

APPENDIX 1

Determination of maximum wavelength ($\lambda_{\max}$) of pentoxifylline in SGF, SIF, dichloromethane and distilled water

Figure 1, 2, 3 and 4 show the UV spectrum of pentoxifylline in SGF, SIF, dichloromethane and distilled water respectively. All maximum absorbance obtained was at 273 nm..

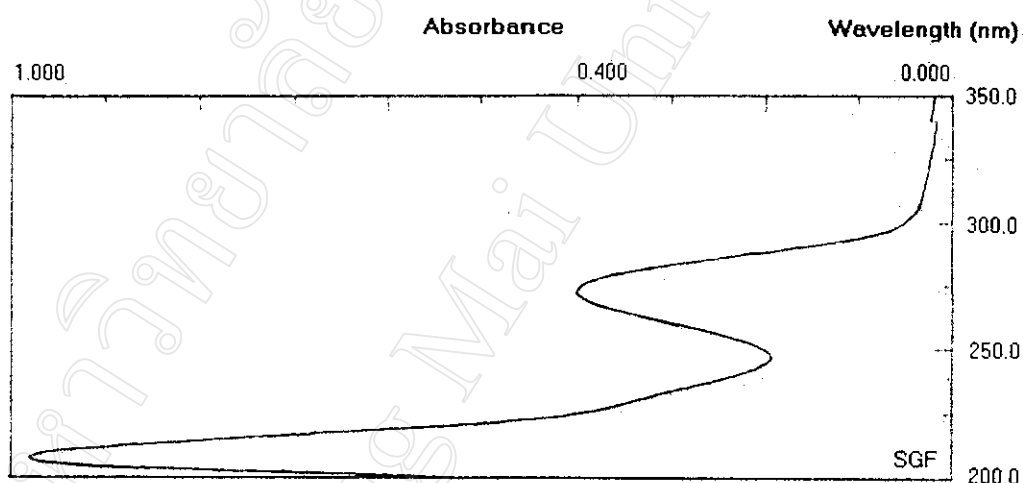


Figure 1 : UV spectrum of pentoxifylline in simulated gastric fluid (SGF)

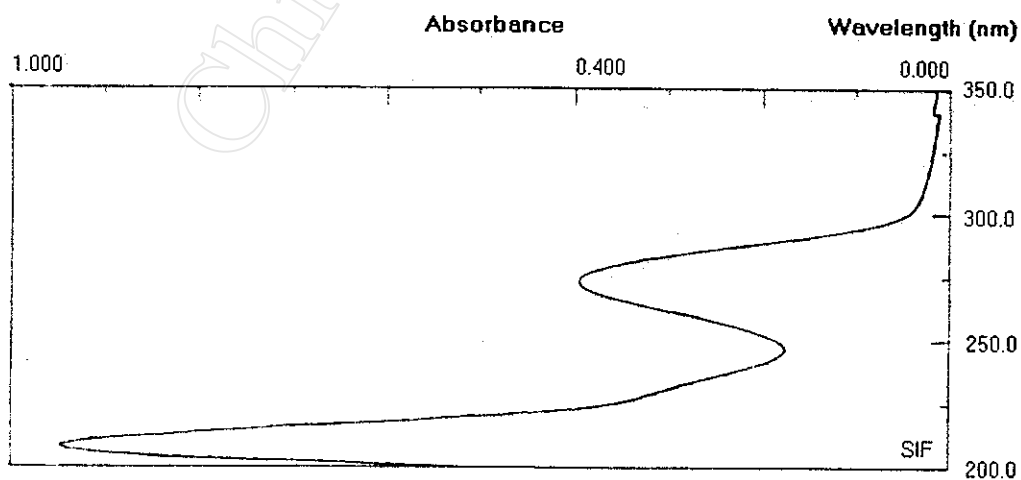


Figure 2 : UV spectrum of pentoxifylline in simulated intestinal fluid (SIF)

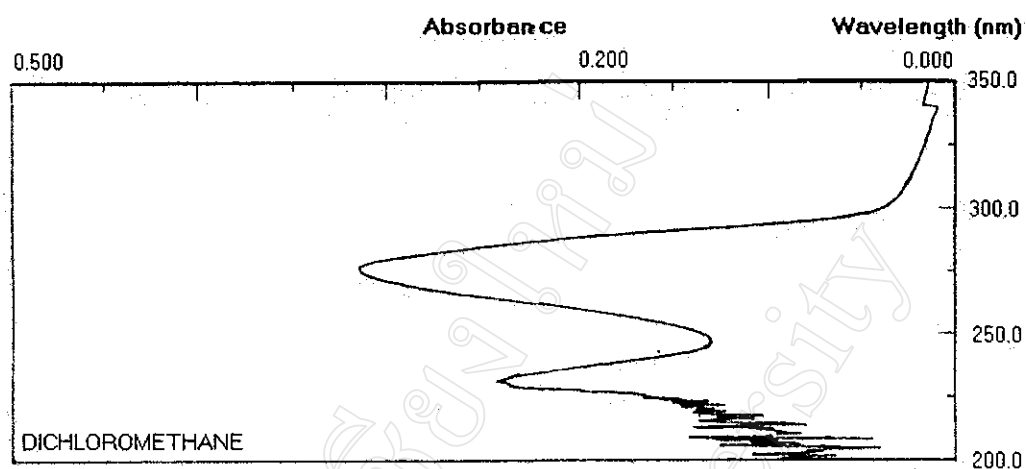


Figure 3 : UV spectrum of pentoxifylline in dichloromethane

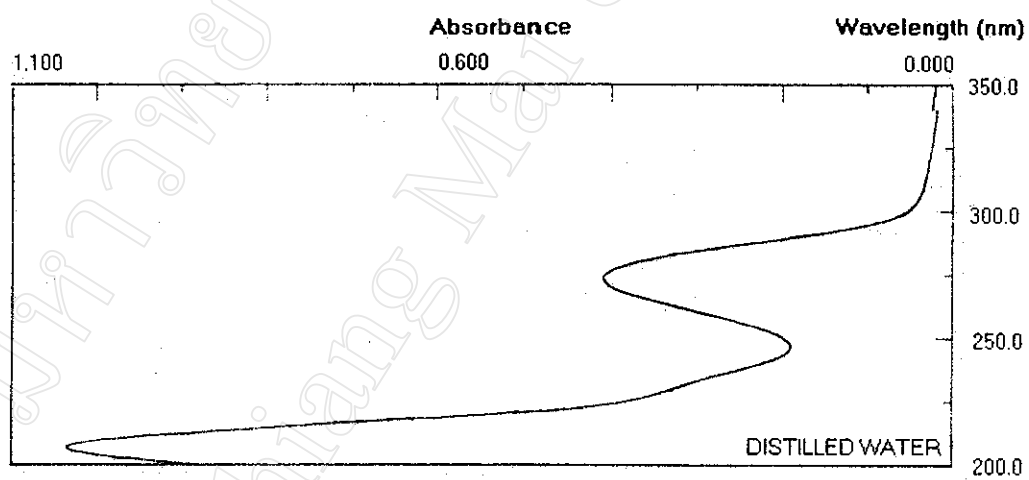


Figure 4 : UV spectrum of pentoxifylline in distilled water

APPENDIX 2

Standard curve of pentoxifylline in SGF, SIF, dichloromethane, distilled water, phosphate buffer pH 5.8 , 7.0 and 8.0

Standard curves of pentoxifylline, that were prepared in SGF, SIF, dichloromethane , distilled water, phosphate buffer pH 5.8 , 7.0 and 8.0 are shown in figure 5-11 . Regression equations were calculated by computer program. All calculated data are shown in table 1-7.

Table 1 : The Calculated Data of Standard Curves of Pentoxifylline in Simulated Gastric Fluid(SGF)

Concentration (mg/ml)	Absorbance			mean	SD
	Sample 1	Sample 2	Sample 3		
0.001	0.039	0.036	0.037	0.037	0.0015
0.002	0.069	0.070	0.072	0.070	0.0015
0.003	0.099	0.103	0.106	0.103	0.0035
0.004	0.133	0.139	0.139	0.137	0.0035
0.005	0.162	0.172	0.175	0.170	0.0068
0.006	0.194	0.209	0.209	0.204	0.0087
0.007	0.238	0.243	0.245	0.242	0.0036
0.008	0.273	0.277	0.276	0.275	0.0021
0.009	0.303	0.308	0.311	0.307	0.0040
0.010	0.33	0.345	0.345	0.340	0.0087
0.015	0.512	0.517	0.509	0.513	0.0040
0.020	0.686	0.697	0.687	0.690	0.0061
0.025	0.845	0.867	0.849	0.854	0.0117
Slope	34.05	34.70	33.88	34.207	0.4303
Intercept	-0.0025	-0.0005	0.0049	0.0006	0.0039
r	0.9997	0.9999	0.9999	0.9999	0.0001

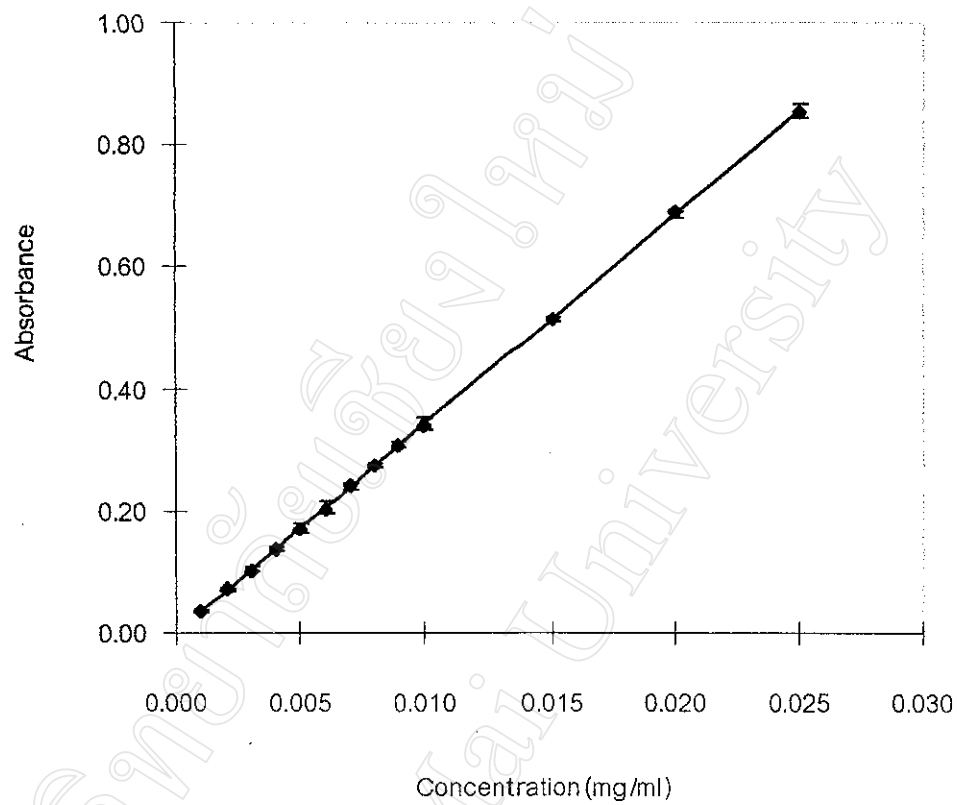


Figure 5 : Standard curves of pentoxifylline in SGF with error bar measured at 273 nm. Regression equation of this curve is $A = 34.21C + (6.34 \times 10^{-4})$. A is mean absorbance and C is mean concentration of pentoxifylline.

Table 2 : The Calculated Data of Standard Curves of Pentoxifylline in SIF

Concentration (mg/ml)	Absorbance			mean	SD
	Sample 1	Sample 2	Sample 3		
0.001	0.036	0.039	0.037	0.037	0.0015
0.002	0.071	0.076	0.073	0.073	0.0025
0.003	0.104	0.109	0.103	0.105	0.0032
0.004	0.138	0.146	0.138	0.141	0.0046
0.005	0.174	0.182	0.172	0.176	0.0053
0.006	0.208	0.218	0.204	0.210	0.0072
0.007	0.242	0.255	0.25	0.249	0.0066
0.008	0.274	0.287	0.273	0.278	0.0078
0.009	0.308	0.323	0.307	0.313	0.0090
0.010	0.341	0.357	0.341	0.346	0.0092
0.015	0.52	0.545	0.53	0.532	0.0126
0.020	0.716	0.73	0.704	0.717	0.0130
0.025	0.895	0.897	0.884	0.892	0.0070
Slope	35.78	34.69	35.35	35.71	0.5466
Intercept	-0.0067	-0.0005	-0.0038	-0.0029	0.0031
r	0.9997	0.9999	0.9998	35.7141	0.0001

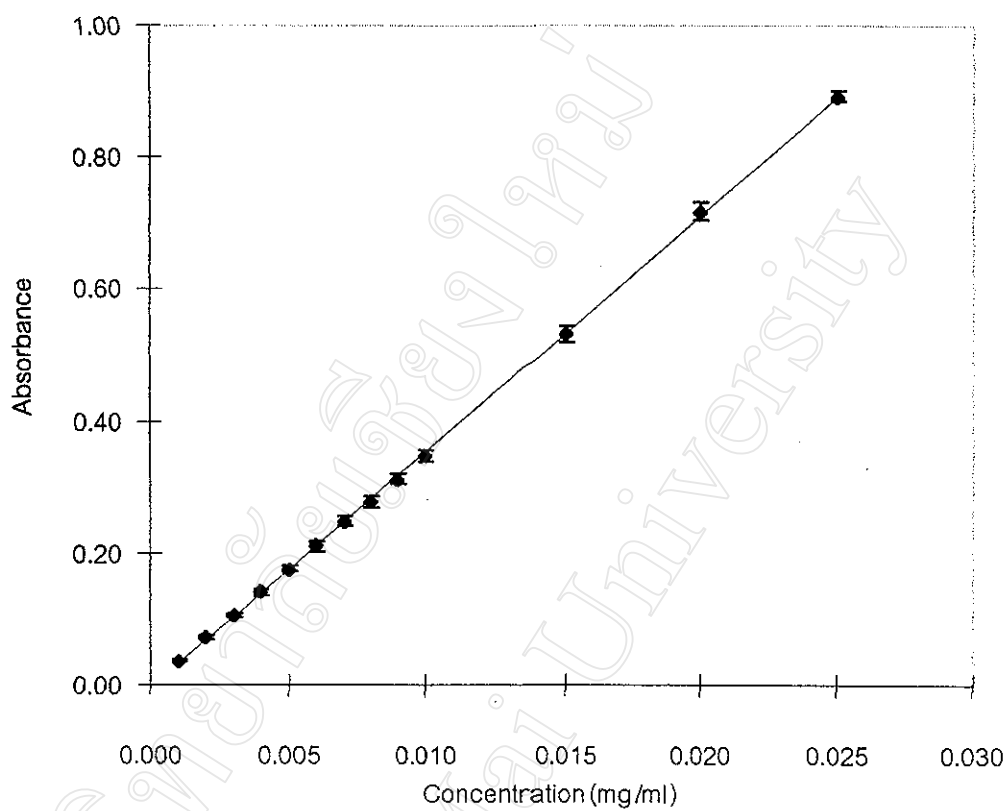


Figure 6 : Standard curves of pentoxifylline in SIF with error bar measured at 273 nm. Regression equation of this curve is $A = 35.71C + (2.93 \times 10^{-3})$. A is mean absorbance and C is mean concentration of pentoxifylline.

Table 3 : The Calculated Data of Standard Curves of Pentoxifylline in Dichloromethane

Concentration (mg/ml)	Absorbance			mean	SD
	Sample 1	Sample 2	Sample 3		
0.001	0.034	0.034	0.034	0.034	0.0000
0.002	0.064	0.066	0.061	0.064	0.0025
0.003	0.097	0.097	0.092	0.095	0.0029
0.004	0.133	0.137	0.123	0.131	0.0072
0.005	0.166	0.163	0.157	0.162	0.0046
0.006	0.201	0.183	0.187	0.190	0.0095
0.007	0.237	0.218	0.215	0.223	0.0119
0.008	0.27	0.258	0.248	0.259	0.0110
0.009	0.305	0.291	0.280	0.292	0.0125
0.010	0.341	0.322	0.306	0.323	0.0175
0.015	0.449	0.487	0.453	0.463	0.0209
0.020	0.638	0.634	0.627	0.633	0.0056
0.025	0.836	0.808	0.752	0.799	0.0428
Slope	32.42	32.09	30.38	31.63	1.0989
Intercept	0.0032	0.0006	0.0032	0.0023	0.0015
r	0.9979	0.9998	0.9996	0.9998	0.0010

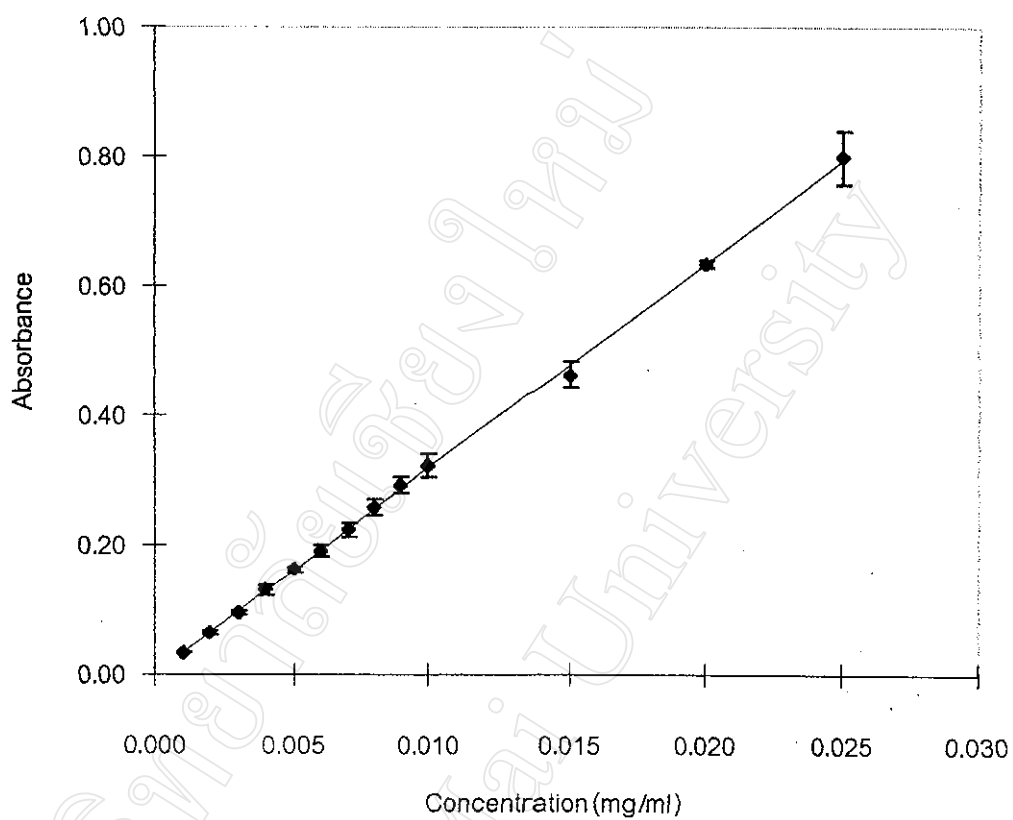


Figure 7 : Standard curves of pentoxifylline in dichloromethane with error bar measured at 273 nm. Regression equation of this curve is $A = 31.63C + (2.34 \times 10^{-3})$. A is mean absorbance and C is mean concentration of pentoxifylline.

Table 4 : The Calculated Data of Standard Curves of Pentoxifylline in Distilled Water

Concentration (mg/ml)	Absorbance			mean	SD
	Sample 1	Sample 2	Sample 3		
0.001	0.039	0.039	0.038	0.039	0.0006
0.002	0.075	0.075	0.075	0.075	0.0000
0.003	0.109	0.110	0.109	0.109	0.0006
0.004	0.147	0.146	0.143	0.145	0.0021
0.005	0.183	0.181	0.180	0.181	0.0015
0.006	0.215	0.216	0.213	0.215	0.0015
0.007	0.252	0.253	0.25	0.252	0.0015
0.008	0.287	0.289	0.285	0.287	0.0020
0.009	0.322	0.325	0.316	0.321	0.0046
0.010	0.359	0.361	0.348	0.356	0.0070
0.015	0.536	0.546	0.536	0.539	0.0058
0.020	0.714	0.72	0.715	0.716	0.0032
0.025	0.892	0.899	0.886	0.892	0.0065
Slope	35.52	35.92	35.44	35.63	0.2550
Intercept	0.0034	0.0023	0.0014	0.0024	0.0010
r	0.9999	0.9999	0.9999	0.9999	0.0000

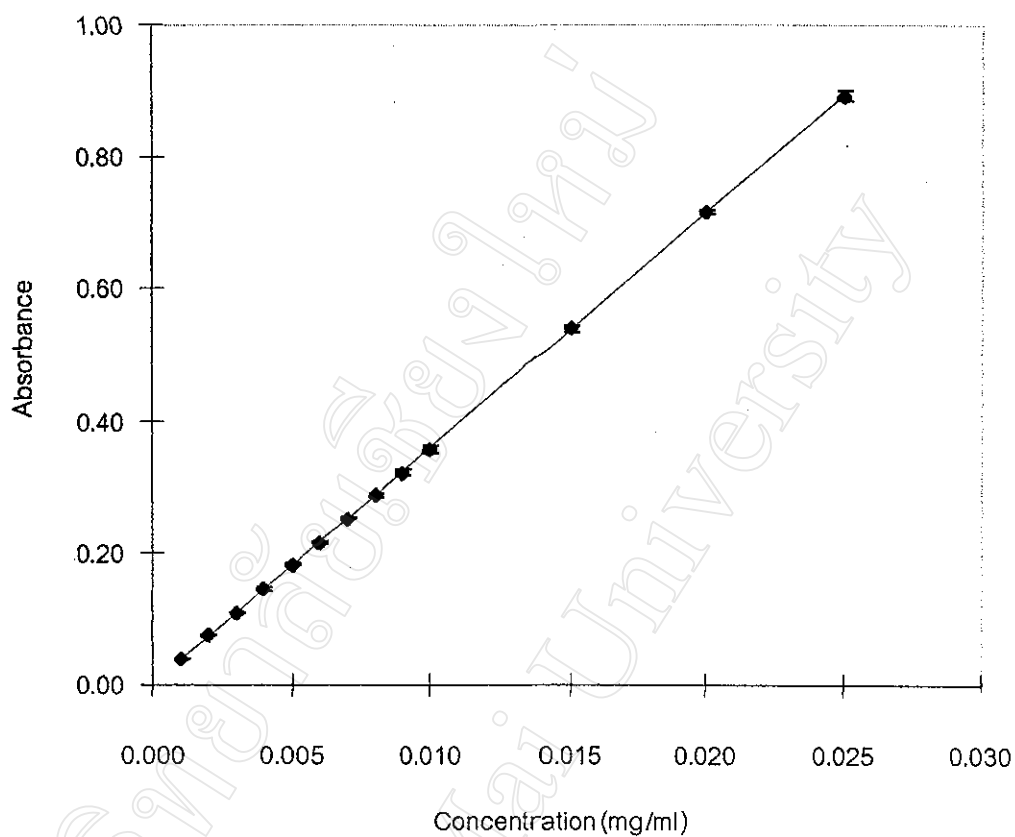


Figure 8 : Standard curves of pentoxifylline in distilled water with error bar measured at 273 nm. Regression equation of this curve is $A = 35.63C + (2.36 \times 10^{-3})$. A is mean absorbance and C is mean concentration of pentoxifylline.

Table 5 : The Calculated Data of Standard Curves of Pentoxifylline in Phosphate Buffer pH5.8

Concentration (mg/ml)	Absorbance			mean	SD	% CV
	Sample 1	Sample 2	Sample 3			
0.001	0.041	0.041	0.041	0.041	0.0000	0.00
0.002	0.082	0.077	0.074	0.078	0.0040	5.20
0.003	0.119	0.109	0.108	0.112	0.0061	5.43
0.004	0.158	0.153	0.146	0.152	0.0060	3.96
0.005	0.186	0.184	0.181	0.184	0.0025	1.37
0.006	0.226	0.224	0.215	0.222	0.0059	2.64
0.007	0.258	0.253	0.251	0.254	0.0036	1.42
0.008	0.294	0.29	0.287	0.290	0.0035	1.21
0.009	0.332	0.323	0.325	0.327	0.0047	1.45
0.010	0.362	0.357	0.343	0.354	0.0098	2.78
0.015	0.547	0.487	0.535	0.523	0.0317	6.07
0.020	0.723	0.719	0.717	0.719	0.0031	0.42
0.025	0.899	0.892	0.898	0.896	0.0038	0.42
Slope	35.66	34.97	35.71	35.43	0.4004	1.13
Intercept	0.0102	0.0067	0.0011	0.0059	0.0046	76.79
r	0.9999	0.9984	0.9998	0.9998	0.0008	0.0837

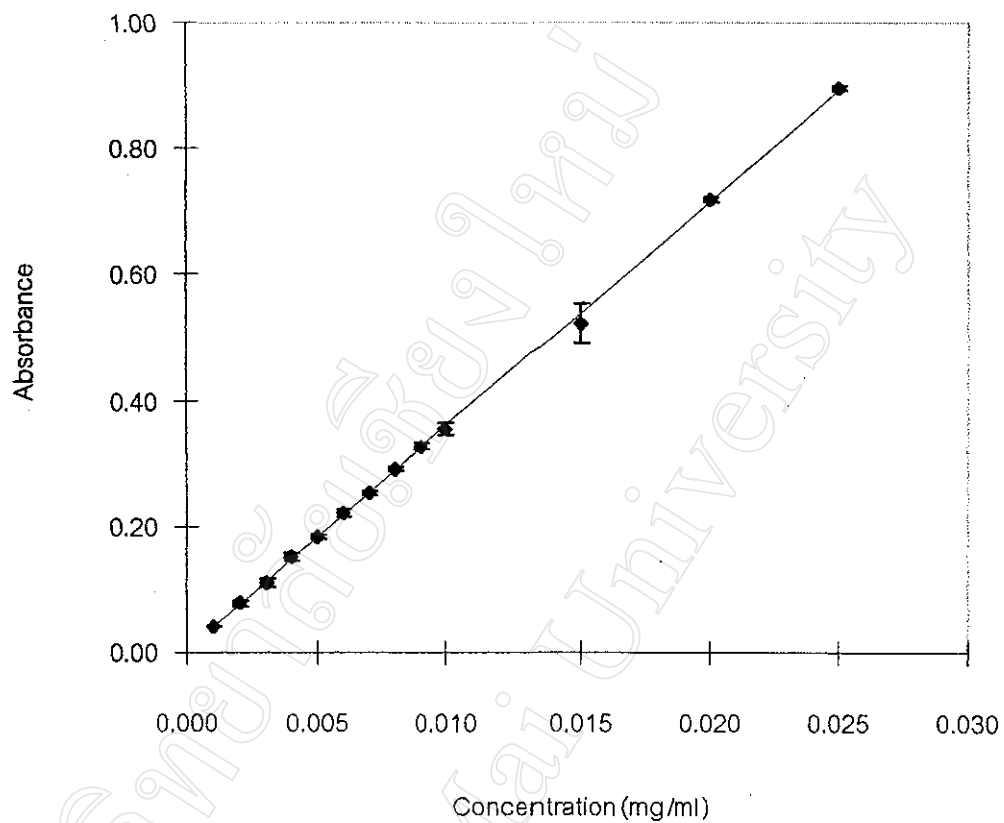


Figure 9 : Standard curves of pentoxifylline in phosphate buffer pH 5.8 with error bar measured at 273 nm. Regression equation from this curve is $A = 35.43C + (5.98 \times 10^{-3})$. A is mean absorbance and C is mean concentration of pentoxifylline.

Table 6 : The Calculated Data of Standard Curves of Pentoxifylline in Phosphate Buffer pH7.0

Concentration (mg/ml)	Absorbance			mean	SD	% CV
	Sample 1	Sample 2	Sample 3			
0.001	0.037	0.036	0.038	0.037	0.0010	2.70
0.002	0.073	0.070	0.075	0.073	0.0025	3.46
0.003	0.107	0.109	0.106	0.107	0.0015	1.42
0.004	0.145	0.148	0.141	0.145	0.0035	2.43
0.005	0.179	0.181	0.176	0.179	0.0025	1.41
0.006	0.217	0.214	0.215	0.215	0.0015	0.71
0.007	0.252	0.252	0.248	0.251	0.0023	0.92
0.008	0.287	0.287	0.281	0.285	0.0035	1.22
0.009	0.320	0.323	0.316	0.319	0.0035	1.09
0.010	0.356	0.361	0.346	0.354	0.0076	2.16
0.015	0.540	0.531	0.532	0.534	0.0049	0.92
0.020	0.714	0.712	0.711	0.712	0.0015	0.21
0.025	0.884	0.885	0.885	0.885	0.0006	0.07
Slope	35.45	35.36	35.37	35.39	0.0460	0.13
Intercept	0.0027	0.0033	0.0002	0.0020	0.0016	80.76
r	0.9999	0.9999	0.9999	0.9999	0.0000	0.0016

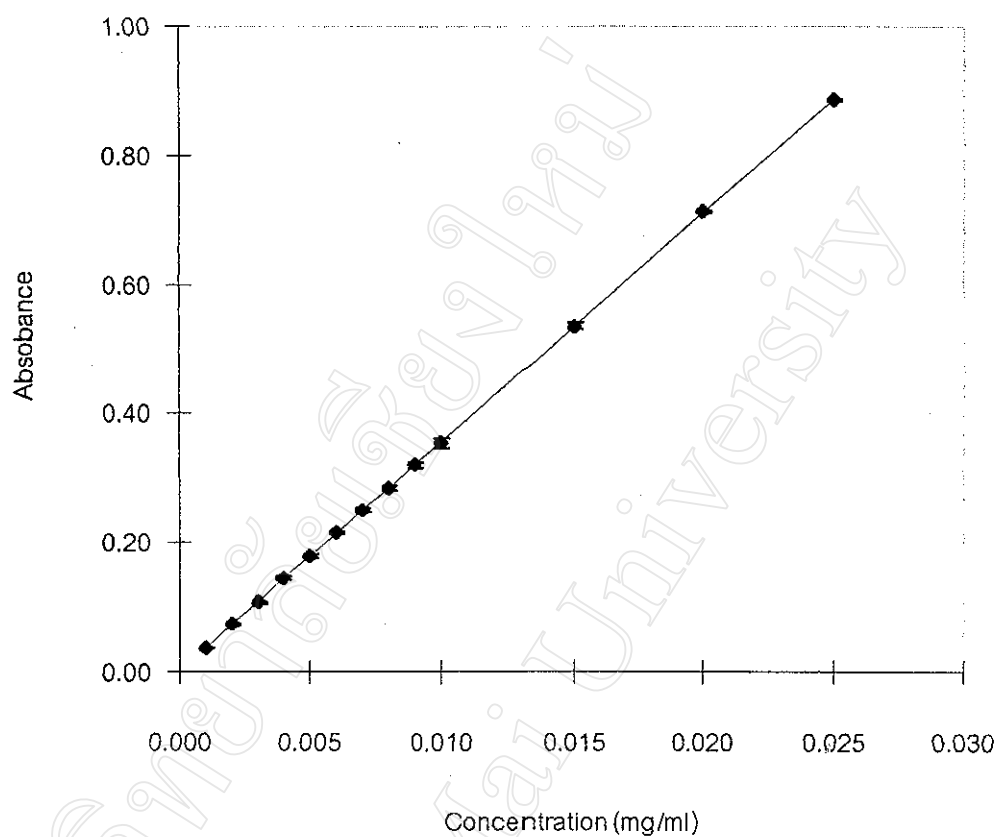


Figure 10 : Standard curves of pentoxifylline in phosphate buffer pH 7.0 with error bar measured at 273 nm. Regression equation from this curve is $A = 35.39C + (2.04 \times 10^{-3})$. A is mean absorbance and C is mean concentration of pentoxifylline.

Table 7 : The Calculated Data of Standard Curves of Pentoxifylline in Phosphate Buffer pH8.0

Concentration (mg/ml)	Absorbance			mean	SD	% CV
	Sample 1	Sample 2	Sample 3			
0.001	0.038	0.036	0.040	0.038	0.0020	5.26
0.002	0.074	0.073	0.079	0.075	0.0032	4.27
0.003	0.109	0.112	0.111	0.111	0.0015	1.38
0.004	0.148	0.149	0.148	0.148	0.0006	0.39
0.005	0.180	0.183	0.187	0.183	0.0035	1.92
0.006	0.217	0.220	0.219	0.219	0.0015	0.69
0.007	0.254	0.257	0.252	0.254	0.0025	0.99
0.008	0.290	0.292	0.291	0.291	0.0010	0.34
0.009	0.323	0.325	0.326	0.325	0.0015	0.47
0.010	0.359	0.365	0.364	0.363	0.0032	0.89
0.015	0.540	0.540	0.539	0.539	0.0006	0.11
0.020	0.721	0.720	0.733	0.725	0.0072	0.99
0.025	0.898	0.894	0.896	0.896	0.0020	0.22
Slope	35.86	35.71	35.88	35.82	0.0946	0.26
Intercept	0.0021	0.0046	0.0045	0.0037	0.0946	2534.31
r	0.9999	0.9999	0.9998	0.9999	0.0001	0.0058

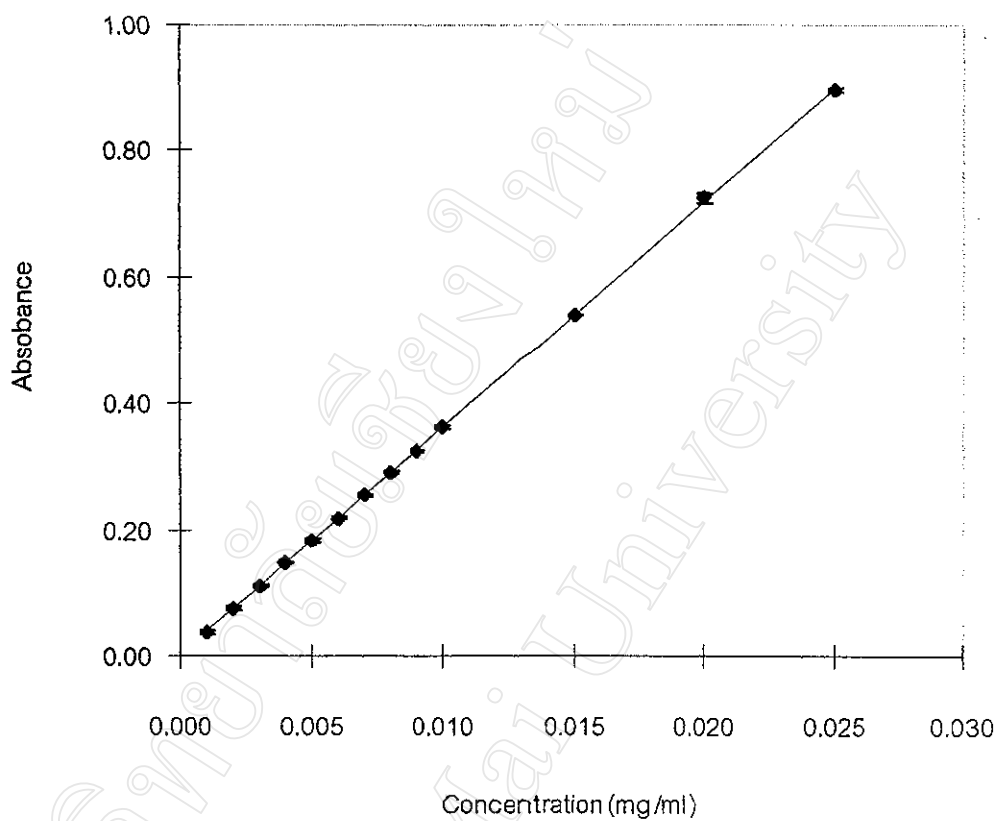


Figure 11 : Standard curves of pentoxifylline in phosphate buffer pH 8.0 with error bar measured at 273 nm. Regression equation from this curve is $A = 35.82C + (3.73 \times 10^{-3})$. A is mean absorbance and C is mean concentration of pentoxifylline.

APPENDIX 3

Physical Characteristic of Pentoxifylline Tablets

Table 8 : Weight Variation of Pentoxifylline Matrix Tablets

Formulation		Weight (g)									
Tablet No.	A1	A2	B1	B2	D1	D2	E1	E2	F1	F2	
1	0.6030	0.6062	0.6005	0.6009	0.5853	0.5948	0.5894	0.5943	0.5905	0.5956	
2	0.6033	0.6004	0.6010	0.6007	0.5826	0.5967	0.5904	0.5977	0.5889	0.5974	
3	0.6016	0.6038	0.6021	0.6021	0.5840	0.5959	0.5924	0.5975	0.5900	0.5947	
4	0.6017	0.6038	0.6020	0.6031	0.5896	0.5973	0.5892	0.5996	0.5854	0.5878	
5	0.6016	0.6024	0.6009	0.6018	0.5862	0.5944	0.5924	0.5923	0.5910	0.5851	
6	0.6010	0.6034	0.6015	0.6022	0.5856	0.5971	0.5901	0.5961	0.5829	0.5855	
7	0.6025	0.6069	0.6030	0.6031	0.5995	0.5991	0.5899	0.5988	0.5920	0.5899	
8	0.5987	0.6038	0.6018	0.6017	0.5978	0.5993	0.5885	0.5997	0.5885	0.5882	
9	0.5992	0.6024	0.6033	0.6018	0.5994	0.5986	0.5994	0.5955	0.5906	0.5950	
10	0.5974	0.6044	0.6016	0.6018	0.5978	0.5998	0.591	0.5978	0.5901	0.5955	
means	0.6010	0.6038	0.6018	0.6019	0.5908	0.5973	0.5913	0.5969	0.5889	0.5915	
SD	0.0020	0.0019	0.0009	0.0008	0.0070	0.0019	0.0031	0.0024	0.0028	0.0046	
% CV	0.3245	0.3091	0.1474	0.1301	1.1849	0.3167	0.5294	0.3990	0.4750	0.7854	

Table 9 : Hardness of Pentoxifylline Matrix Tablets

Formulation Tablet No.		Hardness (N)									
		A1	A2	B1	B2	D1	D2	E1	E2	F1	F2
1		48.0	64.4	49.5	44.7	66.2	74.2	48.0	45.0	42.7	56.8
2		50.5	68.2	51.3	48.9	74.9	69.5	56.8	50	51.7	60.5
3		50.3	64.4	52.6	40.4	70.9	65.8	50.4	45.7	48.7	51.1
4		46.5	60.1	40.5	47.6	65.4	72.9	52.4	50.2	52.4	50.1
5		48.8	58.5	42.4	49.8	60.2	65.5	50.0	48.8	50.3	58.2
6		50.2	65.6	44.6	42.5	60.5	56.4	58.8	42.1	48.7	56.4
7		52.2	54.3	41.3	41.8	68.3	65.3	55.6	55.5	54.1	55.3
8		40.1	60.2	50.8	40.2	70.5	68.8	48.2	50.4	46.8	59.5
9		44.4	64.1	50.8	43.6	71.4	64.5	49.5	48.2	42.5	60.4
10		48.2	60.6	49.5	49.2	69.2	65.1	48.8	56.3	48.8	51.1
means		47.92	62.04	47.33	44.87	67.75	66.8	51.85	49.22	48.67	55.94
SD		3.53	4.05	4.62	3.73	4.74	4.99	3.88	4.40	3.83	3.96
% CV		7.37	6.53	9.75	8.31	6.99	7.48	7.49	8.95	7.88	7.07

Table 10 : Weight Variation of Pentoxifylline Matrix Tablets

Tablet No.	Formulation	Weight (g)				
		D3	D4	D5	D6	D7
1		0.6115	0.6148	0.5948	0.6281	0.5902
2		0.6225	0.6005	0.6047	0.615	0.602
3		0.6031	0.5997	0.5915	0.5837	0.5918
4		0.6135	0.6083	0.6044	0.5952	0.6012
5		0.6154	0.6127	0.6002	0.5793	0.6050
6		0.6095	0.6089	0.6132	0.6088	0.5933
7		0.5969	0.5829	0.6079	0.6191	0.5931
8		0.5961	0.5891	0.5984	0.5982	0.5906
9		0.6099	0.5983	0.6038	0.5936	0.5990
10		0.6085	0.6087	0.6155	0.6093	0.6010
11		0.6106	0.5889	0.6181	0.5855	0.5998
12		0.6083	0.6048	0.6118	0.5844	0.5960
13		0.6229	0.5972	0.5975	0.5963	0.5970
14		0.6155	0.6045	0.6173	0.6058	0.6013
15		0.6138	0.6099	0.6045	0.5989	0.6027
16		0.6133	0.6046	0.5927	0.6054	0.6009
17		0.6147	0.6047	0.6134	0.611	0.5911
18		0.6125	0.6009	0.5939	0.6025	0.6012
19		0.6162	0.6044	0.6046	0.5846	0.5944
20		0.6129	0.5997	0.5940	0.5954	0.5995
means		0.6114	0.6022	0.6041	0.6000	0.5976
SD		0.0068	0.0081	0.0086	0.0130	0.0046
% CV		1.1114	1.3522	1.4294	2.1702	0.7718

Table 11 : Hardness of Pentoxifylline Matrix Tablets

Tablet No.	Formulation	Weight (g)				
		D3	D4	D5	D6	D7
1		57.3	65.4	60.0	60.8	45.8
2		58.2	61.4	50.6	52.0	52.3
3		52.7	75.5	54.0	60.5	44.8
4		48.2	51.6	54.6	49.9	56.7
5		57.3	65.4	58.8	46.1	43.3
6		50.9	66.3	68.2	54.0	56
7		60.1	72.0	50.4	45.8	46.5
8		55.2	68.4	50.2	46.7	57.7
9		54.0	70.2	55.6	64.8	63.1
10		52.3	75.4	59.4	56.4	61.1
11		50.0	66.1	62.7	60.2	50.6
12		62.8	66.0	61.6	52.2	58.7
13		52.5	68.8	55.4	52.0	77.0
14		53.1	72.5	50.4	60.5	66.2
15		57.4	71.1	54.0	48.8	61.4
16		49.1	60.4	68.8	49.1	58.4
17		54.4	58.6	62.4	56.7	55.7
18		52.3	59.1	51.2	52.5	62.8
19		57.0	55.9	54.0	55.9	48.9
20		51.1	70.2	58.1	50.0	50.2
means		54.3	66.0	57.0	53.7	55.9
SD		3.82	6.48	5.68	5.53	8.34
% CV		7.03	9.81	9.95	10.29	14.93

APPENDIX 4

The dissolution data of pentoxifylline sustained released tablet data

Table 12 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation A1 in SGF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	39.12	36.62	30.04	35.26	4.69
20	57.89	52.61	46.13	52.21	5.89
30	73.86	69.87	61.77	68.50	6.16
60	122.15	115.51	103.16	113.61	9.64
90	168.52	165.79	145.87	160.06	12.36
120	210.49	208.54	187.19	202.08	12.92
180	296.89	286.25	261.10	281.41	18.38

Table 13 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation A1 in SIF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	28.47	37.79	35.02	33.74	4.77
20	43.99	55.52	50.46	49.99	5.77
30	58.86	70.82	66.99	65.56	6.11
60	98.62	116.06	110.58	108.42	8.92
90	140.36	162.06	158.94	153.78	11.73
120	179.69	202.51	199.63	193.94	12.43
180	250.48	284.77	274.81	270.02	17.64
240	305.76	338.73	335.52	326.67	18.18
300	355.82	383.42	363.57	367.60	14.24
360	377.93	389.55	377.14	381.54	6.95

Table 14 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation A2 in SGF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	23.18	24.31	25.07	24.18	0.95
20	38.17	39.19	41.71	39.69	1.82
30	52.99	53.89	55.93	54.27	1.50
60	96.13	96.78	108.40	100.44	6.90
90	141.01	142.04	156.75	146.59	8.80
120	184.12	186.16	201.21	190.49	9.33
180	264.99	266.55	281.93	271.16	9.36

Table 15 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation A2 in SIF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	22.17	26.07	23.68	23.97	1.97
20	36.91	43.10	38.55	39.52	3.21
30	50.09	58.71	53.38	54.06	4.35
60	91.06	113.22	96.64	100.31	11.52
90	132.38	164.86	141.27	146.17	16.79
120	172.17	214.41	184.89	190.49	21.67
180	245.17	301.76	266.02	270.98	28.62
240	300.45	366.41	322.42	329.76	33.59
300	351.99	388.58	369.04	369.87	18.31
360	382.14	392.72	376.09	383.65	8.41
420	393.79	400.89	392.76	395.82	4.43
480	398.45	407.09	399.42	401.65	4.73

Table 16 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation

B1 in SGF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	52.54	64.64	56.62	57.93	6.16
20	60.99	76.18	68.77	68.65	7.59
30	70.79	85.94	77.18	77.97	7.61
60	94.34	108.39	99.96	100.89	7.07
90	113.93	126.87	123.14	121.32	6.66
120	126.97	142.09	136.89	135.32	7.68
180	159.99	174.17	168.68	167.62	7.15

Table 17 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation

B1 in SIF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	49.76	62.11	55.81	55.89	6.17
20	58.48	73.04	66.70	66.07	7.29
30	67.75	82.14	74.76	74.88	7.19
60	89.79	103.76	96.97	96.84	6.98
90	108.94	121.84	117.66	116.15	6.58
120	116.20	136.99	131.78	128.32	10.82
180	152.62	168.23	162.24	161.03	7.87
240	181.17	191.83	184.29	185.76	5.48
300	203.83	216.31	217.04	212.39	7.42
360	229.89	248.22	233.34	237.15	9.74
420	253.29	261.17	252.73	255.73	4.72
480	275.33	283.75	280.81	279.96	4.27

Table 18 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation B2 in SGF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	59.12	57.80	57.67	58.19	0.80
20	69.31	68.25	69.57	69.04	0.69
30	78.51	77.57	78.63	78.24	0.58
60	101.17	100.23	101.29	100.90	0.58
90	121.33	120.25	122.38	121.32	1.06
120	136.38	135.83	137.69	136.64	0.96
180	167.65	166.83	166.08	166.85	0.79

Table 19 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation B2 in SIF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	62.87	49.51	55.94	56.10	6.68
20	74.18	58.10	66.96	66.41	8.05
30	82.78	66.86	75.77	75.14	7.98
60	104.28	89.41	97.48	97.055	7.44
90	122.36	107.92	118.30	116.19	7.45
120	138.27	123.24	132.05	131.19	7.55
180	169.01	152.39	162.75	161.39	8.39
240	192.36	181.19	184.81	186.12	5.69
300	216.59	203.60	217.82	212.67	7.88
360	255.31	229.15	233.87	239.45	13.94
420	261.72	252.30	253.26	255.76	5.18
480	283.79	275.34	281.85	280.33	4.43

Table 20 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation D1 in SGF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	23.82	22.32	23.95	23.36	0.91
20	32.38	30.26	30.59	31.07	1.14
30	39.39	38.43	38.65	38.82	0.51
60	59.50	57.69	59.81	58.99	1.14
90	76.56	73.48	76.13	75.39	1.67
120	90.35	87.98	93.07	90.47	2.55
180	116.58	114.41	119.74	116.91	2.68

Table 21 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation D1 in SIF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	20.31	21.82	21.29	21.14	0.77
20	29.54	30.05	30.55	30.05	0.51
30	37.46	37.07	38.89	37.81	0.95
60	57.53	56.93	57.55	57.34	0.31
90	74.98	72.97	73.19	73.71	1.10
120	84.77	85.37	85.58	85.24	0.42
180	114.05	108.25	111.55	111.28	2.91
240	128.28	127.24	136.35	130.62	4.98
300	145.87	145.32	150.45	147.21	2.81
360	164.05	158.97	166.14	163.05	3.69
420	175.02	173.94	182.16	177.04	4.46
480	191.84	188.24	191.21	190.43	1.92

Table 22 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation D2 in SGF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	22.69	22.64	21.85	22.39	0.47
20	31.84	32.05	30.99	31.63	0.56
30	40.44	40.54	38.53	39.84	1.13
60	60.24	60.55	57.38	59.39	1.75
90	78.25	79.83	78.21	78.76	0.92
120	91.09	91.74	88.12	90.32	1.93
180	117.91	117.93	111.02	115.62	3.98

Table 23 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation D2 in SIF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	21.19	21.67	21.99	21.62	0.41
20	31.157	31.56	31.57	31.43	0.23
30	38.39	40.71	39.29	39.47	1.17
60	56.74	61.19	60.68	59.54	2.44
90	73.28	78.77	76.54	76.19	2.76
120	86.99	90.79	89.16	88.98	1.91
180	112.30	117.44	120.43	116.73	4.11
240	133.33	141.52	141.76	138.87	4.79
300	151.19	159.43	159.67	156.76	4.82
360	165.37	174.66	178.18	172.74	6.61
420	186.43	194.51	193.25	191.39	4.35
480	198.03	210.17	208.92	205.71	6.68

Table 24 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation D3 in SGF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	20.67	19.82	19.09	19.86	0.79
20	29.52	28.04	26.98	28.18	1.27
30	37.68	36.19	35.13	36.33	1.28
60	56.51	55.02	54.89	55.48	0.89
90	76.29	71.11	74.46	73.95	2.63
120	93.97	89.71	87.71	90.46	3.20
180	125.75	123.83	119.87	123.15	2.99

Table 25 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation D3 in SIF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	21.26	22.27	19.35	20.96	1.48
20	32.07	33.28	28.93	31.42	2.24
30	41.52	41.93	37.76	40.40	2.29
60	64.02	65.35	57.42	62.26	4.25
90	82.62	82.54	74.57	79.91	4.62
120	94.46	96.90	85.67	92.35	5.91
180	131.36	128.12	116.31	125.26	7.92
240	154.00	149.23	131.06	144.77	12.10
300	171.73	173.23	161.52	168.83	6.38
360	184.51	192.07	174.74	183.77	8.68
420	205.92	204.95	187.29	199.39	10.49
480	226.69	225.47	212.74	221.63	7.72

Table 26 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation D4 in SGF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	21.51	20.14	21.93	21.19	0.94
20	31.73	28.99	29.42	30.05	1.48
30	40.64	38.19	38.63	39.16	1.30
60	66.76	63.56	65.68	65.33	1.63
90	82.80	78.86	80.88	80.85	1.97
120	101.26	95.81	101.22	99.43	3.13
180	137.23	138.70	134.04	136.66	2.39

Table 27 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation D4 in SIF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	20.46	20.76	24.08	21.77	2.01
20	34.18	33.68	36.52	34.79	1.52
30	45.66	44.85	48.81	46.44	2.09
60	69.99	69.09	74.38	71.16	2.83
90	92.86	92.75	100.59	95.41	4.49
120	109.54	112.30	116.97	112.94	3.75
180	136.60	141.65	149.36	142.54	6.43
240	159.28	162.33	173.87	165.16	7.69
300	191.89	190.43	201.78	194.70	6.17
360	217.64	212.14	212.96	214.24	2.97
420	219.58	227.39	236.54	227.84	8.49
480	241.43	246.52	255.71	247.89	7.24

Table 28 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation D5 in SGF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	17.09	18.14	18.25	17.82	0.64
20	27.18	28.66	27.61	27.82	0.76
30	34.80	37.45	37.44	36.57	1.53
60	57.73	60.91	57.33	58.66	1.96
90	78.15	78.19	75.75	77.36	1.39
120	93.84	99.46	92.79	95.36	3.59
180	130.19	133.43	125.72	129.78	3.87

Table 29 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation D5 in SIF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	23.58	22.06	19.04	21.56	2.31
20	31.98	35.59	30.94	32.84	2.44
30	41.93	45.77	40.69	42.79	2.65
60	64.74	74.25	65.21	68.07	5.36
90	87.38	96.43	87.44	90.42	5.21
120	110.73	121.95	113.97	115.55	5.78
180	138.29	147.82	136.52	140.88	6.08
240	156.95	175.08	156.67	162.90	10.55
300	180.99	195.19	183.48	186.56	7.59
360	199.11	218.94	202.37	206.81	10.63
420	226.65	235.25	213.05	224.98	11.19
480	236.18	257.42	240.14	244.58	11.29

Table 30 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation D6 in SGF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	18.14	18.98	20.56	19.23	1.23
20	28.87	29.51	31.52	29.96	1.38
30	40.29	39.46	43.37	41.04	2.06
60	67.67	68.51	72.45	69.54	2.55
90	85.62	86.47	89.26	87.12	1.91
120	107.72	106.15	109.39	107.75	1.62
180	136.46	139.36	136.29	137.37	1.72

Table 31 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation D6 in SIF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	20.96	27.51	19.65	22.71	4.21
20	33.17	39.96	31.55	34.89	4.46
30	43.94	50.36	42.51	45.61	4.18
60	69.79	75.14	71.17	72.03	2.78
90	89.73	93.19	90.11	91.01	1.89
120	110.77	112.19	111.26	111.41	0.72
180	141.37	139.52	142.11	140.99	1.34
240	166.59	163.71	159.02	163.11	3.82
300	185.89	189.05	187.36	187.43	1.58
360	200.26	201.67	194.42	198.79	3.84
420	221.25	220.41	224.21	221.96	1.99
480	228.75	240.75	227.44	232.31	7.34

Table 32 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation

D7 Lot 1 in SGF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	19.61	16.88	18.46	18.32	1.37
20	30.56	27.18	29.29	29.01	1.71
30	40.41	37.75	40.19	39.45	1.48
60	67.68	63.64	66.19	65.84	2.05
90	92.47	81.98	87.93	87.46	5.26
120	108.30	102.12	105.09	105.17	3.09
180	137.57	132.68	138.03	136.09	2.97

Table 33 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation

D7 Lot 1 in SIF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	21.46	20.86	20.96	21.09	0.32
20	33.48	29.24	33.47	32.06	2.45
30	44.75	38.78	44.95	42.83	3.51
60	70.19	62.48	69.99	67.56	4.40
90	90.95	83.38	91.04	88.46	4.39
120	114.57	104.85	111.54	110.32	4.97
180	141.41	132.64	144.41	139.49	6.12
240	168.39	156.05	173.17	165.87	8.84
300	197.28	184.37	197.05	192.90	7.39
360	215.49	201.75	210.47	209.24	6.95
420	236.32	220.99	232.03	229.78	7.91
480	248.43	226.73	246.89	240.68	12.11

Table 34 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation D7 Lot 2 in SGF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	20.46	18.46	19.19	19.37	1.01
20	31.94	29.29	30.03	30.42	1.36
30	42.32	40.19	40.94	41.15	1.08
60	69.08	66.19	66.31	67.19	1.63
90	90.51	87.93	87.52	88.65	1.62
120	112.79	105.09	107.47	108.45	3.94
180	144.99	138.03	139.90	140.97	3.59

Table 35 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation D7 Lot 2 in SIF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	17.43	20.15	24.39	20.66	3.50
20	27.61	29.34	35.31	30.75	4.04
30	37.74	40.99	48.20	42.31	5.36
60	62.75	64.19	72.36	66.44	5.18
90	83.25	85.12	93.12	87.16	5.24
120	100.03	102.36	113.38	105.26	7.13
180	130.31	134.42	143.23	135.99	6.60
240	155.98	159.35	167.20	160.84	5.76
300	177.75	180.88	192.81	183.81	7.95
360	203.16	204.04	214.52	207.24	6.32
420	218.88	221.03	232.32	224.08	7.22
480	234.43	236.34	245.67	238.81	6.02

Table 36 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation D7 Lot 3 in SGF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	17.93	19.51	20.88	19.44	1.47
20	28.66	31.83	31.73	30.74	1.80
30	39.03	41.68	43.06	41.26	2.05
60	65.34	67.17	64.87	65.79	1.22
90	84.01	88.59	87.54	86.72	2.39
120	105.32	108.55	108.81	107.56	1.95
180	139.05	141.78	142.03	140.95	1.65

Table 37 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation D7 Lot 3 in SIF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	17.23	16.73	19.15	17.70	1.28
20	27.41	27.30	30.04	28.25	1.55
30	38.04	37.53	39.58	38.38	1.06
60	61.23	63.04	66.21	63.49	2.52
90	81.03	83.65	85.92	83.53	2.45
120	101.77	100.03	106.90	102.89	3.57
180	130.55	136.61	137.22	134.79	3.69
240	160.75	158.28	164.43	161.16	3.09
300	175.99	187.37	190.53	184.63	7.64
360	204.42	208.04	207.70	206.72	1.99
420	226.20	213.46	222.69	220.78	6.58
480	236.25	234.77	242.04	237.69	3.84

Table 38 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation E1 in SGF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	23.11	23.24	23.79	23.38	0.36
20	32.48	33.42	33.53	33.14	0.58
30	41.71	42.03	41.51	41.75	0.26
60	63.19	64.57	64.99	64.25	0.94
90	80.07	81.45	83.98	81.83	1.98
120	97.14	99.37	99.39	98.630	1.29
180	121.93	127.11	127.77	125.61	3.19

Table 39 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation E1 in SIF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	20.86	20.76	21.79	21.14	0.57
20	31.05	31.05	32.07	31.39	0.59
30	39.69	38.79	40.51	39.66	0.86
60	59.87	58.35	61.90	60.04	1.78
90	77.94	75.81	81.59	78.45	2.93
120	90.87	86.91	89.40	89.06	2.00
180	116.66	116.86	113.17	115.56	2.08
240	134.43	131.61	132.18	132.74	1.49
300	153.56	151.23	153.06	152.62	1.23
360	166.75	165.41	170.28	167.48	2.51
420	184.28	179.16	180.02	181.15	2.74
480	195.86	191.47	196.62	194.65	2.78

Table 40 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation E2 in SGF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	24.03	24.27	23.58	23.96	0.35
20	33.43	33.22	32.58	33.08	0.44
30	42.66	42.35	40.97	41.99	0.89
60	64.58	63.63	63.62	63.94	0.55
90	84.72	83.77	82.81	83.76	0.96
120	101.39	94.54	98.20	98.05	3.43
180	129.89	129.58	124.85	128.11	2.83

Table 41 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation E2 in SIF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
10	21.82	21.72	22.25	21.93	0.28
20	31.16	32.27	31.57	31.67	0.56
30	39.69	39.30	40.51	39.84	0.62
60	60.78	60.18	60.89	60.62	0.38
90	82.69	81.78	80.58	81.69	1.06
120	91.01	88.79	88.59	89.46	1.34
180	114.68	112.14	112.39	113.07	1.39
240	133.96	135.69	132.16	133.94	1.76
300	158.88	149.78	154.81	154.49	4.56
360	167.30	164.46	167.49	166.42	1.70
420	184.09	177.95	177.98	180.01	3.53
480	196.93	189.75	193.56	193.41	3.59

Table 42 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation F1 in SGF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
5	98.02	98.02	81.08	92.37	9.78
10	200.87	232.70	192.35	208.64	21.27
15	282.85	314.59	286.92	294.79	17.28
20	334.40	345.28	326.92	335.53	9.23
25	348.87	364.02	336.61	349.83	13.73
30	343.41	356.54	347.39	349.12	6.73
45	365.80	358.47	349.29	357.86	8.27
60	356.74	364.62	351.18	357.51	6.75

Table 43 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation F1 in SIF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
5	95.99	86.17	105.32	95.83	9.58
10	168.60	158.72	194.36	173.89	18.39
15	242.85	224.09	276.81	247.92	26.72
20	317.78	287.32	336.81	313.97	24.96
25	336.16	324.18	343.19	334.51	9.61
30	336.99	333.52	345.07	338.53	5.93
45	340.34	339.37	346.45	342.05	3.84
60	374.44	373.98	379.57	375.99	3.11

Table 44 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation F2 in SGF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
5	104.65	101.18	94.97	100.26	4.91
10	236.69	228.51	212.16	225.79	12.49
15	317.81	310.38	293.95	307.38	12.21
20	334.30	325.25	345.03	334.86	9.90
25	344.56	347.56	350.09	347.40	2.77
30	348.02	350.52	357.79	352.11	5.08
45	347.28	356.63	356.06	353.32	5.24
60	351.27	350.67	353.78	351.90	1.65

Table 45 : The Dissolution Data of Pentoxifylline Sustained Release Tablets Formulation F2 in SIF.

Time (min)	Pentoxifylline Released (mg)				
	Tablet 1	Tablet 2	Tablet 3	Average	SD
5	104.56	116.16	104.56	108.43	6.69
10	184.78	225.92	184.78	198.49	23.75
15	262.14	317.37	262.14	280.55	31.89
20	332.64	342.31	332.64	335.86	5.58
25	339.00	342.67	339.00	340.23	2.12
30	336.32	342.53	336.32	338.39	3.58
45	345.21	353.97	345.21	348.13	5.06
60	382.86	379.57	382.86	381.77	1.90

APPENDIX 5

Physical Characteristic of Granules and Reproducibility Studies

Table 46 : Determination of Dynamic Repose Angle of Granules Formulation D7 Lot 1.

Sample	1	2	3	Average	SD
Weight (g)	50.12	50.12	50.18	50.14	0.03
Area of paper (cm ²)	686.07	686.07	686.07	686.07	0.00
Weight of paper (g)	5.13	5.15	5.00	5.09	0.08
Height of drug heap (cm)	5.2	5.3	5.4	5.3	0.1
Weight of circle (g)	0.68	0.68	0.66	0.68	0.01
Area of circle (cm ²)	91.21	92.93	89.50	91.22	1.71
Radius of circle	5.39	5.44	5.34	5.39	0.05
$\tan \theta = h/r$	0.97	0.97	1.01	0.98	0.02
zeta (repose angle)	42.78	43.01	43.92	43.24	0.60

Table 47 : Determination of Dynamic Repose Angle of Granules Formulation D7 Lot 2.

Sample	1	2	3	Average	SD
Weight (g)	50.59	50.58	50.52	50.56	0.03
Area of paper (cm ²)	686.07	686.07	686.07	686.07	0.00
Weight of paper (g)	5.04	4.99	5.04	5.02	0.03
Height of drug heap (cm)	5.4	5.3	5.4	5.4	0.1
Weight of circle (g)	0.68	0.66	0.69	0.68	0.01
Area of circle (cm ²)	92.80	90.48	93.60	92.29	1.62
Radius of circle	5.43	5.37	5.46	5.42	0.05
$\tan \theta = h/r$	0.99	0.99	0.99	0.99	0.00
zeta (repose angle)	43.49	43.34	43.38	43.40	0.08

Table 48 : Determination of Dynamic Repose Angle of Granules Formulation D7 Lot 3.

Sample	1	2	3	Average	SD
Weight (g)	50.13	50.12	50.13	50.13	0.01
Area of paper (cm ²)	686.07	686.07	686.07	686.07	0.00
Weight of paper (g)	5.13	5.06	4.99	5.06	0.07
Height of drug heap (cm)	5.2	5.4	5.3	5.3	0.1
Weight of circle (g)	0.68	0.65	0.64	0.66	0.02
Area of circle (cm ²)	91.58	89.31	86.67	89.18	2.46
Radius of circle	5.39	5.33	5.25	5.33	0.07
$\tan \theta = h/r$	0.96	1.01	1.01	0.99	0.03
zeta (repose angle)	42.73	43.95	43.86	43.51	0.68

Table 49 : Determination of Bulk Density, Tapped Density, Compression Ratio and Flow Ability of Granules Formulation D7 Lot 1.

Sample	1	2	3	Average	SD
Weight of drug granules	30.59	30.58	30.59	30.59	0.01
Bulk Volume (ml)	58.0	58.5	58.5	58.33	0.29
Bulk Density (g/ml)	0.53	0.52	0.52	0.52	0.00
Tapped Volume (ml)	49.0	49.2	49.1	49.1	0.1
Tapped Density (g/ml)	0.62	0.62	0.62	0.62	0.00
Compressibility Ratio	15.52	15.89	16.07	15.83	0.28
Flow ability	Good	Good	Good	Good	

Table 50 : Determination of Bulk Density, Tapped Density, Compression Ratio and Flow Ability of Granules Formulation D7 Lot 2.

Sample	1	2	3	Average	SD
Weight of drug granules	31.29	31.29	31.27	31.28	0.01
Bulk Volume (ml)	56.1	55.8	55.5	55.8	0.3
Bulk Density (g/ml)	0.56	0.56	0.56	0.56	0.00
Tapped Volume (ml)	47.2	47.0	46.9	47.03	0.15
Tapped Density (g/ml)	0.66	0.67	0.67	0.67	0.00
Compressibility Ratio	15.86	15.77	15.49	15.71	0.19
Flow ability	Good	Good	Good	Good	

Table 51 : Determination of Bulk Density, Tapped Density, Compression Ratio and Flow Ability of Granules Formulation D7 Lot 3.

Sample	1	2	3	Average	SD
Weight of drug granules	31.59	31.58	31.52	31.57	0.04
Bulk Volume (ml)	62.0	61.5	61.3	61.6	0.36
Bulk Density (g/ml)	0.51	0.51	0.51	0.51	0.00
Tapped Volume (ml)	52.5	52.1	52.0	52.2	0.26
Tapped Density (g/ml)	0.60	0.61	0.61	0.60	0.00
Compressibility Ratio	15.32	15.28	15.17	15.26	0.08
Flow ability	Good	Good	Good	Good	

Table 52 : Determination of Moisture Content of Pentoxifylline Sustained Release Granules Formulation D7.

Lot.	Granules before compressing	
	Sample	% moisture content
1	1	1.74
	2	1.68
	3	1.53
	Average	1.65
	SD	0.11
2	1	1.31
	2	1.15
	3	1.22
	Average	1.23
	SD	0.08
3	1	1.63
	2	1.77
	3	1.47
	Average	1.62
	SD	0.15

Table 53 : Sieve Analysis of Pentoxifylline Sustained Release Granules Formulation D7
Lot 1.

Sieve no.	Size(micron)	Mid class	Weight retained on sie ve(g)	% Weight retained	Cumulative %
10	>2000	-	0	0	0
20	1999.5-850.5	1425	1.2826	2.55	2.55
30	849.5-600.5	725	8.7506	17.42	19.97
40	599.5-425.5	512.5	10.2233	20.35	40.32
50	424.5-300.5	362.5	9.0225	17.96	58.28
60	299.5-250.5	275	5.0296	10.01	68.29
80	249.5-180.5	215	4.8242	9.60	77.89
100	179.5-150.5	165	4.6392	9.23	87.13
120	149.5-125.5	137.5	3.2545	6.48	93.61
pan	124.5-0	62.5	3.2125	6.39	100.00
SUM			50.2390	100.00	

Table 54 : Sieve Analysis of Pentoxifylline Sustained Release Granules Formulation D7
Lot 2.

Sieve no.	Size(micron)	Mid class	Weight retained on sieve(g)	% Weight retained	Cumulative %
10	>2000	-	0	0	0
20	1999.5-850.5	1425	1.1014	2.19	2.19
30	849.5-600.5	725	9.7511	19.48	21.67
40	599.5-425.5	512.5	11.1253	22.22	43.89
50	424.5-300.5	362.5	8.7294	17.43	61.33
60	299.5-250.5	275	4.3202	8.63	69.96
80	249.5-180.5	215	5.5589	11.10	81.06
100	179.5-150.5	165	3.2559	6.50	87.56
120	149.5-125.5	137.5	2.1396	4.27	91.84
pan	124.5-0	62.5	4.0874	8.16	100.00
SUM			50.0692	100.00	

Table 55 : Sieve Analysis of Pentoxifylline Sustained Release Granules Formulation D7
Lot 3.

Sieve no.	Size(micron)	Mid class	Weight retained on sieve(g)	% Weight retained	Cumulative %
10	>2000	-	0	0	0
20	1999.5-850.5	1425	1.8733	3.74	3.74
30	849.5-600.5	725	7.7506	15.48	19.22
40	599.5-425.5	512.5	10.5944	21.16	40.38
50	424.5-300.5	362.5	8.4252	16.83	57.21
60	299.5-250.5	275	5.4156	10.82	68.03
80	249.5-180.5	215	4.9742	9.93	77.96
100	179.5-150.5	165	4.3550	8.69	86.65
120	149.5-125.5	137.5	2.9806	5.95	92.60
pan	124.5-0	62.5	3.7031	7.39	100.00
SUM			50.0720	100.00	

Table 56 Weight variation of pentoxifylline matrix tablets formulation D7 Lot1, Lot2 and Lot3.

Tablet No.	Weight (g)		
	Lot1	Lot2	Lot3
1	0.5902	0.6078	0.6086
2	0.6020	0.6033	0.6046
3	0.5918	0.6054	0.6087
4	0.6012	0.6055	0.6098
5	0.6050	0.6034	0.6009
6	0.5933	0.6087	0.6119
7	0.5931	0.6052	0.6087
8	0.5906	0.6011	0.6058
9	0.5990	0.6098	0.6099
10	0.6010	0.6034	0.6110
11	0.5998	0.6054	0.6042
12	0.5960	0.6007	0.6057
13	0.5970	0.6025	0.6089
14	0.6013	0.6047	0.6032
15	0.6027	0.6052	0.6054
16	0.6009	0.6040	0.6066
17	0.5911	0.6051	0.6055
18	0.6012	0.6079	0.6023
19	0.5944	0.6098	0.6055
20	0.5995	0.6088	0.6048
mean	0.5976	0.6054	0.6066
SD	0.0046	0.0027	0.0029

Table 57 Hardness of pentoxifylline matrix tablets formulation D7 Lot1, Lot2 and Lot3.

Tablet No.	Weight (g)		
	Lot1	Lot2	Lot3
1	45.8	48.4	52.4
2	52.3	49.5	48.5
3	44.8	40.2	47.4
4	56.7	44.6	47.5
5	43.3	45.2	43.5
6	56.0	45.1	55.5
7	46.5	47.7	55.2
8	57.7	48.5	44.0
9	63.1	49.7	45.8
10	61.1	42.2	55.8
11	50.6	41.1	60
12	58.7	48.5	43.5
13	77.0	44.1	49.0
14	66.2	42.8	44.8
15	61.4	48.5	52
16	58.4	47.2	51.4
17	55.7	46.6	55.3
18	62.8	46.5	48.1
19	48.9	46.8	56.6
20	50.2	48.7	52.1
mean	55.9	46.1	50.4
SD	8.3	2.8	4.9

CURRCULUM VITAE

Name	Mr. Kiattisak Saeew
Date of birth	24 th April 1974
Education	High school from Wat Rajadhivas school, Bangkok, 1992 Bachelor of Pharmacy from Chiang Mai University, 1997
Experience	Pharmacist and lecturer at Sirindhorn Public Health College, Pitsanulok, 1997 - present