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APPENDICES

Appendix A

Calibration curve

The concentration versus absorbance of diclofenac sodium in methanol at 281 nm, 0.1 N HCl acid at 275 nm and in phosphate buffer pH 6.8 at 277 nm are presented in Table 22-24. The standard curve of diclofenac sodium in these medium are illustrated in Figure 69-71.

Table 22 Absorbance of diclofenac sodium in methanol determined at 281 nm.

Concentration (mcg/ml)	Absorbance (SD)*
0	0.000 (0.0000)
5.17	0.219 (0.0021)
10.34	0.425 (0.0040)
15.51	0.640 (0.0010)
20.68	0.856 (0.0021)
25.85	1.088 (0.0046)

*Standard deviation from three determinations.

Figure 69 Calibration curve of diclofenac sodium in methanol at 281 nm.

$y = 0.0418x - 0.0024$

$R^2 = 0.9997$
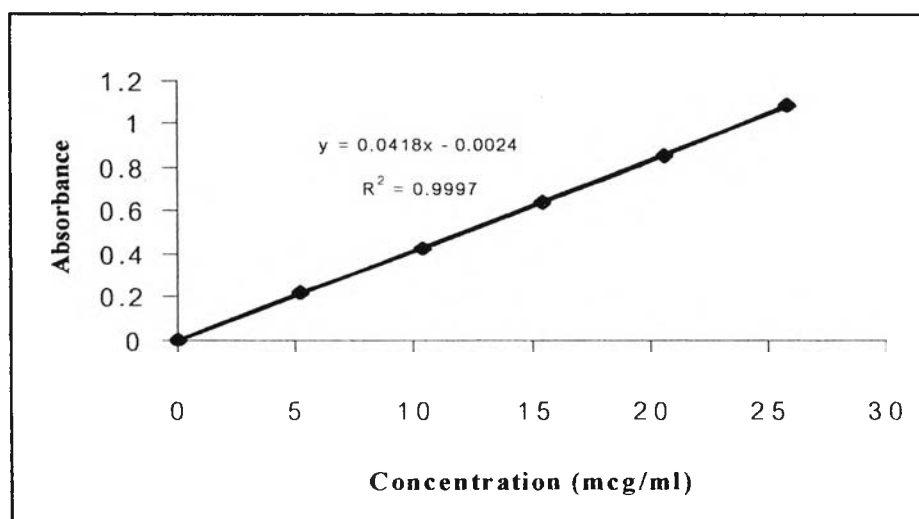
Table 23 Absorbance of diclofenac sodium in 0.1N HCl acid determined at
275 nm.

Concentration (mcg/ml)	Absorbance (SD)*
0	0.000 (0.000)
5	0.141 (0.003)
10	0.263 (0.001)
15	0.391 (0.002)
20	0.518 (0.004)
25	0.637 (0.003)

*Standard deviation from three determinations.

Figure 70 Calibration curve of diclofenac sodium in 0.1N HCl at 275 nm.

$y = 0.0254x + 0.0076$

$R^2 = 0.9995$

Absorbance

0.7
0.6
0.5
0.4
0.3
0.2
0.1
0

0   5   1 0   1 5   2 0   2 5

Concentration (mcg/ml)
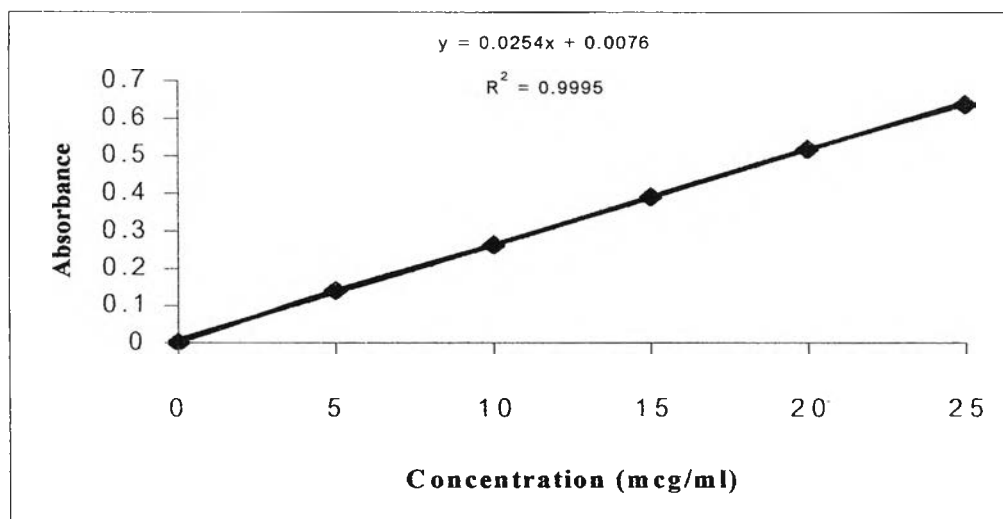
Table 24 Absorbance of diclofenac sodium in phosphate buffer determined at 277 nm.

Concentration (mcg/ml)	Absorbance (SD)*
0	0.000 (0.000)
5	0.164 (0.003)
10	0.327 (0.002)
15	0.493 (0.004)
20	0.639 (0.003)
25	0.797 (0.001)

*Standard deviation from three determinations.

Figure 71 Calibration curve of diclofenac sodium in phosphate buffer pH 6.8 Determined at 277 nm.
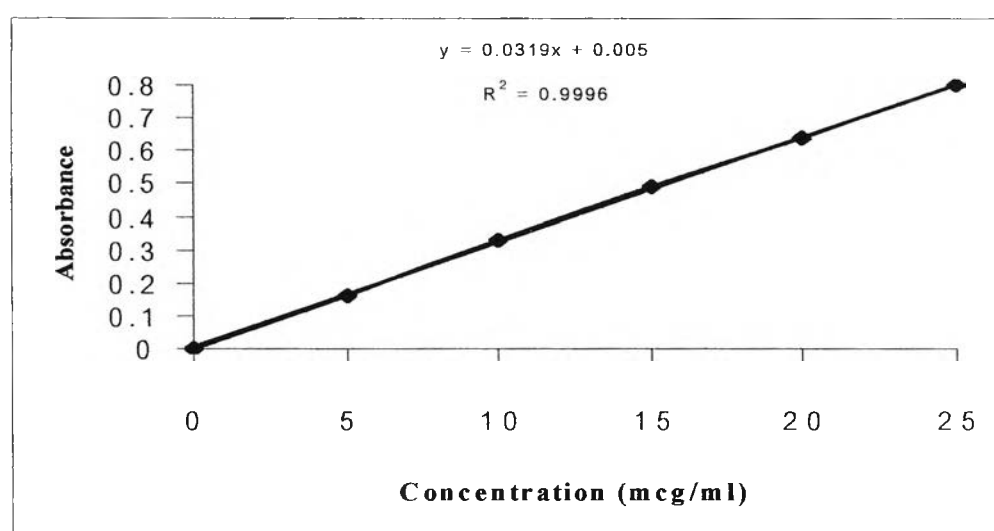
Appendix B

Percentage of drug release

Table 25 Percentage amount of diclofenac sodium release from blank capsules and commercial products.

Formulation	Time	Time$^{1/2}$	% Drug Release					Log% Drug Remained
			1	2	3	Mean	SD	
Voltaren SR	0	0	0	0	0	0	0	2.00
	1	1	0.27	0.30	0.30	0.29	0.02	2.00
	2	1.41	0.85	0.91	0.85	0.87	0.04	2.00
	3	1.73	4.93	4.65	4.86	4.81	0.15	1.98
	6	2.45	25.02	24.98	25.09	25.03	0.06	1.87
	9	3	41.50	44.12	44.49	43.37	1.63	1.75
	12	3.46	56.50	54.28	52.79	54.53	1.87	1.66
	15	3.87	63.80	61.18	52.29	64.42	1.31	1.57
	18	4.24	69.66	69.63	70.01	69.77	0.21	1.48
	24	4.90	79.69	79.29	80.04	79.67	0.38	1.31
Blank (formulation 1)	0	0	0	0	0	0	0	2.00
	1	1	1.24	1.27	1.39	1.30	0.08	1.99
	2	1.41	2.04	2.00	1.94	1.99	0.05	1.99
	3	1.73	67.03	67.73	68.08	67.61	0.54	1.51
	6	2.45	97.70	97.34	98.09	97.71	0.38	0.36
	9	3	99.03	99.04	99.43	99.17	0.23	-0.08
	12	3.46	100.75	100.38	100.40	100.51	0.20	-
Blank (formulation 2)	0	0	0	0	0	0	0	2.00
	1	1	1.42	1.39	1.55	1.45	0.08	1.99
	2	1.41	2.21	2.27	2.17	2.22	0.05	1.99
	3	1.73	69.14	69.49	69.14	69.25	0.20	1.49
	6	2.45	98.49	98.12	98.50	98.37	0.21	1.21
	9	3	99.46	99.46	99.47	99.46	0.00	-0.27
	12	3.46	100.80	100.43	100.44	100.56	0.21	-

Table 26   Percentage amount of diclofenac sodium release from formulation 3-5.

Formulation	Time	Time$^{1/2}$	% Drug Release					Log% Drug Remained
			1	2	3	Mean	SD	
3	0	0	0	0	0	0	0	2.00
	1	1	2.61	2.58	2.42	2.54	0.10	1.99
	2	1.41	3.10	3.23	3.19	3.17	0.07	1.98
	3	1.73	19.78	19.50	19.39	19.55	0.20	1.91
	6	2.45	49.31	50.06	50.43	49.93	0.57	1.70
	9	3	74.87	76.37	75.25	75.49	0.78	1.39
	12	3.46	81.97	82.36	81.23	81.85	0.58	1.26
	15	3.87	92.12	93.64	94.00	93.26	1.00	0.83
	18	4.24	98.63	96.80	98.28	97.91	0.97	0.32
	24	4.90	100.71	101.11	100.35	100.72	0.38	-
4	0	0	0	0	0	0	0	2.00
	1	1	2.85	3.03	2.91	2.93	0.09	1.99
	2	1.41	3.47	3.57	3.54	3.53	0.05	1.98
	3	1.73	19.26	19.05	19.19	19.16	0.11	1.91
	6	2.45	47.81	47.59	47.78	47.73	0.12	1.72
	9	3	64.75	64.60	64.60	64.65	0.09	1.55
	12	3.46	76.99	76.84	76.76	76.86	0.12	1.36
	15	3.87	93.83	90.46	88.22	0.84	2.83	0.96
	18	4.24	100.73	99.57	99.85	100.05	0.61	-
	24	4.90	101.71	100.69	101.31	101.24	0.51	-
5	0	0	0	0	0	0	0	2.00
	1	1	2.64	2.33	2.27	2.41	0.19	1.99
	2	1.41	3.23	3.03	3.16	3.14	0.10	1.99
	3	1.73	14.24	14.48	14.55	14.42	0.16	1.93
	6	2.45	27.37	27.52	27.22	27.37	0.15	1.86
	9	3	32.69	33.44	32.31	32.82	0.57	1.83
	12	3.46	46.86	46.11	47.60	46.86	0.74	1.73
	15	3.87	66.77	64.15	67.89	66.27	1.92	1.53
	18	4.24	74.53	75.63	75.29	75.15	0.56	1.40
	24	4.90	93.59	94.32	95.86	94.59	1.16	0.73

Table27 Percentage amount of diclofenac sodium release from formulation 6-8.

Formulation	Time	Time$^{1/2}$	% Drug Release					Log% Drug Remained
			1	2	3	Mean	SD	
6	0	0	0	0	0	0	0	2.00
	1	1	2.79	2.88	2.91	2.86	0.06	1.99
	2	1.41	3.50	3.57	3.99	3.62	0.14	1.98
	3	1.73	14.14	14.11	13.79	14.01	0.19	1.93
	6	2.45	26.06	25.88	25.77	25.90	0.15	1.87
	9	3	32.31	33.06	31.93	32.43	0.57	1.83
	12	3.46	38.99	42.36	42.35	41.23	1.94	1.77
	15	3.87	61.82	62.60	61.84	62.09	0.45	1.58
	18	4.24	76.26	75.94	75.17	75.79	0.56	1.38
	24	4.90	94.59	94.26	96.11	94.99	0.98	0.70
7	0	0	0	0	0	0	0	2.00
	1	1	1.73	1.76	1.70	1.73	0.03	1.99
	2	1.41	2.92	2.95	2.82	2.89	0.07	1.99
	3	1.73	10.86	10.93	10.89	10.89	0.04	]1.95
	6	2.45	23.66	23.51	23.58	23.58	0.07	1.88
	9	3	33.73	34.10	32.61	33.48	0.78	1.82
	12	3.46	46.78	47.91	49.01	47.90	1.12	1.72
	15	3.87	58.09	57.36	60.72	58.72	1.77	1.62
	18	4.24	71.01	70.64	72.54	71.40	1.01	1.46
	24	4.90	87.41	88.16	87.84	87.80	0.38	1.09
8	0	0	0	0	0	0	0	2.00
	1	1	3.27	3.03	2.97	3.09	0.16	1.99
	2	1.41	3.88	33.71	3.64	3.74	0.12	1.98
	3	1.73	14.99	15.69	15.90	15.52	0.47	1.93
	6	2.45	25.34	22.72	22.34	23.47	1.63	1.88
	9	3	39.05	37.91	37.53	38.16	0.79	1.79
	12	3.46	45.43	41.28	45.76	44.15	2.50	1.75
	15	3.87	59.71	58.14	58.55	58.80	0.82	1.61
	18	4.24	69.95	70.68	71.47	70.60	0.91	1.47
	24	4.90	84.92	87.46	88.25	86.88	1.74	1.12

Table28 Percentage amount of diclofenac sodium release from formulation 9-11.

Formulation	Time	Time$^{1/2}$	% Drug Release					Log% Drug Remained
			1	2	3	Mean	SD	
9	0	0	0	0	0	0	0	2.00
	1	1	2.24	2.21	2.18	2.21	0.03	1.99
	2	1.41	2.86	2.92	2.93	2.91	0.05	1.99
	3	1.73	7.96	8.06	7.96	7.99	0.06	1.96
	6	2.45	17.98	18.36	17.95	18.10	0.23	1.91
	9	3	26.47	26.58	26.77	26.61	0.15	1.87
	12	3.46	31.67	32.80	33.54	32.67	0.94	1.83
	15	3.87	37.96	45.46	42.85	42.09	33.81	1.76
	18	4.24	48.06	54.14	53.37	51.86	3.31	1.68
	24	4.90	59.38	58.03	59..50	58.97	0.81	1.61
10	0	0	0	0	0	0	0	2.00
	1	1	2.15	2.27	2.36	2.26	0.11	1.99
	2	1.41	2.65	2.86	2.76	2.76	0.10	1.99
	3	1.73	8.37	8.17	8.24	8.26	0.11	1.96
	6	2.45	21.16	21.05	21.20	21.14	0.08	1.90
	9	3	29.19	28.07	28.45	28.57	0.57	1.85
	12	3.46	38.09	338.82	41.07	39.33	1.56	1.78
	15	3.87	48.56	45.94	47.46	47.32	1.32	1.72
	18	4.24	50.53	50.13	52.79	51.15	1.43	1.69
	24	4.90	54.39	54.73	55.18	54.77	0.39	1.66
11	0	0	0	0	0	0	0	2.00
	1	1	2.91	2.70	2.79	2.80	0.11	1.99
	2	1.41	3.44	3.57	3.54	3.51	0.07	1.98
	3	1.73	15.40	15.51	15.26	15.39	0.12	1.93
	6	2.45	25.26	25.37	25.63	25.42	0.19	1.87
	9	3	40.54	39.05	39.80	39.80	0.75	1.78
	12	3.46	45.06	42.80	45.43	44.43	1.42	1.74
	15	3.87	51.11	52.95	52.98	52.35	1.07	1.68
	18	4.24	62.84	64.69	61.73	63.08	1.49	1.57
	24	4.90	74.29	75.04	74.67	74.67	0.37	1.40

Table 29 Percentage amount of diclofenac sodium release from formulation 12-14

Formulation	Time	Time$^{1/2}$	% Drug Release					Log% Drug Remained
			1	2	3	Mean	SD	
12	0	0	0	0	0	0	0	2.00
	1	1	3.36	3.42	3.45	3.41	0.05	1.98
	2	1.41	4.01	3.98	33.95	3.98	0.03	1.98
	3	1.73	14.61	14.78	14.82	14.74	0.11	1.93
	6	2.45	25.22	25.30	25.15	25.22	0.07	11.87
	9	3	35.68	35.31	36.43	35.81	0.57	1.81
	12	3.46	43.14	44.27	42.03	43.15	1.12	1.75
	15	3.87	49.55	50.31	51.42	50.43	0.94	1.70
	18	4.24	54.90	55.67	56.04	55.54	0.58	1.65
	24	4.90	76.01	76.41	76.78	76.40	0.39	1.37
13	0	0	0	0	0	0	0	2.00
	1	1	1.85	1.94	2.06	1.95	0.11	1.99
	2	1.41	2.51	2.58	2.69	2.59	0.09	1.99
	3	1.73	10.58	10.79	10.69	10.68	0.11	1.95
	6	2.45	28.36	28.63	28.74	28.58	0.19	1.85
	9	3	42.00	42.76	43.13	42.63	0.58	1.76
	12	3.46	52.89	52.53	52.54	52.65	0.21	1.68
	15	3.87	63.14	633.90	62.78	63.27	0.57	1.57
	18	4.24	73.11	72.38	71.63	72.37	0.74	1.44
	24	4.90	77.19	76.82	77.93	77.32	0.57	1.36
14	0	0	0	0	0	0	0	2.00
	1	1	2.18	2.15	2.36	2.23	0.11	1.99
	2	1.41	2.75	2.82	3.03	2.87	0.14	1.99
	3	1.73	11.70	12.02	12.45	12.06	0.37	1.94
	6	2.45	31.26	32.76	31.65	31.89	0.78	1.83
	9	3	44.29	43.56	44.68	44.18	0.57	1.75
	12	3.46	56.33	54.84	53.36	54.84	1.49	1.65
	15	3.87	64.74	64.36	64.36	64.48	0.22	1.55
	18	4.24	73.60	772.10	72.47	72.72	0.78	1.44
	24	4.90	79.55	77.63	79.53	78.92	1.09	1.32

Table 30 Percentage amount of diclofenac sodium release from formulation 15-16

Formulation	Time	Time$^{1/2}$	% Drug Release					Log% Drug Remained
			1	2	3	Mean	SD	
	0	0	0	0	0	0	0	2.00
	1	1	1.58	1.58	1.64	1.60	0.03	1.99
	2	1.41	2.17	2.34	2.24	2.25	0.08	1.99
15	3	1.73	12.71	12.74	12.85	12.77	0.07	1.94
	6	2.45	33.13	32.76	32.38	32.76	0.37	1.83
	9	3	42.81	42.81	45.05	43.56	1.29	1.75
	12	3.46	55.95	56.33	54.10	55.46	1.19	1.65
	15	3.87	67.73	67.73	67.35	67.60	0.22	1.51
	18	4.24	75.87	75.50	75.87	75.75	0.21	1.38
	24	4.90	86.71	87.08	86.71	86.83	0.22	1.12
	0	0	0	0	0	0	0	2.00
	1	1	1.55	1.39	1.45	1.46	0.08	1.99
	2	1.41	2.04	1.90	1.97	1.97	0.07	1.99
16	3	1.73	8.01	7.79	7.97	7.93	00.11	1.96
	6	2.45	27.88	27.80	27.95	27.88	0.08	1.86
	9	3	37.47	37.09	366.72	37.10	0.37	1.80
	12	3.46	44.58	44.94	45.69	45.07	0.57	1.74
	15	3.87	49.51	49.50	49.13	49.38	0.21	1.70
	18	4.24	53.36	53.72	53.73	53.60	0.21	1.67
	24	4.90	63.60	63.22	62.85	63.22	0.37	1.57

Appendix C

Data In Statistical Processes

Table 31   The p value of particle size distribution from spray dried diclofenac
sodium with Eudragit ® RD 100 , Eudragit® RL 30D and NaCMC at
the same ratio of 1:1.5.
(degree of freedom = 5, data from Table12)

Pair sample Test

	Paired Differences							Sig (2-tailed)
	Mean	Std. Deviation	Std.Error Mean	95%Confidence Interval of the Difference				
				Lower	Upper	t	df	p values*
Pair1 F9-F10	-8.67	4.5074	1.8402	-4.8169	4.6436	-0.047	5	0.964 NS**

*   If ∝ = 0.05, then p value is 0.964 , ** NS = Non – significance

Table 32   The p value of particle size distribution from spray dried
diclofenac sodium with Eudragit ® RD 100 , Eudragit ®RL 30D
and NaCMC with 15% w/w Aerosil ® 200.
(degree of freedom = 5, data from Table 12)

Pair sample Test

	Paired Differences							Sig (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95%Confidence Interval of the Difference				
				Lower	Upper	t	df	p values*
Pair1 F11-F12	-0.1817	1.3534	0.5525	-1.6020	1.238 7	-0.329	5	0.756 NS**

*   If ∝ = 0.05, then p value is 0.756 , ** NS = Non – significance

Table33 The p value of particle size distribution from spray dried diclofenac

sodium with Eudragit $^®$RD 100 (RD 1:1.5)and 30% w/w Aerosil$^®$ 200,

feed rate 20 ml/min at various inlet air temperature.

(degree of freedom = 5, data from Table12)

Pair sample Test

	Paired Differences							Sig (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95%Confidence Interval of the Difference				
				Lower	Upper	t	df	p values*
Pair1 F13-F14	1.667	2.3584	0.9628	-2.4734	2.4767	0.002	5	0.999 NS**

*   If $\propto$ = 0.05, then p value is 0.999 , **   NS = Non – significance

Table 34   The p value particle size distribution from spray dried diclofenac

sodium with Eudragit $^®$RD 100 (RD 1:1.5) and Aerosil 200 30% w/w

inlet temperature=160°C,   at various feed rate.

(degree of freedom = 5, data from Tables)

Pair sample Test

	Paired Differences							Sig (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95%Confidence Interval of the Difference				
				Lower	Upper	t	df	p values*
Pair1 F14-F15	-1.67	8.5974	3.5099	-9.0241	9.0207	0.000	5	1.000 NS**

*   If $\propto$ = 0.05, then p value is 1.000 , **   NS = Non – significance

Table 35 The p value of particle size distribution from spray dried diclofenac

sodium with Eudragit ®RD 100 (RD 1:1.5) and Aerosil® 200 30% w/w

inlet temperature=160°C, at various feed rate.(size lower than 106 μm).

(degree of freedom = 5, data from Table12)

Independent Sample Test

	t-test for Equality of Means			
	t	df	P value*	Mean Difference
F14-F15	1053.281	4	0.000 S**	17.2000

*   If $\propto$ = 0.05, then p value is 0.000 , **   S = Significance

Table36   The p value of particle size distribution of spray dried diclofenac

sodium with Eudragit® RL 30D and Eudragit RL 30D and NaCMC

at the same ratio of 1:1.5.

(degree of freedom = 5, data from Table12)

Pair sample Test

	Paired Differences							Sig (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95%Confidence Interval of the Difference				
				Lower	Upper	t	df	p values*
Pair1 F10-F16	-1.33	2.36315	1.0743	-2.7750	2.7483	-0.012	5	0.991 NS**

*   If $\propto$ = 0.05, then p value is 0.991, **   NS = Non – significance

Table37 The p value of particle size distribution from spray dried diclofenac
sodium with Eudragit® RD 100 , with the aid of Aerosil ® 200
0, 15, 30 % w/w at the same ratio 1:1.5.

Test of Between-Subjects Effects

Dependent Variable: Release Source	Type III Sum of Squares	df	Mean Square	F	Sig (p value)	Noncent. Parameter	Observed Power[a]
Group	8.444	2	4.222	0.003	0.997	0.006	0.050

a. Computed using alpha =0.05
then p value is 0.991, ** NS = Non – significance

Table 38 The p value of the release profiles from spray dried diclofenac sodium
with Eudragit ® RD 100, Eudragit ®RL30D and NaCMC at the same
ratio of 1:9.

Pair sample Test

	Paired Differences							Sig (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95%Confidence Interval of the Difference				
				Lower	Upper	t	df	p values*
Pair1 F3-F4	1.7430	3.7713	1.1926	-0.9548	4.4408	1.462	9	0.178 NS**

* If ∝ = 0.05, then p value is 0.178, ** NS = Non – significance

Table 39   The p value of the release profiles from spray dried diclofenac sodium with Eudragit $^®$RD 100, Eudragit $^®$RL30D and NaCMC at the same ratio of 1:4.

Pair sample Test

	Paired Differences							Sig (2-tailed)
	Mean	Std. Deviation	Std.Error Mean	95%Confidence Interval of the Difference		t	df	
				Lower	Upper	t	df	p values*
Pair1 F5-F6	1.0110	2.1713	0.6866	-0.542 3	0.5643	1.472	9	0.175 NS**

* If ∝ = 0.05, then p value is 0.175, ** NS = Non – significance

Table 40   The p value of the release profiles from spray dried diclofenac sodium with Eudragit $^®$RD 100, Eudragit $^®$RL30D and NaCMC at the same ratio of 1:2.33.

Pair sample Test

	Paired Differences							Sig (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95%Confidence Interval of the Difference		t	df	
				Lower	Upper	t	df	p values*
Pair1 F7-F8	-0.6020	2.5354	0.8018	-2.4157	1.2117	-0.751	9	0.472 NS**

* If ∝ = 0.05, then p value is 0.472, ** NS = Non – significance

Table 41 The p value of the release profiles of spray dried diclofenac sodium with Eudragit $^{®}$RD 100, Eudragit $^{®}$RL30D and NaCMC at the same ratio of 1:1.5.

Pair sample Test

	Paired Differences							Sig (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95%Confidence Interval of the Difference				
				Lower	Upper	t	df	p values*
Pair1 F9-F10	- 1.2150	3.1318	0.9904	-3.4553	1.0253	-1.227	9	0.251 NS**

* If $\propto$ = 0.05, then p value is 0.251, ** NS = Non – significance

Table 42 The p value of the release profiles of spray dried diclofenac sodium with Eudragit $^{®}$RD100, Eudragit $^{®}$RL30D and NaCMC and the aid of Aerosil$^{®}$ 200 15% w/w at he same ratio of 1:1.5.

Pair sample Test

	Paired Differences							Sig (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95%Confidence Interval of the Difference				
				Lower	Upper	t	df	p values*
Pair1 F11-F12	1.2770	2.7047	0.8553	-0.6578	3.2118	1.493	9	0.170 NS**

* If $\propto$ = 0.05, then p value is 0.170, ** NS = Non – significance

Table 43   The p value of the release profiles of spray dried diclofenac sodium with Eudragit $^®$RL30D, Eudragit $^®$RL30D and NaCMC at the same ratio of 1:1.5.

Pair sample Test

	Paired Differences							Sig (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95%Confidence Interval of the Difference		t	df	
				Lower	Upper	t	df	p values*
Pair1 F10-F16	-3.2050	3.8215	1.2085	-5.9388	-0.4712	-2.652	9	0.026 S**

*   If $\propto$ = 0.05, then p value is 0.026,   **   S = Significance

Table44   The p values of the release profiles from spray dried diclofenac sodium with Eudragit $^®$RD 100 (1:1.5) at various process variables and Voltaren $^®$SR tablet.

Pairwise Comparision
Dependent Variable: Release

(1)group	(2)group	Mean Difference (1-2)	Std. Error	Sig.*ᵃ	95% Confidence Interval for Difference .ᵃ	
					Lower Bound	Upper Bound
Voltaren	F13	-0.928	0.843	0.281(NS)**	-2.658	0.802
	F14	-2.143	0.843	0.017 (S)***	-3.873	-0.413
	F15	-3.582	0.843	0.000 (S)	-5.312	-1.852
F13	Voltaren	0.928	0.843	0.281 (NS)	-0.802	2.658
	F14	-1.215	0.843	0.161 (S)	-2.945	0.515
	F15	-2.654	0.843	0.004 (S)	-4.384	-0.924
F14	Voltaren	2.143	0.843	0.017 (S)	0.413	3.873
	F13	1.1215	0.843	0.161 (NS)	-0.515	2.945
	F15	-1.439	0.843	0.099 (NS)	-3.169	0.291
F15	Voltaren	3.582	0.843	0.000 (S)	1.852	5.312
	F13	2.654	0.843	0.004 (S)	0.924	4.384
	F14	1.439	0.843	0.099 (NS)	-0.291	3.169

Based on estimated marginal means
*The mean difference is significant at the 0.05 level
**NS = Non significance
*** S= Significance
a.   Adjustment for multiple comparisions:Least Significant Difference (equivalent to no adjustments)

Table 45   The p values of the release profiles from these three formulations

(Formulation 13-15) and Voltaren $^®$ SR tablets.

Test of Between-Subjects Effects
Dependent Variable: Release

Source	Type III Sum of Squares	df	Mean Square	F	Sig (p value)*	Noncent. Parameter	Observed Power^a
Group	72.188	3	24.063	6.768	0.002 (S)**	20.303	0.954

a. Computed using alpha =0.05
* If $\propto$ = 0.05, then p value is 0.002, ** S = Significance

Table 46   The p value of the release profiles from spray dried diclofenac sodium

with Eudragit $^®$RD 100 (RD 1:1.5) and Aerosil$^®$ 200 30% w/w of

various feed rate, inlet air temperature 160°C at 24th hour.

Independent Sample Test

	t-test for Equality of Means			
	t	df	P value*	Mean Difference
F14-F15	-12.228	4	0.000** (S)	-7.9300

* If $\propto$ = 0.05, then p value is 0.002, ** S = Significance

Vitae

Miss Kulavi Pamaranon was born on January 25, 1975. She received her Bechelor of Science in Pharmacy degree in 1996 from the faculty of Pharmaceutical Sciences, Chulalongkorn University, Bangkok, Thailand.