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APPENDICES

Appendix A Calibration Curve of Standard DBSA

Procedure:

The standard solution of DBSA in distilled water was prepared from stock Solution of 5 mM. in volumetric flask 50 mL. The amounts of MMA in standard Solution was measured by a UV spectrometer at 224 nm.

Calculation of a molar absorbtivity of DBSA from the calibration curve

$$A = \epsilon bc$$

When, A = Absorbance

ϵ = The molar absorbtivity ($\text{L mol}^{-1}\text{cm}^{-1}$)

c = Concentration of solution (mol/L)

From the equation of calibration curve, the molar extinction coefficient of DBSA is the slope of the calibration curve.

At 224 nm;

$$Y = 11551x + 0.128$$

Therefore, the molar absorbtivity of DBSA at 224 nm is $1.1551 \times 10^4 \text{ L mol}^{-1}\text{cm}^{-1}$

Table A1 Absorbance values of the standard DBSA

[DBSA](μM)	Absorbance		
	I	II	III
5	0.179	0.185	0.182
15	0.291	0.305	0.298
35	0.545	0.541	0.543
55	0.760	0.770	0.765
75	0.985	0.993	0.989

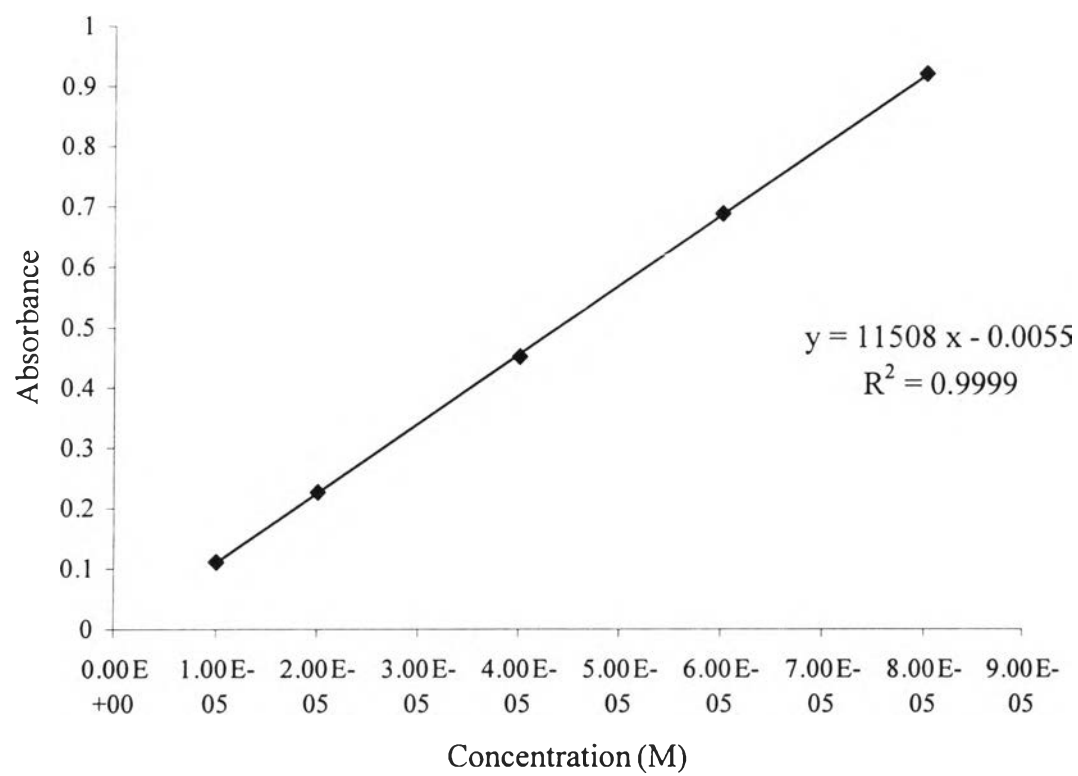


Figure A1 Calibration curve of the standard DBSA.

APPENDIX B Determination of Equilibrium Adsorption Time

The Calculation of $[\text{DBSA}]_{\text{equi}}$ can be calculated following this equation.

$$y = \text{Absorbance}$$

$$x = [\text{DBSA}]$$

$$x = y / 11508 \text{ M}$$

The 0.2 mL supernatant was pipetted and diluted with distilled water pH = 4 in volumetric flask 25 mL so, $[\text{DBSA}]_{\text{equi}}$ can be calculated from

$$C_1V_1 = C_2V_2$$

$$x = C_1 = [\text{DBSA}]_{\text{flask}}, V_1 = 25 \text{ mL}$$

$$[\text{DBSA}]_{\text{fi}} = C_2 = [\text{DBSA}]_{\text{dyed pot}}, V_2 = 0.2 \text{ mL}$$

$$C_2 = (x \times 25)/0.2 \text{ M}$$

Calculation of the amount of adsorbed DBSA on polyester fabric

$$[\text{DBSA}]_{\text{ads}} = \{([\text{DBSA}]_{\text{ini}} - [\text{DBSA}]_{\text{fi}}) \times V\}/1000$$

$$\text{Adsorption } \mu\text{mol/g PES} = \{([\text{DBSA}]_{\text{ads}} \times 60)/1000\}/\text{weight of fabric}$$

Table B1 The equilibrium DBSA concentration at various adsorption time

Time (h)	Exp.I.			Exp. II.		
	Absorbance	[DBSA]equi	[DBSA]PES	Absorbance	[DBSA]equi	[DBSA]PES
5	0.694	0.00609	6.03E-06	0.699	0.00614	6.08E-06
8	0.686	0.00601	1.04E-05	0.694	0.00608	8.89E-06
10	0.686	0.00601	1.04E-05	0.691	0.00605	1.05E-05
15	0.678	0.00592	1.47E-05	0.691	0.00605	1.04E-05
20	0.679	0.00593	1.42E-05	0.685	0.00598	1.35E-05
25	0.677	0.00591	1.55E-05	0.685	0.00598	1.38E-05
40	0.678	0.00596	1.50E-05	0.685	0.00598	1.4E-05

Table B2 The amount of adsorbed DBSA at various time

Time (h)	I.	II.	Average	SD
	[DBSA] _{PES} ($\mu\text{mol/g PES}$)	[DBSA] _{PES} ($\mu\text{mol/g PES}$)	[DBSA] _{PES} ($\mu\text{mol/g PES}$)	
5	5.5	6.0	5.5	0.7
8	8.8	10.4	9.6	1.1
10	10.5	10.4	10.4	0.1
15	13.3	14.7	14.0	0.9
20	12.4	14.2	13.3	1.3
25	11.6	15.5	13.5	2.7
40	13.3	15.0	14.1	1.2

APPENDIX C Determination of the Effect of Electrolyte on the Adsorption of DBSA on Polyester Fabric

Table C1 The equilibrium DBSA concentration at various NaCl concentrations

[NaCl] (M)	I.			II.		
	Absorbance	[DBSA]equi	[DBSA]PES	Absorbance	[DBSA]equi	[DBSA]PES
0	0.701	0.00633	6.10E-06	0.689	0.00614	6.27E-06
0.05	0.698	0.00630	7.71E-06	0.694	0.00619	7.95E-06
0.075	0.693	0.00625	1.04E-05	0.684	0.00608	1.09E-05
0.1	0.687	0.00618	1.43E-05	0.685	0.00609	1.38E-05
0.125	0.683	0.00614	1.60E-05	0.683	0.00607	1.65E-05
0.15	0.679	0.00610	1.82E-05	0.666	0.00588	1.89E-05

Table C2 The amount of adsorbed DBSA at various NaCl concentrations

[NaCl] (M)	I. Adsorption ($\mu\text{mol/g PES}$)	II. Adsorption ($\mu\text{mol/g PES}$)	Average Adsorption ($\mu\text{mol/g PES}$)	SD
0	11.6	11.6	11.3	0.4
0.05	11.1	11.3	11	0.5
0.075	10.5	10.6	11.3	1.4
0.1	14.3	14.1	13.4	1.4
0.125	14.9	15.1	14.4	1
0.15	17.7	17.6	17.7	0.1

Appendix D Determination of the Adsorption Isotherm

Table D1 The equilibrium DBSA concentration with 0.15 M NaCl

[DBSA] _{ini} (μM)	I. [DBSA] _{equi} (μM)	II. [DBSA] _{equi} (μM)	Average [DBSA] _{equi} (μM)	SD
10	9.2	9.4	9.3	0.1
50	46.2	46.6	46.3	0.3
100	89.1	87.8	88.4	0.9
500	445.0	450.5	447.7	3.8
1000	915.9	900.1	908.0	11.1
1300	1212.8	1198.3	1205.6	10.2
1500	1381.5	1356.9	1369.2	17.4
2000	1834.8	1823.0	1829.0	8.3
4000	3779.4	3785.0	3782.2	3.9
6000	5771.9	5801.2	5786.6	20.7

Table D2 The amount of adsorbed DBSA at equilibrium with 0.15 M NaCl

$[\text{DBSA}]_{\text{ini}}$ (μM)	I. $[\text{DBSA}]_{\text{PES}}$ ($\mu\text{mol/g PES}$)	II. $[\text{DBSA}]_{\text{PES}}$ ($\mu\text{mol/g PES}$)	Average $[\text{DBSA}]_{\text{PES}}$ ($\mu\text{mol/g PES}$)	SD
10	1.6	1.2	1.4	0.2
50	1.8	1.6	1.7	0.1
100	3.0	3.4	3.2	0.3
500	6.7	6.1	6.4	0.4
1000	8.5	9.9	9.2	0.9
1300	10.9	12.4	11.2	1.1
1500	13.9	16.2	15.1	1.5
2000	15.6	16.7	16.2	0.7
4000	17.4	16.8	17.1	0.4
6000	15.2	17.3	16.3	1.4

Table D3 The equilibrium DBSA concentration with no salt

[DBSA] _{ini} (μM)	I. [DBSA] _{equi} (μM)	II. [DBSA] _{equi} (μM)	Average [DBSA] _{equi} ($\mu\text{mol/g PES}$)	SD
10	9.7	9.5	9.6	0.1
50	48.0	48.0	48.0	0
100	96.7	95.4	96.0	0.9
500	492.2	487.2	489.7	3.5
1000	958.1	960.9	960.0	1.9
1300	1204.2	1224.3	1214.3	14.2
1500	1393.3	1380.6	1386.9	8.9
2000	1873.3	1847.3	1860.3	18.3
4000	3841.3	3847.3	3844.3	4.2
6000	5838.7	5844.8	5841.8	4.3

Table D4 The amount of adsorbed DBSA at equilibrium with no salt

[DBSA] _{ini} (μM)	I. [DBSA] _{equi} (μM)	II. [DBSA] _{equi} (μM)	Average [DBSA] _{equi} ($\mu\text{mol/g PES}$)	SD
10	0.6	1.1	0.8	0.3
50	0.9	0.9	0.9	0
100	0.9	1.2	1.1	0.2
500	1.1	1.8	1.5	0.5
1000	5.4	5.1	5.3	0.2
1300	10.5	8.5	9.5	1.4
1500	11.1	12.5	11.8	0.9
2000	10.8	12.7	11.7	1.3
4000	11.5	11.8	11.6	0.2
6000	12.1	11.8	11.8	0.2

APPENDIX E Calculation of the Amount of DBSA Adsorption on the Polyester Fabric Surface

The surface area of polyester as determined from BET with nitrogen was found to be 2.5 m²/g. Assuming that the area occupied by a DBSA molecule is 50 Å² so the amount of adsorbed DBSA can be calculated as followed.

$$\textit{The amount of adsorbed DBSA on polyester} = A_{PES}/A_{DBSA}$$

$$\text{When, } A_{PES} = \text{Surface area of polyester}$$

$$A_{DBSA} = \text{Surface area of 1 molecule of DBSA}$$

$$\begin{aligned} \text{The amount of adsorbed DBSA on polyester} &= 2.5 \text{ (m}^2\text{/g)} / 50 \times 10^{-20} \text{ (m}^2\text{/ molecule)} \\ &= 5 \times 10^{18} \text{ (molecules/g)} \\ \text{(1 mol} = 6.025 \times 10^{23} \text{ molecules/g)} &= 5 \times 10^{18} / 6.025 \times 10^{23} \text{ (mol/g)} \\ &= 8.3 \times 10^{-6} \text{ (mol/g) or } 8.3 \text{ (}\mu\text{mol/g)} \end{aligned}$$

Assuming that DBSA formed a bilayer on polyester;

$$\begin{aligned} \text{The amount of adsorbed DBSA on polyester} &= 2 \times 8.3 \text{ (}\mu\text{mol/g)} \\ &= 16.6 \text{ (}\mu\text{mol/g)} \end{aligned}$$

APPENDIX F Contact Angle Measurement on the PMMA-coated Polyester Fabric

Table F1 Contact angle of the PMMA-coated polyester fabric at various conditions

AIBN:MMA	DBSA:MMA	Contact angle θ , degree										Average
		1	2	3	4	5	6	7	8	9	10	
1:5	1:2	120.3	115.1	119.6	117.7	114.3	123.2	115.2	155.5	120.9	117.7	113.9±3.5
		124.8	117.7	111.8	115.5	117.2	118.0	113.9	114.9	117.0	116.1	
		125.5	120.7	118.1	115.3	109.8	110.4	114.8	109.7	110.4	112.5	
	1:5	117.2	112.6	110.9	110.3	114.4	112.5	118.0	117.1	121.2	103.3	113.0±3.4
		111.5	110.1	107.4	103.8	112.5	110.2	112.1	108.7	115.3	115.7	
		125.7	110.2	108.9	110.6	114.7	118.1	124.1	124.5	111.0	112.6	
	1:8	121.2	113.0	122.9	117.6	111.8	119.4	119.9	113.9	110.9	114.9	114.8±2.5
		114.9	123.1	112.1	112.6	122.8	115.0	121.1	119.9	115.1	117.5	
		114.3	114.3	114.8	116.2	115.1	113.5	112.5	114.2	111.0	108.5	
	1:10	114.0	120.5	123.1	117.9	112.3	112.9	114.5	112.2	116.8	116.7	114.6±1.4
		123.6	118.9	109.7	109.9	110.1	118.7	115.5	110.8	112.8	108.3	
		117.3	112.6	108.6	111.3	111.3	110.4	113.1	118.6	115.9	119.8	

Table F2 Contact angle of the PMMA-coated polyester fabric at various conditions

AIBN:MMA	DBSA:MMA	Contact angle θ , degree										
		1	2	3	4	5	6	7	8	9	10	Average
1:10	1:2	110.0	109.8	107.2	109.8	110.4	107.6	110.9	112.2	118.9	114.4	107.2±4.3
		106.8	110.2	115.2	110.1	106.3	122.7	112.2	118.1	111.8	112.4	
		111.9	107.4	110.5	109.8	107.4	119.5	112.9	117.3	117.6	114.4	
	1:5	126.0	113.2	114.8	115.3	119.5	123.5	112.9	113.2	119.2	110.0	114.1±5.4
		119.8	124.8	114.8	113.9	117.7	124.4	116.7	120.4	115.7	113.4	
		115.1	119.2	118.9	119.9	117.8	115.0	117.2	120.3	116.7	114.4	
	1:8	120.9	124.6	119.0	117.0	122.7	121.7	115.9	117.1	113.5	113.9	117.3±1.2
		106.4	121.4	113.4	117.4	119.5	115.3	120.6	118.4	118.9	117.1	
		112.9	116.0	119.4	122.0	116.3	116.9	113.0	113.2	113.1	121.5	
	1:10	124.4	126.7	131.8	116.6	118.4	119.2	116.4	119.4	120.4	116.8	119.5±2.3
		124.1	118.9	128.1	117.3	121.7	121.9	122.7	116.7	122.6	117.8	
		118.6	119.5	119.8	117.4	113.2	116.7	113.6	118.2	112.2	117.1	

Table F3 Contact angle of the PMMA-coated polyester fabric at various conditions

AIBN:MMA	DBSA:MMA	Contact angle θ , degree										
		1	2	3	4	5	6	7	8	9	10	Average
1:20	1:2	*	*	*	*	*	*	*	*	*	*	*
	1:5	*	*	*	*	*	*	*	*	*	*	*
	1:8	117.3	117.8	119.6	114.4	116.3	118.6	115.2	111.3	120.3	115.9	116.7±0.1
		113.8	115.8	122.6	115.3	114.4	119.7	116.0	120.3	113.6	114.2	
		122.4	121.3	119.1	117.2	112.8	116.4	114.3	115.4	117.9	111.0	
	1:10	124.7	120.3	111.7	107.5	114.2	122.5	110.8	119.8	107.8	113.4	116.4±0.8
		114.3	113.7	118.3	114.9	109.8	113.4	114.1	115.9	110.6	114.6	
		114.9	124.4	110.0	115.3	109.1	116.3	121.2	117.1	114.0	112.7	
	Untreated polyester fabric	109.4	117.8	108.9	113.1	101.1	100.1	110.9	116.2	117.7	108.9	110.1±5.3
		106.3	107.5	114.8	113.0	113.2	111.1	103.8	106.4	117.3	105.1	

*The contact angle cannot be measured because the water droplet disappeared immediately.

APPENDIX G Contact Angle Measurement of the hydrolyzed PMMA-coated Polymer Fabric

Table G1 Contact angle of the hydrolyzed PMMA-coated polyester fabric at various conditions

Condition		Contact angle θ , degree											
Reagent	Time (h)	1	2	3	4	5	6	7	8	9	10	Average	
10 M HCl (30°C)	1	116.1	121.6	120.2	117.4	113.5	112.9	118.7	113.5	114.9	113.2	117.3±3.9	
		112.9	125.5	115.3	114.5	115.9	113.5	120.3	116.4	112.9	113.4		
	2	114.1	115.1	115.8	114.4	111.7	123.6	114.1	119.0	118.6	116.5	116.3±3.4	
		115.7	113.5	111.9	115.8	119.7	120.8	113.2	118.4	114.6	116.2		
	5	5	114.4	112.6	111.9	114.6	111.3	111.0	112.6	114.1	113.5	116.6	113.3±1.7
			111.1	111.2	112.8	113.4	119.4	115.2	112.6	114.1	113.5	116.9	
10 M HCl (80°C)	1	112.4	110.7	116.1	115.7	113.1	116.5	111.1	113.2	112.0	114.9	113.6±2.1	
		111.8	110.6	116.9	113.4	115.2	112.7	113.6	114.8	111.0	115.6		
	2	112.0	113.5	113.9	113.2	111.4	111.8	114.0	116.4	116.6	108.8	113.2±2.3	
		109.8	110.0	112.0	113.2	114.3	115.7	114.2	111.6	110.9	110.0		
	5	5	109.5	116.1	111.6	109.3	116.6	114.0	113.0	112.6	112.7	112.0	112.7±2.4
			112.5	115.6	112.3	111.0	109.6	114.3	113.2	112.6	113.5	115.2	

Table G2 Contact angle of the hydrolyzed PMMA-coated polyester fabric at various conditions

Condition		Contact angle θ , degree											
Reagent	Time (h)	1	2	3	4	5	6	7	8	9	10	Average	
10 M H ₂ SO ₄ (30°C)	1	109.9	110.9	116.0	110.7	106.5	107.1	117.7	119.4	113.9	112.6	112.5±4.3	
		108.2	119.9	110.1	112.6	113.5	118.4	108.6	110.5	111.0	114.2		
	2	115.0	112.0	118.1	114.6	111.7	107.7	106.2	111.8	108.4	110.9	111.6±3.6	
		116.2	113.0	110.0	116.7	113.5	112.4	106.2	106.5	107.9	109.8		
	5	5	110.8	115.7	113.8	112.9	107.9	112.4	110.8	113.2	111.4	104.4	111.3±3.2
			112.3	116.4	111.6	115.2	114.3	112.5	111.3	110.3	110.3	112.4	
10 M H ₂ SO ₄ (80°C)	1	*	*	*	*	*	*	*	*	*	*	*	
		*	*	*	*	*	*	*	*	*	*		
	2	*	*	*	*	*	*	*	*	*	*	*	
		*	*	*	*	*	*	*	*	*	*		
	5	5	*	*	*	*	*	*	*	*	*	*	*
			*	*	*	*	*	*	*	*	*	*	

* The contact angle cannot be measured because the water droplet disappeared immediately.

Table G3 Contact angle of the hydrolyzed PMMA-coated polyester fabric at various conditions

Condition		Contact angle θ , degree										
Reagent	Time(h)	1	2	3	4	5	6	7	8	9	10	Average
0.1 M p-TSA (30°C)	1	121.6	116.4	115.5	113.5	111.2	111.9	109.8	118.7	116.8	111.9	114.7 ± 3.7
		113.7	113.2	110.8	114.7	112.0	112.2	109.6	115.1	117.5	117.2	
	2	119.6	115.0	117.2	113.5	112.9	20.3	115.2	117.7	106.9	106.6	114.5 ± 4.7
		114.1	120.2	115.1	114.5	115.7	112.3	110.8	112.9	115.3	113.2	
	5	112.7	118.5	112.4	114.6	111.4	112.9	109.5	120.4	111.2	112.0	113.6 ± 3.4
		116.4	113.1	114.2	111.3	109.8	111.8	112.6	113.7	110.0	110.0	
0.5 M p-TSA (30°C)	1	111.6	117.5	118.1	114.5	106.0	120.6	113.6	107.9	105.6	107.5	112.3 ± 5.4
		109.9	110.9	113.9	112.6	106.5	107.1	117.7	119.4	116.0	110.7	
	2	109.1	111.6	113.9	116.5	110.8	111.7	111.7	113.4	109.0	113.3	112.1 ± 3.5
		115.0	112.0	118.1	108.4	110.9	111.8	110.7	106.5	112.3	113.5	
	5	112.8	106.4	111.3	108.1	111.5	118.0	111.5	112.9	109.3	101.6	110.3 ± 4.4
		110.2	107.3	111.0	112.0	113.2	112.4	108.3	109.8	103.2	106.4	

APPENDIX H Moisture Absorption Measurement

Table H1 Moisture absorption of the hydrolyzed PMMA-coated polyester fabric at various conditions

Fabric	Hydrolysis time	No	Weight of Fabric(g)			Moisture Regain (%)	Average Moisture Regain (%)	SD	
			Before Drying	After Drying					
				I	II				III
Cotton	-	1	0.8098	0.7517	0.7516	0.7515	7.64	7.72	0.10
		2	0.8014	0.7435	0.7440	0.7440	7.79		
Polyester	-	1	0.7830	0.7792	0.7788	0.7788	0.54	0.55	0.00
		2	0.7861	0.7814	0.7815	0.7814	0.55		
PMMA-coated fabric	-	1	0.8098	0.8083	0.8049	0.8052	0.61	0.60	0.02
		2	0.8012	0.7971	0.7966	0.7974	0.58		
PMMA-coated fabric hydrolyzed by 10 M HCl at 30°C	1 h.	1	0.8163	0.8119	0.8113	0.8112	0.63	0.63	0.01
		2	0.8258	0.8215	0.8208	0.8207	0.62		
	2 h.	1	0.8145	0.8105	0.8094	0.8092	0.65	0.34	0.02
		2	0.8080	0.8039	0.8034	0.8030	0.62		
	5 h.	1	0.8185	0.8143	0.8138	0.8137	0.59	0.60	0.01
		2	0.8077	0.8036	0.8030	0.8029	0.60		

Table H2 Moisture absorption of the hydrolyzed PMMA-coated polyester fabric at various conditions

Fabric	Hydrolysis time	No.	Weight of Fabric(g)				Moisture Regain (%)	Average Moisture Regain (%)	SD
			Before Drying	After Drying					
				I	II	III			
PMMA-coated fabric hydrolyzed by 10 M HCl at 30°C	1 h.	1	0.8225	0.8175	0.8173	0.8172	0.65	0.63	0.05
		2	0.8174	0.8128	0.8127	0.8127	0.58		
	2 h.	1	0.8182	0.8133	0.8133	0.8127	0.68	0.66	0.03
		2	0.8204	0.8160	0.8153	0.8152	0.64		
	5 h.	1	0.8199	0.8152	0.8145	0.8144	0.68	0.70	0.03
		2	0.8022	0.7974	0.7970	0.7965	0.72		
PMMA-coated fabric hydrolyzed by 10 M HCl at 80 °C	1 h.	1	0.7915	0.7874	0.7868	0.7867	0.61	0.62	0.01
		2	0.8047	0.7999	0.7998	0.7997	0.62		
	2 h.	1	0.7763	0.7710	0.7707	0.7707	0.72	0.72	0.01
		2	0.7820	0.7774	0.7765	0.7765	0.71		
	5 h.	1	*	*	*	*	*	*	*
		2	*	*	*	*	*		

* The fabric was destroyed in these conditions.

Table H3 Moisture absorption of the hydrolyzed PMMA-coated polyester fabric at various conditions

Fabric	Hydrolysis Time	No.	Weight of Fabric(g)				Moisture Regain (%)	Average Moisture Regain (%)	SD
			Before Drying	After Drying					
				I	II	III			
PMMA-coated fabric hydrolyzed by 10 M H ₂ SO ₄ at 30°C	1 h	1	0.7882	0.7833	0.7836	0.7834	0.63	0.63	0.00
		2	0.8030	0.7980	0.7980	0.7984	0.63		
	2 h	1	0.8115	0.8072	0.8069	0.8070	0.57	0.59	0.02
		2	0.7994	0.7947	0.7946	0.7946	0.060		
	5 h	1	0.8088	0.8050	0.8051	0.8052	0.60	0.62	0.01
		2	0.8062	0.8015	0.8012	0.8015	0.62		
PMMA-coated fabric hydrolyzed by 10 M H ₂ SO ₄ at 80°C	1 h	1	0.7768	0.7730	0.7715	0.7716	0.69	0.70	0.01
		2	0.8056	0.8005	0.8003	0.8000	0.70		
	2 h	1	0.7989	0.7935	0.7936	0.7931	0.73	0.72	0.02
		2	0.8040	0.7987	0.7985	0.7984	0.70		
	5 h	1	0.7998	0.7942	0.7932	0.7932	0.83	0.87	0.05
		2	0.7852	0.7786	0.7781	0.7781	0.91		

Table H4 Moisture absorption of the hydrolyzed PMMA-coated polyester fabric at various conditions

Fabric	Hydrolysis Time	No.	Weight of Fabric(g)				Moisture Regain (%)	Average Moisture Regain (%)	SD
			Before Drying	After Drying					
				I	II	III			
PMMA-coated fabric hydrolyzed by 0.1 M p-TSA at 80°C	1 h	1	0.7889	0.7850	0.7843	0.7846	0.59	0.57	0.03
		2	0.8093	0.8054	0.8049	0.8050	0.55		
	2 h	1	0.7948	0.7903	0.7903	0.7901	0.59	0.58	0.02
		2	0.8019	0.7977	0.7975	0.7974	0.56		
	5 h	1	0.7988	0.7957	0.7957	0.7951	0.48	0.48	0.00
		2	0.8038	0.8001	0.8000	0.8000	0.48		
PMMA-coated fabric hydrolyzed by 0.5 M p-TSA at 80°C	1 h	1	0.8143	0.8093	0.8089	0.8097	0.66	0.58	0.10
		2	0.8175	0.8029	0.8024	0.8025	0.51		
	2 h	1	0.7895	0.7851	0.7848	0.7846	0.62	0.60	0.03
		2	0.8000	0.7954	0.7954	0.7956	0.58		
	5 h	1	0.8044	0.7997	0.7997	0.7994	0.63	0.61	0.03
		2	0.7850	0.7804	0.7805	0.7804	0.59		

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