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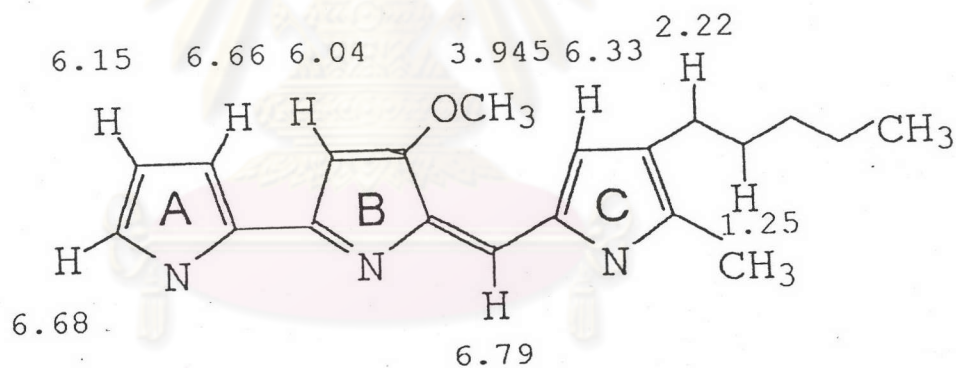


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APPENDIX

APPENDIX 1

NOE EXPERIMENT OF RP-2

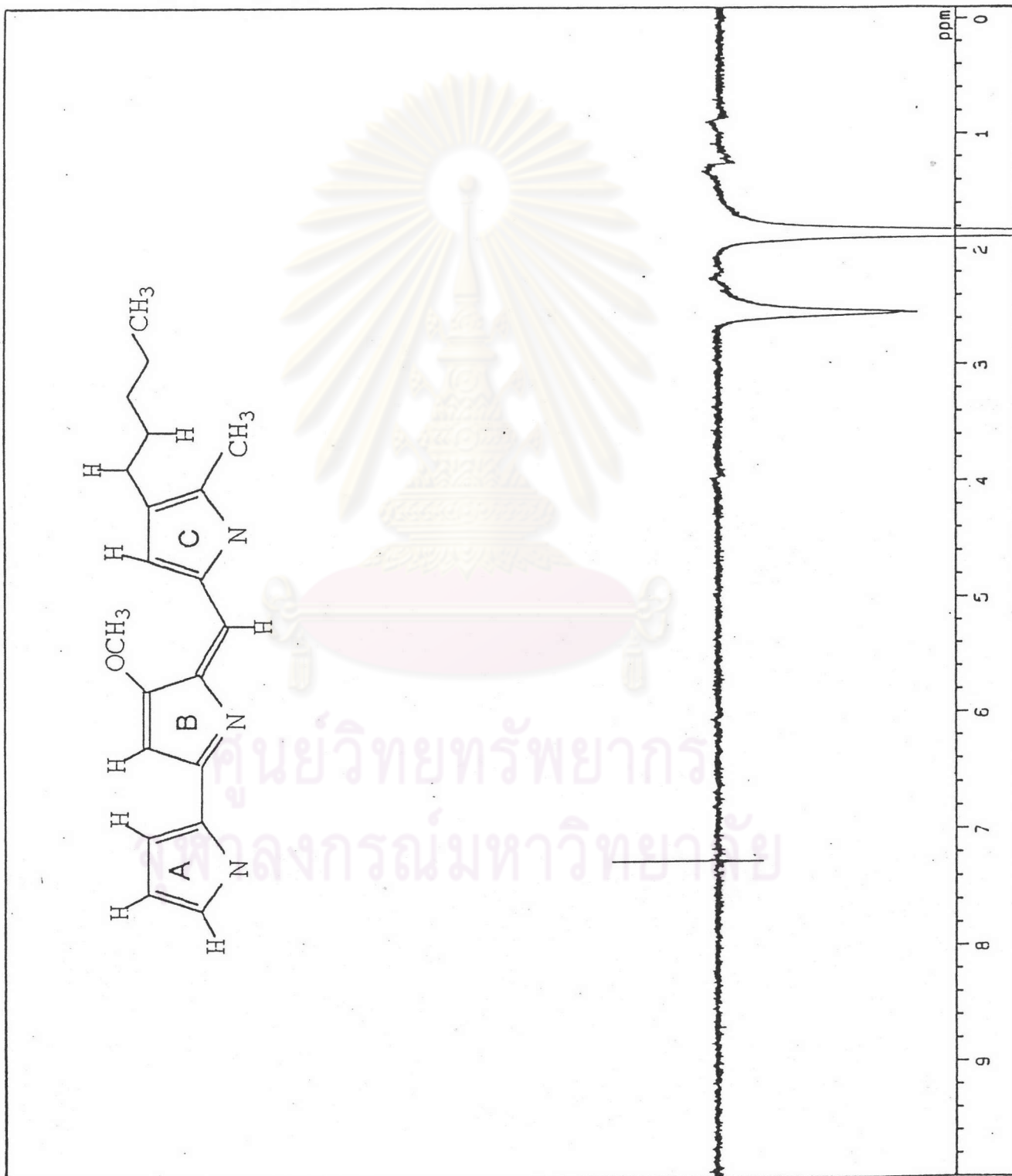


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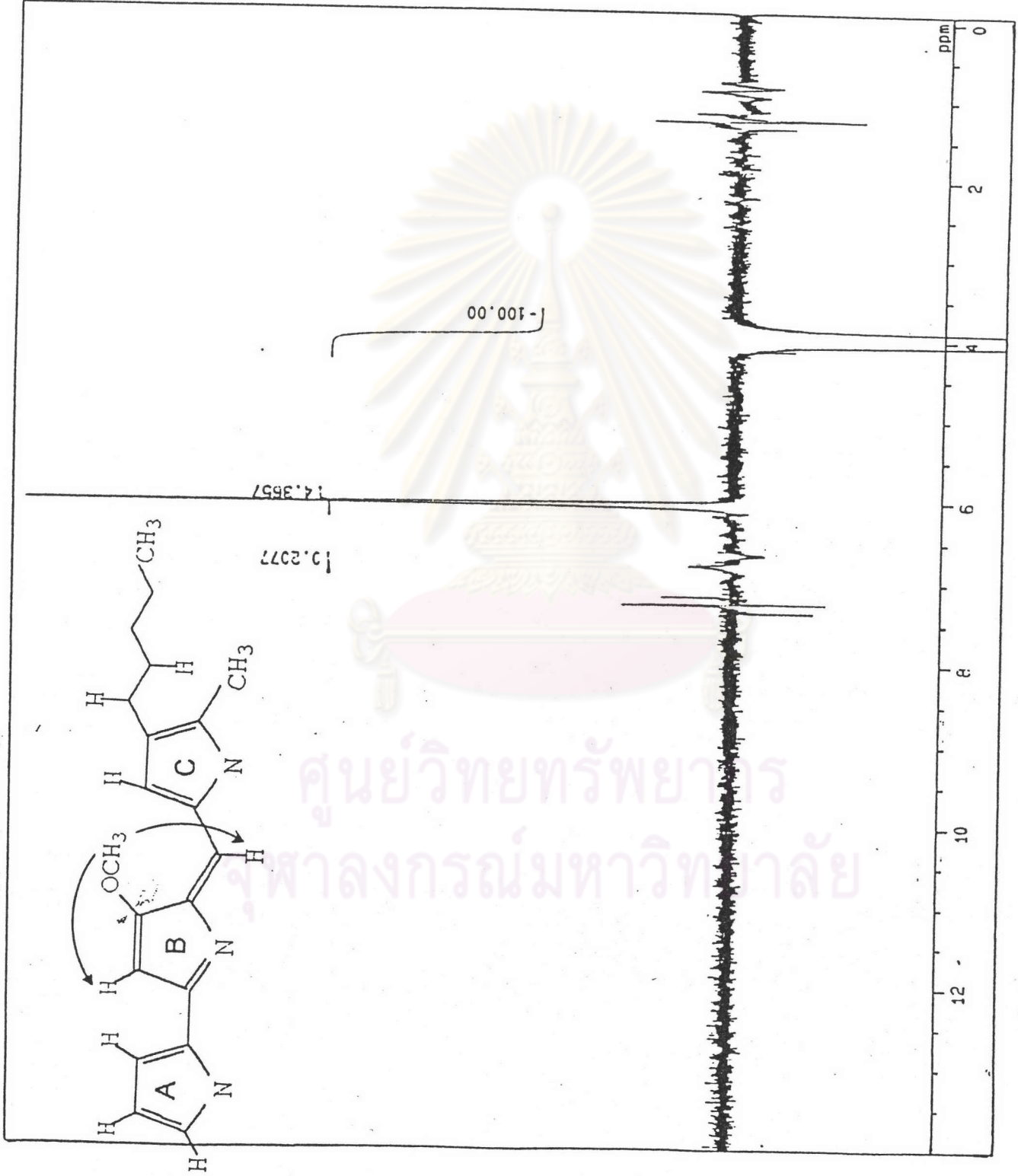
Figure 60. The NOE spectrum of RP-2.

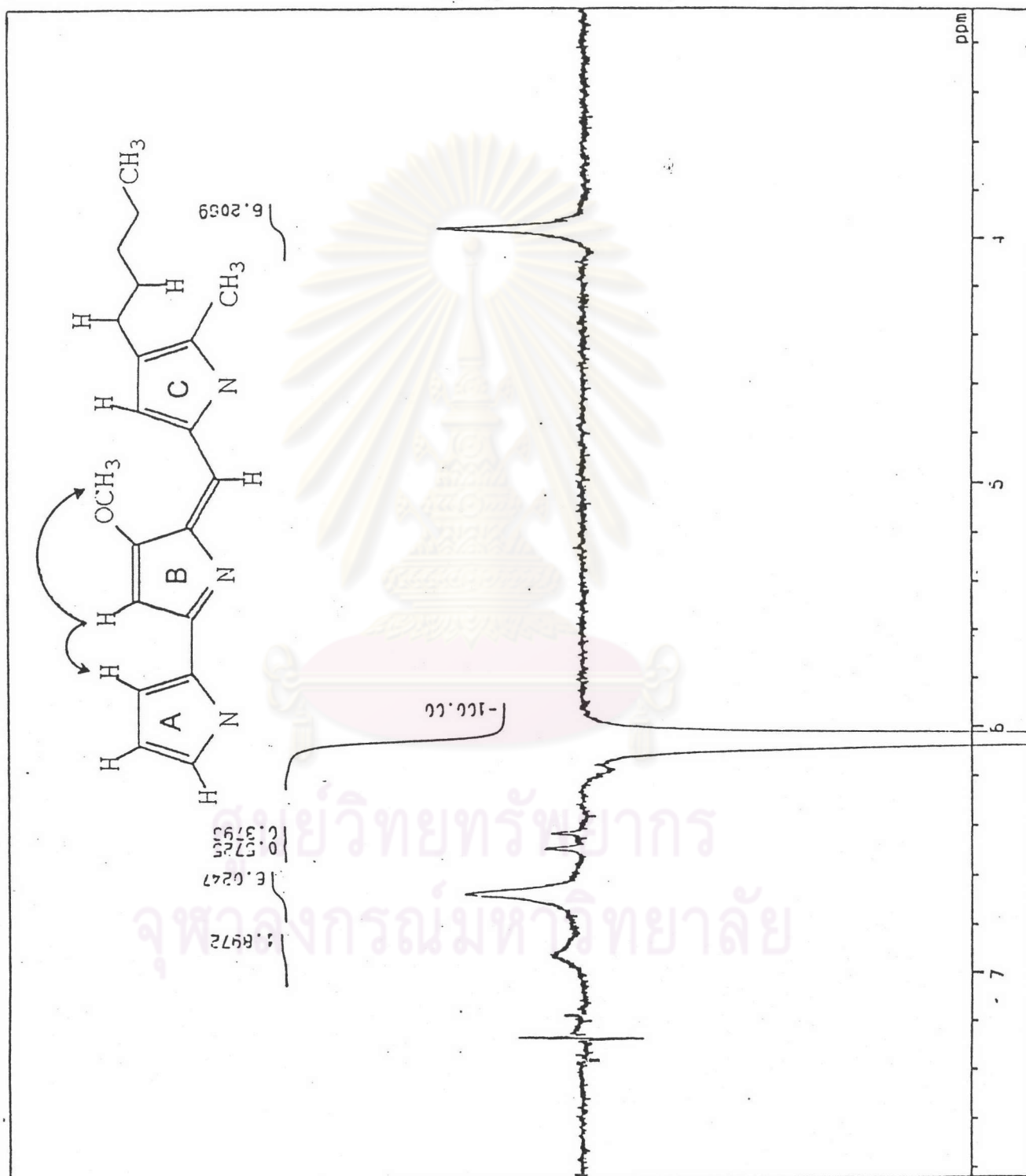
1. Irradiation at δ 1.82 ppm.
2. Irradiation at δ 3.945 ppm.
3. Irradiation at δ 6.04 ppm.
4. Irradiation at δ 6.35 ppm.
5. Irradiation at δ 6.80 ppm.

1. Irradiation at δ 1.82 ppm.

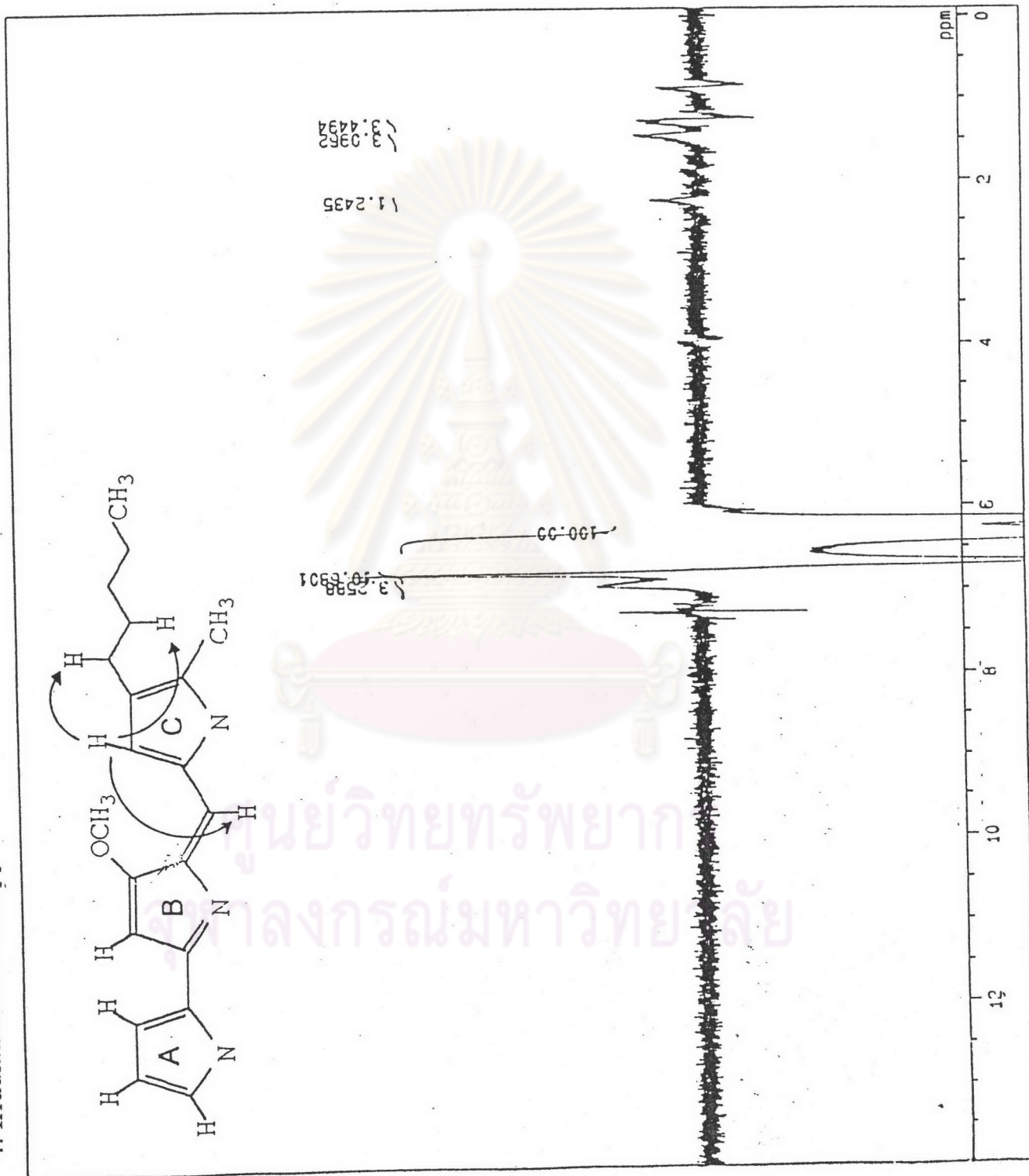


2. Irradiation at δ 3.945 ppm.

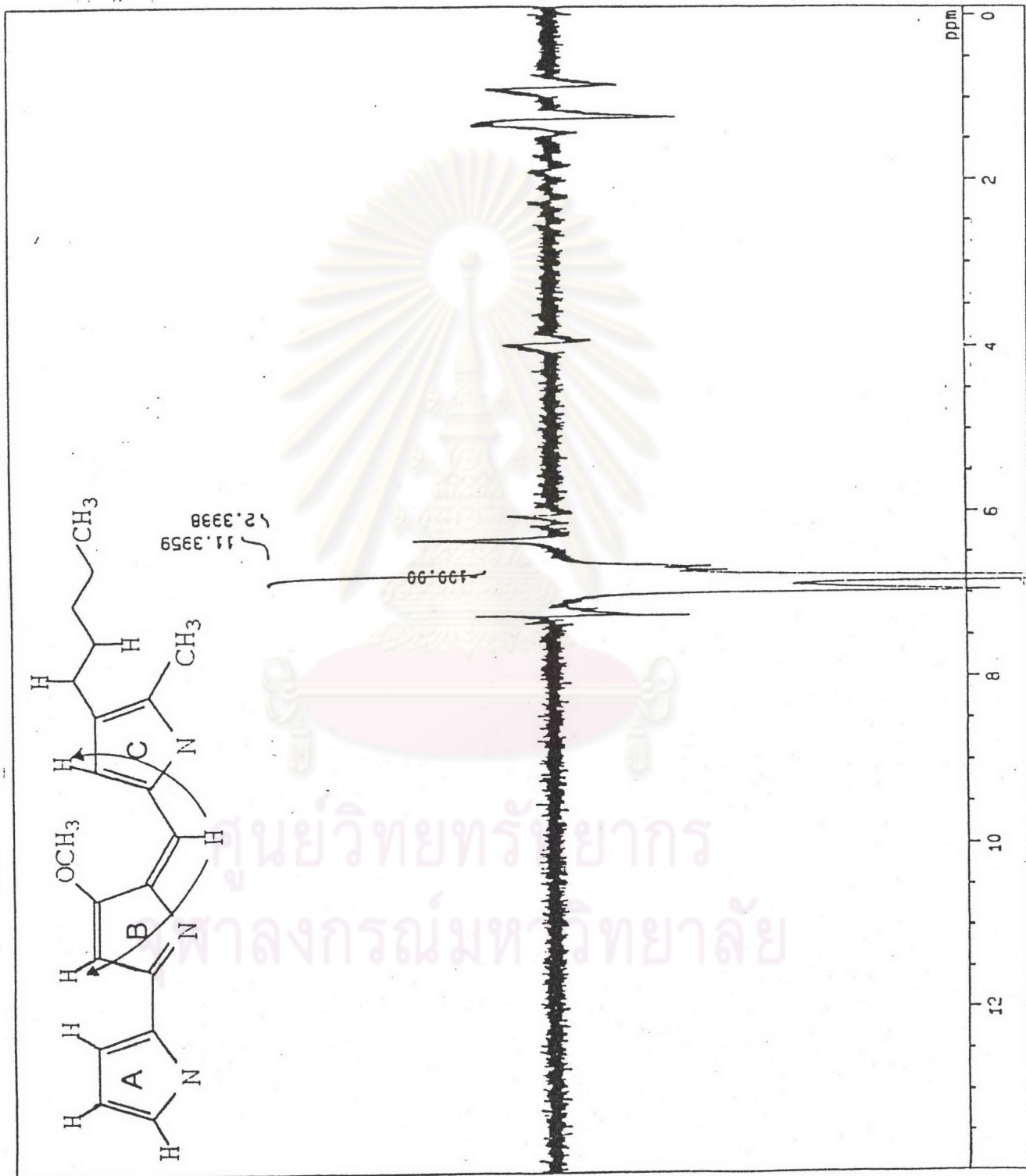


3. Irradiation at δ 6.04 ppm.

4. Irradiation at δ 6.35 ppm.



5. Irradiation at δ 6.80 ppm.



APPENDIX 2

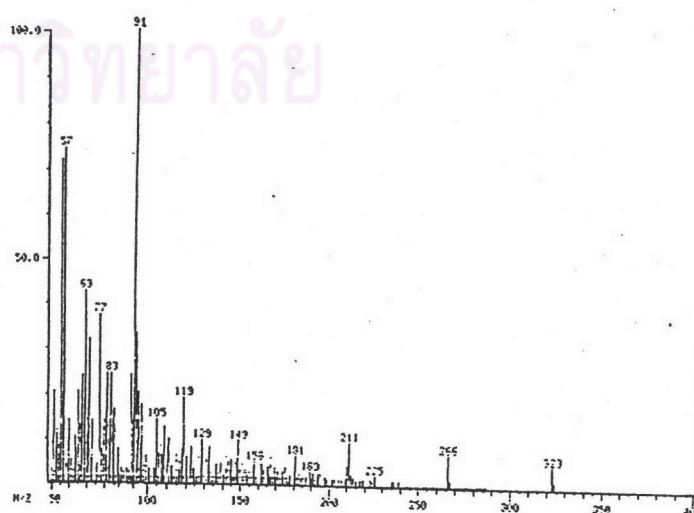
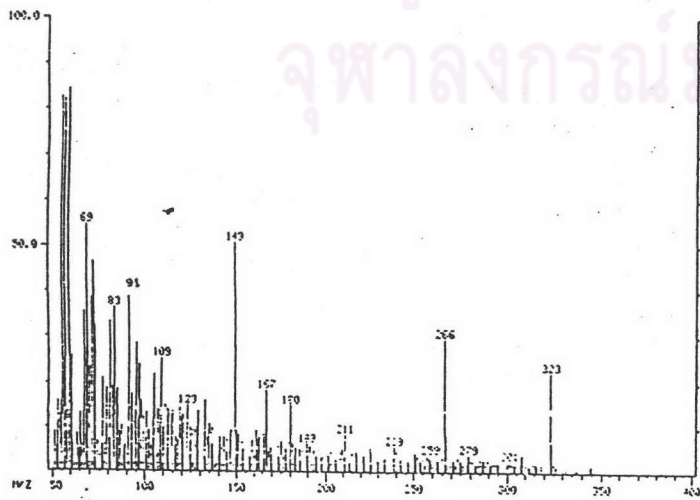
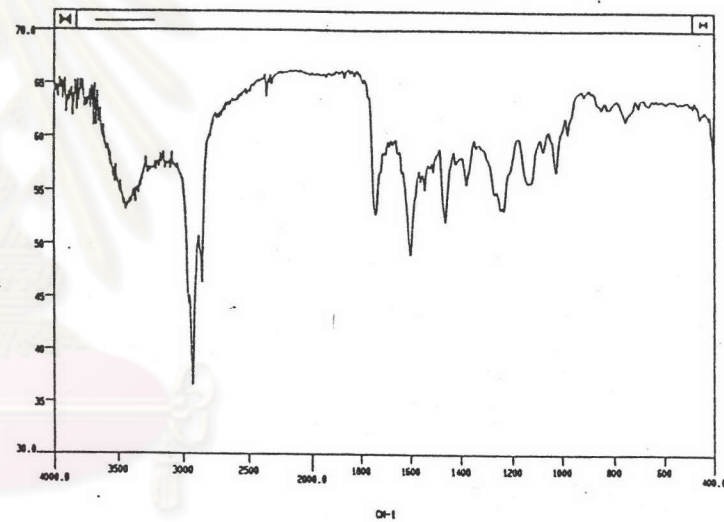
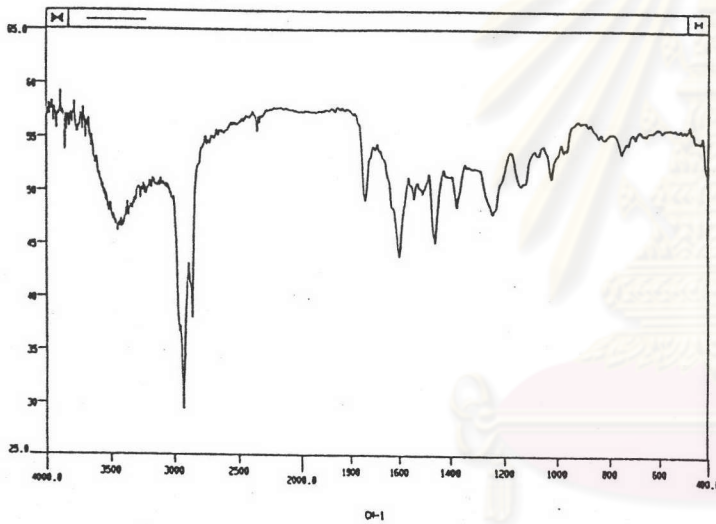
COMPARISON OF THE CHARACTERISTIC OF PRODIGIOSIN
FREE FORM AND HYDRATED FORM

FREE FORM

HYDRATED FORM

Rf 0.40

Rf 0.45



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APPENDIX 3

RED PIGMENTS IN CRUDE EXTRACT

The crude extract was blood red solution and showed many spots on TLC. The red spot was very intense color. This implied either the red pigment was the most part or it had very high absorptivity. UV-VIS absorption of crude extract showed the maximum absorption at 539 nm which the same as the partial purified red pigment (Table 28).

The extraction procedure by basidified with diluted ammonia and partition with hexane, the red pigment was extracted in hexane solution. This confirmed by the UV-VIS absorption. The extract was not pure because it showed many spot on TLC. So that this extract was passed through quick column chromatography of silica gel eluted with 30 % ethyl acetate in hexane. The red pigment was eluted by this system, confirmed by the UV-VIS absorption. This sample was not pure because it still showed many spots on TLC.

The red pigment was rechromatographed by the three other chromatographic system showed in the experimental procedure.

Table 28 UV-VIS absorption of red pigment extract

Red Pigment Extract	Diluted Solvent	Wavelength (nm)	
		UV region	VIS region (ratio of absorbance)
Crude extract	Chloroform	279	539
	Ethanol	276	468,539 (1:1.5)
Hexane extract	Chloroform	-	537
	Ethanol	-	469,538 (1:1)
	Acid ethanol	-	534
	Basic ethanol	280	467,530 (1:0.4)
Eluted from silica gel (quick column chromatography : 30%ethyl acetate in hexane)	Chloroform	-	539
	Ethanol	-	468,533 (1:0.2)
	Acid ethanol	-	535
	Basic ethanol	276	467,531 (1:0.5)

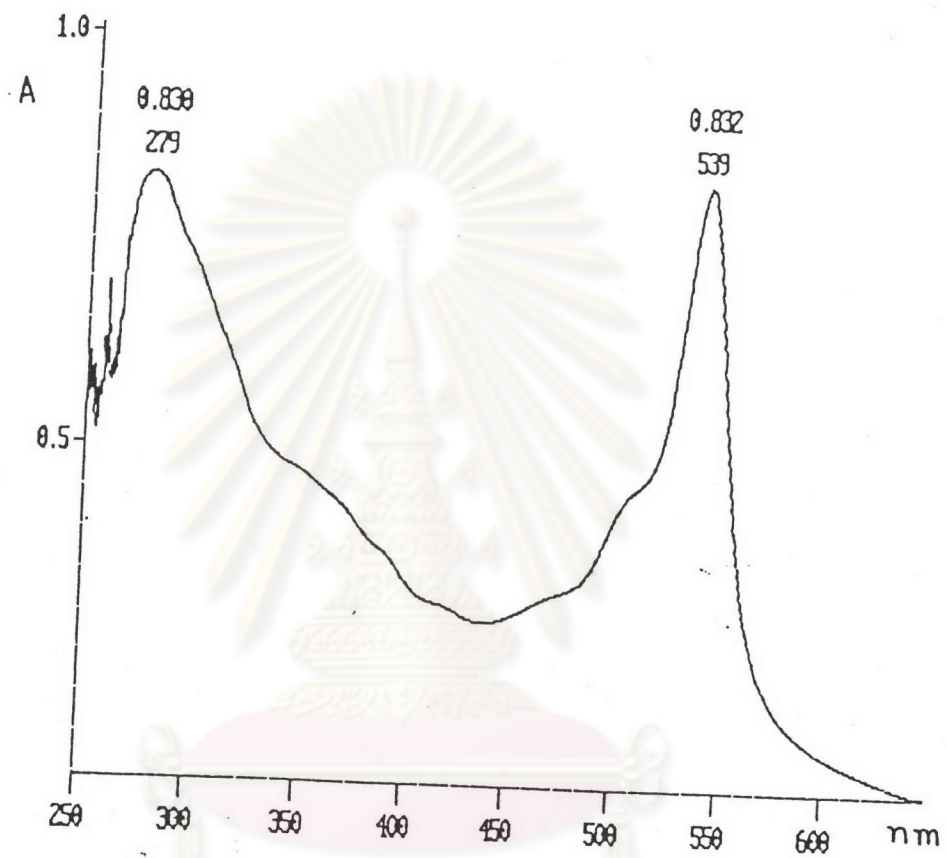


Figure 61. The UV-VIS spectrum of red pigments from crude extract in chloroform.

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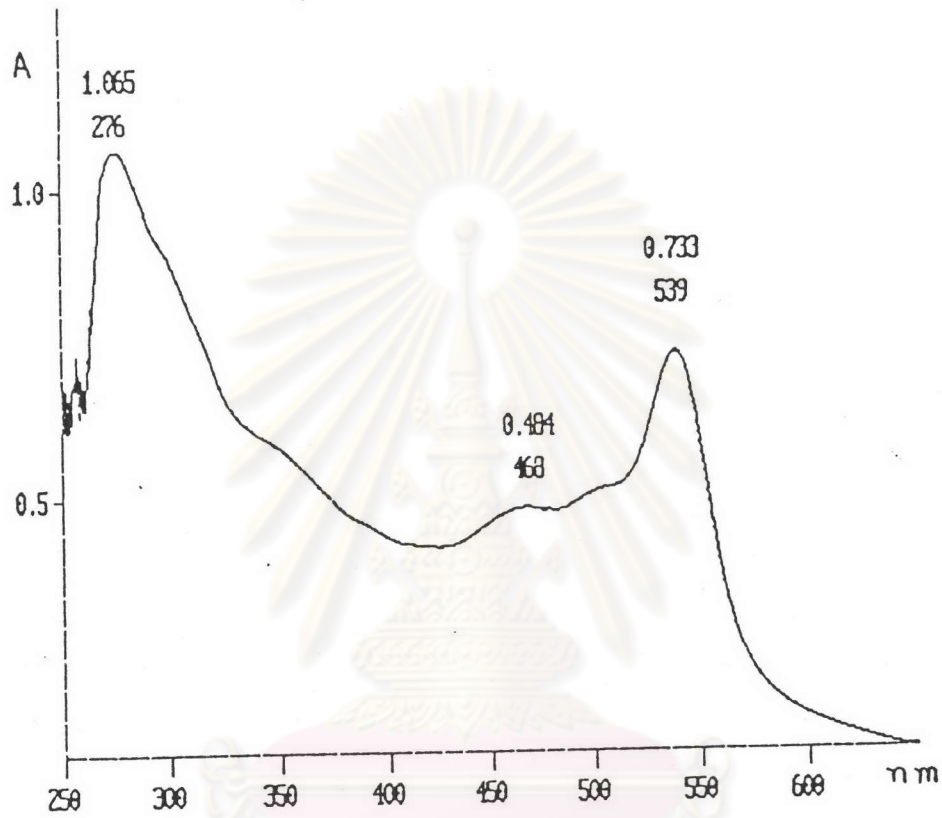


Figure 62. The UV-VIS spectrum of red pigments from crude extract in ethanol.

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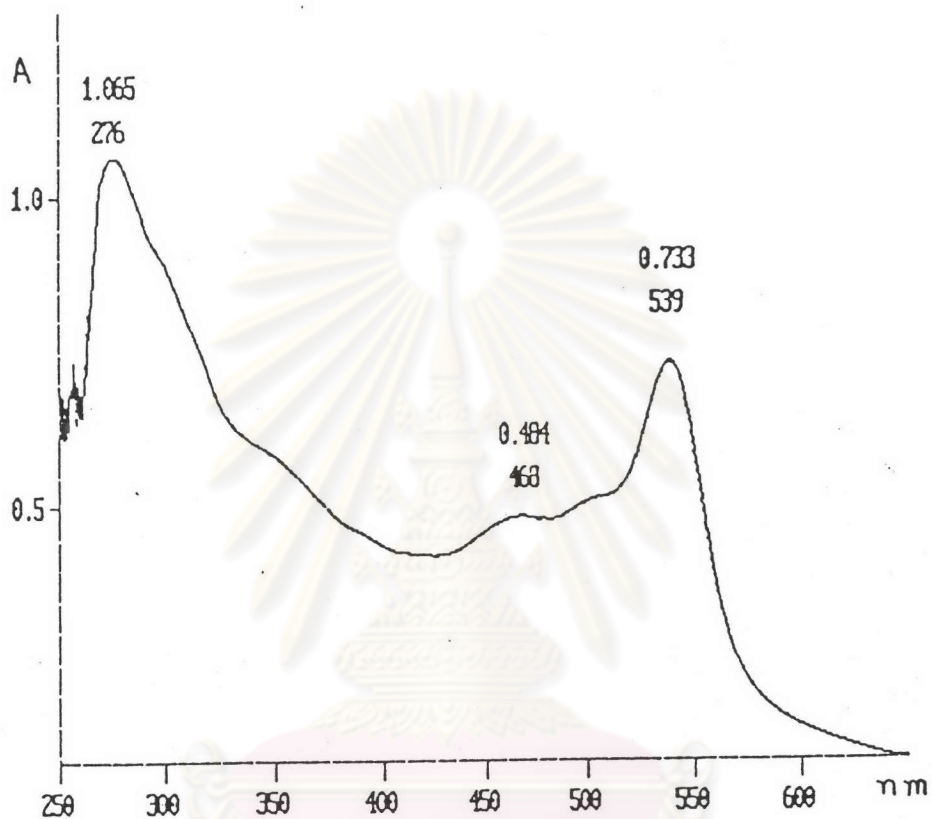


Figure 62. The UV-VIS spectrum of red pigments from crude extract in ethanol.

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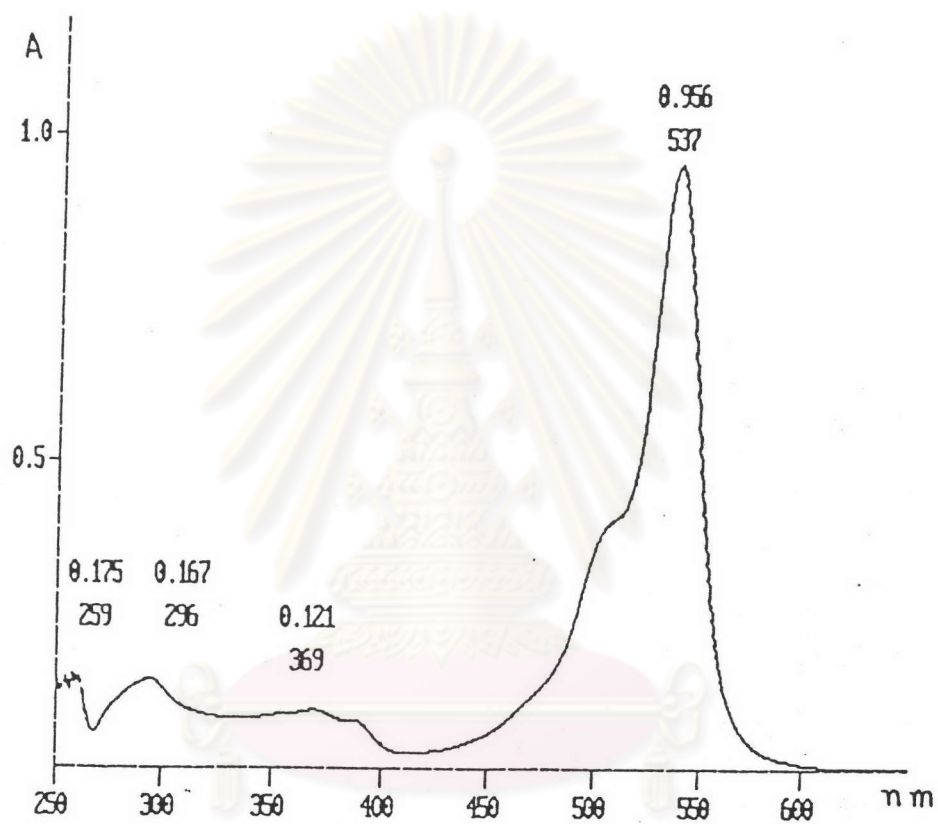


Figure 63. The UV-VIS spectrum of red pigments from hexane extract in chloroform.

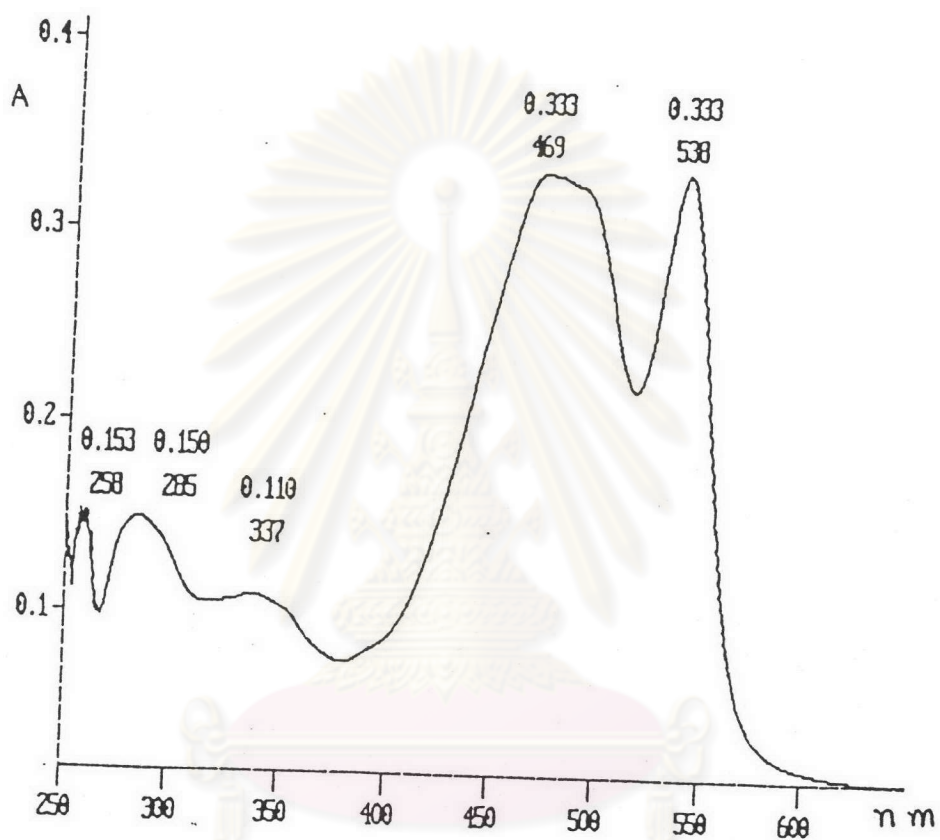


Figure 64. The UV-VIS spectrum of red pigments from hexane extract in ethanol.

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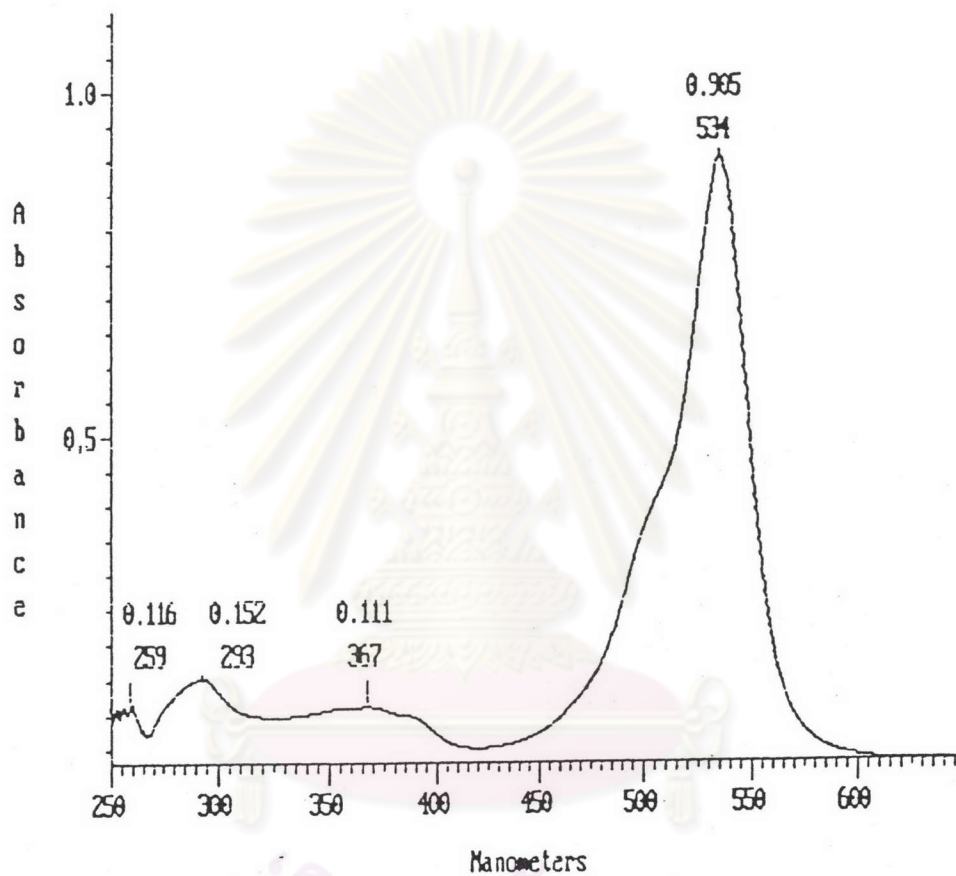


Figure 6 5: The UV-VIS spectrum of red pigments from hexane extract in acid ethanol.

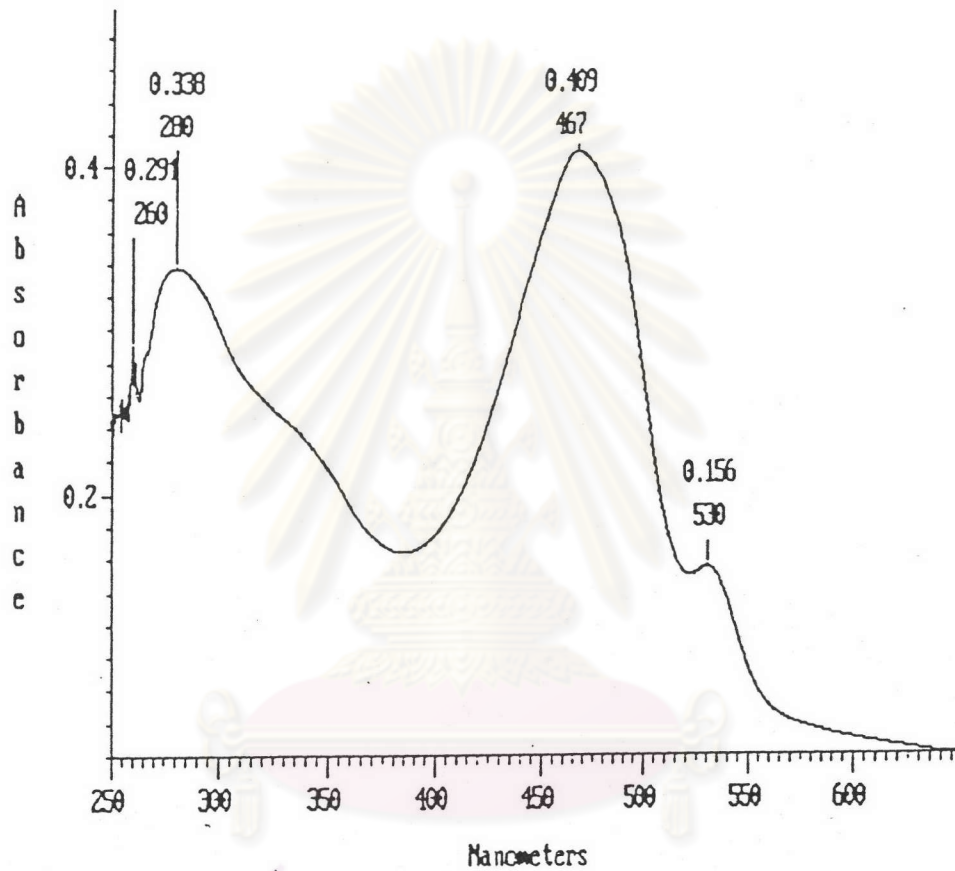


Figure 66. The UV-VIS spectrum of red pigments from hexane extract in basic ethanol.

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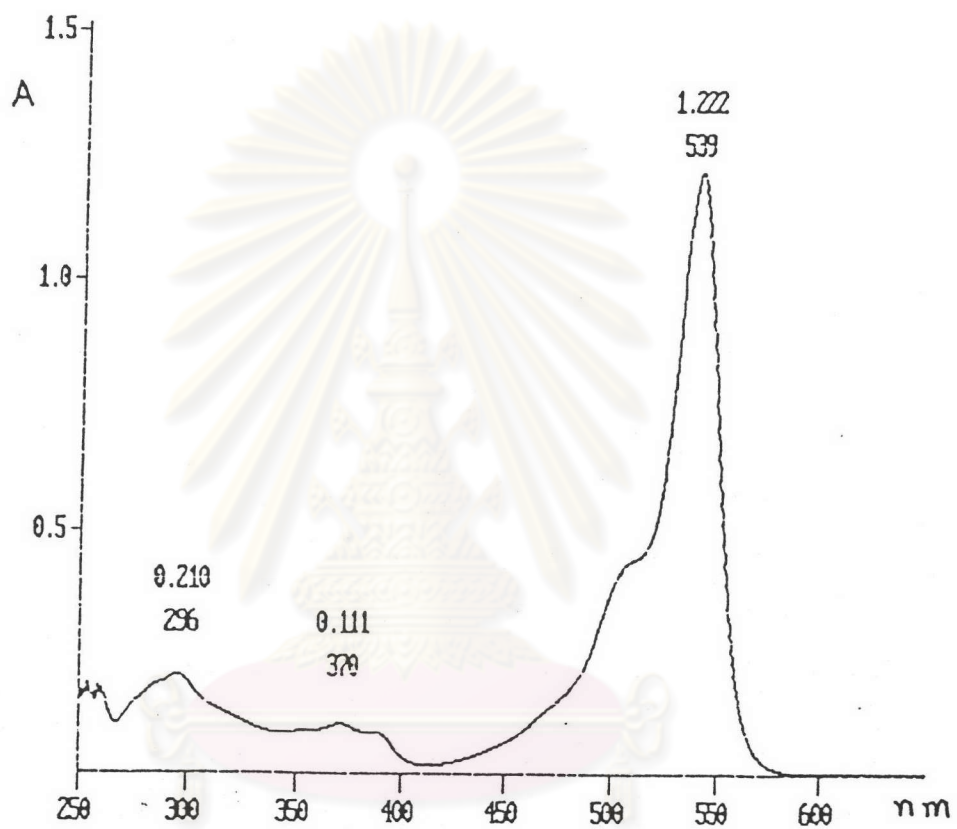


Figure 67. The UV-VIS spectrum of red pigments from quick column chromatography in chloroform.

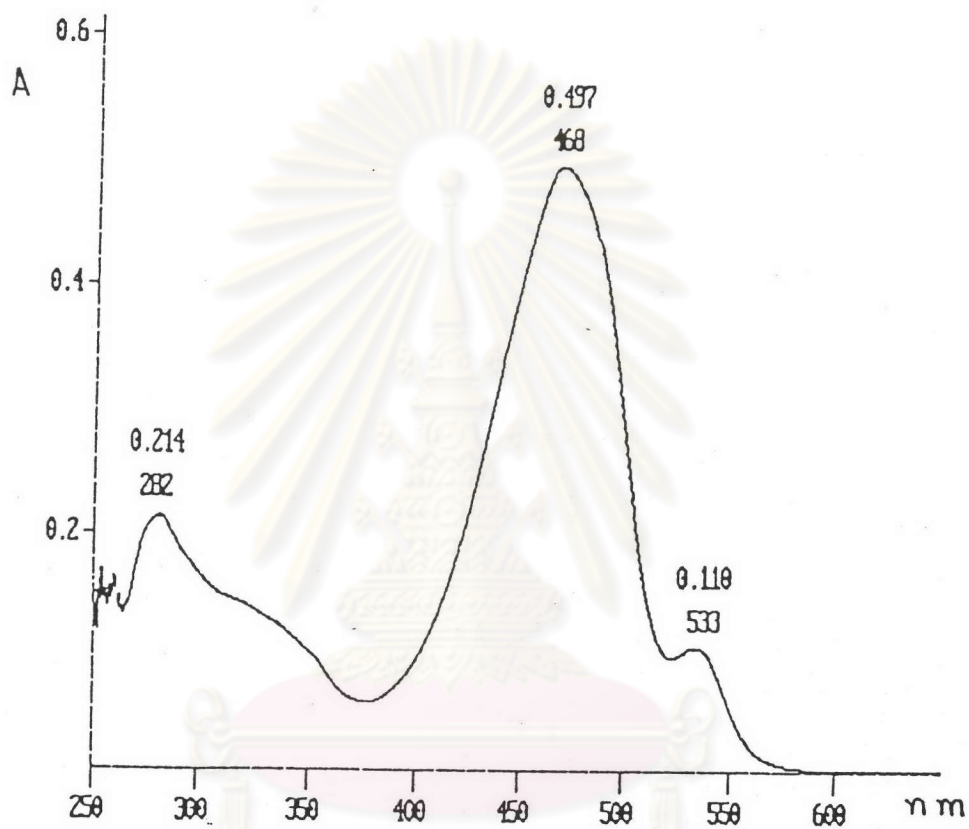


Figure 6.8. The UV-VIS spectrum of red pigments from quick column chromatography in ethanol.

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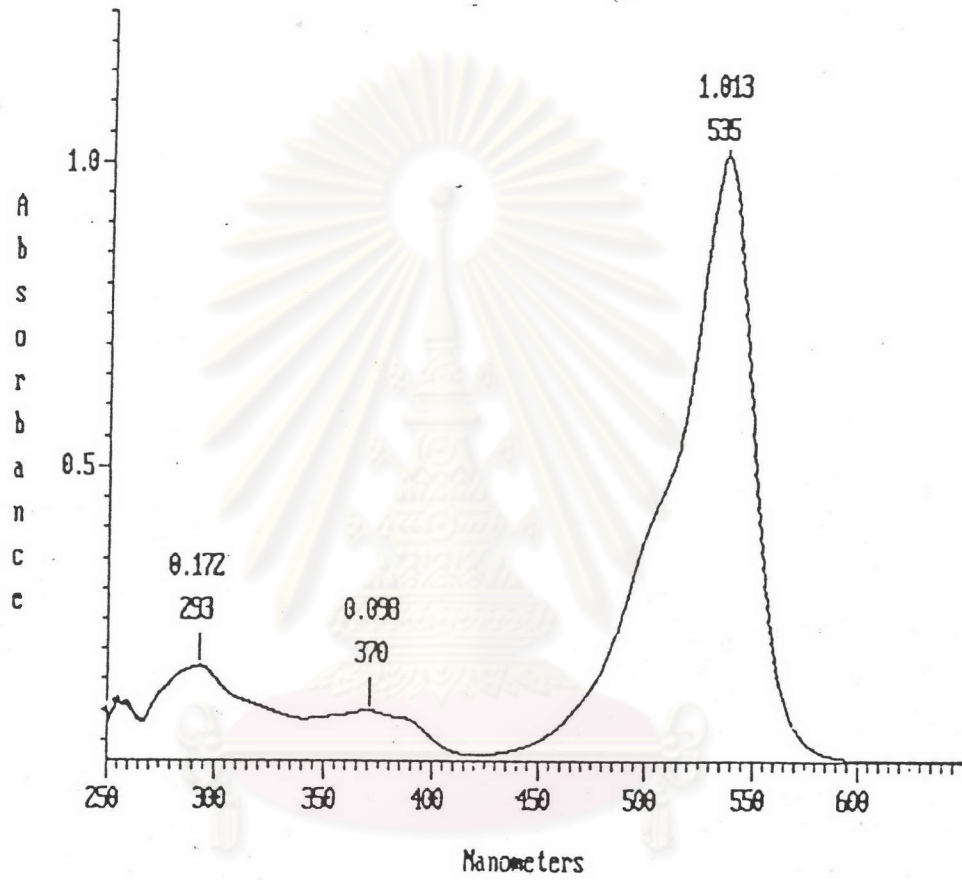


Figure 69. The UV-VIS spectrum of red pigments from quick column chromatography in acid ethanol.

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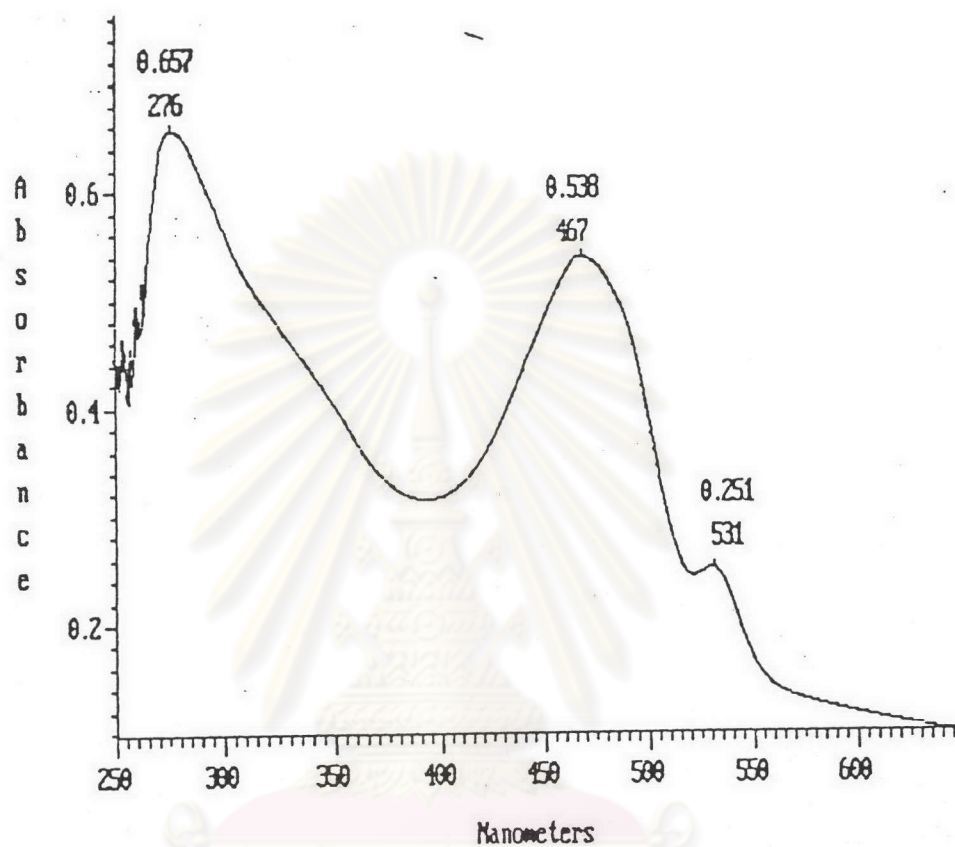


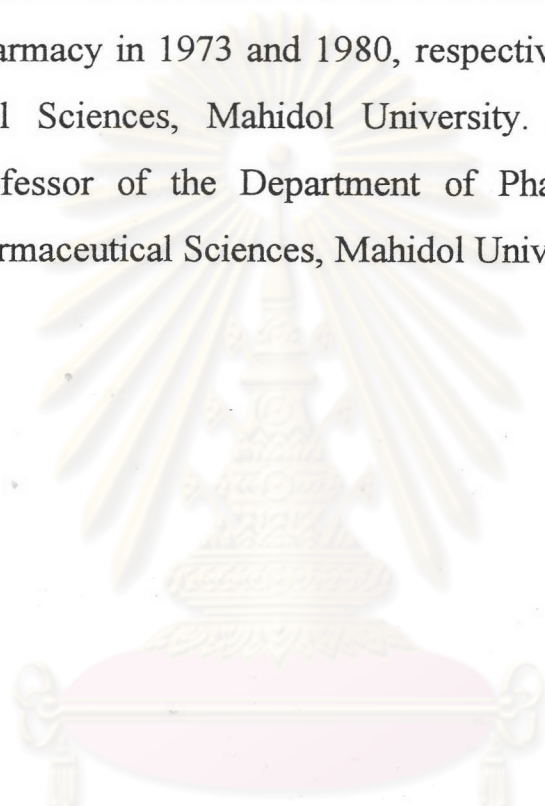
Figure.70 The UV-VIS spectrum of red pigments from quick column chromatography in basic ethanol.

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VITA

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