We claim:

1. A process for producing a magnesium compound-supported nonmetallocene catalyst, which comprises:

a contacting step of contacting a magnesium compound with one of the two:

i) a chemical treating agent and

ii) a nonmetallocene ligand,

in a solvent which does not dissolve the magnesium compound, upon finish of the ~~contact~~ reaction i), the resultant mixture is subjected to filtration, ~~and~~ washing and drying, or upon finish of the reaction ii) the resultant mixture is subjected to filtration and washing or to filtration, washing and drying, to obtain a contact resultant, wherein the chemical treating agent is a Group IVB metal compound; and

a treating step of treating the contact resultant with the other of the two: the chemical treating agent and the nonmetallocene ligand, so as to obtain the magnesium compound-supported nonmetallocene catalyst;~~.~~

wherein the magnesium compound is a modified magnesium compound produced by adding a precipitating agent to a solution of the magnesium compound in a mixed solvent consisting of tetrahydrofuran and an alcohol, to precipitate same.

2. The process according to claim 1, comprising prior to the contacting step, pre-treating the magnesium compound with an pre-treating agent selected from the group consisting of an aluminoxane, an alkylaluminum and a combination thereof.

~~3. The process according to claim 1 or 2, wherein the magnesium compound is a modified magnesium compound produced by adding a precipitating agent to a solution of the magnesium compound in a mixed solvent consisting of tetrahydrofuran and an alcohol, to precipitate same.~~

34. The process according to claim 1, wherein the magnesium compound is one or more selected from the group consisting of magnesium halide, ethoxy magnesium halide, ethoxy magnesium, and

butoxy magnesium.

4~~5~~. The process according to claim 1, wherein the Group IVB metal compound is Group IVB metal halide.

5~~6~~. The process according to claim 4~~5~~, wherein the Group IVB metal halide is one or more selected from the group consisting of titanium tetrachloride and zirconium tetrachloride.

6~~7~~. The process according to claim 1, wherein in case the contacting step is conducted with the nonmetallocene ligand, ratio by molar of the nonmetallocene ligand to the magnesium compound (based on Mg) is 1 to 1-10, and ratio by molar of the chemical treating agent (based on the Group IVB metal) to the nonmetallocene ligand is 1 to 0.1-1.

7~~8~~. The process according to claim 6~~7~~, wherein the ratio by molar of the nonmetallocene ligand to the magnesium compound (based on Mg) is 1 to 3-7, and the ratio by molar of the chemical treating agent (based on the Group IVB metal) to the nonmetallocene ligand is 1 to 0.3-0.9.

8~~9~~. The process according to claim 1, wherein in case the contacting step is conducted with the chemical treating agent, ratio by molar of the chemical treating agent (based on the Group IVB metal) to the magnesium compound (based on Mg) is 1 to 0.1-100, and ratio by mass of the nonmetallocene ligand to the contact resultant is 0.01-0.50 to 1.

9~~10~~. The process according to claim 8~~9~~, wherein the ratio by molar of the chemical treating agent (based on the Group IVB metal) to the magnesium compound (based on Mg) is 1 to 0.5-50, and the ratio by mass of the nonmetallocene ligand to the contact resultant is 0.10-0.30 to 1.

10~~1~~. The process according to claim 1~~3~~, wherein the alcohol is an aliphatic alcohol.

11~~2~~. The process according to claim 10~~1~~, wherein the aliphatic alcohol is one or more selected from the group consisting of ethanol and butanol.

12~~3~~. The process according to claim 1~~3~~, wherein ratio by molar of the magnesium compound (based on Mg) to tetrahydrofuran is 1 to

5-100, and ratio by molar of the magnesium compound (based on Mg) to the alcohol is 1 to 0.5-20.

134. The process according to claim 123, wherein the ratio by molar of the magnesium compound (based on Mg) to tetrahydrofuran is 1 to 10-30, and the ratio by molar of the magnesium compound (based on Mg) to the alcohol is 1 to 1-8.

145. The process according to claim 13, wherein ratio by volume of the precipitating agent to tetrahydrofuran is 1 to 0.5-6.

156. The process according to claim 145, wherein the ratio by volume of the precipitating agent to tetrahydrofuran is 1 to 1-4.

167. The process according to claim 13, wherein the precipitating agent is one or more selected from the group consisting of an alkane and a cyclic alkane.

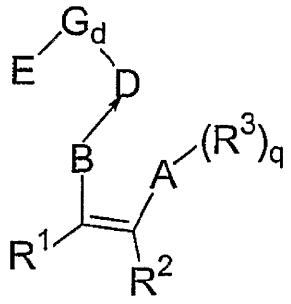
178. The process according to claim 167, wherein the precipitating agent is one or more selected from the group consisting of pentane, hexane, heptane, decane and cyclohexane.

189. The process according to claim 2, wherein the pre-treating agent is one or more selected from the group consisting of methyl aluminoxane, isobutyl aluminoxane, triethyl aluminum and tri-isobutyl aluminum.

1920. The process according to claim 2, wherein ratio by molar of the magnesium compound (based on Mg) to the pre-treating agent (based on Al) is 1 to 0.5-8.

201. The process according to claim 1920, wherein the ratio by molar of the magnesium compound (based on Mg) to the pre-treating agent (based on Al) is 1 to 1-2.

212. The process according to claim 1, wherein the nonmetallocene ligand is a compound having the following structure,



,

wherein:

q is 0 or 1;

d is 0 or 1;

A is selected from the group consisting of an oxygen atom, a sulfur atom, a selenium atom, , $-NR^{23}R^{24}$, $-N(O)R^{25}R^{26}$, , $-PR^{28}R^{29}$, $-P(O)R^{30}OR^{31}$, a sulfone group, a sulfoxide group and $-Se(O)R^{39}$;

B is selected from the group consisting of a nitrogen-containing group, a phosphor-containing group, and a C_1-C_{30} hydrocarbyl;

D is selected from the group consisting of an oxygen atom, a sulfur atom, a selenium atom, a nitrogen-containing C_1-C_{30} hydrocarbyl, a phosphor-containing C_1-C_{30} hydrocarbyl, a sulfone group, a sulfoxide group, , $-N(O)R^{25}R^{26}$, , and $-P(O)R^{32}(OR^{33})$, wherein N, O, S, Se and P each represent a coordination atom;

E is selected from the group consisting of a nitrogen-containing group, an oxygen-containing group, a sulfur-containing group, a selenium-containing group and a phosphor-containing group, wherein N, O, S, Se and P each represent a coordination atom;

G is selected from the group consisting of a C_1-C_{30} hydrocarbyl, a substituted C_1-C_{30} hydrocarbyl and an inert functional group;

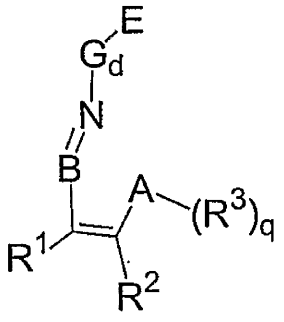
→ represents a single bond or a double bond;

— represents a covalent bond or an ionic bond;

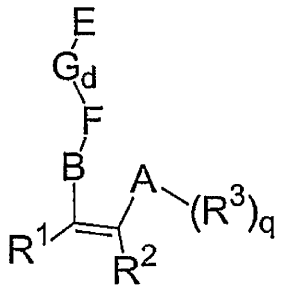
R^1 to R^3, R^{22} to R^{33}, and R^{39} are each independently selected from

the group consisting of hydrogen, a C_1-C_{30} hydrocarbyl, a halogen atom, a substituted C_1-C_{30} hydrocarbyl and an inert functional group, wherein these groups can be identical to or different with each other, and any adjacent groups can optionally form a bond or a ring altogether.

223. The process according to claim 212, wherein the nonmetallocene ligand is selected from the group consisting of the following structures (A) and (B),



(A) and



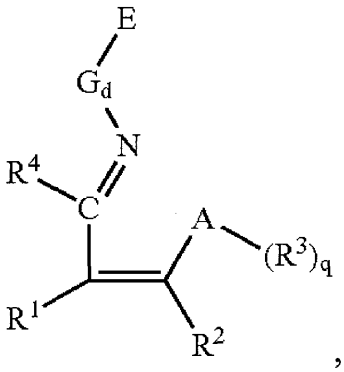
(B),

wherein:

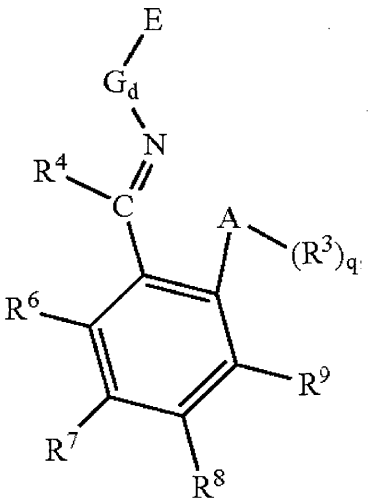
F is selected from the group consisting of a nitrogen-containing group, an oxygen-containing group, a sulfur-containing group, a selenium-containing group and a phosphor-containing group, wherein N, O, S, Se and P each represent a coordination atom;

other groups are the same as defined in claim 212.

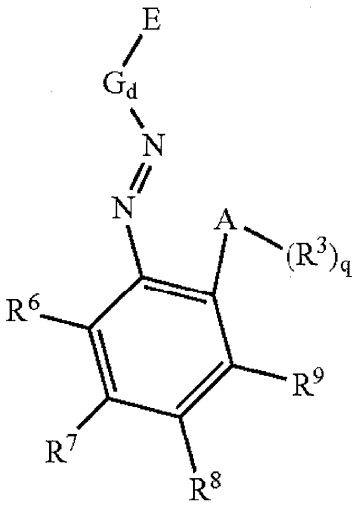
234. The process according to claim 223, wherein the nonmetallocene ligand is selected from the group consisting of the following structures A-1 to A-4 and B-1 to B-4,



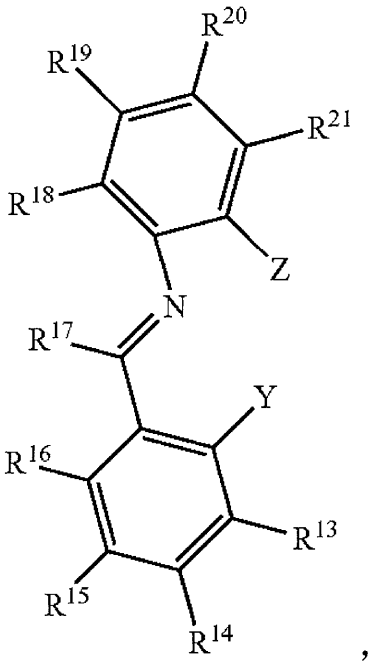
A-1



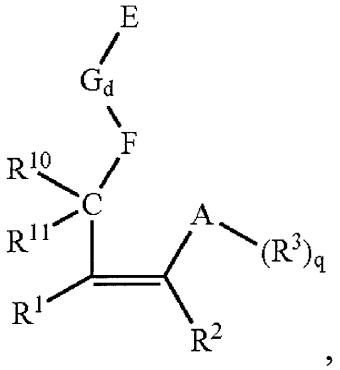
A-2



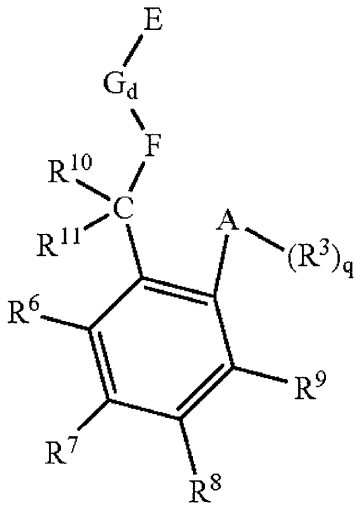
A-3



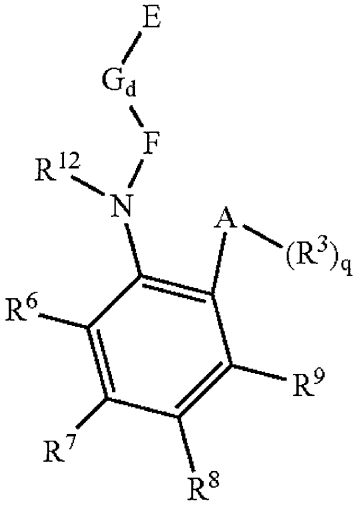
A-4



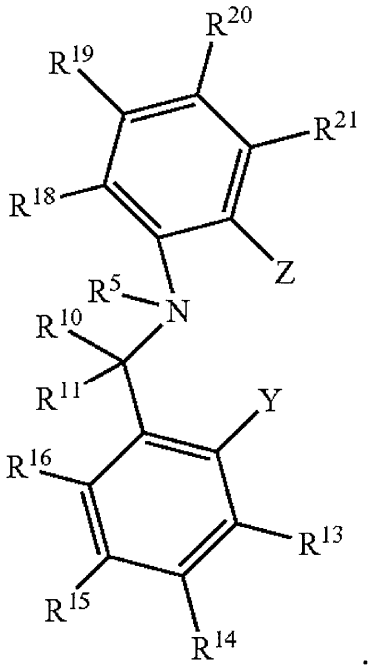
B-1



B-2



B-3



B-4

wherein:

Y and Z are each independently selected from the group consisting of a nitrogen-containing group, an oxygen-containing group, a sulfur-containing group, a selenium-containing group and a phosphor-containing group, wherein N, O, S, Se and P each represent a coordination atom;

R^4 and R^6 to R^{21} are each independently selected from the group

consisting of hydrogen, a C_1-C_{30} hydrocarbyl, a halogen atom, a substituted C_1-C_{30} hydrocarbyl and an inert functional group, wherein these groups can be identical to or different with each other, and any adjacent groups can optionally form a bond or a ring altogether; and

R^5 is selected from the group consisting of the lone pair electron on nitrogen atom, hydrogen, a C_1-C_{30} hydrocarbyl, a substituted C_1-C_{30} hydrocarbyl, an oxygen-containing group, a sulfur-containing group, a selenium-containing group, a nitrogen-containing group, and a phosphor-containing group, with the proviso that when R^5 is selected from the group consisting of the oxygen-containing group, the sulfur-containing group, the nitrogen-containing group, the selenium-containing group and the phosphor-containing group, N, O, S, P and Se in the group R^5 each represent a coordination atom,

other groups are the same as defined in claim 2~~3~~.

2~~4~~5. The process according to claim 2~~3~~4, wherein,

the halogen atom is selected from the group consisting of F, Cl, Br and I,

the nitrogen-containing group is selected from the group consisting of , $-NR^{23}R^{24}$, $-T-NR^{23}R^{24}$ and $-N(O)R^{25}R^{26}$,

the phosphor-containing group is selected from the group consisting of , $-PR^{28}R^{29}$, $-P(O)R^{30}R^{31}$, $-P(O)R^{32}(OR^{33})$, $-T-PR^{28}(OR^{29})$, $-T-P(O)R^{30}R^{31}$ and $-T-P(O)R^{32}(OR^{33})$,

the oxygen-containing group is selected from the group consisting of hydroxy, $-OR^{34}$ and $-T-OR^{34}$,

the sulfur-containing group is selected from the group consisting of $-SR^{35}$, $-T-SR^{35}$, $-S(O)R^{36}$ and $-T-SO_2R^{37}$,

the selenium-containing group is selected from the group consisting of $-SeR^{38}$, $-T-SeR^{38}$, $-Se(O)R^{39}$ and $-T-Se(O)R^{39}$,

the group T is selected from the group consisting of a C_1-C_{30} hydrocarbyl, a substituted C_1-C_{30} hydrocarbyl and an inert functional

group,

the C_1-C_{30} hydrocarbyl is selected from the group consisting of a C_1-C_{30} alkyl group, a C_2-C_{30} cyclic alkyl group, a C_2-C_{30} alkenyl group, a C_2-C_{30} alkynyl group, a C_6-C_{30} aryl group, a C_8-C_{30} fused-ring group and a C_4-C_{30} heterocycle group,

the substituted C_1-C_{30} hydrocarbyl is selected from the group consisting of a halogenated C_1-C_{30} hydrocarbyl group, a halogenated C_6-C_{30} aryl group, a halogenated C_8-C_{30} fused-ring group and a halogenated C_4-C_{30} heterocycle group,

the inert functional group is selected from the group consisting of the halogen atom, the oxygen-containing group, the nitrogen-containing group, a silicon-containing group, a germanium-containing group, the sulfur-containing group and a tin-containing group,

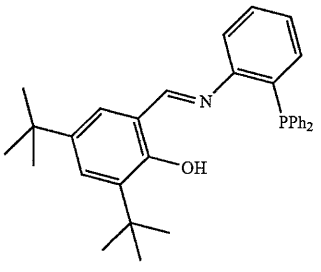
the silicon-containing group is selected from the group consisting of $-SiR^{42}R^{43}R^{44}$ and $-T-SiR^{45}$,

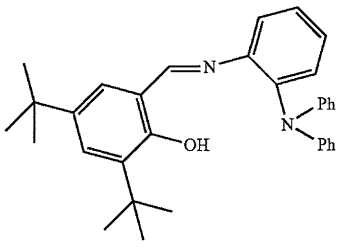
the germanium-containing group is selected from the group consisting of $-GeR^{46}R^{47}R^{48}$ and $-T-GeR^{49}$,

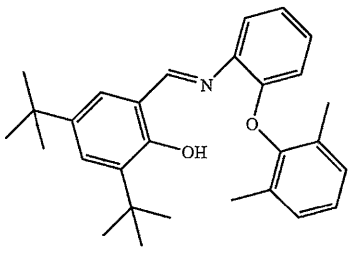
the tin-containing group is selected from the group consisting of $-SnR^{50}R^{51}R^{52}$, $-T-SnR^{53}$ and $-T-Sn(O)R^{54}$, and

R^{34} to R^{38} and R^{42} to R^{54} are each independently selected from the group consisting of hydrogen, the C_1-C_{30} hydrocarbyl, the halogen atom, the substituted C_1-C_{30} hydrocarbyl and the inert functional group.

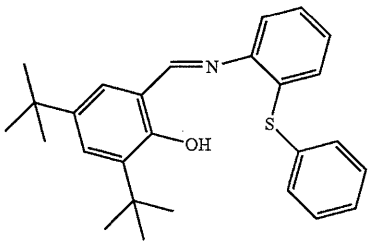
25~~6~~. The process according to claim 21~~2~~, wherein the nonmetallocene ligand is selected from the group consisting of the following compounds,



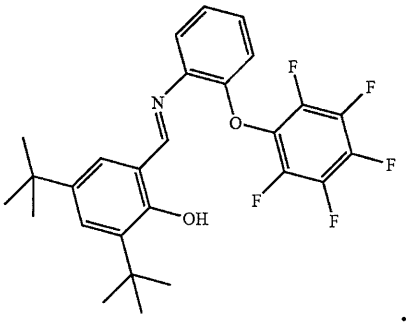
,


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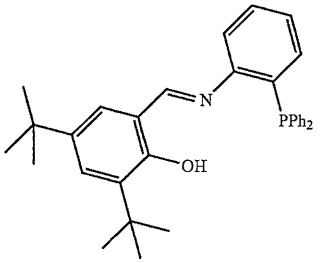


and

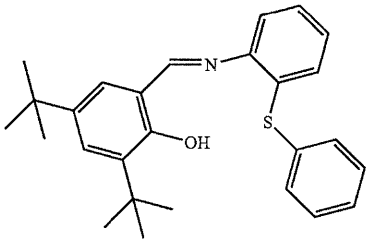


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26~~7~~. The process according to claim 25~~6~~, wherein the nonmetallocene ligand is selected from the group consisting of the following two compounds,



and



.

~~28. A magnesium compound-supported nonmetallocene catalyst, comprising a magnesium compound and a nonmetallocene catalyst supported thereon, wherein the magnesium compound-supported nonmetallocene catalyst is produced by the process according to any one of claims 1 to 27.~~

27~~9~~. An olefin homopolymerization /copolymerization process, which comprises producing the magnesium compound-supported nonmetallocene catalyst by the process according to claim 1, using ~~wherein~~ the magnesium compound-supported nonmetallocene catalyst ~~according to claim 28 is used~~ as the main catalyst, in combination with one or more selected from the group consisting of an aluminoxane, an alkylaluminum, a halogenated alkyl aluminum, a fluoroborane, an alkylboron and an alkylboron ammonium salt as the co-catalyst, to catalyze the olefin homopolymerization /copolymerization.

We claim:

1. A process for producing a magnesium compound-supported nonmetallocene catalyst, which comprises:

a contacting step of contacting a magnesium compound with one of the two:

i) a chemical treating agent and

ii) a nonmetallocene ligand,

in a solvent which does not dissolve the magnesium compound, upon finish of the reaction i), the resultant mixture is subjected to filtration, washing and drying, or upon finish of the reaction ii) the resultant mixture is subjected to filtration and washing or to filtration, washing and drying, to obtain a contact resultant, wherein the chemical treating agent is a Group IVB metal compound; and

a treating step of treating the contact resultant with the other of the two: the chemical treating agent and the nonmetallocene ligand, so as to obtain the magnesium compound-supported nonmetallocene catalyst;

wherein the magnesium compound is a modified magnesium compound produced by adding a precipitating agent to a solution of the magnesium compound in a mixed solvent consisting of tetrahydrofuran and an alcohol, to precipitate same.

2. The process according to claim 1, comprising prior to the contacting step, pre-treating the magnesium compound with an pre-treating agent selected from the group consisting of an aluminoxane, an alkylaluminum and a combination thereof.

3. The process according to claim 1, wherein the magnesium compound is one or more selected from the group consisting of magnesium halide, ethoxy magnesium halide, ethoxy magnesium, and butoxy magnesium.

4. The process according to claim 1, wherein the Group IVB metal compound is Group IVB metal halide.

5. The process according to claim 4, wherein the Group IVB metal halide is one or more selected from the group consisting of titanium tetrachloride and zirconium tetrachloride.

6. The process according to claim 1, wherein in case the contacting step is conducted with the nonmetallocene ligand, ratio by molar of the nonmetallocene ligand to the magnesium compound (based on Mg) is 1 to 1-10, and ratio by molar of the chemical treating agent (based on the Group IVB metal) to the nonmetallocene ligand is 1 to 0.1-1.

7. The process according to claim 6, wherein the ratio by molar of the nonmetallocene ligand to the magnesium compound (based on Mg) is 1 to 3-7, and the ratio by molar of the chemical treating agent (based on the Group IVB metal) to the nonmetallocene ligand is 1 to 0.3-0.9.

8. The process according to claim 1, wherein in case the contacting step is conducted with the chemical treating agent, ratio by molar of the chemical treating agent (based on the Group IVB metal) to the magnesium compound (based on Mg) is 1 to 0.1-100, and ratio by mass of the nonmetallocene ligand to the contact resultant is 0.01-0.50 to 1.

9. The process according to claim 8, wherein the ratio by molar of the chemical treating agent (based on the Group IVB metal) to the magnesium compound (based on Mg) is 1 to 0.5-50, and the ratio by mass of the nonmetallocene ligand to the contact resultant is 0.10-0.30 to 1.

10. The process according to claim 1, wherein the alcohol is an aliphatic alcohol.

11. The process according to claim 10, wherein the aliphatic alcohol is one or more selected from the group consisting of ethanol and butanol.

12. The process according to claim 1, wherein ratio by molar of the magnesium compound (based on Mg) to tetrahydrofuran is 1 to 5-100, and ratio by molar of the magnesium compound (based on Mg) to the alcohol is 1 to 0.5-20.

13. The process according to claim 12, wherein the ratio by molar of the magnesium compound (based on Mg) to tetrahydrofuran is 1 to 10-30, and the ratio by molar of the magnesium compound (based on

Mg) to the alcohol is 1 to 1-8.

14. The process according to claim 1, wherein ratio by volume of the precipitating agent to tetrahydrofuran is 1 to 0.5-6.

15. The process according to claim 14, wherein the ratio by volume of the precipitating agent to tetrahydrofuran is 1 to 1-4.

16. The process according to claim 1, wherein the precipitating agent is one or more selected from the group consisting of an alkane and a cyclic alkane.

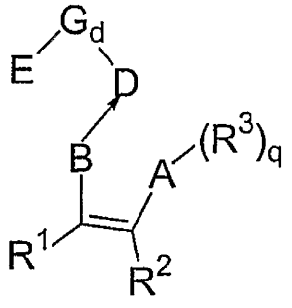
17. The process according to claim 16, wherein the precipitating agent is one or more selected from the group consisting of pentane, hexane, heptane, decane and cyclohexane.

18. The process according to claim 2, wherein the pre-treating agent is one or more selected from the group consisting of methyl aluminoxane, isobutyl aluminoxane, triethyl aluminum and tri-isobutyl aluminum.

19. The process according to claim 2, wherein ratio by molar of the magnesium compound (based on Mg) to the pre-treating agent (based on Al) is 1 to 0.5-8.

20. The process according to claim 19, wherein the ratio by molar of the magnesium compound (based on Mg) to the pre-treating agent (based on Al) is 1 to 1-2.

21. The process according to claim 1, wherein the nonmetallocene ligand is a compound having the following structure,



,

wherein:

q is 0 or 1;

d is 0 or 1;

A is selected from the group consisting of an oxygen atom, a sulfur atom, a selenium atom, , $-NR^{23}R^{24}$, $-N(O)R^{25}R^{26}$, , $-PR^{28}R^{29}$, $-P(O)R^{30}OR^{31}$, a sulfone group, a sulfoxide group and $-Se(O)R^{39}$;

B is selected from the group consisting of a nitrogen-containing group, a phosphor-containing group, and a C_1-C_{30} hydrocarbyl;

D is selected from the group consisting of an oxygen atom, a sulfur atom, a selenium atom, a nitrogen-containing C_1-C_{30} hydrocarbyl, a phosphor-containing C_1-C_{30} hydrocarbyl, a sulfone group, a sulfoxide group, , $-N(O)R^{25}R^{26}$, , and $-P(O)R^{32}(OR^{33})$, wherein N, O, S, Se and P each represent a coordination atom;

E is selected from the group consisting of a nitrogen-containing group, an oxygen-containing group, a sulfur-containing group, a selenium-containing group and a phosphor-containing group, wherein N, O, S, Se and P each represent a coordination atom;

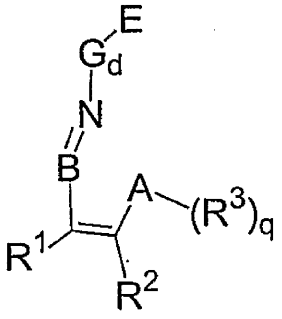
G is selected from the group consisting of a C_1-C_{30} hydrocarbyl, a substituted C_1-C_{30} hydrocarbyl and an inert functional group;

→ represents a single bond or a double bond;

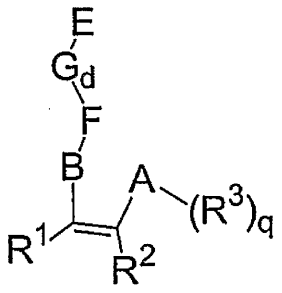
— represents a covalent bond or an ionic bond;

R^1 to R^3, R^{22} to R^{33}, and R^{39} are each independently selected from the group consisting of hydrogen, a C_1-C_{30} hydrocarbyl, a halogen atom, a substituted C_1-C_{30} hydrocarbyl and an inert functional group, wherein these groups can be identical to or different with each other, and any adjacent groups can optionally form a bond or a ring altogether.

22. The process according to claim 21, wherein the nonmetallocene ligand is selected from the group consisting of the following structures (A) and (B),



(A) and



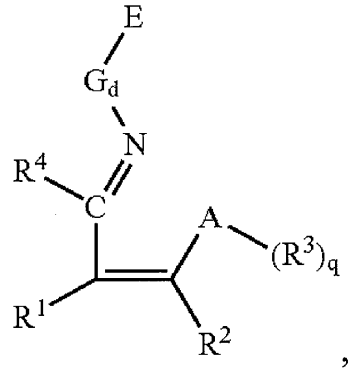
(B),

wherein:

F is selected from the group consisting of a nitrogen-containing group, an oxygen-containing group, a sulfur-containing group, a selenium-containing group and a phosphor-containing group, wherein N, O, S, Se and P each represent a coordination atom;

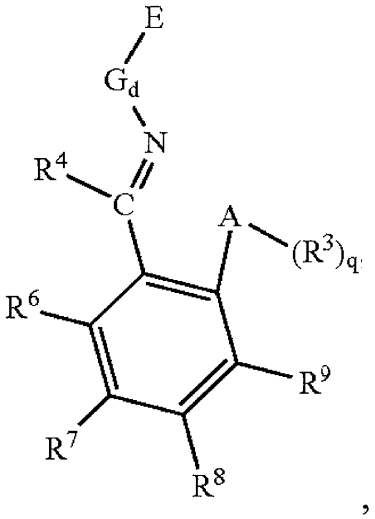
other groups are the same as defined in claim 21.

23. The process according to claim 22, wherein the nonmetallocene ligand is selected from the group consisting of the following structures A-1 to A-4 and B-1 to B-4,



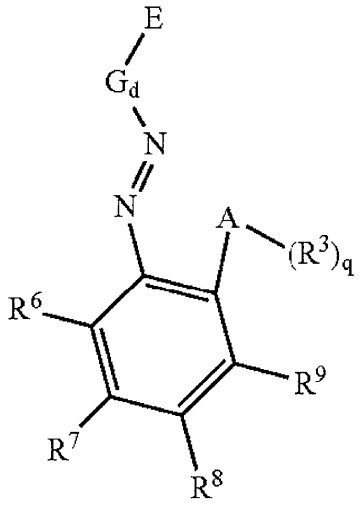
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A-1

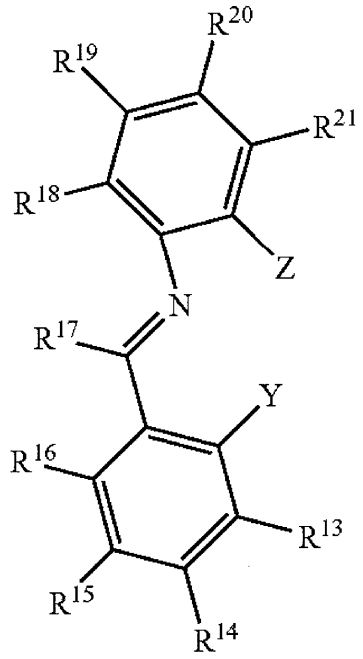


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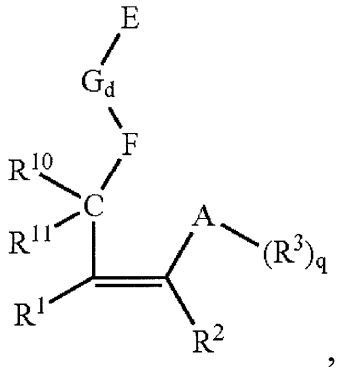
A-2



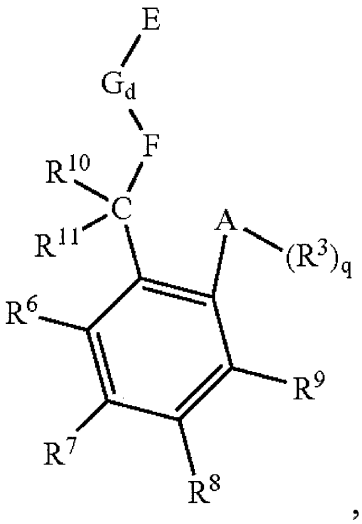
A-3



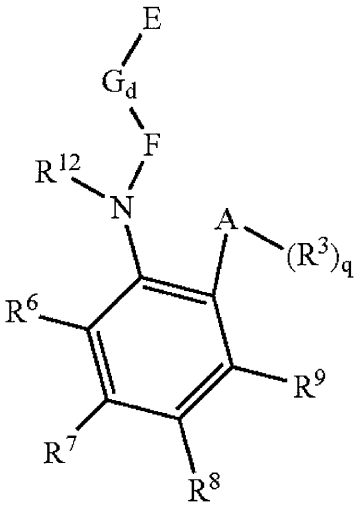
A-4



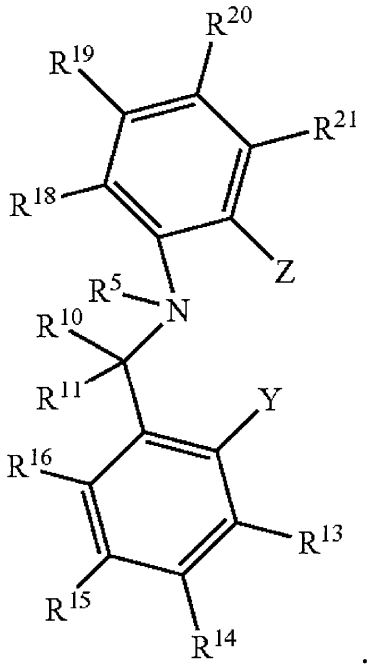
B-1



B-2



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B-3 B-4

wherein:

Y and Z are each independently selected from the group consisting of a nitrogen-containing group, an oxygen-containing group, a sulfur-containing group, a selenium-containing group and a phosphor-containing group, wherein N, O, S, Se and P each represent a coordination atom;

R^4 and R^6 to R^{21} are each independently selected from the group consisting of hydrogen, a C_1-C_{30} hydrocarbyl, a halogen atom, a substituted C_1-C_{30} hydrocarbyl and an inert functional group, wherein these groups can be identical to or different with each other, and any adjacent groups can optionally form a bond or a ring altogether; and

R^5 is selected from the group consisting of the lone pair electron on nitrogen atom, hydrogen, a C_1-C_{30} hydrocarbyl, a substituted C_1-C_{30} hydrocarbyl, an oxygen-containing group, a sulfur-containing group, a selenium-containing group, a nitrogen-containing group, and a phosphor-containing group, with the proviso that when R^5 is selected from the group consisting of the oxygen-containing group, the sulfur-containing group, the nitrogen-containing group, the selenium-containing group and the phosphor-containing group, N, O, S,

P and Se in the group R^5 each represent a coordination atom,

other groups are the same as defined in claim 22.

24. The process according to claim 23, wherein,

the halogen atom is selected from the group consisting of F, Cl, Br and I,

the nitrogen-containing group is selected from the group consisting of , $-NR^{23}R^{24}$, $-T-NR^{23}R^{24}$ and $-N(O)R^{25}R^{26}$,

the phosphor-containing group is selected from the group consisting of , $-PR^{28}R^{29}$, $-P(O)R^{30}R^{31}$, $-P(O)R^{32}(OR^{33})$, $-T-PR^{28}(OR^{29})$, $-T-P(O)R^{30}R^{31}$ and $-T-P(O)R^{32}(OR^{33})$,

the oxygen-containing group is selected from the group consisting of hydroxy, $-OR^{34}$ and $-T-OR^{34}$,

the sulfur-containing group is selected from the group consisting of $-SR^{35}$, $-T-SR^{35}$, $-S(O)R^{36}$ and $-T-SO_2R^{37}$,

the selenium-containing group is selected from the group consisting of $-SeR^{38}$, $-T-SeR^{38}$, $-Se(O)R^{39}$ and $-T-Se(O)R^{39}$,

the group T is selected from the group consisting of a C_1-C_{30} hydrocarbyl, a substituted C_1-C_{30} hydrocarbyl and an inert functional group,

the C_1-C_{30} hydrocarbyl is selected from the group consisting of a C_1-C_{30} alkyl group, a C_2-C_{30} cyclic alkyl group, a C_2-C_{30} alkenyl group, a C_2-C_{30} alkynyl group, a C_6-C_{30} aryl group, a C_8-C_{30} fused-ring group and a C_4-C_{30} heterocycle group,

the substituted C_1-C_{30} hydrocarbyl is selected from the group consisting of a halogenated C_1-C_{30} hydrocarbyl group, a halogenated C_6-C_{30} aryl group, a halogenated C_8-C_{30} fused-ring group and a halogenated C_4-C_{30} heterocycle group,

the inert functional group is selected from the group consisting of the halogen atom, the oxygen-containing group, the nitrogen-containing group,

a silicon-containing group, a germanium-containing group, the sulfur-containing group and a tin-containing group,

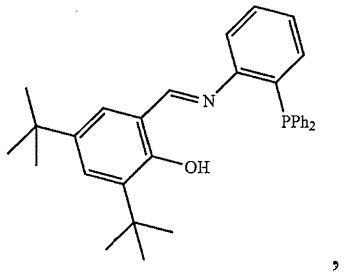
the silicon-containing group is selected from the group consisting of $-SiR^{42}R^{43}R^{44}$ and $-T-SiR^{45}$,

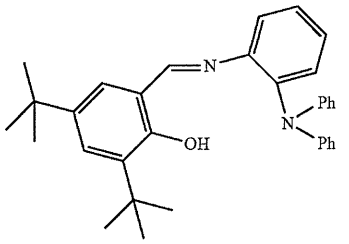
the germanium-containing group is selected from the group consisting of $-GeR^{46}R^{47}R^{48}$ and $-T-GeR^{49}$,

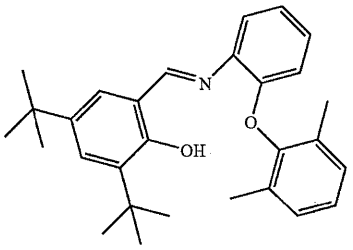
the tin-containing group is selected from the group consisting of $-SnR^{50}R^{51}R^{52}$, $-T-SnR^{53}$ and $-T-Sn(O)R^{54}$, and

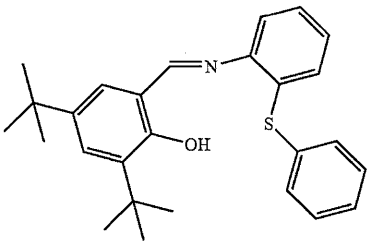
R^{34} to R^{38} and R^{42} to R^{54} are each independently selected from the group consisting of hydrogen, the C_1-C_{30} hydrocarbyl, the halogen atom, the substituted C_1-C_{30} hydrocarbyl and the inert functional group.

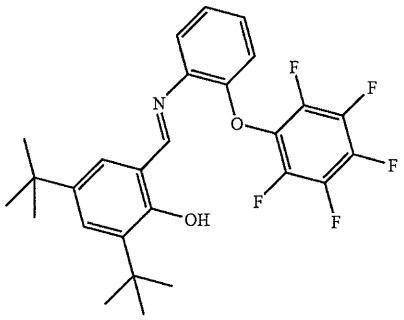
25. The process according to claim 21, wherein the nonmetallocene ligand is selected from the group consisting of the following compounds,



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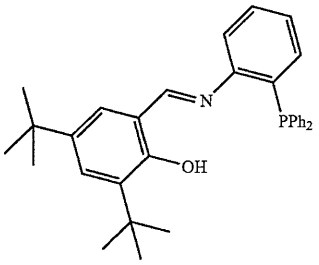
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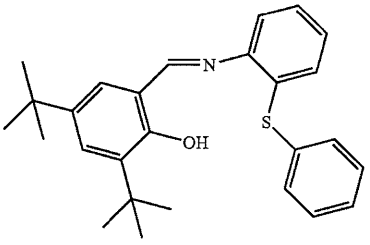


and .

26. The process according to claim 25, wherein the nonmetallocene ligand is selected from the group consisting of the following two compounds,



and



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27. An olefin homopolymerization /copolymerization process, which comprises producing the magnesium compound-supported nonmetallocene catalyst by the process according to claim 1, using the magnesium compound-supported nonmetallocene catalyst as the main catalyst, in combination with one or more selected from the group consisting of an aluminoxane, an alkylaluminum, a halogenated alkyl aluminum, a fluoroborane, an alkylboron and an alkylboron ammonium salt as the co-catalyst, to catalyze the olefin homopolymerization /copolymerization.