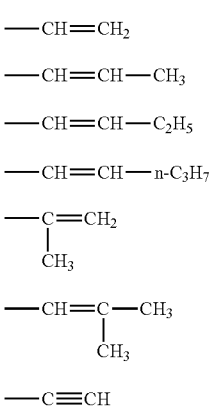


(Q1)

(Q2)

(Q3)

(Q4)

(Q5)

(Q6)

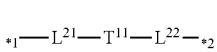
(Q7)

[0064] L^{11} represents a single bond or an m+1-valent linking group.

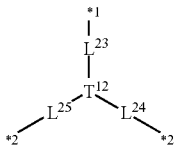
[0065] The m+1-valent linking group represented by L^{11} is not particularly limited, and examples thereof include groups represented by (A1) to (A). Further, in (A1) to (A), $*^1$ represents a bonding position to P^{11}, and *2 represents a bonding position to Y^{11-}.

[0066] It should be noted that in a case where Y^{11-} which will be described later is an anionic functional group represented by General Formula (Y) which will be described later, L^{11} represents $*^1$—CO—O-L^{S1}-*2. L^{S1} represents a divalent linking group which includes no —O—CO—. Further, in a case where Y^{11-} which will be described later is an anionic functional group represented by General Formula (Y2) which will be described later, L^{11} includes neither a phenylene group nor a lactone structure.

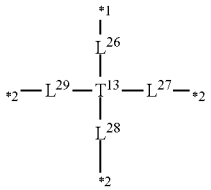
[0067] The L^{S1} is preferably an alkyl group having 1 to 20 carbon atoms (which may be in any of linear, branched, and cyclic forms).



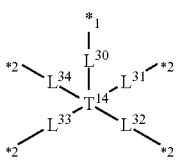
(A1)



(A2)

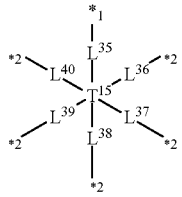


(A3)



(A4)

-continued



(A5)

[0068] In (A1) to (A5), T^{11} represents a single bond, a divalent hydrocarbon ring group, or a divalent heterocyclic group, T^{12} represents a trivalent hydrocarbon ring group or a trivalent heterocyclic group, T^{13} represents a tetravalent hydrocarbon ring group or a tetravalent heterocyclic group, T^{14} represents a pentavalent hydrocarbon ring group or a pentavalent heterocyclic group, and T^{15} represents a hexavalent hydrocarbon ring group or a hexavalent heterocyclic group.

[0069] The hydrocarbon ring group may be an aromatic hydrocarbon ring group or an aliphatic hydrocarbon ring group. The number of carbon atoms included in the hydrocarbon ring group is preferably 6 to 18, and more preferably 6 to 14.

[0070] The heterocyclic group may be either an aromatic heterocyclic group or an aliphatic heterocyclic group. The heterocycle is preferably a 5- to 10-membered ring, more preferably a 5- to 7-membered ring, and still more preferably a 5- or 6-membered ring, each of which has at least one N atom, O atom, S atom, or Se atom in the ring structure.

[0071] In addition, in (A1) to (A5), L^{21} to L^{40} each independently represent a single bond or a divalent linking group.

[0072] Examples of the divalent linking group represented by each of L^{21} to L^{40} include —N═N—, —O—, —S—, —NR^a—, —CO—, an alkylene group (which may be in any of cyclic, branched, and linear forms), an alkenylene group, an alkynylene group, or a divalent group formed by combination of these groups. R^a represents a hydrogen atom or a substituent (for example, an alkyl group).

[0073] The alkylene group preferably has 1 to 10 carbon atoms, more preferably has 1 to 6 carbon atoms, and still more preferably has 1 to 4 carbon atoms.

[0074] The alkenylene group preferably has 2 to 10 carbon atoms, more preferably has 2 to 6 carbon atoms, and still more preferably has 2 to 4 carbon atoms.

[0075] The alkynylene group preferably has 2 to 10 carbon atoms, more preferably has 2 to 6 carbon atoms, and still more preferably has 2 to 4 carbon atoms.

[0076] The alkylene group, the alkenylene group, and the alkynylene group represented by each of L^{21} to L^{40} may each have a substituent. As the substituent, a halogen atom is preferable, and a fluorine atom is more preferable.

[0077] Y^{11-} represents a group selected from the group consisting of anionic functional groups represented by General Formulae (Y1) to (Y8).