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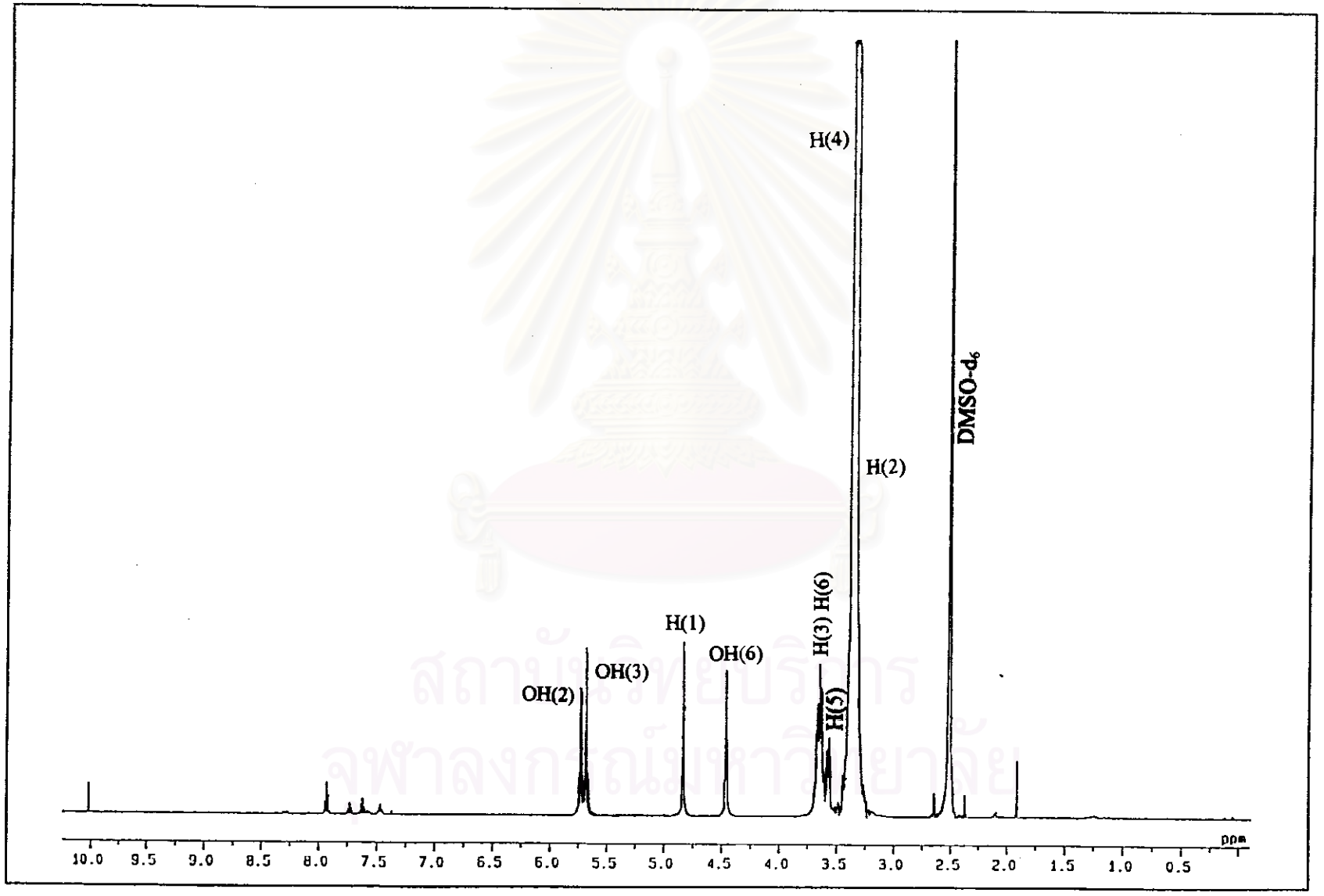

Figure 1a ^{1}H NMR spectrum of β-cyclodextrin-benzaldehyde inclusion compound

Table 2a ^{1}H NMR data of β-cyclodextrin-1-phenyl-1-propanol inclusion compound

Chemical Shift (ppm)	Multiplicity	Number of protons	Assignment	Coupling constant (Hz)
7.78	multiplet	1H	αH-C_6H_5	
7.74	multiplet	1H	αH-C_6H_5	
7.62	multiplet	2H	βH-C_6H_5	
7.48	multiplet	1H	γH-C_6H_5	
5.77	broad	7H	OH(2)	
5.72	singlet	7H	OH(3)	
4.83	doublet	7H	H(1)	J = 3.5
4.77	singlet	2H	HOH	
4.57	triplet	7H	OH(6)	J = 5.5
3.58	multiplet	21H	H(3), H(6)	
3.54	multiplet	7H	H(5)	
3.35	multiplet	7H	H(4)	
3.30	multiplet	7H	H(2)	
2.09	singlet	5H	CH_2CH_3	

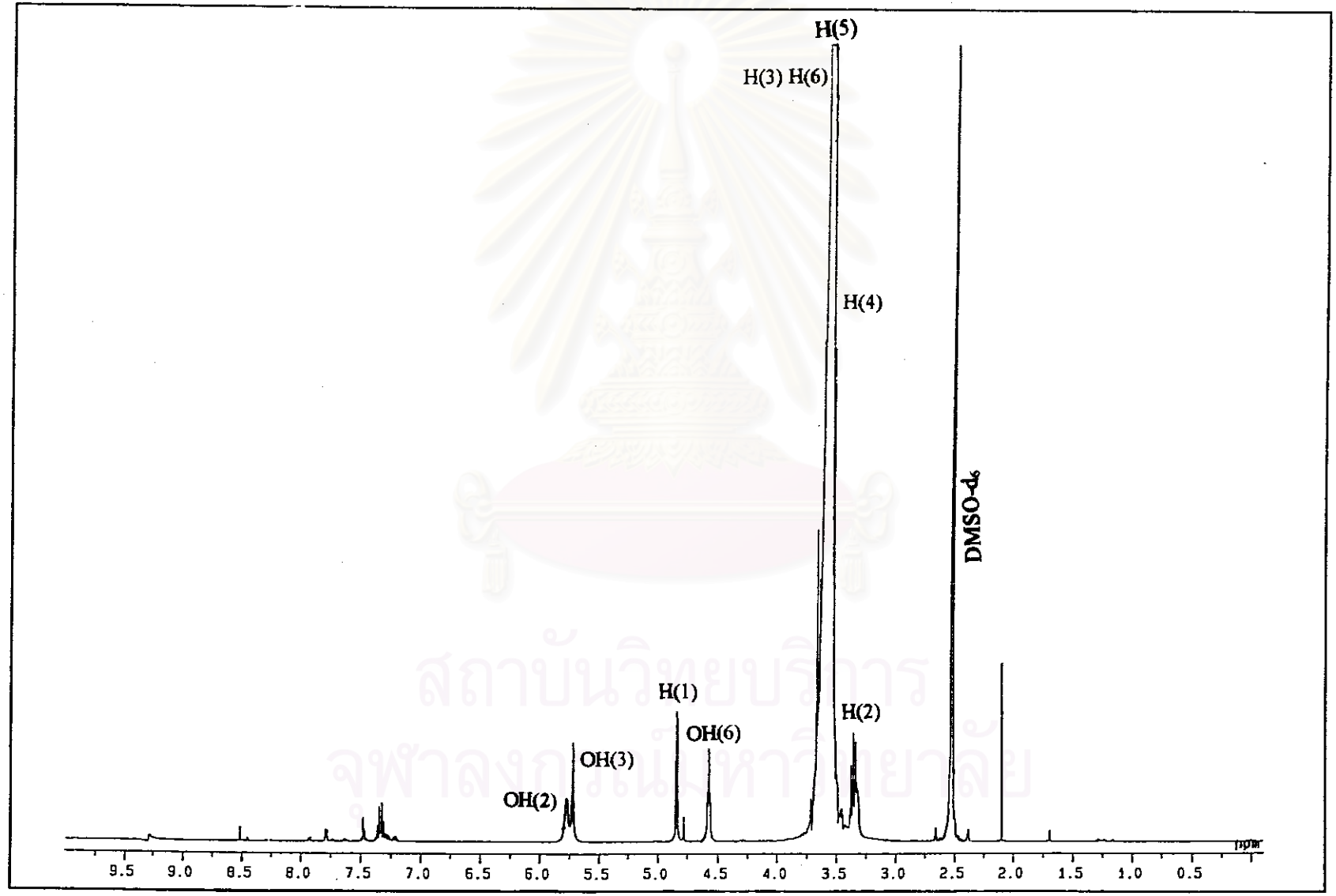

Figure 2a ^{1}H NMR spectrum of β-cyclodextrin-1-phenyl-1-propanol inclusion compound

Appendix B

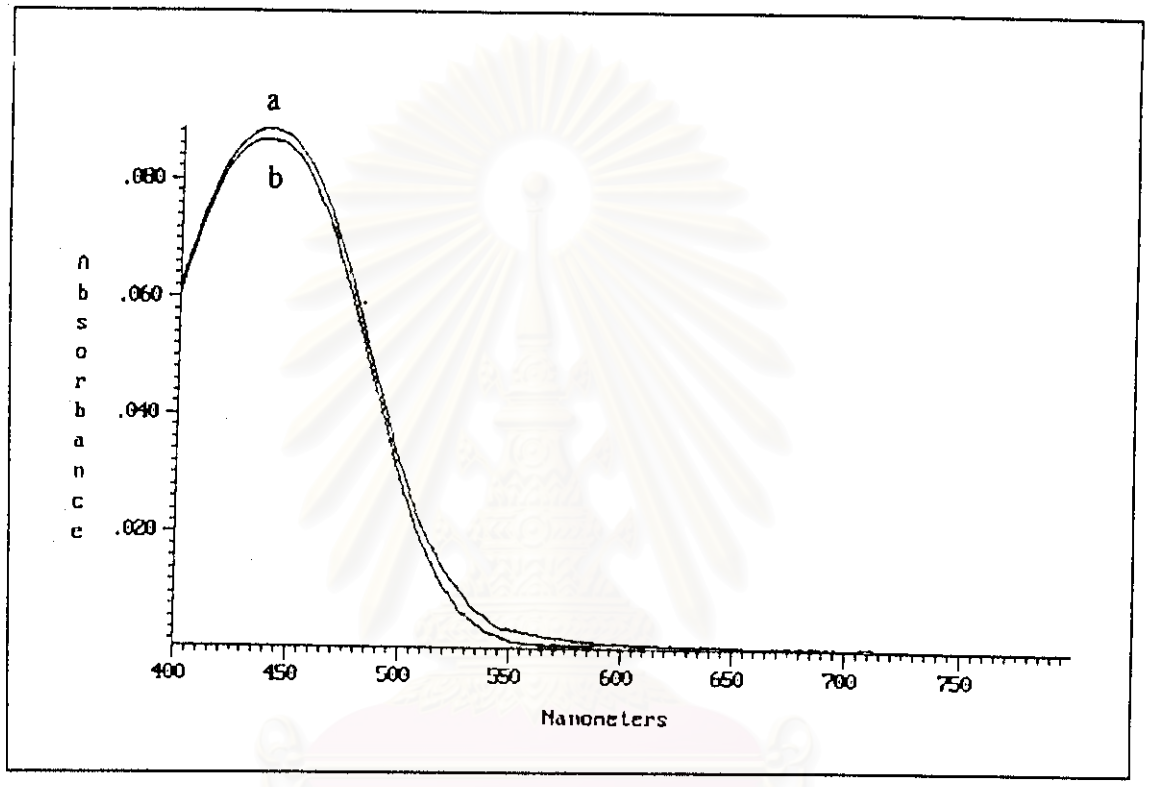

Figure 1b UV-visible spectra of

a) *N,N*-dimethylaminomethylferrocene

b) β-cyclodextrin-*N,N*-dimethylaminomethylferrocene inclusion compound

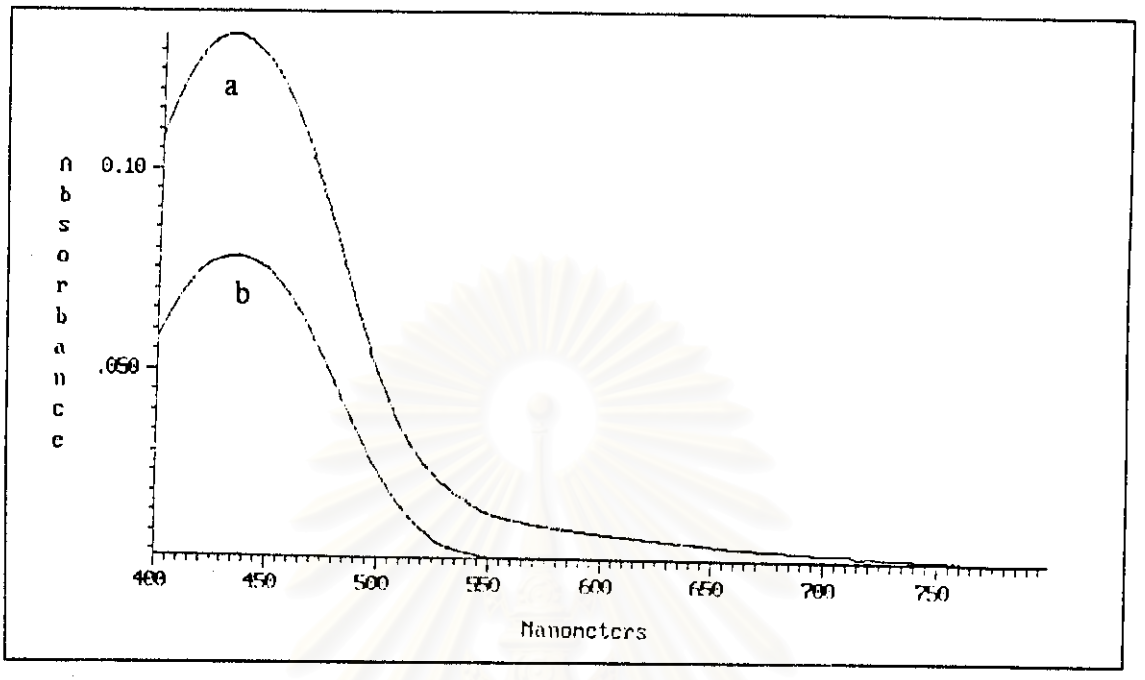

Figure 2b UV-visible spectra of

a) *N,N*-dimethylaminomethylferrocene methiodide

b) β-cyclodextrin-*N,N*-dimethylaminomethylferrocene methiodide inclusion compound

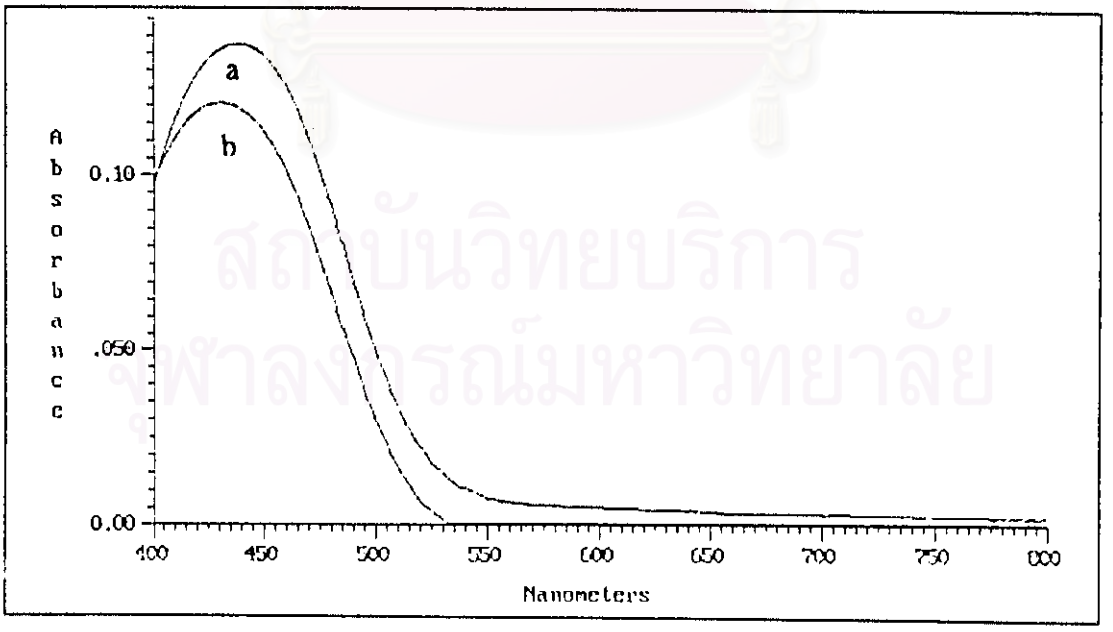

Figure 3b UV-visible spectra of

a) α-methylferrocenylmethylamine

b) β-cyclodextrin-α-methylferrocenylmethylamine inclusion compound

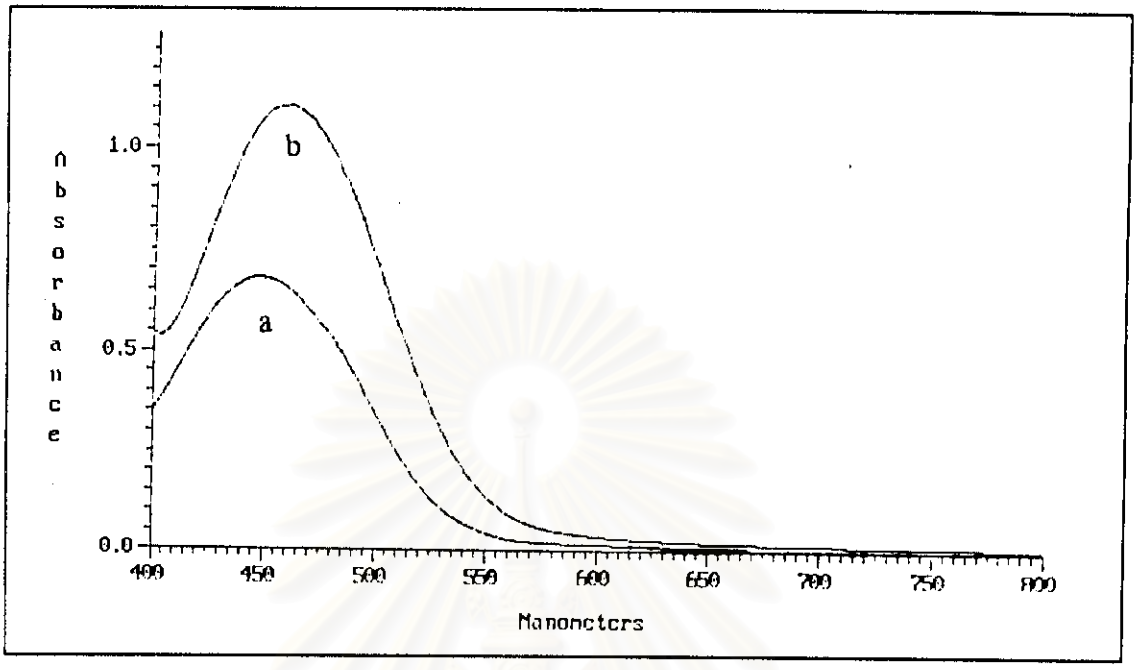

Figure 4b UV-visible spectra of
a) Schiff base derivative
b) β-cyclodextrin-Schiff base derivative inclusion compound

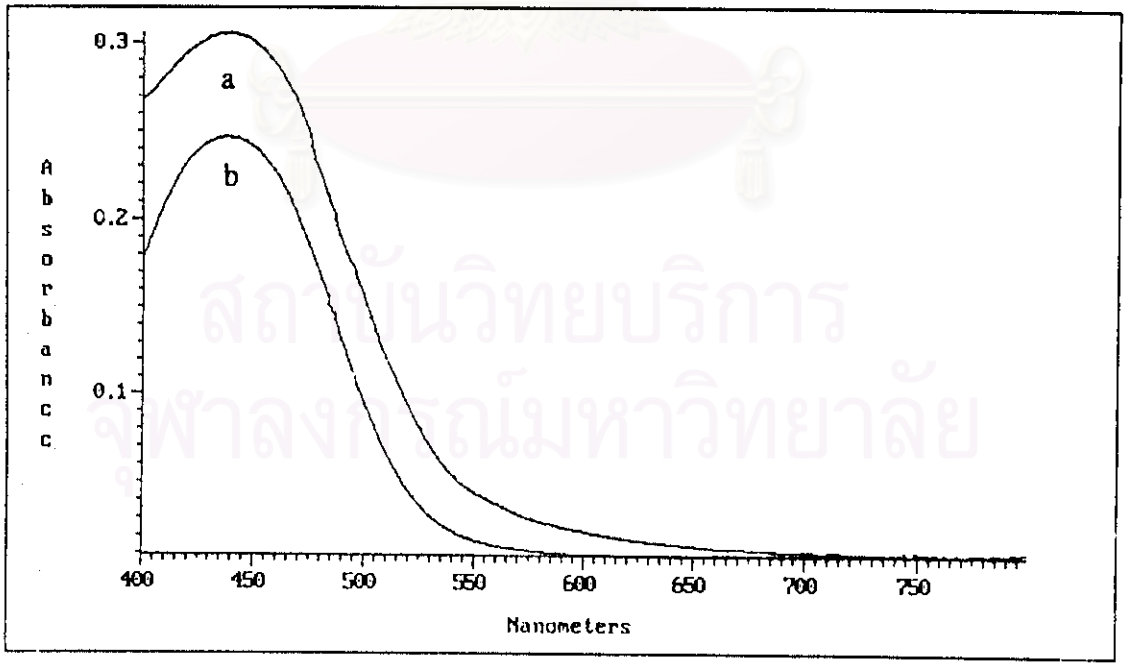

Figure 5b UV-visible spectra of
a) Reduced Schiff base derivative
b) β-cyclodextrin-Reduced Schiff base derivative inclusion compound

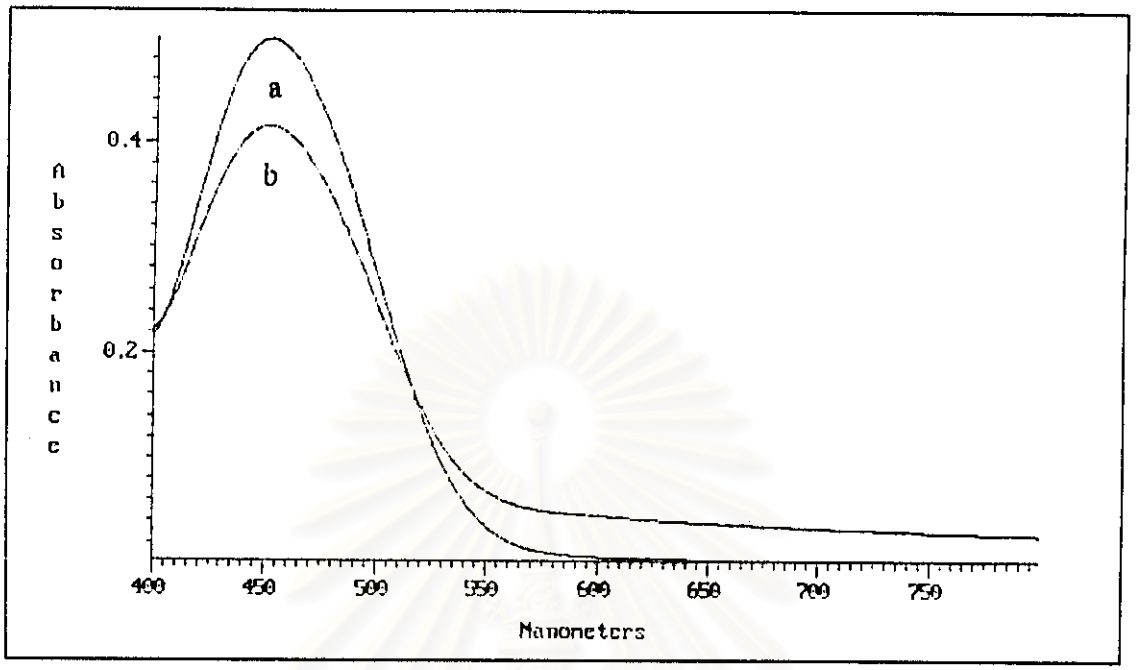

Figure 6b UV-visible spectra of

a) acetylferrocene

b) β-cyclodextrin-acetylferrocene inclusion compound

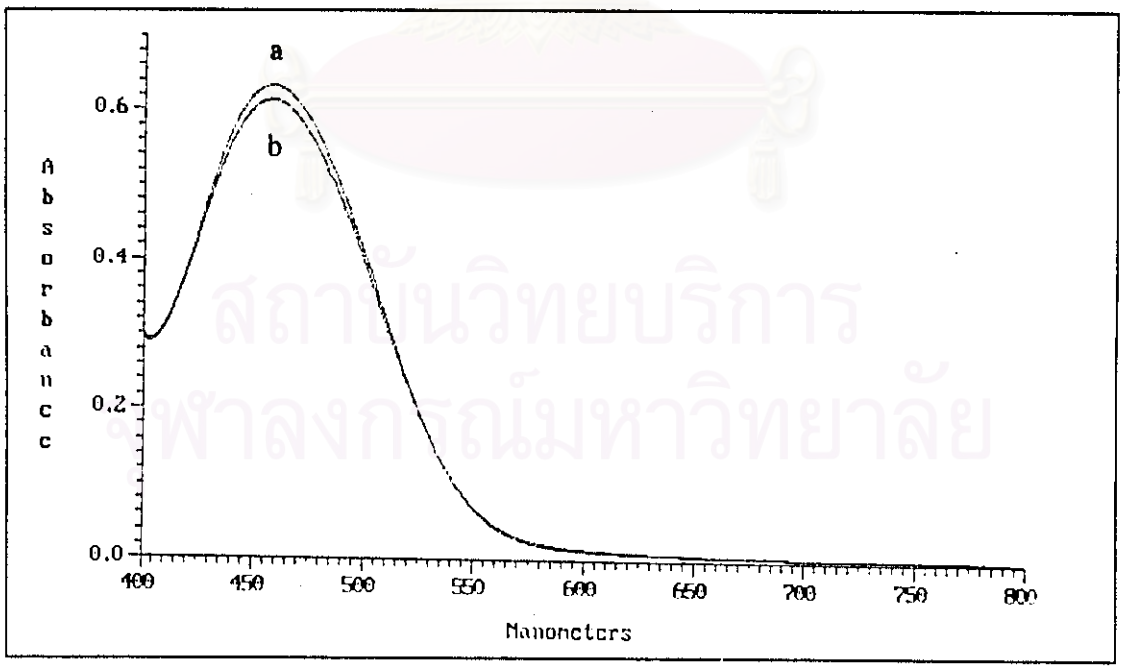

Figure 7b UV-visible spectra of

a) ferrocenylaldehyde

b) β-cyclodextrin-ferrocenylaldehyde inclusion compound

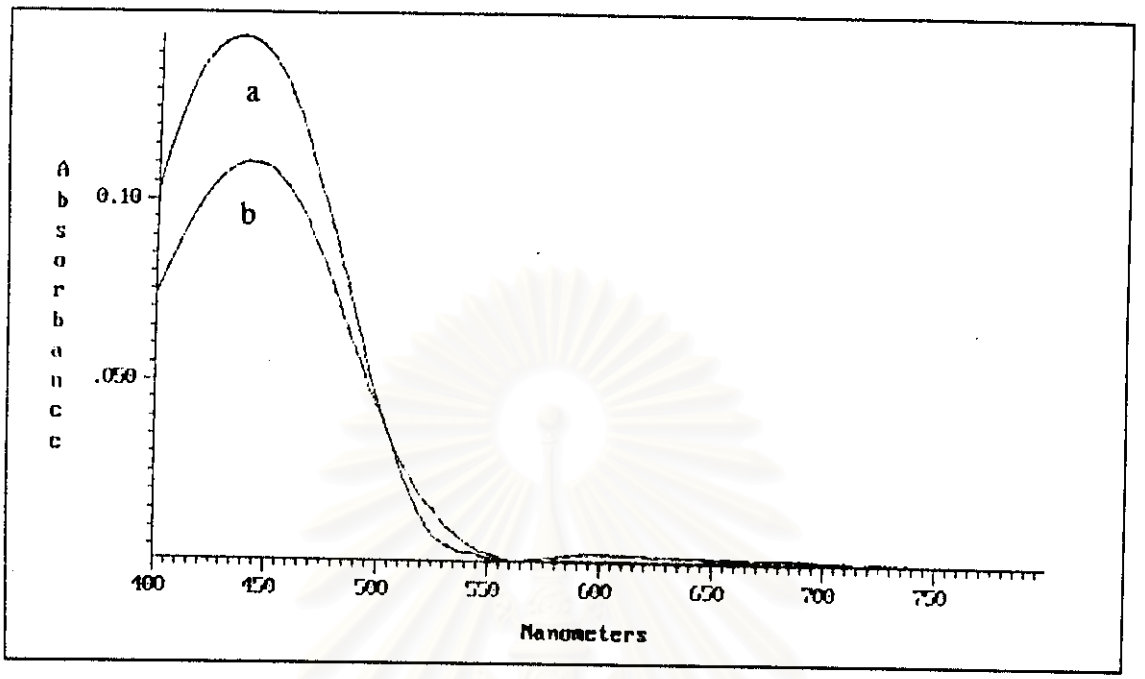

Figure 8b UV-visible spectra of

a) ferrocenylmethylalcohol

b) β-cyclodextrin-ferrocenylmethylalcohol inclusion compound

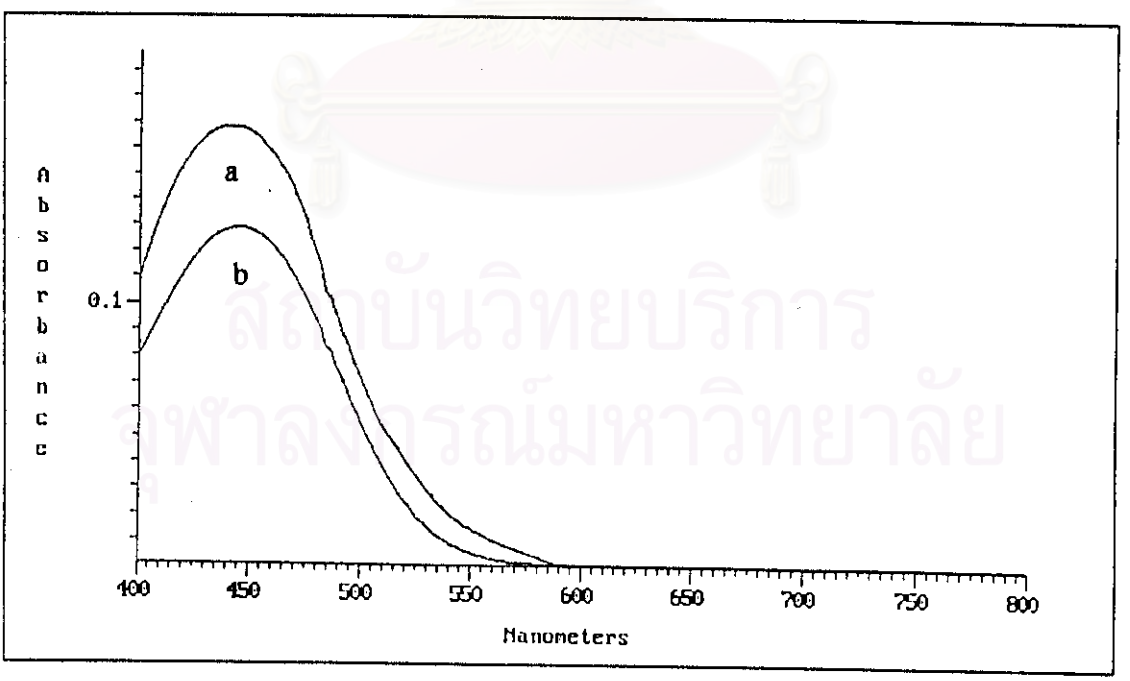

Figure 9b UV-Visible spectra of

a) α-hydroxyethylferroce

b) β-cyclodextrin-α-hydroxyethylferrocene inclusion compound

Appendix C

Table 1c Angle (2θ) in X-ray diffraction patterns of *N, N*-dimethylaminomethyl ferrocene methiodide inclusion compound and the corresponding mixture

Cyclodextrin	*N, N*–Dimethyl aminomethylferrocene	Mixture	Inclusion
8.92	13.04	6.32	5.68
10.64	14.80	8.96	5.96
12.44	16.72	10.68	9.76
14.64	16.96	12.48	10.00
15.40	17.28	13.04	11.32
17.04	19.08	14.76	11.84
17.76	19.40	15.44	13.96
18.72	20.44	16.04	14.48
19.48	21.12	16.88	14.72
20.80	22.16	17.16	15.44
21.24	22.52	17.72	17.60
22.76	24.12	17.92	17.92
	24.64	19.00	18.52
	25.16	19.40	18.80
	26.24	20.36	19.68
	27.12	20.80	20.28
		21.16	20.92
		22.12	21.36
		22.60	22.40
		24.28	23.16
		25.12	24.08
		25.64	24.84
		27.16	25.96
		34.60	26.44

Table 2c Angle(2θ) in X-ray diffraction patterns of α-methylferrocenylmethylamine inclusion compound and the corresponding mixture

Cyclodextrin	α-Methyl ferrocenylmethylamine	Mixture	Inclusion
8.92	6.04	6.64	5.80
10.64	12.04	11.08	11.56
12.44	14.00	12.72	16.76
14.64	14.24	13.76	17.08
15.40	15.20	14.52	17.44
17.04	16.44	15.60	18.08
17.76	17.24	16.04	18.48
18.72	18.08	16.28	18.80
19.48	18.88	16.68	19.28
20.80	19.24	17.44	20.88
21.24	20.48	18.12	
22.76	24.16	18.48	
		18.80	
		19.08	
		19.76	
		20.12	
		20.92	
		21.52	
		22.52	
		22.88	
		23.24	
		24.84	
		26.32	

Table 3c Angle (2θ) in X-ray diffraction patterns of Schiff base inclusion compound and the corresponding mixture

Cyclodextrin	Schiff Base	Mixture	Inclusion
8.92	12.44	5.80	5.88
10.64	14.08	10.32	11.52
12.44	15.28	11.04	14.20
14.64	16.48	13.80	14.60
15.40	18.80	15.40	15.52
17.04	19.08	16.00	16.36
17.76	19.36	16.72	16.80
18.72	19.72	17.40	17.56
19.48		17.80	18.08
20.80		18.12	18.36
21.24		18.36	18.68
22.76		19.00	19.08
		19.36	21.20
		20.24	21.96
		20.76	
		22.12	
		22.56	
		23.84	
		24.12	
		25.52	
		26.40	
		28.44	

Table 4c Angle (2θ) in X-ray diffraction patterns of reduced schiff base inclusion compound and the corresponding mixture

Cyclodextrin	Reduced Schiff Base	Mixture	Inclusion
8.92	16.92	5.28	6.08
10.64	18.36	7.04	11.72
12.44	18.84	9.76	12.20
14.64	20.96	11.40	12.60
15.40	21.56	12.40	13.72
17.04	22.52	13.20	14.04
17.76	23.24	13.52	14.72
18.72	24.16	14.24	15.72
19.48	24.80	14.80	16.00
20.80	25.44	15.36	17.64
21.24	25.92	16.24	18.08
22.76		16.72	18.40
		17.56	19.72
		17.88	20.36
		18.40	20.84
		18.76	21.44
		19.40	22.24
		19.64	23.08
		20.24	23.96
		21.60	24.80
		22.04	25.04
		22.76	
		23.60	
		24.20	
		24.88	
		25.84	
		26.36	
		27.36	

VITA

Miss Karaked Tedsree was born in October 18, 1972 in Prachinburi, Thailand. She graduated with Bachelor Degree of Science in Chemistry from Burapha University in 1995. After that she was a lecturer in Department of Chemistry, Faculty of Science, Burapha University. In 1997, she was admitted into a Master Degree program in Inorganic Chemistry, Chulalongkorn University. During her study, she received a financial support from Ministry of University Affair in 1997-1998.