

가 (3)

- (1) -

3.

,
() (reactive dye)
(substrate) , (lot)
가 .

3.1

< 3.1> .
, , , (ramie)
, . ,
.
(accessibility)
, . < 3.1>
, ,
.
< 3.2> .

< 3.1>

	X IR	50~52 ~77 ~60	60~65 ~70 -	33~36 35~37 28~34	38~44 35~40 38~42	40~47 39~50 36~45
()	X 가	- ~60 > 200	< 300 - > 300	~85 60~80 -	~85 80~85 ~100	110~130 100~140 ~150
(Å)	X X	~100 - -	~100 ~100 -	50~70 ~80 -	70~100 ~100 < 200	80~100 100~110 < 200
(%)	H/D	~50 -	~40 ~40	60~70 ~65	55~60 ~60	50~55 ~50
(%)	X IR	- - -	93~95 ~95 ~90	70~80 60~70 -	75~85 ~70 ~80	80~90 ~85 ~85
()		> 2,000	> 2,000	350~450	500~550	600~650

< 3.2>

	(methoxy) (%)	(m ² /g)	(m ² /g)
()	0.49	16	1.3
" ()	7.83	263	136~139
()	0.79	26	-
" ()	8.50	286	-
(0.1N 가)	7.40	249	-
" (1N 가)	6.45	217	-
" (5N 가)	7.14	240	-

가 10~10

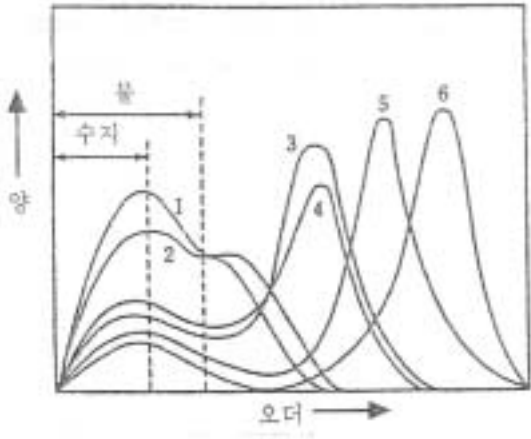
가 , 가 가 .
가 .

(lateral order) , (order)
, , (hysteresis) .

가 가 가 가
. < 3.1>

가

, 가
.



1: 2: 3: 4: 5: 6:
< 3.1>

(V)

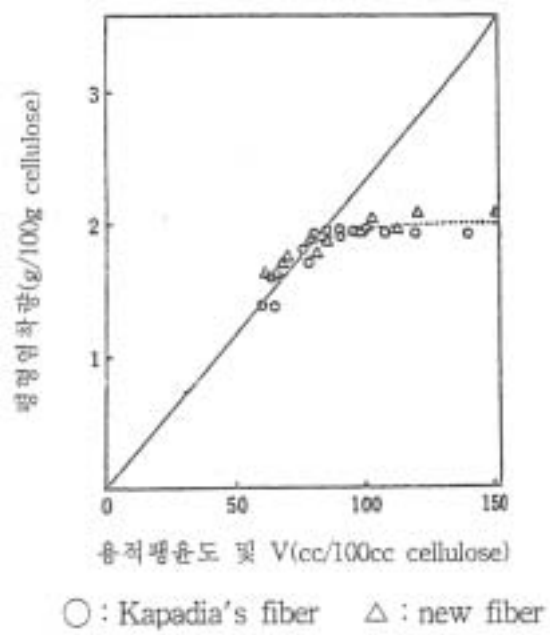
. < 3.2> 가

가 가 가 80cc/100cc

가

,

가



< 3.2>

(birefringence)

< 3.3> < 3.4>

,

.

20×10^{-3}

가

가

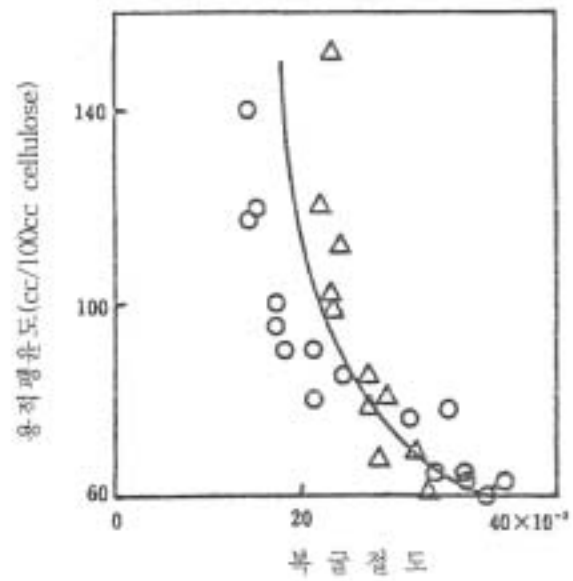
.

가

,

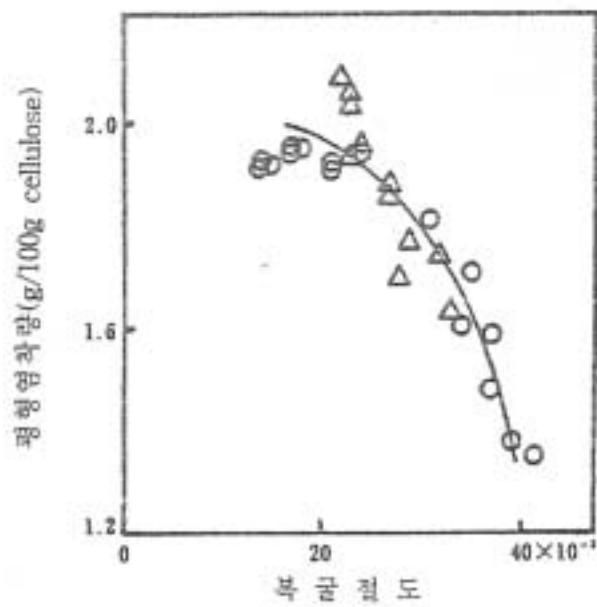
가

.



○ : Kapadia's fiber △ : new fiber

< 3.3>

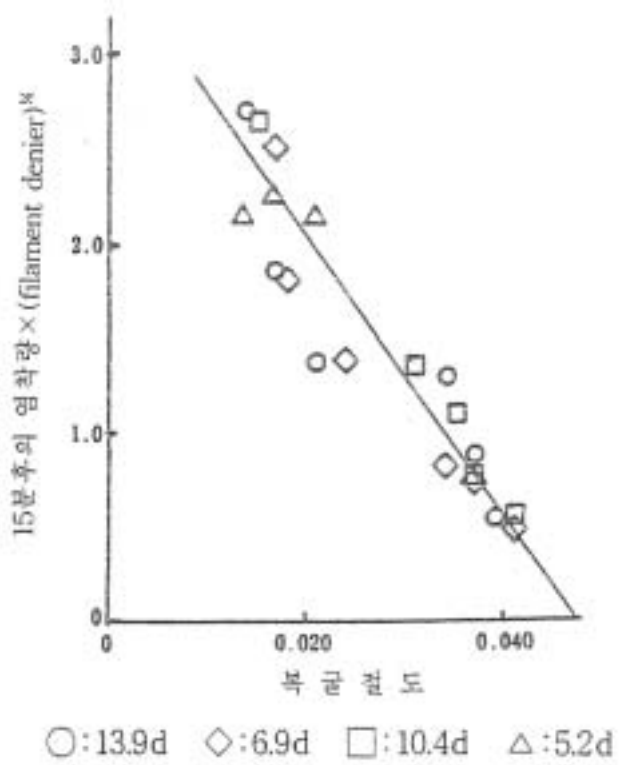


○ : Kapadia's fiber △ : new fiber

< 3.4>

< 3.5>

가
가 ,
가 ,
.



< 3.5> (15)

(drawing) 가가 가 ,
(tension)