



Ls) , , - - - (MB

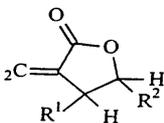
[Polymer, 20 , 1979, pp.1215 - 1216] 9012646 (M.K. Akkapeddi) , 가

813 , ( , ) 5,412,039 , 5,502,113 5,587,431 (CTC) 5,310,807 , 5,362, 9525765 가

527 5,602,220 , 5,770,665 5,684,101 9613 가 5,726,263 08/818,860 , 09/193,701 08/912,593 가

< > ( - - - ) II

II

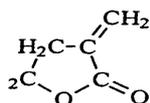


, R<sup>1</sup> R<sup>2</sup> H, -CH(O), -CN (I), -C(O)OR<sup>5</sup>, -C(O)N R<sup>6</sup>R<sup>7</sup>, -CR<sup>8</sup>(O), -C(O)OC(O)R<sup>9</sup>, -C(O)NR<sup>10</sup>COR<sup>11</sup>, -OC(O)R<sup>12</sup>, -OR<sup>13</sup>, ; R<sup>1</sup> R<sup>2</sup> 가 (II) ; R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, R<sup>11</sup> R<sup>12</sup> H, ; R<sup>13</sup> C<sub>1</sub> C<sub>12</sub> ;



5,324,879 , 5,028,677 4,526,945

(MW) [ (T.P. Davis), (D.M. Haddleton), (S.N. Richards.), J.M.S. - Rev. Macromol. Chem. Phys. C34 (1994) 1 (95 % ) 243]



가

NMR

7.1 7.4 ppm  
NMR

가

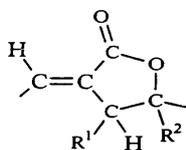
가

가

가

, T<sub>g</sub>

200

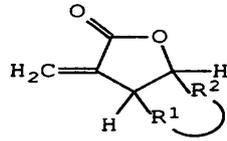


, R<sup>1</sup> R<sup>2</sup> H, -CH(O), -CN (I), -C(O)OR<sup>5</sup>, -C(O)N  
R<sup>6</sup>R<sup>7</sup>, -CR<sup>8</sup>(O), -C(O)OC(O)R<sup>9</sup>, -C(O)NR<sup>10</sup>COR<sup>11</sup>, -OC(O)R<sup>12</sup>, -OR<sup>13</sup>,  
(II) ; , R<sup>1</sup> R<sup>2</sup>가 (II) , R<sup>1</sup> R<sup>2</sup>

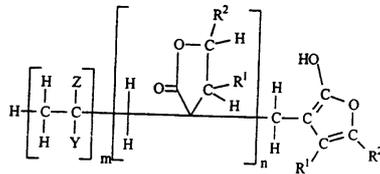
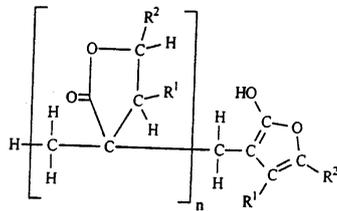
R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, R<sup>11</sup> R<sup>12</sup> H, , , ; R<sup>13</sup> , ,

( C<sub>1</sub> C<sub>12</sub> , )

R<sup>1</sup> R<sup>2</sup>가 H 가 , R<sup>1</sup> R<sup>2</sup>가 H 가 . R<sup>1</sup> R<sup>2</sup> R<sup>1</sup> R<sup>2</sup> :  
 가 (II)



(consists essentially of)



, m=0 200 , n=0 200 m+n> 1 ;

Y Z H, -CH(O), -CN, , -C(O)OR<sup>5</sup>, -C(O)NR<sup>6</sup>R<sup>7</sup>, -CR<sup>8</sup>(O), -C(O)OC(O)R<sup>9</sup>, -  
 C(O)NR<sup>10</sup> COR<sup>11</sup>, -OC(O)R<sup>12</sup>, -OR<sup>13</sup>, ; Y  
 Z Y Z가 -C(O)OR<sup>5</sup>, -C(O)NR<sup>6</sup>R<sup>7</sup>, -CR<sup>8</sup>(O), -C(O)OC(O)R<sup>9</sup>, -C(O)NR<sup>10</sup> COR<sup>11</sup>, -OC(O)R<sup>12</sup>,  
 -OR<sup>13</sup>, ;

R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, R<sup>11</sup> R<sup>12</sup> H, , ; R<sup>13</sup> , ,  
 ;

( C<sub>1</sub> C<sub>12</sub> , )

10 % :

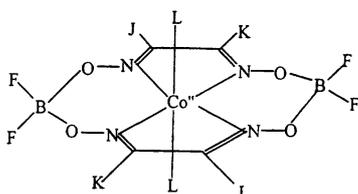


, R<sup>1</sup> R<sup>2</sup> , R<sup>3</sup> R<sup>4</sup> (I) (II)

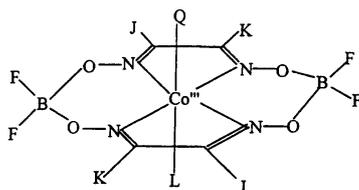
(II)

(III)

6 18 4,680,352 , 4,694,054 , 5,324,879 , 1987  
 87/03605 , 5,362,826 , 5,264,530  
 (Enikolopov, N.S.) 664,434 (1978); (Golikov, I.)  
 856,096 (1979); (Belgovskii, I.M.) 871,378 (1979);  
 1,306,085 (1986) 가 100 1(ppm)  
 (II) (III)



Co(II)(DPG - BF<sub>2</sub>)<sub>2</sub>, J=K=Ph, L=  
 Co(II)(DMG - BF<sub>2</sub>)<sub>2</sub>, J=K=Me, L=  
 Co(II)(EMG - BF<sub>2</sub>)<sub>2</sub>, J=Me, K=Et, L=  
 Co(II)(DEG - BF<sub>2</sub>)<sub>2</sub>, J=K=Et, L=  
 Co(II)(CHG - BF<sub>2</sub>)<sub>2</sub>, J=K= - (CH<sub>2</sub>)<sub>4</sub> -, L=



QCo(III)(DPG - BF<sub>2</sub>)<sub>2</sub>, J=K=Ph, R= , L=  
 QCo(III)(DMG - BF<sub>2</sub>)<sub>2</sub>, J=K=Me, R= , L=  
 QCo(III)(EMG - BF<sub>2</sub>)<sub>2</sub>, J=Me, K=Et, R= , L=  
 QCo(III)(DEG - BF<sub>2</sub>)<sub>2</sub>, J=K=Et, R= , L=  
 QCo(III)(CHG - BF<sub>2</sub>)<sub>2</sub>, J=K= - (CH<sub>2</sub>)<sub>4</sub> -, R= , L=

QCo(III)(DMG - BF<sub>2</sub>)<sub>2</sub>, J=K=Me, R= , L=

L 가 . Q ( , )  
 , 1- 1-

COBF  
 (2- ) - N'N''N'''N''''(A)(B) (III) - [(1,2- R\* - ) (2- )O:O' -  
 , A ( , , ) , B  
 ( , , , , ) . R\*가 , A가 B가

( , , , , ) (AIBN); 4,4' - (4- ; 2,2' - (2- ) - ; 2,2' -  
 ( - 1 - ) ; 2 - (t- ) - 2 - ; 1,1' -

50 150 240  
 , - (CSTR) , : 가 5  
 1000 가 가 , 30 12

(CELLOSOLVES, ) ,  
 ; 2

(ladder)

( - - - ) - - - [ (J. March), " Advanced Organic Chemistry: Reactions, Mechanisms and Structure" , 4 , Wiley Interscience, New York, 1992 p.641] (compatibilizers), , ,

가 (finishes) 가

[ (D.F. Shriver) , " The Manipulation of Air Se nsitive Compounds" , 2 , Wiley Interscience, 1986]

<sup>1</sup>H - NMR 300 MHz QE300 NMR ( General Electric Co.; 94539 ))

K<sup>+</sup> IDS [M]K<sup>+</sup> 가 K<sub>2</sub> O ( MAT (USA), ) (Finnegan) 4615 GC/MS 1x10<sup>-6</sup> torr . 200

MW DP (SEC) , 100 A, 500 A, 1 000 A 5000 A WISP 712 ( Waters Corp., )

(Aldrich Chemical Co.; )

(VAZO) - 67( )2,2' - (2 - ) ( DuPont Co.; ))

- 88( )1,1' - ( - 1 - ) ( ; )

AIBN2,2' - ( )

TAPCo - Co

HPCo - IX - Co

A

Co CTC

60 3.25 g/ AIBN 1,2 - - - 50 %  
 2 ( - - - ) 가 NMR (6.07 5.7  
 4 ppm)가 (SEC)  
 $M_n$  101,000  $M_n$  210,000

1

Co CTC

- - 3.25 g/ AIBN 0.05 g/ TAPCo 1,2 - -  
 50 % 60 8 . SEC 7.15, 7.38 7.4 ppm  
 NMR  $M_n$  3500

2

Co CTC

- - 3.25 g/ AIBN 0.01 g/ TAPCo 1,2 - -  
 50 % , NMR  
 60 7.3 7.7 ppm SE  
 C  $DP_n$  38 . NMR (> 7.1 ppm)  
 -CH2O- (4.2 - 5.0 ppm) 1:14 DPn 가 ,  
 가 . Co CTC가

3

Co CTC

3 g/ ( ) - 88 0.02 g/ COBF , 17 % - - -  
 33 % 1,2 - 90 8  
 . K<sup>+</sup> IDS 70 % 7.1 7.4 ppm  
 1 - - -

B

Co CTC

3 g/ ( ) - 88 , 17 % - - - 33 %  
 1,2 - 3 90 8 . Co  
 가 (40,000 )

4

Co CTC

4.5 g/ ( ) - 67  
37 %

0.02 g/ HPCo , 12 % -  
1,2 - 70 8  
NMR

, 7.1 7.5 ppm  
K<sup>+</sup> IDS / - -

C

Co CTC가

4.5 g/ ( ) - 67 , 12 % - 4 - - 70 37 %  
1,2 - 8  
(40,000 ) . C

(57)

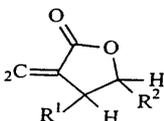
1.

II

240

( - - - )

< II >



, R<sup>1</sup> R<sup>2</sup> H, -CH(O), -CN (I), -C(O)OR<sup>5</sup>, -C(O)N  
R<sup>6</sup>R<sup>7</sup>, -CR<sup>8</sup>(O), -C(O)OC(O)R<sup>9</sup>, -C(O)NR<sup>10</sup> COR<sup>11</sup>, -OC(O)R<sup>12</sup>, -OR<sup>13</sup>,  
(II) ; R<sup>1</sup> R<sup>2</sup>가 (II) , R<sup>1</sup> R<sup>2</sup>

R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, R<sup>11</sup> R<sup>12</sup> H, , , ; R<sup>13</sup> , ,

C<sub>1</sub> C<sub>12</sub> ,

2.

1 , R<sup>1</sup> R<sup>2</sup>가 H .

3.

1 , R<sup>1</sup> R<sup>2</sup>가 H .

4.

1 3 , 가 50 150 .

5.

1 , 가 (II) (III)

6.

1 , .

7.

1 , - .

8.

1 , .

9.

1 , 가 .

10.

9 , 가 ; 2,2' - (2 - ) - ; 2,2' - ( )  
 (AIBN); 4,4' - (4 - ) ; 2 - (t - ) - 2 - , 1,1' - ( -1  
 - ) .

11.

1 , , , ; , ;  
 , ; ; , (CELLOSOLVES, ) ,  
 ; 2

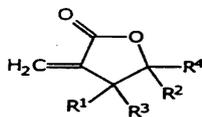
12.

1 .



, N,N' - , 2- -2- -1- , , 2-  
 , [2- ( ) ] , 2-  
 , 2- (N,N' - ) - , , 2-  
 , [2- ( ) ] , 2- ( )  
 , 2- ( ) , [2- ( ) ] -  
 , 4- , , ,  
 ( ) , 2- , ( ) ,  
 , , , ,  
 - , , , ,  
 , , , ,  
 , N - tert - , N - n - , N - -  
 , N - - ( ) , ( )  
 ( ) , 2- ( ) , 2-  
 ( ) , 2- ( ) , 2-  
 , 2- 2- ( ) , 2- 2-  
 ) , 2- 2- ( ) , 2- ( )  
 III - - -

< III >

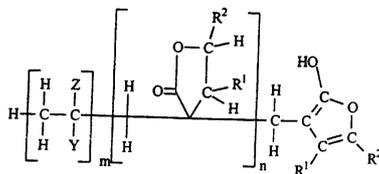


, R<sup>1</sup> R<sup>2</sup>

, R<sup>3</sup> R<sup>4</sup>

R<sup>1</sup> R<sup>2</sup>

15.



, m=0 200 , n=0 200 m+n > 1 ;

$R^1$   $R^2$  H, -CH(O), -CN (I), -C(O)OR<sup>5</sup>, -C(O)NR<sup>6</sup>R<sup>7</sup>, -C  
 $R^8$  (O), -C(O)OC(O)R<sup>9</sup>, -C(O)NR<sup>10</sup>COR<sup>11</sup>, -OC(O)R<sup>12</sup>, -OR<sup>13</sup>, , ,  
 (II) ; ,  $R^1$   $R^2$ 가 (II) ,  $R^1$   $R^2$  ;  $R^{13}$  , ,  
 ;  $R^5$ ,  $R^6$ ,  $R^7$ ,  $R^8$ ,  $R^9$ ,  $R^{10}$ ,  $R^{11}$   $R^{12}$  H, , , ;  $R^{13}$  , ,  
 ;  $C_1$   $C_{12}$  , ;

Y Z H, -CH(O), -CN, , -C(O)OR<sup>5</sup>, -C(O)NR<sup>6</sup>R<sup>7</sup>, -CR<sup>8</sup>(O), -C(O)OC(O)R<sup>9</sup>, -  
 C(O)NR<sup>10</sup>COR<sup>11</sup>, -OC(O)R<sup>12</sup>, -OR<sup>13</sup>, , , ; Y  
 Z Y Z가 -C(O)OR<sup>5</sup>, -C(O)NR<sup>6</sup>R<sup>7</sup>, -CR<sup>8</sup>(O), -C(O)OC(O)R<sup>9</sup>, -C(O)NR<sup>10</sup>COR<sup>11</sup>, -OC(O)R<sup>12</sup>,  
 -OR<sup>13</sup>, , , ;

$R^5$ ,  $R^6$ ,  $R^7$ ,  $R^8$ ,  $R^9$ ,  $R^{10}$ ,  $R^{11}$   $R^{12}$  H, , , ;  $R^{13}$  , ,  
 ;  
 $C_1$   $C_{12}$  , .