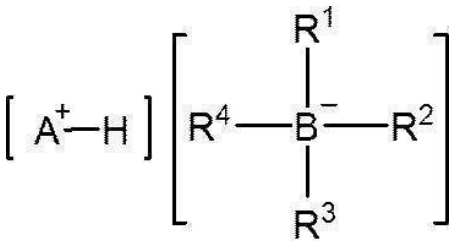
[CLAIMS]

[Claim 1]

A compound represented by the following formula (1):



(1)

wherein R^1, R^2, R^3 and R^4 are each independently a C_{6-14} aryl group substituted by one or more fluorine atoms or fluoro C_{1-4} alkyl groups, and

$[A^+-H]$ is a cation in which the ring nitrogen atom of a 5- or 6-membered monocyclic nitrogen-containing aromatic heterocyclic compound having a total carbon number of not less than 25 and substituted by the same or different, two or more C_{1-30} alkyl groups or C_{1-30} alkoxy groups is protonated, wherein the compound is not 2-nonadecyl-5-octadecoxypyridinium tetrakis(pentafluorophenyl)borate, 2-nonadecyl-1-octadecylimidazolium tetrakis(pentafluorophenyl)borate and 2,6-di(nonadecyl)pyridinium tetrakis(pentafluorophenyl)borate.

[Claim 2]

The compound according to claim 1, wherein R^1, R^2, R^3 and R^4 are each independently a phenyl group, a 1-naphthyl group, a 2-naphthyl group, a 2-biphenylyl group, a 3-biphenylyl group, a 4-biphenylyl group, a 1-anthryl group, a 2-anthryl group, a 9-anthryl group, a 9-phenanthryl group, or a 3-phenanthryl group, each of which is substituted by one or more fluorine atoms or trifluoromethyl groups.

[Claim 3]

The compound according to claim 1, wherein all of R^1, R^2, R^3 and R^4 are pentafluorophenyl groups, 2,2',3,3',4',5,5',6,6'-nonafluoro-4-(1,1'-biphenylyl) groups,

2,3,4,5,6,7,8-heptafluoro-1-naphthyl groups, or 1,3,4,5,6,7,8-heptafluoro-2-naphthyl groups.

[Claim 4]

The compound according to any one of claims 1 to 3, wherein A is a 5- or 6-membered monocyclic nitrogen-containing aromatic heterocyclic compound having a total carbon number of not less than 25 and substituted by the same or different two C_{9-30} alkyl groups or C_{9-30} alkoxy groups.

[Claim 5]

The compound according to claim 4, wherein the 5- or 6-membered monocyclic nitrogen-containing aromatic heterocyclic compound is pyridine or imidazole.

[Claim 6]

A cocatalyst for polymerization of at least one kind of monomer selected from the group consisting of an olefin and a diene, consisting of the compound according to any one of claims 1 to 5.

[Claim 7]

A method for producing a polymer, comprising polymerizing at least one kind of monomer selected from the group consisting of an olefin and a diene by using the compound according to any one of claims 1 to 5 as a cocatalyst.