

94610

816

94521

1689

48642

2371

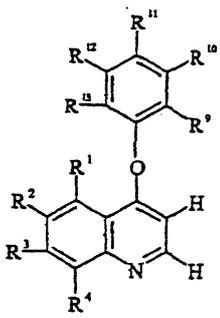
(74)

:

(54) -4-

10 -4-

10



-4-

2000 9 8

가

60/231,719

-4-

100

1850

가

가 가 가

3

가 가 가

가 가

가

가

-4-

| | | | |
|---|---|------|------|
| 1 | 2 | 3 | (1), |
| 3 | 4 | (2), | |
| 4 | 5 | 6 | (3), |
| 6 | 7 | 8 | (4) |
| 8 | 9 | 10 | (5) |

(1) ,

1

2

3

R^2 R^4 H [(1)' (1)' (1)'] , R^1 R^3 R^1 R^3 R^1
 R^3 H , R^3 (1) 3,5- ('DCA') R^4 R^1

R^5 ($C_1 - C_4$) (2)' (2)' (2)']
 R^6 R^7 ($C_1 - C_4$) (2)

R (1) (3)' (2)

210 (1) 5 (2) 50psia 50 210 , 160
 가 (2) (1) 0.5 3

(1) (2) 가 (C_{10-40}) , C_{1-6}
 ($C_1 - C_3$) , 가 ($C_1 - C_{30}$)

(2) , 3 4

4 [(4)' (4)') , R^8 ($C_1 - C_4$)

5 (3) 50psia , 200 270 , 220 250
 2 20

(1)

(3) 5,973,153 (4) (4) R⁸ (H) (4)

(3) 4 5 6

5 (4) [-C(=O)-O-R⁸ (5)] (-OH) (6)

H₂O (5)

230 (4) 5 (5) 50psia 180 270 200 20

(1) 가 (C₁-C₁₀) (4) 가 5:1 20:1

(6) (7) (6)

(4) 6 7 8

7 (6) [-OH (7)] (-F, Cl, Br I) (8)

(7) SOCl₂ ()

0 (6) 5 (7) 50psia 50 100 60 5 9

(1) 가 (N,N- N,N- 가

(5) (7)

(5) 8 9 10

9 [(9)] R⁹ R¹³ H
 , CN, NO₂, OH, (C₁-C₄) (C₂-C₄) (C₁-C₇) (C₁-C₇)
 (C₁-C₇) (C₁-C₇) (C₁-C₇) (C₁-C₇)
 0 R²¹ R²² OSiR²⁰ R²¹ R²² (R²⁰, R²¹, R²²) (C₁-C₄) (C₁-C₄) SiR²
 , R²⁰, R²¹, R²² H가 (C₁-C₆)
 , R¹¹, R¹², R¹², R¹³
 2 H (R⁹, R¹³) H F가 (R⁹, R¹³)
 -C₇) (C₁-C₇) (C₁-C₇) (C₁-C₁₀) (C₁-C₇) (C₁-C₇)
 , NO₂, OH, CN, (C₁-C₄)

3
) , (C₁-C₇) , (C₁-C₇) , (C₁-C₇) , (C₁-C₇) , (C₁-C₁₀
 , NO₂, OH, CN, (C₁-C₄) , (C₁-C₁₀) , (C₁-C₇) , (C₁-C₇) ,
 (C₁-C₇) , (C₁-C₇) , NO₂, OH, CN, (C₁-C₄) (9)

0.5 (8) 50psia (9) 40 70 , 0.5 55 65
 20

(1)

-OH

가

(5) 10
 5,973,153 (10)

(1) (2) (3) (4) (3) (5)

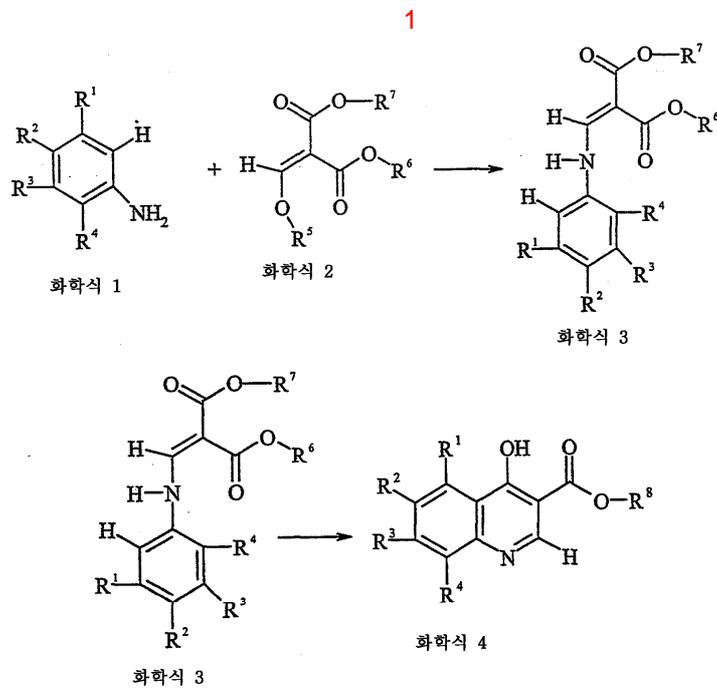
가 가

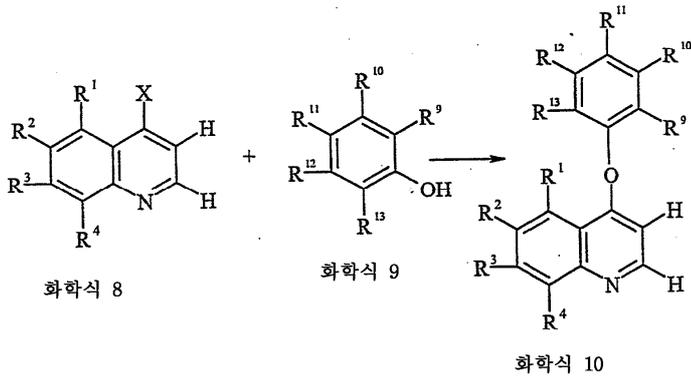
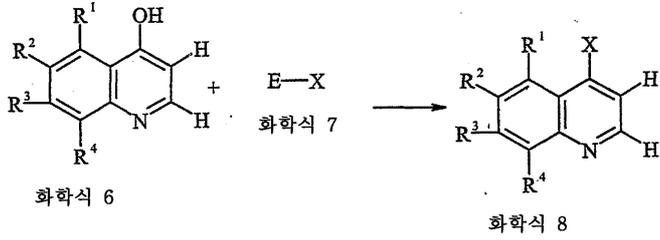
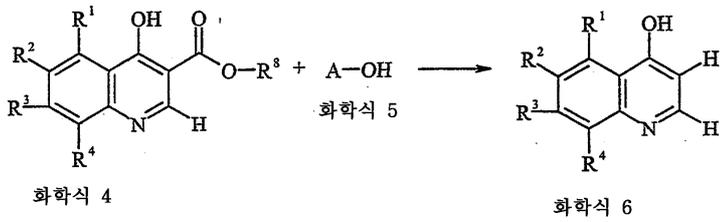
1: -4- -5,7-

3,5- (DCA, 162.7g, 1.0mol) (EMME, 221.1g, 1.02mol)
 1.135kg 83.3g (Dean Stark)
 가 3L 3 60 180 가 , 30
 200 가 200cc/ 1
 7 가 180cc/ 450RPM 240
 가 (Buchner) 130 (Whatman) 1
 (1066.3g) 377g 1 500ml 2
 (4) 439.7g (50) 500ml
 431.4g() 5L 1.8kg(1.43L) 가
 () 90 215 130.9g(가
) 200cc/
 .200 220 가 , 5
 6g/ 가 , / 56g , 219 , .220
 2 가 가 (25mmHg) 1 75 2
 가 , 3.71g(0.05mol) 155.7g(1.31mol)
 (25mmHg) 90 2
 g , 3 (25.7

5L p- 102.1g(0.91mol) 45% 300.7g(2.41mol)
 가 , 50 가
 가 , 21 51 가 5L 81.3g
 , 4 , 66 가 . 66 가 4 , 가 , 가
 4-tier 10Mℓ/ 가 . 40 가 5Mℓ/ 가 , 가 , 가
 20Mℓ/ , 가 . 40Mℓ/ (15) 1200Mℓ , 가 , 20
 , 500Mℓ 2 (50) 500Mℓ 227Mℓ , 10 , 4L
 (10) 3665.3g 가
 342.8g .
 2: -4- -5,7-

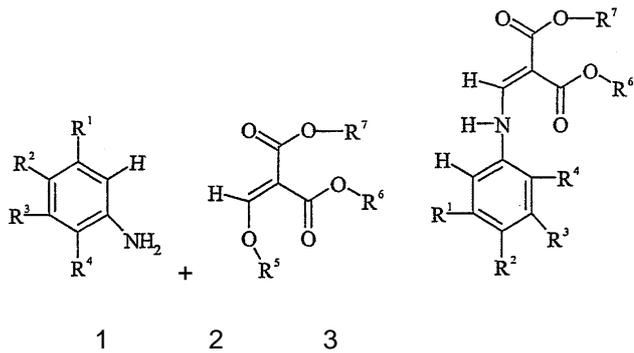
(3) (5) (3 %) 7018kg
 , 3,5- -3- -4- 906kg 3,5- -4-
 220 가 , 5 가
 105 가 3
 750kg N,N- 70 가
 522kg 4,5,7- 13.4kg 가 , 3,5- -4- 75 2
 SO₂ SOCl₂ , 60 , 45% KOH 95 가
 373kg , 4,5,7- 가 1077kg 60
 0kg 5,7- , 5760kg 4 60 12 , 40
 , 2 ,





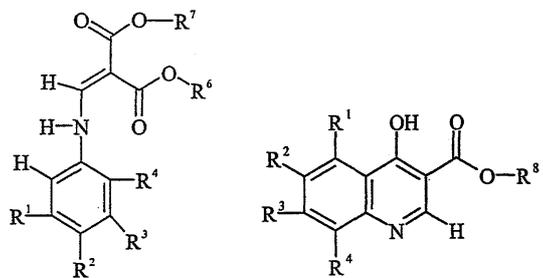
(57)

1. 1 2 50 210 3 5 50p
 sia (1), 1 2 3



[H R² R⁴ R¹ R³ R⁴ R¹ R² R⁴ H R³ R¹ R³ R⁴ H R⁵ (C₁-C₄) R⁶ R⁷];

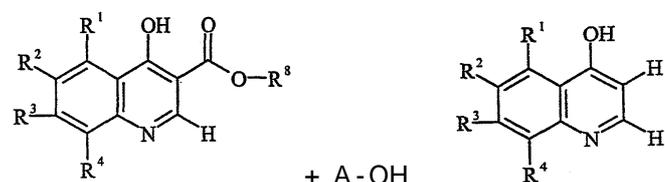
3 200 270 5 50psia
 , 3 4 (2),



3 4

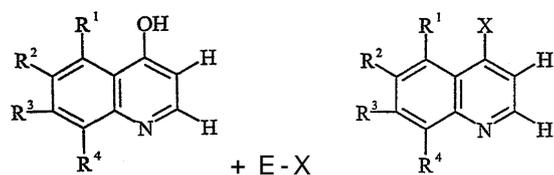
[, R⁸ (C₁-C₄)];

psia 4 5 180 270 5 6 5 50
(3),



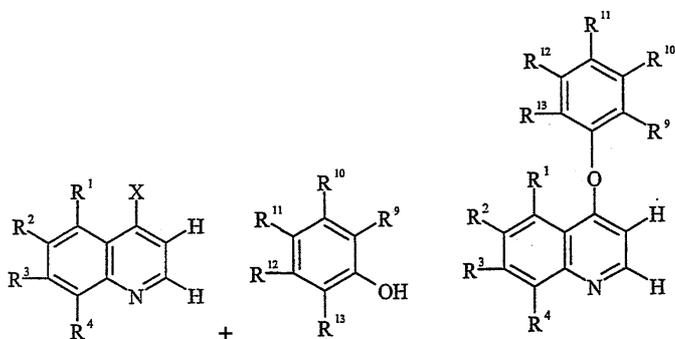
4 5 6

sia 6 7 50 100 8 5 50p
(4),



6 7 8

sia 8 9 40 70 10 0.5 50p
(5)



8 9 10

[(C₁-C₇) , R⁹ R¹³ H, CN, NO₂, OH, (C₁-C₄) , (C₂-C₄) ,
, (C₁-C₇) , (C₁-C₇) , (C₁-C₇) , (C₁-C₇) , (C₁-C₇) , (C₁-C₇) ,
, (C₁-C₇) , , , , , , (C₁-C

4) , (C₁-C₄) , , SiR²⁰ R²¹ R²² OSiR²⁰ R²¹ R²² (, R²⁰, R²¹ R²²) , R¹¹ R¹² R¹² R¹³ , R²⁰, R²¹ R²² H가 H가 , R⁹ R¹³ H] .

2.

1 , (1) (5) .

3.

2 , 가 , , , (C₁₀₋₄₀) , C₁₋₆ , , , .

4.

3 , 1 3,5- 2 .

5.

4 , (1) (2) (3) (5) .