

가 (hydrolysis)(II)

- , , ,

3.4

3.4.1 Congo Red

Congo Red

.

.

Congo Red

.

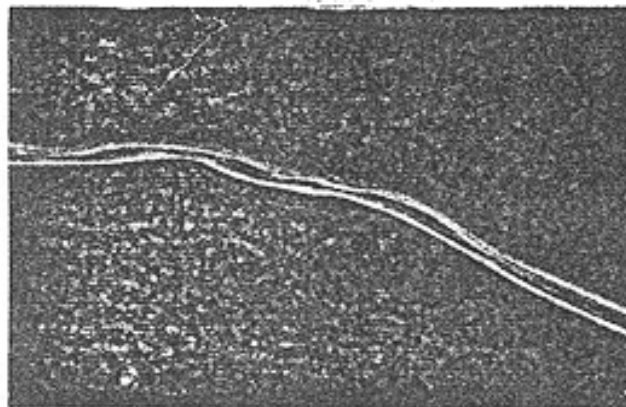
가 ,

(string of pearls)

가

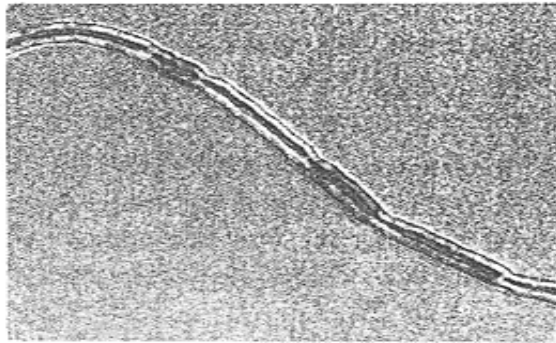
가

< 3, 4>.



< 3> Congo Red

가



< 4> 24 Congo Red

< 5> 24 가

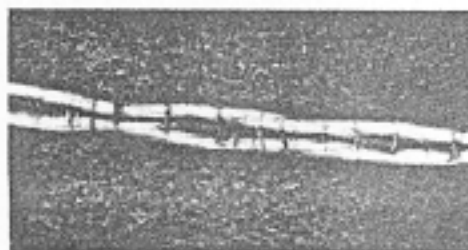
가 ,

< 6> 48 ,

, .



< 5> Congo Red 가



< 6> 24 Congo Red

가 Congo Red ,

Congo Red

.

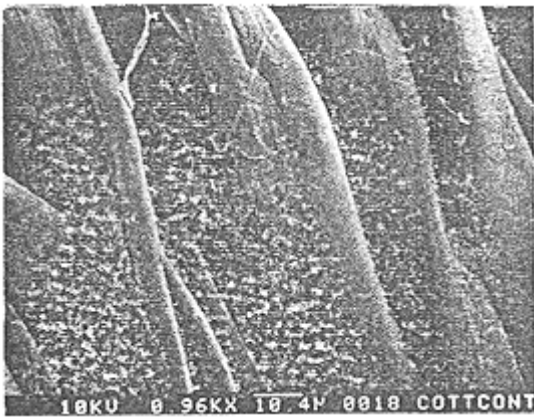
3.4.2

.

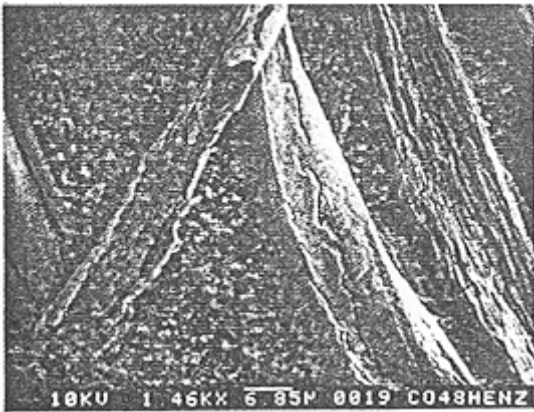
가 ,

, 가

< 7, 8>.



< 7> SEM



< 8> 48 SEM

가 < 9>. 6 , < 10>. 6

가 ,

.

. 가 가

, 가 < 11>.

48 ,

< 12>.

가 가 가

,

. , Congo Red

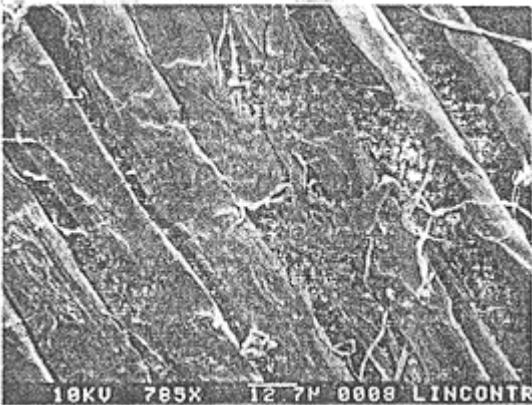
, 가

가 . ,

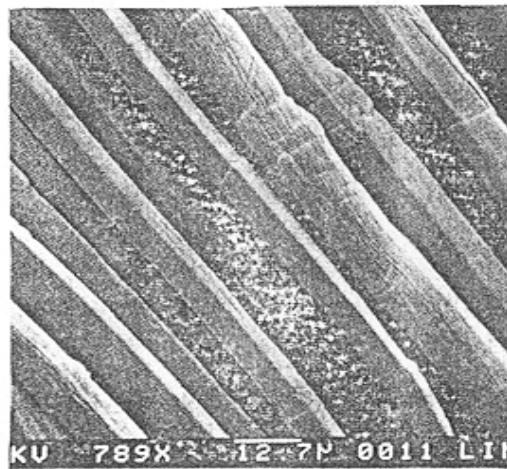
, ,

가 50%

.



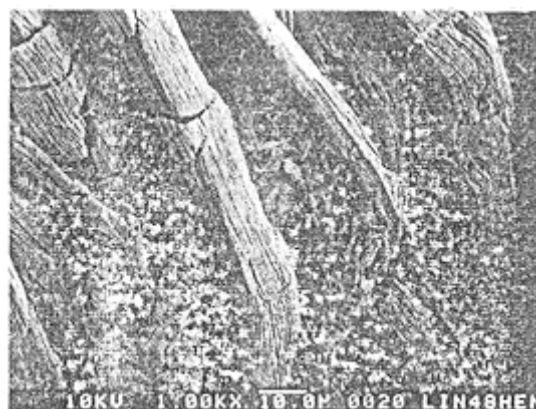
< 9>가 SIM



< 10> 6 SEM



< 11> 24 SEM



< 12> 48 SEM

. 가

<

13> ,

6

.

,

가

< 14> .

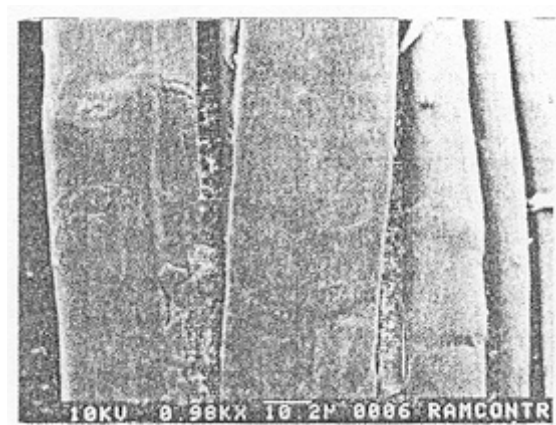
24

,

.

, PVA 가

< 15> .



< 13> 가

SEM ()



< 14> 24

SEM



< 15> 48 SEM ()

가

. < 16>
가 ,

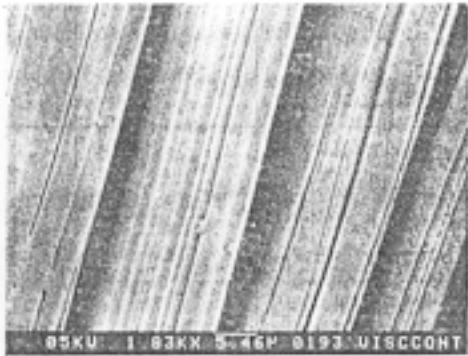
< 17>. 24
, 48

가

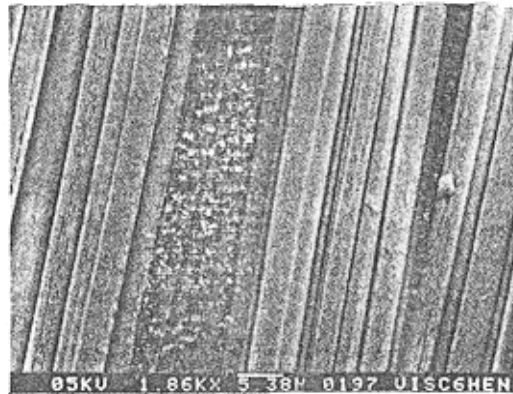
< 18>. , .
, ,

가

(95.9%) .



< 16> SEM



< 17> 6 SEM



< 18> 48 가 SEM

3.5

(RT), (2HG) , (WT), (LT), , , ,
 (inter-yarn friction) . 6
 WT, LT가 , RT 가 <

6> ,

. / RT가 6
 , 가

6 2HG < 6>, WT

LT

가

48 2HG

가

< 6> (WT), (LT),
(RT), (2HG)

직물	효소처리			
	0시간	6시간	24시간	48시간
면				
WT(㎠)	4.86	3.47	3.11	2.13
LT	0.87	0.77	0.83	0.78
RT(%)	41.85	48.61	46.29	49.09
2HG(g/cm)	7.04	7.29	5.12	3.36
리넨				
WT(㎠)	5.65	3.00	3.93	4.07
LT	0.72	0.66	0.71	0.69
RT(%)	42.14	48.93	42.00	44.05
2HG(g/cm)	0.83	1.02	0.56	0.29
래미				
WT(㎠)	5.45	2.45	2.40	2.30
LT	0.85	0.63	0.69	0.73
RT(%)	52.70	65.69	67.87	68.76
2HG(g/cm)	4.59	4.16	3.84	3.36
면/리넨(경사)				
WT(㎠)	1.61	1.02	1.25	0.84
LT	0.81	0.69	0.72	0.75
RT(%)	44.87	60.27	57.82	46.73
2HG(g/cm)	1.08	0.94	1.14	0.97
면/리넨(위사)				
WT(㎠)	2.22	1.96	1.84	1.51
LT	0.85	0.84	0.66	0.81
RT(%)	56.39	51.24	58.72	57.98
2HG(g/cm)	1.08	0.94	1.14	0.97

4.

(stiffness)

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가

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/

. Congo Red

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가

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가

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Schurz

가

가

가

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