

References

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APPENDIX

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

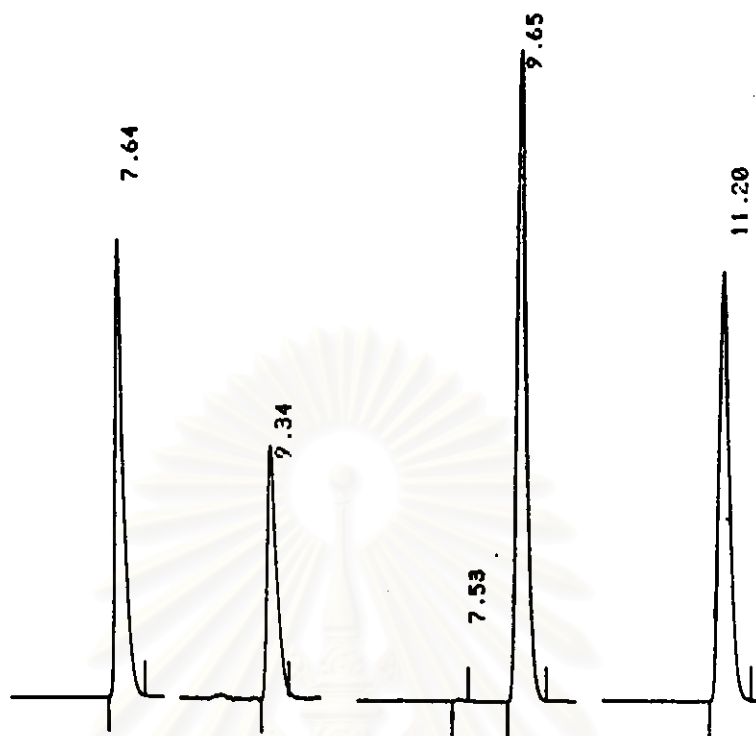


Figure 87 : HPLC chromatogram and retention time of Indomethacin, Ibuprofen, Phenylbutazone, and Mefenamic acid in acetonitrile and pH 4.2 acetate buffer (55:45) at 240 nm, atten 64

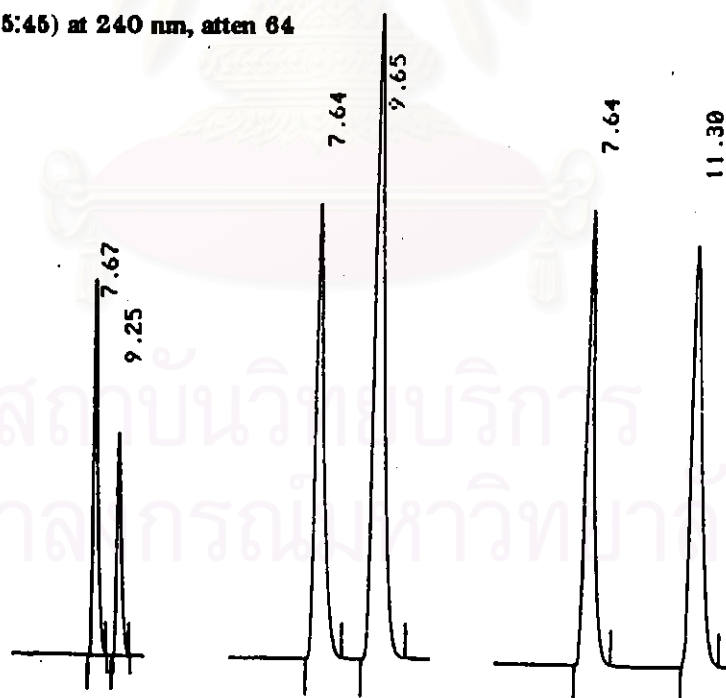


Figure 88 : HPLC chromatogram of Indomethacin+Ibuprofen, Indomethacin+Phenylbutazone, and Indomethacin+Mefenamic acid in acetonitrile and pH 4.2 acetate buffer (55:45) at 240 nm : optimum internal standard = Ibuprofen

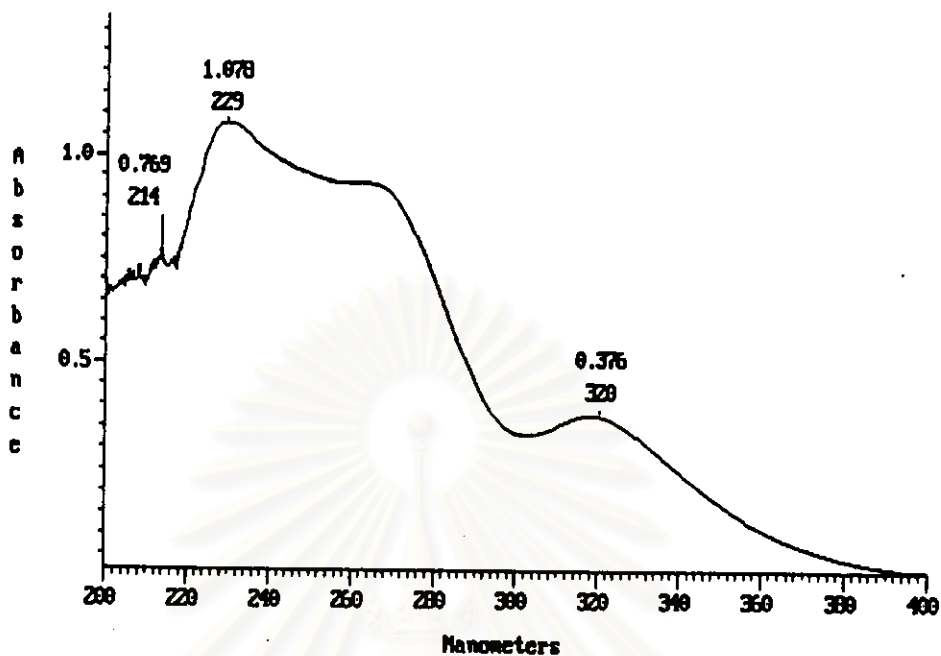


Figure 89 : Ultraviolet spectrum of indomethacin in acetonitrile and pH 4.2 acetate buffer (55:45), $\lambda_{\text{max}} = 229 \text{ nm}$

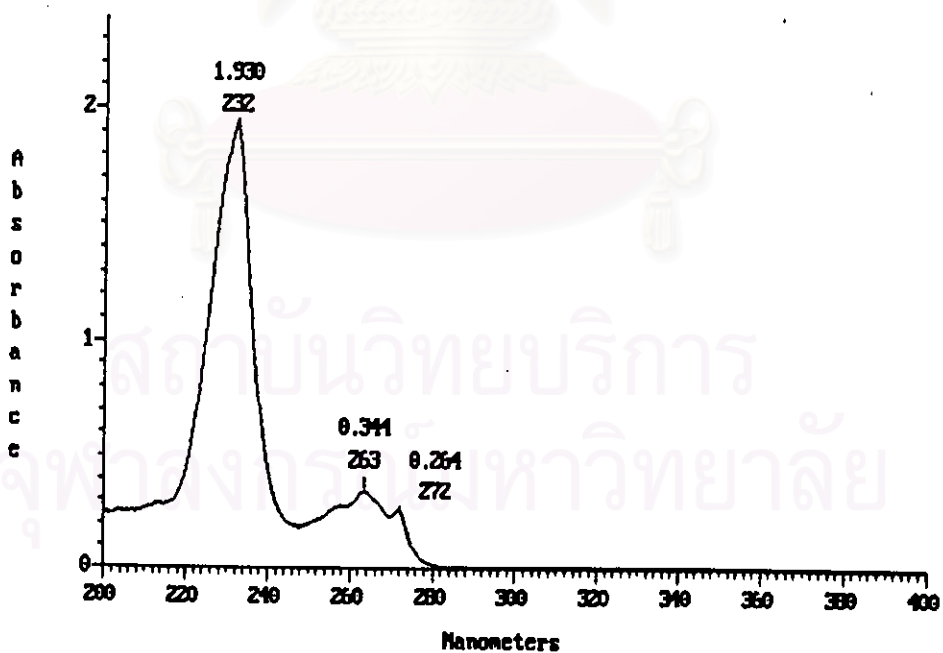


Figure 90 : Ultraviolet spectrum of ibuprofen in acetonitrile and pH 4.2 acetate buffer (55:45)
 $\lambda_{\text{max}} = 232 \text{ nm}$

Table 17 : Area ratio of indomethacin in acetonitrile and pH 4.2 acetate buffer (55:45) at 230 nm

Concentration (mcg/ml)	Area ratio
0.00	0.000
5.00	0.403
10.00	0.776
15.00	1.167
20.00	1.558
25.00	1.934

Correlation coefficient = 0.999962

$$Y = 0.0773X - 0.0069$$

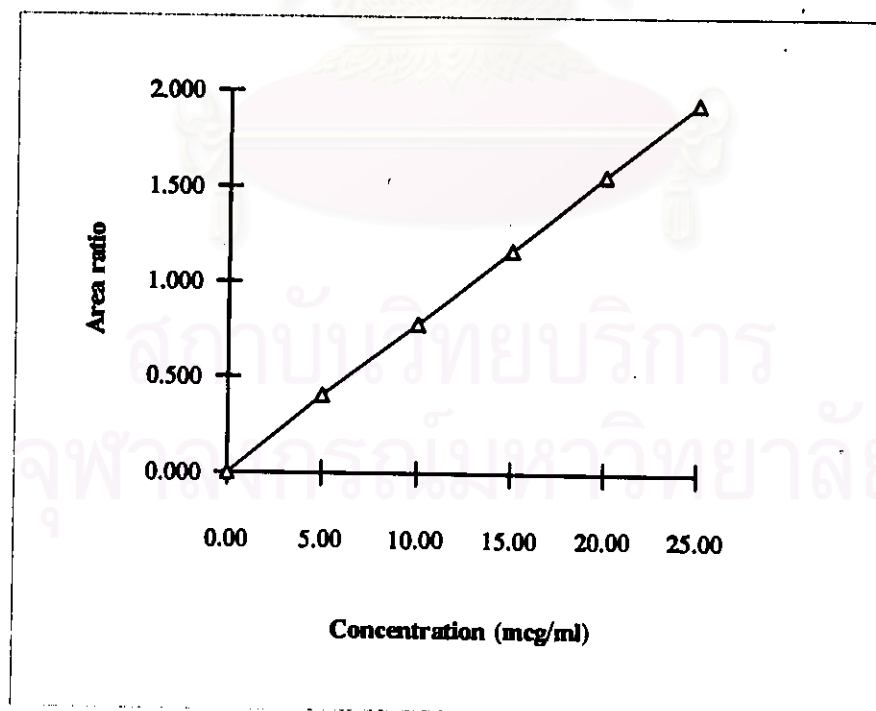


Figure 91 : Calibration curve of indomethacin in acetonitrile and pH 4.2 acetate buffer (55:45) at 230 nm

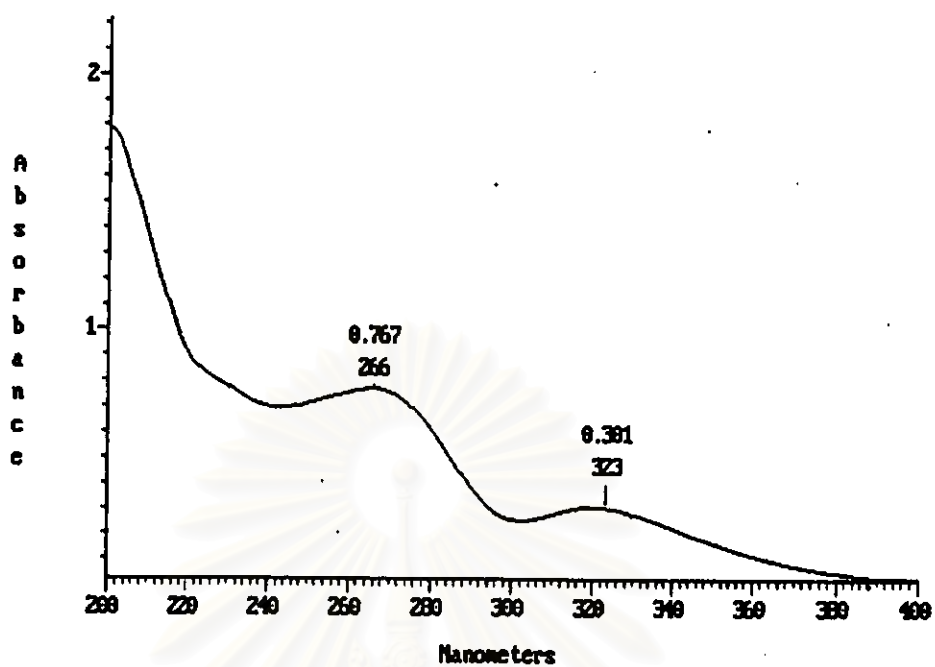


Figure 92 : Ultraviolet spectrum of indomethacin in pH 6.2 phosphate buffer, $\lambda_{\text{max}} = 323 \text{ nm}$

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Table 18 : Absorbance of indomethacin in the pH 6.2 phosphate buffer at 323 nm

Concentration (mcg/ml)	Absorbance
0.00	0.000
15.00	0.298
20.00	0.396
25.00	0.492
30.00	0.592
40.00	0.794

Correlation coefficient = 0.999976

$$Y = 0.0198X - 0.0004$$

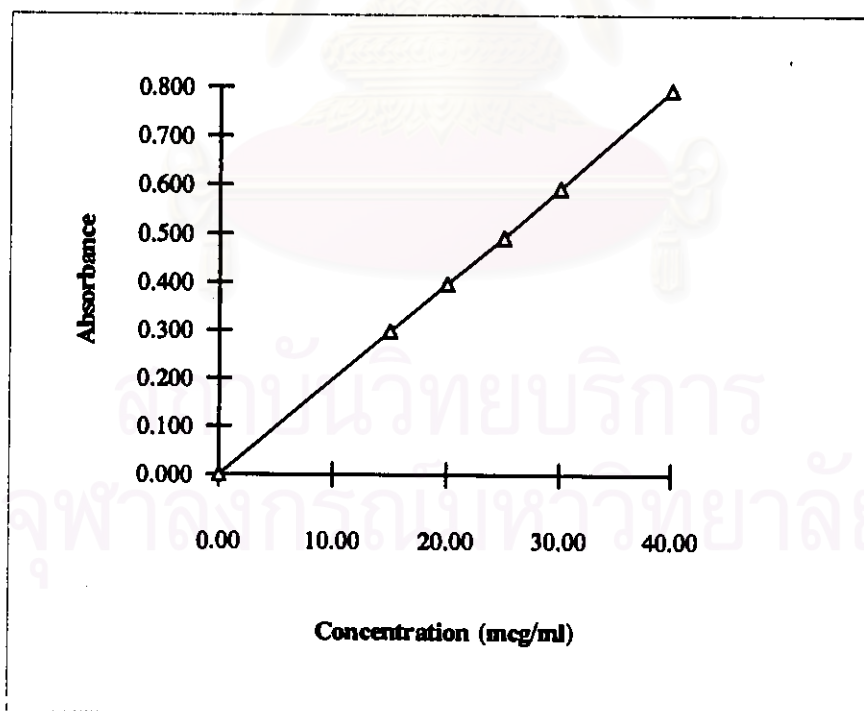
**Figure 93 : Calibration curve of indomethacin in the pH 6.2 phosphate buffer at 323 nm**

Table 19 : Number of size distribution, %frequency, cumulative %frequency undersize of Indomethacin microcapsules prepared from various preparations

Size range (micron)	Rx 1			Rx 2			Rx 3		
	number	%F	CUM%F	number	%F	CUM%F	number	%F	CUM%F
40-82	15	4.23	4.23	171	48.44	48.44	20	5.67	5.67
82-124	120	33.80	38.03	124	35.13	83.57	78	22.10	27.76
124-166	167	47.04	85.07	48	13.60	97.17	171	48.44	76.20
166-208	49	13.80	98.87	5	1.42	98.58	58	16.43	92.63
208-250	4	1.13	100	5	1.42	100	21	5.95	98.58
250-292	0	0		0	0		5	1.42	100
292-334	0	0		0	0		0	0	
334-376	0	0		0	0		0	0	
376-418	0	0		0	0		0	0	
418-460	0	0		0	0		0	0	
Total	355	100		353	100		353	100	

Size range (micron)	Rx 4			Rx 5			Rx 6		
	number	%F	CUM%F	number	%F	CUM%F	number	%F	CUM%F
40-82	108	30.59	30.59	66	18.33	18.33	111	30.92	30.92
82-124	171	48.44	79.04	191	53.06	71.39	158	44.01	74.93
124-166	71	20.11	99.15	85	23.61	95.00	78	21.73	96.66
166-208	3	0.85	100	18	5.00	100	11	3.06	99.72
208-250	0	0		0	0		1	0.28	100
250-292	0	0		0	0		0	0	
292-334	0	0		0	0		0	0	
334-376	0	0		0	0		0	0	
376-418	0	0		0	0		0	0	
418-460	0	0		0	0		0	0	
Total	353	100		360	100		359	100	

Size range (micron)	Rx 7			Rx 8a			Rx 9		
	number	%F	CUM%F	number	%F	CUM%F	number	%F	CUM%F
40-82	105	30.43	30.43	198	56.09	56.09	87	24.72	24.72
82-124	144	41.74	72.17	116	32.86	88.95	154	43.75	68.47
124-166	74	21.45	93.62	33	9.35	98.30	93	26.42	94.89
166-208	22	6.38	100	6	1.70	100	13	3.69	98.58
208-250	0	0		0	0		5	1.42	100
250-292	0	0		0	0		0	0	
292-334	0	0		0	0		0	0	
334-376	0	0		0	0		0	0	
376-418	0	0		0	0		0	0	
418-460	0	0		0	0		0	0	
Total	345	100		353	100		352	100	

Rx = Preparation, %F = %Frequency, cum% = Cumulative % frequency undersize

Table 19 : Number of size distribution, %frequency, cumulative %frequency undersize of indomethacin microcapsules prepared from various preparations (continue)

Size range (micron)	Rx 10			Rx 11			Rx 12		
	number	%F	CUM%F	number	%F	CUM%F	number	%F	CUM%F
40-82	82	23.50	23.50	3	0.82	0.82	0	0.00	0.00
82-124	178	51.00	74.50	52	14.21	15.03	0	0.00	0.00
124-166	77	22.06	96.56	120	32.79	47.81	23	6.53	6.53
166-208	9	2.58	99.14	84	22.95	70.77	61	17.33	23.86
208-250	3	0.86	100	53	14.48	85.25	61	17.33	41.19
250-292	0	0		36	9.84	95.08	90	25.57	66.76
292-334	0	0		18	4.92	100	54	15.34	82.10
334-376	0	0		0	0		42	11.93	94.03
376-418	0	0		0	0		19	5.40	99.43
418-460	0	0		0	0		2	0.57	100
Total	349	100		366	100		352	100	

Size range (micron)	Rx 13			Rx 14			Rx 15		
	number	%F	CUM%F	number	%F	CUM%F	number	%F	CUM%F
40-82	0	0.00	0.00	3	0.85	0.85	0	0.00	0.00
82-124	54	14.59	14.59	39	11.05	11.90	5	1.34	1.34
124-166	130	35.14	49.73	117	33.14	45.04	40	10.70	12.03
166-208	101	27.30	77.03	71	20.11	65.16	63	16.84	28.88
208-250	45	12.16	89.19	43	12.18	77.34	80	21.39	50.27
250-292	33	8.92	98.11	44	12.46	89.80	50	13.37	63.64
292-334	7	1.89	100	19	5.38	95.18	71	18.98	82.62
334-376	0	0		9	2.55	97.73	34	9.09	91.71
376-418	0	0		5	1.42	99.15	24	6.42	98.13
418-460	0	0		3	0.85	100	7	1.87	100
Total	370	100		353	100		374	100	

Size range (micron)	Rx 16			Rx 17			Rx 18		
	number	%F	CUM%F	number	%F	CUM%F	number	%F	CUM%F
40-82	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
82-124	0	0.00	0.00	2	0.56	0.56	14	4.08	4.08
124-166	5	1.42	1.42	39	10.83	11.39	122	35.57	39.65
166-208	25	7.12	8.55	57	15.83	27.22	99	28.86	68.51
208-250	33	9.40	17.95	52	14.44	41.67	56	16.33	84.84
250-292	61	17.38	35.33	72	20.00	61.67	28	8.16	93.00
292-334	61	17.38	52.71	51	14.17	75.83	13	3.79	96.79
334-376	73	20.80	73.50	39	10.83	86.67	9	2.62	99.42
376-418	59	16.81	90.31	41	11.39	98.06	2	0.58	100
418-460	34	9.69	100	7	1.94	100	0	0	
Total	351	100		360	100		343	100	

Rx = Preparation, %F = %Frequency, cum% = Cumulative % frequency undersize

Table 19 : Number of size distribution, %frequency, cumulative %frequency undersize of indomethacin microcapsule prepared from various preparations (continue)

Size range (micron)	Rx 19			Rx 20			Rx 21		
	number	%F	CUM%F	number	%F	CUM%F	number	%F	CUM%F
40-82	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
82-124	0	0.00	0.00	18	4.96	4.96	2	0.56	0.56
124-166	17	4.64	4.64	163	44.90	49.86	23	6.42	6.98
166-208	62	16.94	21.58	86	23.69	73.55	60	16.76	23.74
208-250	69	18.85	40.44	46	12.67	86.23	55	15.36	39.11
250-292	66	18.03	58.47	43	11.85	98.07	92	25.70	64.80
292-334	85	23.22	81.69	2	0.55	98.62	80	22.35	87.15
334-376	46	12.57	94.26	5	1.38	100	32	8.94	96.09
376-418	21	5.74	100	0	0		13	3.63	99.72
418-460	0	0		0	0		1	0.28	100
Total	366	100		363	100		358	100	

Size range (micron)	Rx 22			Rx 23			Rx 24c		
	number	%F	CUM%F	number	%F	CUM%F	number	%F	CUM%F
40-82	0	0.00	0.00	0	0.00	0.00	27	7.61	7.61
82-124	3	0.81	0.81	0	0.00	0.00	130	36.62	44.23
124-166	49	13.28	14.09	70	20.11	20.11	156	43.94	88.17
166-208	77	20.87	34.96	62	17.82	37.93	36	10.14	98.31
208-250	81	21.95	56.91	47	13.51	51.44	5	1.41	99.72
250-292	72	19.51	76.42	88	25.29	76.72	1	0.28	100
292-334	32	8.67	85.09	50	14.37	91.09	0	0	
334-376	30	8.13	93.22	27	7.76	98.85	0	0	
376-418	21	5.69	98.92	4	1.15	100	0	0	
418-460	4	1.08	100	0	0		0	0	
Total	369	100		348	100		355	100	

Size range (micron)	Rx 24d			Rx 25d			Rx 26		
	number	%F	CUM%F	number	%F	CUM%F	number	%F	CUM%F
40-82	18	5.10	5.10	8	2.27	2.27	0	0.00	0.00
82-124	94	26.63	31.73	65	18.41	20.68	2	0.56	0.56
124-166	156	44.19	75.92	163	46.18	66.86	75	20.83	21.39
166-208	66	18.70	94.62	79	22.38	89.24	105	29.17	50.56
208-250	15	4.25	98.87	29	8.22	97.45	48	13.33	63.89
250-292	4	1.13	100	6	1.70	99.15	59	16.39	80.28
292-334	0	0		3	0.85	100	43	11.94	92.22
334-376	0	0		0	0		17	4.72	96.94
376-418	0	0		0	0		11	3.06	100
418-460	0	0		0	0		0	0	
Total	353	100		353	100		360	100	

Rx = Preparation, %F = %Frequency, cum% = Cumulative % frequency undersize

Table 19 : Number of size distribution, %frequency, cumulative %frequency undersize of Indomethacin microcapsule prepared from various preparations (continue)

Size range (micron)	Rx 27			Rx 28			Rx 30		
	number	%F	CUM%F	number	%F	CUM%F	number	%F	CUM%F
40-82	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
82-124	4	1.08	1.08	0	0.00	0.00	10	2.77	2.77
124-166	65	17.52	18.60	31	8.56	8.56	101	27.98	30.75
166-208	79	21.29	39.89	59	16.30	24.86	111	30.75	61.50
208-250	67	18.06	57.95	65	17.96	42.82	45	12.47	73.96
250-292	82	22.10	80.05	86	23.76	66.57	42	11.63	85.60
292-334	40	10.78	90.84	58	16.02	82.60	22	6.09	91.69
334-376	20	5.39	96.23	35	9.67	92.27	14	3.88	95.57
376-418	12	3.23	99.46	24	6.63	98.90	14	3.88	99.45
418-460	2	0.54	100	4	1.10	100	2	0.55	100
Total	371	100		362	100		361	100	

Size range (micron)	Rx 32			Rx 33			Rx 34		
	number	%F	CUM%F	number	%F	CUM%F	number	%F	CUM%F
40-82	0	0.00	0.00	9	2.53	2.53	0	0.00	0.00
82-124	13	3.78	3.78	99	27.81	30.34	7	1.91	1.91
124-166	83	24.13	27.91	120	33.71	64.04	76	20.71	22.62
166-208	86	25.00	52.91	74	20.79	84.83	54	14.71	37.33
208-250	70	20.35	73.26	26	7.30	92.13	66	17.98	55.31
250-292	51	14.83	88.08	12	3.37	95.51	69	18.80	74.11
292-334	27	7.85	95.93	9	2.53	98.03	47	12.81	86.92
334-376	9	2.62	98.55	4	1.12	99.16	31	8.45	95.37
376-418	3	0.87	99.42	2	0.56	99.72	10	2.72	98.09
418-460	2	0.58	100	1	0.28	100	7	1.91	100
Total	344	100		356	100		367	100	

Size range (micron)	Rx 35			Rx 36			Rx 38c		
	number	%F	CUM%F	number	%F	CUM%F	number	%F	CUM%F
40-82	0	0.00	0.00	0	0.00	0.00	11	3.14	3.14
82-124	13	3.61	3.61	20	5.62	5.62	82	23.43	26.57
124-166	84	23.33	26.94	88	24.72	30.34	152	43.43	70.00
166-208	66	18.33	45.28	97	27.25	57.58	75	21.43	91.43
208-250	60	16.67	61.94	76	21.35	78.93	25	7.14	98.57
250-292	52	14.44	76.39	42	11.80	90.73	5	1.43	100
292-334	35	9.72	86.11	15	4.21	94.94	0	0	
334-376	28	7.78	93.89	12	3.37	98.31	0	0	
376-418	15	4.17	98.06	3	0.84	99.16	0	0	
418-460	7	1.94	100	3	0.84	100	0	0	
Total	360	100		356	100		350	100	

Rx = Preparation, %F = %Frequency, cum% = Cumulative % frequency undersize

Table 19 : Number of size distribution, %frequency, cumulative %frequency undersize of indomethacin microcapsules prepared from various preparations (continue)

Size range (micron)	Rx 38d			Rx 39			Rx 40c		
	number	%F	CUM%F	number	%F	CUM%F	number	%F	CUM%F
40-82	15	4.25	4.25	5	1.43	1.43	1	0.28	0.28
82-124	116	32.86	37.11	68	19.43	20.86	36	10.14	10.42
124-166	166	47.03	84.14	149	42.57	63.43	121	34.08	44.51
166-208	48	13.60	97.73	94	26.86	90.29	132	37.18	81.69
208-250	7	1.98	99.72	27	7.71	98.00	59	16.62	98.31
250-292	1	0.28	100	7	2.00	100.0	6	1.69	100
292-334	0	0		0	0		0	0	
334-376	0	0		0	0		0	0	
376-418	0	0		0	0		0	0	
418-460	0	0		0	0		0	0	
Total	353	100		350	100		355	100	

Size range (micron)	Rx 40d			Rx 41			Rx 42c		
	number	%F	CUM%F	number	%F	CUM%F	number	%F	CUM%F
40-82	18	5.10	5.10	38	10.76	10.76	5	1.40	1.40
82-124	102	28.90	33.99	98	27.76	38.53	72	20.22	21.63
124-166	143	40.51	74.50	119	33.71	72.24	167	46.91	68.54
166-208	59	16.71	91.22	68	19.26	91.50	85	23.88	92.42
208-250	20	5.67	96.88	30	8.50	100	24	6.74	99.16
250-292	11	3.12	100	0	0		3	0.84	100
292-334	0	0		0	0		0	0	
334-376	0	0		0	0		0	0	
376-418	0	0		0	0		0	0	
418-460	0	0		0	0		0	0	
Total	353	100		353	100		356	100	

Rx = Preparation, %F = %Frequency, cum% = Cumulative % frequency undersize

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จุฬาลงกรณ์มหาวิทยาลัย

Table 10 : Number of size distribution, %frequency, cumulative %frequency undersize of indomethacin microcapsules prepared from various preparations (continue)

Size range (micron)	Rx 2								
	batch I			batch II			batch III		
	number	%F	CUM%F	number	%F	CUM%F	number	%F	CUM%F
40-82	171	48.44	48.44	152	42.70	42.70	165	45.45	45.45
82-124	124	35.13	83.57	125	35.11	77.81	130	35.81	81.27
124-166	48	13.60	97.17	72	20.22	98.03	60	16.53	97.80
166-208	5	1.42	98.58	5	1.40	99.44	7	1.93	99.72
208-250	5	1.42	100	2	0.56	100	1	0.28	100
250-292	0	0		0	0		0	0	
292-334	0	0		0	0		0	0	
334-376	0	0		0	0		0	0	
376-418	0	0		0	0		0	0	
418-460	0	0		0	0		0	0	
Total	353	100		356	100		363	100	

Size range (micron)	Rx 17								
	batch I			batch II			batch III		
	number	%F	CUM%F	number	%F	CUM%F	number	%F	CUM%F
40-82	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
82-124	2	0.56	0.56	3	0.82	0.82	9	2.54	2.54
124-166	39	10.83	11.39	71	19.45	20.27	74	20.85	23.38
166-208	57	15.83	27.22	64	17.53	37.81	65	18.31	41.69
208-250	52	14.44	41.67	64	17.53	55.34	54	15.21	56.90
250-292	72	20.00	61.67	67	18.36	73.70	65	18.31	75.21
292-334	51	14.17	75.83	40	10.96	84.66	41	11.55	86.76
334-376	39	10.83	86.67	27	7.40	92.05	23	6.48	93.24
376-418	41	11.39	98.06	22	6.03	98.08	20	5.63	98.87
418-460	7	1.94	100	7	1.92	100	4	1.13	100
Total	360	100		365	100		355	100	

Rx = Preparation, %F = %Frequency, cum% = Cumulative % frequency undersize

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Table 20 : Percentage amount of indomethacin release from microcapsule prepared from various preparations

Rx	Time (hr)	Cum %drug release			Mean	SD	Rx	Time (hr)	Cum %drug release			Mean	SD
		A	B	C					A	B	C		
1	0	0.00	0.00	0.00	0.00	0.00	2batch3	0	0.00	0.00	0.00	0.00	0.00
	1	25.05	25.38	24.10	24.84	0.66		1	24.81	25.06	25.04	24.97	0.14
	2	34.33	32.73	25.63	30.90	4.63		2	36.40	37.05	36.98	36.81	0.36
	3	40.55	42.94	32.16	38.55	5.66		3	44.20	44.72	44.70	44.54	0.29
	4	46.47	50.33	37.09	44.63	6.81		4	50.02	50.30	50.22	50.18	0.14
	6	54.19	57.26	43.37	51.61	7.30		6	57.50	57.40	57.60	57.50	0.10
	9	63.06	61.62	52.88	59.19	5.51		9	65.01	65.37	65.40	65.26	0.22
	12	65.89	64.70	56.92	62.50	4.87		12	74.89	74.01	74.69	74.53	0.46
	18	71.34	68.96	61.58	67.30	5.09		18	81.57	81.15	80.04	80.92	0.79
24	76.85	71.63	74.60	74.36	2.62	24	85.59	85.34	85.48	85.47	0.13		
2	0	0.00	0.00	0.00	0.00	0.00	3	0	0.00	0.00	0.00	0.00	0.00
	1	24.00	23.50	23.81	23.77	0.25		1	13.19	15.14	14.48	14.27	0.99
	2	35.90	35.00	34.28	35.06	0.81		2	19.35	21.06	20.52	20.31	0.87
	3	42.50	40.98	40.90	41.46	0.90		3	24.39	26.73	25.86	25.66	1.18
	4	49.22	47.30	46.70	47.74	1.32		4	28.35	31.20	30.12	29.89	1.44
	6	58.00	56.20	55.81	56.67	1.17		6	35.00	37.45	36.51	36.32	1.24
	9	66.97	65.00	64.80	65.59	1.20		9	42.65	41.03	42.23	41.97	0.84
	12	74.70	71.90	72.10	72.90	1.56		12	49.30	49.35	49.43	49.36	0.07
	18	79.74	78.04	77.84	78.54	1.04		18	53.30	55.00	54.39	54.23	0.86
24	83.50	82.13	81.06	82.23	1.22	24	57.33	60.70	59.30	59.11	1.69		
2batch2	0	0.00	0.00	0.00	0.00	0.00	4	0	0.00	0.00	0.00	0.00	0.00
	1	25.20	23.50	25.70	24.8	1.15		1	24.12	23.88	24.21	24.07	0.17
	2	35.23	35.01	36.02	35.42	0.53		2	35.01	34.15	34.67	34.61	0.43
	3	42.58	42.34	43.06	42.66	0.37		3	41.20	40.57	40.90	40.89	0.32
	4	48.79	48.50	49.38	48.89	0.45		4	47.21	46.23	46.54	46.66	0.50
	6	56.65	56.58	57.80	57.01	0.69		6	56.33	54.68	55.31	55.44	0.83
	9	65.23	64.87	65.80	65.30	0.47		9	63.45	62.18	63.19	62.94	0.67
	12	74.10	73.02	74.13	73.75	0.63		12	74.55	72.78	74.01	73.78	0.91
	18	80.20	79.56	80.15	79.97	0.36		18	78.10	76.33	78.22	77.55	1.06
24	85.45	83.02	85.33	84.60	1.37	24	81.70	79.33	82.30	81.11	1.57		

Table 20 : Percentage amount of indomethacin release from microcapsule prepared from various preparations (continue)

Rx	Time (hr)	Cum %drug release			Mean	SD	Rx	Time (hr)	Cum %drug release			Mean	SD
		A	B	C					A	B	C		
5	0	0.00	0.00	0.00	0.00	0.00	8a	0	0.00	0.00	0.00	0.00	0.00
	1	13.20	14.01	14.16	13.79	0.52		1	18.70	21.40	19.96	20.02	1.35
	2	19.30	20.53	20.32	20.05	0.66		2	25.10	26.30	25.88	25.76	0.61
	3	25.00	25.87	25.30	25.39	0.44		3	30.84	31.72	31.58	31.38	0.47
	4	29.70	30.20	30.16	30.02	0.28		4	35.11	36.32	36.02	35.82	0.63
	6	35.49	36.15	35.76	35.80	0.33		6	41.49	43.70	42.91	42.70	1.12
	9	43.60	43.96	43.90	43.82	0.19		9	48.49	54.10	51.34	51.31	2.81
	12	47.40	47.90	47.83	47.71	0.27		12	53.78	59.69	57.05	56.84	2.96
	18	54.00	55.47	54.96	54.81	0.75		18	59.4	65.54	62.77	62.57	3.07
24	61.58	63.00	62.56	62.38	0.73	24	65.00	71.50	68.49	68.33	3.25		
6	0	0.00	0.00	0.00	0.00	0.00	8b	0	0.00	0.00	0.00	0.00	0.00
	1	27.56	32.11	30.00	29.89	2.28		1	17.61	16.45	17.69	17.25	0.69
	2	34.14	38.86	37.76	36.92	2.47		2	22.80	22.10	22.97	22.62	0.46
	3	40.41	42.99	40.20	41.20	1.55		3	27.07	25.71	27.35	26.71	0.88
	4	44.99	46.68	44.35	45.34	1.20		4	30.20	28.48	30.53	29.74	1.10
	6	50.94	50.53	49.25	50.24	0.88		6	35.80	32.87	36.06	34.91	1.77
	9	54.08	54.92	55.55	54.85	0.74		9	43.60	39.84	44.15	42.53	2.35
	12	60.02	58.69	60.42	59.71	0.91		12	48.67	45.96	49.07	47.90	1.69
	18	67.35	65.84	68.11	67.10	1.16		18	55.33	52.91	55.71	54.65	1.52
24	74.72	73.80	75.76	74.76	0.98	24	70.77	62.81	64.65	66.08	4.17		
7	0	0.00	0.00	0.00	0.00	0.00	9	0	0.00	0.00	0.00	0.00	0.00
	1	7.00	9.12	8.39	8.17	1.08		1	18.25	18.29	18.24	18.26	0.03
	2	10.44	13.70	12.49	12.21	1.65		2	25.00	24.80	24.96	24.92	0.11
	3	14.03	17.80	16.14	15.99	1.89		3	34.00	33.96	34.28	34.08	0.17
	4	17.44	21.30	19.58	19.44	1.93		4	42.35	42.24	42.34	42.31	0.06
	6	21.15	26.53	24.59	24.09	2.72		6	49.87	51.00	50.33	50.40	0.57
	9	27.24	35.04	30.99	31.09	3.90		9	56.09	57.40	56.82	56.77	0.66
	12	30.54	38.54	34.09	34.39	4.01		12	61.32	61.30	61.40	61.34	0.05
	18	35.25	45.15	39.99	40.13	4.95		18	68.00	67.32	67.87	67.73	0.36
24	40.50	51.40	46.19	46.03	5.45	24	71.50	71.60	71.58	71.56	0.05		

Table 20 : Percentage amount of indomethacin release from microcapsule prepared from various preparations (continue)

Rx	Time (hr)	Cum %drug release			Mean	SD	Rx	Time (hr)	Cum %drug release			Mean	SD
		A	B	C					A	B	C		
10	0	0.00	0.00	0.00	0.00	0.00	13	0	0.00	0.00	0.00	0.00	0.00
	1	12.87	13.02	12.66	12.85	0.18		1	10.6	10.82	10.86	10.76	0.14
	2	17.08	17.81	17.76	17.55	0.41		2	15.22	15.40	15.46	15.36	0.12
	3	20.57	21.11	20.69	20.79	0.28		3	19.50	19.77	19.80	19.69	0.17
	4	24.25	24.9	24.29	24.48	0.36		4	22.86	22.98	23.01	22.95	0.08
	6	28.61	29.54	29.39	29.18	0.50		6	28.56	28.71	28.80	28.69	0.12
	9	34.07	34.84	34.32	34.41	0.39		9	36.40	36.62	36.63	36.55	0.13
	12	37.50	38.35	38.09	37.98	0.44		12	44.32	44.44	44.53	44.43	0.11
	18	43.48	47.02	45.85	45.45	1.80		18	50.11	50.26	50.38	50.25	0.14
24	47.8	50.63	50.73	49.72	1.66	24	56.01	56.26	56.30	56.19	0.16		
11	0	0.00	0.00	0.00	0.00	0.00	14	0	0.00	0.00	0.00	0.00	0.00
	1	9.80	9.64	9.39	9.61	0.21		1	17.87	18.05	18.17	18.03	0.15
	2	12.91	12.97	12.40	12.76	0.31		2	27.83	27.26	27.83	27.64	0.33
	3	15.57	15.80	15.43	15.60	0.19		3	34.62	33.70	33.59	33.97	0.57
	4	19.75	19.98	19.70	19.81	0.15		4	39.35	38.29	39.06	38.90	0.55
	6	23.46	23.65	23.33	23.48	0.16		6	47.48	46.54	47.28	47.10	0.50
	9	27.72	27.70	27.35	27.59	0.21		9	57.62	56.02	55.62	56.42	1.06
	12	34.96	34.82	34.44	34.74	0.27		12	65.50	65.25	65.99	65.58	0.38
	18	40.35	40.21	39.83	40.13	0.27		18	78.57	76.24	77.72	77.51	1.18
24	45.05	44.92	44.73	44.90	0.16	24	86.05	83.80	85.27	85.04	1.14		
12	0	0.00	0.00	0.00	0.00	0.00	15	0	0.00	0.00	0.00	0.00	0.00
	1	27.58	28.50	27.89	27.99	0.47		1	3.72	4.01	3.79	3.84	0.15
	2	36.00	36.25	36.08	36.11	0.13		2	4.07	4.09	4.09	4.08	0.01
	3	39.84	40.20	41.10	40.38	0.65		3	5.19	5.00	5.15	5.11	0.10
	4	43.13	44.50	45.00	44.21	0.97		4	6.27	6.10	6.12	6.16	0.09
	6	47.85	48.50	49.09	48.48	0.62		6	8.02	7.81	7.91	7.91	0.11
	9	52.70	53.70	53.80	53.40	0.61		9	13.00	12.29	12.68	12.66	0.36
	12	57.35	57.90	58.06	57.77	0.37		12	16.40	15.65	16.11	16.05	0.38
	18	60.50	60.61	60.75	60.62	0.13		18	22.84	22.06	22.55	22.48	0.39
24	63.10	63.35	63.90	63.45	0.41	24	29.32	28.8	29.17	29.10	0.27		

Table 20 : Percentage amount of indomethacin release from microcapsule prepared from various preparations (continue)

Rx	Time (hr)	Cum %drug release			Mean	SD	Rx	Time (hr)	Cum %drug release			Mean	SD
		A	B	C					A	B	C		
16	0.00	0.00	0.00	0.00	0.00	0.00	17b3	0	0.00	0.00	0.00	0.00	0.00
	1	13.6	19.61	21.12	18.11	3.98		1	17.70	16.50	17.34	17.18	0.62
	2	23.4	30.05	29.74	27.73	3.75		2	27.70	26.50	27.37	27.19	0.62
	3	30.46	39.75	36.62	35.61	4.73		3	34.10	33.05	33.83	33.66	0.55
	4	35.61	43.21	40.91	39.91	3.90		4	39.15	38.95	39.23	39.11	0.14
	6	43.13	50.81	49.97	47.97	4.21		6	47.30	49.98	48.88	48.72	1.35
	9	50.00	56.53	56.28	54.27	3.70		9	58.36	59.80	59.35	59.17	0.74
	12	56.63	63.85	62.28	60.92	3.80		12	65.50	67.28	66.51	66.43	0.89
	18	62.17	69.25	68.50	66.64	3.89		18	73.60	72.07	73.09	72.92	0.78
24	69.75	74.50	74.60	72.95	2.77	24	81.60	81.55	81.65	81.60	0.05		
17	0	0.00	0.00	0.00	0.00	0.00	18	0	0.00	0.00	0.00	0.00	0.00
	1	20.50	20.00	20.40	20.30	0.26		1	6.58	6.80	6.81	6.73	0.13
	2	31.00	30.54	30.53	30.69	0.27		2	8.95	9.07	9.10	9.04	0.08
	3	36.30	36.23	36.58	36.37	0.19		3	10.80	11.00	11.02	10.94	0.12
	4	42.50	42.4	42.42	42.44	0.05		4	12.55	12.76	12.73	12.68	0.11
	6	51.90	52.05	52.08	52.01	0.10		6	16.42	16.55	16.65	16.54	0.12
	9	58.60	59.19	58.76	58.85	0.31		9	22.02	22.90	22.61	22.51	0.45
	12	66.20	67.74	66.91	66.95	0.77		12	30.22	30.43	30.46	30.37	0.13
	18	73.50	75.25	72.11	73.62	1.57		18	34.43	34.63	34.68	34.58	0.13
24	82.00	83.34	82.55	82.63	0.67	24	38.65	38.81	38.85	38.77	0.11		
17b2	0	0.00	0.00	0.00	0.00	0.00	19	0.00	0.00	0.00	0.00	0.00	
	1	19.20	20.60	20.14	19.98	0.71		1	21.85	22.2	22.64	22.23	0.40
	2	29.11	30.40	29.98	29.83	0.66		2	27.90	28.10	29.11	28.37	0.65
	3	35.00	36.23	35.93	35.72	0.64		3	31.89	32.55	33.84	32.76	0.99
	4	40.90	40.50	40.94	40.78	0.24		4	36.50	36.45	37.33	36.76	0.49
	6	51.05	48.25	49.80	49.70	1.40		6	42.50	42.70	43.44	42.88	0.50
	9	59.70	58.50	59.40	59.20	0.62		9	47.08	47.48	48.24	47.60	0.59
	12	68.20	65.20	66.88	66.76	1.50		12	51.70	52.15	52.06	51.97	0.24
	18	75.25	74.80	75.16	75.07	0.24		18	55.70	55.95	55.90	55.85	0.13
24	82.68	81.98	82.27	82.31	0.35	24	59.40	60.02	59.89	59.77	0.33		

Table 20 : Percentage amount of indomethacin release from microcapsule prepared from various preparations (continue)

Rx	Time (hr)	Cum %drug release			Mean	SD	Rx	Time (hr)	Cum %drug release			Mean	SD
		A	B	C					A	B	C		
20	0	0.00	0.00	0.00	0.00	0.00	23	0	0.00	0.00	0.00	0.00	0.00
	1	7.86	7.71	7.80	7.79	0.08		1	19.25	18.75	18.85	18.95	0.26
	2	11.78	11.89	11.91	11.86	0.07		2	27.50	26.51	27.17	27.06	0.50
	3	15.40	15.50	15.48	15.46	0.05		3	33.55	32.60	32.94	33.03	0.48
	4	19.50	19.70	19.72	19.64	0.12		4	40.60	41.30	41.10	41.00	0.36
	6	27.33	27.45	27.42	27.40	0.06		6	47.53	48.86	47.61	48.00	0.75
	9	33.43	33.66	33.59	33.56	0.12		9	53.86	55.16	54.36	54.46	0.66
	12	41.43	41.44	41.60	41.49	0.10		12	60.88	62.42	61.50	61.60	0.77
	18	44.87	45.00	45.04	44.97	0.09		18	66.90	71.63	68.38	68.97	2.42
24	48.38	48.47	48.53	48.46	0.08	24	72.63	76.61	73.12	74.12	2.17		
21	0	0.00	0.00	0.00	0.00	0.00	24c	0	0.00	0.00	0.00	0.00	0.00
	1	3.74	5.28	4.24	4.42	0.79		1	35.85	36.87	36.54	36.42	0.52
	2	3.90	5.96	4.51	4.79	1.06		2	46.88	47.89	47.70	47.49	0.54
	3	4.89	7.26	5.77	5.97	1.20		3	54.12	54.91	54.74	54.59	0.42
	4	5.85	8.33	6.36	6.85	1.31		4	59.59	60.84	60.08	60.17	0.63
	6	7.55	10.37	8.37	8.76	1.45		6	67.81	68.56	68.17	68.18	0.38
	9	12.88	16.48	13.69	14.35	1.89		9	76.01	77.62	76.98	76.87	0.81
	12	15.25	18.84	16.01	16.70	1.89		12	85.11	85.94	85.66	85.57	0.42
	18	19.06	23.47	19.86	20.80	2.35		18	90.58	91.70	91.56	91.28	0.61
24	23.81	28.57	24.49	25.62	2.57	24	96.02	96.89	96.95	96.62	0.52		
22	0	0.00	0.00	0.00	0.00	0.00	24d	0	0.00	0.00	0.00	0.00	0.00
	1	2.90	2.88	3.04	2.94	0.09		1	31.10	29.55	29.56	30.07	0.89
	2	4.50	4.30	4.58	4.46	0.14		2	41.98	42.24	41.12	41.78	0.59
	3	6.32	6.00	6.28	6.20	0.17		3	49.85	49.97	48.98	49.60	0.54
	4	7.60	7.44	7.58	7.54	0.09		4	54.70	55.32	55.91	55.31	0.61
	6	10.26	9.83	9.91	10.00	0.23		6	61.40	63.75	62.98	62.71	1.20
	9	14.42	14.20	14.40	14.34	0.12		9	71.02	72.97	71.02	71.67	1.13
	12	17.50	17.70	17.69	17.63	0.11		12	79.55	81.55	80.88	80.66	1.02
	18	25.30	24.36	24.50	24.72	0.51		18	85.25	87.45	86.89	86.53	1.14
24	33.00	30.40	31.28	31.56	1.32	24	91.86	93.01	92.96	92.61	0.65		

Table 20 : Percentage amount of indomethacin release from microcapsule prepared from various preparations (continue)

Rx	Time (hr)	Cum %drug release			Mean	SD	Rx	Time (hr)	Cum %drug release			Mean	SD
		A	B	C					A	B	C		
25d	0	0.00	0.00	0.00	0.00	0.00	28	0	0.00	0.00	0.00	0.00	0.00
	1	41.35	44.14	43.22	42.90	1.42		1	5.40	6.70	6.80	6.30	0.78
	2	50.87	51.49	51.21	51.19	0.31		2	10.30	10.20	10.31	10.27	0.06
	3	57.83	58.25	59.13	58.40	0.66		3	13.58	13.54	13.74	13.62	0.11
	4	62.08	62.03	62.10	62.07	0.04		4	16.68	16.80	16.83	16.77	0.08
	6	68.92	68.55	68.78	68.75	0.19		6	22.90	22.96	23.02	22.96	0.06
	9	74.45	71.36	73.25	73.02	1.56		9	29.85	29.93	30.22	30.00	0.19
	12	81.56	79.91	81.01	80.83	0.84		12	41.14	41.18	41.34	41.22	0.11
	18	86.21	83.67	84.75	84.88	1.27		18	49.03	49.14	49.16	49.11	0.07
24	91.09	89.23	89.93	90.08	0.94	24	57.00	57.12	57.15	57.09	0.08		
26	0	0.00	0.00	0.00	0.00	0.00	30	0	0.00	0.00	0.00	0.00	0.00
	1	1.28	2.03	1.85	1.72	0.39		1	1.04	1.26	1.15	1.15	0.11
	2	2.09	3.29	2.98	2.79	0.62		2	1.76	2.02	1.91	1.90	0.13
	3	2.90	4.50	3.99	3.80	0.82		3	2.32	2.80	2.64	2.59	0.24
	4	3.93	5.66	5.34	4.98	0.92		4	2.88	3.53	3.31	3.24	0.33
	6	5.70	7.49	7.24	6.81	0.97		6	4.21	4.92	4.70	4.61	0.36
	9	7.48	9.59	9.41	8.83	1.17		9	5.93	6.91	6.53	6.46	0.49
	12	9.49	11.79	11.42	10.90	1.24		12	7.41	8.50	8.06	7.99	0.55
	18	12.45	14.79	14.56	13.93	1.29		18	9.98	10.81	10.47	10.42	0.42
24	15.90	17.25	16.89	16.68	0.70	24	12.63	13.25	12.96	12.95	0.31		
27	0	0.00	0.00	0.00	0.00	0.00	32	0	0.00	0.00	0.00	0.00	0.00
	1	1.51	1.24	1.14	1.30	0.19		1	6.25	4.20	4.39	4.95	1.13
	2	2.43	1.92	1.82	2.06	0.33		2	6.55	4.45	4.70	5.23	1.15
	3	3.25	2.70	2.60	2.85	0.35		3	7.18	4.94	5.20	5.77	1.23
	4	4.09	3.51	3.25	3.62	0.43		4	8.36	5.94	6.14	6.81	1.34
	6	5.74	5.22	4.97	5.31	0.39		6	9.75	7.45	7.65	8.28	1.27
	9	7.30	6.92	6.71	6.98	0.30		9	16.29	13.60	13.80	14.56	1.50
	12	8.99	8.63	8.48	8.70	0.26		12	18.03	15.52	16.10	16.55	1.31
	18	11.39	11.13	10.98	11.17	0.21		18	22.32	19.71	20.17	20.73	1.39
24	13.83	13.76	13.76	13.78	0.04	24	27.67	25.14	25.67	26.16	1.33		

Table 20 : Percentage amount of indomethacin release from microcapsule prepared from various preparations (continue)

Rx	Time (hr)	Cum %drug release			Mean	SD	Rx	Time (hr)	Cum %drug release			Mean	SD
		A	B	C					A	B	C		
33	0	0.00	0.00	0.00	0.00	0.00	36	0	0.00	0.00	0.00	0.00	0.00
	1	18.50	20.00	19.55	19.35	0.77		1	23.54	23.68	24.00	23.74	0.24
	2	28.50	30.52	29.00	29.34	1.05		2	33.50	33.82	33.78	33.70	0.17
	3	34.42	36.20	35.43	35.35	0.89		3	40.42	40.72	40.48	40.54	0.16
	4	38.52	40.12	39.47	39.37	0.80		4	44.55	44.75	45.31	44.87	0.39
	6	45.59	46.25	45.98	45.94	0.33		6	51.00	50.92	51.29	51.07	0.19
	9	54.69	55.54	55.28	55.17	0.44		9	57.70	58.10	58.11	57.97	0.23
	12	61.98	62.70	62.67	62.45	0.41		12	63.52	63.78	63.65	63.65	0.13
	18	69.30	70.60	69.68	69.86	0.67		18	67.58	67.38	67.39	67.45	0.11
24	77.12	77.60	77.48	77.40	0.25	24	71.32	71.56	71.59	71.49	0.15		
34	0	0.00	0.00	0.00	0.00	0.00	38c	0	0.00	0.00	0.00	0.00	0.00
	1	6.91	4.64	5.26	5.60	1.17		1	28.12	26.85	26.06	27.01	1.04
	2	8.14	4.85	6.46	6.48	1.65		2	43.23	42.16	42.11	42.50	0.63
	3	9.75	5.93	8.29	7.99	1.93		3	53.98	52.71	52.58	53.09	0.77
	4	11.33	6.62	9.53	9.16	2.38		4	61.25	60.86	60.79	60.97	0.25
	6	13.96	9.29	11.25	11.50	2.35		6	69.41	68.07	68.02	68.50	0.79
	9	20.10	15.10	17.25	17.48	2.51		9	76.02	75.66	73.89	75.19	1.14
	12	23.67	18.60	21.22	21.16	2.54		12	83.42	82.96	82.14	82.84	0.65
	18	31.07	24.52	27.56	27.72	3.28		18	89.01	87.85	87.44	88.10	0.81
24	39.29	32.10	36.50	35.96	3.62	24	94.92	94.03	92.99	93.98	0.97		
35	0	0.00	0.00	0.00	0.00	0.00	38d	0	0.00	0.00	0.00	0.00	0.00
	1	21.42	21.60	21.69	21.57	0.14		1	24.86	24.02	23.12	24.00	0.87
	2	30.64	30.85	30.64	30.71	0.12		2	35.87	34.85	34.64	35.12	0.66
	3	37.88	38.15	38.09	38.04	0.14		3	43.56	42.17	41.44	42.39	1.08
	4	42.58	42.80	42.51	42.63	0.15		4	48.65	47.24	46.85	47.58	0.95
	6	48.73	48.81	48.44	48.66	0.19		6	55.12	53.87	53.84	54.28	0.73
	9	54.96	55.20	54.87	55.01	0.17		9	67.21	66.22	66.88	66.77	0.50
	12	58.14	58.15	57.92	58.07	0.13		12	70.98	70.43	68.56	69.99	1.27
	18	62.50	62.57	62.25	62.44	0.17		18	77.33	76.12	76.05	76.50	0.72
24	66.78	66.82	66.50	66.70	0.17	24	84.54	82.76	82.24	83.18	1.21		

Table 20 : Percentage amount of indomethacin release from microcapsule prepared from various preparations (continue)

Rx	Time (hr)	Cum %drug release			Mean	SD
		A	B	C		
39	0	0.00	0.00	0.00	0.00	0.00
	1	41.59	38.88	39.11	39.86	1.50
	2	54.60	49.80	50.52	51.64	2.59
	3	62.85	58.43	60.31	60.53	2.22
	4	67.76	63.31	64.44	65.17	2.31
	6	74.57	69.76	70.77	71.70	2.54
	9	79.26	74.05	75.86	76.39	2.65
	12	87.79	83.48	85.23	85.50	2.17
	18	92.40	89.65	91.01	91.02	1.38
	24	96.93	96.63	96.75	96.77	0.15
40c	0	0.00	0.00	0.00	0.00	0.00
	1	41.12	40.95	40.21	40.76	0.48
	2	51.56	50.13	49.87	50.52	0.91
	3	58.52	58.04	57.92	58.16	0.32
	4	62.88	62.53	62.00	62.47	0.44
	6	68.93	69.48	68.53	68.98	0.48
	9	73.28	73.03	72.75	73.02	0.27
	12	82.32	80.20	79.76	80.76	1.37
	18	86.16	85.82	85.24	85.74	0.47
	24	95.10	91.49	91.36	92.65	2.12
40d	0	0.00	0.00	0.00	0.00	0.00
	1	31.47	35.54	33.73	33.58	2.04
	2	36.60	40.49	38.56	38.55	1.95
	3	41.50	46.87	44.74	44.37	2.70
	4	44.68	50.02	48.52	47.74	2.75
	6	49.75	54.79	52.87	52.47	2.54
	9	53.87	58.15	56.85	56.29	2.19
	12	62.68	66.26	64.98	64.64	1.81
	18	67.82	71.63	70.01	69.82	1.91
	24	72.95	77.25	75.79	75.33	2.19
41	0	0.00	0.00	0.00	0.00	0.00
	1	18.23	17.61	17.11	17.65	0.56
	2	30.56	30.25	28.92	29.91	0.87
	3	38.25	38.00	36.79	37.68	0.78
	4	44.12	43.87	41.7	43.23	1.33
	6	52.32	51.12	50.88	51.44	0.77
	9	65.35	63.86	63.18	64.61	1.05
	12	70.21	69.69	69.11	69.67	0.55
	18	76.02	75.00	74.37	75.13	0.83
	24	81.25	80.25	79.64	80.38	0.81
42c	0	0.00	0.00	0.00	0.00	0.00
	1	8.87	8.31	8.11	8.43	0.39
	2	21.12	19.85	20.23	20.40	0.65
	3	29.22	28.10	28.09	28.47	0.65
	4	35.23	34.82	33.75	34.60	0.76
	6	44.22	44.24	43.15	43.87	0.62
	9	59.23	58.21	58.15	58.53	0.61
	12	64.12	63.88	62.47	63.49	0.89
	18	73.24	72.88	71.38	72.50	0.99
	24	82.50	80.91	80.85	81.42	0.94

Rx = Preparation

SD = standard deviation

Table 21 : The correlation of determination of % drug release vs. time, % drug release vs. square root time, and log % drug remained vs. time

Prep.	Correlation of determination		
	% Drug Release		log% Drug Remained
	vs. time	vs. square root time	vs. time
1	0.7371	0.9389	0.8890
2	0.7527	0.9476	0.9217
3	0.8297	0.9800	0.9137
4	0.7564	0.9486	0.9142
5	0.8556	0.9887	0.9407
6	0.7250	0.9249	0.8995
7	0.8937	0.9943	0.9413
8a	0.8069	0.9728	0.9203
9	0.7600	0.9465	0.9524
10	0.8538	0.9897	0.8872
11	0.9002	0.9953	0.9204
12	0.6175	0.8625	0.9451
13	0.8987	0.9933	0.7616
14	0.8767	0.9946	0.9552
15	0.9936	0.9368	0.9904
16	0.7875	0.9634	0.9955
17	0.8190	0.9769	0.9193
18	0.9341	0.9811	0.9586
19	0.7126	0.9260	0.8294
20	0.8696	0.9751	0.9156
21	0.9676	0.9700	0.9789
22	0.9931	0.9563	0.9980
23	0.8041	0.9705	0.9325
24c	0.7071	0.9225	0.9825
24d	0.7394	0.9412	0.9719
25d	0.6118	0.8541	0.9069

Table 21 : The correlation of determination of % drug release vs. time, % drug release vs. square root time, and log %drug remained vs. time (continue)

Prep.	Correlation of determination		
	% Drug Release		log%Drug Remained
	vs. time	vs. square root time	vs. time
26	0.9678	0.9817	0.9762
27	0.9771	0.9739	0.9828
28	0.9585	0.9778	0.9887
30	0.9826	0.9692	0.9872
32	0.9679	0.9605	0.9774
33	0.8276	0.9808	0.9573
34	0.9846	0.9611	0.9923
35	0.6369	0.9158	0.8299
36	0.7054	0.9223	0.8552
38c	0.7006	0.9170	0.9616
38d	0.7601	0.9511	0.9345
39	0.6519	0.8845	0.9679
40c	0.6391	0.8735	0.9366
40d	0.6904	0.9038	0.8789
41	0.7844	0.9586	0.9271
42c	0.8687	0.9777	0.9770
2batch1	0.7527	0.9476	0.9217
2batch2	0.7641	0.9538	0.9426
2batch3	0.7584	0.9507	0.9451
17batch1	0.8190	0.9769	0.9193
17batch2	0.8339	0.9828	0.9706
17batch3	0.8385	0.9816	0.9667

Table 22 : The unpaired t-Test of Higuchi's plot slope of preparations 8a and 8b microcapsules

t-Test : Two-Sample Assuming Equal Variances

	Prep. 8a	Prep.8b
Mean	13.8411	12.7732
Variance	0.5630	0.3835
Observation	3	3
Pooled Variance	0.4733	
Hypothesized Mean Difference	0	
df	4	
t stat	1.9011	
P (T<=t) two-tail	0.1301	
t Critical two-tail	2.7764	

Table 23 : The unpaired t-Test of Higuchi's plot slope of preparations 24c&24d, 38c&38d, and 40c&40d microcapsules

t-Test : Two-Sample Assuming Equal Variances

	Prep.24c	Prep.24d	Prep.38c	Prep.38d	Prep.40c	Prep.40d
Mean	18.5349	18.1939	18.7427	16.5974	16.6316	13.5970
Variance	0.0051	0.1069	0.0141	0.0158	0.0706	0.0492
Observation	3	3	3	3	3	3
Pooled Variance	0.0560		0.0150		0.0599	
Hypothesized Mean Difference	0		0		0	
df	4		4		4	
t stat	1.7650		21.4888		15.1851	
P (T<=t) two-tail	0.1523		0.0000		0.0001	
t Critical two-tail	2.7764		2.7764		2.7764	

Table 24 : Analysis of variance of Higuchi's plot slopes at different batches of preparation 2 microcapsules

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.2509	2	0.1254	3.8457	0.0842	5.1432
Within Groups	0.1957	6	0.0326			

Each Preparation = 3 batches, Each batch = 3 capsules

Table 25 : Analysis of variance of Higuchi's plot slopes at different batches of preparation 17 microcapsules

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.1757	2	0.0878	1.7852	0.2464	5.1432
Within Groups	0.2953	6	0.0492			

Each Preparation = 3 batches, Each batch = 3 capsules

Table 26 : Slopes of Higuchi's plot of indomethacin microcapsules prepared from preparations 2, 8a, 8b, 17, 24c, 24d, 38c, 38d, 40c, and 40d

Preparation	Slope			SD
	A	B	C	
2 batch I	17.1665	16.7473	16.7020	0.2561
2 batch II	17.3178	17.4350	17.2162	0.1095
2 batch III	17.3820	17.2067	17.1677	0.1141
8a	13.0732	14.5726	13.8776	0.7504
8b	13.4189	12.1842	12.7166	0.6193
17 batch I	16.5787	17.0549	16.5848	0.2732
17 batch II	17.2097	16.6991	16.9338	0.2556
17 batch III	16.9900	17.1652	17.0813	0.0876
24c	18.4527	18.5695	18.5825	0.0715
24d	17.8189	18.4189	18.3439	0.3269
38c	18.8413	18.7758	18.6111	0.1186
38d	16.7415	16.5413	16.5093	0.1258
40c	16.9379	16.4942	16.4626	0.2658
40d	13.3492	13.7767	13.6652	0.2218

Vitae

Miss Atchariya Jarusruangnil was born on January 15, 1970 in Bangkok, Thailand. She got her degree in Bachelor of Pharmacy, Mahidol University with second class honors in 1992. She used to worked in Medical device control division, Food and Drug Administration, Ministry of Public Health, Thailand from 1992-1994.



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