

(19)
(12)

(KR)
(B1)

(51) 。 Int. Cl. ⁷
H01M 10/40

(45)
(11)
(24)

2003 01 24
10 - 0369076
2003 01 09

(21) 10 - 2001 - 0000667
(22) 2001 01 05

(65) 2002 - 0057569
(43) 2002 07 11

(73) 575

(72) 508

508

508

(74)

:

(54) 2

(a) 1 , 2 3 , 3
0.01 90 %; (b) 0.01 90 %; (c) 0.5
4 2.0 85 99 % 2 .

< 1

CH(R1)=C(R2) - C(=O)O - R5 - N(R4)(R5)

< 2

2 가 2

1/2

가 2

, 2

가 가

1

1 (10), (11), (12) (13) (10),

(11) (11)

(12) (12') (10) (13, 13')

2

(21) (12) (21) (21)

(23, 23') (22) () (24, 24')

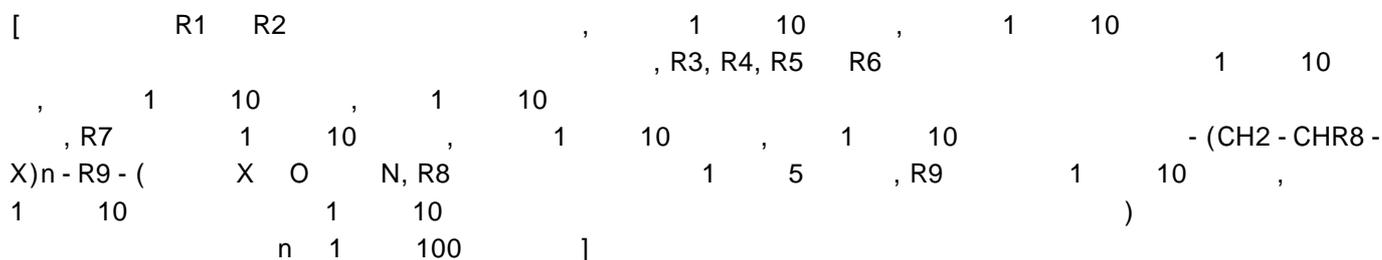
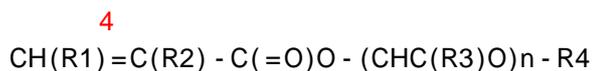
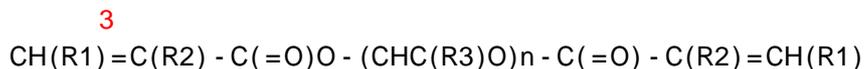
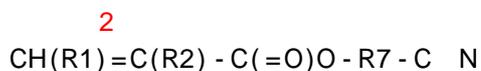
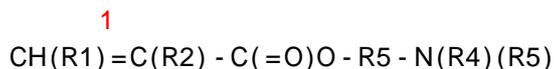
1 가 (11, 22) 2 가 (10, 21) (13, 13') (24, 24')

가 가 가

가

5, 972,539 , 5,437,942 가 (5,972,539 , 5,279,910, 5, 340,368).

- (a) 1, 2
0.01 90 %;
- (b) 3, 3, 4
0.01 90 %;
- (c) 0.5 2.0 85 99 %



UV 200 400nm
UV 40 100
UV
가 UV 0.1
2 %

- (LiPF₆), (LiCF₃SO₃), (LiClO₄), (LiBF₄), (LiN(CF₃S
- O₂)₂)

가

(a) 가 ;

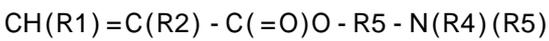
(b) 1
2
2

가
1
2 가

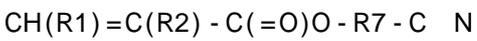
1 2 가

(a) 1 0.01 90 %; (b) 2 3 0.01 90 %; (c) 3 0.5 2.0
4 85 99 %

< 1



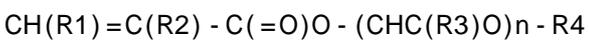
< 2



< 3



< 4



[R1 R2 , 1 10 , 1 10
, R3, R4, R5 R6 1 10

2 가 , , N -

2) , (1) 2 가 (2)

(2) , (1)

40 100

/PP (PE) 2 (PP) , PP/PE , PP/PE/PP PE/PP 가

가

1

N - 600Mø LiCoO₂ 470g 15g 가 , 15g 5 가 2

320μm 가 147μm 4.9cm

N - 600Mø (MCF) 449g 1g 50g 가 , 5 2

420μm 가 178μm 5.1cm

5.25cm , 18μm / / 3

1g, 1.3M LiPF₆EC/DEC(EC DEC 1:1) 15g 3g, AIBN 0.06g
 75 3g 4 2

1

(EC DEC 1:1) 15g 4g, AIBN 0.06g 2g, 1.3M LiPF₆EC/DEC
 1 2

2

2.5g, F₆EC/DEC(EC DEC 1:1) 15g 0.5g, AIBN 0.06g 1g, 2g, 1.3M LiP
 1 2

3

06g 1g, 1.3M LiPF₆EC/DEC(EC DEC 1:1) 15g 3g, AIBN 0.06g
 1 2

4

EC/DEC(EC DEC 1:1) 15g 3g, AIBN 0.06g 3g, 1.3M LiPF₆
 1 2

5

1 1 85 1 가
 2 1

6

AIBN UV(max = 360nm) 10
 5 2

7

3 3 85 1 가
 2 1

8

AIBN UV(max = 360nm) 10
 5 2 .

2

, 1.15M 1M LiPF₆EC:DMC:DEC(3:3:4) (UBE) , 1

2

10 1-8 40kgf/cm² 1-2 가 2 85 4

가 , 1-8 2 1-2 1-8 2 가

가

, 1 1 1 1C / 3
 , 1 가 100 가 1

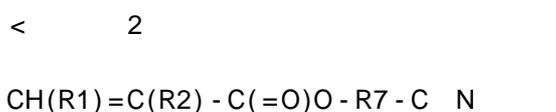
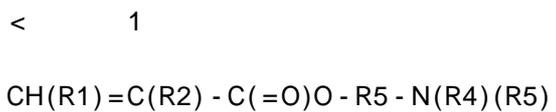
가

2

가 가

(57)

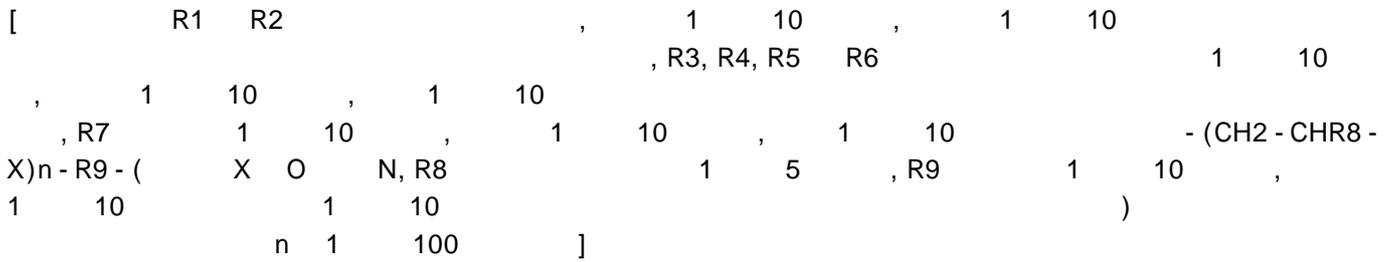
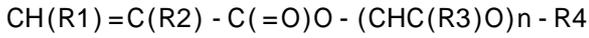
- 1.
- (a) 1 0.01 90 %; 2
- (b) 3 0.01 99 %; 3 4
- (c) 0.5 2.0 85 99 %



< 3



< 4



2.

1, 0.1 2 %

3.

1, UV

4.

3, 가 40 100

5.

3, UV 200 400nm

6.

1, (LiCF₃SO₃), (LiClO₄), (LiBF₄), (LiPF₆), (LiN(CF₃SO₂)₂)

7.

1, 가, , , , - , , ,

8.

(a) 가 ;

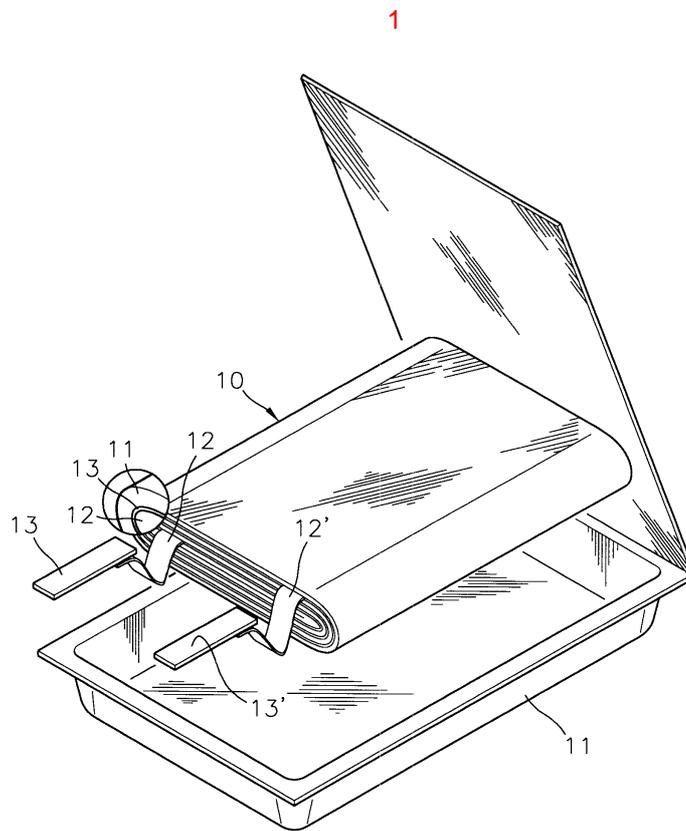
(b) 1
2 .

9.

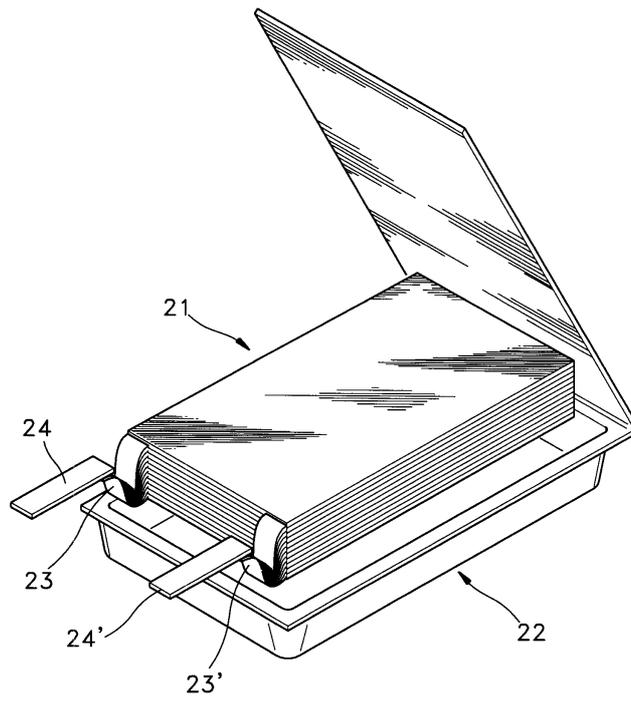
8 ,
2 .

10.

가 , 가
1
2 .



2



3

