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APPENDICES

APPENDIX A

Table 1 Absorbance @ 461 nm of silver solution (from various PMAcapAg)

PMA concentration in 10 mM silver nitrate (mM)	Absorbance @ 461 nm
0.1	0.187375
1	1.106832
5	1.464221
10	1.471253

Table 2 Absorbance @ 500 nm of silver solution (from various AgNO₃)

AgNO₃ concentration in 10 mM PMA(mM)	Absorbance @ 500 nm
0.1	0.009107
1	0.172224
5	1.213516
10	1.398201

Table 3 Absorbance @ 500 nm of PMAcapAg solution (various times)

Reduced times (h)	Absorbance @ 500 nm
0.5	0.003329
1	0.006014
1.5	0.006726
2	0.008762
2.5	0.013412
3	0.017865
3.5	0.021513
4.5	0.028729
6.5	0.043306
8.5	0.052923
10.5	0.072869
12.5	0.092295
14.5	0.121994
16.5	0.15319

APPENDIX B**Table 3** K/S value of silk primer and no-primer@480nm

Typ of deposited	K/S @ 480 nm
Silk primer	13.263
Silk no-primer	10.758

Table 4 K/S value of nylon primer and no-primer@480nm

Typ of deposited	K/S @ 480 nm
Nylon primer	4.481
Nylon no-primer	3.718

Table 5 K/S value @ 480 nm of the number of PDAD-silver nanoparticle layer (PMAcapAg 10 mM) on silk fiber.

Number of layer of PDAD/PMAcapAg	K/S @ 480 nm
0	0.091
2	2.275
4	9.312
6	13.182
8	15.907
10	20.379
12	19.588
20	20.471

Table 6 K/S value @ 480 nm of the number of PDAD-silver layer (PMAcapAg dilute 10 times from 10 mM) number of silver layers without PDAD on silk fiber.

Number of layer	K/S @ 480 nm of layer by layer of PDAD/PMAcapAg	K/S @ 480 nm of dipping of silk in Ag Sol without PDAD
2	0.305	0.259
4	2.028	0.32
8	5.161	0.414
12	5.54	0.316
16	10.596	0.318
20	11.489	0.409

Table 7 K/S value @ 480 nm of the number of PDAD-silver layer (PMAcapAg 10 mM) number of silver layers without PDAD on nylon fiber.

Number of layer	K/S @ 480 nm of layer by layer of PDAD/PMAcapAg	K/S @ 480 nm of dipping of silk in Ag Sol without PDAD
2	0.092	0.079
4	0.234	0.113
8	0.389	0.118
12	0.961	0.186
16	2.099	0.226
20	2.468	0.551

Table 8 K/S value @ 480 nm of the number of AgNO₃ and NaCl on silk fiber.

Number of layer	K/S @ 480 nm
2	0.679
4	1.749
8	3.722
12	3.934
16	4.446
20	5.221

Table 9 K/S value @ 430 nm of the number of AgNO₃ and NaCl on silk fiber and dipping of silk in 1% w/w ammonia solution at last step.

Number of layer	K/S @ 430 nm
2	0.626
4	1.819
8	4.075
12	4.075
16	4.522
20	5.361

Table 10 K/S value @ 430 nm of the number of PDAD-silver layer (PMACapAg 10 mM) and rinse with 1% w/w ammonia each layer on silk fiber.

Number of layer	K/S @ 430 nm
2	0.139
4	0.33
8	0.825
12	1.178
16	2.03
20	2.914

Table 11 K/S value @ 480 nm of the number of PDAD-silver layer (PMACapAg 10 mM) on silk fiber without salt in PDAD solution.

Number of layer	K/S @ 480 nm
2	0.244
4	1.874
8	3.474
12	6.772
16	7.847
20	10.841

Table 12 K/S value @ 430 nm of various concentration of CoPSScapAg on silk fiber with PDAD.

CoPSScapAg concentration	K/S @ 430 nm
10 mM	3.443
Dilute 2 times (from 10 mM)	1.658
Dilute 5 times (from 10 mM)	0.911
Dilute 10 times (from 10 mM)	0.516

Table 13 K/S value @ 430 nm of the number of PDAD-silver layer (CoPSScapAg 10 mM) on silk fiber.

Number of layer	K/S @ 430 nm
2	0.754
4	0.816
8	0.92
10	2.194
16	3.01
20	3.443

Table 14 K/S value @ 430 nm of the number of PDAD-silver layer (AlginatecapAg 10 mM) on silk fiber.

Number of layer	K/S @ 430 nm
2	0.332
4	0.534
8	1.644
10	3.805
16	4.327
20	4.327

BIOGRAPHY

Miss Panittamat Kumlangdudsana was born in Nakron Sri Thammarat, Thailand, on October 27, 1981. She received her Bachelor's degree in Engineering majoring in Petrochemical and Polymeric Materials from Faculty of Engineering and Industrial Technology, Silpakorn University in February 2004. For her master degree, she studied in Applied Polymer Science and Textile Technology program at Department of Materials Science, Faculty of Science, Chulalongkorn University from May 2004 and completed the program in April 2006.

