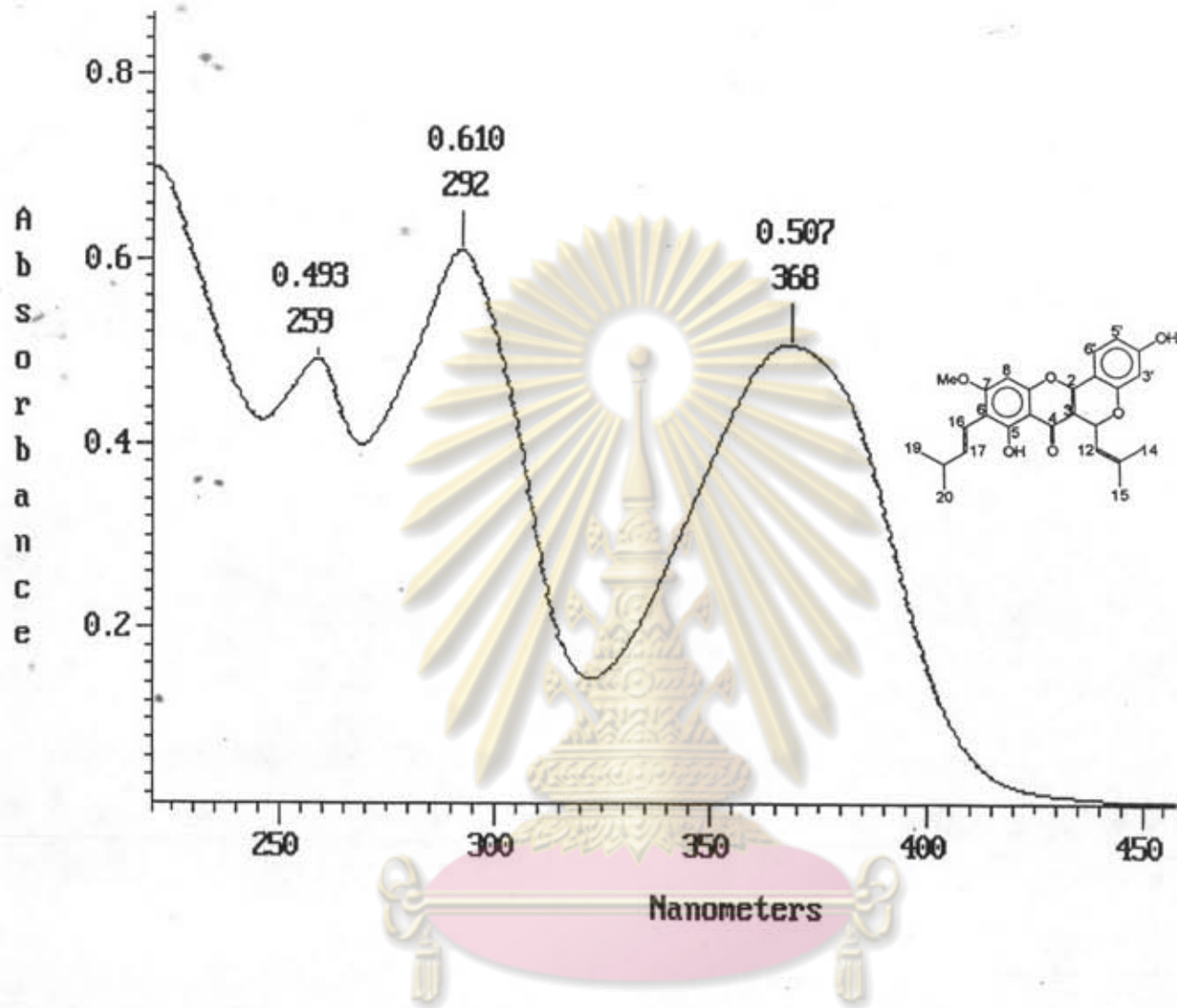


Figure 6 The UV spectrum of BB-2 in MeOH.

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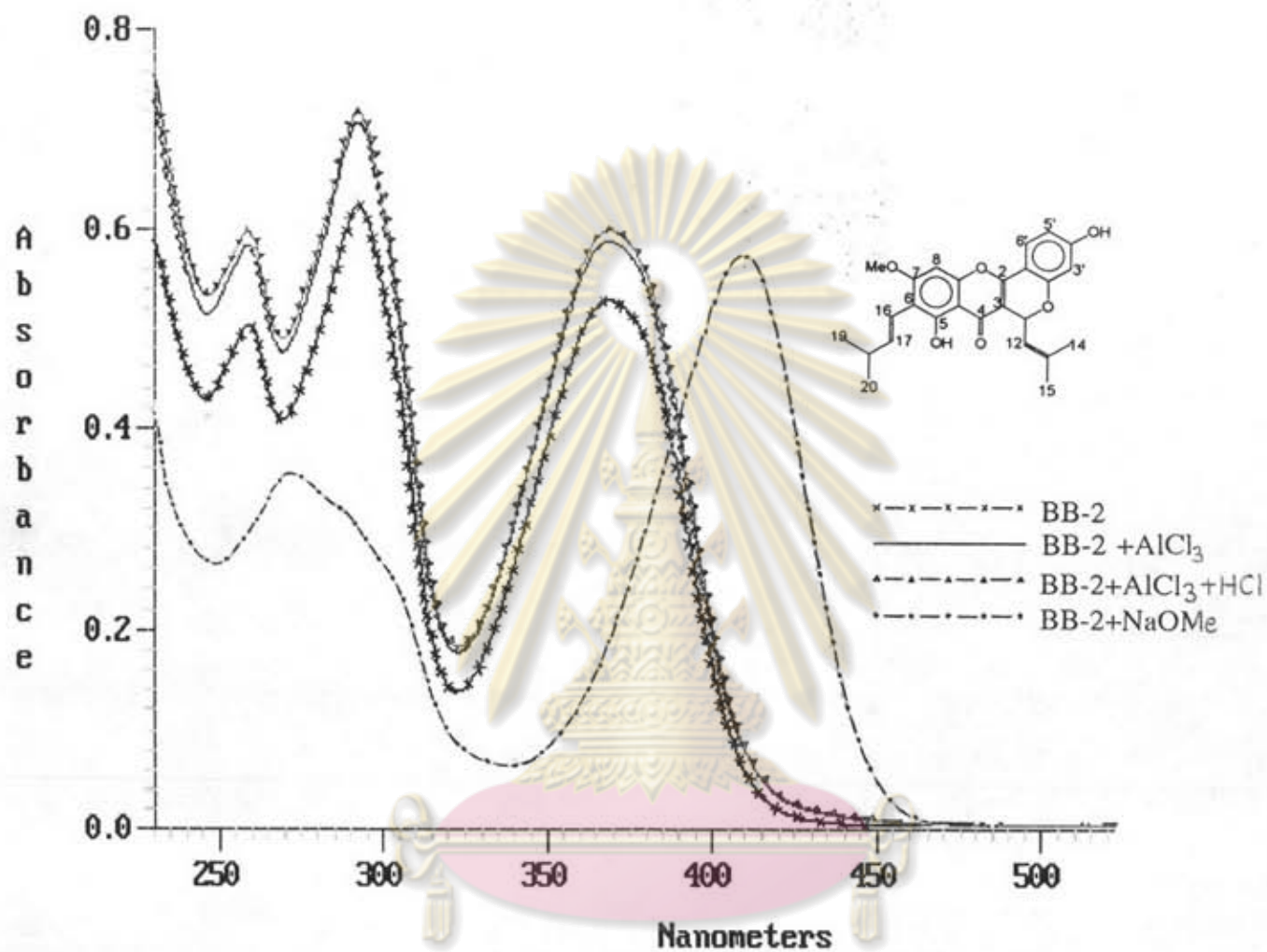


Figure 7 The UV spectrum of BB-2 (in Methanol) with shift reagent

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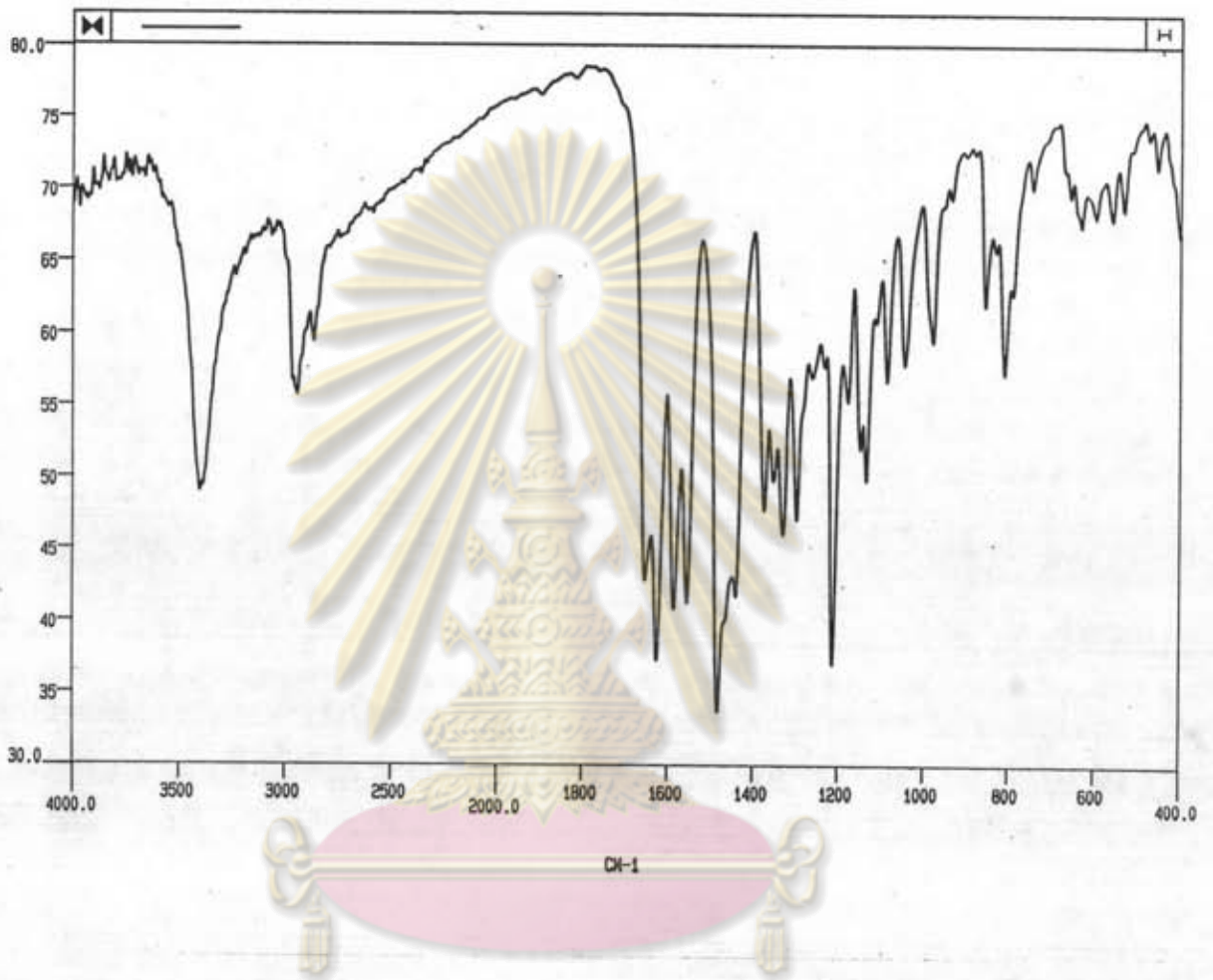


Figure 8 The IR spectrum of BB-2 (KBr-disc).

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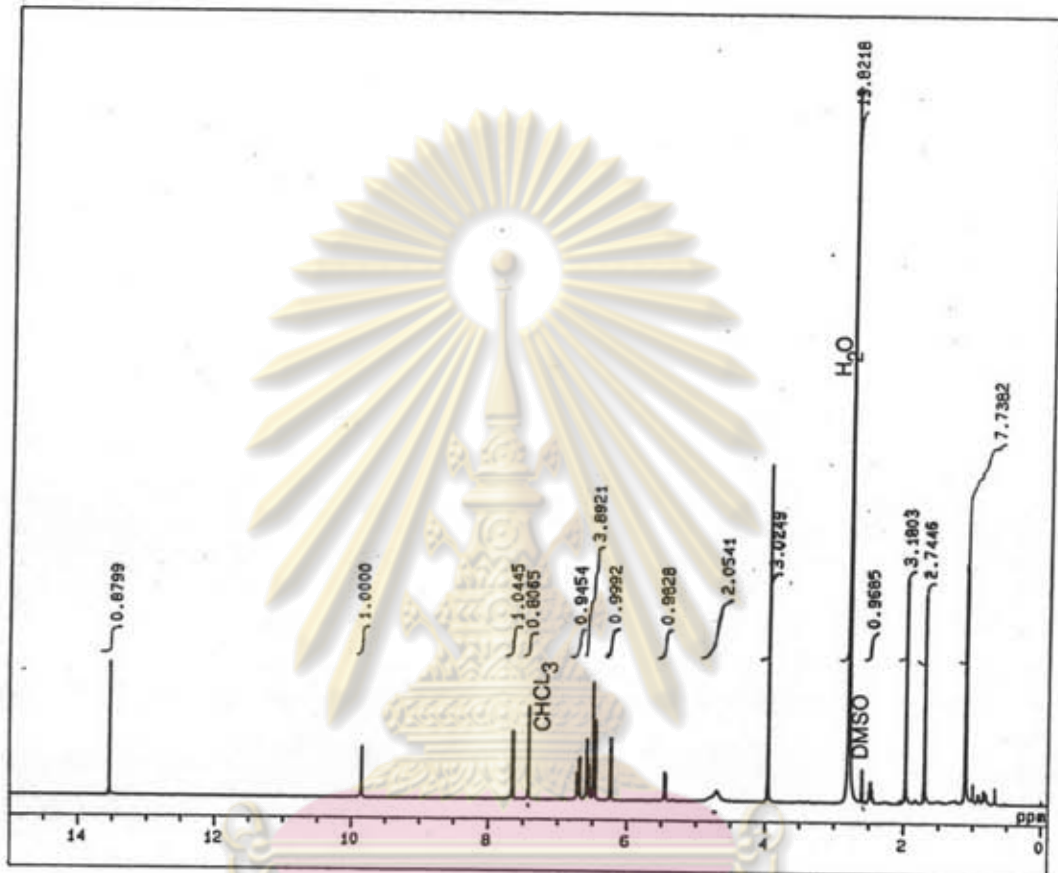


Figure 9 The 500 MHz  $^1\text{H}$  NMR spectrum of BB-2 in the mixture of chloroform- $\text{d}_1$  and  $\text{DMSO-d}_6$ .

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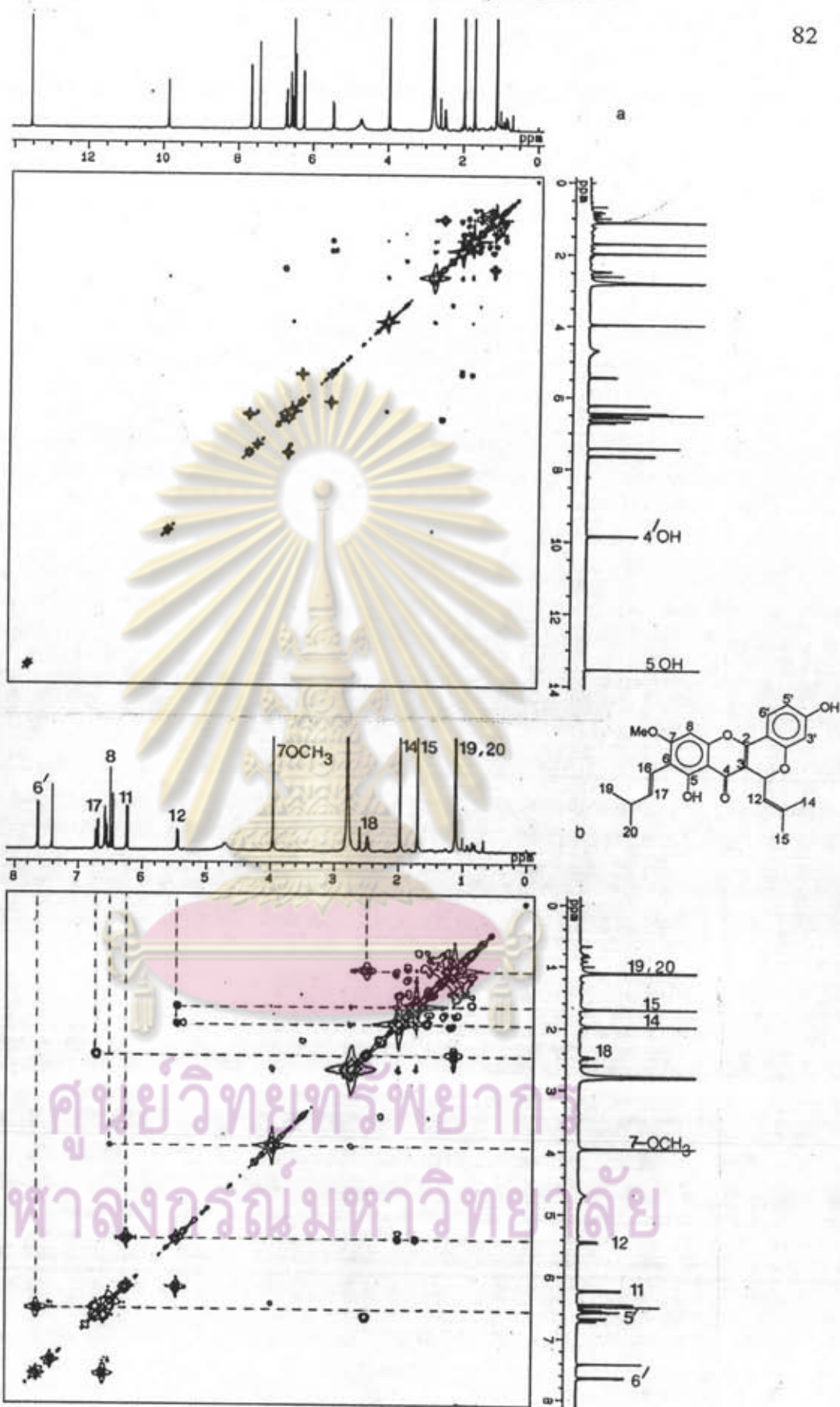


Figure 10 The 500 MHz  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of BB-2 in the mixture of chloroform- $d_1$  and DMSO- $d_6$ .

a) Full spectrum

b) expanded from 0-8 ppm

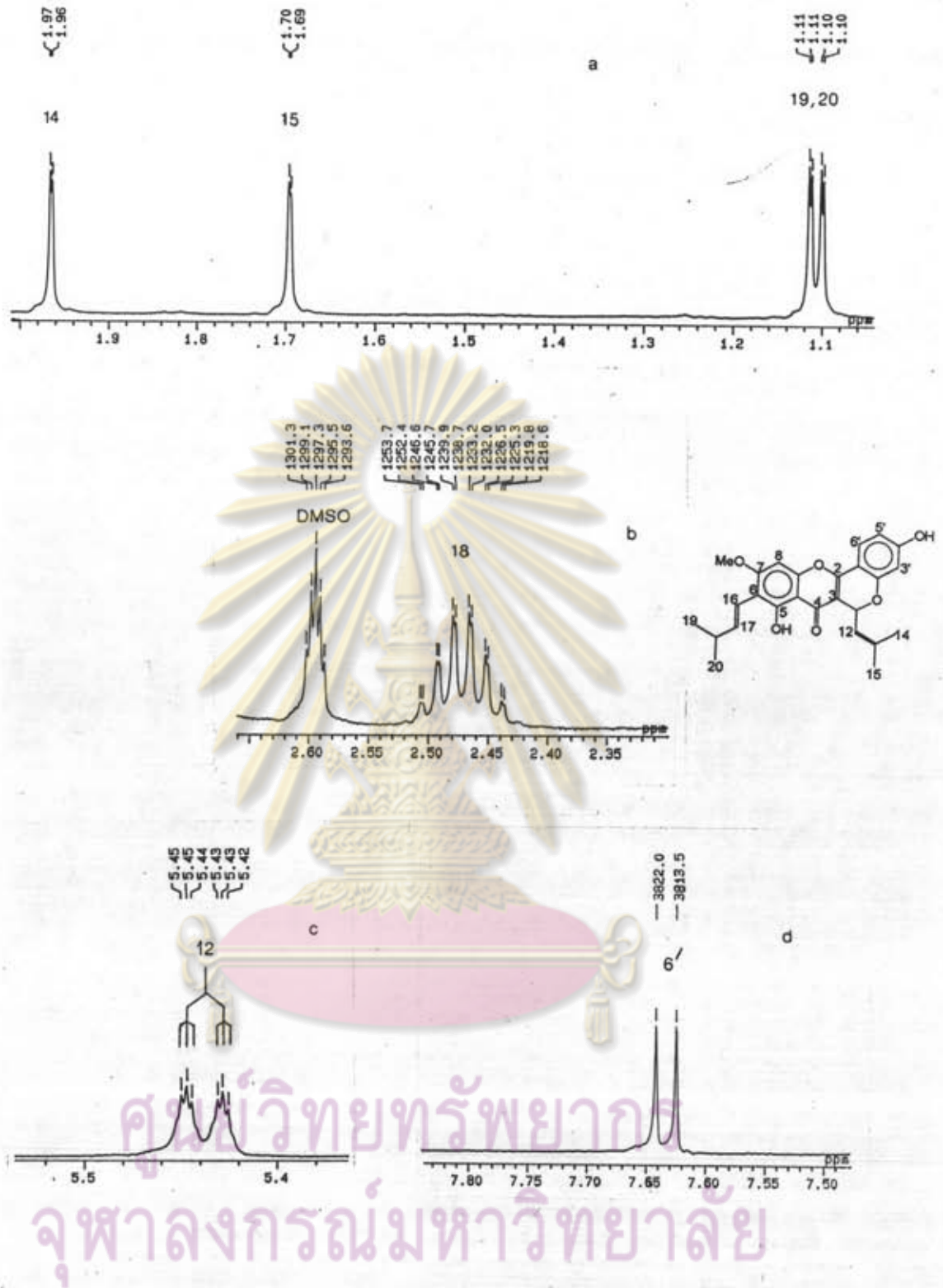


Figure 11 The expansion of 500 MHz  $^1\text{H}$  NMR of BB-2.

a) expanded from 0.8-2 ppm b) expanded from 2.3-2.65 ppm

c) expanded from 5.4-5.5 ppm d) expanded from 7.50-7.80 ppm

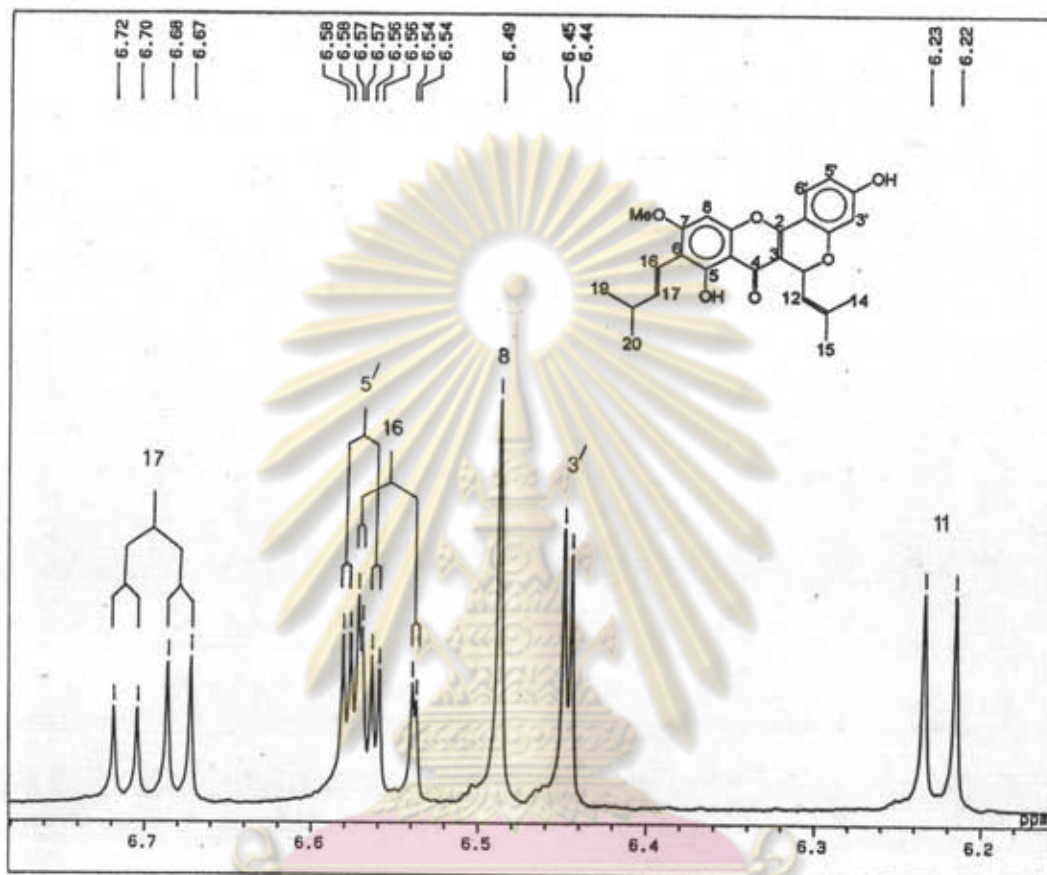


Figure 12 The expansion of 500 MHz  $^1\text{H}$  NMR of BB-2

(expanded from 6.16-6.78 ppm)

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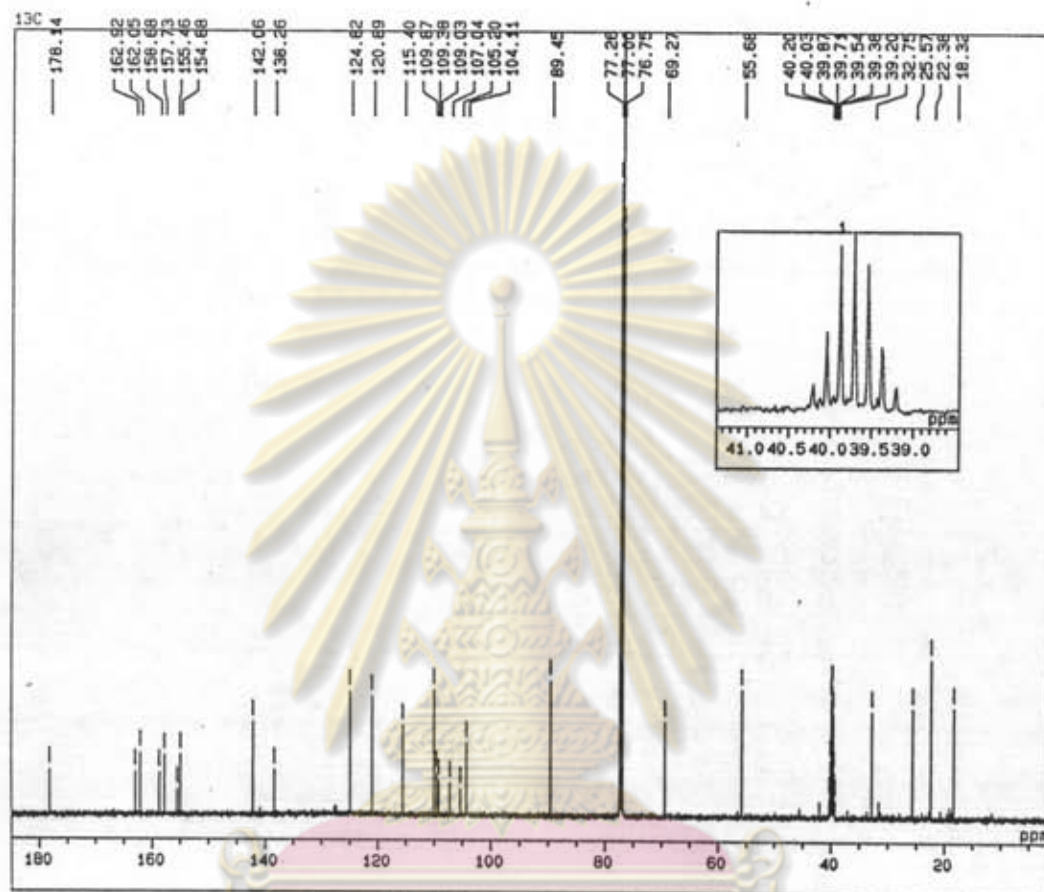


Figure 13 The 125 MHz  $^{13}\text{C}$  NMR spectrum of BB-2 in the mixture of chloroform- $\text{d}_1$  and DMSO- $\text{d}_6$ .

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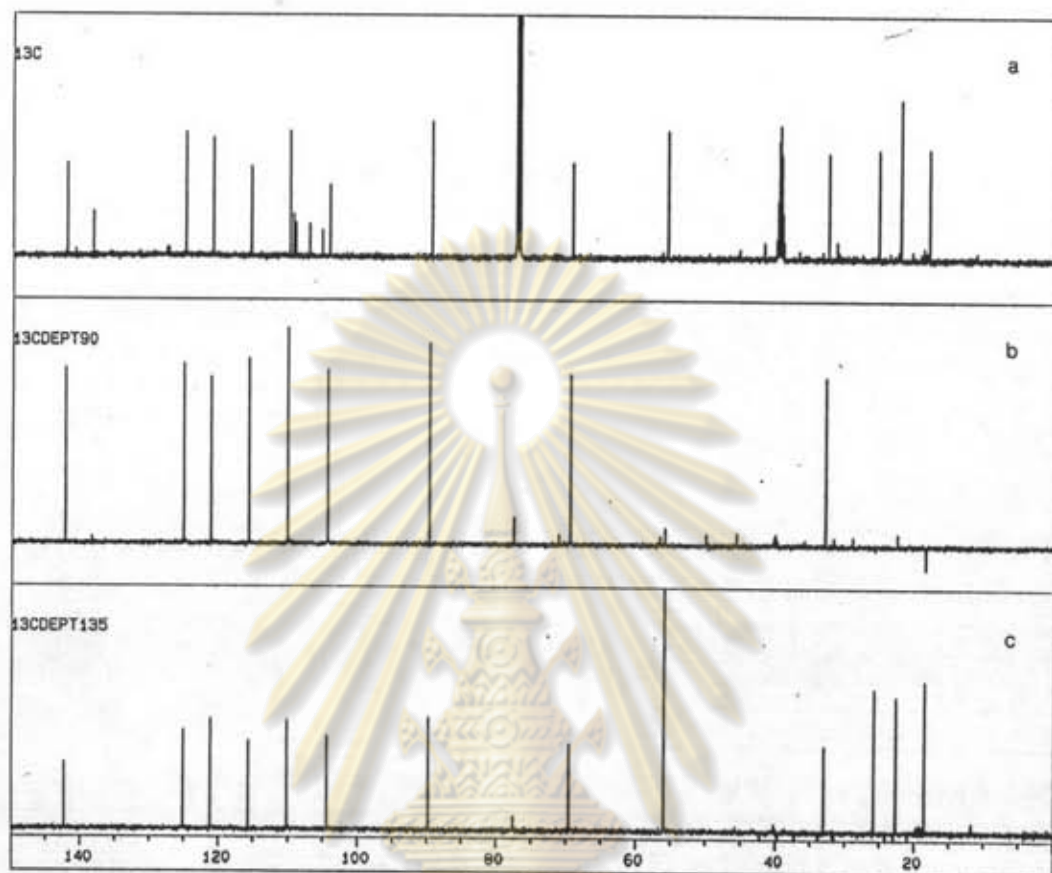


Figure 14 The  $^{13}\text{C}$  DEPT spectrum of BB-2 in the mixture of chloroform- $\text{d}_1$  and DMSO- $\text{d}_6$ .

a) Normal  $^{13}\text{C}$  NMR spectrum    b)  $^{13}\text{C}$  DEPT-90

c)  $^{13}\text{C}$  DEPT-135

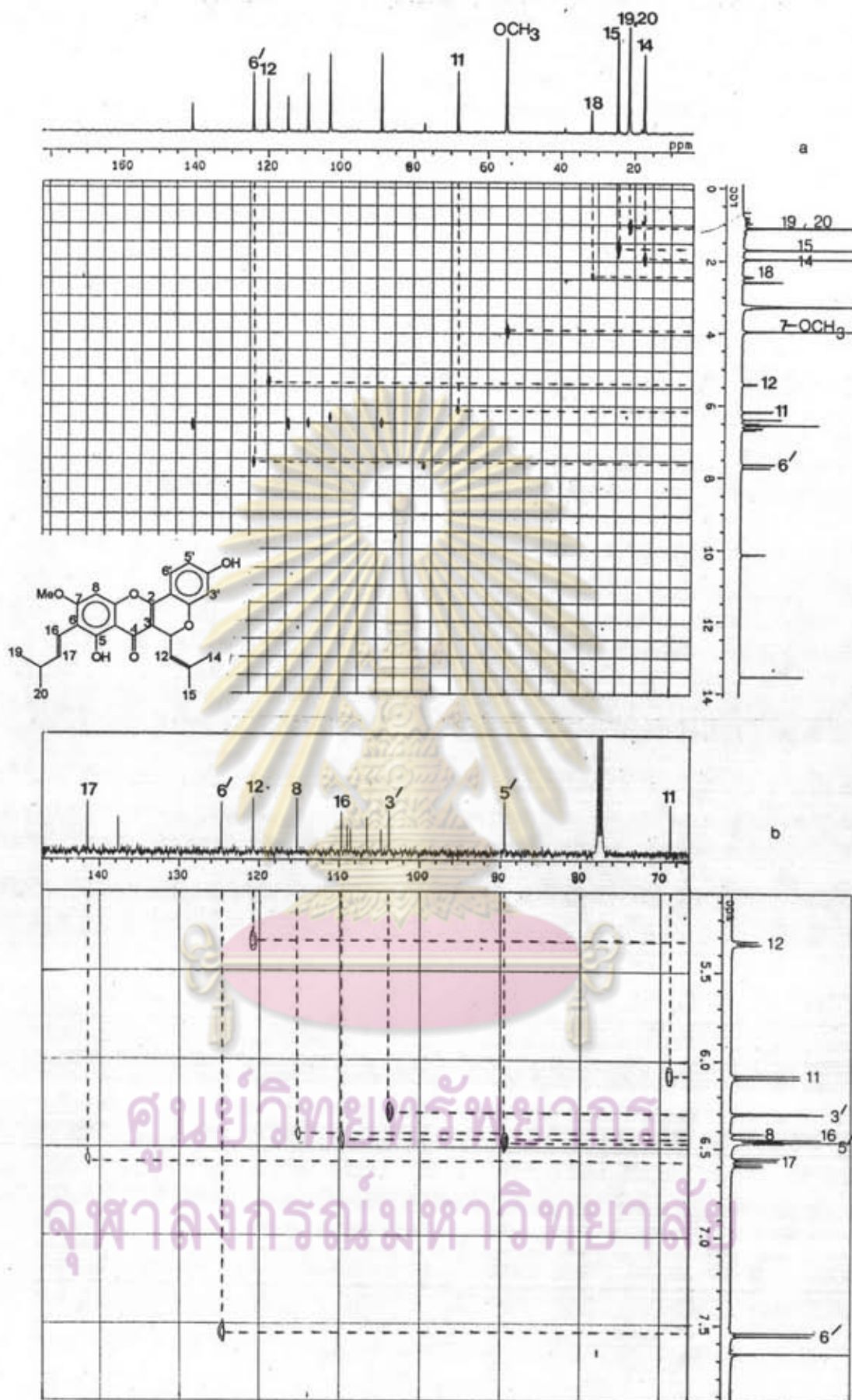


Figure 15 The 125 MHz  $^{13}\text{C}$ - $^1\text{H}$  COSY spectrum of BB-2 in the mixture of chloroform- $\text{d}_1$  and DMSO- $\text{d}_6$ .

a) Full spectrum

b) expanded from 5.0-8.0 ppm



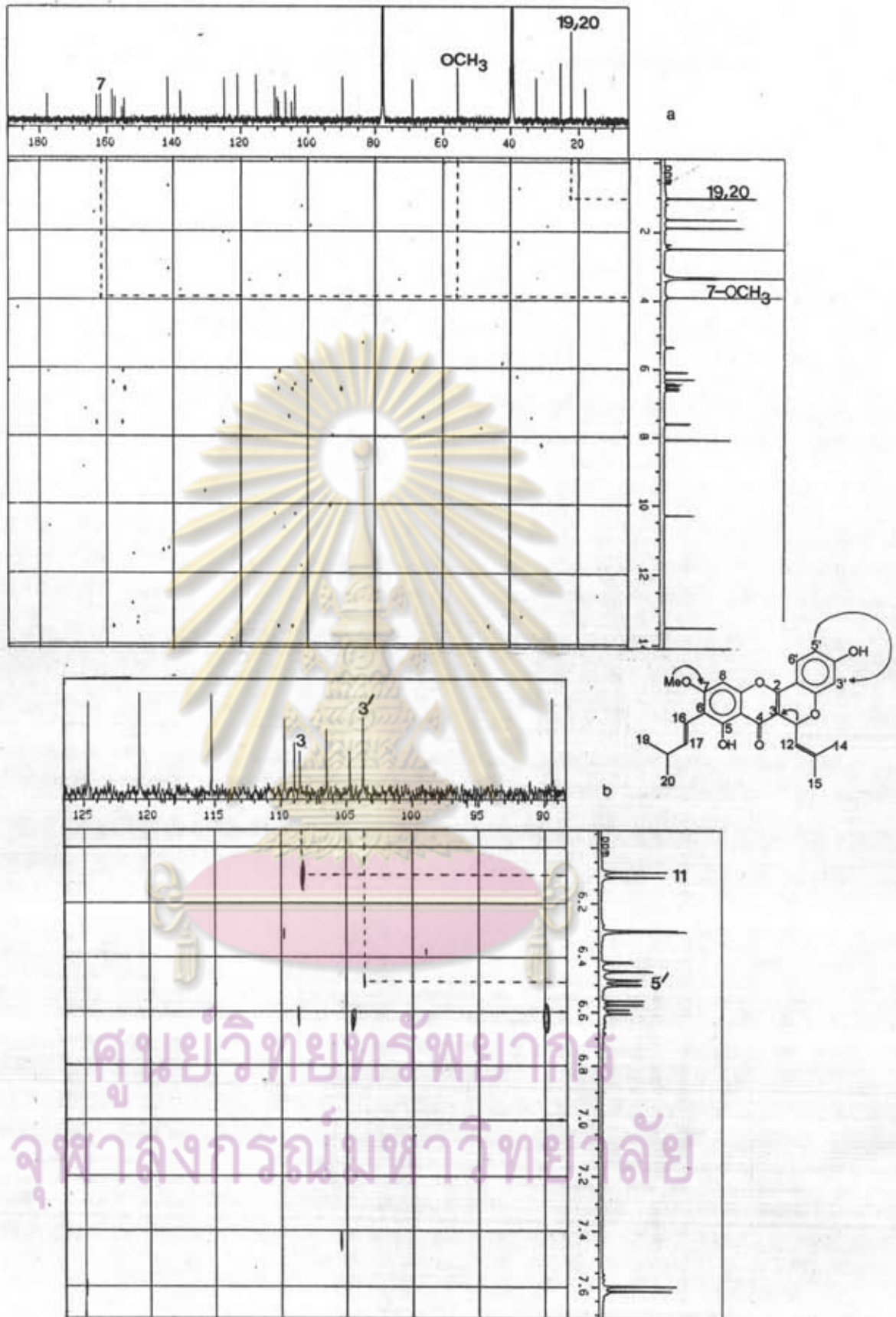


Figure 16 The 500 MHz COLOC spectrum (at 4 Hz) of BB-2 in DMSO-d<sub>6</sub>

a) Full spectrum

b) expanded from 6.0-7.7 ppm

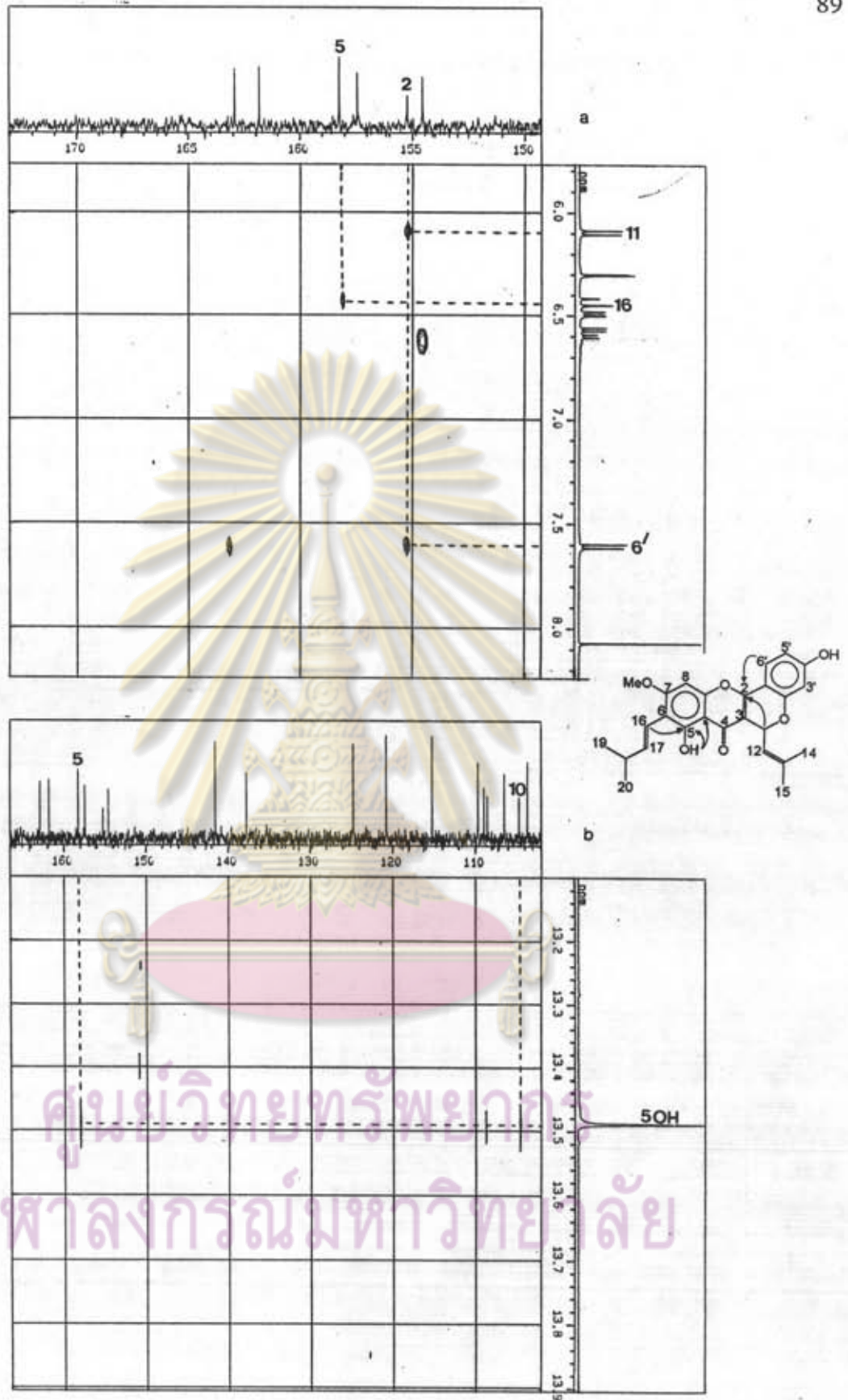
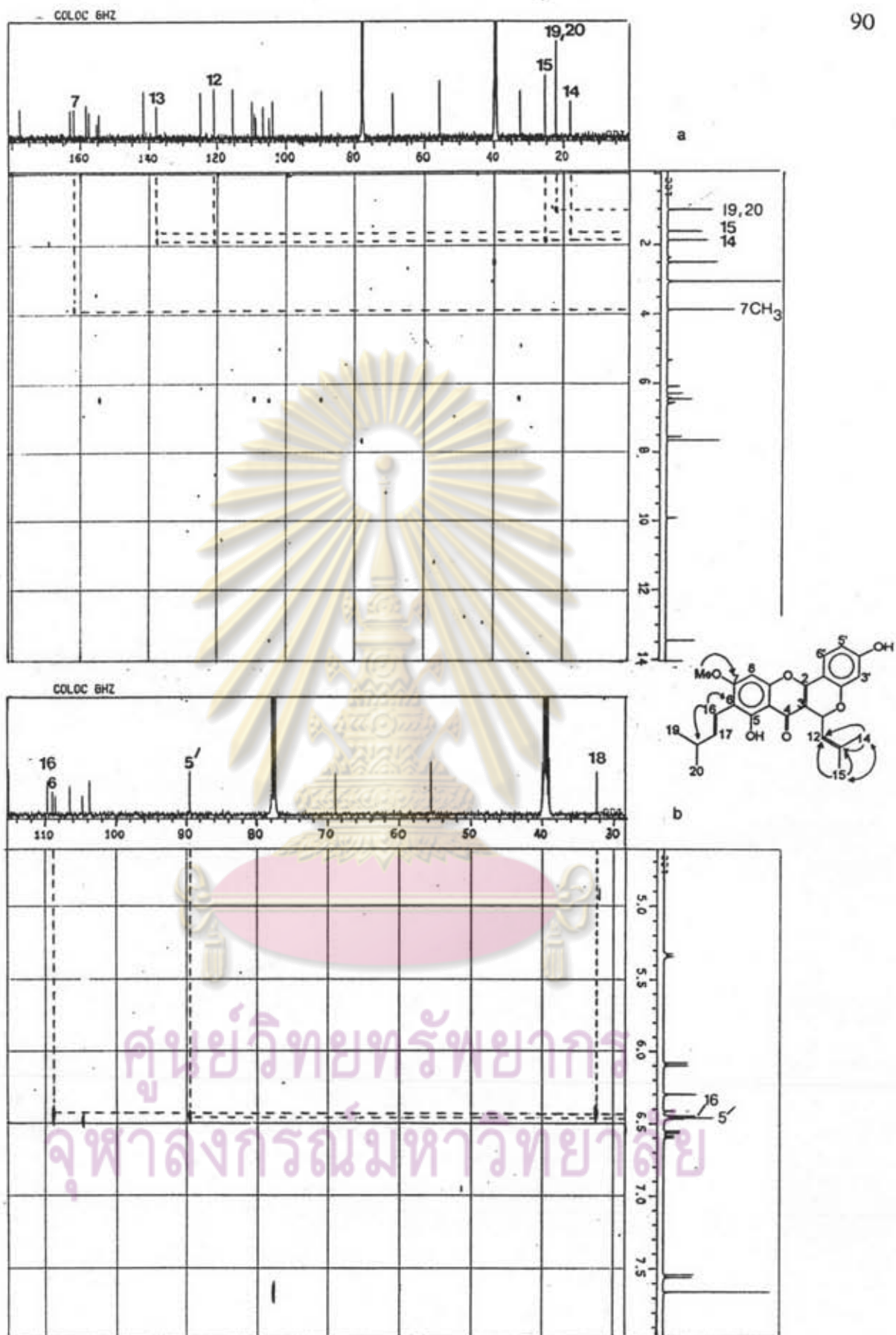
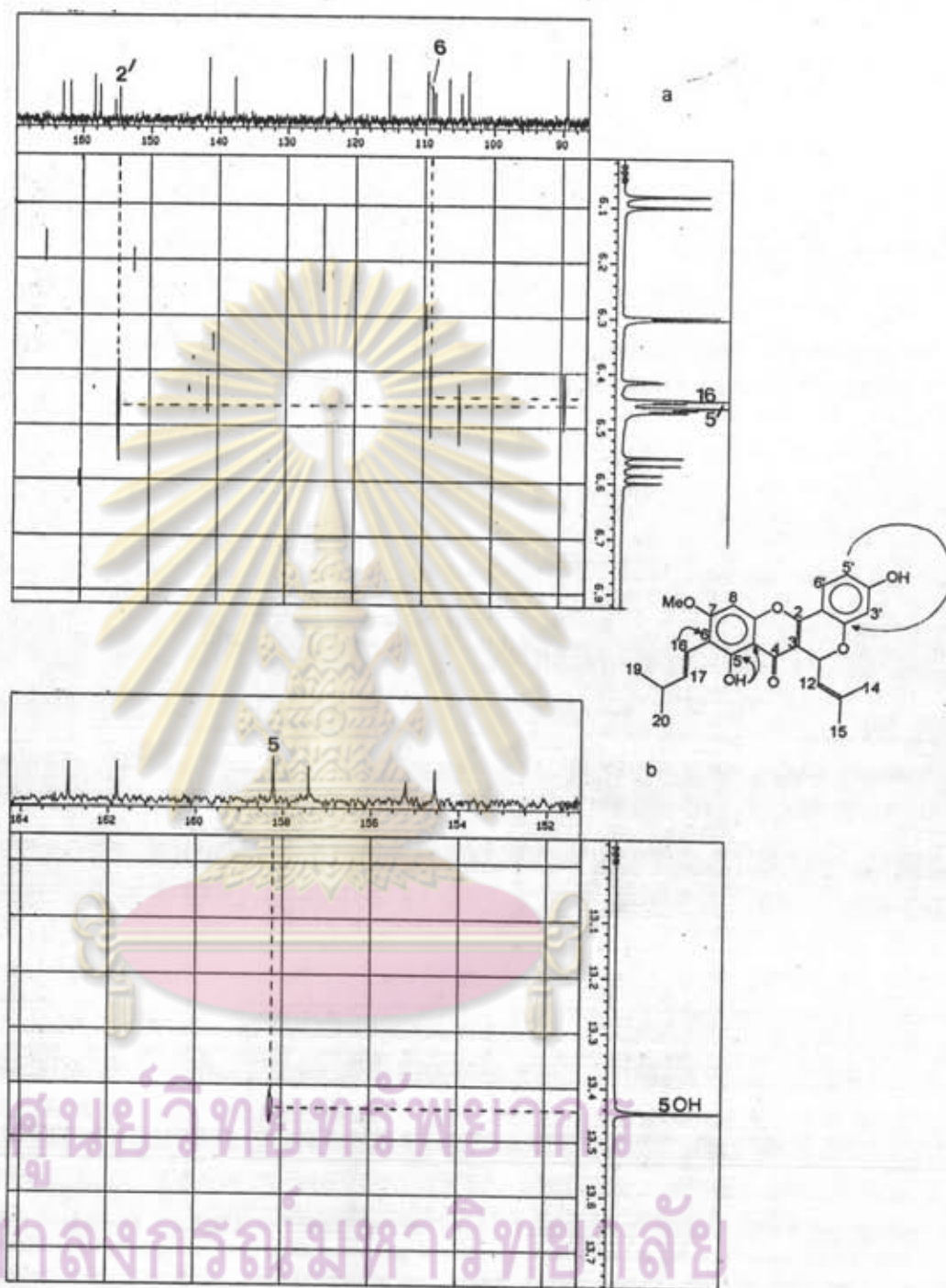


Figure 17 The 500 MHz COLOC spectrum (at 4 Hz) of BB-2 in DMSO-d<sub>6</sub>.

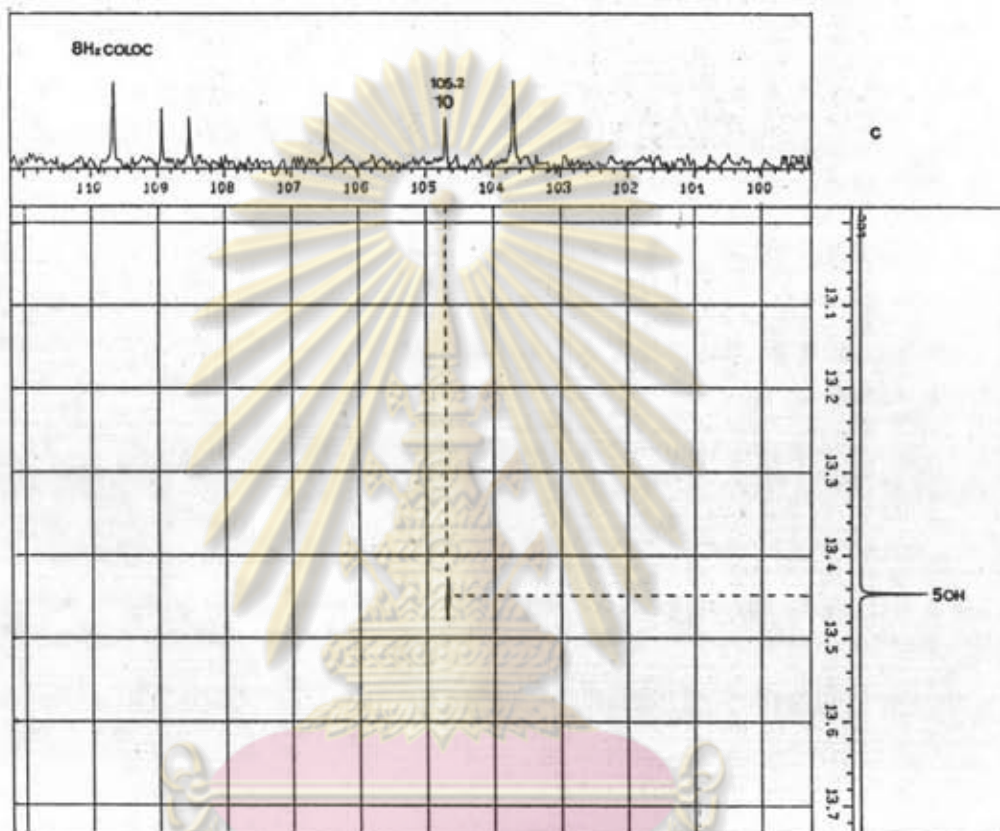
a) expanded from 5.8-8.2 ppm    b) expanded from 13.1-13.9 ppm







**Figure 19** The 500 MHz COLOC spectrum (at 8 Hz) of BB-2 in DMSO-d<sub>6</sub>.  
 a) expanded from 6.0-6.8 ppm    b) expanded from 13.0-13.7ppm  
 c) expanded from 13.1-13.7ppm



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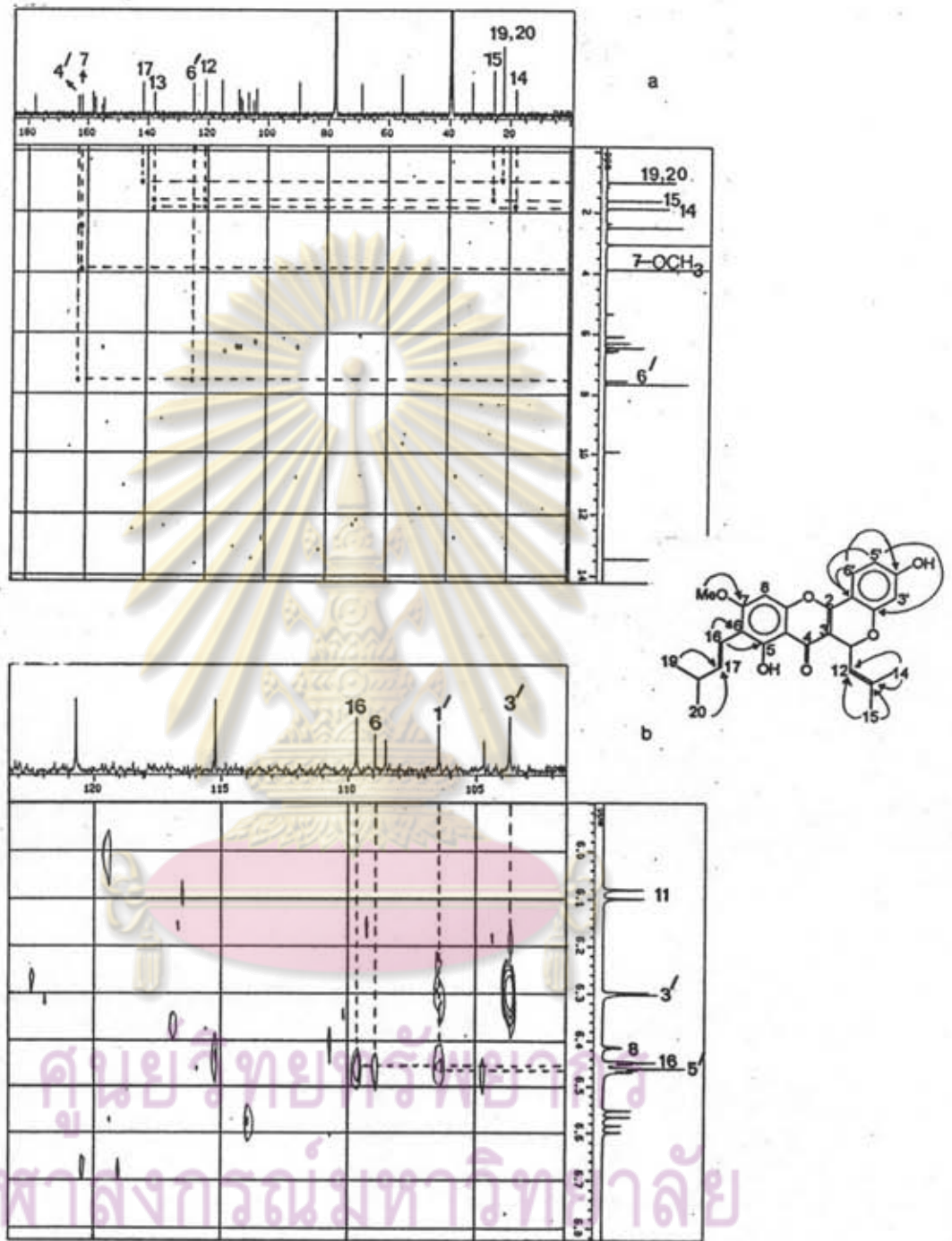


Figure 20 The 500 MHz COLOC spectrum (at 12 Hz) of BB-2 in DMSO-d<sub>6</sub>.

a) Full spectrum

b) expanded from 5.9-6.8 ppm





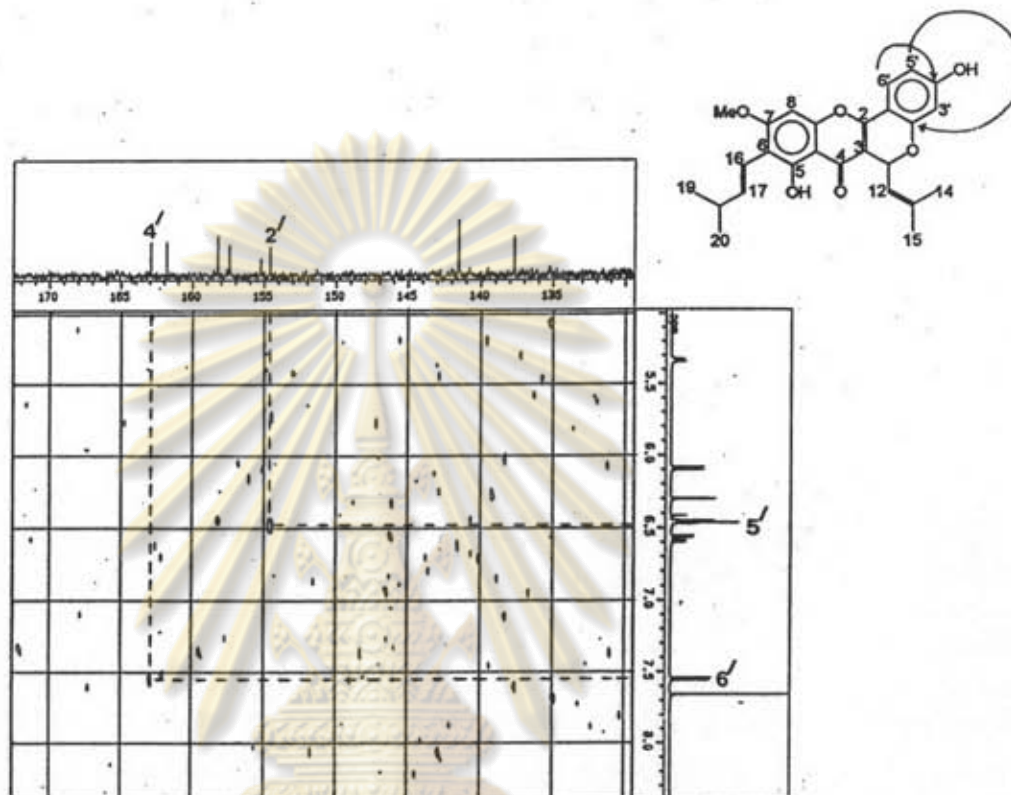


Figure 21 The 500 MHz COLOC spectrum (at 12 Hz) of BB-2 in DMSO-d<sub>6</sub>.

(expanded from 5.4-8.5 ppm)

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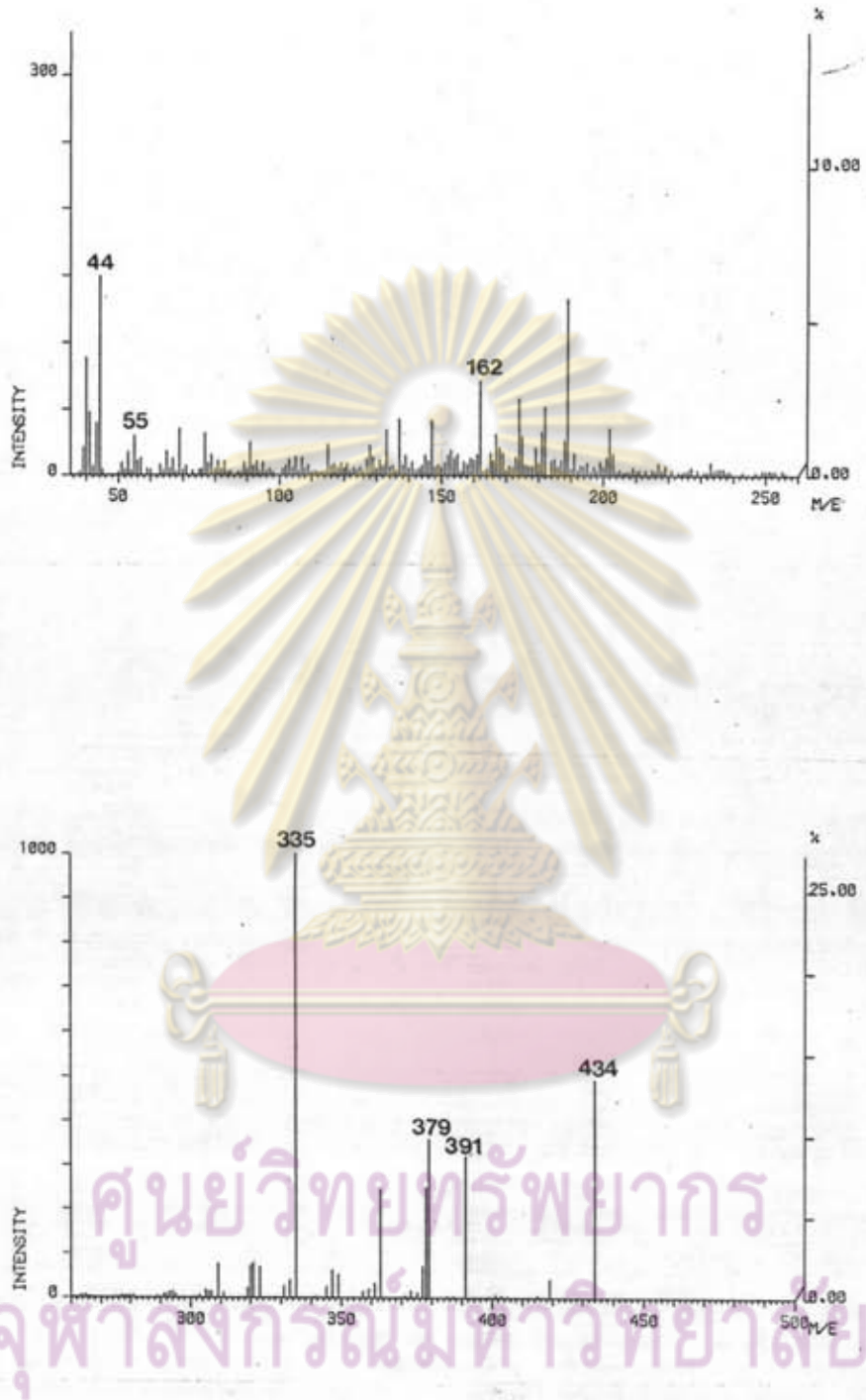
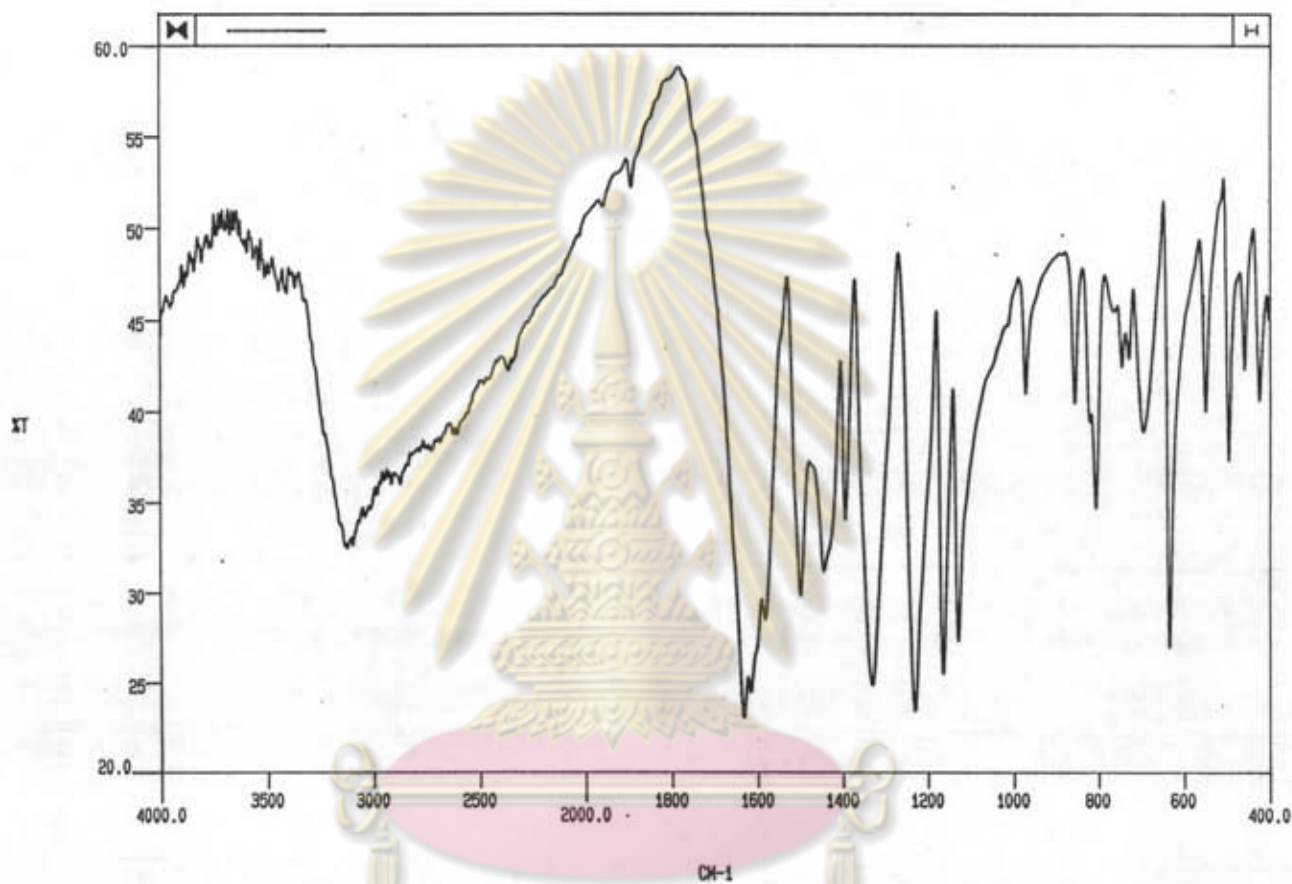


Figure 22 The EIMS spectrum of BB-2.

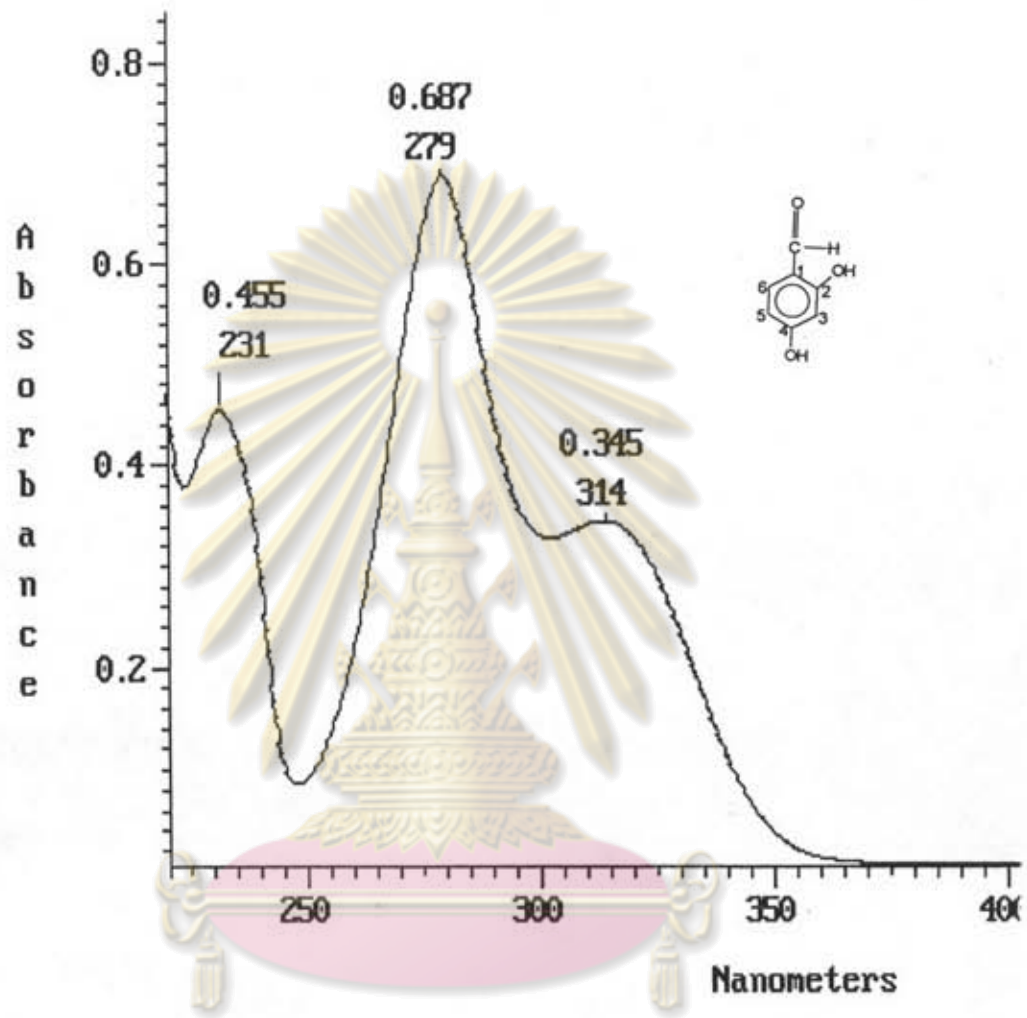


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Figure 23 The IR spectrum of BB-3.3 (KBr-disc).

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Figure 24 The UV spectrum of BB-3.3 in MeOH.

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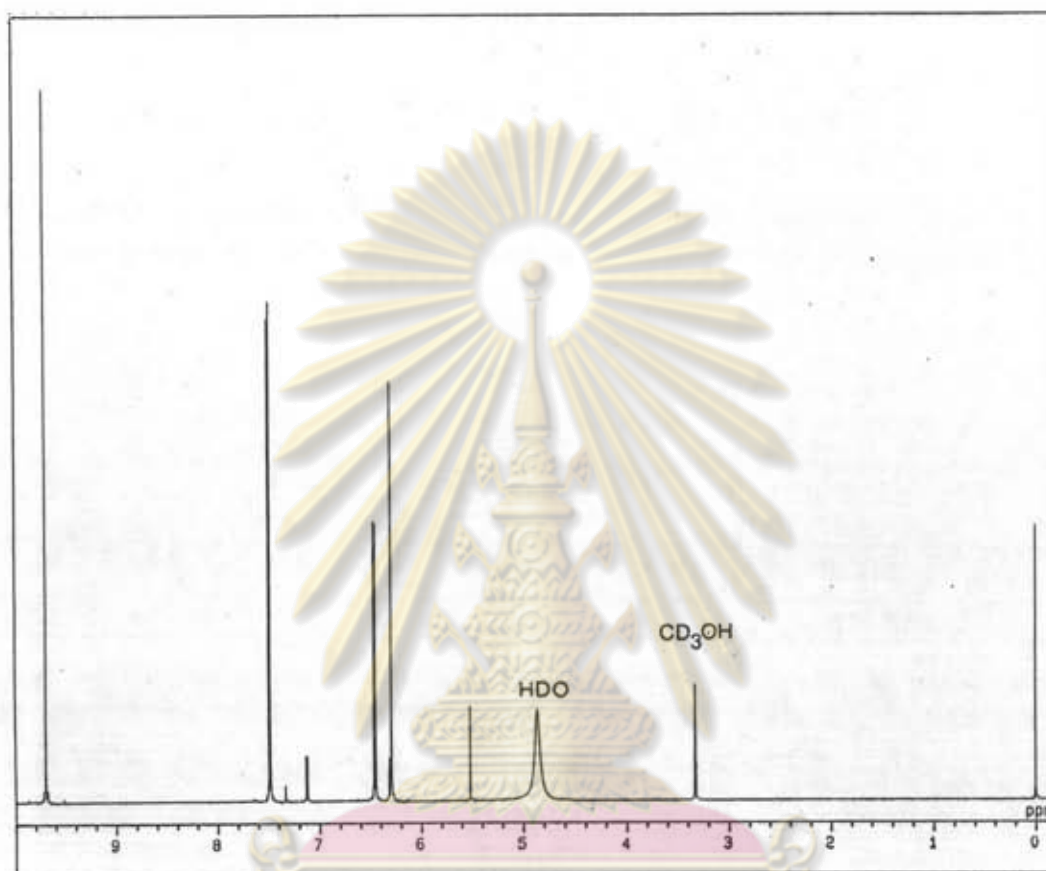


Figure 25 The 500 MHz  $^1\text{H}$  NMR spectrum of BB-3.3 in  $\text{MeOH-d}_4$ .

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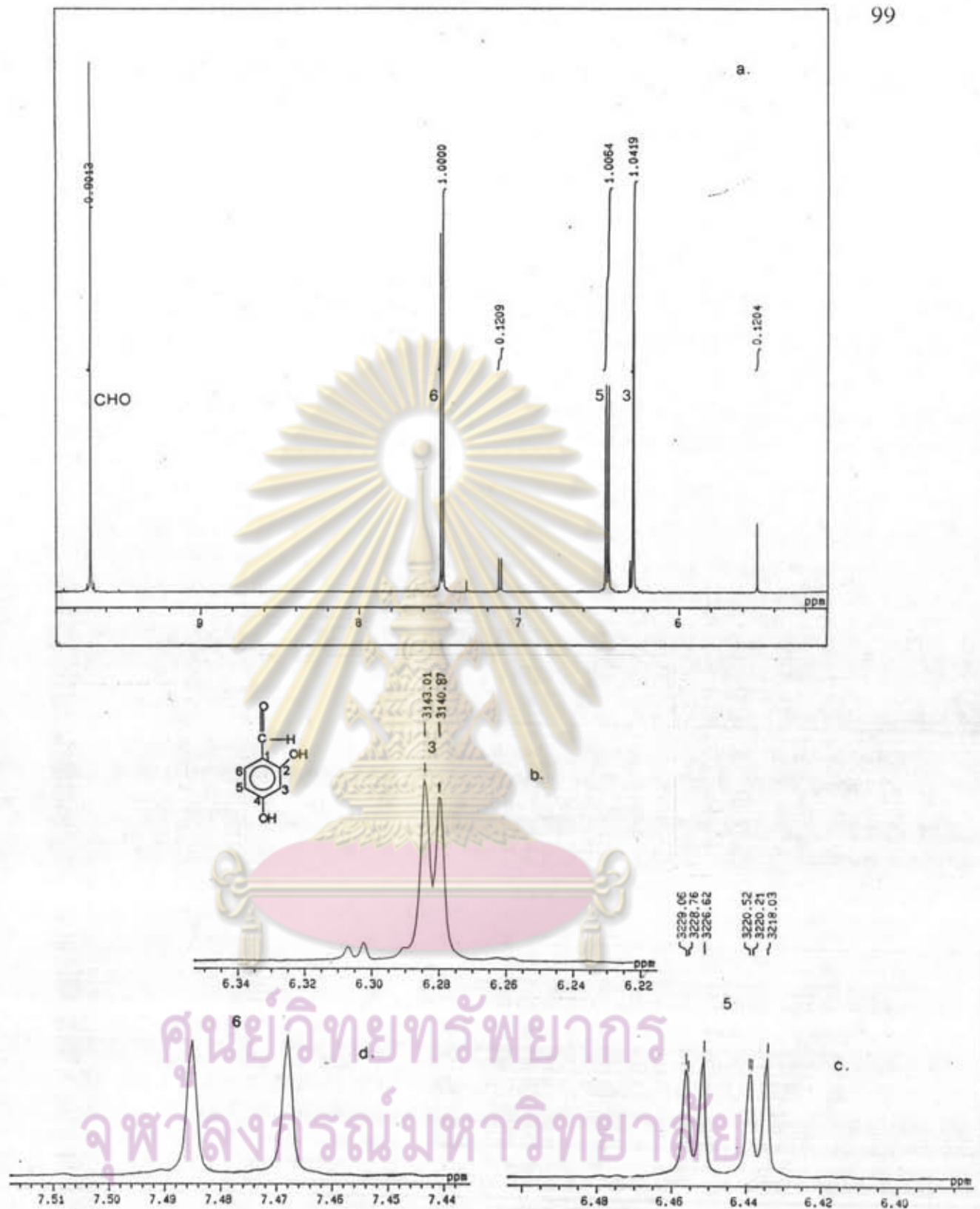


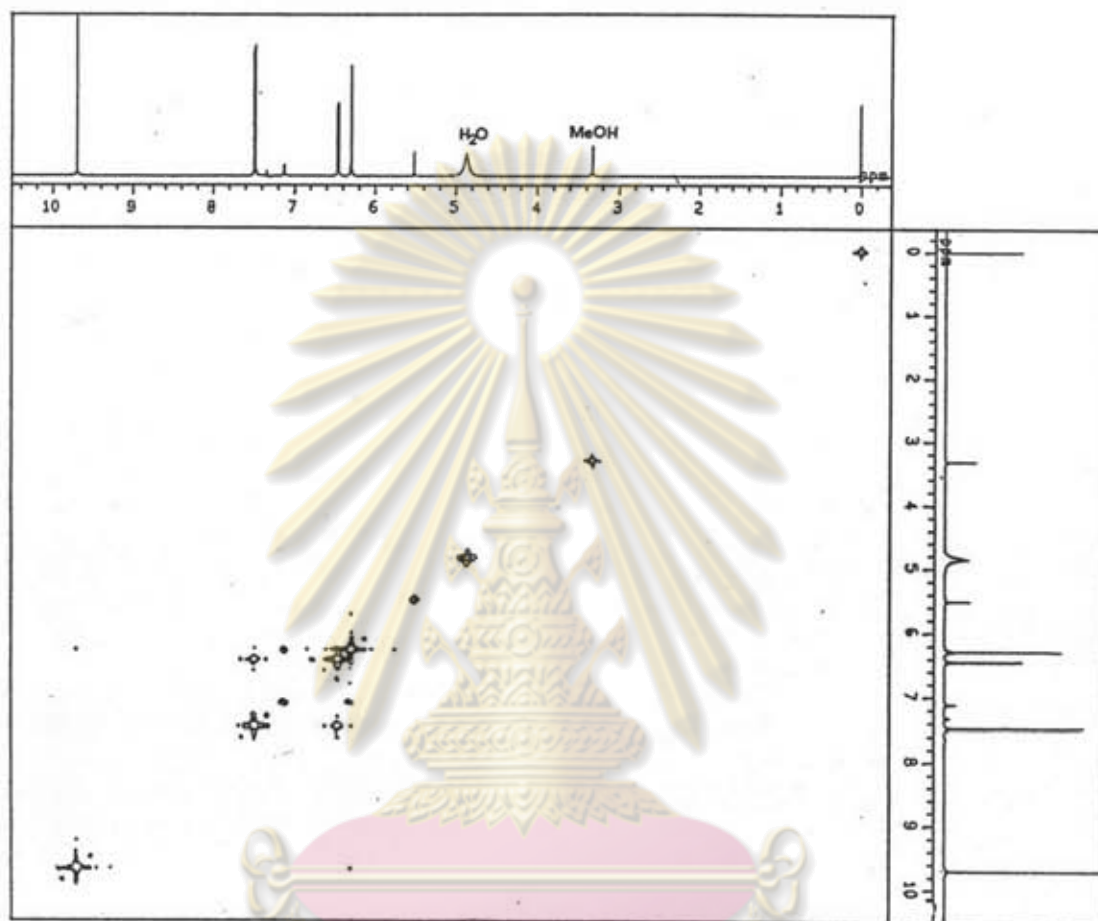
Figure 26 The expansion of 500 MHz  $^1\text{H}$  NMR spectrum of BB-3.3.

a) expanded from 5.1-9.9 ppm      c) expanded from 6.38-7.00 ppm

b) expanded from 6.22-6.34 ppm      d) expanded from 7.44-7.51 ppm

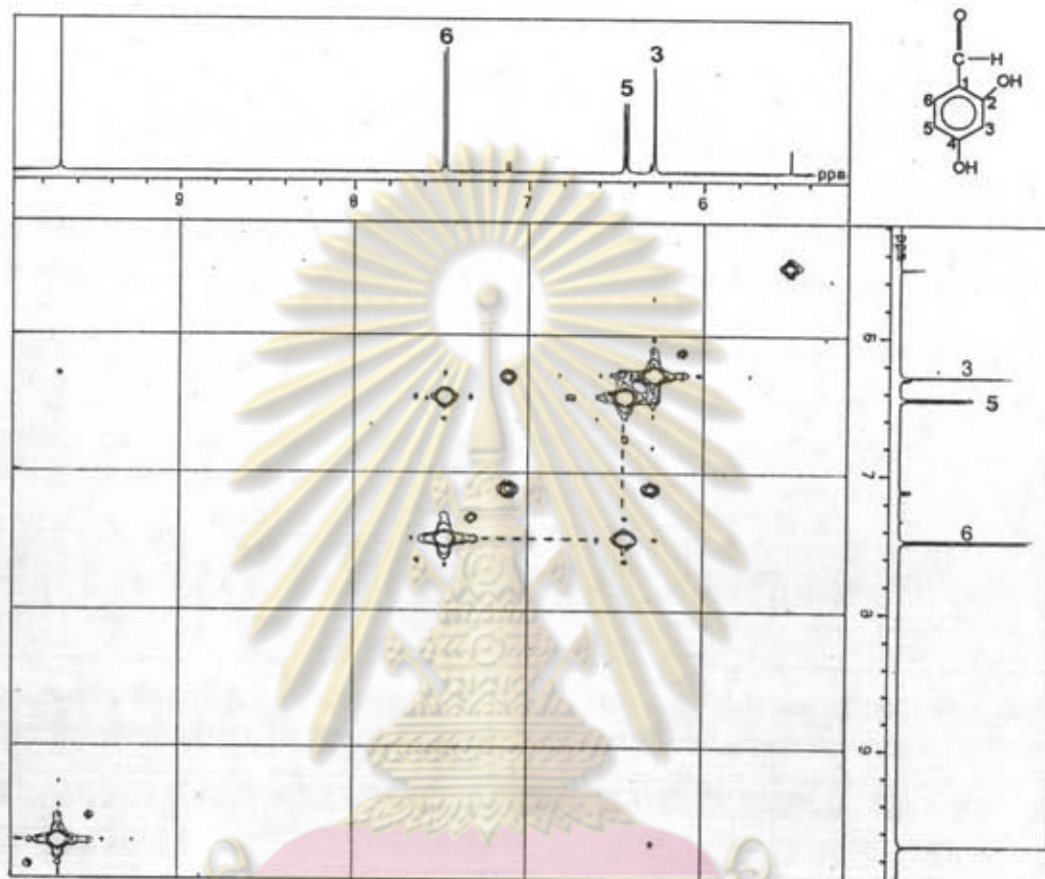




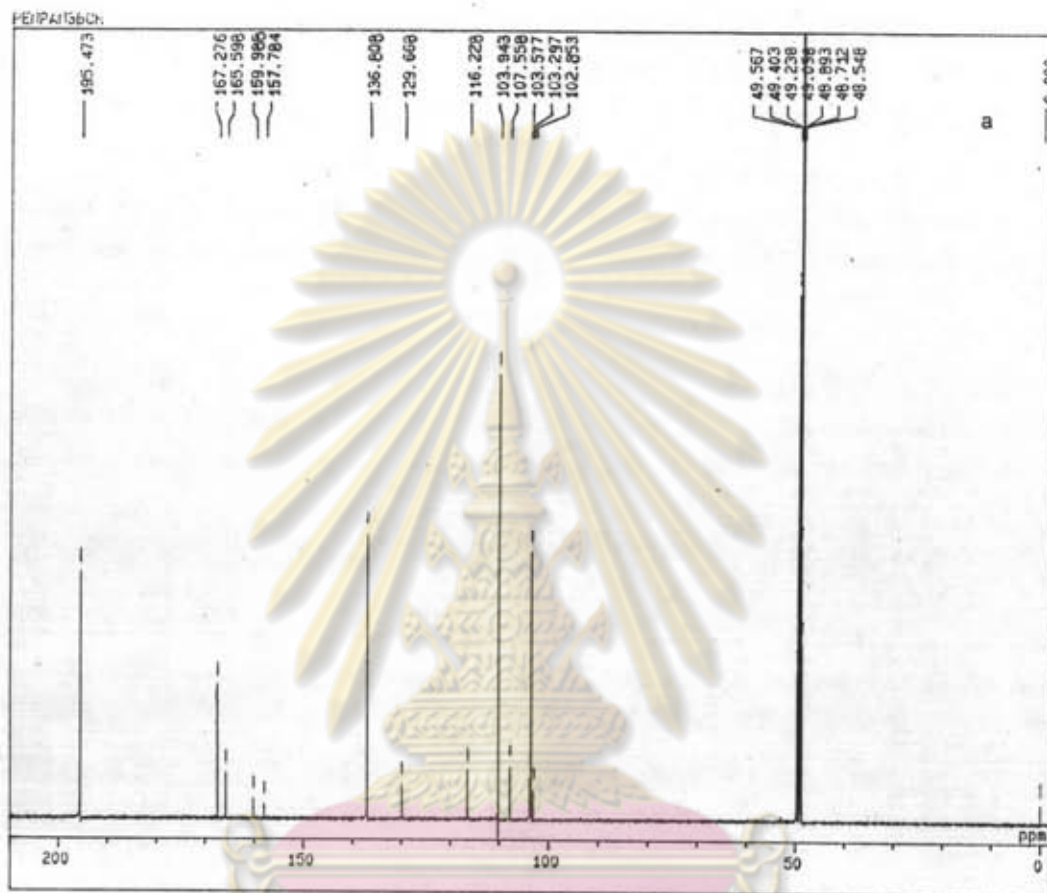


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Figure 27 The 500 MHz  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of BB-3.3 in MeOH- $\text{d}_4$ .



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 Figure 28 The expansion of 500 MHz  $^1\text{H}$ - $^1\text{H}$  COSY of BB-3.3.



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Figure 29 The 125 MHz  $^{13}\text{C}$  NMR spectrum and of BB-3.3 in  $\text{MeOH-d}_4$ .

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a) Full spectrum



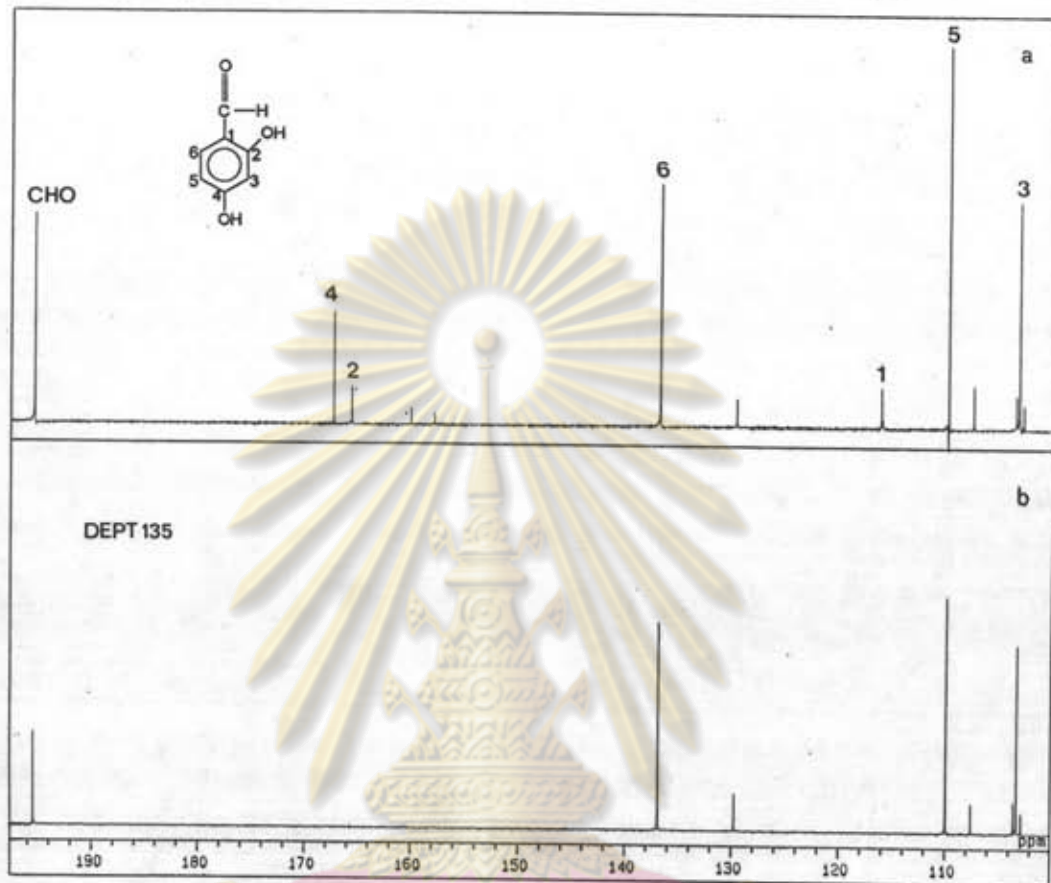


Figure 29 a) The 125 MHz  $^{13}\text{C}$  NMR spectrum of BB-3.3 in MeOH- $d_4$ .

b) The  $^{13}\text{C}$  DEPT-135 spectrum of BB-3.3 in MeOH- $d_4$ .

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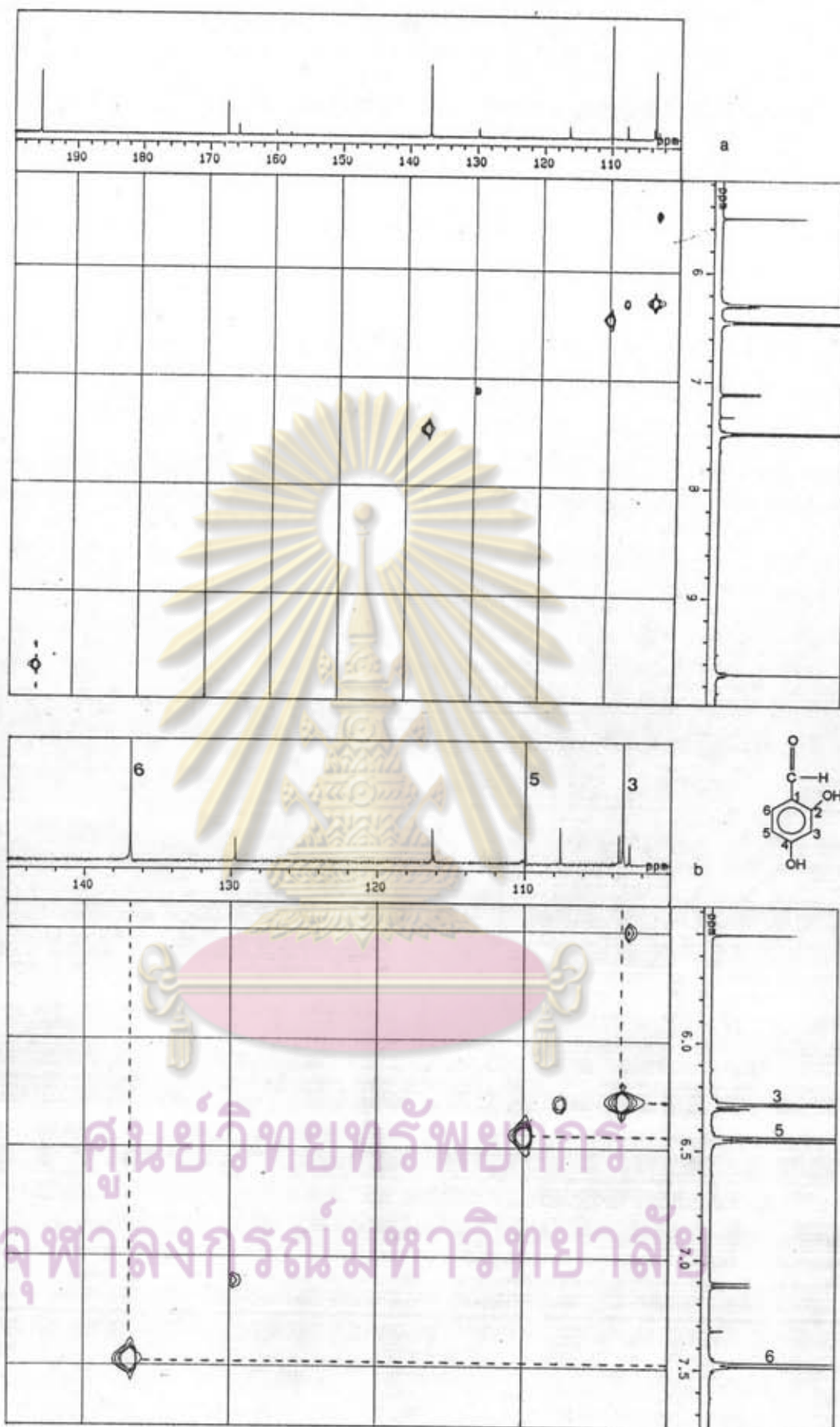


Figure 30 The 125 MHz  $^{13}\text{C}$ - $^1\text{H}$  COSY spectrum of BB-3.3 in  $\text{MeOH-d}_4$ .

a) Full spectrum

b) expanded spectrum

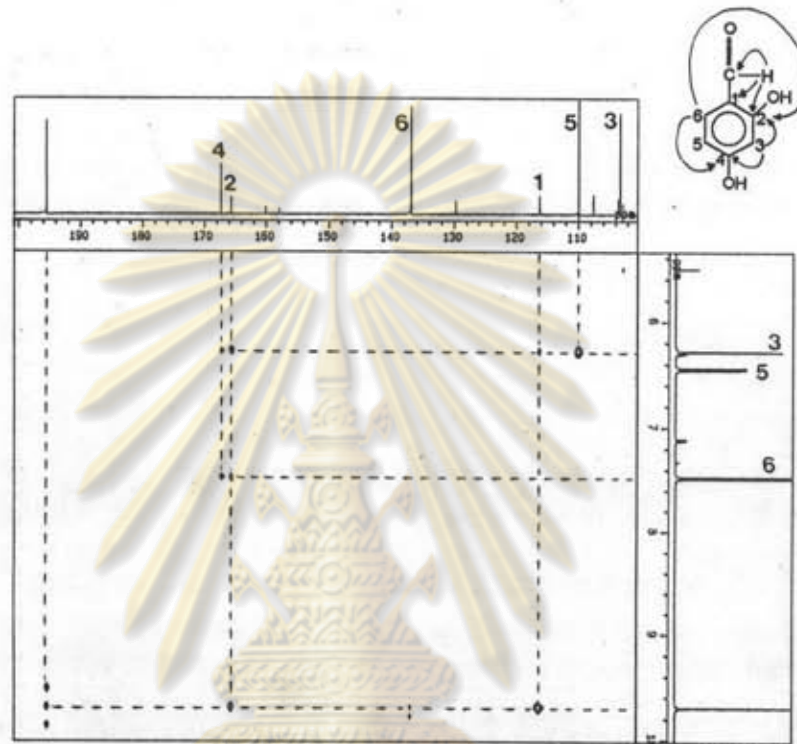


Figure S1 The 500 MHz COLOC spectrum (at 12 Hz) of BB-3.3 in MeOH-d<sub>4</sub>

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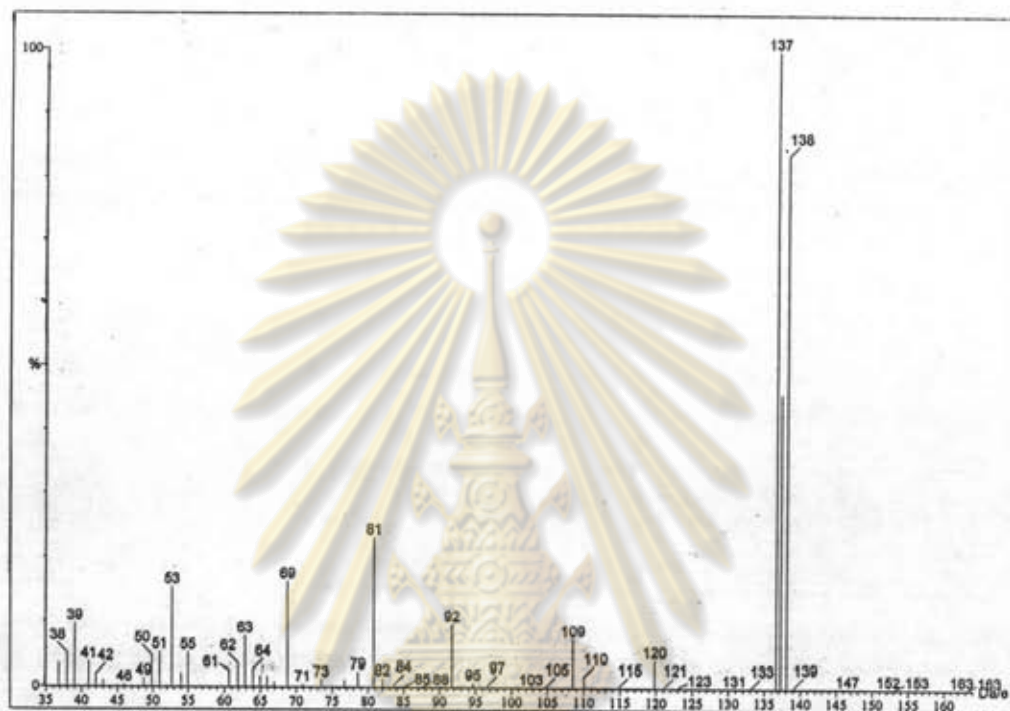


Figure 32 The EIMS spectrum of BB-3.3

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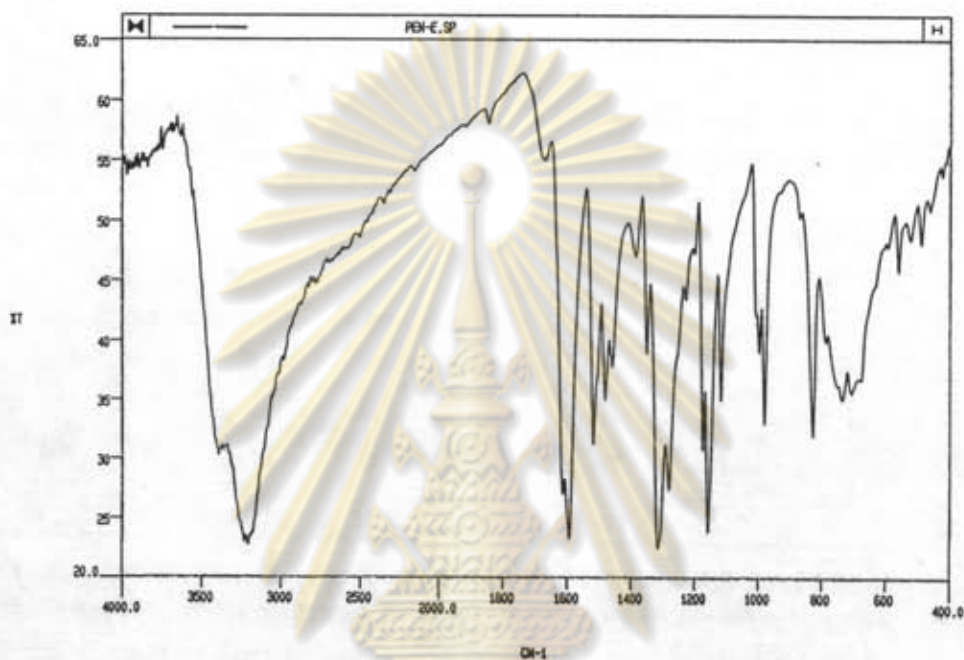


Figure 33 The IR spectrumn of CC-1 (KBr-disc).

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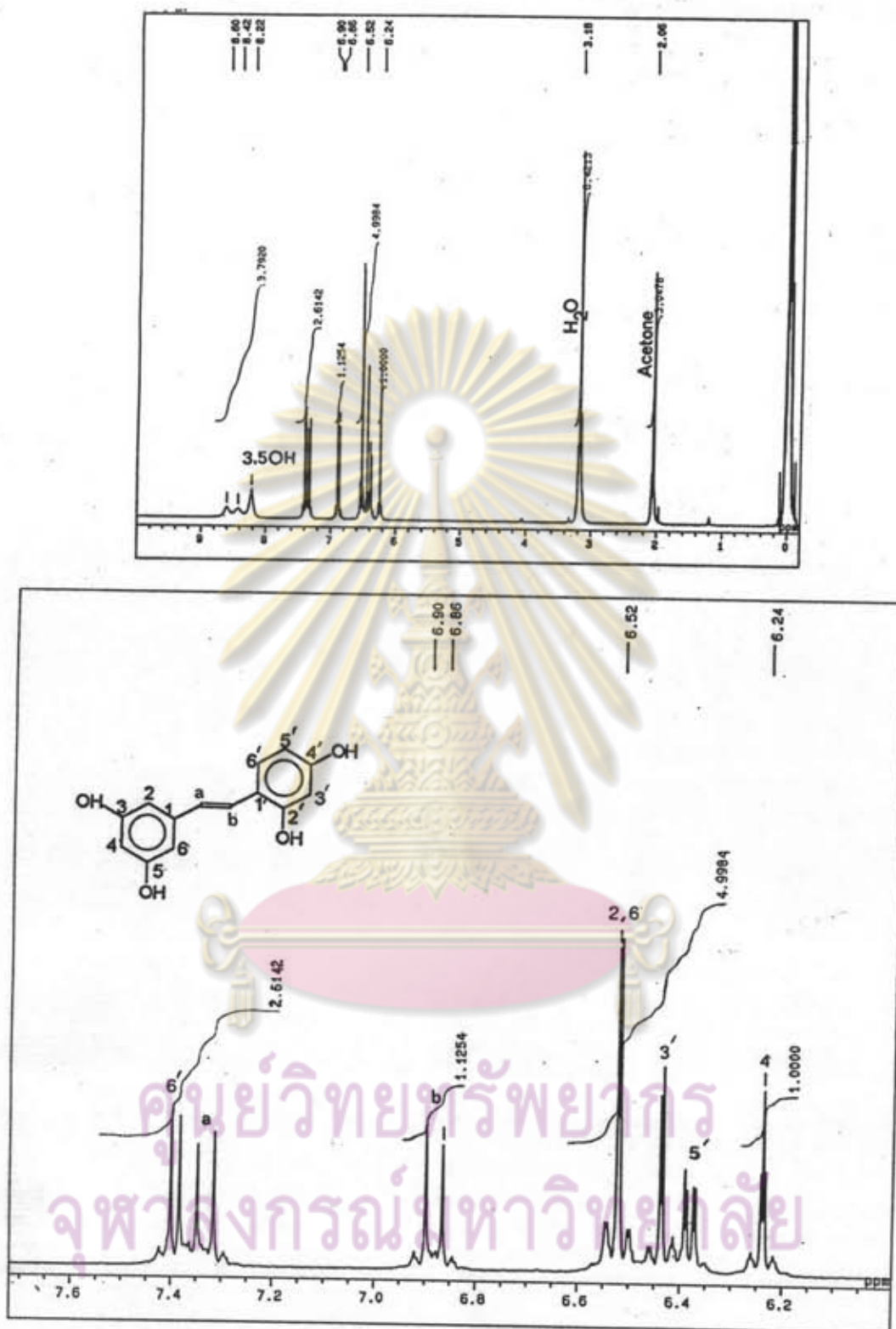


Figure 34 The 500 MHz  $^1\text{H}$  NMR of CC-1 in  $\text{Acetone-d}_6$ .

a) Full spectrum

b) expanded from 6.10-7.66 ppm)



## VITA

Miss Penpun Wetwitayaklung was born on February 6, 1969 in Bangkok, Thailand. She received her Bachelor degree of Science in Pharmacy (Second Class Honor) in 1992 from the Faculty of Pharmaceutical Sciences, Mahidol University. At present she is a faculty member of the Department of Pharmaceutical Chemistry, Faculty of Pharmaceutical Sciences, Silpakorn University, Nakornpathom, Thailand.



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