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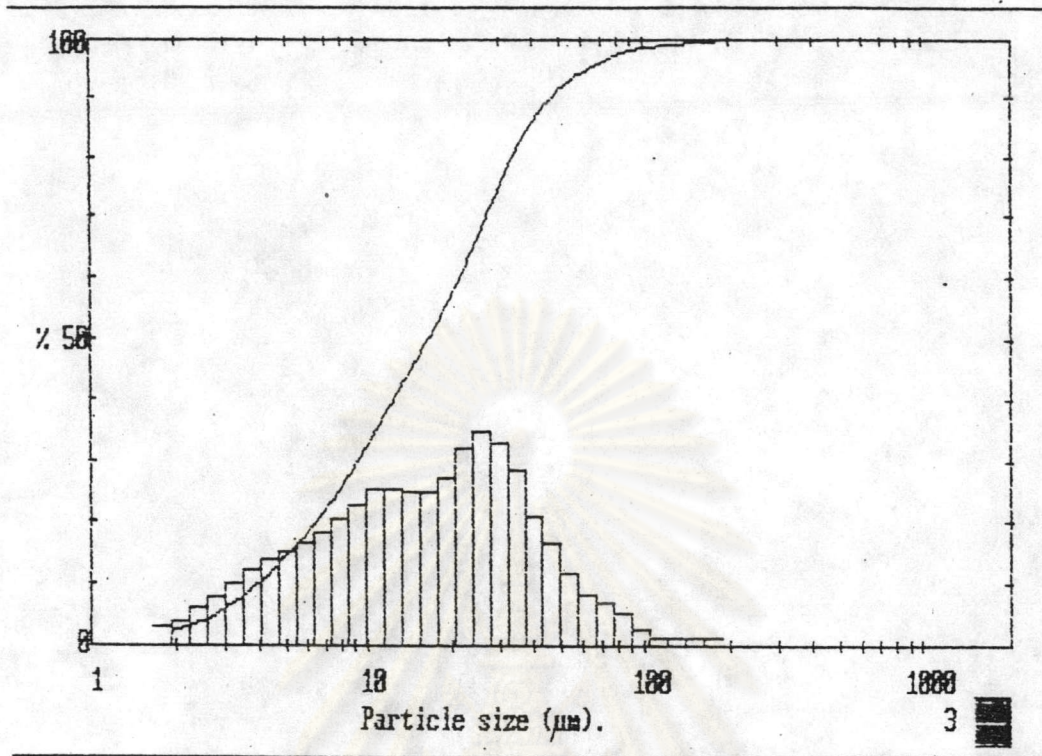
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ศูนย์วิทยุทรัพยากร
จุฬาลงกรณ์มหาวิทยาลัย



APPENDICES

ศูนย์วิทยทรัพยากร
จุฬาลงกรณ์มหาวิทยาลัย

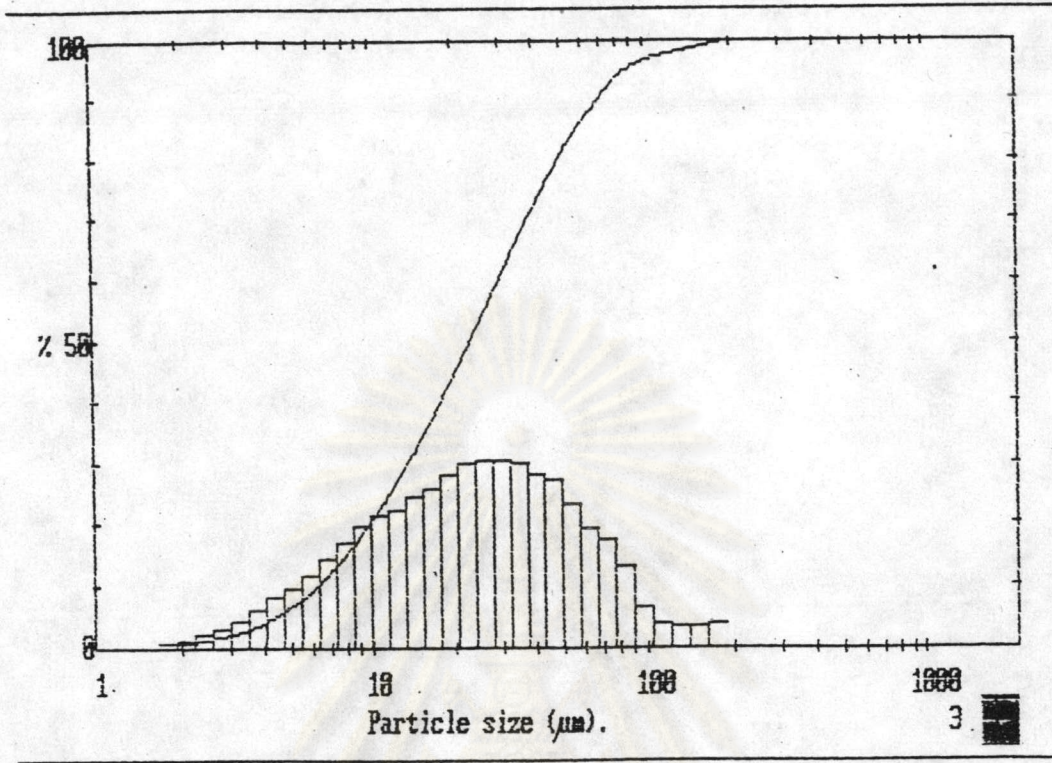


Size microns	% under	% in band	Size microns	% under	% in band
188	100	0.30	17.7	52.6	5.04
162	99.7	0.28	15.3	47.5	5.04
140	99.4	0.28	13.2	42.5	5.11
121	99.1	0.31	11.4	37.4	5.12
104	98.8	0.52	9.81	32.3	4.65
89.9	98.3	1.09	8.46	27.6	4.15
77.5	97.2	1.46	7.30	23.5	3.70
66.9	95.8	1.72	6.30	19.8	3.36
57.7	94.0	2.43	5.43	16.4	3.06
49.8	91.6	3.33	4.69	13.4	2.84
42.9	88.3	4.28	4.05	10.5	2.50
37.1	84.0	5.79	3.49	8.02	2.03
32.0	78.2	6.68	3.01	5.99	1.58
27.6	71.5	6.96	2.60	4.41	1.23
23.8	64.6	6.48	2.24	3.18	0.84
20.5	58.1	5.50	1.93	2.34	

Result source=Sample
 Record No. = 0
 Focal length = 100 mm.
 Presentation = pia
 Volume distribution
 Beam length = 25.0 mm.
 Obscuration = 0.0621
 Volume Conc. = 0.0002 %
 Log. Diff. = 2.909
 Model indep

D(v, 0.5) = 16.44 µm
 D(v, 0.9) = 46.11 µm
 D(v, 0.1) = 3.94 µm
 D(4, 3) = 22.18 µm
 D(3, 2) = 8.70 µm
 Span = 2.57
 Spec. surf. area
 0.6899 sq. m./cc.

Appendix 1 Histogram for Particle Size Distribution of S₁

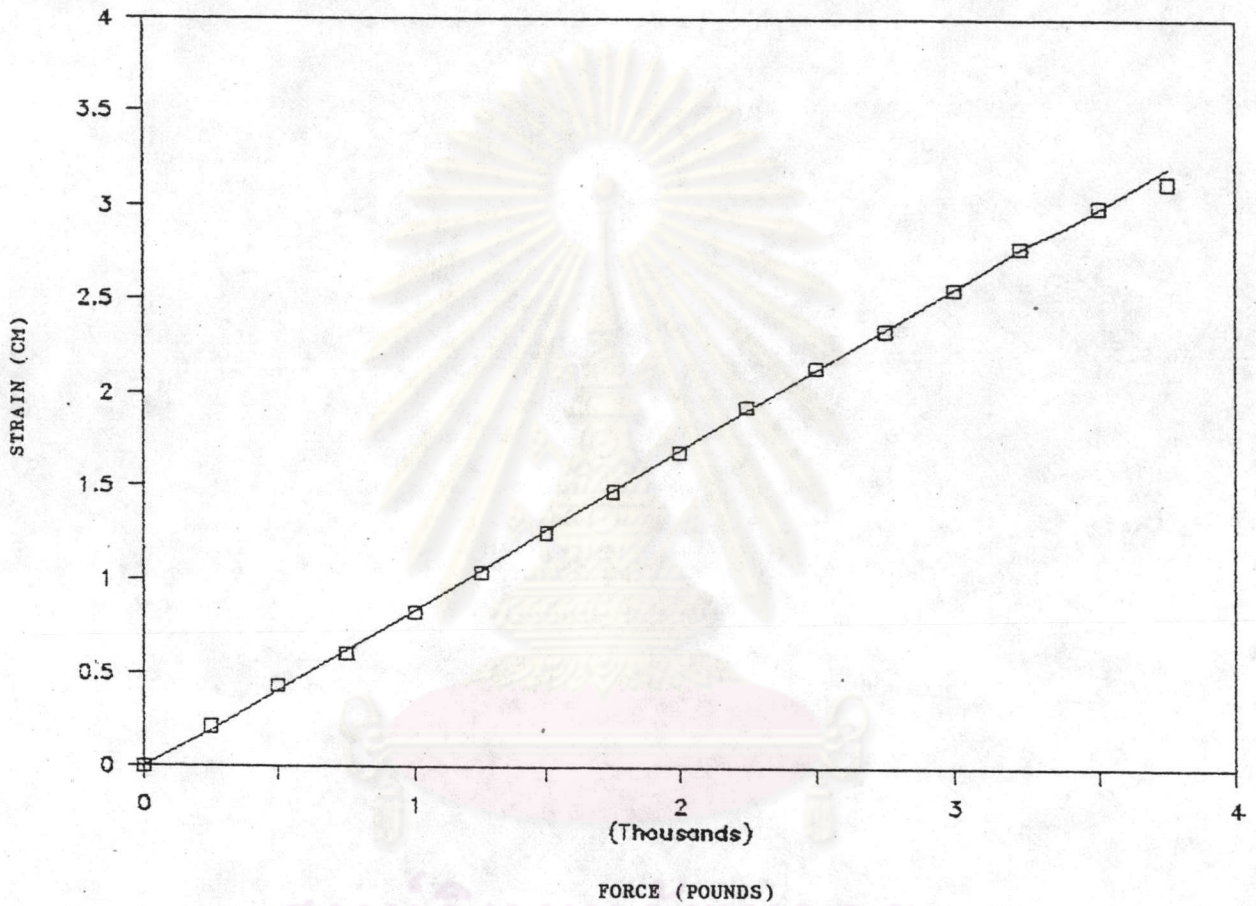


Size microns	% under	% in band	Size microns	% under	% in band	Result source=Sample Record No. = 0 Focal length = 100 mm. Presentation =pia Volume distribution Beam length = 25.0 mm. Obscuration =0.0292 Volume Conc. = 0.0001 % Log. Diff. = 3.303 Model indep
188	100	0.76	17.7	39.7	5.27	
162	99.2	0.71	15.3	34.4	4.93	D(v,0.9) = 68.30 µm
140	98.5	0.72	13.2	29.5	4.55	D(v,0.1) = 6.21 µm
121	97.8	0.79	11.4	25.0	4.36	D(4,3) = 31.34 µm
104	97.0	1.30	9.81	20.6	3.97	D(3,2) = 13.34 µm
89.9	95.7	2.67	8.46	16.6	3.47	Span = 2.70
77.5	93.1	3.58	7.30	13.2	2.90	Spec. surf. area 0.4498 sq. m./cc.
66.9	89.5	3.94	6.30	10.3	2.39	
57.7	85.5	4.67	5.43	7.87	1.96	
49.8	80.9	5.52	4.69	5.91	1.65	
42.9	75.4	5.70	4.05	4.27	1.28	
37.1	69.7	6.01	3.49	2.98	0.89	
32.0	63.6	6.11	3.01	2.10	0.60	
27.6	57.5	6.11	2.60	1.50	0.43	
23.8	51.4	6.03	2.24	1.08	0.29	
20.5	45.4	5.68	1.93	0.79		

Appendix 2 Histogram for Particle Size Distribution of S₂

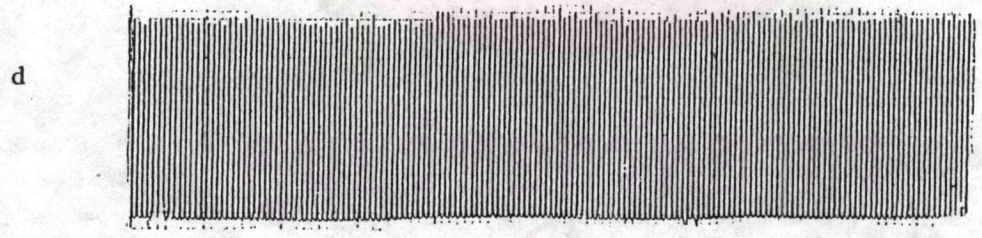
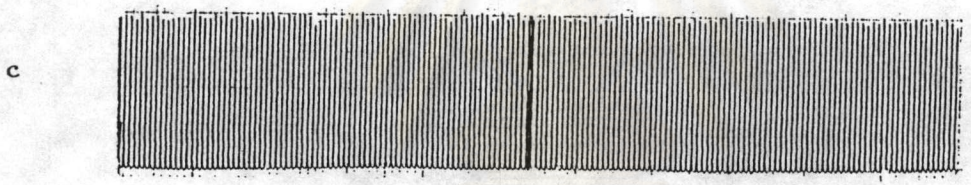
Appendix 3 The Calibration Data between Strain and
Applied Forces

Force (pounds)	Strain (cm)
0	0
250	0.21
500	0.43
750	0.60
1000	0.82
1250	1.04
1500	1.25
1750	1.48
2000	1.69
2500	1.93
2750	2.34
3000	2.56
3250	2.78
3500	3.00
3750	3.13



Appendix 4 The Calibration Curve of Strain and Applied Forces
(Correlation Coefficient = 0.9998)

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จุฬาลงกรณ์มหาวิทยาลัย



Appendix 5 Tracing Showed Deflection Signal on Recorder during
Compressing of Tablets by Instrumented Tableting Machine

a	1200 lb	b	1800 lb
c	2400 lb	d	3000 lb

Appendix 6 Physical Properties of Dibasic Calcium Phosphate Dihydrate Tablets without Disintegrant at Different Compression Pressures

Physical Properties of Tablets	Compression Pressures (lb)			
	1200	1800	2400	3000
Weight (mg) (S.D. ¹)	350.64(1.95)	351.84(1.20)	355.46(1.91)	353.72(1.18)
R.S.D. ²	0.56	0.34	0.54	0.33
Thickness (mm) (S.D.)	2.654(0.008)	2.582(0.009)	2.541(0.014)	2.501(0.010)
Hardness (Kp) (S.D.)	2.31(0.29)	4.14(1.44)	5.82(0.29)	7.78(0.17)
Friability (%)	2.06	1.69	1.31	0.76
D.T. ³ (sec)	>30 min	>30 min	>30 min	>30 min
Range	-	-	-	-

Appendix 7 Physical Properties of α -Lactose Monohydrate Tablets without Disintegrant at Different Compression Pressures

Physical Properties of Tablets	Compression Pressures (lb)			
	1200	1800	2400	3000
Weight (mg) (S.D.)	349.42(2.09)	347.57(2.13)	349.92(1.34)	349.59(1.48)
R.S.D.	0.60	0.61	0.38	0.43
Thickness (mm) (S.D.)	3.781(0.007)	3.612(0.008)	3.547(0.013)	3.523(0.006)
Hardness (Kp) (S.D.)	2.29(0.26)	4.85(0.43)	6.90(0.43)	7.93(0.55)
Friability (%)	1.64	1.47	0.74	0.58
D.T. (sec)	90.13	120.33	188.33	227.53
Range	88-93	118-125	168-200	210-230

1 = standard deviation

2 = relative standard deviation $(S.D. \times 100)$

\bar{X}

3 = disintegration time

Appendix 8 Physical Properties of Dibasic Calcium Phosphate Dihydrate Tablets. Containing Various Concentrations of S_1 at Different Compression Pressures

Compression Pressure (lb)	Physical Properties of Tablets	Concentration (% w/w)			
		0.5	1	3	5
1200	Weight (mg) (S.D.)	346.15(0.90)	350.32(1.16)	352.66(1.01)	351.00(1.05)
	R.S.D.	0.26	0.33	0.28	0.30
	Thickness (mm) (S.D.)	2.621(0.011)	2.645(0.013)	2.692(0.006)	2.695(0.010)
	Hardness (Kp) (S.D.)	3.27(0.12)	3.31(0.21)	3.56(0.34)	3.58(0.23)
	Friability (%)	1.46	1.71	1.56	1.52
	D.T. (sec)	227.16	78.0	62.0	159.17
	Range	176-290	76-80	55-70	110-175
1800	Weight (mg) (S.D.)	352.08(1.36)	346.53(1.34)	350.69(0.89)	349.60(2.03)
	R.S.D.	0.39	0.38	0.25	0.58
	Thickness (mm) (S.D.)	2.595(0.003)	2.569(0.009)	2.612(0.007)	2.631(0.009)
	Hardness (Kp) (S.D.)	5.50(0.28)	5.49(0.31)	5.67(0.47)	5.37(0.44)
	Friability (%)	1.35	1.13	1.04	1.02
	D.T. (sec)	697.17	84.33	65.33	185.83
	Range	500-912	82-86	60-68	170-210
2400	Weight (mg) (S.D.)	352.82(1.79)	348.08(1.27)	352.04(0.92)	348.42(1.28)
	R.S.D.	0.51	0.36	0.26	0.37
	Thickness (mm) (S.D.)	2.541(0.021)	2.523(0.005)	2.578(0.006)	2.545(0.005)
	Hardness (Kp) (S.D.)	6.92(0.15)	6.77(0.29)	7.30(0.27)	7.88(0.21)
	Friability (%)	1.02	0.97	0.91	0.88
	D.T. (sec)	755.67	96.67	69.83	188.67
	Range	550-1075	94-98	63-74	180-200
3000	Weight (mg) (S.D.)	350.94(1.64)	347.66(1.56)	344.30(1.81)	348.84(1.63)
	R.S.D.	0.47	0.45	0.53	0.47
	Thickness (mm) (S.D.)	2.520(0.006)	2.485(0.010)	2.495(0.008)	2.528(0.005)
	Hardness (Kp) (S.D.)	8.12(0.40)	8.48(0.18)	7.815(0.80)	8.42(0.15)
	Friability (%)	0.58	0.83	0.80	0.54
	D.T. (sec)	821.17	102.33	72.35	198.67
	Range	760-905	100-105	69-74	190-215

Appendix 9 Physical Properties of Dibasic Calcium Phosphate Dihydrate Tablets Containing Various Concentrations of S_2 at Different Compression Pressures

Compression Pressure (lb)	Physical Properties of Tablets	Concentration (% w/w)			
		0.5	1	3	5
1200	Weight (mg) (S.D.)	348.85(1.53)	350.87(0.48)	347.48(1.39)	346.99(2.11)
	R.S.D.	0.44	0.14	0.40	0.61
	Thickness (mm) (S.D.)	2.642(0.009)	2.643(0.009)	2.671(0.008)	2.673(0.008)
	Hardness (Kp) (S.D.)	3.30(0.28)	3.28(0.19)	3.16(0.29)	3.38(0.23)
	Friability (%)	1.57	1.46	1.71	1.55
	D.T. (sec)	73.83	63.67	60.67	336.67
	Range	65-93	60-65	59-62	280-380
1800	Weight (mg) (S.D.)	351.54(0.94)	351.35(1.05)	346.68(1.33)	347.05(1.03)
	R.S.D.	0.27	0.29	0.38	0.29
	Thickness (mm) (S.D.)	2.581(0.004)	2.585(0.004)	2.586(0.007)	2.621(0.006)
	Hardness (Kp) (S.D.)	5.83(0.17)	5.87(0.29)	5.58(0.22)	5.26(0.19)
	Friability (%)	1.18	1.15	1.09	1.05
	D.T. (sec)	87.50	72.67	64.17	309.17
	Range	82-97	70-74	60-68	275-330
2400	Weight (mg) (S.D.)	355.17(1.81)	352.66(0.90)	345.99(1.45)	346.49(1.78)
	R.S.D.	0.51	0.26	0.42	0.51
	Thickness (mm) (S.D.)	2.564(0.012)	2.556(0.007)	2.527(0.008)	2.564(0.008)
	Hardness (Kp) (S.D.)	7.59(0.36)	7.21(0.19)	7.21(0.30)	6.70(0.35)
	Friability (%)	0.87	0.92	0.74	0.77
	D.T. (sec)	91.17	82.51	78.33	410.89
	Range	80-105	80-85	75-80	390-430
3000	Weight (mg) (S.D.)	351.17(1.29)	347.79(0.82)	347.84(0.99)	347.06(1.49)
	R.S.D.	0.37	0.24	0.28	0.43
	Thickness (mm) (S.D.)	2.501(0.008)	2.505(0.004)	2.504(0.007)	2.537(0.007)
	Hardness (Kp) (S.D.)	8.99(0.46)	8.74(0.23)	8.95(0.28)	8.21(0.48)
	Friability (%)	0.78	0.69	0.61	0.62
	D.T. (sec)	166.67	96.67	82.21	521.66
	Range	141-225	94-98	80-83	370-620

Appendix 10 Physical Properties of Dibasic Calcium Phosphate Dihydrate Tablets Containing Various Concentrations of Ac-Di-Sol^(R) at Different Compression Pressures

Compression Pressure (lb)	Physical Properties of Tablets	Concentration (% w/w)			
		0.5	1	3	5
1200	Weight (mg) (S.D.)	354.06(1.12)	351.57(1.09)	345.80(1.32)	352.69(1.11)
	R.S.D.	0.32	0.31	0.38	0.31
	Thickness (mm) (S.D.)	2.701(0.009)	2.698(0.004)	2.680(0.007)	2.779(0.008)
	Hardness (Kp) (S.D.)	2.66(0.29)	2.55(0.12)	2.66(0.37)	2.75(0.48)
	Friability (%)	1.88	1.75	1.42	2.17
	D.T. (sec)	11.17	6.42	4.33	5
	Range	11-12	6-7	4-5	5
1800	Weight (mg) (S.D.)	348.72(1.10)	352.10(1.15)	348.79(0.81)	351.07(1.60)
	R.S.D.	0.32	0.33	0.23	0.46
	Thickness (mm) (S.D.)	2.580(0.009)	2.626(0.005)	2.609(0.009)	2.650(0.008)
	Hardness (Kp) (S.D.)	5.23(0.30)	4.58(0.37)	4.77(0.29)	4.30(0.17)
	Friability (%)	1.20	1.19	1.08	1.34
	D.T. (sec)	14.17	7.25	5	5
	Range	14-15	7-7.5	5	5
2400	Weight (mg) (S.D.)	350.07(0.99)	347.94(1.19)	350.04(1.06)	350.50(1.06)
	R.S.D.	0.28	0.34	0.30	0.30
	Thickness (mm) (S.D.)	2.538(0.003)	2.539(0.008)	2.576(0.007)	2.605(0.007)
	Hardness (Kp) (S.D.)	6.52(0.43)	6.35(0.31)	5.95(0.34)	5.51(0.10)
	Friability (%)	0.88	0.92	0.81	0.76
	D.T. (sec)	16.0	8.17	5.33	5.67
	Range	15-17	8-8.5	5-6	5-6
3000	Weight (mg) (S.D.)	350.38(0.93)	348.25(0.91)	350.09(0.87)	349.68(1.43)
	R.S.D.	0.26	0.26	0.25	0.41
	Thickness (mm) (S.D.)	2.509(0.004)	2.502(0.006)	2.541(0.008)	2.549(0.017)
	Hardness (Kp) (S.D.)	7.56(0.41)	7.32(0.38)	7.24(0.28)	6.74(0.29)
	Friability (%)	0.75	0.68	0.67	0.56
	D.T. (sec)	19.0	10.0	6	6
	Range	18-22	9-11	6	6

Appendix 11 Physical Properties of Dibasic Calcium Phosphate Dihydrate Tablets Containing Various Concentrations of Corn Starch at Different Compression Pressures

Compression Pressure (lb)	Physical Properties of Tablets	Concentration (% w/w)			
		0.5	1	3	5
1200	Weight (mg) (S.D.)	350.59(1.91)	356.28(1.87)	355.45(0.84)	356.24(3.06)
	R.S.D.	0.54	0.52	0.24	0.86
	Thickness (mm) (S.D.)	2.641(0.011)	2.702(0.009)	2.723(0.004)	2.712(0.012)
	Hardness (Kp) (S.D.)	3.39(0.11)	3.18(0.17)	3.12(0.15)	3.28(0.20)
	Friability (%)	1.81	1.74	1.68	1.59
	D.T. (sec)	>30 min	>30 min	64.16	31.0
	Range	-	-	61-74	23-41
1800	Weight (mg) (S.D.)	353.81(0.93)	353.39(1.85)	350.22(1.94)	352.36(1.05)
	R.S.D.	0.26	0.52	0.55	0.29
	Thickness (mm) (S.D.)	2.581(0.008)	2.572(0.013)	2.613(0.008)	2.662(0.005)
	Hardness (Kp) (S.D.)	4.31(0.15)	4.21(0.14)	4.92(0.14)	4.45(0.28)
	Friability (%)	1.49	1.46	1.50	1.47
	D.T. (sec)	>30 min	>30 min	86.83	35.0
	Range	-	-	74-98	32-39
2400	Weight (mg) (S.D.)	354.23(1.25)	350.86(3.16)	354.10(1.63)	352.18(1.25)
	R.S.D.	0.35	0.90	0.46	0.35
	Thickness (mm) (S.D.)	2.542(0.005)	2.545(0.006)	2.578(0.008)	2.641(0.006)
	Hardness (Kp) (S.D.)	5.98(0.32)	5.76(0.19)	5.92(0.20)	4.84(0.27)
	Friability (%)	1.08	1.19	1.13	1.29
	D.T. (sec)	>30 min	>30 min	140.83	38.52
	Range	-	-	127-150	33-45
3000	Weight (mg) (S.D.)	352.36(2.79)	351.76(1.15)	353.15(2.31)	350.39(1.84)
	R.S.D.	0.79	0.33	0.65	0.52
	Thickness (mm) (S.D.)	2.513(0.006)	2.521(0.006)	2.548(0.005)	2.563(0.008)
	Hardness (Kp) (S.D.)	7.14(0.19)	7.13(0.20)	6.85(0.16)	6.67(0.20)
	Friability (%)	0.95	0.98	0.74	0.88
	D.T. (sec)	>30 min	>30 min	156.21	44.51
	Range	-	-	130-170	42-45

Appendix 12 Physical Properties of Dibasic Calcium Phosphate Dihydrate Tablets Containing Various Concentrations of ECG 505^(R) at Different Compression Pressures

Compression Pressure (lb)	Physical Properties of Tablets	Concentration (% w/w)			
		0.5	1	3	5
1200	Weight (mg) (S.D.)	346.37(1.16)	348.64(1.93)	348.53(1.21)	351.54(1.18)
	R.S.D.	0.33	0.55	0.35	0.34
	Thickness (mm) (S.D.)	2.653(0.007)	2.662(0.007)	2.776(0.006)	2.745(0.009)
	Hardness (Kp) (S.D.)	2.54(0.27)	2.56(0.40)	2.56(0.36)	2.61(0.43)
	Friability (%)	2.05	1.76	1.86	2.48
	D.T. (sec)	27.03	13.17	7.17	8
	Range	24-30	12-15	7-8	8
1800	Weight (mg) (S.D.)	355.08(1.37)	350.01(1.06)	348.64(0.92)	350.78(1.08)
	R.S.D.	0.38	0.30	0.26	0.31
	Thickness (mm) (S.D.)	2.634(0.006)	2.627(0.007)	2.664(0.007)	2.637(0.005)
	Hardness (Kp) (S.D.)	4.61(0.33)	4.76(0.26)	4.86(0.23)	4.77(0.13)
	Friability (%)	1.24	1.09	1.22	1.13
	D.T. (sec)	37.33	16.33	8.17	8
	Range	37-41	16-17	8-9	8
2400	Weight (mg) (S.D.)	351.55(0.98)	352.98(1.10)	348.12(1.98)	348.52(0.96)
	R.S.D.	0.28	0.31	0.57	0.28
	Thickness (mm) (S.D.)	2.557(0.100)	2.572(0.006)	2.602(0.005)	2.574(0.009)
	Hardness (Kp) (S.D.)	6.29(0.37)	6.13(0.65)	6.11(0.22)	6.02(0.32)
	Friability (%)	1.06	0.92	0.88	0.96
	D.T. (sec)	43.5	16.33	9.17	9
	Range	41-46	16-17	9-10	9
3000	Weight (mg) (S.D.)	350.60(2.36)	350.75(1.53)	351.34(1.46)	351.09(1.58)
	R.S.D.	0.67	0.44	0.42	0.45
	Thickness (mm) (S.D.)	2.513(0.006)	2.517(0.008)	2.582(0.008)	2.547(0.011)
	Hardness (Kp) (S.D.)	7.52(0.38)	7.61(0.52)	7.35(0.25)	7.24(0.35)
	Friability (%)	0.81	0.70	0.67	0.76
	D.T. (sec)	55.67	19.67	11	11
	Range	50-65	18-22	11	11

Appendix 13 Physical Properties of Dibasic Calcium Phosphate Dihydrate Tablets Containing Various Concentrations of Explotab[®] at Different Compression Pressures

Compression Pressure (lb)	Physical Properties of Tablets	Concentration (% w/w)			
		0.5	1	3	5
1200	Weight (mg) (S.D.)	356.01(1.79)	349.94(1.27)	351.52(1.29)	351.08(0.98)
	R.S.D.	0.50	0.36	0.37	0.28
	Thickness (mm) (S.D.)	2.710(0.009)	2.668(0.009)	2.681(0.011)	2.691(0.012)
	Hardness (Kp) (S.D.)	2.92(0.45)	2.94(0.40)	2.82(0.22)	2.84(0.28)
	Friability (%)	2.00	1.83	1.55	1.22
	D.T. (sec)	62.03	14.67	9	8.17
	Range	58-65	13-17	9	8-9
1800	Weight (mg) (S.D.)	349.84(1.99)	350.89(0.67)	348.47(1.13)	352.71(0.88)
	R.S.D.	0.57	0.19	0.32	0.25
	Thickness (mm) (S.D.)	2.581(0.008)	2.594(0.003)	2.582(0.006)	2.591(0.006)
	Hardness (Kp) (S.D.)	5.15(0.31)	5.09(0.29)	5.03(0.14)	4.56(0.28)
	Friability (%)	1.20	1.19	1.19	1.29
	D.T. (sec)	87.33	19.0	10.17	9.17
	Range	60-92	17-21	10-11	8-10
2400	Weight (mg) (S.D.)	352.69(2.76)	355.24(1.48)	347.82(1.92)	351.27(1.75)
	R.S.D.	0.78	0.42	0.55	0.49
	Thickness (mm) (S.D.)	2.562(0.012)	2.575(0.007)	2.554(0.006)	2.581(0.008)
	Hardness (Kp) (S.D.)	6.31(0.36)	5.92(0.34)	6.22(0.18)	5.62(0.24)
	Friability (%)	1.13	1.10	1.08	1.28
	D.T. (sec)	117.5	20.17	9.33	8.66
	Range	90-130	18-23	9-10	8-10
3000	Weight (mg) (S.D.)	354.21(2.41)	351.35(1.31)	349.69(1.06)	353.66(2.51)
	R.S.D.	0.68	0.32	0.30	0.71
	Thickness (mm) (S.D.)	2.552(0.008)	2.523(0.004)	2.531(0.007)	2.581(0.015)
	Hardness (Kp) (S.D.)	7.86(0.50)	7.18(0.28)	7.32(0.26)	6.89(0.29)
	Friability (%)	0.99	0.96	0.89	0.86
	D.T. (sec)	144.16	26.33	9.33	8.66
	Range	125-160	24-30	9-10	8-9

Appendix 14 Physical Properties of Dibasic Calcium Phosphate Dihydrate Tablets Containing Various Concentrations of Kollidon CL^(R) at Different Compression Pressures

Compression Pressure (lb)	Physical Properties of Tablets	Concentration (% w/w)			
		0.5	1	3	5
1200	Weight (mg) (S.D.)	350.01(2.28)	354.87(2.45)	349.21(2.21)	350.73(1.36)
	R.S.D.	0.65	0.69	0.63	0.39
	Thickness (mm) (S.D.)	2.712(0.007)	2.717(0.007)	2.738(0.006)	2.824(0.016)
	Hardness (Kp) (S.D.)	2.77(0.18)	2.63(0.17)	2.43(0.19)	2.09(0.28)
	Friability (%)	2.03	1.72	1.81	2.18
	D.T. (sec)	38.83	15.33	7	6
	Range	34-50	14-17	7	6
1800	Weight (mg) (S.D.)	350.66(1.46)	350.96(1.58)	350.48(1.18)	352.70(1.08)
	R.S.D.	0.42	0.45	0.34	0.31
	Thickness (mm) (S.D.)	2.591(0.006)	2.622(0.005)	2.666(0.005)	2.728(0.008)
	Hardness (Kp) (S.D.)	5.15(0.25)	4.58(0.27)	4.02(0.27)	3.64(0.28)
	Friability (%)	1.43	1.23	1.23	1.50
	D.T. (sec)	51.83	18.53	7.17	6
	Range	43-58	17-21	7-8	6
2400	Weight (mg) (S.D.)	352.38(2.07)	349.64(1.89)	356.85(3.46)	350.88(1.12)
	R.S.D.	0.58	0.54	0.97	0.32
	Thickness (mm) (S.D.)	2.565(0.009)	2.582(0.009)	2.648(0.012)	2.646(0.004)
	Hardness (Kp) (S.D.)	6.31(0.27)	5.61(0.22)	4.79(0.24)	4.94(0.19)
	Friability (%)	1.09	1.10	1.01	0.98
	D.T. (sec)	103.33	23.03	8	6
	Range	82-120	19-28	8	6
3000	Weight (mg) (S.D.)	348.28(1.62)	353.84(1.33)	346.27(0.99)	349.75(2.36)
	R.S.D.	0.47	0.38	0.28	0.67
	Thickness (mm) (S.D.)	2.523(0.011)	2.535(0.006)	2.561(0.007)	2.615(0.005)
	Hardness (Kp) (S.D.)	7.11(0.43)	7.48(0.39)	6.84(0.36)	6.14(0.18)
	Friability (%)	0.78	0.81	0.87	0.82
	D.T. (sec)	159.67	27.33	8.17	6.83
	Range	132-170	26-28	8-9	6-7

Appendix 15 Physical Properties of Dibasic Calcium Phosphate Dihydrate Tablets Containing Various Concentrations of L-HPC at Different Compression Pressures

Compression Pressure (lb)	Physical Properties of Tablets	Concentration (% w/w)			
		0.5	1	3	5
1200	Weight (mg) (S.D.)	348.81(2.45)	348.96(1.33)	349.48(0.99)	350.32(1.25)
	R.S.D.	0.70	0.38	0.28	0.36
	Thickness (mm) (S.D.)	2.655(0.007)	2.682(0.004)	2.698(0.008)	2.726(0.005)
	Hardness (Kp) (S.D.)	3.37(0.59)	3.35(0.34)	3.36(0.29)	3.24(0.24)
	Friability (%)	1.74	1.74	1.91	1.36
	D.T. (sec)	270.33	17.17	9.67	8.17
	Range	225-350	11-20	9-10	8-9
1800	Weight (mg) (S.D.)	348.68(1.68)	346.95(0.96)	351.32(1.98)	347.61(1.28)
	R.S.D.	0.48	0.28	0.56	0.37
	Thickness (mm) (S.D.)	2.583(0.005)	2.568(0.006)	2.622(0.008)	2.625(0.005)
	Hardness (Kp) (S.D.)	5.42(0.32)	5.53(0.41)	5.55(0.31)	5.44(0.31)
	Friability (%)	1.10	1.00	0.91	0.96
	D.T. (sec)	747.51	43.83	10	10.0
	Range	690-790	33-53	10	9-11
2400	Weight (mg) (S.D.)	348.09(1.64)	348.81(1.58)	350.34(1.16)	348.85(1.15)
	R.S.D.	0.47	0.45	0.33	0.33
	Thickness (mm) (S.D.)	2.527(0.008)	2.527(0.008)	2.569(0.008)	2.577(0.007)
	Hardness (Kp) (S.D.)	6.93(0.40)	6.94(0.28)	6.86(0.39)	6.92(0.30)
	Friability (%)	0.84	0.73	0.87	0.64
	D.T. (sec)	952.0	57.0	10.83	12
	Range	900-1032	45-67	10-11	12
3000	Weight (mg) (S.D.)	350.28(1.43)	351.25(0.88)	351.97(1.03)	350.78(1.12)
	R.S.D.	0.41	0.25	0.29	0.32
	Thickness (mm) (S.D.)	2.504(0.011)	2.509(0.007)	2.526(0.008)	2.553(0.010)
	Hardness (Kp) (S.D.)	8.52(0.48)	8.42(0.32)	8.94(0.29)	8.55(0.40)
	Friability (%)	0.66	0.59	0.54	0.62
	D.T. (sec)	>30 min	73.00	14.17	13.83
	Range	-	70-80	14-15	13-14

Appendix 16 Physical Properties of α -Lactose Monohydrate Tablets Containing Various Concentrations of S_1 at Different Compression Pressures

Compression Pressure (lb)	Physical Properties of Tablets	Concentration (% w/w)			
		0.5	1	3	5
1200	Weight (mg) (S.D.)	349.53(1.34)	347.06(1.72)	349.74(1.18)	347.96(0.82)
	R.S.D.	0.38	0.50	0.34	0.24
	Thickness (mm) (S.D.)	3.807(0.008)	3.773(0.008)	3.820(0.007)	3.821(0.008)
	Hardness (Kp) (S.D.)	2.36(0.19)	2.38(0.35)	2.29(0.30)	2.26(0.34)
	Friability (%)	2.13	2.17	2.38	2.11
	D.T. (sec)	82.0	162.67	469.17	553.67
	Range	75-87	150-180	450-475	540-570
1800	Weight (mg) (S.D.)	350.45(0.84)	352.71(0.91)	351.16(1.39)	348.70(1.10)
	R.S.D.	0.24	0.26	0.39	0.32
	Thickness (mm) (S.D.)	3.654(0.007)	3.665(0.010)	3.680(0.008)	3.679(0.010)
	Hardness (Kp) (S.D.)	4.72(0.36)	4.80(0.37)	4.54(0.33)	4.42(0.24)
	Friability (%)	1.12	1.08	1.11	1.27
	D.T. (sec)	66.83	182.33	494.83	590.83
	Range	63-74	175-190	485-502	555-620
2400	Weight (mg) (S.D.)	348.97(1.49)	348.48(1.19)	346.24(1.58)	351.34(1.36)
	R.S.D.	0.43	0.79	0.46	0.39
	Thickness (mm) (S.D.)	3.543(0.012)	3.563(0.010)	3.540(0.010)	3.594(0.008)
	Hardness (Kp) (S.D.)	6.37(0.46)	6.08(0.37)	6.10(0.35)	6.33(0.25)
	Friability (%)	0.77	0.79	0.71	0.76
	D.T. (sec)	65.71	167.52	390.67	867.53
	Range	61-69	160-180	376-420	855-880
3000	Weight (mg) (S.D.)	345.79(1.87)	351.24(1.12)	348.85(0.84)	351.16(1.37)
	R.S.D.	0.54	0.32	0.24	0.39
	Thickness (mm) (S.D.)	3.460(0.006)	3.471(0.005)	3.500(0.008)	3.531(0.009)
	Hardness (Kp) (S.D.)	7.24(0.57)	8.01(0.47)	8.02(0.41)	8.28(0.28)
	Friability (%)	0.54	0.54	0.55	0.51
	D.T. (sec)	66.17	170.33	365.67	922.52
	Range	63-70	165-175	355-371	895-940

Appendix 17 Physical Properties of α -Lactose Monohydrate Tablets Containing Various Concentrations of S_2 at Different Compression Pressures

Compression Pressure (lb)	Physical Properties of Tablets	Concentration (% w/w)			
		0.5	1	3	5
1200	Weight (mg) (S.D.)	348.36(1.25)	348.35(0.92)	346.82(1.11)	349.94(1.25)
	R.S.D.	0.36	0.26	0.32	0.36
	Thickness (mm) (S.D.)	3.793(0.007)	3.781(0.009)	3.825(0.008)	3.832(0.006)
	Hardness (Kp) (S.D.)	2.06(0.39)	2.46(0.33)	2.10(0.22)	2.14(0.29)
	Friability (%)	2.27	2.16	2.54	2.15
	D.T. (sec)	66.83	79.53	273.52	827.53
	Range	75-85	70-90	270-280	810-850
1800	Weight (mg) (S.D.)	349.87(1.31)	347.27(1.64)	346.62(1.18)	347.97(1.82)
	R.S.D.	0.37	0.47	0.34	0.52
	Thickness (mm) (S.D.)	3.695(0.012)	3.621(0.008)	3.650(0.008)	3.661(0.007)
	Hardness (Kp) (S.D.)	4.67(0.42)	4.84(0.32)	4.54(0.40)	4.09(0.22)
	Friability (%)	1.14	1.09	1.31	1.08
	D.T. (sec)	69	87.67	236.50	956.17
	Range	62-76	80-95	225-260	887-1000
2400	Weight (mg) (S.D.)	349.11(1.33)	347.89(1.36)	348.86(1.04)	351.01(0.91)
	R.S.D.	0.38	0.39	0.29	0.26
	Thickness (mm) (S.D.)	3.563(0.010)	3.534(0.010)	3.542(0.011)	3.577(0.008)
	Hardness (Kp) (S.D.)	6.26(0.26)	6.52(0.46)	6.62(0.23)	6.55(0.19)
	Friability (%)	0.62	0.60	0.75	0.80
	D.T. (sec)	61.57	92.67	231.51	954.17
	Range	58-65	78-100	225-238	940-990
3000	Weight (mg) (S.D.)	347.06(0.97)	347.08(1.21)	350.42(1.48)	345.83(1.19)
	R.S.D.	0.28	0.35	0.42	0.34
	Thickness (mm) (S.D.)	3.461(0.006)	3.475(0.010)	3.474(0.010)	3.514(0.009)
	Hardness (Kp) (S.D.)	8.87(0.44)	8.44(0.36)	8.28(0.43)	8.25(0.49)
	Friability (%)	0.45	0.44	0.56	0.51
	D.T. (sec)	52.28	97.33	215.55	966.17
	Range	49-56	85-108	195-235	920-1010

Appendix 18 Physical Properties of α -Lactose Monohydrate Tablets Containing Various Concentrations of Ac-Di-Sol^(R) at Different Compression Pressures

Compression Pressure (lb)	Physical Properties of Tablets	Concentration (% w/w)			
		0.5	1	3	5
1200	Weight (mg) (S.D.)	349.21(2.06)	349.08(1.72)	347.67(1.25)	349.02(1.11)
	R.S.D.	0.59	0.49	0.36	0.32
	Thickness (mm) (S.D.)	3.821(0.007)	3.830(0.005)	3.835(0.008)	3.868(0.008)
	Hardness (Kp) (S.D.)	2.44(0.39)	2.46(0.28)	2.43(0.23)	2.42(0.30)
	Friability (%)	1.57	1.51	1.84	1.94
	D.T. (sec)	40.33	45.17	73.83	86
	Range	38-43	42-47	67-78	85-105
1800	Weight (mg) (S.D.)	347.70(1.97)	349.34(0.88)	350.01(1.83)	349.58(1.23)
	R.S.D.	0.57	0.25	0.52	0.35
	Thickness (mm) (S.D.)	3.649(0.012)	3.662(0.006)	3.667(0.008)	3.709(0.005)
	Hardness (Kp) (S.D.)	4.87(0.28)	4.97(0.29)	5.11(0.32)	4.34(0.19)
	Friability (%)	0.87	1.05	0.73	0.81
	D.T. (sec)	37.0	41.67	65.83	74.83
	Range	36-39	37-44	62-70	70-80
2400	Weight (mg) (S.D.)	348.33(1.81)	348.86(0.89)	347.55(0.74)	348.65(1.28)
	R.S.D.	0.52	0.25	0.21	0.37
	Thickness (mm) (S.D.)	3.563(0.008)	3.562(0.006)	3.569(0.004)	3.611(0.006)
	Hardness (Kp) (S.D.)	6.88(0.62)	7.12(0.36)	7.17(0.48)	6.22(0.36)
	Friability (%)	0.75	0.49	0.42	0.51
	D.T. (sec)	35.17	38.83	58.17	69.17
	Range	33-37	35-42	55-61	65-74
3000	Weight (mg) (S.D.)	346.04(1.23)	347.84(1.17)	348.82(1.33)	347.65(1.35)
	R.S.D.	0.36	0.34	0.38	0.39
	Thickness (mm) (S.D.)	3.484(0.009)	3.503(0.009)	3.523(0.006)	3.528(0.006)
	Hardness (Kp) (S.D.)	8.30(0.39)	8.30(0.39)	9.05(0.36)	8.02(0.46)
	Friability (%)	0.41	0.39	0.36	0.34
	D.T. (sec)	27.33	38.33	50.0	70.67
	Range	25-30	35-428	47-55	65-74

Appendix 19 Physical Properties of α -Lactose Monohydrate Tablets Containing Various Concentrations of Corn Starch at Different Compression Pressures

Compression Pressure (lb)	Physical Properties of Tablets	Concentration (% w/w)			
		0.5	1	3	5
1200	Weight (mg) (S.D.)	349.98(1.51)	349.58(2.38)	348.44(2.12)	350.20(2.69)
	R.S.D.	0.43	0.68	0.60	0.77
	Thickness (mm) (S.D.)	3.789(0.006)	3.813(0.005)	3.767(0.004)	3.835(0.006)
	Hardness (Kp) (S.D.)	2.04(0.38)	2.42(0.23)	2.64(0.42)	1.55(0.37)
	Friability (%)	2.49	2.38	2.33	2.81
	D.T. (sec)	42.83	53.67	60.0	57.71
	Range	40-47	50-55	55-66	55-62
	1800	Weight (mg) (S.D.)	348.05(1.25)	348.58(1.75)	348.62(1.56)
R.S.D.		0.36	0.50	0.45	0.44
Thickness (mm) (S.D.)		3.647(0.009)	3.617(0.007)	3.651(0.012)	3.669(0.010)
Hardness (Kp) (S.D.)		4.48(0.54)	4.94(0.33)	4.56(0.23)	3.81(0.46)
Friability (%)		1.13	1.03	1.03	1.09
D.T. (sec)		57.83	59.67	56.43	57.44
Range		56-62	59-62	51-62	53-62
2400		Weight (mg) (S.D.)	348.65(0.98)	348.30(1.45)	348.86(1.88)
	R.S.D.	0.28	0.42	0.54	0.56
	Thickness (mm) (S.D.)	3.559(0.006)	3.530(0.014)	3.550(0.012)	3.613(0.013)
	Hardness (Kp) (S.D.)	6.16(0.55)	6.86(0.33)	6.87(0.38)	6.02(0.48)
	Friability (%)	0.79	0.69	0.71	0.71
	D.T. (sec)	64.67	63.86	59.63	58.43
	Range	61-67	62-66	56-62	54-61
	3000	Weight (mg) (S.D.)	350.33(1.14)	347.93(2.12)	352.14(1.49)
R.S.D.		0.32	0.61	0.42	0.44
Thickness (mm) (S.D.)		3.488(0.007)	3.476(0.008)	3.525(0.007)	3.500(0.012)
Hardness (Kp) (S.D.)		8.16(0.68)	8.79(0.34)	8.91(0.33)	7.65(0.46)
Friability (%)		0.58	0.57	0.53	0.53
D.T. (sec)		70.83	63.57	55.67	58.50
Range		65-75	60-65	52-60	57-61

Appendix 20 Physical Properties of α -Lactose Monohydrate Tablets Containing Various Concentrations of ECG 505^(R) at Different Compression Pressures

Compression Pressure (lb)	Physical Properties of Tablets	Concentration (% w/w)			
		0.5	1	3	5
1200	Weight (mg) (S.D.)	347.34(1.54)	349.06(1.58)	346.39(0.84)	346.89(1.04)
	R.S.D.	0.44	0.45	0.24	0.29
	Thickness (mm) (S.D.)	3.792(0.008)	3.804(0.008)	3.810(0.002)	3.855(0.005)
	Hardness (Kp) (S.D.)	2.19(0.38)	2.38(0.30)	2.07(0.23)	2.10(0.32)
	Friability (%)	1.69	1.57	1.86	2.01
	D.T. (sec)	35.5	42.17	37.17	42.67
	Range	30-37	35-49	35-39	39-46
1800	Weight (mg) (S.D.)	348.65(1.76)	348.79(1.52)	346.88(1.50)	348.82(1.60)
	R.S.D.	0.51	0.44	0.43	0.46
	Thickness (mm) (S.D.)	3.668(0.012)	3.669(0.009)	3.660(0.010)	3.688(0.013)
	Hardness (Kp) (S.D.)	4.61(0.32)	4.55(0.39)	4.08(0.28)	4.13(0.14)
	Friability (%)	1.08	0.85	0.86	1.18
	D.T. (sec)	31.17	38.83	33.17	43.67
	Range	29-32	34-42	30-35	39-47
2400	Weight (mg) (S.D.)	348.03(1.63)	348.71(1.17)	348.12(2.12)	349.03(1.17)
	R.S.D.	0.47	0.34	0.61	0.48
	Thickness (mm) (S.D.)	3.547(0.008)	3.576(0.007)	3.569(0.018)	3.592(0.008)
	Hardness (Kp) (S.D.)	5.94(0.44)	6.21(0.38)	6.58(0.98)	6.20(0.45)
	Friability (%)	0.54	0.54	0.52	0.55
	D.T. (sec)	32.67	32.51	36.67	45.17
	Range	30-35	29-37	33-41	42-49
3000	Weight (mg) (S.D.)	347.21(1.07)	348.64(1.53)	347.90(0.92)	346.12(0.92)
	R.S.D.	0.31	0.44	0.26	0.26
	Thickness (mm) (S.D.)	3.497(0.007)	3.499(0.006)	3.452(0.038)	3.501(0.009)
	Hardness (Kp) (S.D.)	8.51(0.41)	8.32(0.51)	8.36(0.36)	7.91(0.48)
	Friability (%)	0.41	0.42	0.45	0.46
	D.T. (sec)	29.33	29.83	36.67	45.50
	Range	25-33	27-33	35-38	40-50

Appendix 21 Physical Properties of α -Lactose Monohydrate Tablets Containing Various Concentrations of Explotab^(R) at Different Compression Pressures

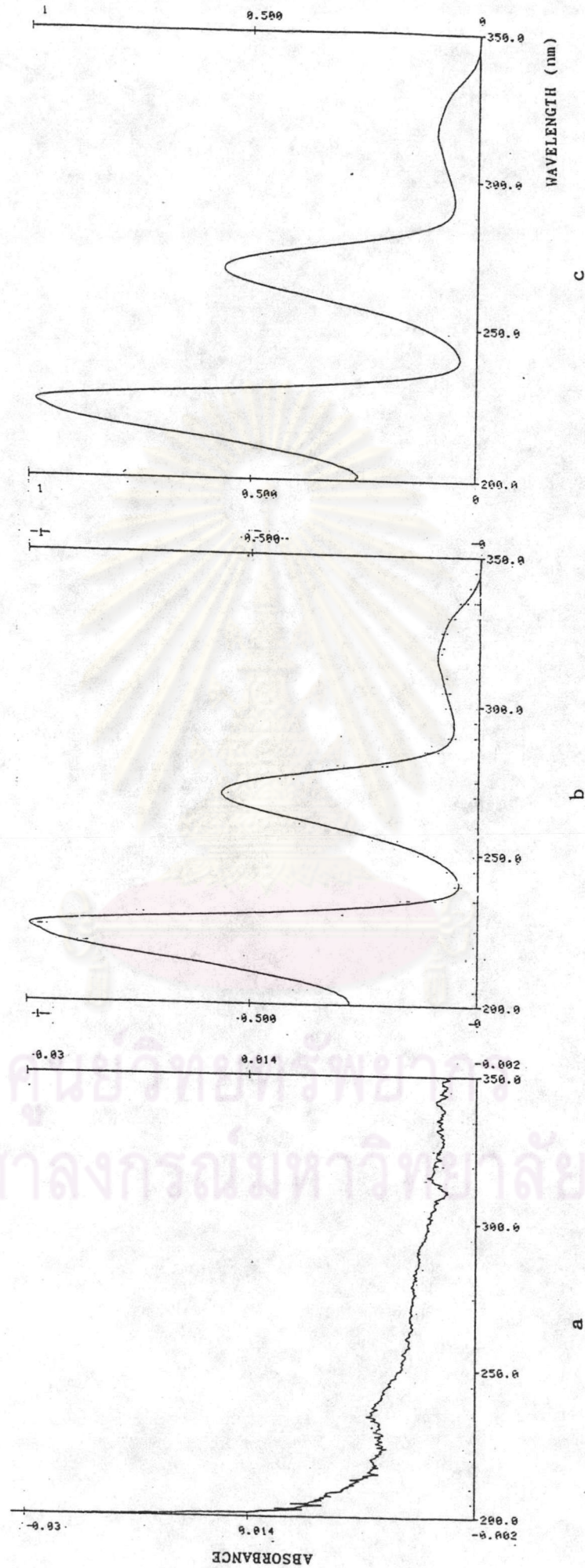
Compression Pressure (lb)	Physical Properties of Tablets	Concentration (% w/w)			
		0.5	1	3	5
1200	Weight (mg) (S.D.)	349.90(1.96)	347.50(1.95)	346.76(1.49)	348.64(1.60)
	R.S.D.	0.56	0.56	0.43	0.46
	Thickness (mm) (S.D.)	3.818(0.003)	3.782(0.009)	3.798(0.005)	3.818(0.004)
	Hardness (Kp) (S.D.)	2.06(0.31)	2.26(0.22)	2.05(0.36)	2.28(0.24)
	Friability (%)	2.25	2.36	2.48	2.57
	D.T. (sec)	48.33	43.17	41.17	46.10
	Range	46-51	39-46	38-44	44-49
1800	Weight (mg) (S.D.)	348.89(1.86)	350.13(1.40)	347.92(1.56)	349.71(1.72)
	R.S.D.	0.54	0.40	0.45	0.49
	Thickness (mm) (S.D.)	3.653(0.007)	3.640(0.008)	3.636(0.006)	3.673(0.011)
	Hardness (Kp) (S.D.)	4.16(0.28)	4.91(0.17)	4.74(0.25)	4.88(0.32)
	Friability (%)	0.82	0.74	0.73	0.78
	D.T. (sec)	43.0	42.33	40.17	44.67
	Range	40-47	40-46	37-42	42-46
2400	Weight (mg) (S.D.)	349.14(0.90)	348.74(1.60)	347.38(1.62)	349.36(1.58)
	R.S.D.	0.26	0.46	0.46	0.45
	Thickness (mm) (S.D.)	3.566(0.006)	3.558(0.006)	3.539(0.015)	3.556(0.008)
	Hardness (Kp) (S.D.)	6.26(0.19)	6.65(0.39)	6.76(0.45)	6.36(0.50)
	Friability (%)	0.74	0.68	0.51	0.58
	D.T. (sec)	38.33	39.83	35.83	38.67
	Range	37-42	37-44	34-37	36-43
3000	Weight (mg) (S.D.)	346.46(1.04)	347.14(1.63)	348.90(1.28)	347.82(1.14)
	R.S.D.	0.30	0.47	0.37	0.33
	Thickness (mm) (S.D.)	3.473(0.004)	3.478(0.009)	3.503(0.008)	3.492(0.011)
	Hardness (Kp) (S.D.)	8.05(0.28)	8.14(0.49)	8.69(0.43)	8.23(0.45)
	Friability (%)	0.58	0.55	0.42	0.46
	D.T. (sec)	33.43	32.67	41.33	38.53
	Range	31-37	30-36	39-43	35-41

Appendix 22 Physical Properties of α -Lactose Monohydrate Tablets Containing Various Concentrations of Kollidon CL^(R) at Different Compression Pressures

Compression Pressure (lb)	Physical Properties of Tablets	Concentration (% w/w)			
		0.5	1	3	5
1200	Weight (mg) (S.D.)	349.76(1.67)	348.87(0.81)	354.74(0.96)	349.35(1.20)
	R.S.D.	0.48	0.23	0.28	0.34
	Thickness (mm) (S.D.)	3.837(0.007)	3.813(0.007)	3.859(0.012)	3.944(0.005)
	Hardness (Kp) (S.D.)	2.42(0.24)	2.38(0.36)	2.10(0.46)	1.90(0.32)
	Friability (%)	2.64	2.48	2.43	2.92
	D.T. (sec)	56.83	56	56.83	56.50
	Range	52-66	53-59	56-58	54-58
1800	Weight (mg) (S.D.)	349.87(1.28)	349.54(1.22)	344.58(0.65)	347.19(1.27)
	R.S.D.	0.36	0.35	0.19	0.37
	Thickness (mm) (S.D.)	3.659(0.010)	3.667(0.010)	3.716(0.010)	3.754(0.012)
	Hardness (Kp) (S.D.)	4.84(0.39)	4.66(0.45)	4.96(0.19)	4.12(0.26)
	Friability (%)	1.07	1.09	1.11	1.56
	D.T. (sec)	44.28	53.0	53.52	55.14
	Range	42-48	52-60	50-56	50-58
2400	Weight (mg) (S.D.)	347.75(1.22)	349.48(0.78)	344.09(0.80)	348.28(0.99)
	R.S.D.	0.35	0.22	0.24	0.28
	Thickness (mm) (S.D.)	3.588(0.009)	3.593(0.008)	3.571(0.009)	3.651(0.007)
	Hardness (Kp) (S.D.)	6.82(0.42)	6.74(0.22)	6.68(0.18)	6.43(0.32)
	Friability (%)	0.54	0.54	0.71	0.82
	D.T. (sec)	41.50	47.03	52.54	46.67
	Range	36-47	42-51	51-54	40-52
3000	Weight (mg) (S.D.)	351.79(1.02)	348.28(1.12)	348.08(1.41)	347.40(0.88)
	R.S.D.	0.29	0.32	0.40	0.26
	Thickness (mm) (S.D.)	3.481(0.006)	3.520(0.007)	3.515(0.007)	3.565(0.007)
	Hardness (Kp) (S.D.)	8.40(0.48)	8.34(0.56)	8.64(0.40)	8.70(0.45)
	Friability (%)	0.53	0.51	0.58	0.54
	D.T. (sec)	36.33	40.17	46.67	47.50
	Range	34-40	39-42	45-48	46-50

Appendix 23 Physical Properties of α -Lactose Monohydrate Tablets Containing Various Concentrations of L-HPC at Different Compression Pressures

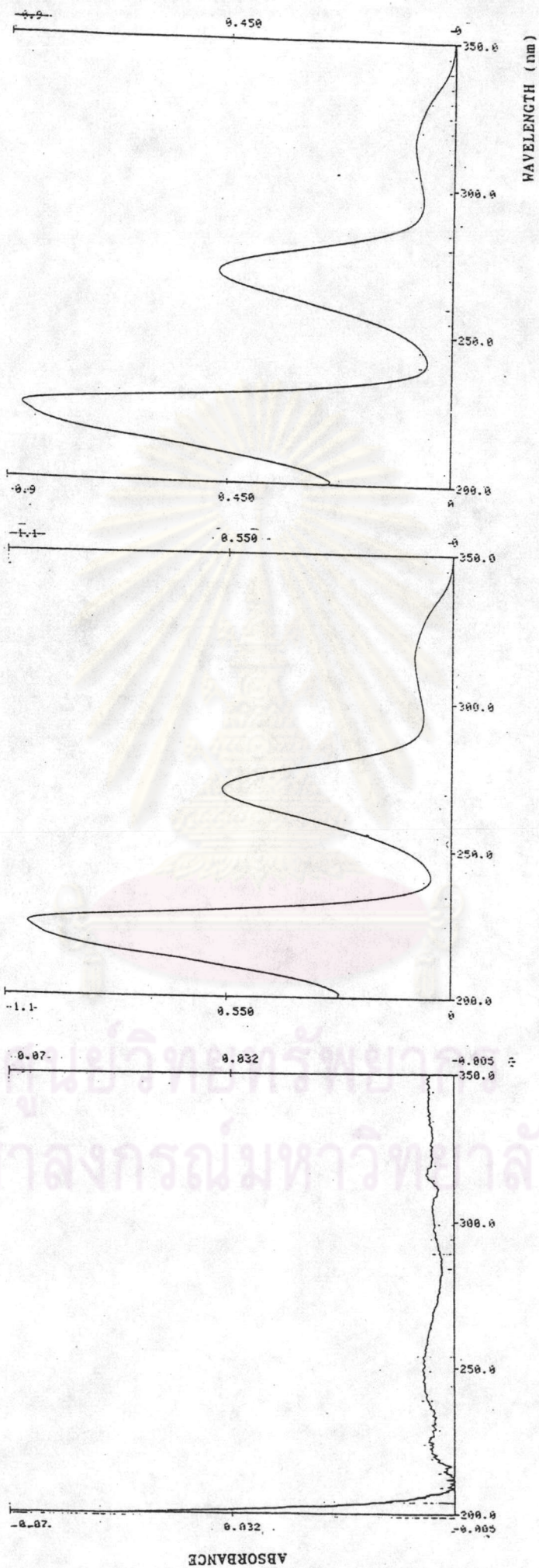
Compression Pressure (lb)	Physical Properties of Tablets	Concentration (% w/w)			
		0.5	1	3	5
1200	Weight (mg) (S.D.)	348.87(0.86)	348.59(0.83)	348.52(0.38)	350.24(0.23)
	R.S.D.	0.25	0.24	0.38	0.23
	Thickness (mm) (S.D.)	3.806(0.007)	3.808(0.011)	3.827(0.005)	3.875(0.008)
	Hardness (Kp) (S.D.)	2.00(0.21)	2.55(0.25)	2.78(0.23)	3.09(0.32)
	Friability (%)	1.65	1.73	2.12	2.06
	D.T. (sec)	36.51	40.17	39.17	37.53
	Range	34-39	38-43	38-40	35-40
1800	Weight (mg) (S.D.)	350.37(1.45)	349.81(1.12)	350.65(0.63)	350.76(0.90)
	R.S.D.	0.41	0.32	0.18	0.26
	Thickness (mm) (S.D.)	3.671(0.008)	3.669(0.006)	3.701(0.007)	3.698(0.006)
	Hardness (Kp) (S.D.)	4.64(0.46)	4.89(0.25)	5.18(0.45)	5.53(0.36)
	Friability (%)	0.90	0.99	1.05	0.93
	D.T. (sec)	31.83	40.83	34.67	38.33
	Range	30-33	37-42	30-37	36-41
2400	Weight (mg) (S.D.)	347.75(1.03)	349.36(1.30)	348.99(0.91)	350.08(1.24)
	R.S.D.	0.29	0.37	0.26	0.36
	Thickness (mm) (S.D.)	3.552(0.012)	3.581(0.007)	3.584(0.006)	3.606(0.009)
	Hardness (Kp) (S.D.)	6.31(0.38)	7.22(0.56)	7.23(0.29)	7.74(0.44)
	Friability (%)	0.59	0.53	0.65	0.59
	D.T. (sec)	30.33	29.53	36.86	37.33
	Range	27-32	27-33	34-40	35-39
3000	Weight (mg) (S.D.)	351.68(1.09)	352.28(1.40)	348.17(1.02)	350.40(1.19)
	R.S.D.	0.31	0.40	0.29	0.33
	Thickness (mm) (S.D.)	3.521(0.008)	3.539(0.009)	3.515(0.008)	3.554(0.005)
	Hardness (Kp) (S.D.)	8.09(0.62)	8.78(0.57)	8.69(0.51)	8.70(0.30)
	Friability (%)	0.41	0.43	0.49	0.45
	D.T. (sec)	30.83	29.57	33.50	34.67
	Range	28-33	27-31	33-37	32-37



Appendix 24 UV Absorption Spectrum of Tablet Compositions in comparison with Hydrochlorothiazide in Ethanol

- a Emcompress(R) + 3% S₂
- b Standard Hydrochlorothiazide
- c Emcompress(R) + 3% S₂ + Hydrochlorothiazide

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Appendix 25 UV Absorption Spectrum of Tablet Compositions in comparison with Hydrochlorothiazide in 0.1 N HCL

- a Encompress (R) + 3% S₂
- b Standard Hydrochlorothiazide
- c Encompress (R) + 3% S₂ + Hydrochlorothiazide

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ศูนย์วิจัยการแพทย์

Appendix 26 UV Absorbance of Hydrochlorothiazide Standard
Solution in 0.1 N HCl at 272 nm

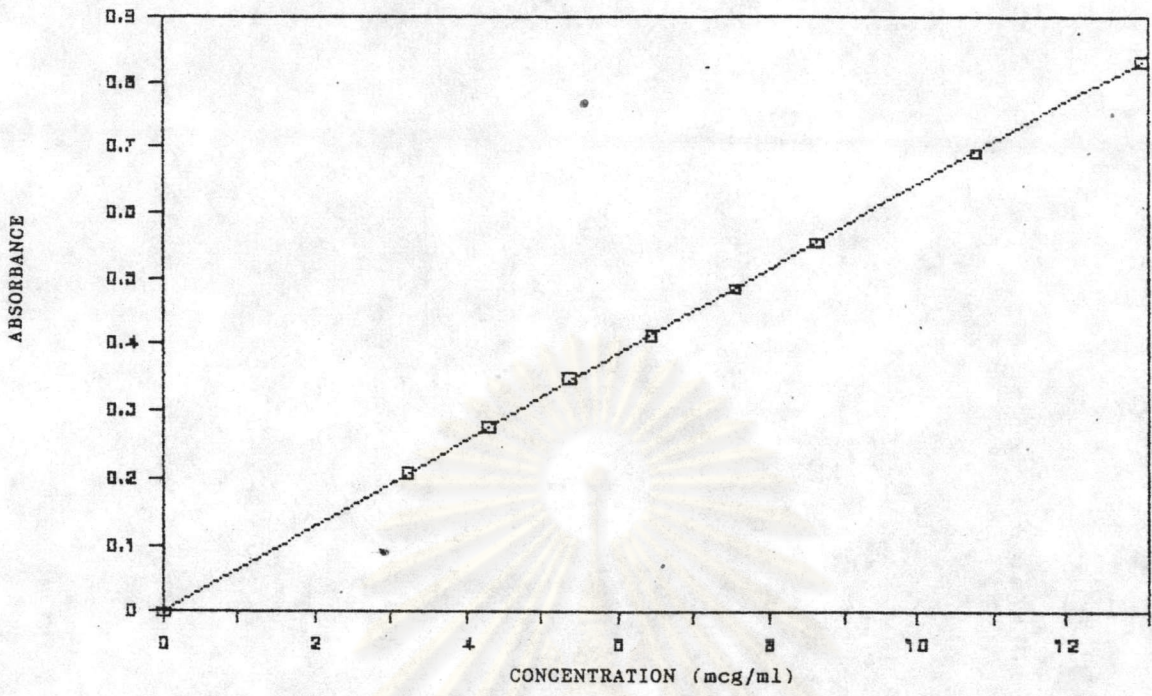
Concentration (mcg/ml)	Absorbance
3.23	0.208
4.31	0.278
5.38	0.349
6.46	0.415
7.54	0.485
8.62	0.554
10.77	0.691
12.92	0.832

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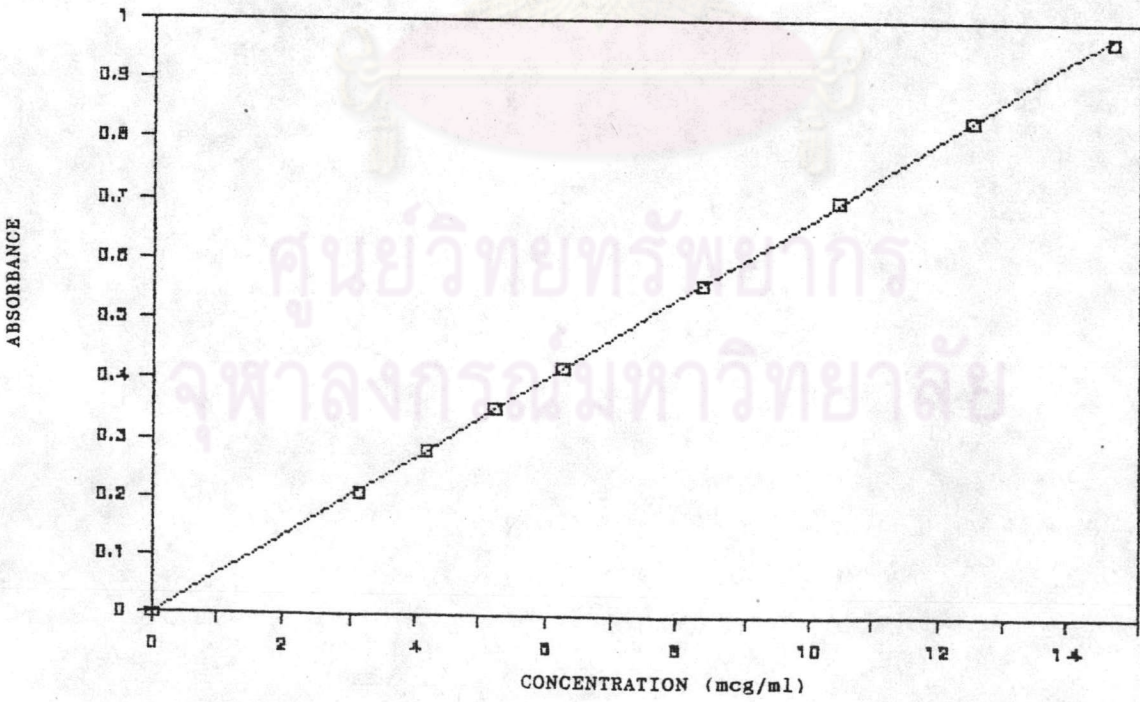
Appendix 27 UV Absorbance of Hydrochlorothiazide Standard
Solution in Ethanol at 269 nm

Concentration (mcg/ml)	Absorbance
3.13	0.209
4.17	0.282
5.22	0.352
6.26	0.421
8.34	0.559
10.43	0.697
12.52	0.835
14.60	0.969

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Appendix 28 Standard Curve of Hydrochlorothiazide in 0.1 N HCl at 272 nm (Correlation Coefficient = 0.9999)



Appendix 29 Standard Curve of Hydrochlorothiazide in Ethanol at 269 nm (Correlation Coefficient = 0.9999)

Appendix 30 Dissolution of Hydrochlorothiazide from the
Hydrochlorothiazide Tablets Using S₂ as
Disintegrant

Time (min)	% Dissolved ¹ of HCTZ (S.D.)			
	E-S ₂ -2 ^a	E-S ₂ -3 ^b	T-S ₂ -0 ^c	T-S ₂ -0.5 ^d
0	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
5	17.42 (0.98)	27.11 (0.51)	2.56 (0.15)	34.09 (1.79)
10	36.80 (1.55)	49.27 (3.09)	7.43 (0.39)	44.71 (2.19)
15	56.59 (0.76)	70.18 (1.22)	11.43 (0.78)	59.08 (0.37)
20	74.50 (1.37)	76.58 (1.18)	14.35 (0.87)	70.96 (1.92)
30	84.68 (0.29)	85.08 (1.93)	23.07 (1.07)	78.31 (2.68)
40	87.46 (1.23)	88.91 (1.17)	33.88 (0.46)	85.26 (1.37)
50	88.59 (0.88)	91.10 (1.01)	47.06 (1.81)	88.08 (0.51)
60	90.76 (0.28)	91.95 (0.88)	63.88 (1.78)	90.87 (1.19)

1 = mean of three determinations

a = Emcompress^(R) + 2% S₂ b = Emcompress^(R) + 3% S₂

c = Tablettose^(R) + 0% S₂ d = Tablettose^(R) + 0.5% S₂

VITAE

Mr. Tawatchai Thiptinnakorn was born on December 13, 1958, in Bangkok. He got his degree in Bachelor of Science in Pharmacy in 1983 from Faculty of Pharmaceutical Sciences, Chulalongkorn University, Bangkok. At present, he works at Pharmasant Laboratories Co., Ltd., Bangkok, Thailand.

