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APPENDICES

Appendix A Influence of applied voltage on fiber diameter

Table A1 Diameter of electrospun PS fiber (in nm) in Dichloroethane as a function of applied voltage (Collection distance keep constance at 10cm)

No. Of Fiber	PS solution in Dichloroethane								
	10%(w/v)			20%(w/v)			30%(w/v)		
	15kV	20kV	25kV	15kV	20kV	25kV	15kV	20kV	25kV
1	0.23	0.08	0.28	1.17	1.87	1.88	1.74	6.42	5.89
2	0.51	0.69	0.24	1.49	3.23	5.01	4.47	6.16	2.8
3	0.62	0.24	0.23	1.46	2.64	1.66	3.23	6.44	5.32
4	0.23	0.17	0.17	0.59	4.59	2.45	2.62	6.49	5.55
5	0.48	0.28	0.77	1.93	3.06	0.82	1.31	4.82	5.46
6	0.24	0.68	0.24	1.59	2.09	1.73	1.87	4.76	2.62
7	0.34	0.17	0.15	0.54	2.02	1.34	2.2	6.42	5.62
8	0.39	0.17	0.44	2	1.27	3.36	3.31	4.48	3.97
9	0.17	0.48	0.28	2.52	3.46	1.96	2.67	5.33	3.75
10	0.17	0.23	0.17	0.83	0.71	3.41	4.52	2.01	5.47
11	0.62	0.08	0.17	2.44	1.8	4.32	2.54	6.43	6.18
12	0.49	0.53	0.77	2.56	0.71	3.31	2.56	6.3	5.86
13	0.17	0.08	0.17	1.73	3	1.14	2.58	6.51	5.24
14	0.17	0.15	0.28	1.36	1.92	1.99	4.49	6.3	2.97
15	0.62	0.24	0.15	1.07	0.9	1.74	4.66	5.44	7.25
16	0.24	0.6	0.44	1.05	3.08	2.56	4.36	5.73	3.03
17	0.17	0.53	0.95	0.56	3.48	5.1	1.88	5.8	6.56
18	0.15	0.41	0.76	2.65	2.98	3.15	2.18	3.66	3.01
19	0.69	0.56	0.62	1.7	3.3	4.06	2.86	8.1	3.89
20	0.24	0.58	0.44	1.58	3.05	3.09	1.19	6.3	4.85
21	0.8	0.28	0.49	3.39	2.81	5.5	0.84	5.79	6.79
22	0.17	0.31	0.24	1.79	2.71	2.8	1.25	6.37	3.76
23	0.28	0.08	0.32	1.95	4.36	1.69	2.15	6.6	4.47
24	0.15	0.6	0.44	1	3.09	6.32	4.7	4.81	4.5
25	0.15	0.15	0.31	1.56	2.87	5.12	2.82	6.14	5.57
26	0.39	0.41	0.24	2.4	3.85	3.31	3.93	7	6.58
27	0.33	0.3	0.69	1.68	3.02	5.16	3.21	8.44	4.3
28	0.55	0.17	0.08	2.63	1.82	2.52	2.63	5.46	4.75
29	0.54	0.17	0.15	1.52	1.24	4.73	3.48	6.21	4.64
30	0.39	0.24	0.32	1.72	3.32	3.54	5.08	6.45	4.5
31	0.55	0.41	0.86	2.1	2.88	4.23	1.06	6.62	4.73
32	0.65	0.39	0.28	1.82	3.33	4.23	2.55	6.5	4.61
33	0.38	0.22	0.47	1.66	1.14	4.71	3.5	5.33	4.5
34	0.46	0.41	0.24	0.88	3.41	2.23	2.92	5.52	4.35
35	0.38	0.81	0.69	1.19	4.03	2.08	5.09	5.7	4.29

No. Of Fiber	PS solution in Dichloroethane								
	10%(w/v)			20%(w/v)			30%(w/v)		
	15kV	20kV	25kV	15kV	20kV	25kV	15kV	20kV	25kV
36	0.55	0.43	0.31	1.78	2.85	4.77	3.79	5.63	4.46
37	0.39	0.56	0.28	1	3	6.6	2.77	5.39	4.43
38	0.43	0.28	0.16	2.21	2.02	1.57	4.58	5.85	4.49
39	0.76	0.15	0.28	2.55	1.15	5.67	4.44	5.74	4.49
40	0.6	0.38	0.97	1.96	3.33	7.1	4.28	6.06	4.69
41	0.69	0.22	0.17	1.92	2.01	2.16	4.2	5.73	4.71
42	0.24	0.17	0.22	1.59	2.46	1.4	4.06	5.88	4.81
43	0.54	0.15	0.31	0.56	2.09	2.51	3.98	5.77	4.79
44	0.72	0.17	0.32	1.08	2.63	1.94	4.13	5.87	4.89
45	0.48	0.38	0.28	2.67	1.46	7.69	3.9	6.14	5.03
46	0.8	0.17	0.23	2.47	1.56	1.59	4.15	5.91	5.07
47	0.38	0.48	0.31	2.76	1.85	4.12	4.66	5.97	5.28
48	0.6	0.7	0.17	2.48	1.49	4.32	4.73	6.32	-
49	0.72	0.38	0.32	2.79	2.15	4.37	4.05	6.35	-
50	0.46	0.55	0.17	1.77	3.41	4.22	4.81	5.98	-
51	0.32	0.6	0.22	2.8	1.9	6.32	4.36	5.75	-
52	0.17	0.17	0.23	1.82	2.14	6.39	4.36	5.68	-
53	0.77	0.41	0.24	2.88	3.36	4.21	3.03	6.04	-
54	0.34	0.11	0.16	2.31	3.21	6.34	3.21	6.54	-
55	0.32	0.15	0.24	0.59	3.13	6.17	3.41	6.71	-
56	0.46	0.23	0.93	1.76	3.21	4.37	5.08	6.78	-
57	0.49	0.49	0.23	1.96	3.28	6.15	4.91	6.52	-
58	0.39	0.22	0.23	1.33	3.21	4.18	4.96	-	-
59	0.34	0.24	0.98	1.14	3.05	4.06	4.89	-	-
60	0.28	0.55	0.28	0.54	3.28	4.25	4.86	-	-
61	0.56	0.41	0.24	2.14	3.44	4.11	4.88	-	-
62	0.52	0.38	0.23	1.86	3.59	4.38	4.74	-	-
63	0.62	0.55	0.28	2.08	3.44	4.24	4.62	-	-
64	0.46	0.17	0.34	2.9	3.66	4.32	-	-	-
65	0.44	0.08	0.56	2.9	3.59	6.4	-	-	-
66	0.24	0.28	0.11	3.37	3.28	4.17	-	-	-
67	0.65	0.11	0.08	3.13	3.21	4.4	-	-	-
68	0.34	0.38	0.08	3.07	3.09	6.57	-	-	-
69	0.71	0.11	0.24	3.41	3.02	4.25	-	-	-
70	0.41	0.85	0.23	3.43	2.71	4.49	-	-	-
71	0.71	0.15	0.22	3.43	4.06	6.7	-	-	-
72	0.56	0.11	0.16	3.37	3.61	4.57	-	-	-
73	0.62	0.86	0.17	3.55	3.46	4.8	-	-	-
74	0.33	0.45	0.17	3.7	3.52	-	-	-	-
75	0.44	0.73	0.17	3.73	3.85	-	-	-	-
76	0.34	0.24	0.86	3.78	3.95	-	-	-	-
77	0.41	0.24	0.15	3.59	3.82	-	-	-	-
78	0.15	0.22	0.24	3.64	3.93	-	-	-	-
79	0.39	0.78	0.11	2.9	3.37	-	-	-	-
80	0.41	0.17	0.15	2.15	3.6	-	-	-	-
81	0.24	0.28	0.15	2.23	2.37	-	-	-	-

No. Of Fiber	PS solution in Dichloroethane								
	10%(w/v)			20%(w/v)			30%(w/v)		
	15kV	20kV	25kV	15kV	20kV	-	-	-	-
82	0.23	0.28	0.17	2.36	2.54	-	-	-	-
83	0.49	0.22	0.96	2.2	-	-	-	-	-
84	0.69	0.81	0.17	2.25	-	-	-	-	-
85	0.54	0.32	0.28	2.15	-	-	-	-	-
86	0.42	0.17	0.39	2.42	-	-	-	-	-
87	0.35	0.58	0.87	-	-	-	-	-	-
88	0.45	0.28	0.93	-	-	-	-	-	-
89	0.47	0.62	0.17	-	-	-	-	-	-
90	0.8	0.51	0.17	-	-	-	-	-	-
91	0.17	0.28	0.15	-	-	-	-	-	-
92	0.22	0.34	0.16	-	-	-	-	-	-
93	0.63	0.56	0.25	-	-	-	-	-	-
94	0.44	0.28	0.23	-	-	-	-	-	-
95	0.17	0.24	0.17	-	-	-	-	-	-
96	0.16	0.47	0.85	-	-	-	-	-	-
97	0.32	0.45	0.31	-	-	-	-	-	-
98	0.42	0.49	-	-	-	-	-	-	-
99	0.16	0.56	-	-	-	-	-	-	-
100	0.25	0.33	-	-	-	-	-	-	-

Table A2 Diameter of electrospun PS fiber (in nm) in DMF as a function of applied voltage (Collection distance keep constance at 10cm)

No. Of Fiber	PS solution in DMF								
	10%(w/v)			20%(w/v)			30%(w/v)		
	15kV	20kV	25kV	15kV	20kV	25kV	15kV	20kV	25kV
1	1.08	0.76	0.85	2.92	3.16	2.5	2.63	3.38	3.07
2	1.64	0.92	1.06	3.01	2.72	2.32	3.01	3.37	2.87
3	1.25	1.14	0.58	3.03	3	2.37	3.03	3.08	2.58
4	1.17	1.08	1.01	2.94	3.85	2.23	2.84	3.19	3.01
5	1.46	0.63	0.82	2.97	3.06	2.57	2.85	3.1	3.26
6	1.3	0.72	0.76	1.73	3.06	2.48	3.02	3.87	2.52
7	1.09	0.63	0.82	2.16	2.77	2.61	2.81	3.73	3.16
8	0.69	0.86	0.78	2.27	3.23	3.35	2.74	3.1	3.37
9	0.83	0.95	0.65	2.71	3.17	3.19	2.66	3.35	3.46
10	1.04	0.78	1.14	2.54	3.1	3.3	2.54	3.28	3.28
11	1.08	0.76	0.99	2.23	3.16	3.05	2.65	2.78	3.04
12	0.89	0.76	0.68	2.49	3.1	3.07	2.39	2.99	2.97
13	0.65	0.86	1.08	2.32	2.97	2.87	2.8	3.19	3.08
14	0.79	0.78	0.89	2.98	3.56	2.61	2.6	3.41	3.2
15	1.55	0.54	0.86	1.84	3.89	2.95	2.67	3.14	3.62
16	1.04	0.63	0.97	1.57	3.39	2.53	2.74	2.88	2.73
17	1.08	0.7	0.99	2.11	3.62	1.95	2.99	2.99	2.97
18	0.97	1.03	0.91	2.27	3.17	1.76	2.78	3.48	3.8
19	1.1	0.76	0.89	2.91	2.68	2.4	2.72	2.75	3.44
20	1.37	1.06	0.68	1.96	3.25	2.61	2.68	3.72	3.13
21	1.06	0.7	0.85	2.12	2.9	2.75	2.91	2.78	3.55
22	0.7	0.88	0.34	1.74	2.75	3.17	2.93	3	2.91
23	0.62	0.69	0.81	2	3.07	3.49	2.84	3.3	3.66
24	0.69	0.91	0.82	2.38	2.19	2.9	2.74	3.26	3.13
25	1.3	1.15	0.86	2.16	2.5	2.37	2.39	2.55	3.07
26	1.28	0.94	0.69	2.5	3.27	2.59	2.07	2.63	2.4
27	1.28	1	0.48	2.13	2.38	2.64	2.11	3.09	3.05
28	1.39	0.92	0.64	2.2	3.26	2.56	2.17	2.48	2.46
29	1.51	0.85	0.54	2.1	2.8	2.52	2.78	3.46	2.58
30	0.98	1.16	0.74	2.1	2.17	2.47	2.61	2.76	2.47
31	0.74	0.71	0.71	2.26	2.49	2.55	2.43	3.09	3.1
32	0.81	1.14	0.68	2.52	2.56	2.42	2.55	2.39	3.24
33	0.9	1.27	0.71	2.56	2.51	2.44	2.82	2.34	2.34
34	1.54	0.94	0.75	1.91	2.65	2.34	2.59	3.02	2.55
35	1.29	1.48	0.62	2.37	3.2	3.76	2.95	3.28	3.64
36	0.91	0.77	0.68	2.15	2.97	3.54	2.72	3.21	3.54
37	1.08	1	0.76	2	2.72	2.9	2.07	3.12	2.72
38	1.08	1.93	0.84	1.83	2.83	2.76	2.56	3.5	3.02
39	1.79	1.47	0.77	1.59	2.62	3.22	2.74	3.26	2.69
40	1.06	1.2	0.48	2.46	3.11	3.16	2.71	2.56	3.05
41	0.98	0.87	0.54	1.68	3.03	3.28	2.35	2.87	3.27

No. Of Fiber	PS solution in DMF								
	10%(w/v)			20%(w/v)			30%(w/v)		
	15kV	20kV	25kV	15kV	20kV	25kV	15kV	20kV	25kV
42	1.26	0.95	0.86	1.37	3.12	3.05	2.37	3.59	2.69
43	0.58	0.88	0.88	1.76	2.58	3.86	2.96	3.46	3.2
44	1.2	0.85	0.75	2.71	2.56	3.73	2.48	3.19	3.1
45	1.25	1.12	0.98	2.91	2.92	2.44	2.61	3.54	2.92
46	1.08	1.39	0.62	1.85	2.76	2.34	2.75	2.69	3.14
47	1.28	1	0.71	2.78	3.31	3.54	2.86	2.31	3.17
48	1.2	1.07	0.83	3.07	3.03	3.22	2.33	2.9	3.17
49	1	0.78	0.66	2.49	2.85	3.33	2.45	3.12	3.25
50	1.06	0.96	0.54	1.84	2.8	2.67	2.52	2.95	2.58
51	0.92	1.14	0.44	2.79	2.68	3.21	2.56	2.19	2.65
52	0.96	0.93	1.02	2.61	2.73	2.73	2.66	3.19	3.32
53	1	1.05	0.53	1.83	3.14	2.63	2.66	3.14	2.57
54	0.89	1.16	0.52	2.13	2.72	2.6	2.88	3.25	3.07
55	1.19	0.84	0.55	2.31	3.83	3.08	2.59	2.52	3.17
56	0.75	1.26	0.92	2.79	2.02	3.23	2.65	2.71	2.83
57	0.84	1.25	0.76	2.73	3.19	3.39	2.75	2.38	3.38
58	0.93	0.96	0.95	2.79	2.56	3.31	2.92	2.58	2.38
59	1.42	1.56	0.77	3.12	3.27	3.16	2.78	2.5	2.4
60	0.8	1.05	0.85	3.03	2.83	3.27	2.92	3.28	2.57
61	0.77	1.17	0.75	1.86	2.55	2.82	2.8	3.31	2.57
62	0.9	0.72	0.61	1.92	2.83	2.94	2.88	2.44	3.63
63	0.89	1.05	0.89	1.68	2.71	2.93	2.91	2.62	3.85
64	0.72	1.15	0.58	2.91	3.04	2.73	2.53	3.48	2.64
65	0.89	0.93	0.76	2.98	2.67	3.32	2.92	3.43	2.49
66	1.08	0.78	0.85	3.16	3.14	3.46	2.06	2.87	3.99
67	0.92	0.97	0.68	2.93	3.04	2.31	2.9	2.9	3.96
68	0.89	0.94	0.75	1.86	2.72	2.54	2.63	2.66	2.9
69	0.89	0.85	0.7	1.99	2.48	2.24	3.26	2.61	2.43
70	0.87	0.87	0.76	2.24	2.16	2.39	2.81	2.92	3.41
71	1	1.13	0.91	2.08	2.55	3.31	2.92	2.5	3.19
72	0.96	1.19	0.85	3.08	3.41	3.17	3.05	2.49	3.62
73	0.79	1.17	1.08	2.68	3.09	3.24	2.8	2.7	3.22
74	1.26	1.15	0.76	2.65	2.65	3.39	2.22	3.18	3.11
75	1.13	0.7	1.03	2.66	2.69	3.46	2.9	3	3.82
76	0.78	1.31	0.59	1.97	2.23	2.46	2.68	3.24	2.6
77	0.85	1.19	0.96	2.05	2.08	2.54	2.11	2.92	3.78
78	0.87	1.1	0.75	1.93	2.79	2.65	2.52	2.21	3.48
79	1.32	1.24	0.7	1.77	2.96	2.36	2.68	3.35	3.67
80	0.9	0.94	0.7	1.62	2.81	3.54	2.72	2.41	3.65
81	1	1.6	0.77	1.76	2.48	3.39	1.74	3.09	2.4
82	0.6	1.31	0.85	2.17	2.44	2.49	2.73	3.44	3.28
83	1.14	1.25	0.68	2.08	2.79	2.5	1.91	2.81	2.41
84	1.17	1.19	1.09	1.85	3.25	2.93	1.78	3.08	2.57
85	1.08	1.49	0.95	2.07	2.39	3.39	2.69	2.92	2.51
86	0.85	0.85	0.86	2.31	3.05	2.01	2.43	3.24	3.97
87	1.11	1.32	0.92	1.71	3.32	2.49	2.5	2.68	3.46

No. Of Fiber	PS solution in DMF								
	10%(w/v)			20%(w/v)			30%(w/v)		
	15kV	20kV	25kV	15kV	20kV	25kV	15kV	20kV	25kV
88	0.79	0.94	0.99	1.86	2.38	2.78	2.72	3.35	2.83
89	0.75	1.14	0.79	2.41	2.8	2.23	2.52	3.07	2.61
90	1.27	0.9	0.72	2.41	3.03	3.07	2.55	3.3	3.59
91	0.83	0.69	0.65	2.24	3.41	3.18	2.7	3.38	3.37
92	1	1.24	1.09	1.97	1.77	3.28	2.69	3.34	3.76
93	-	1.11	0.89	2.2	3.1	3.15	2.69	2.44	3.43
94	-	0.85	0.86	2.04	3.18	3.25	1.59	3.52	2.59
95	-	1.41	0.56	2.24	2.9	2.88	2.66	2.78	3.55
96	-	0.9	0.99	1.87	2.73	2.97	2.6	3.05	3.29
97	-	1.59	0.75	2.07	2.67	3.07	2.95	3.73	2.29
98	-	-	-	2.31	2.5	2.93	2.11	-	3.15
99	-	-	-	2.24	3.5	2.23	1.84	-	3.39
100	-	-	-	-	3.25	2.35	2.6	-	-

Table A3 Diameter of electrospun PS fiber (in nm) in MEK as a function of applied voltage (Collection distance keep constance at 10cm)

No. Of Fiber	PS solution in MEK								
	10%(w/v)			20%(w/v)			30%(w/v)		
	15kV	20kV	25kV	15kV	20kV	25kV	15kV	20kV	25kV
1	0.35	0.49	0.28	2.58	3.09	5.04	3.84	2.67	4.91
2	0.44	0.5	0.34	2.61	3.33	5.34	4.12	3.46	4.96
3	0.45	0.51	0.4	2.7	3.33	5.34	4.35	3.66	5.33
4	0.47	0.51	0.44	2.91	3.71	5.36	4.79	3.73	5.39
5	0.47	0.54	0.56	3.04	3.74	5.41	4.82	3.93	5.67
6	0.48	0.54	0.6	3.11	3.92	5.42	4.83	4.14	5.93
7	0.5	0.55	0.62	3.11	3.93	5.51	5.2	4.16	6.39
8	0.54	0.56	0.72	3.24	3.96	5.64	5.38	4.18	6.41
9	0.54	0.6	0.73	3.32	4.02	5.74	5.98	4.23	6.71
10	0.54	0.62	0.77	3.49	4.09	5.92	6.11	4.24	6.75
11	0.54	0.63	0.78	3.57	4.23	6.47	6.44	4.28	7.14
12	0.55	0.65	0.79	3.65	4.24	6.5	6.53	4.3	7.38
13	0.55	0.66	0.85	3.93	4.57	6.63	6.65	4.31	7.47
14	0.55	0.68	0.87	3.99	4.64	6.65	6.86	4.34	7.69
15	0.56	0.72	0.94	4.08	4.77	6.73	6.87	4.37	8.18
16	0.56	0.72	0.94	4.14	4.78	6.75	7.13	4.37	9.94
17	0.56	0.77	1	4.18	4.78	6.84	7.29	4.37	10.9
18	0.56	0.78	1.09	4.21	5.14	6.87	7.86	4.39	-
19	0.58	0.78	1.1	4.33	5.15	6.9	8.12	4.47	-
20	0.58	0.78	1.14	4.44	5.15	7.02	9.83	4.53	-
21	0.59	0.78	1.17	4.45	5.26	7.21	10.8	4.62	-
22	0.6	0.78	1.18	4.5	5.44	7.42	13.7	4.62	-
23	0.6	0.79	1.24	4.66	5.53	7.49	15.5	4.62	-
24	0.61	0.79	1.27	4.72	5.54	7.53	18.4	4.64	-
25	0.62	0.79	1.27	4.93	5.6	7.59	-	4.67	-
26	0.62	0.8	1.32	4.96	5.61	8.04	-	4.8	-
27	0.62	0.81	1.33	5.09	5.62	8.27	-	4.8	-
28	0.62	0.84	1.33	5.14	5.8	8.32	-	4.93	-
29	0.63	0.84	1.35	5.16	5.87	9.22	-	5	-
30	0.63	0.88	1.4	5.62	5.93	10.1	-	5.11	-
31	0.63	0.88	1.43	5.62	-	-	-	5.2	-
32	0.66	0.9	1.44	5.89	-	-	-	6.36	-
33	0.66	0.9	1.47	-	-	-	-	6.43	-
34	0.66	0.9	1.49	-	-	-	-	6.44	-
35	0.66	0.91	1.52	-	-	-	-	7.11	-
36	0.66	0.92	1.57	-	-	-	-	7.16	-
37	0.66	0.93	1.63	-	-	-	-	7.59	-
38	0.67	0.94	1.66	-	-	-	-	7.61	-
39	0.67	0.96	1.74	-	-	-	-	7.81	-
40	0.69	0.99	1.78	-	-	-	-	7.83	-
41	0.7	1.01	1.82	-	-	-	-	9.4	-

No. Of Fiber	PS solution in MEK								
	10%(w/v)			20%(w/v)			30%(w/v)		
	15kV	20kV	25kV	15kV	20kV	25kV	15kV	20kV	25kV
42	0.7	1.01	1.82	-	-	-	-	12.2	-
43	0.7	1.02	1.92	-	-	-	-	-	-
44	0.7	1.03	1.93	-	-	-	-	-	-
45	0.7	1.03	2.08	-	-	-	-	-	-
46	0.7	1.04	2.24	-	-	-	-	-	-
47	0.7	1.04	2.35	-	-	-	-	-	-
48	0.7	1.05	2.43	-	-	-	-	-	-
49	0.71	1.05	2.49	-	-	-	-	-	-
50	0.72	1.06	2.52	-	-	-	-	-	-
51	0.72	1.08	2.84	-	-	-	-	-	-
52	0.72	1.09	-	-	-	-	-	-	-
53	0.72	1.1	-	-	-	-	-	-	-
54	0.72	1.11	-	-	-	-	-	-	-
55	0.72	1.11	-	-	-	-	-	-	-
56	0.72	1.13	-	-	-	-	-	-	-
57	0.73	1.13	-	-	-	-	-	-	-
58	0.74	1.15	-	-	-	-	-	-	-
59	0.76	1.19	-	-	-	-	-	-	-
60	0.76	1.24	-	-	-	-	-	-	-
61	0.78	1.24	-	-	-	-	-	-	-
62	0.78	1.24	-	-	-	-	-	-	-
63	0.78	1.25	-	-	-	-	-	-	-
64	0.78	1.26	-	-	-	-	-	-	-
65	0.8	1.26	-	-	-	-	-	-	-
66	0.81	1.27	-	-	-	-	-	-	-
67	0.81	1.29	-	-	-	-	-	-	-
68	0.81	1.31	-	-	-	-	-	-	-
69	0.81	1.33	-	-	-	-	-	-	-
70	0.82	1.35	-	-	-	-	-	-	-
71	0.84	1.37	-	-	-	-	-	-	-
72	0.85	1.39	-	-	-	-	-	-	-
73	0.87	1.41	-	-	-	-	-	-	-
74	0.87	1.43	-	-	-	-	-	-	-
75	0.89	1.44	-	-	-	-	-	-	-
76	0.89	1.45	-	-	-	-	-	-	-
77	0.89	1.47	-	-	-	-	-	-	-
78	0.9	1.47	-	-	-	-	-	-	-
79	0.93	1.55	-	-	-	-	-	-	-
80	0.93	1.57	-	-	-	-	-	-	-
81	0.93	1.64	-	-	-	-	-	-	-
82	0.93	1.71	-	-	-	-	-	-	-
83	0.94	1.73	-	-	-	-	-	-	-
84	0.94	1.75	-	-	-	-	-	-	-
85	0.95	1.8	-	-	-	-	-	-	-
86	0.95	1.8	-	-	-	-	-	-	-
87	0.96	1.82	-	-	-	-	-	-	-

No. Of Fiber	PS solution in MEK								
	10%(w/v)			20%(w/v)			30%(w/v)		
	15kV	20kV	25kV	15kV	20kV	25kV	15kV	20kV	25kV
88	0.99	1.82	-	-	-	-	-	-	-
89	1.01	1.9	-	-	-	-	-	-	-
90	1.01	1.99	-	-	-	-	-	-	-
91	1.02	2.03	-	-	-	-	-	-	-
92	1.03	2.25	-	-	-	-	-	-	-
93	1.04	2.32	-	-	-	-	-	-	-
94	1.09	2.39	-	-	-	-	-	-	-
95	1.1	2.45	-	-	-	-	-	-	-
96	1.13	2.56	-	-	-	-	-	-	-
97	1.15	2.57	-	-	-	-	-	-	-
98	1.26	2.57	-	-	-	-	-	-	-
99	1.3	2.7	-	-	-	-	-	-	-
100	1.32	2.75	-	-	-	-	-	-	-

Table A4 Diameter of electrospun PS fiber (in nm) in Ethylacetate as a function of applied voltage (Collection distance keep constance at 10cm)

No. Of Fiber	PS solution in Ethylacetate								
	10%(w/v)			20%(w/v)			30%(w/v)		
	15kV	20kV	25kV	15kV	20kV	25kV	15kV	20kV	25kV
1	2.26	1.26	2.97	10.2	22.2	7.84	6.22	7.62	10.3
2	2.25	1.57	2.79	9.47	23.9	7.29	6.15	7.26	10.2
3	2.26	3.19	3.02	9.37	23.5	7.76	6	7.73	10.5
4	2.4	2.87	3.1	7.74	22.9	7.64	5.99	7.29	10.4
5	2.11	2.56	3.02	6.35	22.2	8.06	5.84	7.46	10.2
6	1.76	2.4	2.87	9.1	22.2	8.11	6.14	7.86	10.3
7	1.8	2.03	3.35	8.79	6.47	7.6	6.07	7.79	10.2
8	2.11	2.1	3.36	8.81	6.73	7.74	6.14	7.68	10.2
9	1.68	2.3	2.98	9.82	6.79	7.74	6	7.25	10.1
10	1.52	1.69	1.17	9.74	6.65	7.14	5.8	4.3	10.2
11	1.93	1.6	1.33	11.3	6.74	7.01	6.15	4.74	10.2
12	1.45	1.11	0.92	9.99	8.94	7.43	6.22	4.47	10.2
13	1.52	2.23	1.28	10.4	8.94	11.2	6.86	5.11	10
14	1.15	2.03	1.34	10.6	8.33	11	6.82	7.34	10.3
15	1.13	1.88	1.65	10.8	8.92	11.4	6.82	7.26	9.95
16	1.82	2.05	1.09	10.9	8.94	11.4	7.03	6.67	10.3
17	1.36	2.24	1.01	10.2	9.4	11.8	6.65	7.13	10.2
18	1.59	1.74	1.28	10.2	7.23	7.72	6.79	7.4	10.2
19	1.43	1.29	1.08	10	7.09	7.76	6.64	7.45	10.1
20	2.49	2.62	2.39	9.52	7	7.53	6.54	7.13	10.3
21	1.62	1.49	2.74	9.81	7.66	7.46	6.6	7.46	10
22	1.29	1.56	3.06	9.59	23.9	7.38	6.78	4.38	10
23	3.56	1.67	1.43	8.24	23.1	7.88	6.66	4.61	10.2
24	3.56	2.36	2.66	10.9	22.7	7.46	6.73	4.43	10
25	1.89	2.13	3.05	10.8	22.2	7.72	6.84	4.85	10
26	1.09	2.12	1.31	8.98	11.9	6.95	5.78	6.76	20.6
27	0.86	2.15	1.11	8.78	11.6	6.76	5.91	7.09	20.4
28	1	2.36	1.26	8.83	11.7	7.56	5.7	7.25	20.7
29	1.66	1.99	2.01	8.34	11.2	7.83	5.85	7.54	20.1
30	1.63	1.52	1.42	8.21	10.4	7.42	5.74	7.55	20.3
31	1.86	1.18	2.7	9.16	12.2	7.31	5.5	6.93	20
32	2.04	1.05	1.31	9.85	11.9	8.11	5.73	6.98	20
33	0.86	3.65	1.41	9.52	11.3	5.81	5.65	6.93	20
34	1.03	3.04	1.42	9.74	11.6	6.23	5.67	7.23	20.2
35	1.03	5.29	1.1	10.1	11.5	5.43	5.88	7.3	20.2
36	0.83	0.83	1.66	9.92	11.5	6.05	6.12	7.83	20.1
37	1.95	4.38	1.39	10.4	11.6	6.48	6.13	7.17	20.3
38	1	4.52	2.08	13.9	11.8	5.8	5.97	7.43	20.2
39	0.77	3.8	1.72	13.5	10.6	6.08	5.89	7.23	20.3
40	1.05	3.93	2.1	13.3	11.6	6.92	5.99	7.83	20.3
41	1.31	4.71	2.01	12.9	16.9	6.11	5.85	7.8	20.5

No. Of Fiber	PS solution in Ethylacetate								
	10%(w/v)			20%(w/v)			30%(w/v)		
	15kV	20kV	25kV	15kV	20kV	25kV	15kV	20kV	25kV
42	1.29	2.48	1.34	13.1	17.5	6.3	6.12	7.93	20.6
43	1.08	3.48	1.63	11.8	17.1	5.87	6.02	7.86	20.5
44	1.08	1	3	10.1	17.9	7.08	5.35	7.69	20.7
45	1.38	1.38	2.03	10	16.5	8.65	5.83	7.41	20.4
46	1.1	1.12	1.58	10.2	17.1	8.8	5.3	7.69	20.4
47	2.11	1.22	1	7.07	17.4	9.57	6.11	7.75	20.7
48	1.78	1.21	1.12	7	11.7	9.86	5.63	7.62	20.9
49	2.01	3.88	2.48	6.73	11.5	9.74	6.3	7.68	20.9
50	1.75	2.17	1.73	6.76	10.7	10.4	6.01	7.83	20.7
51	0.82	1.45	1.61	7.21	14.8	7.7	8.56	7.72	11.4
52	0.78	1.31	0.93	7.38	14	7.61	8.65	7.74	11.7
53	0.99	1.24	1.45	7.44	13.8	7.89	8.06	7.76	11.5
54	2.92	2.25	1.41	7.19	12.5	7.37	7.76	7.66	11.8
55	3.33	2.29	1.28	7.47	12.2	7.52	7.81	7.84	11.3
56	0.61	3.21	1.05	7.61	11.9	7.68	8.43	6.21	11.1
57	3.56	5.46	2.26	7.78	11.8	8.16	8.69	6.43	11.1
58	3.6	2.31	1.1	14.4	15.2	14.7	7.38	6.35	4.03
59	2.14	1.28	1.59	13	15.3	15.2	7.53	6.3	4.2
60	1.96	2	0.77	12.4	15.9	14.3	7.36	6.33	11.1
61	3.55	4.42	1.24	12.7	16	13.1	7.38	7.84	11
62	3.45	2.56	1.05	14.2	16.1	13	7.39	7.78	11.2
63	2.2	2.31	4.97	13.4	15	14.9	6.55	7.71	11.1
64	1.8	2.22	5	13.5	14.7	16.6	6.45	7.86	11.6
65	1.82	2.14	5.05	8.77	14.8	15.4	6.35	7.7	11.3
66	0.89	2.24	2.1	8.88	15.4	15.2	6.65	7.43	4
67	2.55	2.51	1.88	8.86	16	14.9	6.48	7.36	4.18
68	2	3	2.42	9.02	15.4	15.8	6.62	7.43	11.6
69	4.98	5.84	5	8.88	15.5	14.9	6.85	7.43	11.8
70	4.73	2.56	4.34	9.02	15.4	14.2	7.05	7.36	11.6
71	1.9	2.35	1.16	9.09	14.9	13.2	8.29	7.44	11.1
72	2.78	4.55	1.26	9.32	15.3	7.93	8.31	5.87	11.1
73	2.93	2.29	1	8.95	10.5	8.17	7.7	5.61	4.11
74	2.74	2.31	5.22	15.2	10.7	7.86	7.27	7.24	4.17
75	2.8	3.42	5.07	12.6	10.2	3.12	6.92	6.71	11.5
76	2.34	3.65	1.08	10.9	15	6.58	6.62	7.66	3.66
77	2.3	3.97	0.94	11.9	15.7	6.13	6.67	7.66	3.69
78	4.2	3.01	1.46	12.6	15.4	4.35	7.45	7.55	4.58
79	1.09	2.77	0.85	13	16.5	3.64	6.3	7.32	6.69
80	0.7	1.38	0.96	13.9	16.2	3.46	5.84	7.21	4.81
81	4	1.47	0.78	10.3	15.5	8.24	8.93	7.32	5.01
82	1.75	1.31	1.25	8.68	15.6	8.14	6.99	7.31	5.07
83	0.78	1.12	1.36	16	15.2	8.07	6.98	7.73	2.63
84	0.89	1.53	1.24	16	13.7	2.55	7.06	7.46	1.92
85	2.21	1.79	1.32	13.5	13.4	2.88	6.67	7.8	4.69
86	1.51	1.6	1.16	13.3	12.8	2.77	3.85	7.91	2.67
87	2.67	2.01	1.85	13.2	13.3	3.67	3.88	8.08	2.7

No. Of Fiber	PS solution in Ethylacetate								
	10%(w/v)			20%(w/v)			30%(w/v)		
	15kV	20kV	25kV	15kV	20kV	25kV	15kV	20kV	25kV
88	2.32	1.35	1.64	12.9	13.8	4.12	3.9	8.02	2.77
89	2.33	1.86	0.93	13.3	14.2	4.33	6.86	8.02	2.74
90	1.61	2.6	1.23	13.5	14.7	4.28	7.42	8.42	3.03
91	1.93	2.24	2.11	13.3	14.9	3.66	7.19	8.25	4.64
92	2.43	3.71	1.39	13.7	14.9	4.1	7.24	8.22	5.01
93	1.61	1.56	1.92	13.6	14.4	4.52	7.37	8.17	5.13
94	1.35	1.52	1.97	13.3	15.6	4.31	7.25	8.03	5.27
95	1.98	1.36	1.07	13.3	14.2	5.34	3.85	8.42	5.08
96	2.34	1.31	1.48	13.2	13.2	4.87	4.07	7.71	4.91
97	2.61	2.39	2.45	8.62	13.4	5.33	4.85	7.68	5.11
98	3.49	2.16	1.56	8.72	12.9	5.57	3.32	6.7	5.32
99	2.71	2.31	2.06	11.4	13.2	5.82	6.71	6.6	5.3
100	0.56	2.86	2.13	11.6	15.2	4.05	7.88	8.32	4.1

Appendix B Influence of collection distance on fiber diameter

Table B1 Diameter of electrospun PS fiber (in nm) in Dichloroethane as a function of collection distance (Applied voltage keep constance at 20kV)

No. Of Fiber	PS solution in Dichloroethane								
	10%(w/v)			20%(w/v)			30%(w/v)		
	7cm	10cm	15cm	7cm	10cm	15cm	7cm	10cm	15cm
1	-	0.08	0.66	2.28	1.87	1.02	3.92	6.42	7.96
2	-	0.69	0.54	2.2	3.23	2.33	5.68	6.16	7.7
3	-	0.24	0.17	1.94	2.64	3.29	5.96	6.44	7.83
4	-	0.17	0.08	2.22	4.59	1.77	1.59	6.49	7.94
5	-	0.28	0.22	2.14	3.06	2.68	2.48	4.82	7.87
6	-	0.68	0.44	2.03	2.09	1.77	1.55	4.76	6.71
7	-	0.17	0.33	4.57	2.02	2.37	5.37	6.42	8.02
8	-	0.17	0.45	3.41	1.27	2.95	6.06	4.48	8.09
9	-	0.48	0.56	1.14	3.46	2.01	4.24	5.33	8.09
10	-	0.23	0.31	2.1	0.71	2.54	5.06	2.01	6.82
11	-	0.08	0.15	2.7	1.8	1.27	4.79	6.43	7.11
12	-	0.53	0.17	3.16	0.71	1.97	2.95	6.3	6.18
13	-	0.08	0.24	1.85	3	2.42	4.23	6.51	8.25
14	-	0.15	0.34	1.69	1.92	0.56	2.06	6.3	6.75
15	-	0.24	0.32	2.89	0.9	1.43	3.28	5.44	6.85
16	-	0.6	0.39	2	3.08	1.6	1.95	5.73	8.02
17	-	0.53	0.33	2.07	3.48	0.33	2.26	5.8	8.42
18	-	0.41	0.23	2.87	2.98	1.56	2.84	3.66	9.31
19	-	0.56	0.41	2.22	3.3	0.59	3.21	8.1	8.38
20	-	0.58	0.69	2.28	3.05	2.04	4.17	6.3	7.99
21	-	0.28	0.62	4	2.81	1.36	5.1	5.79	9.51
22	-	0.31	0.28	3.87	2.71	1.74	2.95	6.37	9.2
23	-	0.08	0.49	3.56	4.36	1.2	2.98	6.6	8.99
24	-	0.6	0.45	3.79	3.09	1.15	3.63	4.81	9.14
25	-	0.15	0.62	3.52	2.87	3.01	2.93	6.14	8.96
26	-	0.41	0.46	3.53	3.85	2.31	3.01	7	8.89
27	-	0.3	0.69	3.89	3.02	0.69	2.77	8.44	7.78
28	-	0.17	0.34	3.56	1.82	0.95	1.53	5.46	7.89
29	-	0.17	0.15	3.9	1.24	1.11	2.81	6.21	7.86
30	-	0.24	0.23	3.8	3.32	1.69	2.9	6.45	8.06
31	-	0.41	0.23	3.73	2.88	2.77	2.91	6.62	8.1
32	-	0.39	0.15	4.57	3.33	1.22	2.33	6.5	8.16
33	-	0.22	0.28	3.82	1.14	1.78	2.48	5.33	7.99
34	-	0.41	0.87	4.51	3.41	0.71	2.94	5.52	7.89
35	-	0.81	0.54	4.59	4.03	1.53	3.14	5.7	8.14
36	-	0.43	0.34	3.74	2.85	0.59	1.84	5.63	8.09
37	-	0.56	0.56	4.68	3	2.77	1.8	5.39	8.02
38	-	0.28	0.39	4.93	2.02	0.54	2.26	5.85	8.16

No. Of Fiber	PS solution in Dichloroethane								
	10%(w/v)			20%(w/v)			30%(w/v)		
	7cm	10cm	15cm	7cm	10cm	15cm	7cm	10cm	15cm
39	-	0.15	0.72	3.91	1.15	1.36	2.21	5.74	7.89
40	-	0.38	0.46	3.07	3.33	1.4	2.87	6.06	7.79
41	-	0.22	0.15	3.3	2.01	2.87	4.63	5.73	7.78
42	-	0.17	0.23	3.79	2.46	2.95	3.61	5.88	8.58
43	-	0.15	0.79	2.49	2.09	2.99	1.71	5.77	8.32
44	-	0.17	0.66	2.4	2.63	2.75	1.08	5.87	8.17
45	-	0.38	0.24	3.77	1.46	2.6	2.64	6.14	-
46	-	0.17	0.24	2.54	1.56	2.82	2.71	5.91	-
47	-	0.48	0.23	4.95	1.85	2.72	5.99	5.97	-
48	-	0.7	0.15	3.87	1.49	3.13	1.54	6.32	-
49	-	0.38	0.31	4.88	2.15	3.51	2.02	6.35	-
50	-	0.55	0.32	4.74	3.41	2.68	2.6	5.98	-
51	-	0.6	0.32	2.28	1.9	3.51	1.7	5.75	-
52	-	0.17	0.31	2.2	2.14	3.28	0.79	5.68	-
53	-	0.41	0.31	1.94	3.36	2.68	5.13	6.04	-
54	-	0.11	0.68	2.22	3.21	3.21	1.74	6.54	-
55	-	0.15	0.94	2.14	3.13	2.37	2.39	6.71	-
56	-	0.23	0.43	2.03	3.21	2.54	1.73	6.78	-
57	-	0.49	0.78	4.57	3.28	2.44	2.53	6.52	-
58	-	0.22	0.32	3.41	3.21	3.79	2.82	-	-
59	-	0.24	0.84	1.14	3.05	2.45	2.96	-	-
60	-	0.55	0.08	2.27	3.28	4.19	3.09	-	-
61	-	0.41	0.41	2.7	3.44	4.22	3.16	-	-
62	-	0.38	0.56	4.27	3.59	2.53	3.72	-	-
63	-	0.55	0.55	4.29	3.44	3.96	3.74	-	-
64	-	0.17	0.28	3.65	3.66	4.02	3.19	-	-
65	-	0.08	0.97	4.82	3.59	2.45	3.13	-	-
66	-	0.28	0.84	2.92	3.28	2.55	2.9	-	-
67	-	0.11	0.49	5.05	3.21	-	3.03	-	-
68	-	0.38	0.53	2.39	3.09	-	3.04	-	-
69	-	0.11	0.72	1.38	3.02	-	3.25	-	-
70	-	0.85	0.32	2.04	2.71	-	2.93	-	-
71	-	0.15	0.34	4.77	4.06	-	3.57	-	-
72	-	0.11	0.82	2.21	3.61	-	3.95	-	-
73	-	0.86	0.24	3.31	3.46	-	2.82	-	-
74	-	0.45	0.58	4.92	3.52	-	4.07	-	-
75	-	0.73	0.15	1.62	3.85	-	3.8	-	-
76	-	0.24	0.54	-	3.95	-	2.98	-	-
77	-	0.24	0.38	-	3.82	-	3.57	-	-
78	-	0.22	0.28	-	3.93	-	3.77	-	-
79	-	0.78	0.17	-	3.37	-	2.66	-	-
80	-	0.17	0.76	-	3.6	-	4.24	-	-
81	-	0.28	0.28	-	2.37	-	4.14	-	-
82	-	0.28	0.96	-	2.54	-	2.92	-	-
80	-	0.17	0.76	-	3.6	-	4.24	-	-
81	-	0.28	0.28	-	2.37	-	4.14	-	-

No. Of Fiber	PS solution in Dichloroethane								
	10%(w/v)			20%(w/v)			30%(w/v)		
	7cm	10cm	15cm	7cm	10cm	15cm	7cm	10cm	15cm
82	-	0.28	0.96	-	2.54	-	2.92	-	-
83	-	0.22	0.11	-	-	-	3.63	-	-
84	-	0.81	0.24	-	-	-	3.53	-	-
85	-	0.32	0.55	-	-	-	3.09	-	-
86	-	0.17	0.22	-	-	-	5.12	-	-
87	-	0.58	0.49	-	-	-	-	-	-
88	-	0.28	0.55	-	-	-	-	-	-
89	-	0.62	0.53	-	-	-	-	-	-
90	-	0.51	0.28	-	-	-	-	-	-
91	-	0.28	0.32	-	-	-	-	-	-
92	-	0.34	0.83	-	-	-	-	-	-
93	-	0.56	0.32	-	-	-	-	-	-
94	-	0.28	0.24	-	-	-	-	-	-
95	-	0.24	0.53	-	-	-	-	-	-
96	-	0.47	0.51	-	-	-	-	-	-
97	-	0.45	0.23	-	-	-	-	-	-
98	-	0.49	0.6	-	-	-	-	-	-
99	-	0.56	0.65	-	-	-	-	-	-
100	-	0.33	0.48	-	-	-	-	-	-

Table B2 Diameter of electrospun PS fiber (in nm) in DMF as a function of collection distance (Applied voltage keep constance at 20kV)

No. Of Fiber	PS solution in DMF								
	10%(w/v)			20%(w/v)			30%(w/v)		
	7cm	10cm	15cm	7cm	10cm	15cm	7cm	10cm	15cm
1	-	0.76	1	2.13	3.16	2.21	2.26	3.38	3.3
2	-	0.92	0.85	3.17	2.72	2.4	2.13	3.37	2.44
3	-	1.14	1.03	2.94	3	2.31	2.14	3.08	2.9
4	-	1.08	0.72	2.25	3.85	2.3	2.57	3.19	3.54
5	-	0.63	0.92	3.25	3.06	2.58	2.27	3.1	3.28
6	-	0.72	0.99	2.13	3.06	2.37	2.67	3.87	3.09
7	-	0.63	0.87	2.51	2.77	2.51	2.48	3.73	3.03
8	-	0.86	0.75	2.52	3.23	3.08	2.65	3.1	3.21
9	-	0.95	0.75	2.09	3.17	2.71	2.31	3.35	3.15
10	-	0.78	0.65	2.86	3.1	2.76	2.48	3.28	3.16
11	-	0.76	0.58	2.62	3.16	2.1	2.55	2.78	3.41
12	-	0.76	0.82	2.09	3.1	2.93	2.08	2.99	3.36
13	-	0.86	0.7	2.41	2.97	2.26	2.31	3.19	3.4
14	-	0.78	0.77	3.14	3.56	2.58	3	3.41	3.21
15	-	0.54	0.85	1.56	3.89	2.52	2.5	3.14	3.05
16	-	0.63	0.93	3	3.39	2.44	2.4	2.88	3.39
17	-	0.7	0.77	2.73	3.62	2.52	2.55	2.99	3.35
18	-	1.03	0.7	2.51	3.17	2.7	2.09	3.48	3.34
19	-	0.76	0.93	2.5	2.68	2.82	2.16	2.75	3.14
20	-	1.06	0.66	2.5	3.25	2.33	2.09	3.72	3.76
21	-	0.7	0.87	1.93	2.9	2.93	1.92	2.78	3.16
22	-	0.88	0.69	2.52	2.75	2.36	2.08	3	2.2
23	-	0.69	0.72	2.4	3.07	2.88	2.12	3.3	3.11
24	-	0.91	0.81	2.4	2.19	2.17	2.31	3.26	2.44
25	-	1.15	0.83	3.34	2.5	2.26	2.49	2.55	3.31
26	-	0.94	1.11	3.2	3.27	2.44	2.32	2.63	3.68
27	-	1	0.71	3.72	2.38	2.36	2.39	3.09	2.38
28	-	0.92	1.29	2.58	3.26	2.87	2.44	2.48	2.44
29	-	0.85	0.53	2.77	2.8	2.28	2.97	3.46	3.02
30	-	1.16	0.74	2.43	2.17	2.85	2.9	2.76	2.95
31	-	0.71	0.75	3.09	2.49	3.12	2.95	3.09	2.88
32	-	1.14	0.77	2.72	2.56	2.88	2.9	2.39	3.66
33	-	1.27	1.11	2.69	2.51	2.43	2.97	2.34	3.34
34	-	0.94	0.84	3.51	2.65	2.58	2.89	3.02	3.56
35	-	1.48	0.88	3.31	3.2	2.42	2.43	3.28	3.53
36	-	0.77	1.22	2.62	2.97	2.9	2.61	3.21	3.67
37	-	1	0.8	3.82	2.72	2.4	2.44	3.12	2.88
38	-	1.93	0.83	3.44	2.83	2.41	2.86	3.5	3.49
39	-	1.47	0.64	3.04	2.62	3.15	3.3	3.26	2.59
40	-	1.2	0.71	3.17	3.11	2.54	2.31	2.56	3.67
41	-	0.87	1.04	2.26	3.03	2.65	2.29	2.87	3.22

No. Of Fiber	PS solution in DMF								
	10%(w/v)			20%(w/v)			30%(w/v)		
	7cm	10cm	15cm	7cm	10cm	15cm	7cm	10cm	15cm
42	-	0.95	0.81	3.47	3.12	2.32	2.31	3.59	3.24
43	-	0.88	0.83	3.24	2.58	2.26	3.12	3.46	2.97
44	-	0.85	1.12	3.18	2.56	2.5	2.58	3.19	3.38
45	-	1.12	1.11	2.98	2.92	3.18	3.03	3.54	3.5
46	-	1.39	0.96	3.72	2.76	3	2.41	2.69	3.45
47	-	1	0.71	2.45	3.31	2.84	2.62	2.31	3.34
48	-	1.07	0.69	2.49	3.03	2.71	3.51	2.9	3.71
49	-	0.78	1.1	3.31	2.85	2.3	2.73	3.12	3.33
50	-	0.96	0.91	2.37	2.8	3.05	3.3	2.95	3.24
51	-	1.14	0.36	2.19	2.68	3.02	2.43	2.19	2.73
52	-	0.93	0.15	2.46	2.73	2.18	2.6	3.19	2.94
53	-	1.05	0.47	2.53	3.14	2.91	2.38	3.14	3.09
54	-	1.16	0.77	2.58	2.72	2.36	2.4	3.25	2.54
55	-	0.84	0.71	3.21	3.83	2.82	2.95	2.52	3.15
56	-	1.26	0.9	3.05	2.02	2.48	2.44	2.71	3.24
57	-	1.25	0.44	3.05	3.19	2.88	2.73	2.38	3.03
58	-	0.96	0.69	3.07	2.56	2.99	2.83	2.58	3.05
59	-	1.56	0.47	2.7	3.27	2.88	2.61	2.5	2.37
60	-	1.05	0.41	2.58	2.83	2.6	2.63	3.28	3.28
61	-	1.17	0.47	2.42	2.55	2.77	2.56	3.31	3.77
62	-	0.72	0.45	3.21	2.83	2.04	3.13	2.44	3.4
63	-	1.05	0.66	3.16	2.71	2.22	2.99	2.62	3.22
64	-	1.15	0.54	3.11	3.04	2.31	2.81	3.48	3.34
65	-	0.93	0.83	3.22	2.67	2.8	2.83	3.43	2.65
66	-	0.78	0.88	2.53	3.14	2.89	2.5	2.87	3.34
67	-	0.97	0.71	2.56	3.04	2.95	2.49	2.9	2.95
68	-	0.94	0.73	3.02	2.72	2.47	2.44	2.66	2.55
69	-	0.85	1.08	3.08	2.48	2.54	2.25	2.61	3.07
70	-	0.87	0.93	3.01	2.16	2.63	2.06	2.92	2.9
71	-	1.13	0.77	2.41	2.55	3.07	3.35	2.5	3.05
72	-	1.19	1	1.96	3.41	3.14	1.76	2.49	3.24
73	-	1.17	0.54	3.1	3.09	2.85	3.2	2.7	3.22
74	-	1.15	0.66	3.41	2.65	2.48	3.13	3.18	2.95
75	-	0.7	0.39	2.67	2.69	3.16	2.57	3	2.19
76	-	1.31	0.59	3.77	2.23	2.4	2.49	3.24	3.34
77	-	1.19	0.86	3.19	2.08	2.58	2.38	2.92	3.22
78	-	1.1	0.77	3.27	2.79	2.37	2.47	2.21	3.34
79	-	1.24	1.07	3.27	2.96	2.23	2.41	3.35	3.25
80	-	0.94	0.66	2.9	2.81	2.01	2.72	2.41	2.62
81	-	1.6	0.46	3.49	2.48	2.86	2.75	3.09	3.65
82	-	1.31	0.44	3.7	2.44	2.71	3.05	3.44	3.52
83	-	1.25	0.83	3.55	2.79	2.32	2.64	2.81	3.32
84	-	1.19	0.54	3.87	3.25	2.17	3.32	3.08	3.61
85	-	1.49	0.52	2.4	2.39	2.72	2.2	2.92	3.83
86	-	0.85	0.46	2.45	3.05	2.47	3.47	3.24	2.48
87	-	1.32	0.9	3	3.32	2.52	2.12	2.68	3.39

No. Of Fiber	PS solution in DMF								
	10%(w/v)			20%(w/v)			30%(w/v)		
	7cm	10cm	15cm	7cm	10cm	15cm	7cm	10cm	15cm
88	-	0.94	0.66	2.47	2.38	2.58	2.06	3.35	3.78
89	-	1.14	0.93	2.25	2.8	2.98	2.72	3.07	3.05
90	-	0.9	0.95	2.92	3.03	3.16	2.15	3.3	3.39
91	-	0.69	0.54	2.75	3.41	2.9	2.73	3.38	3.43
92	-	1.24	0.78	2.14	1.77	2.9	2.33	3.34	3.16
93	-	1.11	1	2.29	3.1	2.3	2.59	2.44	3.27
94	-	0.85	0.71	2.99	3.18	2.71	1.97	3.52	3.5
95	-	1.41	0.93	3.8	2.9	3.08	2.13	2.78	3.84
96	-	0.9	1.27	2.59	2.73	2.75	2.14	3.05	3.5
97	-	1.59	0.9	2.45	2.67	3.11	3.01	3.73	3.08
98	-	-	1.29	2.95	2.5	2.55	2.15	-	2.28
99	-	-	0.73	3.14	3.5	2.91	2.72	-	3.08
100	-	-	0.69	-	3.25	-	2.83	-	3.05

Table B3 Diameter of electrospun PS fiber (in nm) in MEK as a function of collection distance (Applied voltage keep constance at 20kV)

No. Of Fiber	PS solution in MEK								
	10%(w/v)			20%(w/v)			30%(w/v)		
	7cm	10cm	15cm	7cm	10cm	15cm	7cm	10cm	15cm
1	0.54	0.49	1.24	1.66	3.09	3.68	3.81	2.67	3.52
2	0.56	0.5	0.44	1.98	3.33	3.69	4.08	3.46	3.72
3	0.58	0.51	0.5	2.07	3.33	3.7	4.22	3.66	3.89
4	0.6	0.51	0.51	2.15	3.71	3.76	4.24	3.73	4.46
5	0.61	0.54	0.52	2.19	3.74	3.79	4.31	3.93	5.15
6	0.62	0.54	0.54	2.29	3.92	3.91	4.38	4.14	5.5
7	0.64	0.55	0.54	2.31	3.93	3.94	4.7	4.16	6.19
8	0.66	0.56	0.55	2.36	3.96	3.99	4.77	4.18	6.19
9	0.68	0.6	0.56	2.49	4.02	4.03	4.83	4.23	6.25
10	0.7	0.62	0.56	2.55	4.09	4.06	4.84	4.24	6.61
11	0.72	0.63	0.59	2.58	4.23	4.08	5.21	4.28	6.7
12	0.72	0.65	0.59	2.59	4.24	4.12	5.26	4.3	6.78
13	0.72	0.66	0.59	2.61	4.57	4.16	5.27	4.31	7.03
14	0.75	0.68	0.6	2.63	4.64	4.2	5.44	4.34	7.39
15	0.76	0.72	0.61	2.63	4.77	4.25	5.74	4.37	7.47
16	0.76	0.72	0.63	2.71	4.78	4.26	6.01	4.37	7.74
17	0.76	0.77	0.63	2.77	4.78	4.38	6.25	4.37	7.83
18	0.77	0.78	0.63	2.82	5.14	4.5	-	4.39	8.11
19	0.77	0.78	0.65	2.87	5.15	4.55	-	4.47	8.13
20	0.81	0.78	0.66	3.03	5.15	4.56	-	4.53	8.43
21	0.81	0.78	0.66	3.07	5.26	4.65	-	4.62	8.59
22	0.84	0.78	0.66	3.09	5.44	4.69	-	4.62	9.7
23	0.85	0.79	0.66	3.14	5.53	4.78	-	4.62	9.97
24	0.85	0.79	0.69	3.21	5.54	4.85	-	4.64	10.5
25	0.86	0.79	0.7	3.29	5.6	4.86	-	4.67	11.4
26	0.89	0.8	0.72	3.31	5.61	4.93	-	4.8	14.5
27	0.89	0.81	0.72	3.37	5.62	5.05	-	4.8	17.3
28	0.91	0.84	0.72	3.38	5.8	5.15	-	4.93	-
29	0.92	0.84	0.75	3.39	5.87	5.3	-	5	-
30	0.92	0.88	0.76	3.44	5.93	5.32	-	5.11	-
31	0.92	0.88	0.76	3.48	-	-	-	5.2	-
32	0.92	0.9	0.76	3.66	-	-	-	6.36	-
33	0.92	0.9	0.76	3.67	-	-	-	6.43	-
34	0.93	0.9	0.76	3.71	-	-	-	6.44	-
35	0.93	0.91	0.78	3.88	-	-	-	7.11	-
36	0.97	0.92	0.79	3.93	-	-	-	7.16	-
37	0.98	0.93	0.81	4.1	-	-	-	7.59	-
38	1	0.94	0.82	4.16	-	-	-	7.61	-
39	1	0.96	0.82	4.22	-	-	-	7.81	-
40	1.02	0.99	0.84	4.34	-	-	-	7.83	-
41	1.03	1.01	0.85	4.46	-	-	-	9.4	-

No. Of Fiber	PS solution in MEK								
	10%(w/v)			20%(w/v)			30%(w/v)		
	7cm	10cm	15cm	7cm	10cm	15cm	7cm	10cm	15cm
42	1.03	1.01	0.85	4.71	-	-	-	12.2	-
43	1.04	1.02	0.86	4.81	-	-	-	-	-
44	1.05	1.03	0.86	4.86	-	-	-	-	-
45	1.06	1.03	0.88	4.87	-	-	-	-	-
46	1.06	1.04	0.89	5.35	-	-	-	-	-
47	1.07	1.04	0.9	-	-	-	-	-	-
48	1.07	1.05	0.93	-	-	-	-	-	-
49	1.08	1.05	0.96	-	-	-	-	-	-
50	1.11	1.06	0.97	-	-	-	-	-	-
51	1.11	1.08	1	-	-	-	-	-	-
52	1.13	1.09	1.01	-	-	-	-	-	-
53	1.15	1.1	1.01	-	-	-	-	-	-
54	1.16	1.11	1.01	-	-	-	-	-	-
55	1.16	1.11	1.02	-	-	-	-	-	-
56	1.16	1.13	1.02	-	-	-	-	-	-
57	1.16	1.13	1.03	-	-	-	-	-	-
58	1.19	1.15	1.05	-	-	-	-	-	-
59	1.19	1.19	1.05	-	-	-	-	-	-
60	1.21	1.24	1.11	-	-	-	-	-	-
61	1.21	1.24	1.16	-	-	-	-	-	-
62	1.22	1.24	1.18	-	-	-	-	-	-
63	1.24	1.25	1.19	-	-	-	-	-	-
64	1.25	1.26	1.2	-	-	-	-	-	-
65	1.25	1.26	1.2	-	-	-	-	-	-
66	1.25	1.27	1.21	-	-	-	-	-	-
67	1.25	1.29	1.23	-	-	-	-	-	-
68	1.28	1.31	1.23	-	-	-	-	-	-
69	1.33	1.33	1.24	-	-	-	-	-	-
70	1.33	1.35	1.25	-	-	-	-	-	-
71	1.34	1.37	1.26	-	-	-	-	-	-
72	1.34	1.39	1.26	-	-	-	-	-	-
73	1.35	1.41	1.26	-	-	-	-	-	-
74	1.45	1.43	1.3	-	-	-	-	-	-
75	1.45	1.44	1.32	-	-	-	-	-	-
76	1.48	1.45	1.34	-	-	-	-	-	-
77	1.49	1.47	1.36	-	-	-	-	-	-
78	1.5	1.47	1.37	-	-	-	-	-	-
79	1.5	1.55	1.42	-	-	-	-	-	-
80	1.53	1.57	1.46	-	-	-	-	-	-
81	1.53	1.64	1.53	-	-	-	-	-	-
82	1.54	1.71	1.56	-	-	-	-	-	-
83	1.61	1.73	1.61	-	-	-	-	-	-
84	1.62	1.75	1.62	-	-	-	-	-	-
85	1.67	1.8	1.76	-	-	-	-	-	-
86	1.68	1.8	-	-	-	-	-	-	-
87	1.72	1.82	-	-	-	-	-	-	-

No. Of Fiber	PS solution in MEK								
	10%(w/v)			20%(w/v)			30%(w/v)		
	7cm	10cm	15cm	7cm	10cm	15cm	7cm	10cm	15cm
88	1.88	1.82	-	-	-	-	-	-	-
89	1.88	1.9	-	-	-	-	-	-	-
90	1.95	1.99	-	-	-	-	-	-	-
91	1.95	2.03	-	-	-	-	-	-	-
92	2.06	2.25	-	-	-	-	-	-	-
93	2.07	2.32	-	-	-	-	-	-	-
94	2.1	2.39	-	-	-	-	-	-	-
95	2.16	2.45	-	-	-	-	-	-	-
96	2.19	2.56	-	-	-	-	-	-	-
97	2.34	2.57	-	-	-	-	-	-	-
98	2.38	2.57	-	-	-	-	-	-	-
99	2.46	2.7	-	-	-	-	-	-	-
100	3.36	2.75	-	-	-	-	-	-	-

Table B4 Diameter of electrospun PS fiber (in nm) in Ethylacetate as a function of collection distance (Applied voltage keep constance at 20kV)

No. Of Fiber	PS solution in Ethylacetate								
	10%(w/v)			20%(w/v)			30%(w/v)		
	7cm	10cm	15cm	7cm	10cm	15cm	7cm	10cm	15cm
1	1.6	1.26	1.32	13.2	22.2	9.31	8.02	7.62	6.77
2	1.62	1.57	1.19	12.5	23.9	9.35	7.67	7.26	6.83
3	1.69	3.19	1.26	12.9	23.5	9.08	7.38	7.73	6.96
4	1.96	2.87	1.35	13.1	22.9	8.3	7.13	7.29	7
5	2.11	2.56	1.24	12.7	22.2	7.89	6.81	7.46	6.83
6	2.22	2.4	2.17	12.5	22.2	7.35	3.79	7.86	7
7	5.07	2.03	2.13	12.6	6.47	7.46	3.89	7.79	7
8	5.33	2.1	2.31	12.6	6.73	7.09	3.72	7.68	7
9	5.15	2.3	1	12.6	6.79	6.9	3.88	7.25	6.85
10	5.39	1.69	1.42	12.7	6.65	6.66	3.86	4.3	6.85
11	5.15	1.6	1.06	12.9	6.74	6.21	3.41	4.74	8.33
12	5.07	1.11	0.97	12.4	8.94	6.19	2.8	4.47	8.43
13	5.33	2.23	1.13	12.7	8.94	14.7	2.92	5.11	8.19
14	3.92	2.03	1.14	12.9	8.33	14.8	3.12	7.34	7.88
15	4.23	1.88	1.06	13	8.92	14	2.99	7.26	7.81
16	4.99	2.05	1.45	12.3	8.94	14.4	3.14	6.67	7.31
17	4.27	2.24	1.06	12.5	9.4	14.2	15	7.13	7.08
18	5.14	1.74	1.25	12.5	7.23	14.1	14.7	7.4	6.77
19	1.28	1.29	1.23	13.3	7.09	14.1	14.6	7.45	6.77
20	1.52	2.62	1.53	13.9	7	13.8	15.7	7.13	6.78
21	2.09	1.49	1.67	12.4	7.66	14.1	3.83	7.46	7.79
22	1.89	1.56	1.37	12.8	23.9	14.1	4.17	4.38	8.16
23	1.86	1.67	1.51	12.6	23.1	13.6	3.85	4.61	6.91
24	1.78	2.36	1.73	12.9	22.7	13.6	8.88	4.43	7
25	1.24	2.13	1.15	12.8	22.2	13.1	5.83	4.85	8.27
26	2.15	2.12	1.3	12.6	11.9	7.75	21.2	6.76	7.62
27	2.02	2.15	1.23	12.9	11.6	8.02	22	7.09	7.52
28	2.05	2.36	1.16	13.5	11.7	8.88	23	7.25	7.66
29	1.79	1.99	0.85	14.3	11.2	9.15	23.9	7.54	7.75
30	1.74	1.52	0.69	12.4	10.4	9.42	23.5	7.55	7.47
31	2.02	1.18	0.65	12.4	12.2	9.37	23.6	6.93	7.2
32	1.24	1.05	1.24	12.8	11.9	9.52	23.3	6.98	7.46
33	1.5	3.65	0.99	13.2	11.3	9.94	20.9	6.93	7.62
34	1.41	3.04	0.61	13.3	11.6	9.9	19.6	7.23	7.69
35	1.53	5.29	0.7	13.4	11.5	10.2	19.3	7.3	5.78
36	2.14	0.83	2.29	13.7	11.5	10.5	20	7.83	5.85
37	1.94	4.38	2.44	13.7	11.6	10.7	19	7.17	6.43
38	1.56	4.52	2.37	13.5	11.8	10.8	19.7	7.43	6.82
39	0.78	3.8	1.67	13.4	10.6	11.14	19.5	7.23	7.86
40	1.14	3.93	2.2	13.1	11.6	9.33	20.1	7.83	7.28
41	0.99	4.71	2.21	12.6	16.9	9.46	19.9	7.8	7.53

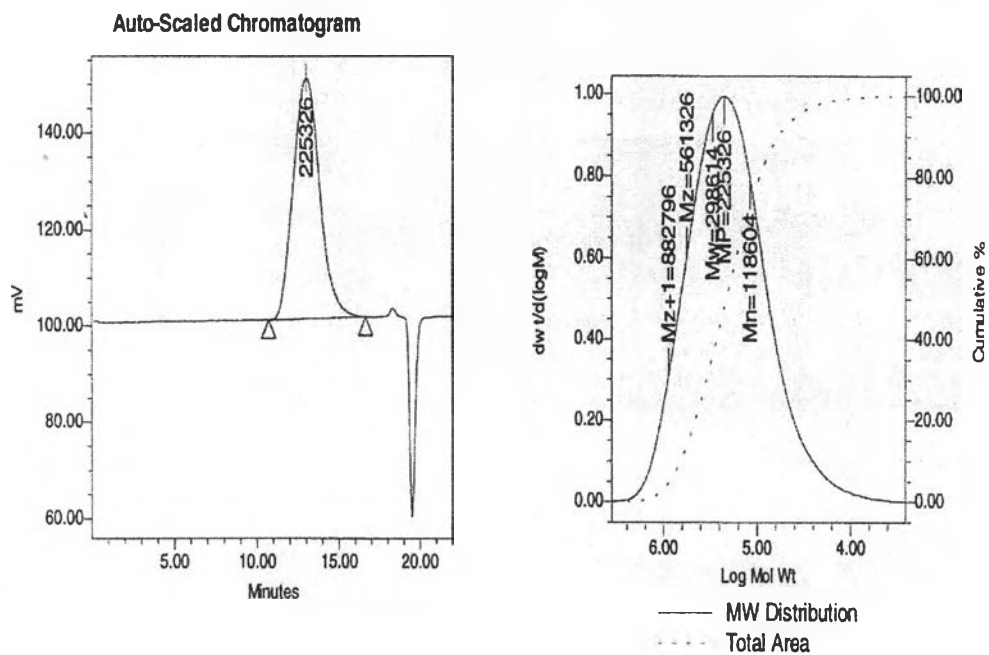
No. Of Fiber	PS solution in Ethylacetate								
	10%(w/v)			20%(w/v)			30%(w/v)		
	7cm	10cm	15cm	7cm	10cm	15cm	7cm	10cm	15cm
42	0.92	2.48	1.09	11.6	17.5	11.8	20.7	7.93	7.54
43	1.03	3.48	1.76	11.2	17.1	12.1	23.6	7.86	7.33
44	1.05	1	2.32	14.3	17.9	11.9	21.5	7.69	5.4
45	1.46	1.38	2.07	14.4	16.5	12.8	22.7	7.41	7.47
46	1.16	1.12	1	13.5	17.1	13	23.6	7.69	4.24
47	1.46	1.22	0.62	12.9	17.4	12.9	23.6	7.75	5.88
48	0.91	1.21	0.8	12.5	11.7	13	23.8	7.62	4.66
49	0.84	3.88	1.41	12.4	11.5	12.2	23.5	7.68	7.65
50	1.21	2.17	0.7	13.3	10.7	12	19.5	7.83	7.66
51	2.71	1.45	2.15	14.3	14.8	11.9	10.4	7.72	12.6
52	2.65	1.31	2.09	14	14	12.3	10.3	7.74	12.5
53	2.35	1.24	2.47	11.9	13.8	12	10.1	7.76	12.6
54	2.55	2.25	3.16	11.7	12.5	11.7	10.5	7.66	12.6
55	2.68	2.29	2.13	13.7	12.2	12	10.4	7.84	12.7
56	3.84	3.21	2.15	13.2	11.9	12	10.3	6.21	7.25
57	3.95	5.46	1.15	5.59	11.8	11.8	10.1	6.43	7.54
58	3.54	2.31	0.59	5.34	15.2	11.6	10.6	6.35	4.49
59	3.76	1.28	3.04	5.65	15.3	11.5	10.3	6.3	7.65
60	2	2	1.25	6.11	15.9	11.7	5.56	6.33	7.56
61	2.41	4.42	1.49	9.71	16	11.5	5.53	7.84	12.7
62	2.44	2.56	1.09	9.86	16.1	12.7	5.44	7.78	12.8
63	2.66	2.31	2.46	10.3	15	12.7	5.18	7.71	12.9
64	2.71	2.22	2.62	9.7	14.7	12.9	5.25	7.86	12.7
65	2.92	2.14	1.55	9.85	14.8	10.9	5.74	7.7	12.9
66	2.95	2.24	2.43	10.2	15.4	10.2	6.03	7.43	7.31
67	0.82	2.51	1.9	10.1	16	10.7	6.03	7.36	7.03
68	1.13	3	1.94	9.7	15.4	10.5	5.59	7.43	6.93
69	0.81	5.84	1.33	12.6	15.5	10.6	5.94	7.43	7.25
70	1.13	2.56	1.86	14.8	15.4	11	6.06	7.36	7.28
71	2.32	2.35	1.82	14.9	14.9	10.5	5.83	7.44	12.8
72	2.43	4.55	1.49	13.9	15.3	10.7	5.33	5.87	12.8
73	2.2	2.29	1.8	12.9	10.5	12.3	5.68	5.61	12.7
74	2.13	2.31	2.2	11.6	10.7	11.6	5.48	7.24	12.5
75	3.86	3.42	1.46	11.8	10.2	11.7	5.01	6.71	12.9
76	2.21	3.65	4.13	4.98	15	11.4	10.7	7.66	7.37
77	2.2	3.97	3.84	4.83	15.7	11.3	10.9	7.66	7.32
78	2.09	3.01	0.87	5.21	15.4	11.6	10.6	7.55	7.39
79	1.3	2.77	2.19	5.21	16.5	11.5	10.8	7.32	7.37
80	1.3	1.38	2.53	5.16	16.2	11.4	11	7.21	7.32
81	1.7	1.47	0.78	5.4	15.5	14.2	11.4	7.32	6.05
82	0.86	1.31	0.47	5.57	15.6	14.2	11	7.31	10.7
83	1.23	1.12	0.47	5.4	15.2	14.8	10.8	7.73	10.9
84	1.03	1.53	1.01	5.46	13.7	12.5	10.9	7.46	10.8
85	1.14	1.79	0.54	5.53	13.4	12.4	11	7.8	10.8
86	4	1.6	0.59	5.5	12.8	12.7	10.6	7.91	10.4
87	2.29	2.01	0.95	5.5	13.3	12.6	10.5	8.08	10.4

No. Of Fiber	PS solution in Ethylacetate								
	10%(w/v)			20%(w/v)			30%(w/v)		
	7cm	10cm	15cm	7cm	10cm	15cm	7cm	10cm	15cm
88	1.23	1.35	0.99	5.57	13.8	14.3	10.4	8.02	10.1
89	1.3	1.86	4.17	5.46	14.2	11.9	11.1	8.02	9.79
90	1.4	2.6	3.58	5.21	14.7	12.6	10.9	8.42	9.53
91	1.41	2.24	0.86	4.98	14.9	11.5	10.9	8.25	9.01
92	1.89	3.71	0.94	4.8	14.9	14.5	10.8	8.22	8.98
93	1.15	1.56	1.6	5.02	14.4	12.1	10.8	8.17	10.5
94	0.97	1.52	1.82	4.66	15.6	12.6	10.9	8.03	10.3
95	0.91	1.36	3.51	4.47	14.2	12.7	10.9	8.42	10.4
96	0.7	1.31	0.64	4.95	13.2	12.3	10.8	7.71	7.64
97	3.75	2.39	0.61	4.95	13.4	12.3	10.7	7.68	7.93
98	1.47	2.16	0.59	5.28	12.9	12	11	6.7	7.46
99	1.56	2.31	1.48	5.13	13.2	14.3	10.9	6.6	7.66
100	1.56	2.86	0.7	5.27	15.2	11.9	10.4	8.32	7.71

Appendix C Chromatogram of polymer pellets

SampleName PS685D
 Vial 2
 Injection 1
 Injection Volume 100.00 ul
 Channel SATIN
 Run Time 22.0 Minutes

Sample Type Broad Unknown
 Date Acquired 9/23/03 10:48:54 AM
 Acq Method Set MethR_THF_30C_8
 Processing Method ProcR_THF_30C_8
 Date Processed 9/23/03 12:25:34 PM



Peak Results

Name	Mn	Mw	MP	Mz	Mz+1	Polydispersity
1 Peak1	118604	298614	225326	561326	882796	2.517739

Figure C1 Chromatogram of PS pellet (685 D)

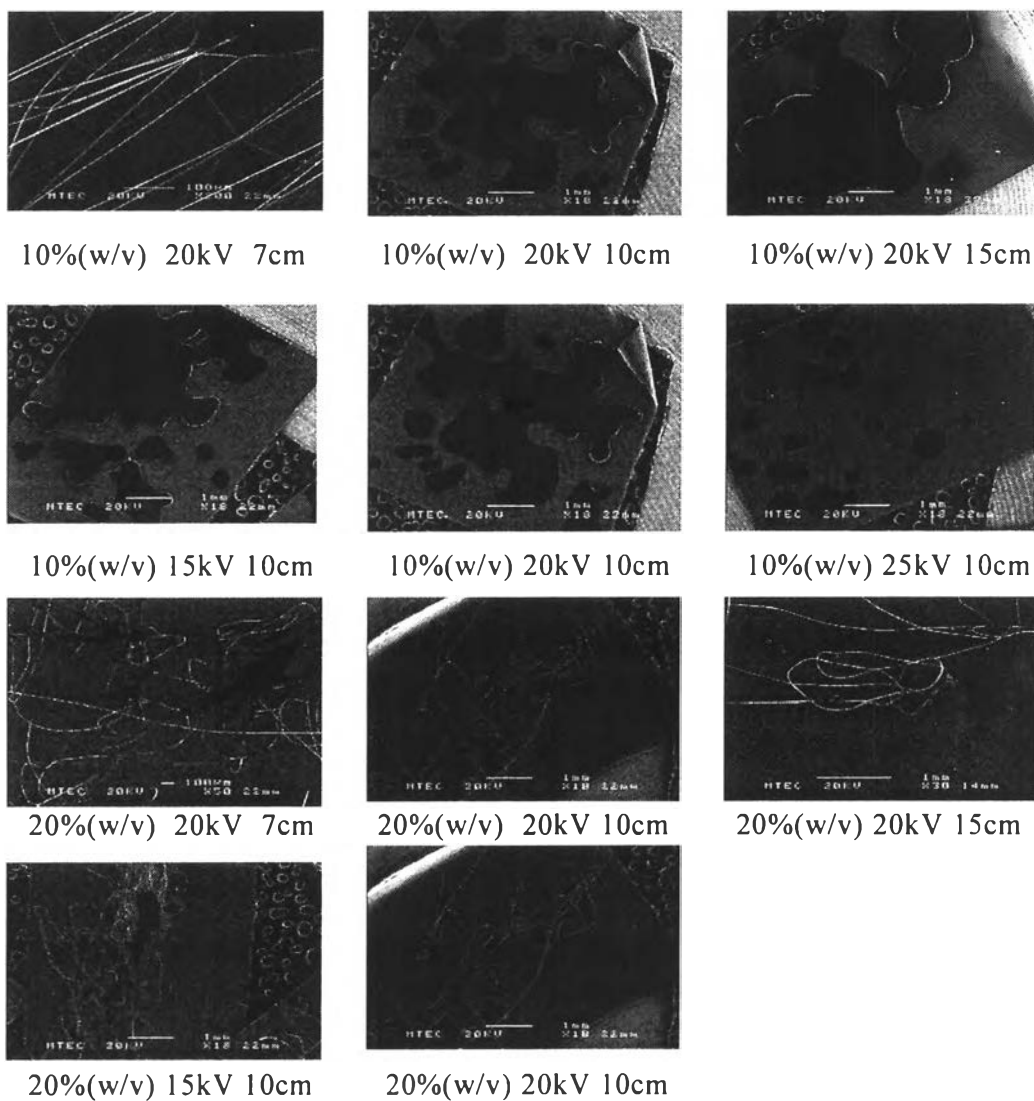
Appendix D Scanning electron micrographs of as-spun polystyrene fibers.

Figure D1 SEM of as-spun polystyrene fibers from solutions of polystyrene in benzene (at low magnificat)

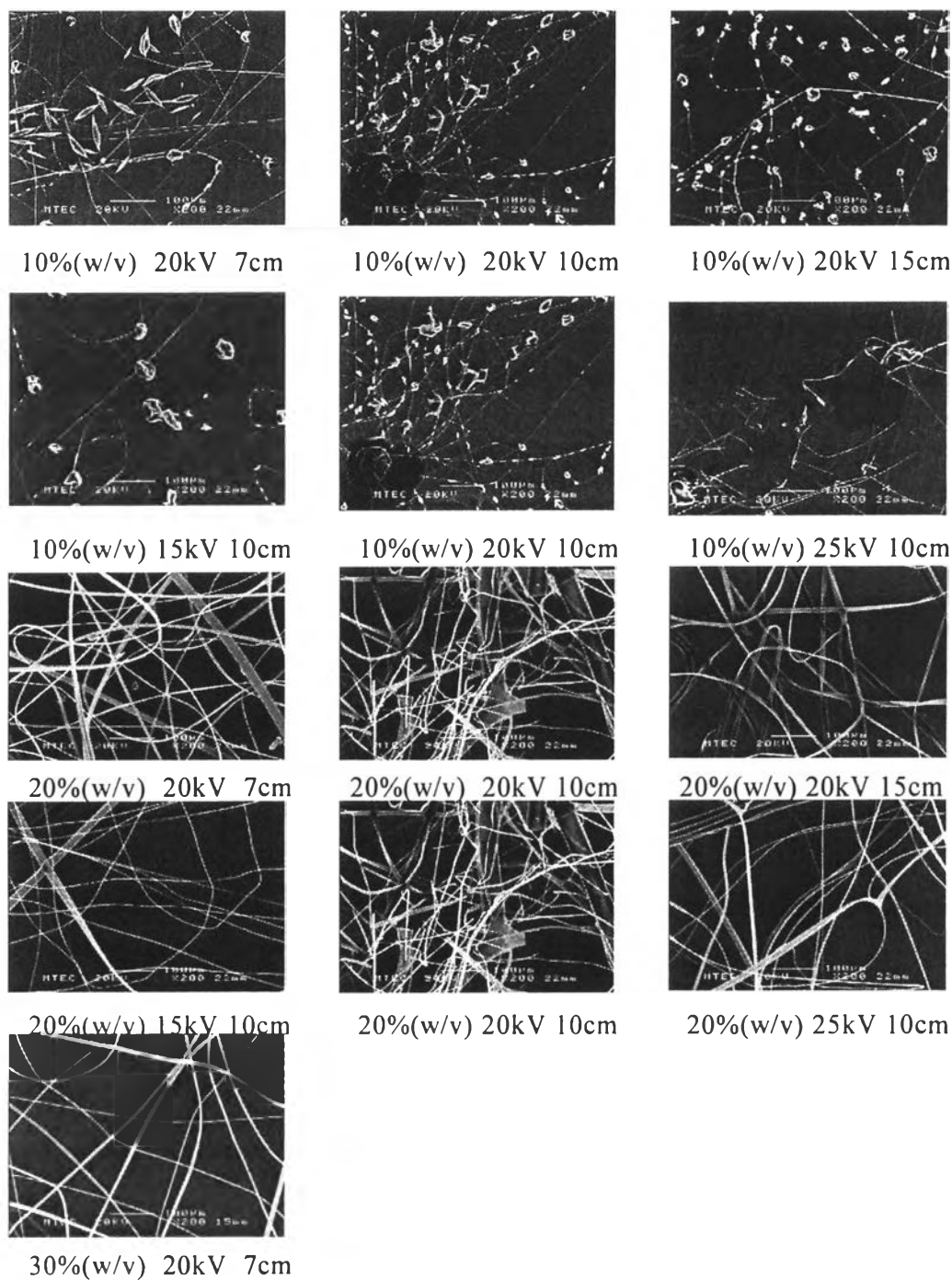
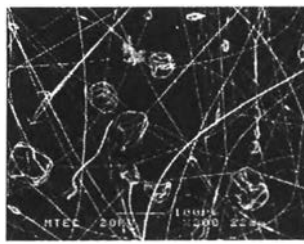


Figure D2 SEM of as-spun polystyrene fibers from solutions of polystyrene in butyl acetate (at low magnificat)



10%(w/v) 20kV 7cm



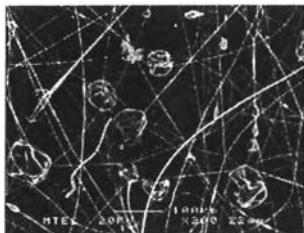
10%(w/v) 20kV 10cm



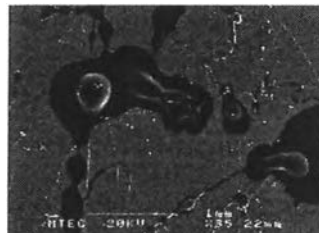
10%(w/v) 20kV 15cm



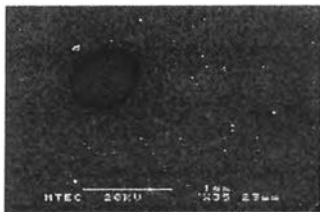
10%(w/v) 15kV 10cm



10%(w/v) 20kV 10cm



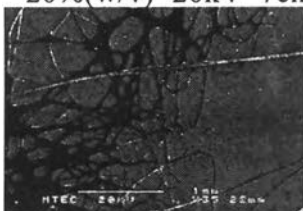
10%(w/v) 25kV 10cm



20%(w/v) 20kV 7cm



20%(w/v) 20kV 10cm



20%(w/v) 15kV 10cm



20%(w/v) 20kV 10cm

Figure D3 SEM of as-spun polystyrene fibers from solutions of polystyrene in carbontetrachloride (at low magnificat)

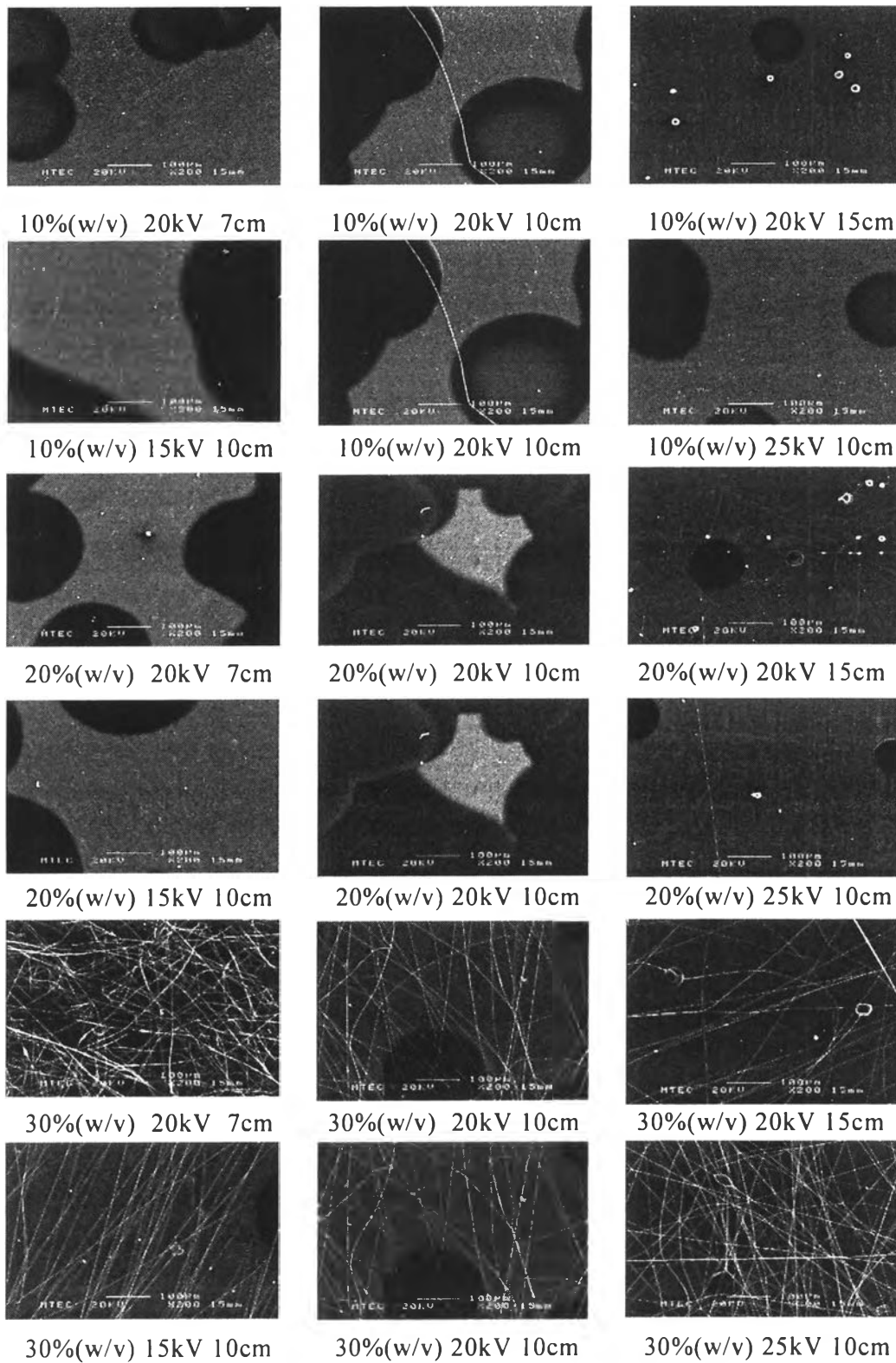


Figure D4 SEM of as-spun polystyrene fibers from solutions of polystyrene in chlorobenzene (at low magnificat)

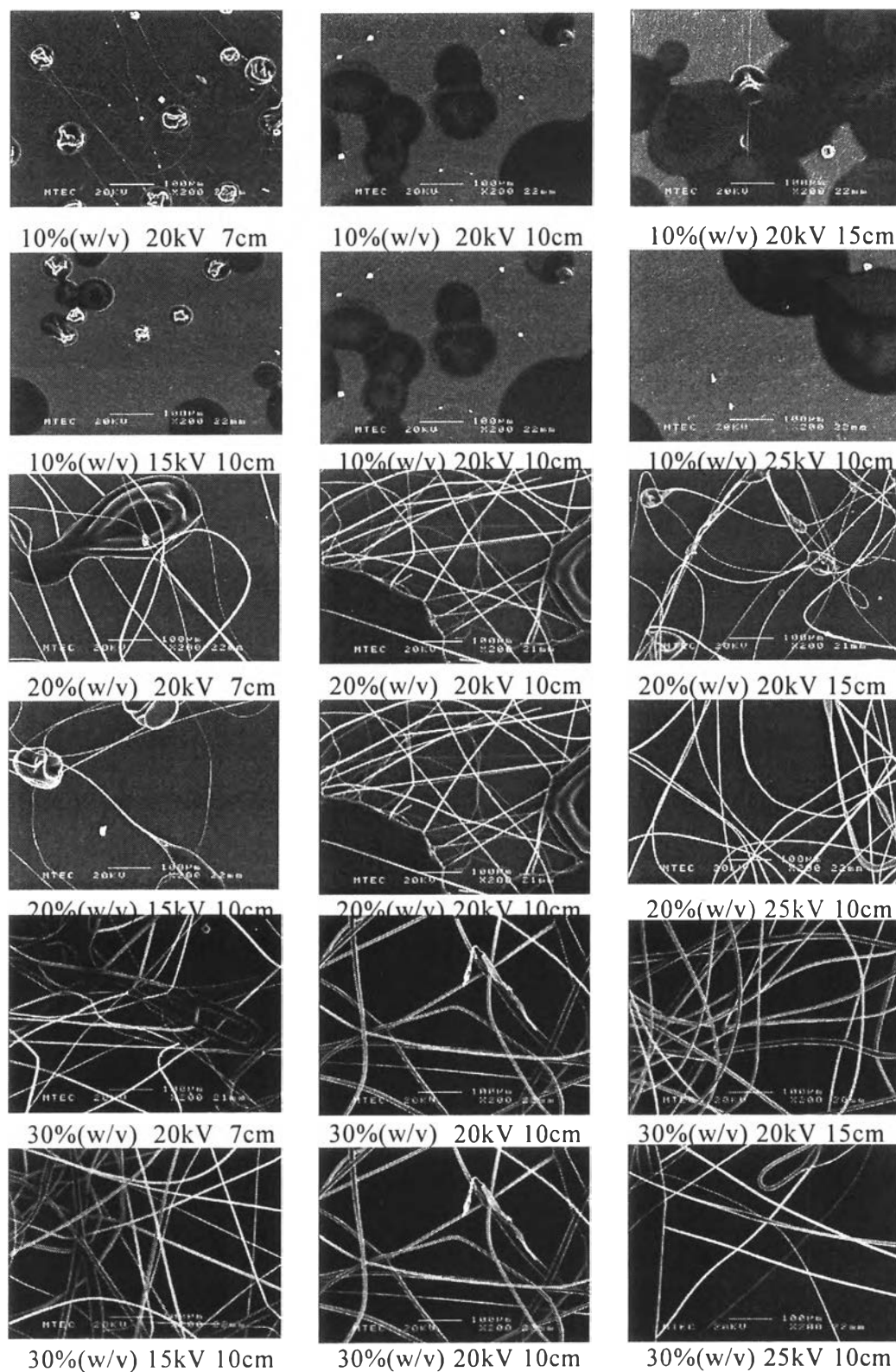


Figure D5 SEM of as-spun polystyrene fibers from solutions of polystyrene in chloroform (at low magnificat)

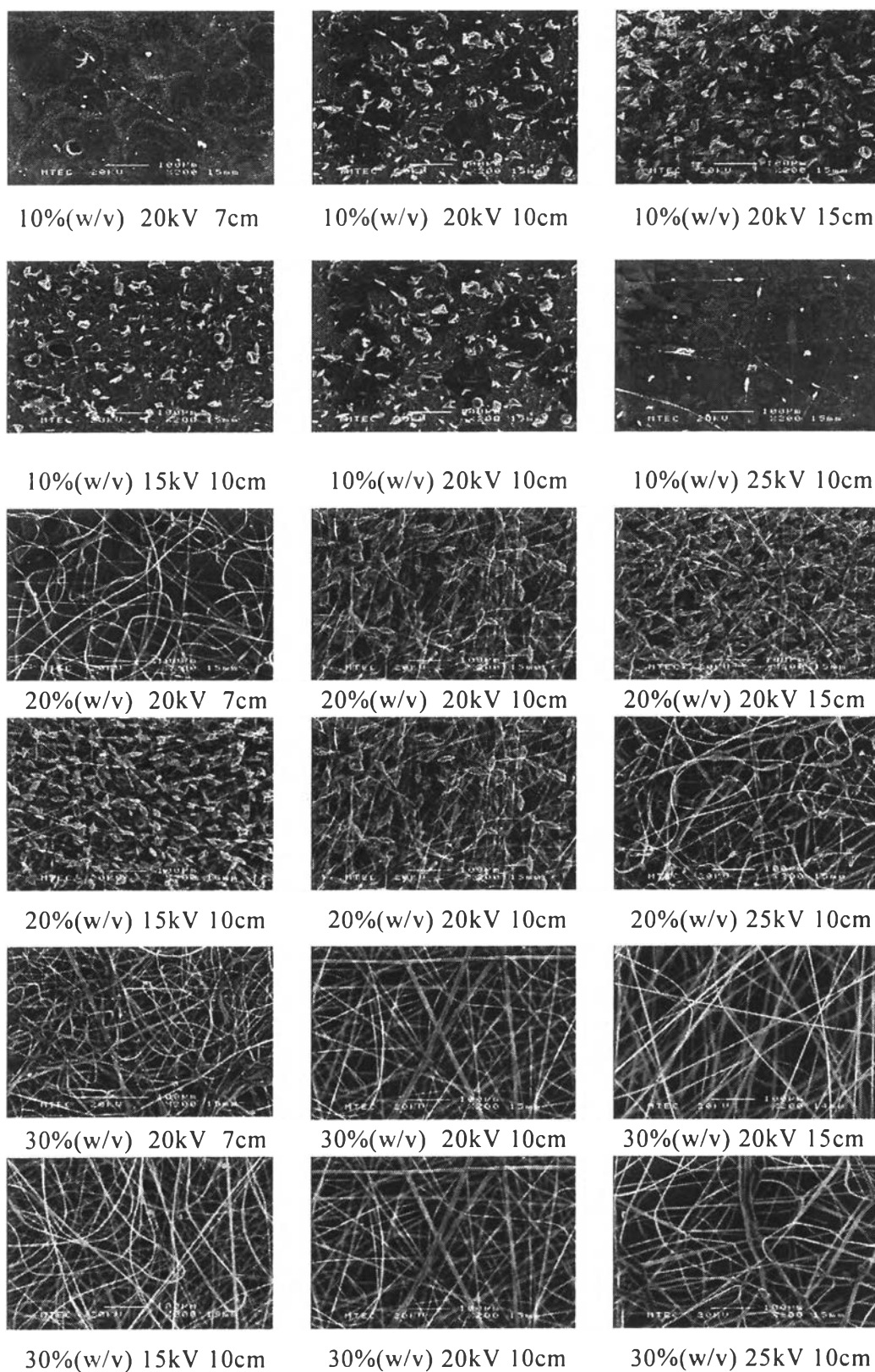


Figure D6 SEM of as-spun polystyrene fibers from solutions of polystyrene in dichloroethane (at low magnificat)

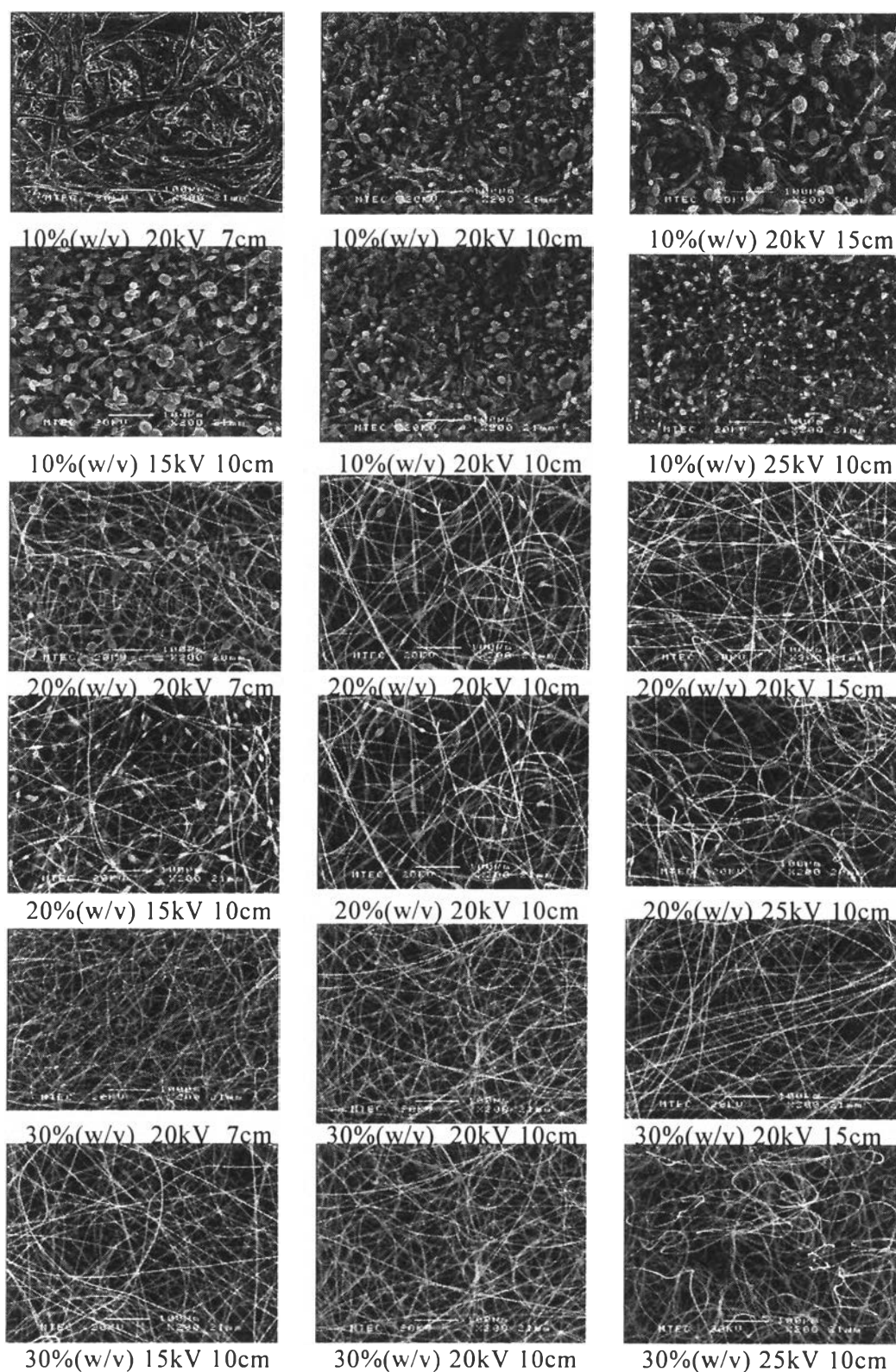
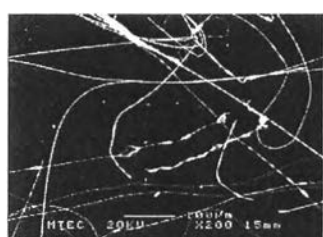
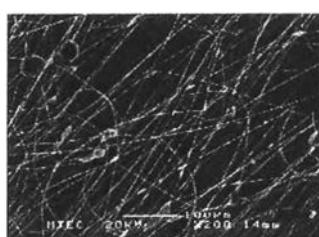


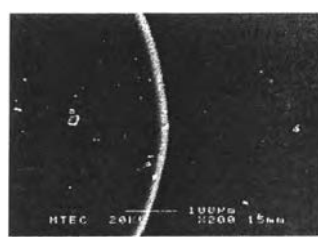
Figure D7 SEM of as-spun polystyrene fibers from solutions of polystyrene in DMF (at low magnificat)



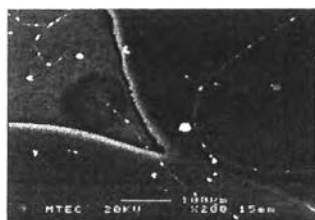
10%(w/v) 20kV 7cm



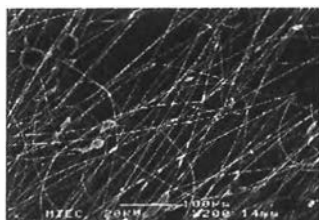
10%(w/v) 20kV 10cm



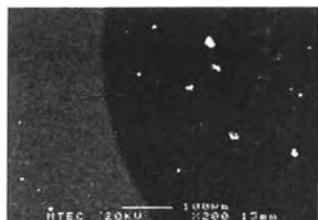
10%(w/v) 20kV 15cm



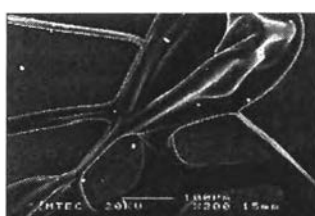
10%(w/v) 15kV 10cm



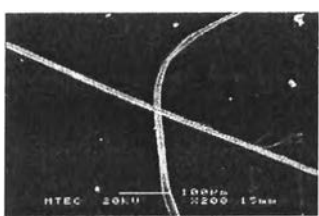
10%(w/v) 20kV 10cm



10%(w/v) 25kV 10cm



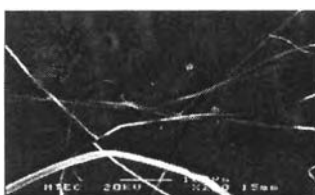
20%(w/v) 20kV 7cm



20%(w/v) 20kV 10cm



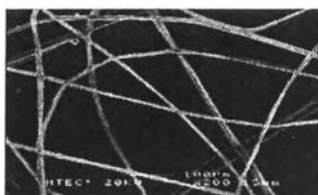
20%(w/v) 20kV 15cm



20%(w/v) 15kV 10cm



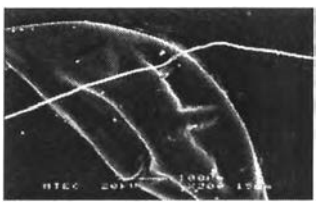
20%(w/v) 20kV 10cm



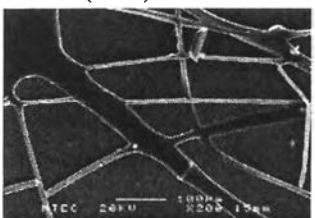
20%(w/v) 25kV 10cm



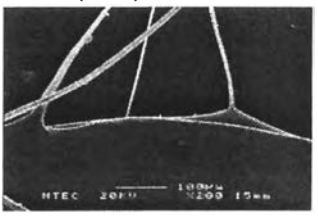
30%(w/v) 20kV 7cm



30%(w/v) 20kV 15cm



30%(w/v) 15kV 10cm



30%(w/v) 25kV 10cm

Figure D8 SEM of as-spun polystyrene fibers from solutions of polystyrene in dioxane (at low magnificat)

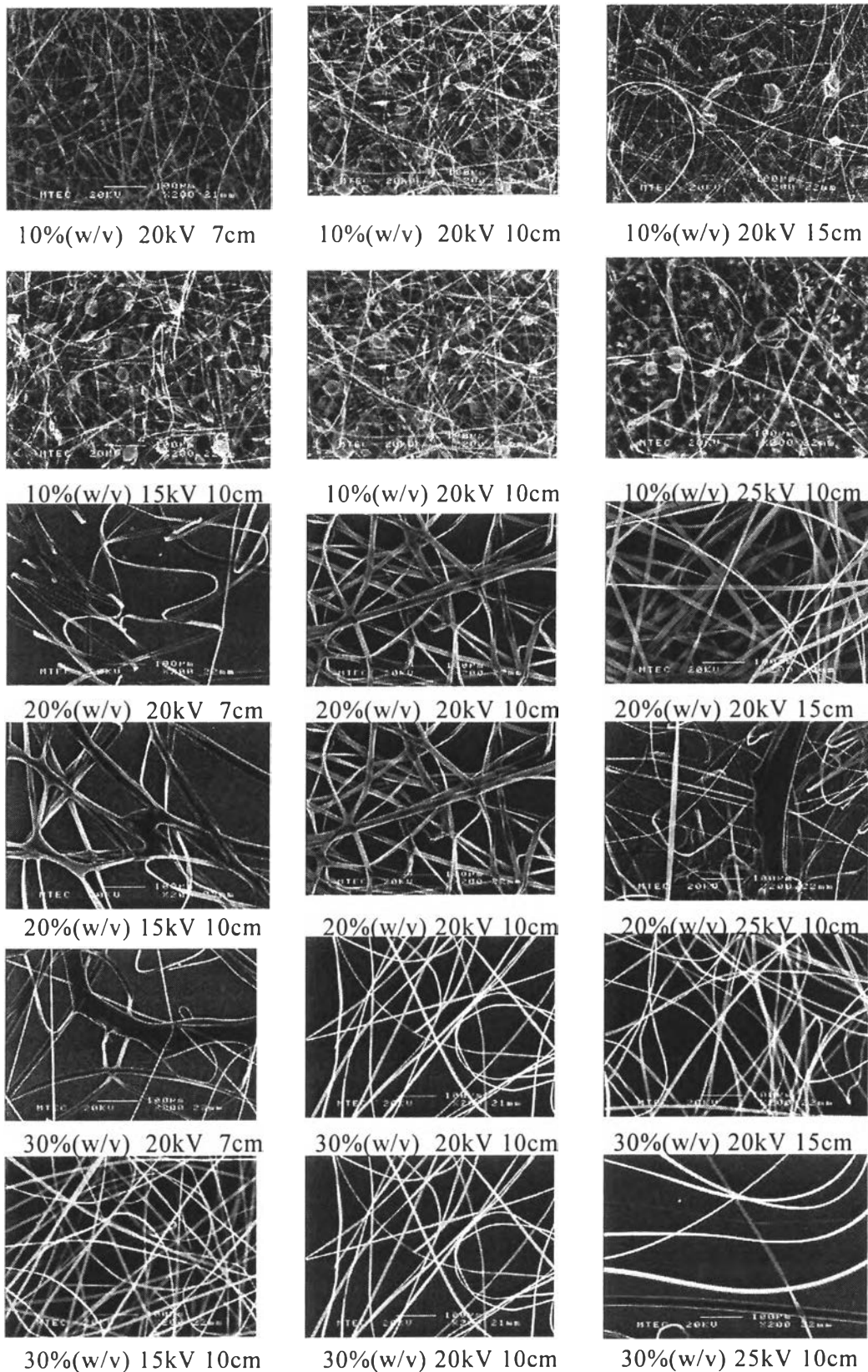


Figure D9 SEM of as-spun polystyrene fibers from solutions of polystyrene in ethyl acetate (at low magnificat)

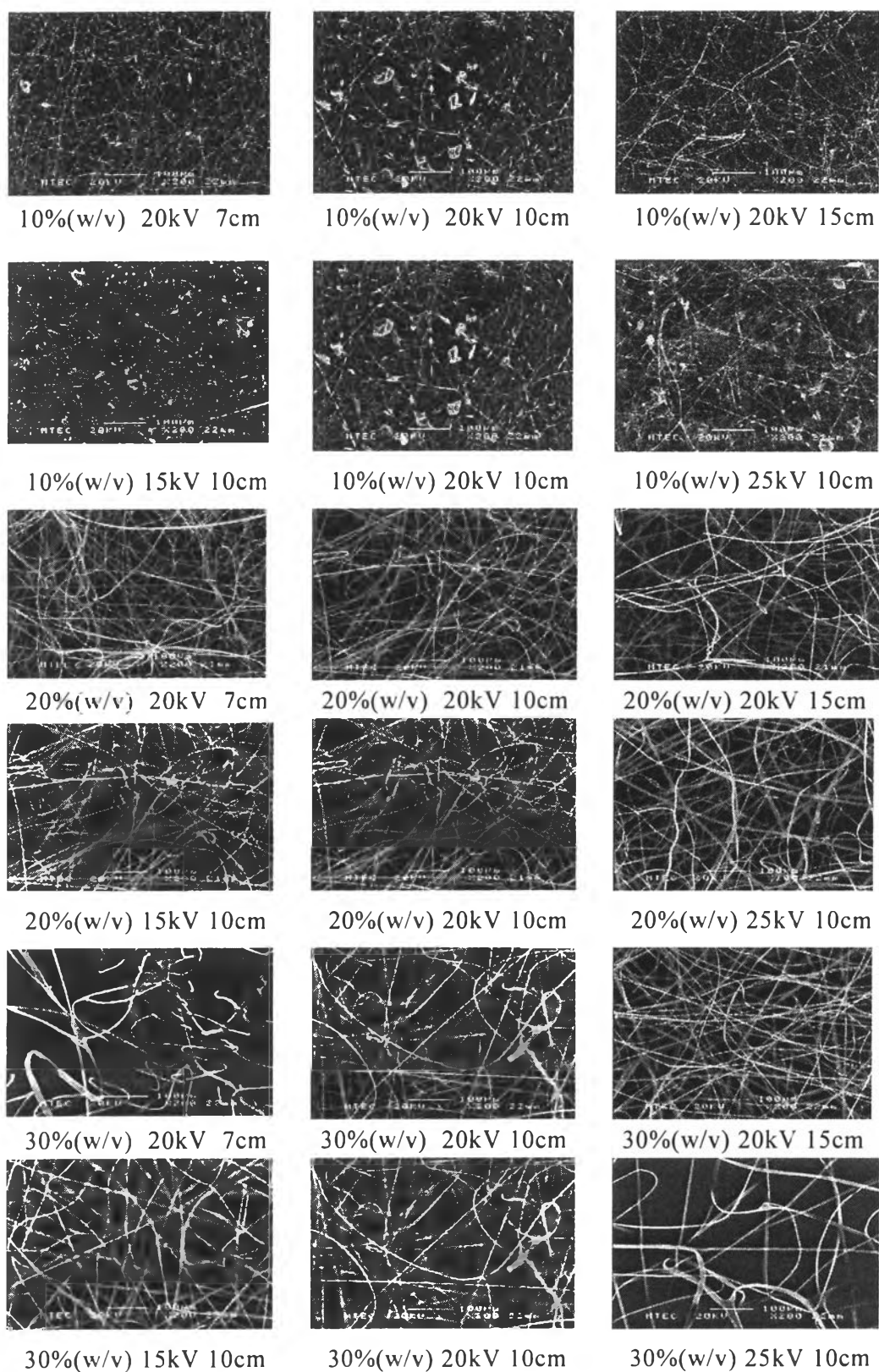


Figure D10 SEM of as-spun polystyrene fibers from solutions of polystyrene in MEK (at low magnificat)

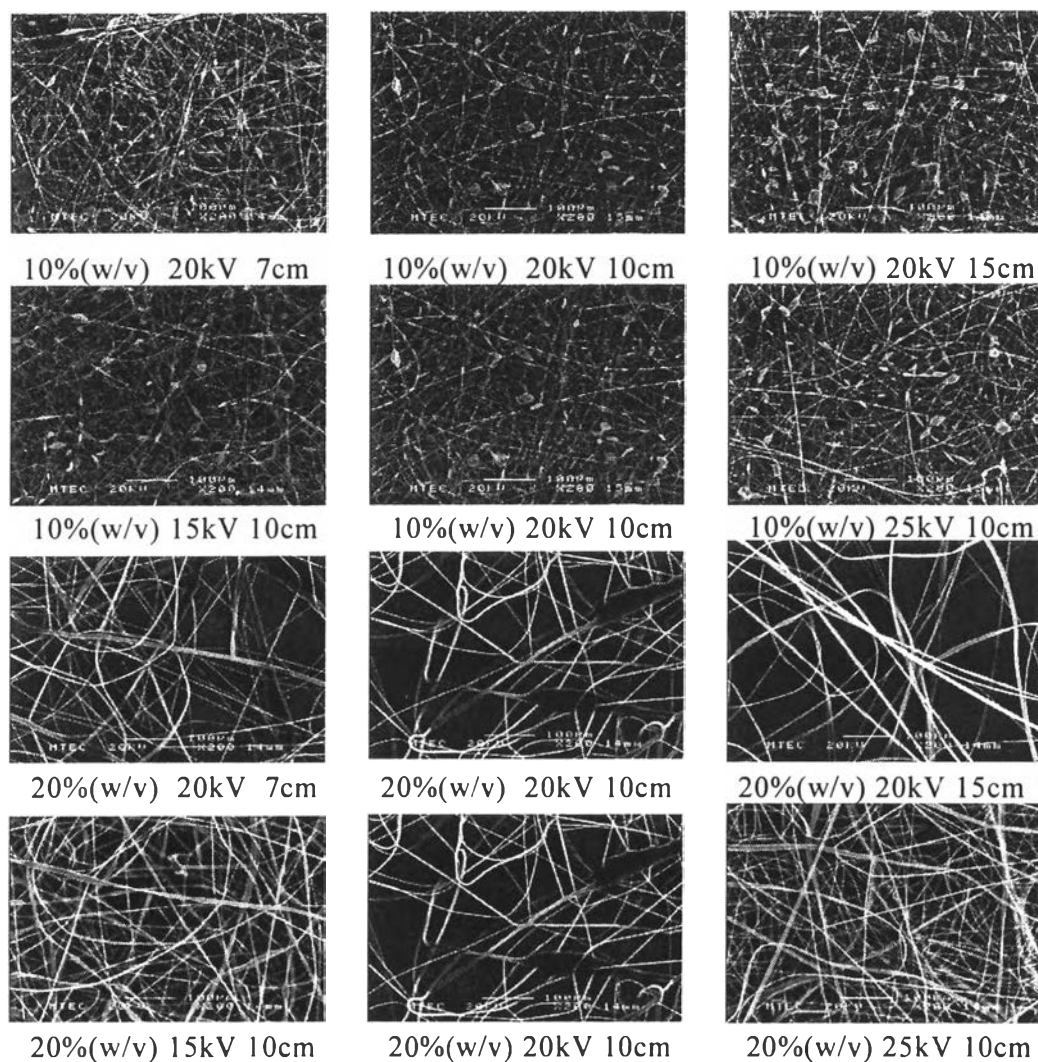


Figure D11 SEM of as-spun polystyrene fibers from solutions of polystyrene in THF (at low magnificat)

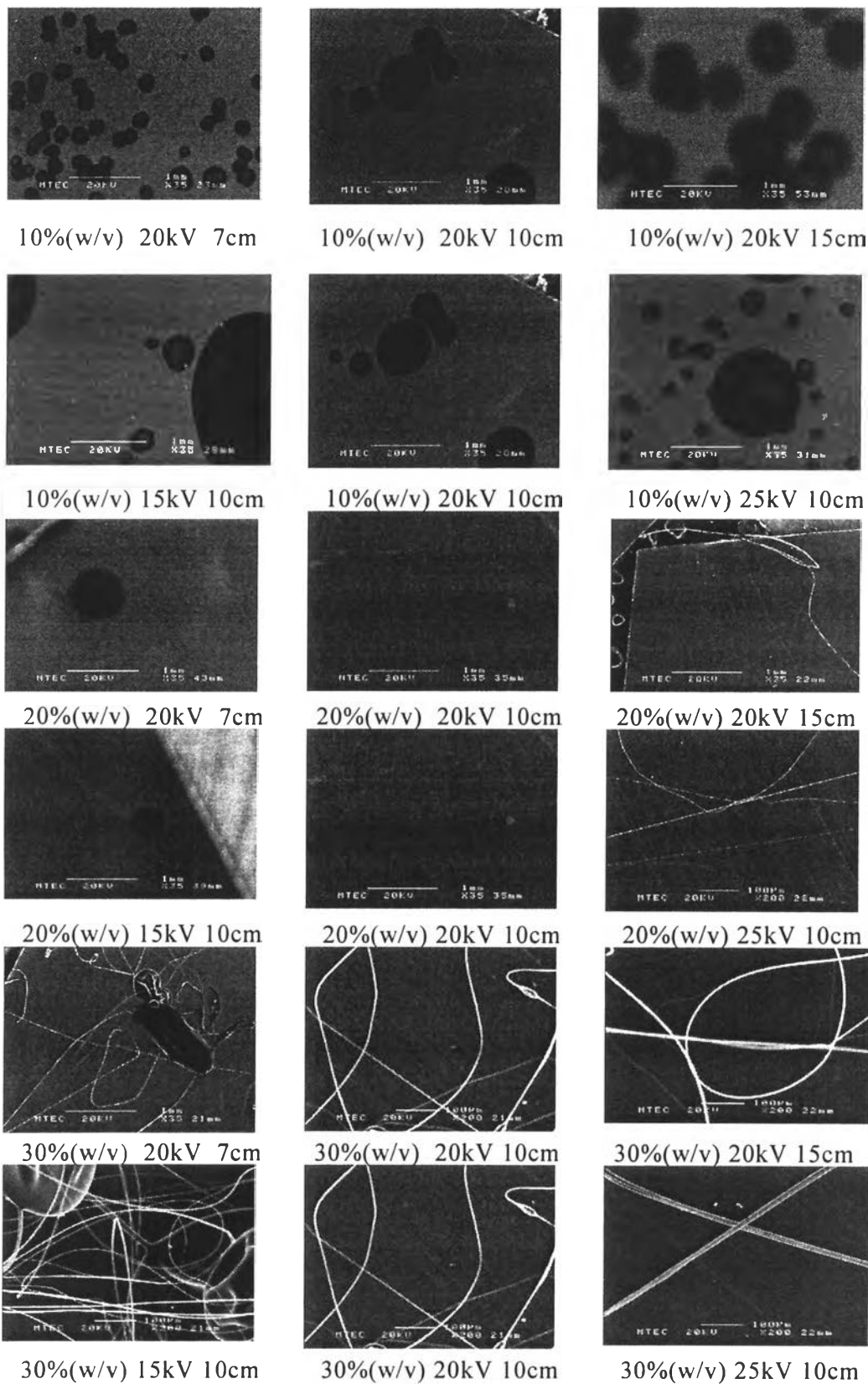
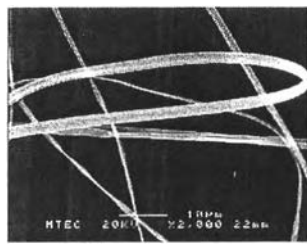
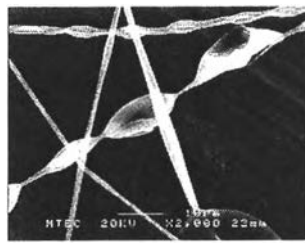


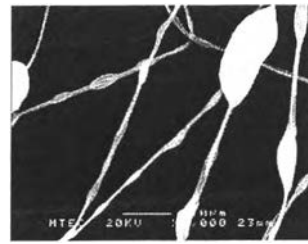
Figure D12 SEM of as-spun polystyrene fibers from solutions of polystyrene in toluene (at low magnificat)



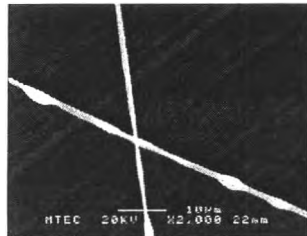
10%(w/v) 20kV 7cm



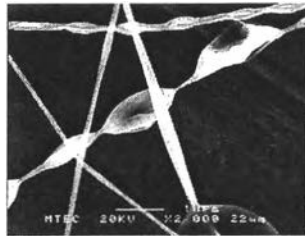
10%(w/v) 20kV 10cm



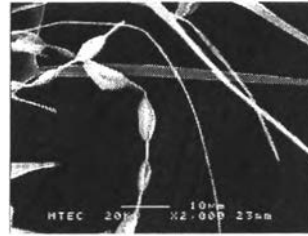
10%(w/v) 20kV 15cm



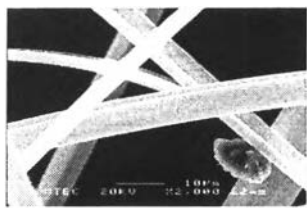
10%(w/v) 15kV 10cm



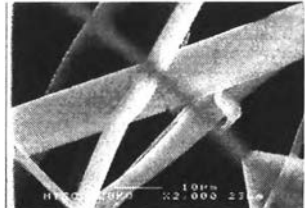
10%(w/v) 20kV 10cm



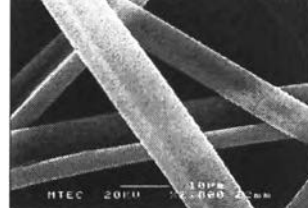
10%(w/v) 25kV 10cm



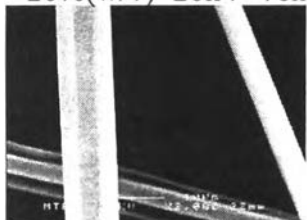
20%(w/v) 20kV 7cm



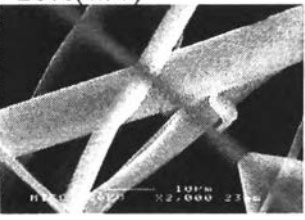
20%(w/v) 20kV 10cm



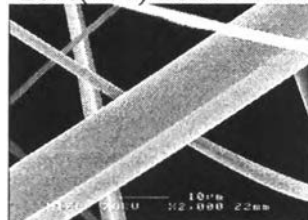
20%(w/v) 20kV 15cm



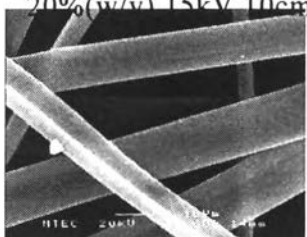
20%(w/v) 15kV 10cm



20%(w/v) 20kV 10cm



20%(w/v) 25kV 10cm



30%(w/v) 20kV 7cm

Figure D13 SEM of as-spun polystyrene fibers from solutions of polystyrene in butyl acetate (at 2000x)

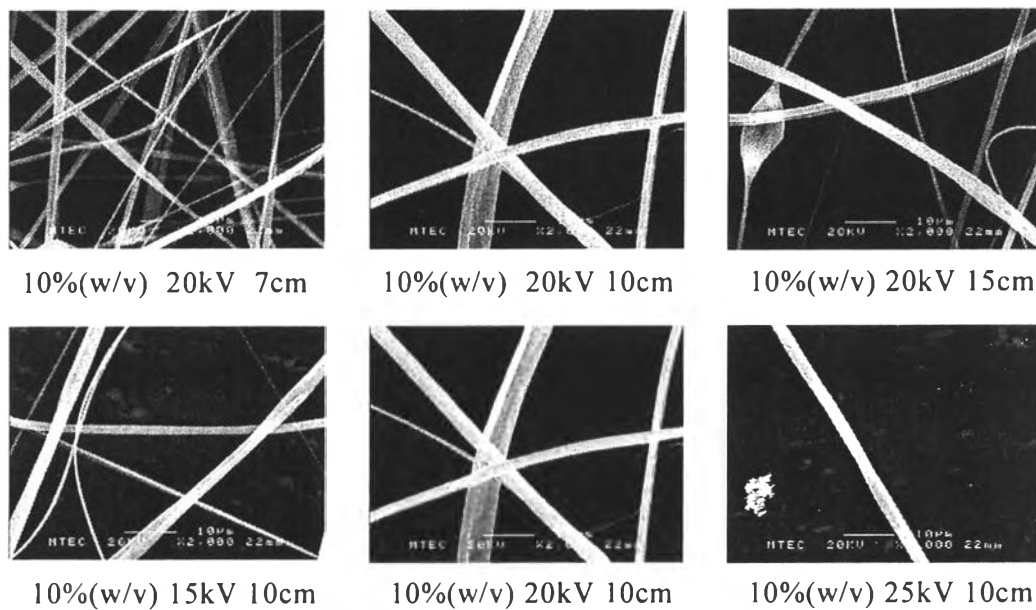


Figure D14 SEM of as-spun polystyrene fibers from solutions of polystyrene in carbontetrachloride (at 2000x)

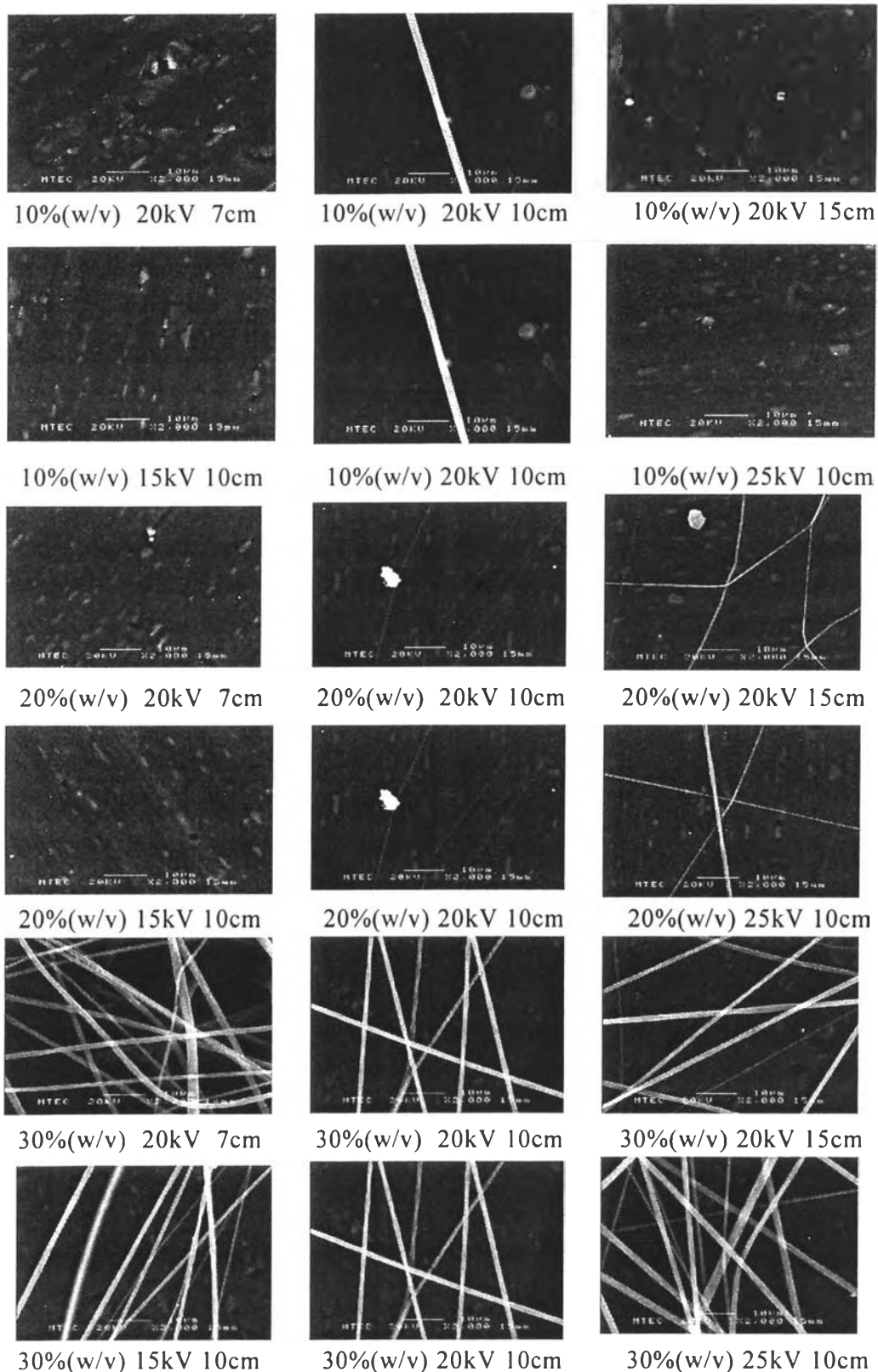


Figure D15 SEM of as-spun polystyrene fibers from solutions of polystyrene in chlorobenzene (at 2000x)

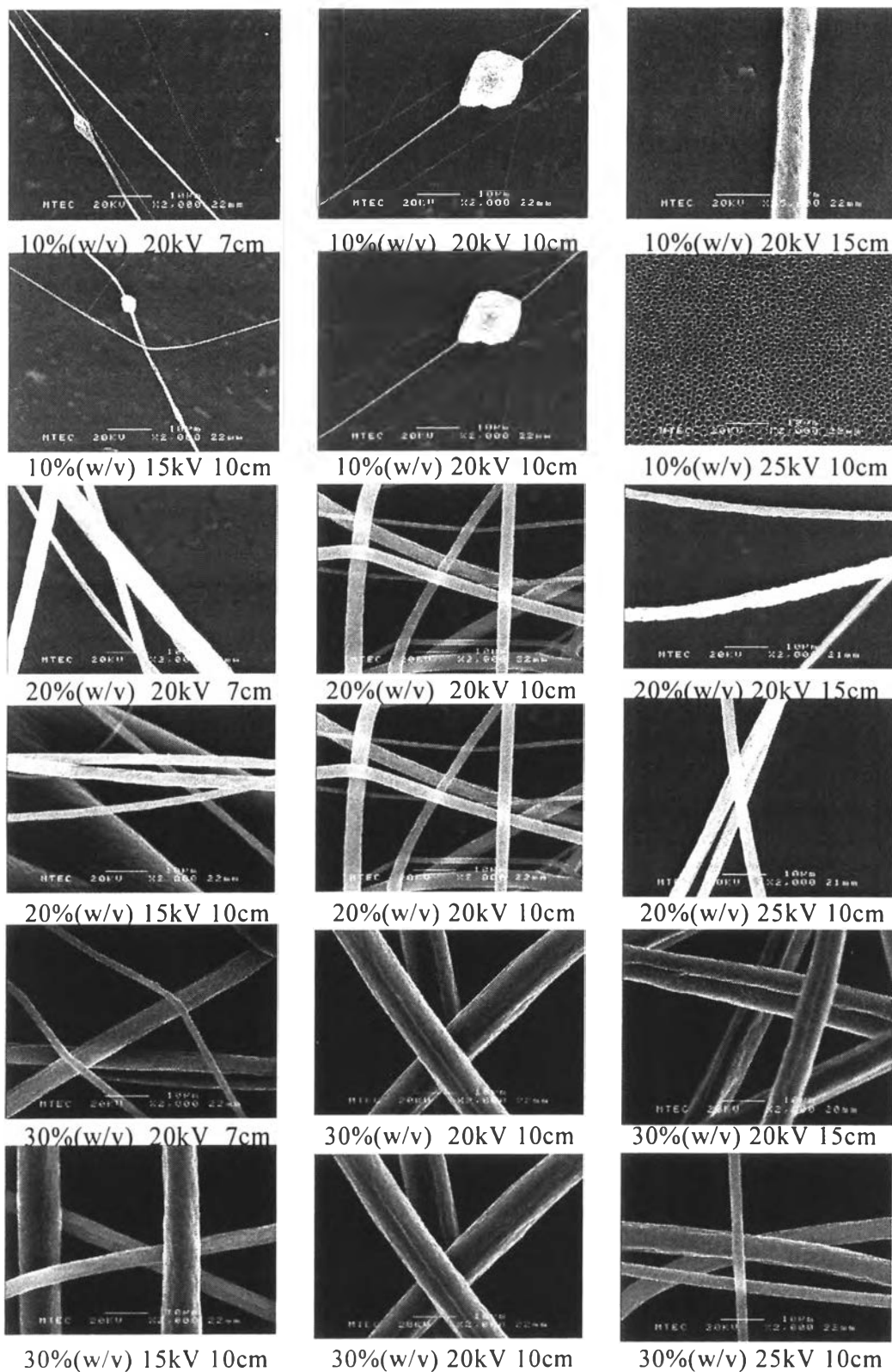


Figure D16 SEM of as-spun polystyrene fibers from solutions of polystyrene in chloroform (at 2000x)

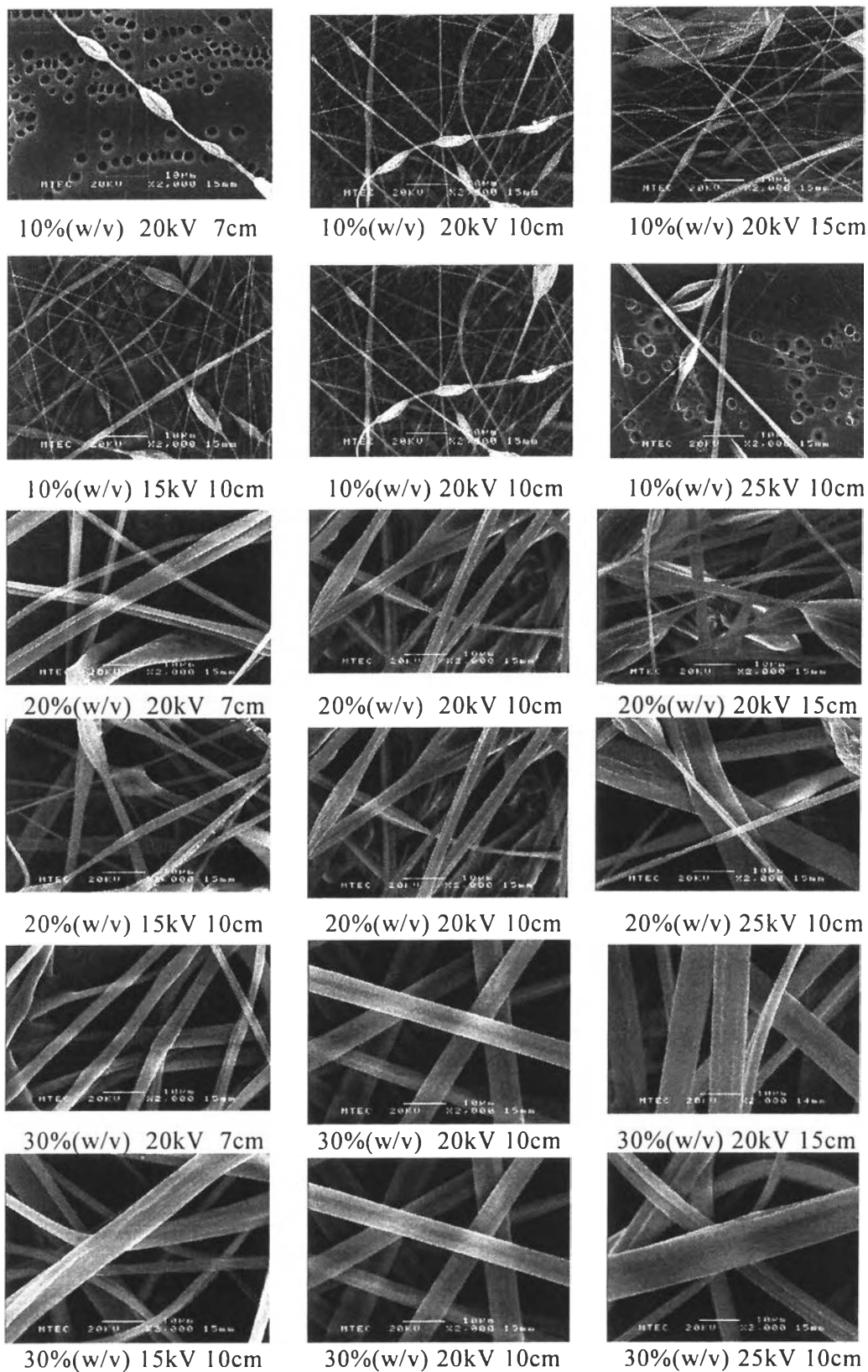


Figure D17 SEM of as-spun polystyrene fibers from solutions of polystyrene in dichloroethane (at 2000x)

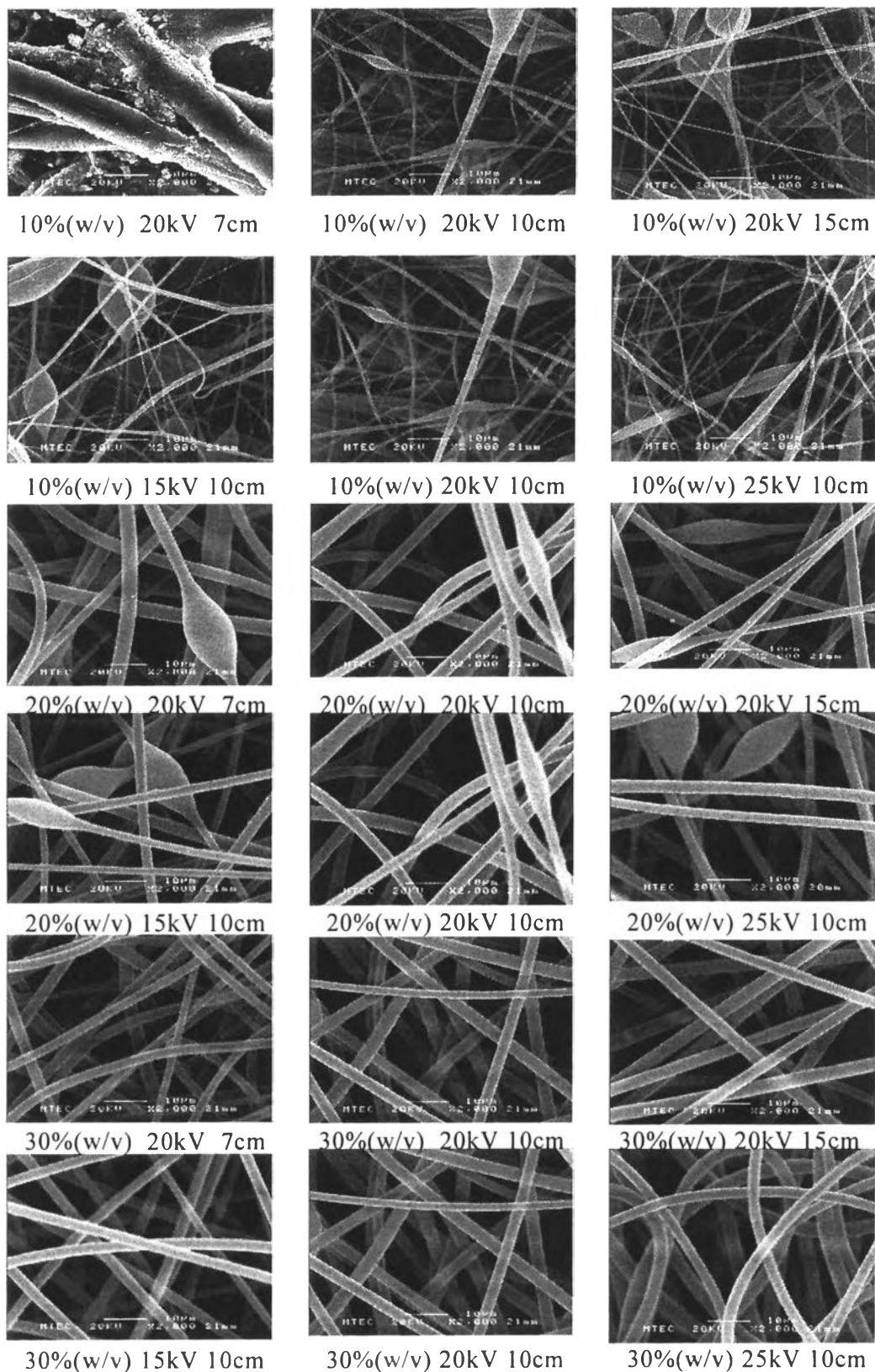
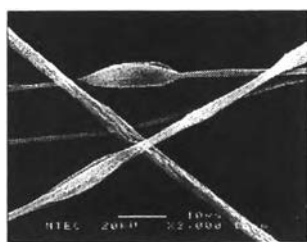
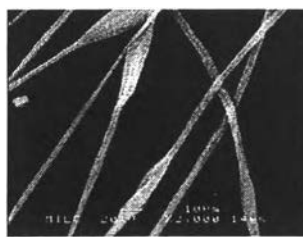


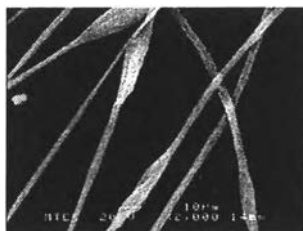
Figure D18 SEM of as-spun polystyrene fibers from solutions of polystyrene in DMF (at 2000x)



10%(w/v) 20kV 7cm



10%(w/v) 20kV 10cm



10%(w/v) 20kV 10cm

Figure D19 SEM of as-spun polystyrene fibers from solutions of polystyrene in dioxane (at 2000x)

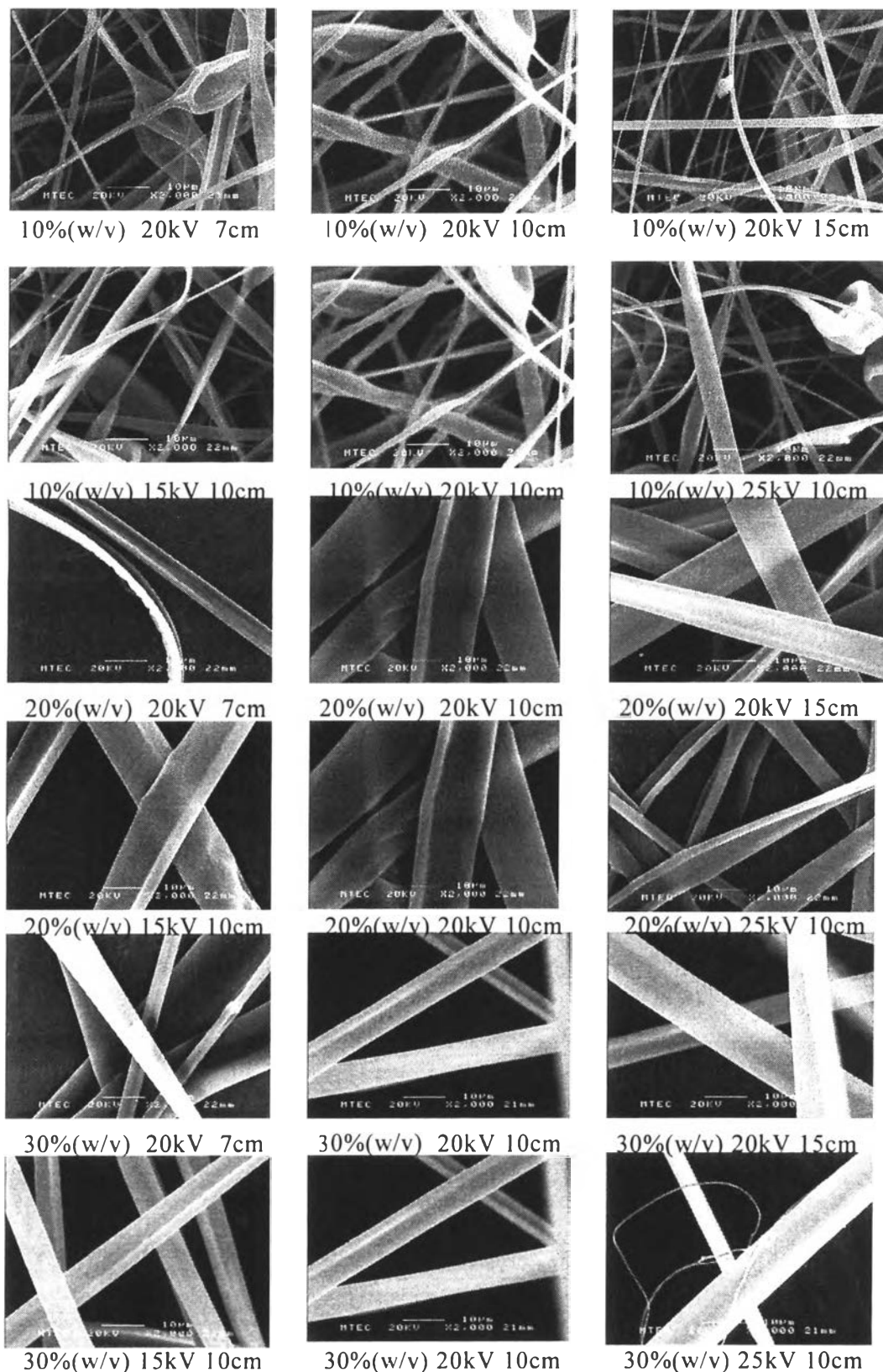


Figure D20 SEM of as-spun polystyrene fibers from solutions of polystyrene in ethyl acetate (at 2000x)

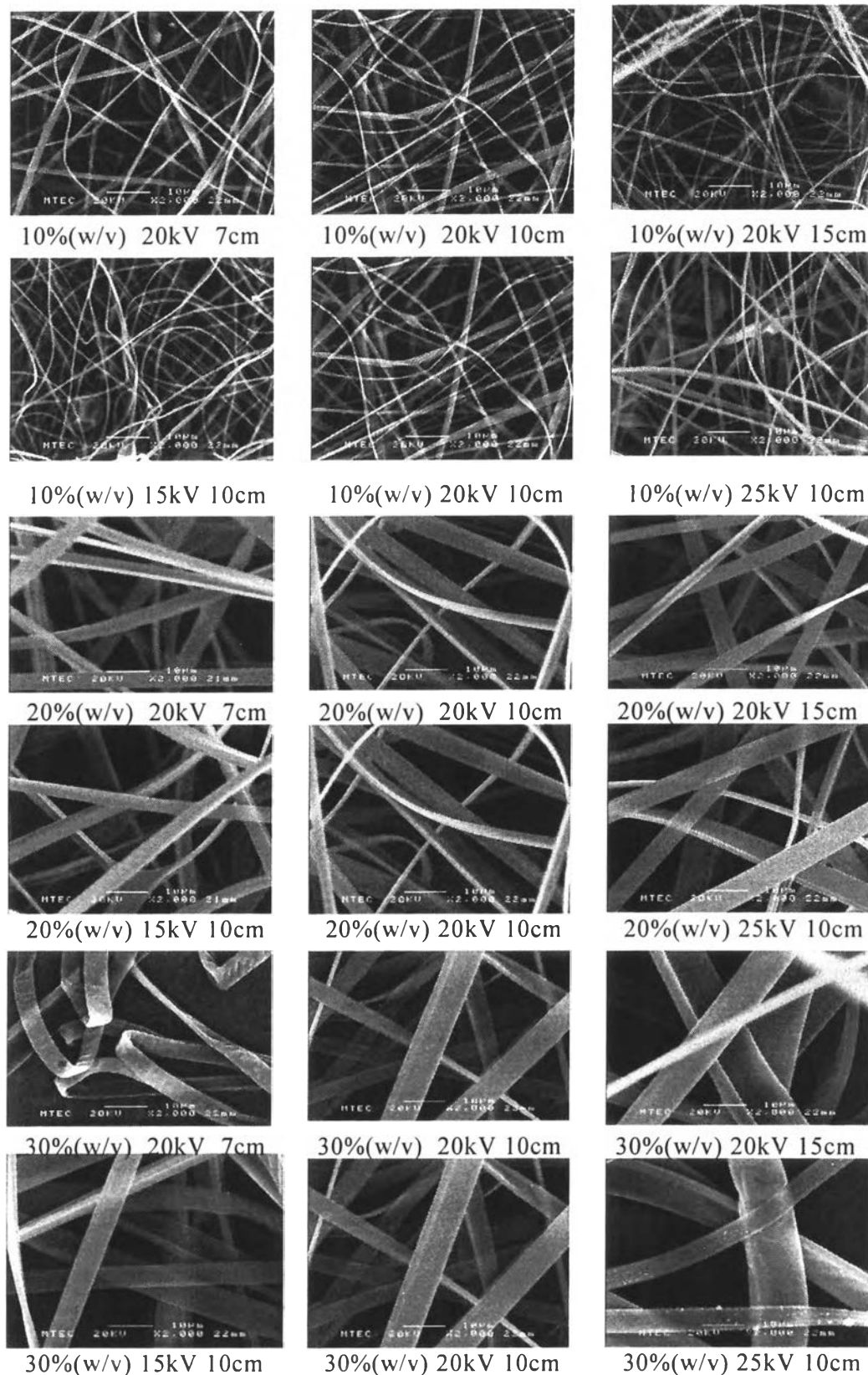


Figure D21 SEM of as-spun polystyrene fibers from solutions of polystyrene in MEK (at 2000x)

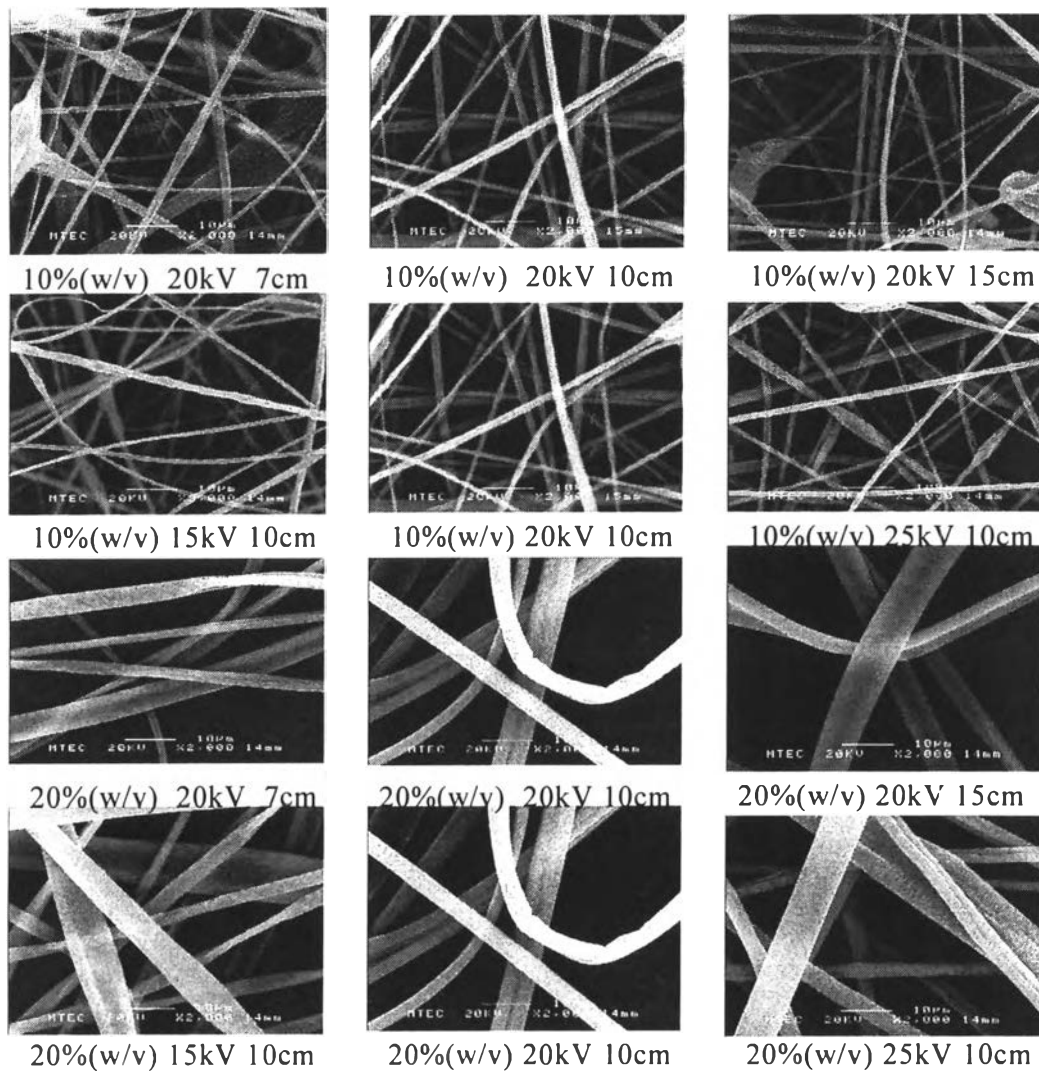


Figure D22 SEM of as-spun polystyrene fibers from solutions of polystyrene in THF (at 2000x)

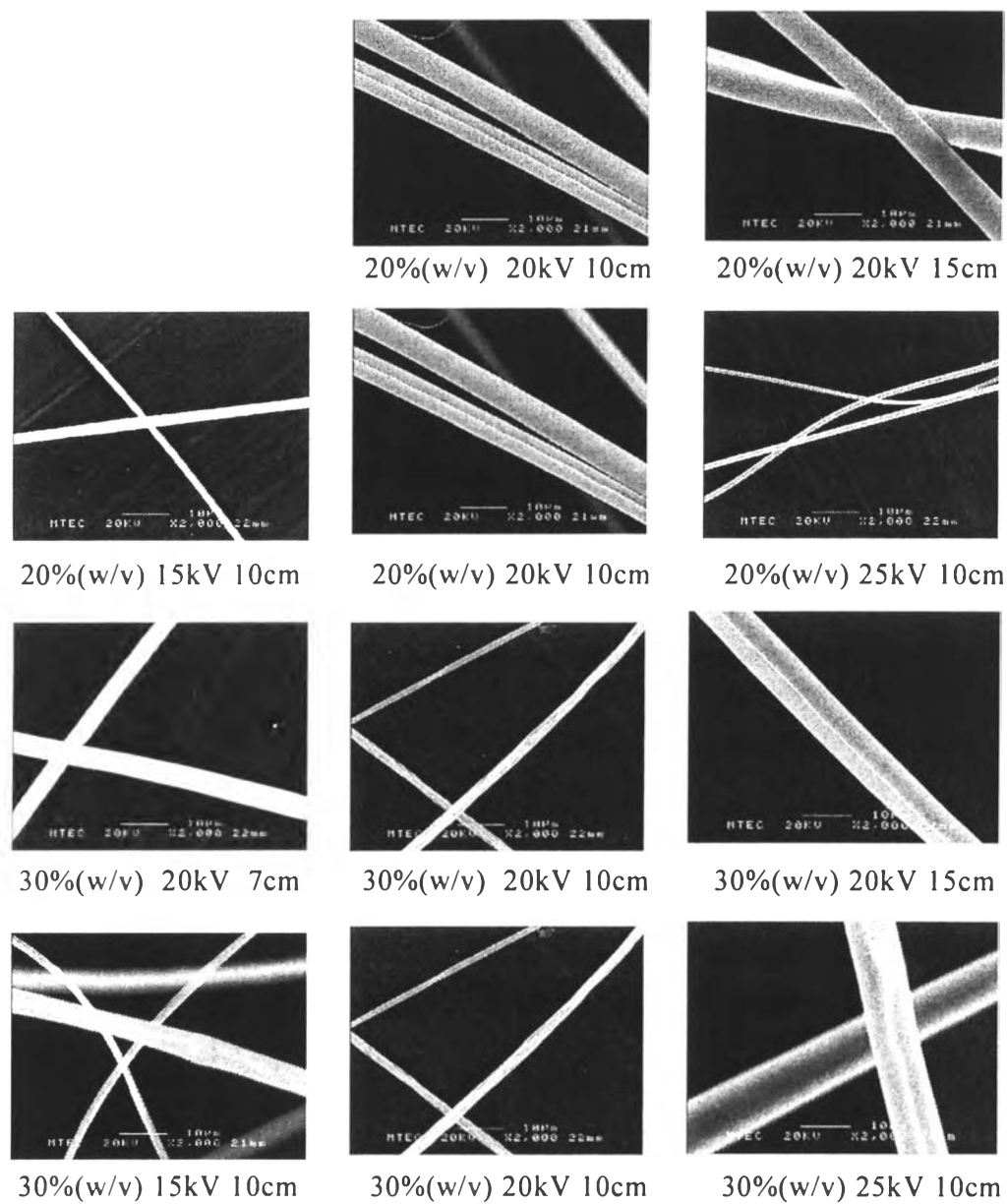


Figure D23 SEM of as-spun polystyrene fibers from solutions of polystyrene in toluene (at 2000x)

Appendix E Histogram of as-spun polystyrene fibers.

no pic

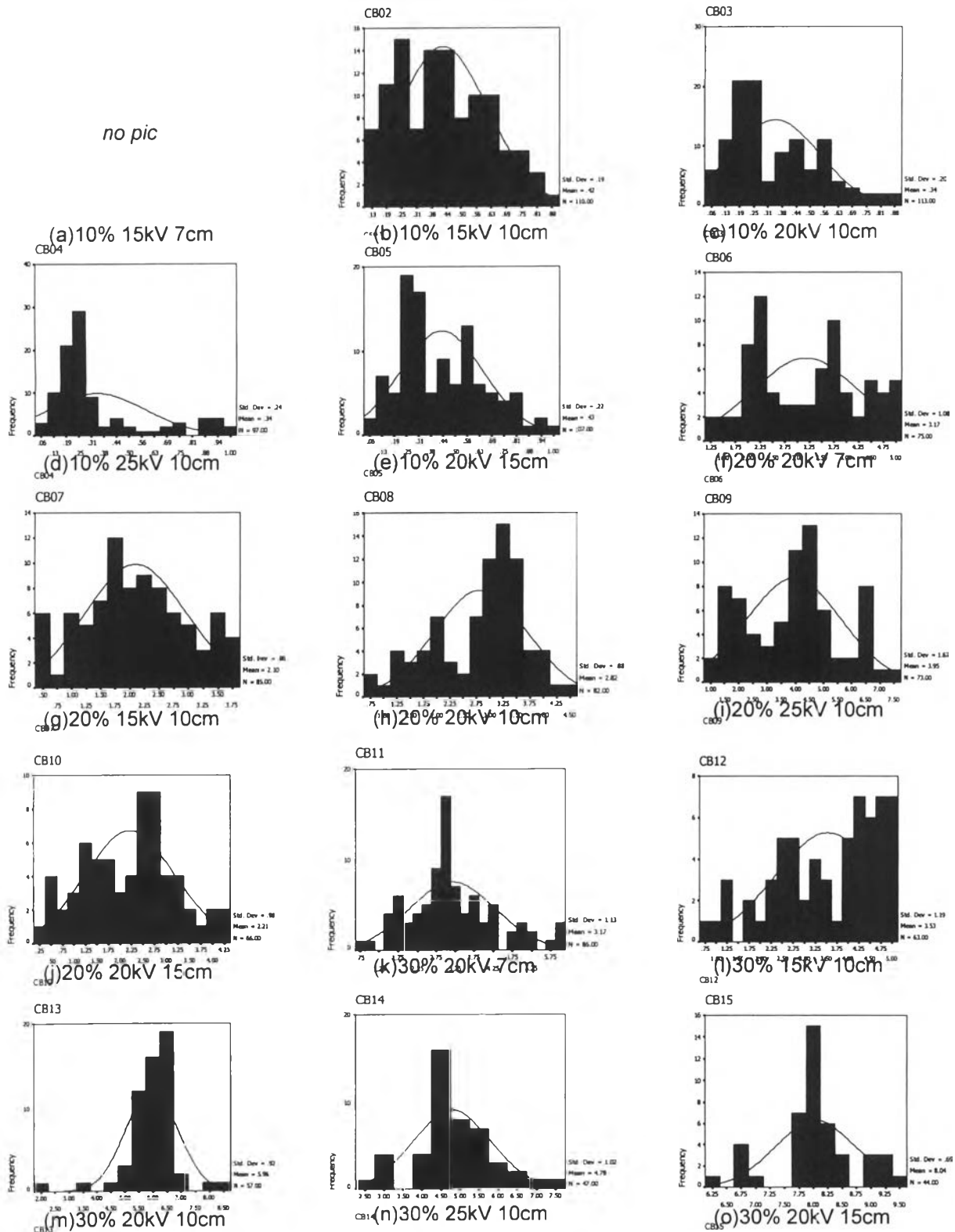


Figure E1 Diameter of Received as-spun fiber from PS in 1,2-dichloroethane

no pic

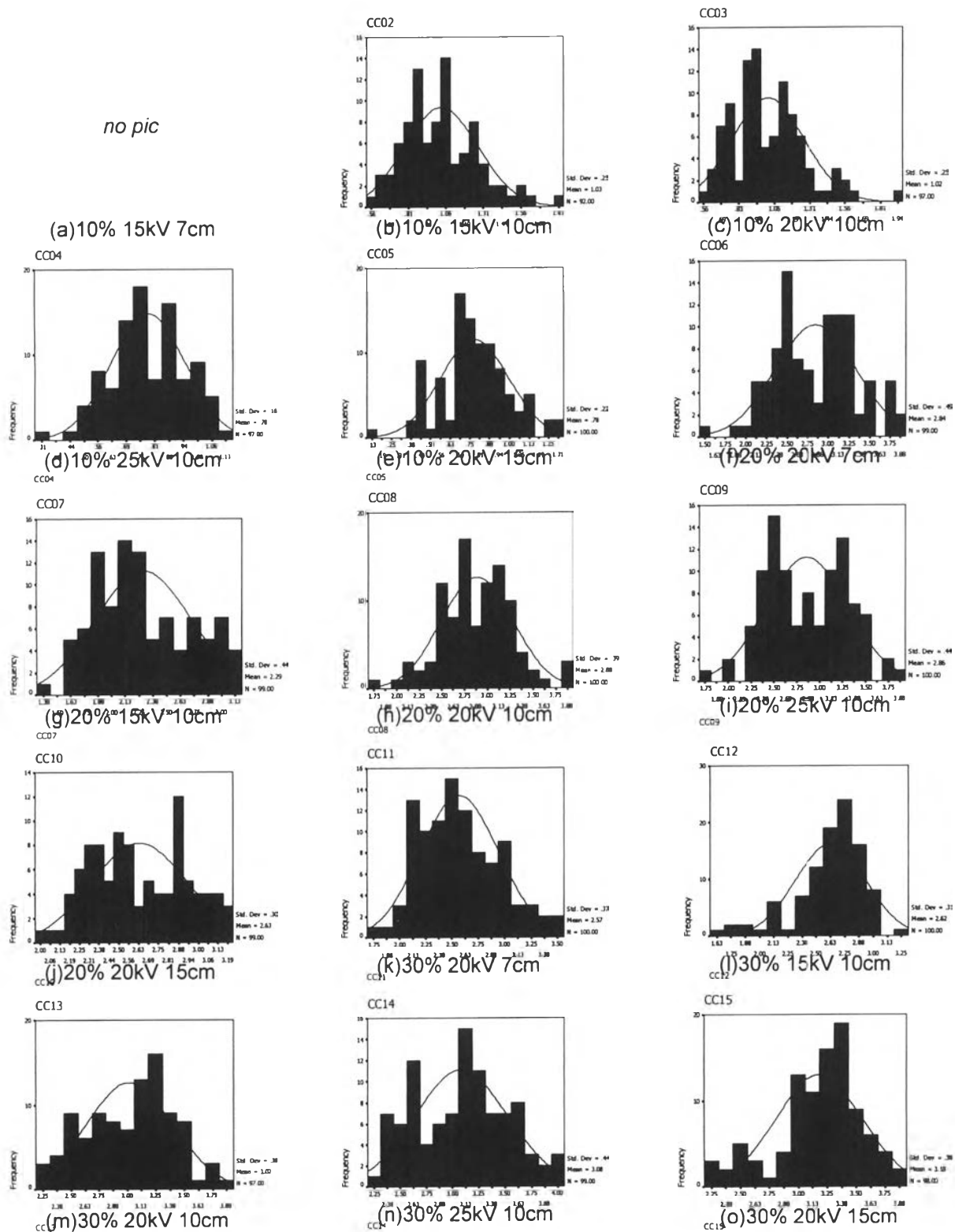


Figure E2 Diameter of Received as-spun fiber from PS in dimethylformamide

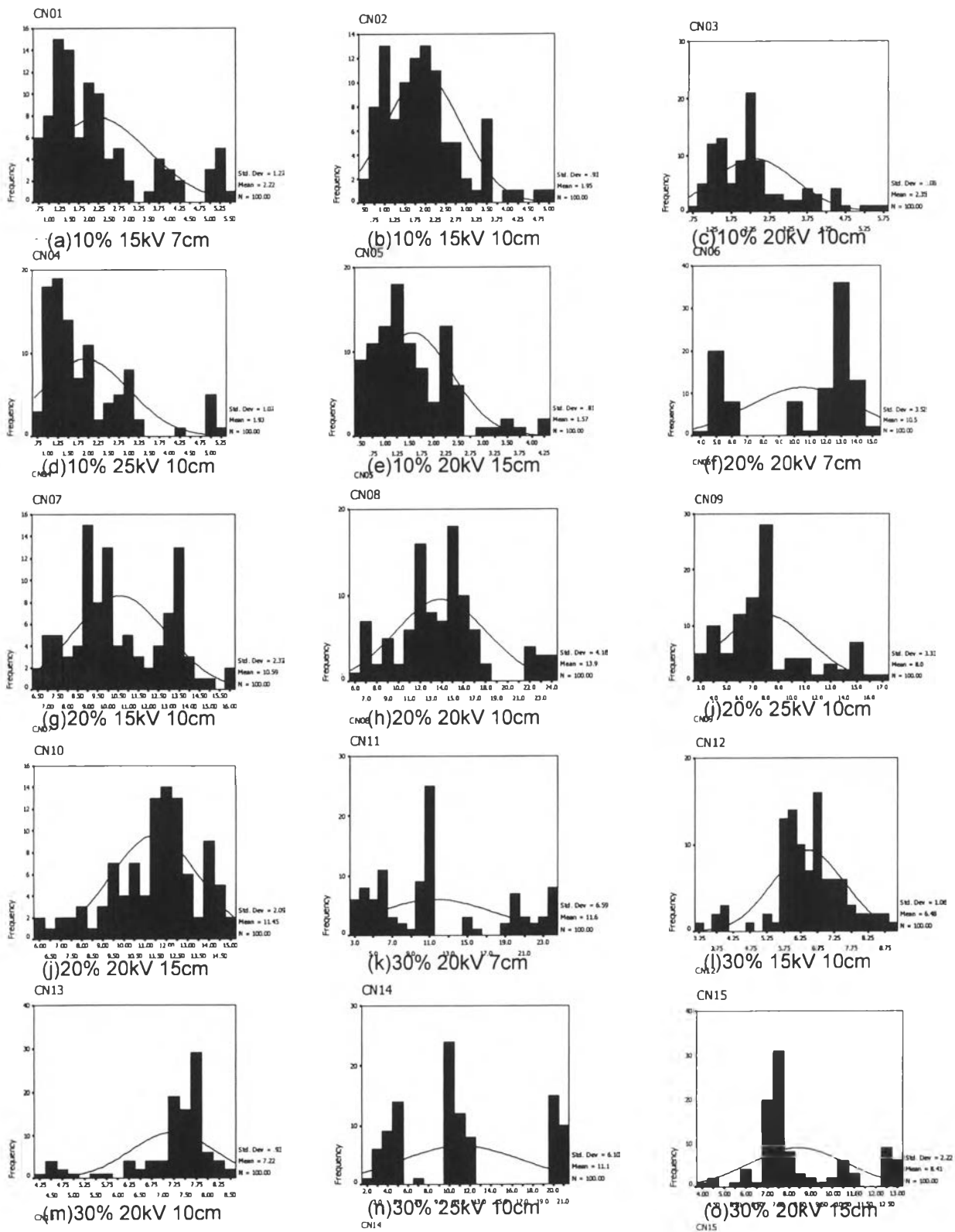


Figure E3 Diameter of Received as-spun fiber from PS in ethyl acetate

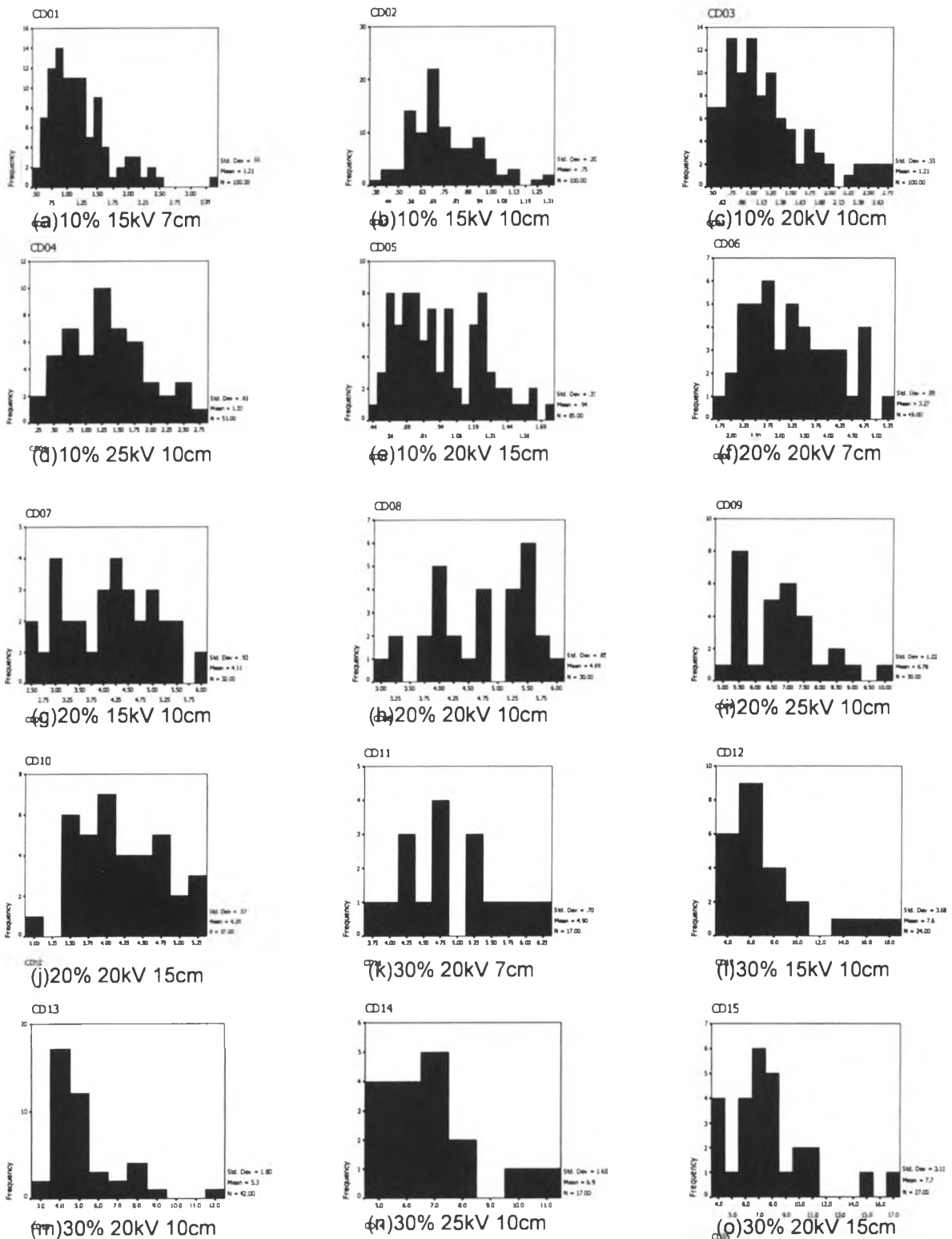


Figure E4 Diameter of Received as-spun fiber from PS in MEK

**Appendix F Influence of distance between tip to collector with diameter
of as-spun polystyrene fiber**

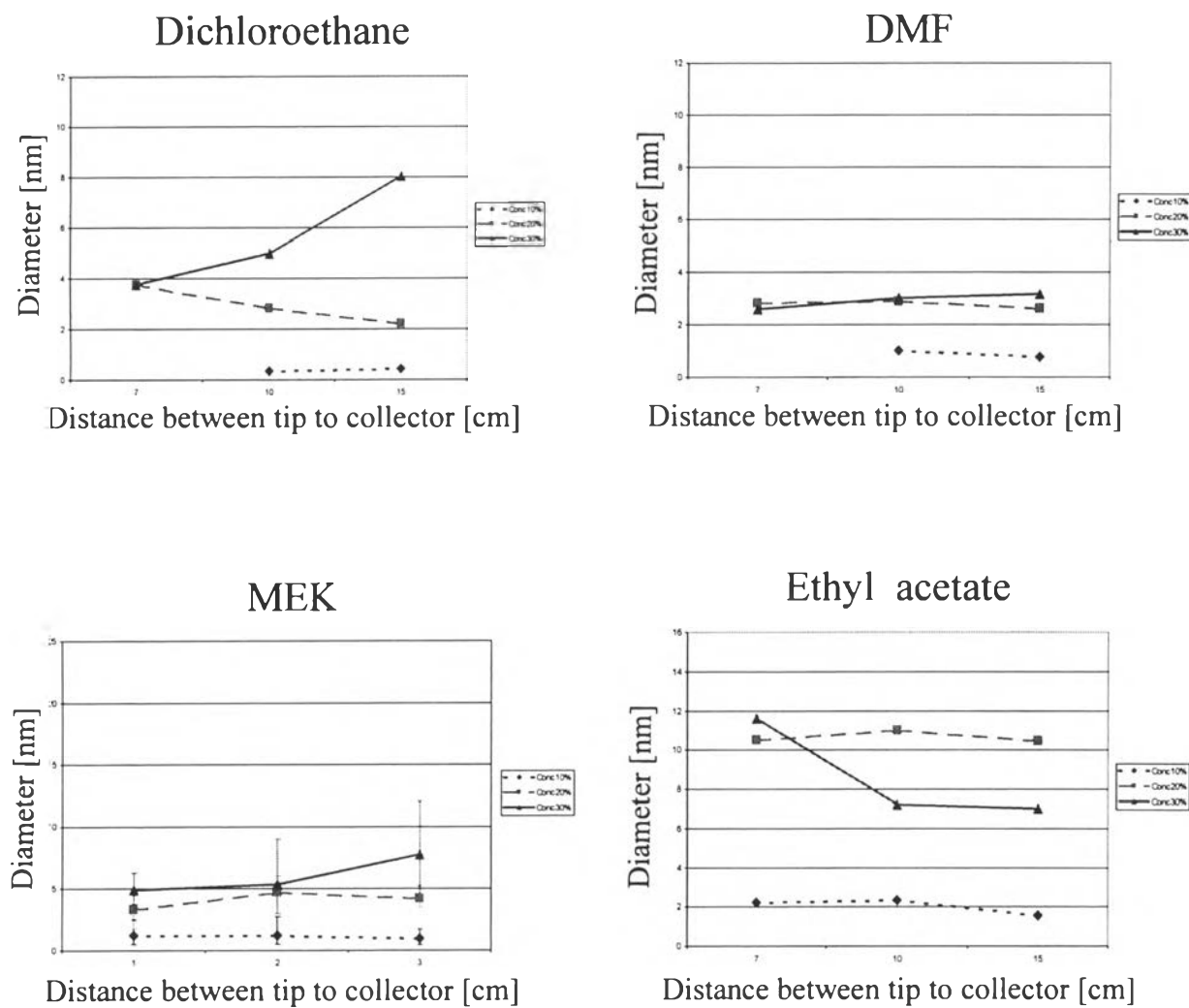


Figure F1 Graph between diameter of obtained fiber and distance between tip to collector

Appendix G Influence of applied voltage with diameter of as-spun polystyrene fiber

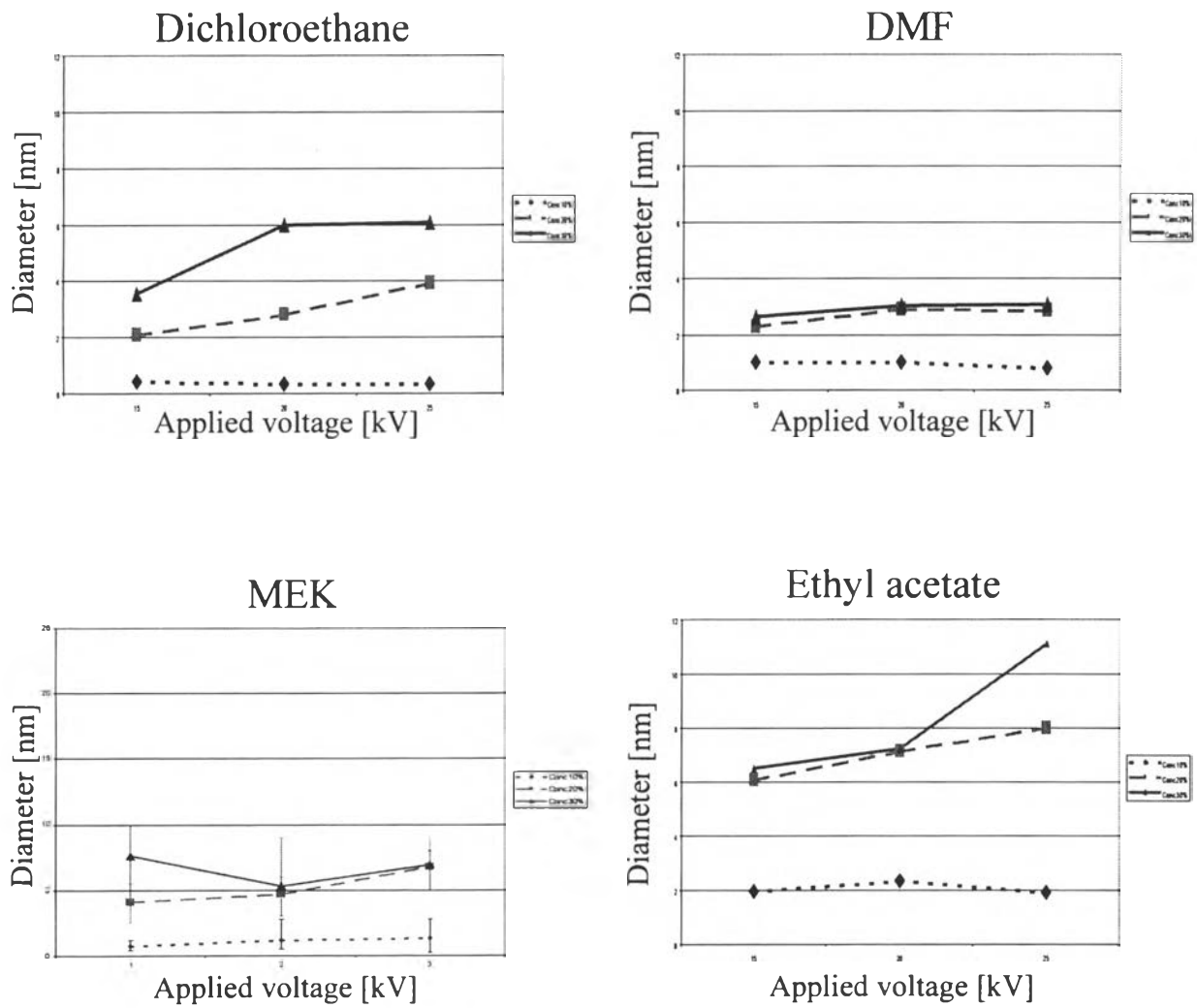


Figure G1 Graph between diameter of obtained fiber and applied voltage

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