

## REFERENCES

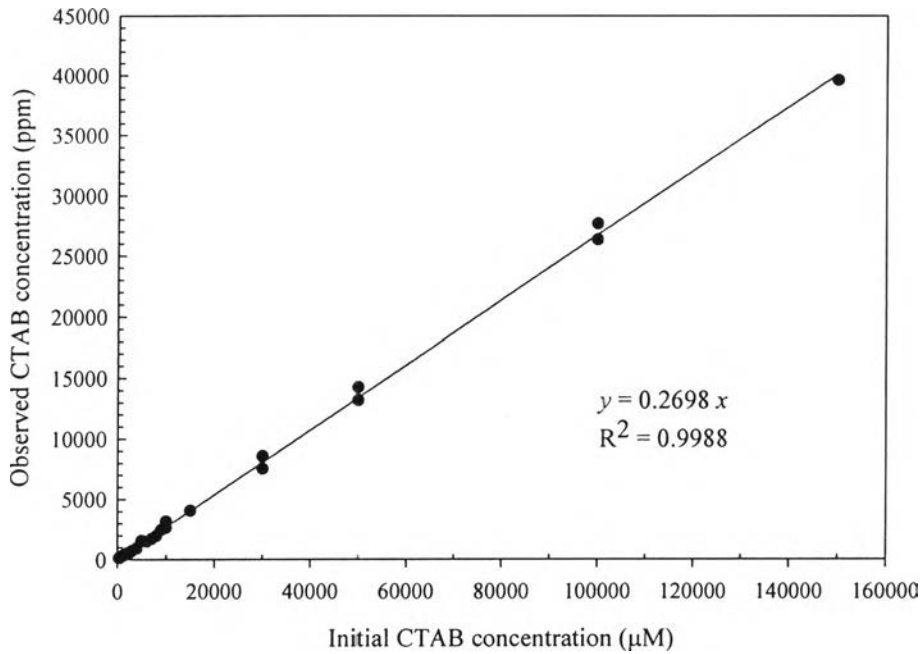
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## APPENDICES

### APPENDIX A CTAB Adsorption Measurement



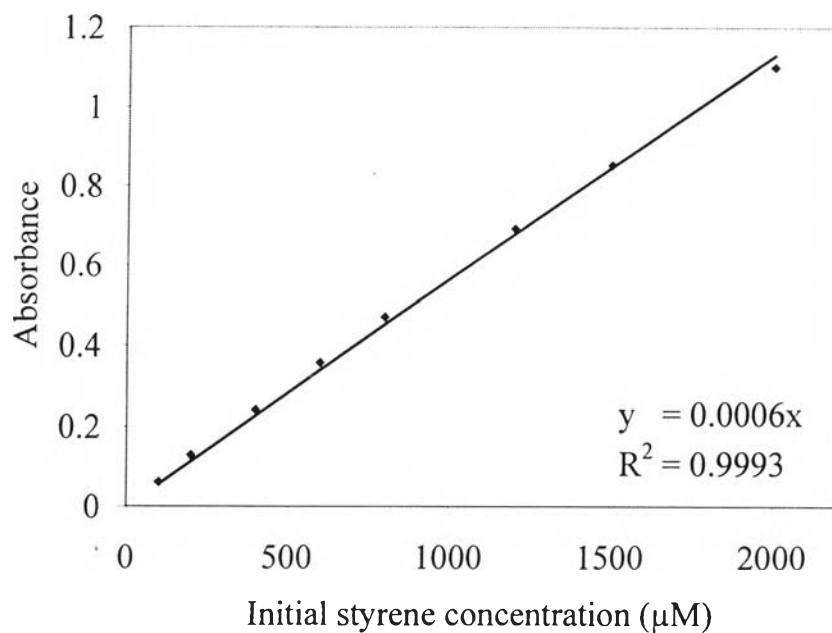
**Figure A1** Calibration curve of CTAB solution by Total Organic Carbon analyzer (TOC).

**Table A1** Data from CTAB adsorption isotherm on Aerosil® OX50

Initial CTAB concentration (μM)	Observed initial CTAB concentration, (μM)	Equilibrium CTAB concentration (μM)	CTAB adsorption (μmol/g)
400	566.42	266.38	3.75
600	743.96	278.69	5.82
800	927.06	282.39	8.06
1400	1458.19	278.47	14.75
1600	1643.88	279.28	17.06
1800	1821.05	285.80	19.19
2000	1977.84	293.96	21.05

Initial CTAB concentration ( $\mu\text{M}$ )	Observed initial CTAB concentration ( $\mu\text{M}$ )	Equilibrium CTAB concentration ( $\mu\text{M}$ )	CTAB adsorption ( $\mu\text{mol/g}$ )
2200	2031.95	268.01	22.05
2500	2139.81	328.84	72.44
3000	2660.19	355.52	92.19
4000	3475.61	488.95	119.47
4200	3738.40	570.13	126.73
4600	4057.15	964.86	123.69
4800	4327.72	1428.54	115.97
5000	5837.73	2436.69	136.04
6000	5606.45	1739.88	154.66
7000	6361.08	2610.16	150.04
8000	7262.49	3255.82	160.27
9000	9127.58	5072.72	162.19
15000	15057.89	11195.77	154.48
30000	31733.21	26266.20	218.68
50000	52804.37	48023.05	191.25
100000	102507.86	94724.31	311.34
150000	146836.99	137163.16	386.95

## APENDIX B Styrene Adsolubilization Measurement



**Figure B1** Calibration curve of styrene in CTAB solution by UV-Vis at  $280\text{cm}^{-1}$ .

Ratio of mixture = Silica 0.5 g : 20 ml solution

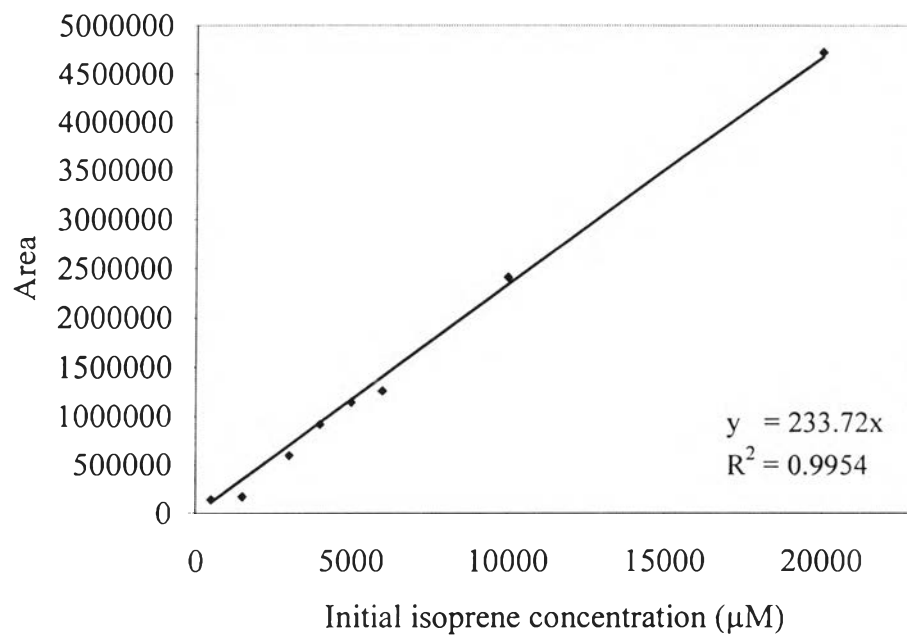
**Table B1** Data from styrene adsolubilization into CTAB adsorption  $20\ \mu\text{mol/g}$  on Aerosil<sup>®</sup>OX50

Initial styrene concentration ( $\mu\text{M}$ )	Equilibrium styrene concentration ( $\mu\text{M}$ )	Styrene adsolubilization ( $\mu\text{mol/g}$ )
100	43.86	2.25
250	77.02	6.92
500	151.93	13.92
1000	376.11	24.96
1500	608.07	35.68
2000	785.44	48.58

**Table B2** Data from styrene adsolubilization into CTAB adsorption 100  $\mu\text{mol/g}$  on Aerosil<sup>®</sup>OX50

Initial styrene concentration ( $\mu\text{M}$ )	Equilibrium styrene concentration ( $\mu\text{M}$ )	Styrene adsolubilization ( $\mu\text{mol/g}$ )
1000	315.33	27.39
2000	690.67	52.37
3000	809.33	87.63
4000	1119.67	115.21
5000	1485.67	140.57
7000	2190.00	192.40

### APENDIX C Isoprene Adsolubilization Measurement



**Figure C1** Calibration curve of isoprene in CTAB solution by headspace GC.

**Table C1** Data from isoprene adsolubilization into CTAB adsorption 20 µmol/g on Aerosil®OX50

Initial isoprene concentration (µM)	Equilibrium isoprene concentration (µM)	Isoprene adsolubilization (µmol/g)
225	25.81	7.97
450	41.90	16.32
1800	134.39	66.62
3600	358.85	129.65
5400	462.22	197.51
7200	542.62	266.30



**Table C2** Data from isoprene adsolubilization into CTAB adsorption 100  $\mu\text{mol/g}$  on Aerosil<sup>®</sup>OX50

Initial isoprene concentration ( $\mu\text{M}$ )	Equilibrium isoprene concentration ( $\mu\text{M}$ )	Isoprene adsolubilization ( $\mu\text{mol/g}$ )
1750	40.24	68.39
7000	165.02	273.40
14000	301.29	547.95
21000	442.21	822.31
28000	688.86	1092.45
31500	786.07	1228.56

**APPENDIX D Calculation for Amount of CTAB Loading, Comonomer Loading, and AIBN Loading for Admicellar Polymerization**

System; Silica 15 g : Solution 250 ml

CTAB

Molecular weight : 364.46 gmol<sup>-1</sup>

Styrene

Molecular weight: 104.15 gmol<sup>-1</sup>

Density: 0.906 ml/g

Isoprene

Molecular weight: 68.12 gmol<sup>-1</sup>

Density: 0.681 ml/g

AIBN

Molecular weight : 164.21 gmol<sup>-1</sup>

**D1 CTAB Loading Calculation**

**Table D1** Calculation of initial CTAB concentration for CTAB adsorption 20 and 100 µmol/g silica in the system

CTAB adsorption		Equilibrium CTAB concentration		Initial CTAB loading in the system (µmol)	Total weight of CTAB (g)
(µmol/g)	(µmol/15g)	(µM)	(µmol in 250 ml)		
20	300	300	75	375	0.1367
100	1500	400	100	1600	0.5831

## D 2 Comonomer Loading Calculation

Ratio of styrene : isoprene = 1:3

**Table D2** Calculation of initial styrene loading into CTAB adsorption 20  $\mu\text{mol/g}$  silica in the system at ratio of S:I=1:3

Styrene adsolubilization		Equilibrium styrene concentration		Initial styrene loading in the system ( $\mu\text{mol}$ )	Total volume of styrene ( $\mu\text{l}$ )
( $\mu\text{mol/g}$ )	( $\mu\text{mol}/15\text{ g}$ )	( $\mu\text{M}$ )	( $\mu\text{mol}$ in 250 ml)		
5	75	80.52	20.13	95.13	10.94
10	150	161.03	40.26	190.26	21.87
15	225	241.55	60.39	285.39	32.81

**Table D3** Calculation of initial isoprene loading into CTAB adsorption 20  $\mu\text{mol/g}$  silica in the system at ratio of S:I=1:3

Isoprene adsolubilization		Equilibrium isoprene concentration		Initial isoprene loading in the system ( $\mu\text{mol}$ )	Total volume of isoprene ( $\mu\text{l}$ )
( $\mu\text{mol/g}$ )	( $\mu\text{mol}/15\text{ g}$ )	( $\mu\text{M}$ )	( $\mu\text{mol}$ in 250 ml)		
15	225	33.75	8.44	233.44	23.35
30	450	67.49	16.87	466.87	46.70
45	675	101.24	25.31	700.31	70.05

**Table D4** Calculation of initial styrene loading into CTAB adsorption 100  $\mu\text{mol/g}$  silica in the system at ratio of S:I=1:3

Styrene adsolubilization		Equilibrium styrene concentration		Initial styrene loading in the system ( $\mu\text{mol}$ )	Total volume of styrene ( $\mu\text{l}$ )
( $\mu\text{mol/g}$ )	( $\mu\text{mol}/15\text{ g}$ )	( $\mu\text{M}$ )	( $\mu\text{mol}$ in 250 ml)		
25	375	271.15	67.79	442.79	50.90
50	750	542.30	135.57	885.57	101.80
75	1125	813.45	203.36	1328.36	152.70

**Table D5** Calculation of initial isoprene loading into CTAB adsorption 100  $\mu\text{mol/g}$  silica in the system at ratio of S:I=1:3

Isoprene adsolubilization		Equilibrium isoprene concentration		Initial isoprene loading in the system ( $\mu\text{mol}$ )	Total volume of isoprene ( $\mu\text{l}$ )
( $\mu\text{mol/g}$ )	( $\mu\text{mol}/15\text{ g}$ )	( $\mu\text{M}$ )	( $\mu\text{mol}$ in 250 ml)		
75	1125	46.00	11.50	1136.50	113.68
150	2250	99.01	23.00	2273.00	227.37
225	3375	138.01	34.50	3409.50	341.05

**Ratio of styrene : isoprene = 1:1**

**Table D6** Calculation of initial styrene loading into CTAB adsorption 20  $\mu\text{mol/g}$  silica in the system at ratio of S:I=1:1

Styrene adsolubilization		Equilibrium styrene concentration		Initial styrene loading in the system ( $\mu\text{mol}$ )	Total volume of styrene ( $\mu\text{l}$ )
( $\mu\text{mol/g}$ )	( $\mu\text{mol}/15\text{ g}$ )	( $\mu\text{M}$ )	( $\mu\text{mol}$ in 250 ml)		
10	150	161.03	40.26	190.26	21.87
20	300	322.06	80.52	380.52	43.74
30	450	438.09	120.77	570.77	65.61

**Table D7** Calculation of initial isoprene loading into CTAB adsorption 20  $\mu\text{mol/g}$  silica in the system at ratio of S:I=1:1

Isoprene adsolubilization		Equilibrium isoprene concentration		Initial isoprene loading in the system ( $\mu\text{mol}$ )	Total volume of isoprene ( $\mu\text{l}$ )
( $\mu\text{mol/g}$ )	( $\mu\text{mol}/15\text{ g}$ )	( $\mu\text{M}$ )	( $\mu\text{mol}$ in 250 ml)		
10	150	22.50	5.62	155.62	15.57
20	300	44.99	11.25	311.25	31.13
30	450	67.49	16.87	466.87	46.70

**Table D8** Calculation of initial styrene loading into CTAB adsorption 100  $\mu\text{mol/g}$  silica in the system at ratio of S:I=1:1

Styrene adsolubilization		Equilibrium styrene concentration		Initial styrene loading in the system ( $\mu\text{mol}$ )	Total volume of styrene ( $\mu\text{l}$ )
( $\mu\text{mol/g}$ )	( $\mu\text{mol}/15\text{ g}$ )	( $\mu\text{M}$ )	( $\mu\text{mol}$ in 250 ml)		
50	750	542.30	135.57	885.57	101.80
100	1500	1084.60	271.15	1771.15	203.60
150	2250	1626.90	406.72	2656.72	305.41

**Table D9** Calculation of initial isoprene loading into CTAB adsorption 100  $\mu\text{mol/g}$  silica in the system at ratio of S:I=1:1

Isoprene adsolubilization		Equilibrium isoprene concentration		Initial isoprene loading in the system ( $\mu\text{mol}$ )	Total volume of isoprene ( $\mu\text{l}$ )
( $\mu\text{mol/g}$ )	( $\mu\text{mol}/15\text{ g}$ )	( $\mu\text{M}$ )	( $\mu\text{mol}$ in 250 ml)		
50	750	30.67	7.67	757.67	75.79
100	1500	61.34	15.33	1515.33	151.58
150	2250	92.01	23.00	2273.00	227.37

**Ratio of styrene : isoprene = 3:1**

**Table D10** Calculation of initial styrene loading into CTAB adsorption 20  $\mu\text{mol/g}$  silica in the system at ratio of S:I=3:1

Styrene adsolubilization		Equilibrium styrene concentration		Initial styrene loading in the system ( $\mu\text{mol}$ )	Total volume of styrene ( $\mu\text{l}$ )
( $\mu\text{mol/g}$ )	( $\mu\text{mol}/15\text{ g}$ )	( $\mu\text{M}$ )	( $\mu\text{mol}$ in 250 ml)		
15	225	241.55	60.39	285.39	32.81
30	450	483.09	120.77	570.77	65.61
45	675	724.64	181.16	856.16	98.42

**Table D11** Calculation of initial isoprene loading into CTAB adsorption 20  $\mu\text{mol/g}$  silica in the system at ratio of S:I=3:1

Isoprene adsolubilization		Equilibrium isoprene concentration		Initial isoprene loading in the system ( $\mu\text{mol}$ )	Total volume of isoprene ( $\mu\text{l}$ )
( $\mu\text{mol/g}$ )	( $\mu\text{mol}/15\text{ g}$ )	( $\mu\text{M}$ )	( $\mu\text{mol}$ in 250 ml)		
5	75	11.25	2.81	77.81	7.78
10	150	22.50	5.62	155.62	15.57
15	225	33.75	8.44	233.44	23.35

**Table D12** Calculation of initial styrene loading into CTAB adsorption 100  $\mu\text{mol/g}$  silica in the system at ratio of S:I=3:1

Styrene adsolubilization		Equilibrium styrene concentration		Initial styrene loading in the system ( $\mu\text{mol}$ )	Total volume of styrene ( $\mu\text{l}$ )
( $\mu\text{mol/g}$ )	( $\mu\text{mol}/15\text{ g}$ )	( $\mu\text{M}$ )	( $\mu\text{mol}$ in 250 ml)		
75	1125	813.45	203.36	1328.36	152.70
150	2250	1626.90	406.72	2656.72	305.41
225	3375	2440.35	610.09	3985.09	458.11

**Table D13** Calculation of initial isoprene loading into CTAB adsorption 100  $\mu\text{mol/g}$  silica in the system at ratio of S:I=3:1

Isoprene adsolubilization		Equilibrium isoprene concentration		Initial isoprene loading in the system ( $\mu\text{mol}$ )	Total volume of isoprene ( $\mu\text{l}$ )
( $\mu\text{mol/g}$ )	( $\mu\text{mol}/15\text{ g}$ )	( $\mu\text{M}$ )	( $\mu\text{mol}$ in 250 ml)		
25	375	15.33	3.83	378.83	37.89
50	750	30.67	7.67	757.67	75.79
75	1125	46.00	11.50	1136.50	113.68

### D 3 AIBN Loading Calculation

**Ratio of AIBN = 1 mole AIBN : 25 mole comonomer**

**Ratio of styrene : isoprene = 1:3**

**Table D14** Calculation of AIBN loading at CTAB adsorption 20  $\mu\text{mol/g}$  silica at ratio of S:I=1:3

CTAB <sub>adsorp</sub> : Comonomer <sub>adsol</sub> ( $\mu\text{mol/g}$ ) : ( $\mu\text{mol/g}$ )	Total comonomer ( $\mu\text{mol}$ )	AIBN loading ( $\mu\text{mol}$ )	Total weight AIBN (g)
1 : 1	328.57	13.14	0.00216
1 : 2	657.13	26.29	0.00432
1 : 3	985.70	39.43	0.00647

**Table D15** Calculation of AIBN loading at CTAB adsorption 100  $\mu\text{mol/g}$  silica at ratio of S:I=1:3

CTAB <sub>adsorp</sub> : Comonomer <sub>adsol</sub> ( $\mu\text{mol/g}$ ) : ( $\mu\text{mol/g}$ )	Total comonomer ( $\mu\text{mol}$ )	AIBN loading ( $\mu\text{mol}$ )	Total weight AIBN (g)
1 : 1	1579.29	63.17	0.01037
1 : 2	3158.58	126.34	0.02075
1 : 3	4737.87	189.51	0.03112

**Ratio of styrene : isoprene = 1:1**

**Table D16** Calculation of AIBN loading at CTAB adsorption 20  $\mu\text{mol/g}$  silica at ratio of S:I=1:1

CTAB <sub>adsorp</sub> : Comonomer <sub>adsol</sub> ( $\mu\text{mol/g}$ ) : ( $\mu\text{mol/g}$ )	Total comonomer ( $\mu\text{mol}$ )	AIBN loading ( $\mu\text{mol}$ )	Total weight AIBN (g)
1 : 1	345.88	13.83	0.00227
1 : 2	691.76	27.67	0.00454
1 : 3	1037.65	41.51	0.00682

**Table D17** Calculation of AIBN loading at CTAB adsorption 100  $\mu\text{mol/g}$  silica at ratio of S:I=1:1

CTAB <sub>adsorp</sub> : Comonomer <sub>adsol</sub> ( $\mu\text{mol/g}$ ) : ( $\mu\text{mol/g}$ )	Total comonomer ( $\mu\text{mol}$ )	AIBN loading ( $\mu\text{mol}$ )	Total weight AIBN (g)
1 : 1	1643.24	65.73	0.01079
1 : 2	3286.48	131.46	0.02159
1 : 3	4929.73	197.19	0.03238



**Ratio of styrene : isoprene = 3:1**

**Table D18** Calculation of AIBN loading at CTAB adsorption 20  $\mu\text{mol/g}$  silica at ratio of S:I=3:1

CTAB <sub>adsorp</sub> : Comonomer <sub>adsol</sub> ( $\mu\text{mol/g}$ ) : ( $\mu\text{mol/g}$ )	Total comonomer ( $\mu\text{mol}$ )	AIBN loading ( $\mu\text{mol}$ )	Total weight AIBN (g)
1 : 1	363.20	14.53	0.00239
1 : 2	726.40	29.06	0.00477
1 : 3	1089.60	43.58	0.00716

**Table D19** Calculation of AIBN loading at CTAB adsorption 100  $\mu\text{mol/g}$  silica at ratio of S:I=3:1

CTAB <sub>adsorp</sub> : Comonomer <sub>adsol</sub> ( $\mu\text{mol/g}$ ) : ( $\mu\text{mol/g}$ )	Total comonomer ( $\mu\text{mol}$ )	AIBN loading ( $\mu\text{mol}$ )	Total weight AIBN (g)
1 : 1	1707.20	68.29	0.01121
1 : 2	3414.39	136.58	0.02243
1 : 3	5121.59	204.86	0.03364

## APENDIX E Data of Gel Permeation Chromatography

**Table E1** Sample name for gel permeation analysis

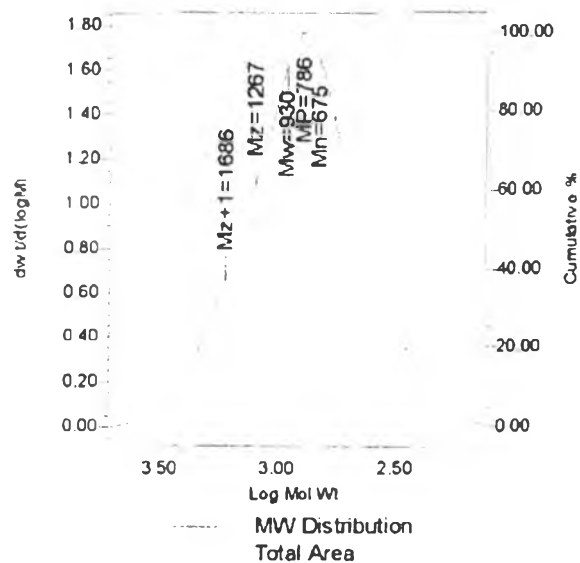
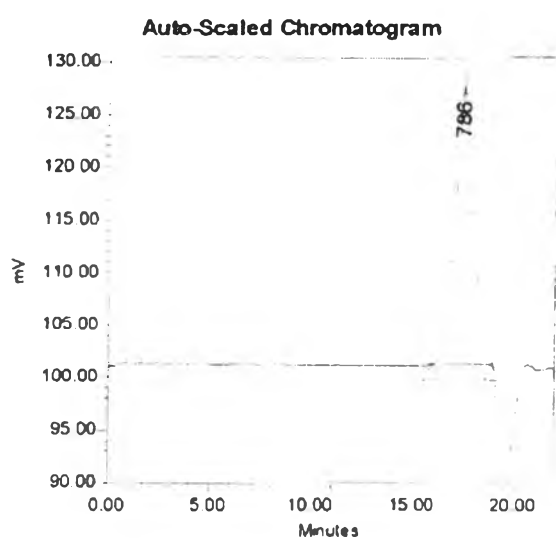
CTAB <sub>adsorp</sub> : Comonomer <sub>adsol</sub> ( $\mu\text{mol/g}$ ) : ( $\mu\text{mol/g}$ )	CTAB adsorption ( $\mu\text{mol/g}$ of silica)	Comonomer adsolubilization ( $\mu\text{mol/g}$ of silica)	Ratio of styrene:isoprene	Sample name
1:1	20	20	1 : 3	1:3L1:1
			1 : 1	1:1L1:1
			3 : 1	3:1L1:1
1:2	20	40	1 : 3	1:3L1:2
			1 : 1	1:1L1:2
			3 : 1	3:1L1:2
1:3	20	60	1 : 3	1:3L1:3
			1 : 1	1:1L1:3
			3 : 1	3:1L1:3
1:1	100	100	1 : 3	1:3H1:1
			1 : 1	1:1H1:1
			3 : 1	3:1H1:1
1:2	100	200	1 : 3	1:3H1:2
			1 : 1	1:1H1:2
			3 : 1	3:1H1:2
1:3	100	300	1 : 3	1:3H1:3
			1 : 1	1:1H1:3
			3 : 1	3:1H1:3

Current Date 1/12/05

### Sample Information

SampleName 1.3L1:1  
 Vial 8  
 Injection 1  
 Injection Volume 100.00  $\mu$ l  
 Channel SATIN  
 Run Time 22.0 Minutes

Sample Type Broad Unknown  
 Date Acquired 1/11/05 7:07:29 PM  
 Acq Method Set Y2005\_MethR\_THF\_30C\_2  
 Processing Method Y2005\_ProcR\_THF\_30C\_2  
 Date Processed 1/12/05 8:35:29 AM



#### Peak Results

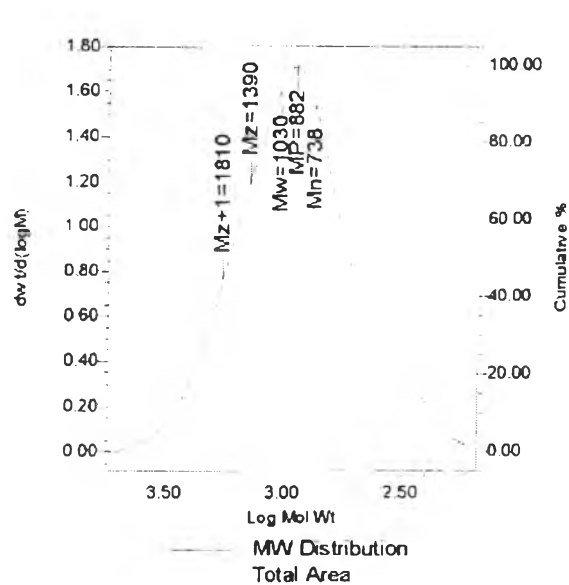
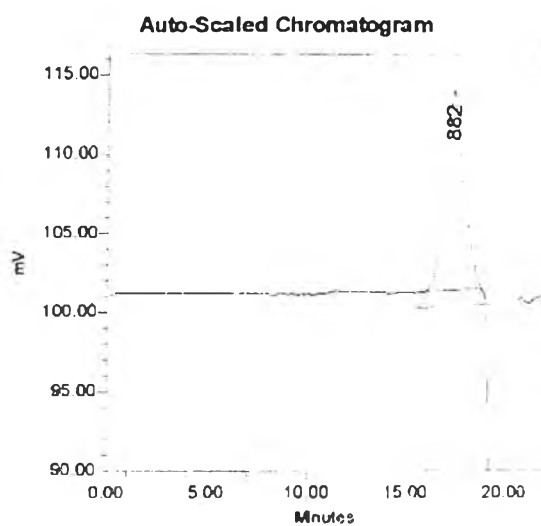
	Mn	Mw	MP	Mz	Mz+1	Polydispersity
1						
2	675	930	786	1267	1686	1.377369

Current Date 1/12/05

### Sample Information

SampleName 1:3L1:2  
 Vial 11  
 Injection 1  
 Injection Volume 100.00 ul  
 Channel SATIN  
 Run Time 22.0 Minutes

Sample Type Broad Unknown  
 Date Acquired 1/11/05 8:24:37 PM  
 Acq Method Set Y2005\_MethR\_THF\_30C\_2  
 Processing Method Y2005\_ProcR\_THF\_30C\_2  
 Date Processed 1/12/05 8:36:06 AM



#### Peak Results

	Mn	Mv	MP	Mz	Mz +1	Polydispersity
1						
2	738	1030	882	1390	1810	1.394901

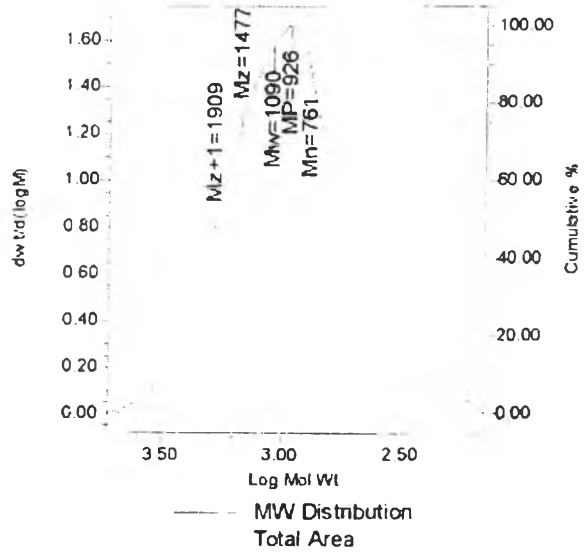
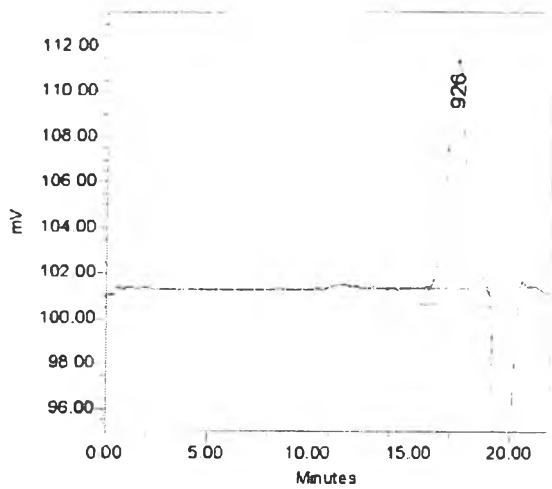
Current Date 1/12/05

**Sample Information**

SampleName 1:3L1:3  
 Vial 14  
 Injection 1  
 Injection Volume 100.00 ul  
 Channel SATIN  
 Run Time 22.0 Minutes

Sample Type Broad Unknown  
 Date Acquired 1/11/05 9:41:46 PM  
 Acq Method Set Y2005\_MethR\_THF\_30C\_2  
 Processing Method Y2005\_ProcR\_THF\_30C\_2  
 Date Processed 1/12/05 8:37:22 AM

**Auto-Scaled Chromatogram**



**Peak Results**

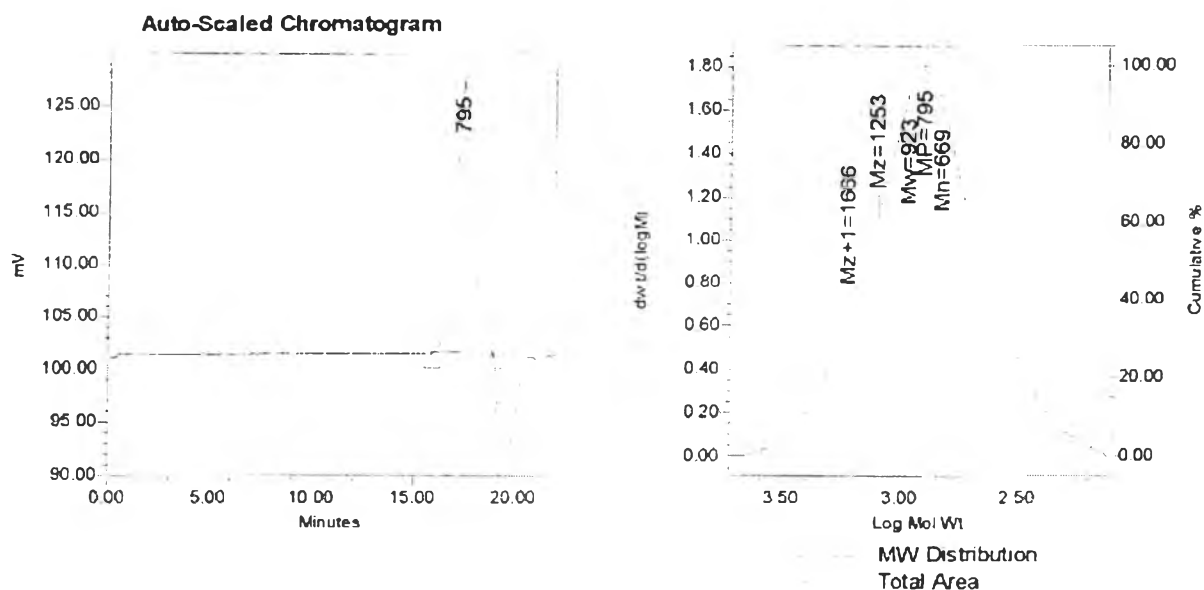
	Mn	Mw	MP	Mz	Mz+1	Polydispersity
1						
2	761	1090	926	1477	1909	1.433472

Current Date 1/12/05

**Sample Information**

SampleName 1:1L1:1  
 Vial 9  
 Injection 1  
 Injection Volume 100.00 ul  
 Channel SATIN  
 Run Time 22.0 Minutes

Sample Type Broad Unknown  
 Date Acquired 1/11/05 7:33:11 PM  
 Acq Method Set Y2005\_MethR\_THF\_30C\_2  
 Processing Method Y2005\_ProcR\_THF\_30C\_2  
 Date Processed 1/12/05 8:35:46 AM

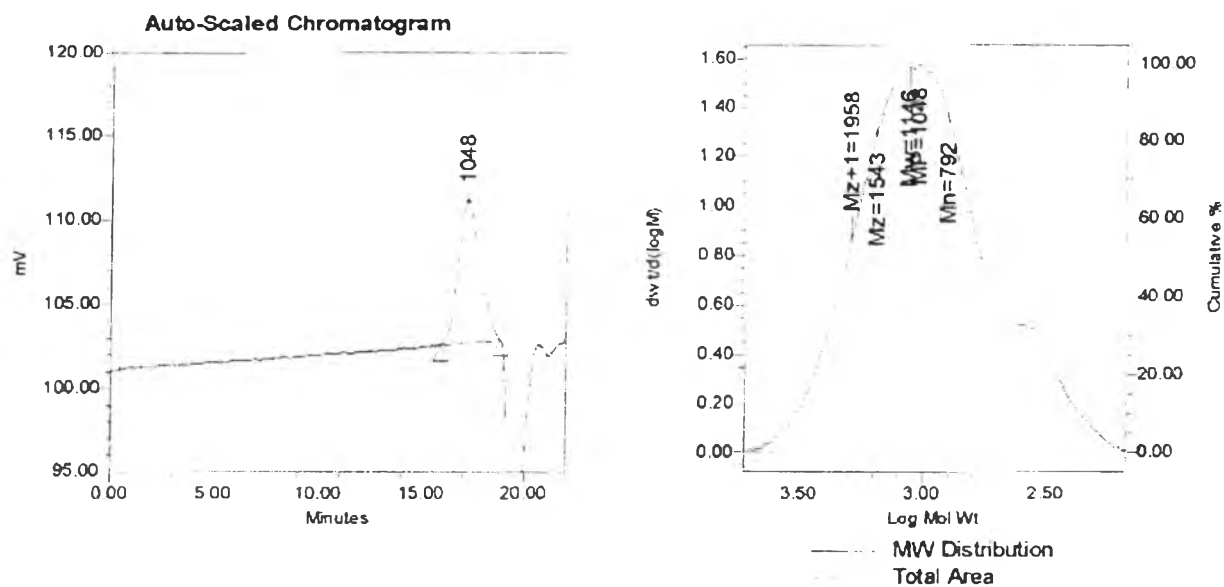
**Peak Results**

	Mn	Mv	MP	Mz	Mz+1	Polydispersity
1						
2	669	923	795	1253	1666	1.378594

Current Date 1/12/05

**Sample Information**

SampleName	1 1L1.2	Sample Type	Broad Unknown
Vial	2	Date Acquired	1/11/05 3:30:27 PM
Injection	1	Acq Method Set	Y2005_MethR_THF_30C_2
Injection Volume	100.00 ul	Processing Method	Y2005_ProcR_THF_30C_2
Channel	SATIN	Date Processed	1/12/05 8 22:11 AM
Run Time	22.0 Minutes		

**Peak Results**

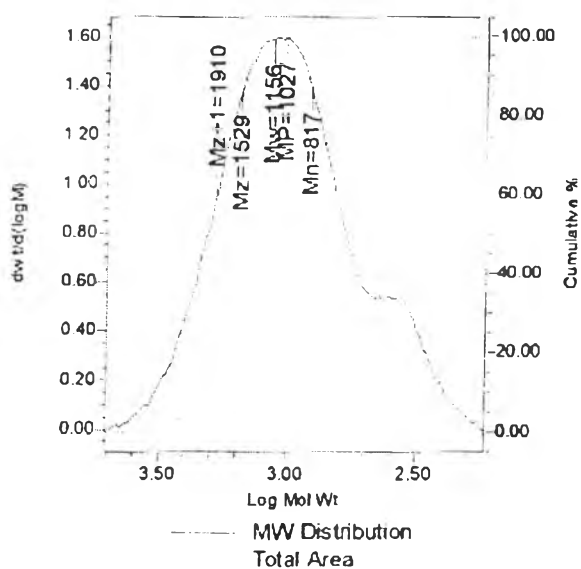
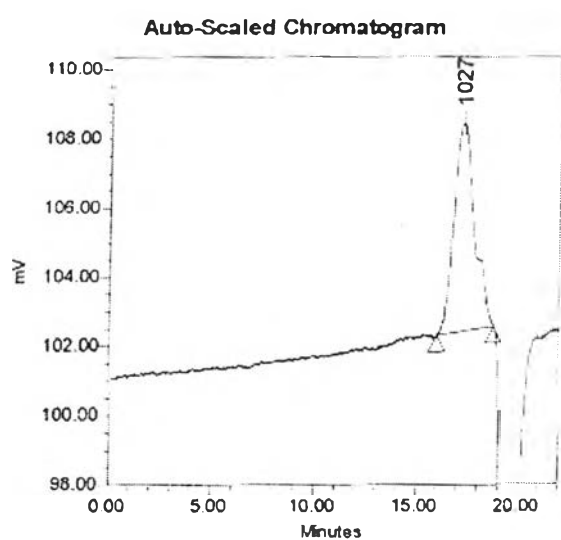
PK	Mn	Mw	MP	Mz	Mz+1	Polydispersity
1						
2	792	1146	1048	1543	1958	1.446658

Current Date 12/14/04

**Sample Information**

SampleName 1:1L(1:3)  
 Vial 6  
 Injection 1  
 Injection Volume 100.00 ul  
 Channel SATIN  
 Run Time 22.0 Minutes

Sample Type Broad Unknown  
 Date Acquired 12/14/04 2:01:40 PM  
 Acq Method Set Y2004\_1\_MethR\_THF\_30C\_4  
 Processing Method Y2005\_ProcR\_THF\_30C\_1  
 Date Processed 12/14/04 4:02:18 PM

**Peak Results**

PK	Mn	Mw	MP	Mz	Mz+1	Polydispersity
1						
2	817	1156	1027	1529	1910	1.414734

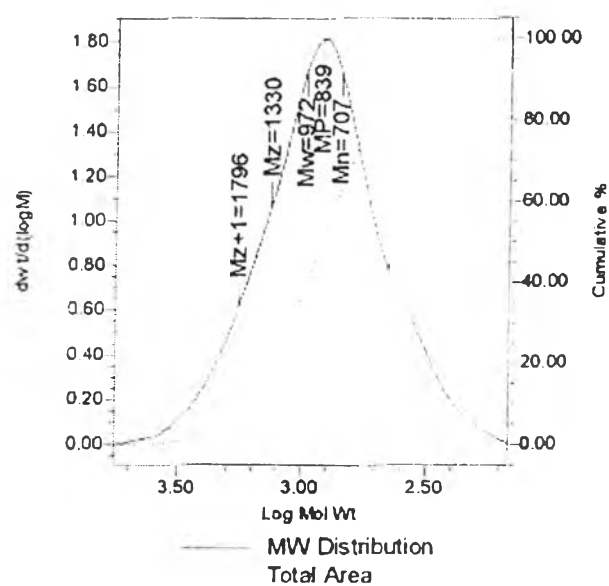
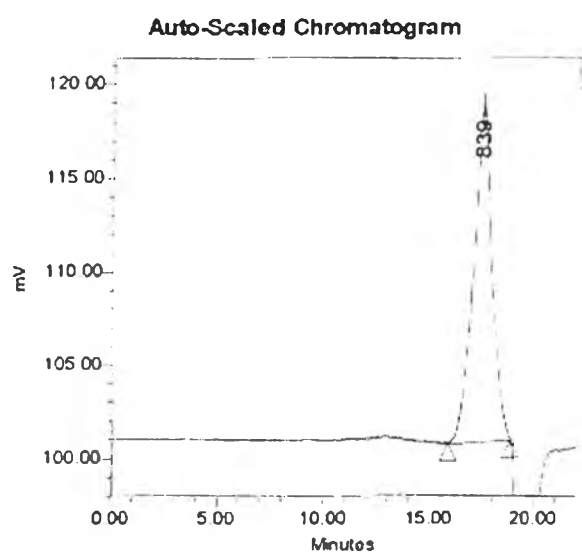


Current Date 12/14/04

### Sample Information

SampleName 3:1L1:1  
 Vial 3  
 Injection 1  
 Injection Volume 100.00 ul  
 Channel SATIN  
 Run Time 22.0 Minutes

Sample Type Broad Unknown  
 Date Acquired 12/14/04 3:28:22 PM  
 Acq Method Set Y2004\_1\_MethR\_THF\_30C\_4  
 Processing Method Y2005\_ProcR\_THF\_30C\_1  
 Date Processed 12/14/04 4:05:19 PM



#### Peak Results

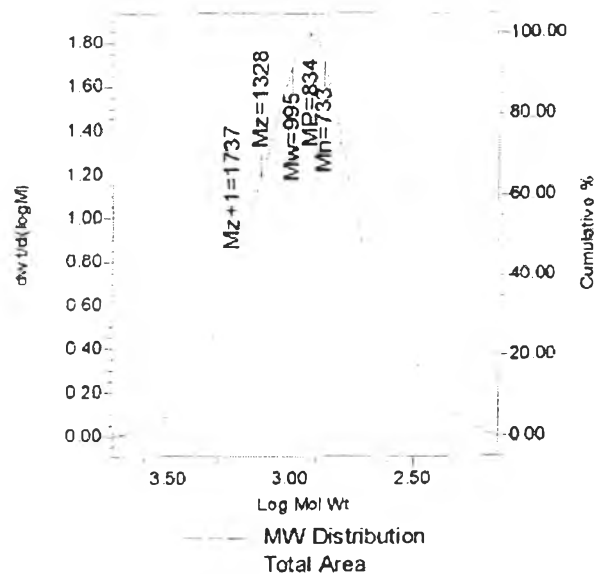
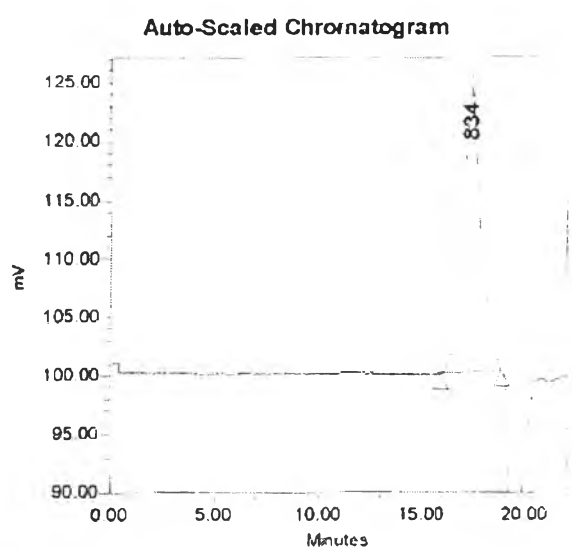
PK	Mn	Mw	MP	Mz	Mz+1	Polydispersity
1						
2	707	872	839	1330	1796	1.374448

Current Date 1/12/05

**Sample Information**

SampleName 3:1L1:2  
 Vial 10  
 Injection 1  
 Injection Volume 100.00  $\mu$ l  
 Channel SATIN  
 Run Time 22.0 Minutes

Sample Type Broad Unknown  
 Date Acquired 1/11/05 7:58:55 PM  
 Acq Method Set Y2005\_MethR\_THF\_30C\_2  
 Processing Method Y2005\_ProcR\_THF\_30C\_2  
 Date Processed 1/12/05 8:35:55 AM

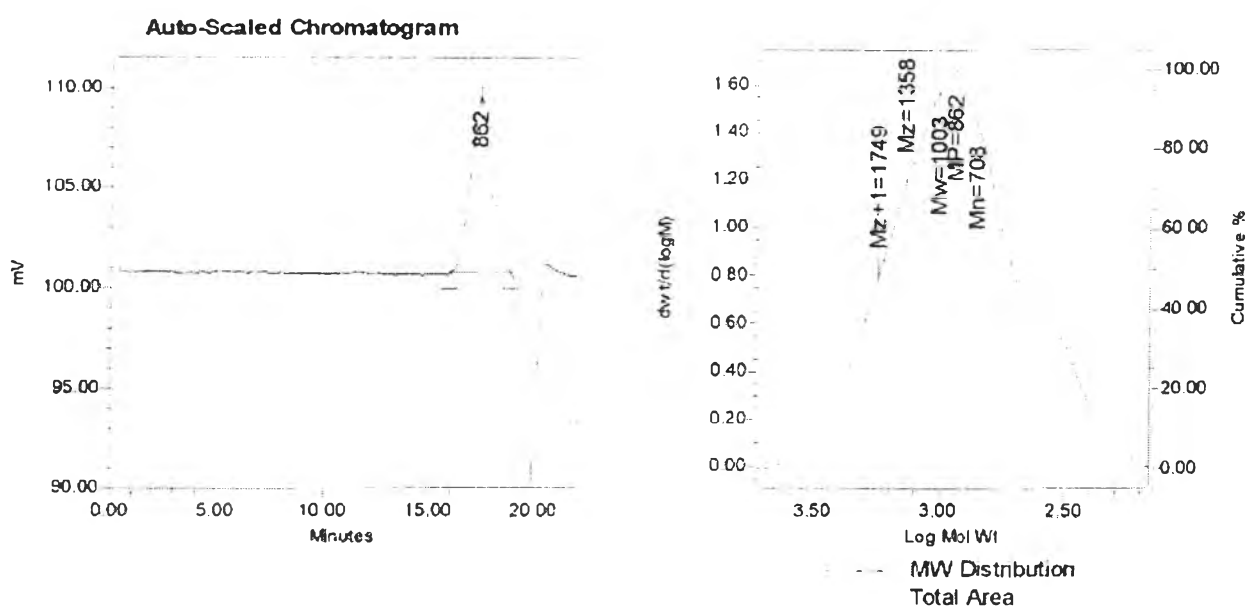
**Peak Results**

	Mn	Mw	MP	Mz	Mz+1	Polydispersity
1						
2	733	995	834	1328	1737	1.357290

Current Date 1/12/05

**Sample Information**

SampleName	3:1L1:3	Sample Type	Broad Unknown
Vial	12	Date Acquired	1/11/05 8:50:21 PM
Injection	1	Acq Method Set	Y2005_MethR_THF_30C_2
Injection Volume	100.00 ul	Processing Method	Y2005_ProcR_THF_30C_2
Channel	SATIN	Date Processed	1/12/05 8:36:21 AM
Run Time	22.0 Minutes		

**Peak Results**

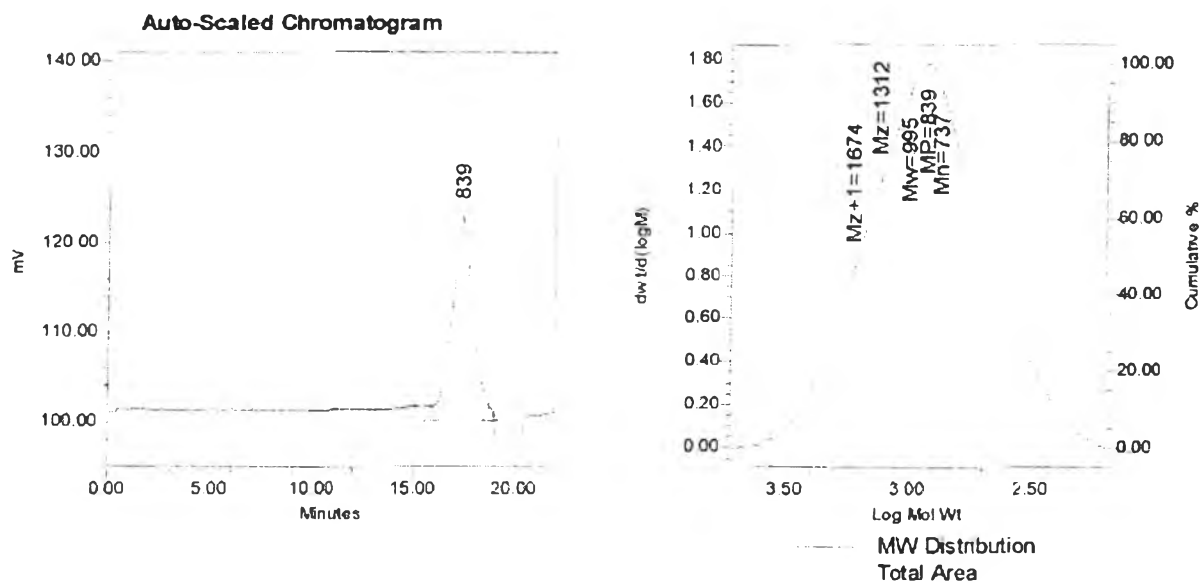
Peak	Mn	Mw	Mp	Mz	Mz+1	Polydispersity
1						
2	708	1003	862	1358	1749	1.415891

Current Date 1/12/05

**Sample Information**

SampleName 1:3H1:1  
 Vial 15  
 Injection 1  
 Injection Volume 100.00 ul  
 Channel SATIN  
 Run Time 22.0 Minutes

Sample Type Broad Unknown  
 Date Acquired 1/11/05 10:07:30 PM  
 Acq Method Set Y2005\_MethR\_THF\_30C\_2  
 Processing Method Y2005\_ProcR\_THF\_30C\_2  
 Date Processed 1/12/05 8:37:41 AM

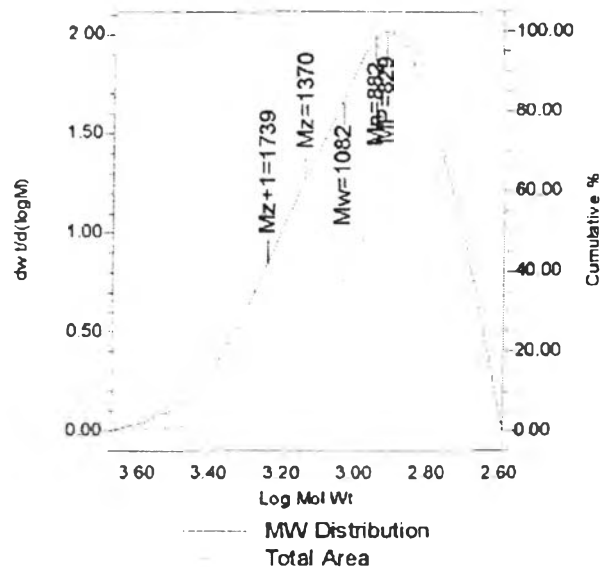
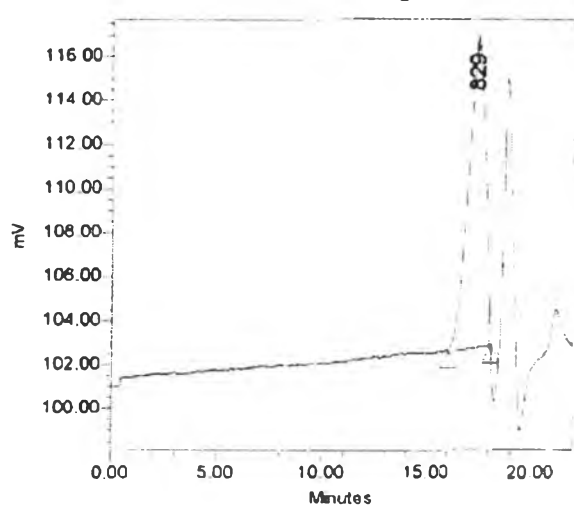
**Peak Results**

PK	Mh	Mv	MP	Mz	Mz+1	Polydispersity
1						
2	737	995	839	1312	1674	1.349638

Current Date 1/19/05

**Sample Information**

SampleName	1:3H1:2	Sample Type	Broad Unknown
Vial	4	Date Acquired	1/19/05 11:08:13 AM
Injection	1	Acq Method Set	Y2005_MethR_THF_30C_2
Injection Volume	100.00 ul	Processing Method	Y2005_ProcR_THF_30C_2
Channel	SATIN	Date Processed	1/19/05 3:15:05 PM
Run Time	22.0 Minutes		

**Auto-Scaled Chromatogram****Peak Results**

	Mn	Mw	MP	Mz	Mz+1	Polydispersity
1						
2	882	1082	829	1370	1739	1.226502

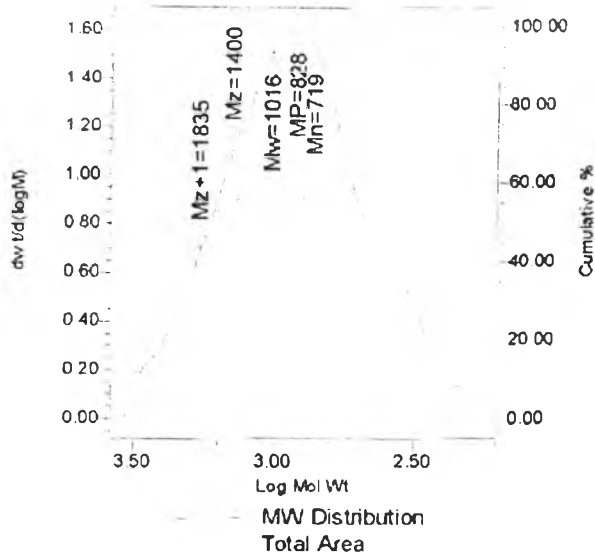
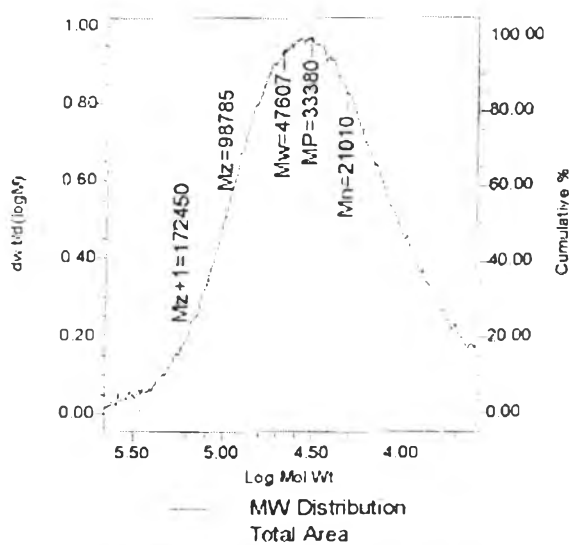
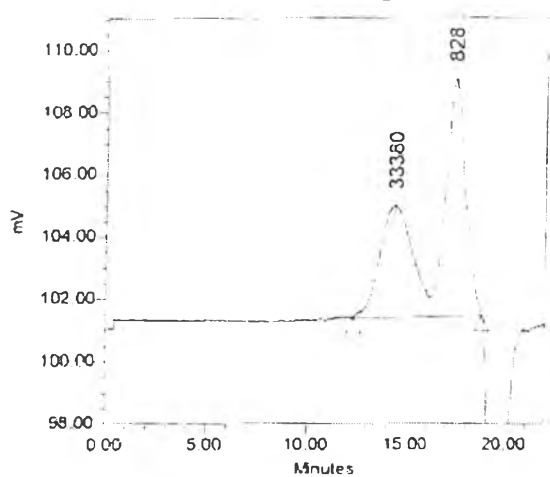
Current Date 12/14/04

### Sample Information

SampleName 1:3H1:3  
 Vial 2  
 Injection 1  
 Injection Volume 100.00 ul  
 Channel SATIN  
 Run Time 22.0 Minutes

Sample Type Broad Unknown  
 Date Acquired 12/14/04 3:02:40 PM  
 Acq Method Set Y2004\_1\_MethR\_THF\_30C\_4  
 Processing Method Y2005\_ProcR\_THF\_30C\_1  
 Date Processed 12/14/04 4:06:37 PM

Auto-Scaled Chromatogram



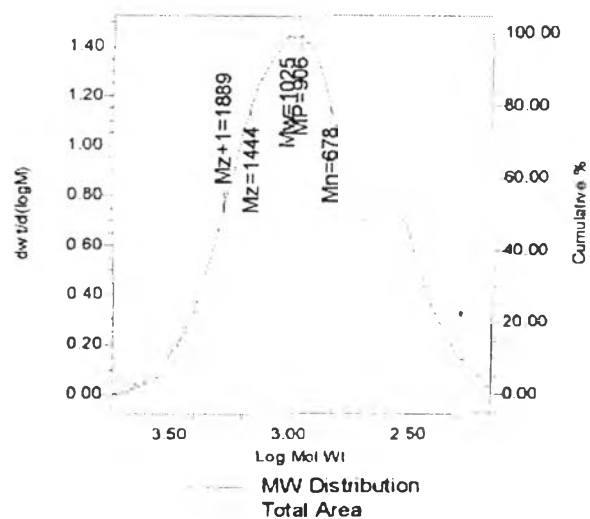
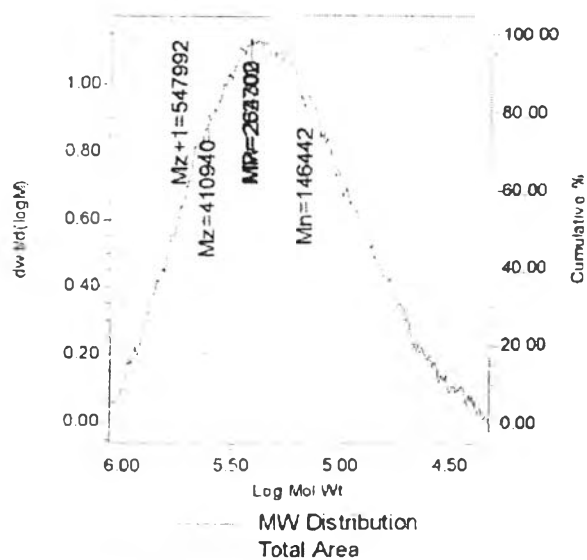
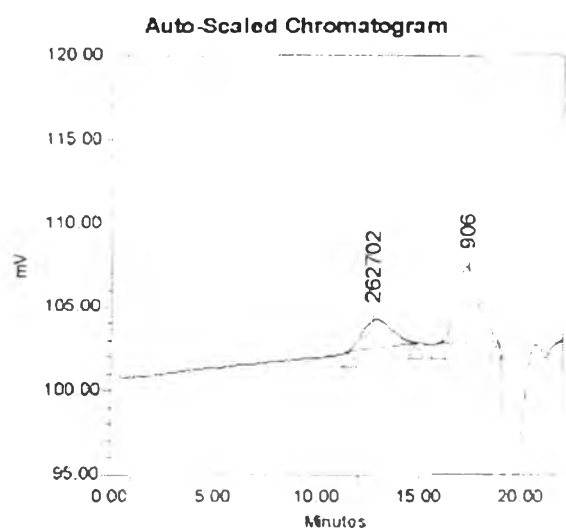
Peak Results

	Mn	Mv	MP	Mz	Mz+1	Polydispersity
1	21010	47607	33380	98785	172450	2.265989
2	719	1016	828	1400	1835	1.412051

Current Date 1/12/05

### Sample Information

SampleName	1:1H1:1	Sample Type	Broad Unknown
Vial	1	Date Acquired	1/11/05 3:04:45 PM
Injection	1	Acq Method Set	Y2005_MethR_THF_30C_2
Injection Volume	100.00 ul	Processing Method	Y2005_ProcR_THF_30C_2
Channel	SATIN	Date Processed	1/12/05 8:21:58 AM
Run Time	22.0 Minutes		



#### Peak Results

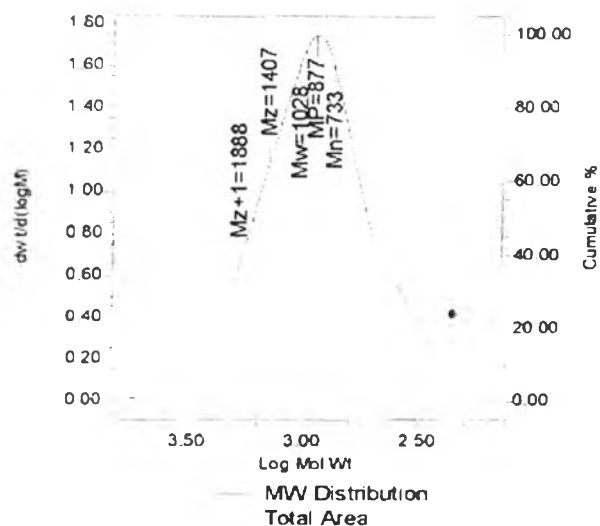
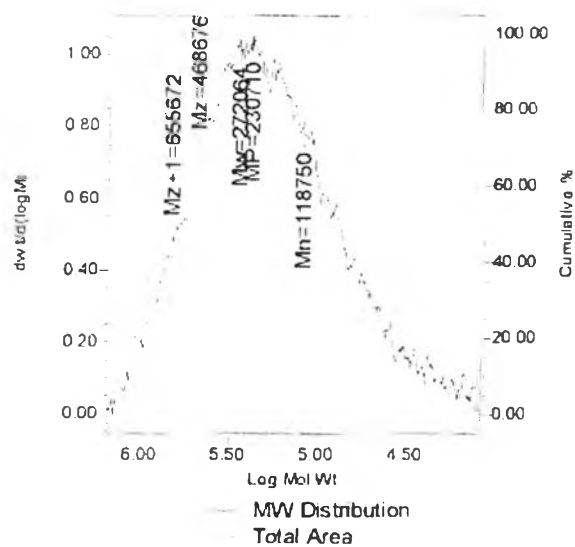
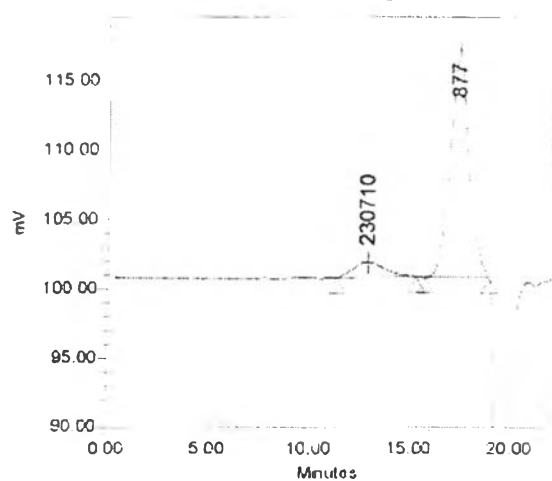
#	Mn	Mv	MP	Mz	Mz+1	Polydispersity
1	146442	254300	262702	410940	547992	1.804813
2	678	1025	906	1444	1889	1.512110

Current Date 1/12/05

**Sample Information**

SampleName 1:1H1:2  
 Vial 13  
 Injection 1  
 Injection Volume 100.00 ul  
 Channel SATIN  
 Run Time 22.0 Minutes

Sample Type Broad Unknown  
 Date Acquired 1/11/05 9:16:04 PM  
 Acq Method Set Y2005\_MethR\_THF\_30C\_2  
 Processing Method Y2005\_ProcR\_THF\_30C\_2  
 Date Processed 1/12/05 8:36:58 AM

**Auto-Scaled Chromatogram****Peak Results**

	Mn	Mw	MP	Mz	Mz+1	Polydispersity
1	118750	272064	230710	468676	655672	2.291068
2	733	1028	877	1407	1888	1.401988

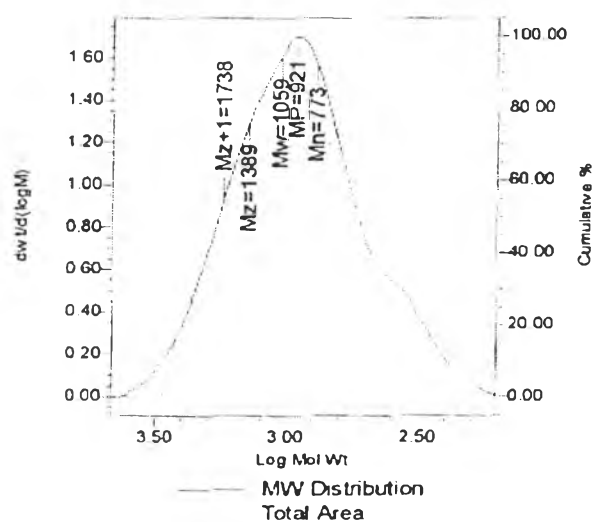
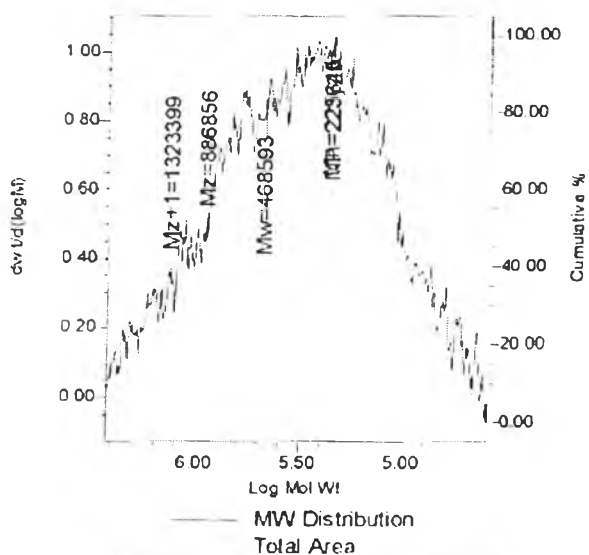
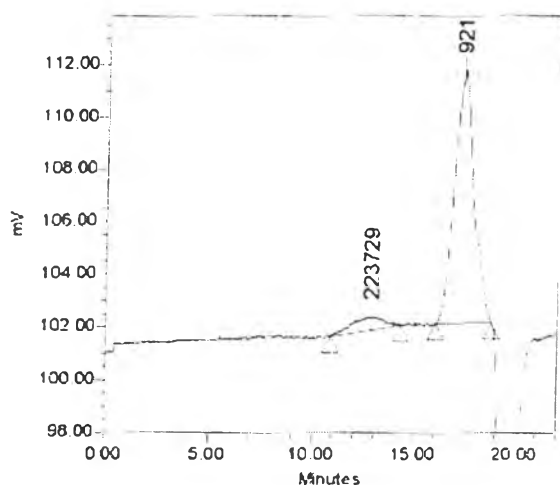


Current Date 12/14/04

**Sample Information**

SampleName 1:1H1:3  
 Vial 1  
 Injection 1  
 Injection Volume 100.00 ul  
 Channel SATIN  
 Run Time 22.0 Minutes

Sample Type Broad Unknown  
 Date Acquired 12/14/04 2:36:56 PM  
 Acq Method Set Y2004\_1\_MethR\_THF\_30C\_4  
 Processing Method Y2005\_ProcR\_THF\_30C\_1  
 Date Processed 12/14/04 4:03:25 PM

**Auto-Scaled Chromatogram****Peak Results**

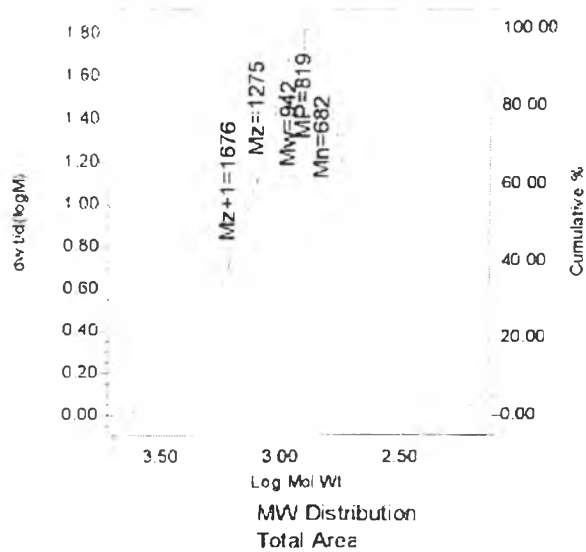
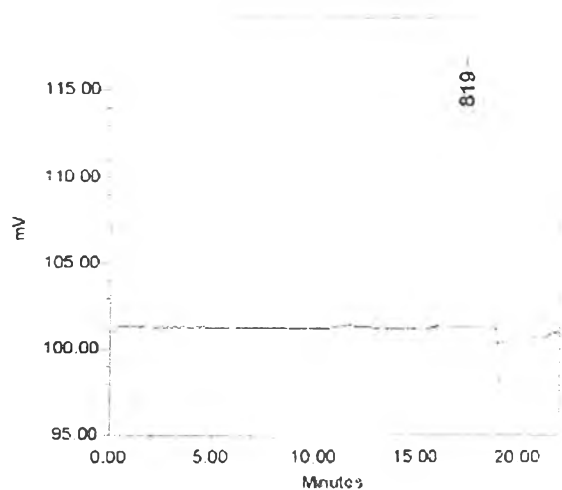
PK	Mn	Mw	MP	Mz	Mz+1	Polydispersity
1	225645	468593	223729	886856	1323399	2.076683
2	773	1059	921	1389	1738	1.370109

Current Date 1/12/05

**Sample Information**

SampleName 3:1H1:1  
 Vial 16  
 Injection 1  
 Injection Volume 100.00 ul  
 Channel SATIN  
 Run Time 22.0 Minutes

Sample Type Broad Unknown  
 Date Acquired 1/11/05 10:33:12 PM  
 Acq Method Set Y2005\_MethR\_THF\_30C\_2  
 Processing Method Y2005\_ProcR\_THF\_30C\_2  
 Date Processed 1/12/05 8:38:12 AM

**Auto-Scaled Chromatogram****Peak Results**

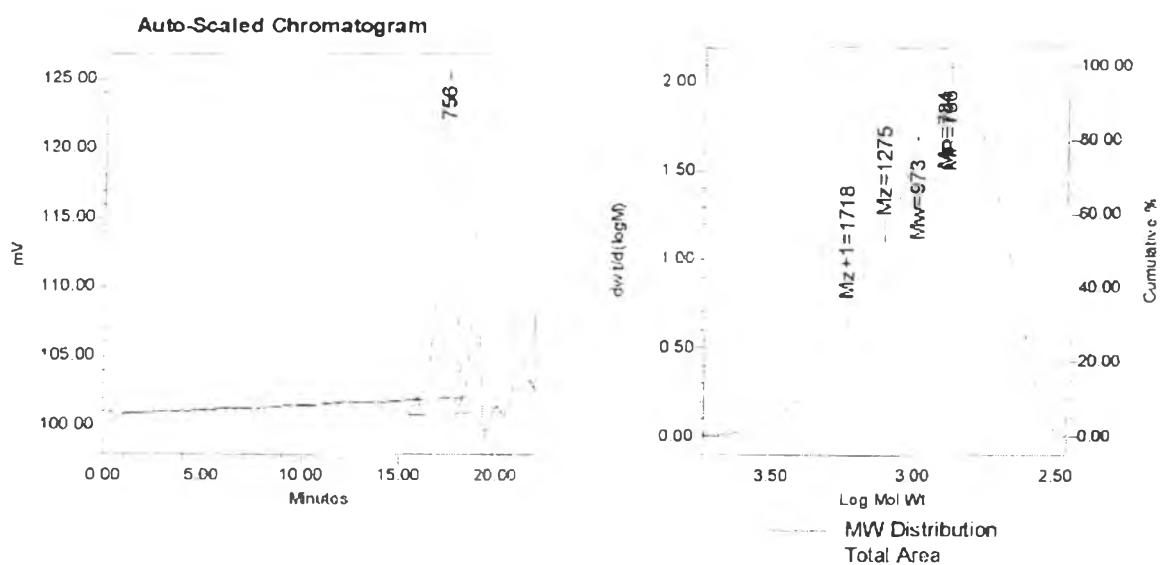
	Mn	Mw	MP	Mz	Mz+1	Polydispersity
1						
2	682	942	819	1275	1676	1.381010

Current Date 1/19/05

**Sample Information**

SampleName 3:1H1\_2  
 Vial 5  
 Injection 1  
 Injection Volume 100.00  $\mu$ l  
 Channel SATIN  
 Run Time 22.0 Minutes

Sample Type Broad Unknown  
 Date Acquired 1/19/05 11:33:55 AM  
 Acq Method Set Y2005\_MethR\_THF\_30C\_2  
 Processing Method Y2005\_ProcR\_THF\_30C\_2  
 Date Processed 1/19/05 3:15:14 PM

**Peak Results**

Peak	Mn	Mw	MP	Mz	Mz+1	Polydispersity
1						
2	784	973	756	1275	1718	1.240947

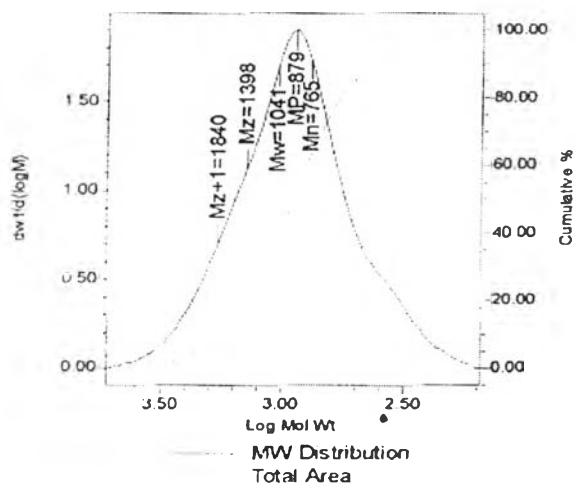
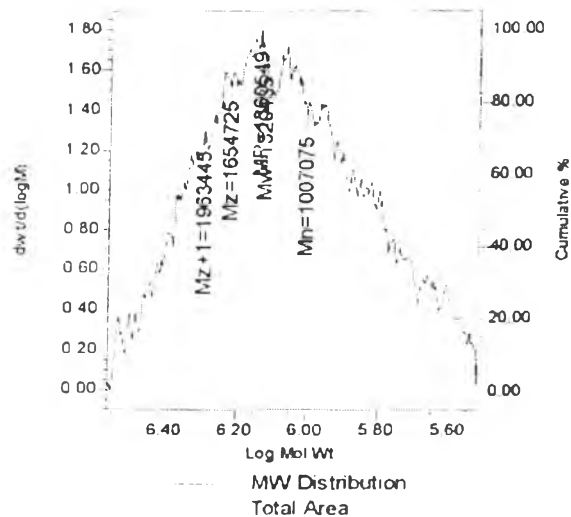
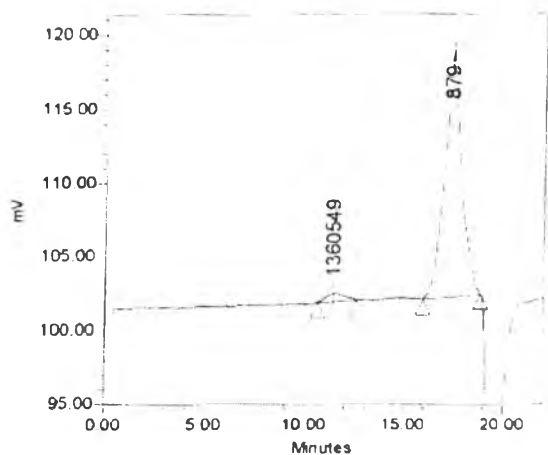
Current Date 12/14/04

### Sample Information

SampleName 3:1H1:3  
 Vial 5  
 Injection 1  
 Injection Volume 100.00 ul  
 Channel SATIN  
 Run Time 22.0 Minutes

Sample Type Broad Unknown  
 Date Acquired 12/14/04 1:36:00 PM  
 Acq Method Set Y2004\_1\_MethR\_THF\_30C\_4  
 Processing Method Y2005\_ProcR\_THF\_30C\_1  
 Date Processed 12/14/04 2:21:27 PM

Auto-Scaled Chromatogram



#### Peak Results

	Mn	Mw	MP	Mz	Mz + 1
1	1007075	1320435	1360549	1654725	1963445
2	765	1041	879	1398	1840

#### Peak Results

	Polydispersity
1	1.311159
2	1.301098

## CURRICULUM VITAE

**Name:** Ms. Saranya Katchamart

**Date of Birth:** March 24, 1981

**Nationality:** Thai

**University Education:**

1999-2002 Bachelor Degree of Science in Industrial Chemistry. Faculty of Science, King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand.

**Poster Presentation:**

1. Katchamart, S., Arayawongkul, S., Nithitanakul, M. and O'Haver J. H. (2005) Characterization of Polymer formed via Admicellar Polymerization: Copolymerization of Styrene/Isoprene. Poster Presentation at the 7<sup>th</sup> World Congress of Chemical Engineering, Glasgow, Scotland.