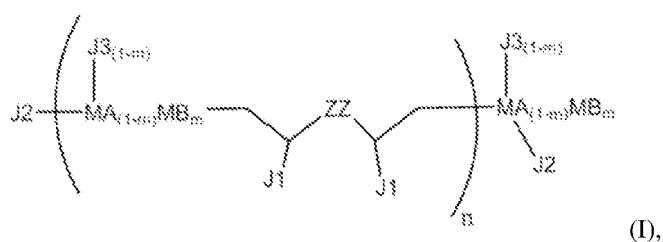


What is claimed is:

1. A process for preparing a composition comprising: (a) combining a linking group, an organometallic compound, a co-catalyst, a solvent, and a first catalyst precursor, and (b) obtaining a final solution comprising the composition,

wherein the solvent is an aromatic solvent, and

wherein the composition has the formula (I):



wherein:

each MA is Al, B, or Ga;

each MB is Zn or Mg;

m is a number from 0 to 1;

n is a number from 1 to 100;

each J1, J2, and J3 is hydrogen or a C₁₋₂₀ alkyl group, and

wherein J1, J2, and J3 may be the same or different, or mixtures thereof;

and

ZZ is a linear or branched C₄₋₁₀₀ hydrocarbyl group that optionally includes at least one heteroatom, and wherein ZZ may be aliphatic or aromatic,

wherein the composition comprises a single derivative of the linking group,

and

wherein the linking group is an alpha-omega diene.

2. The process of claim 1, wherein the organometallic compound comprises a trivalent metal, a divalent metal, or a mixture of a trivalent metal and a divalent metal.

3. The process of claim 1 or claim 2, wherein the solvent is toluene.
4. A polymerization process for preparing a polymer composition, the process comprising:
contacting at least one olefin monomer with a catalyst composition;
wherein
the catalyst composition comprises the reaction product of at least one catalyst precursor, at least one co-catalyst, and the composition having the formula (I) prepared by the process of claim 1 or claim 2.
5. A polymerization process for preparing a polymer composition, the process comprising:
contacting at least one olefin monomer with a catalyst composition;
wherein the catalyst composition comprises the reaction product of a second catalyst precursor, a co-catalyst, and the composition having the formula (I) prepared by the process of claim 1 or claim 2, and
wherein the second catalyst precursor is the same compound as the first catalyst precursor.
6. A polymer composition obtained by the process of claim 3 or claim 4.