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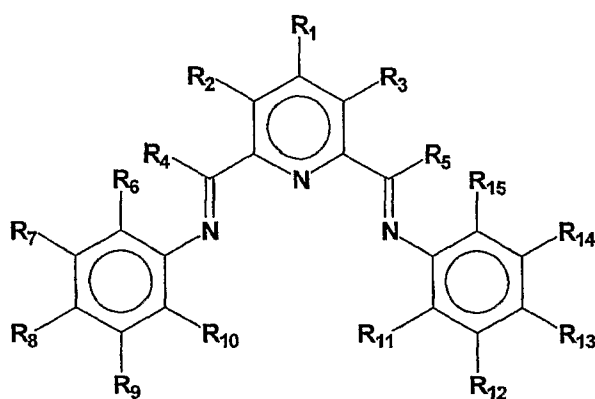
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(54) Title: TRANSITION METAL COMPLEXES



(I)

(57) Abstract: A transition metal complex which is a bis-arylimine pyridine MX_n complex, comprising a bis-arylimine pyridine ligand having the formula (I), wherein R₁-R₅, R₇-R₉, R₁₂ and R₁₄ are each, independently, hydrogen, optionally substituted hydrocarbyl, an inert functional group, or any two of R₁-R₃ and R₇-R₉ vicinal to one another taken together may form a ring, and R₆ is hydrogen, optionally substituted hydrocarbyl, an inert functional group, or taken together with R₇ or R₄ to form a ring, R₁₀ is hydrogen, optionally substituted hydrocarbyl, an

inert functional group, or taken together with R₉ or R₄ to form a ring, R₁₁ is hydrogen, optionally substituted hydrocarbyl, an inert functional group, or taken together with R₁₂ or R₅ to form a ring, R₁₅ is hydrogen, optionally substituted hydrocarbyl, an inert functional group, or taken together with R₁₄ or R₅ to form a ring, provided that R₁₃ and at least one of R₁₂ and R₁₄ are independently selected from optionally substituted C₁-C₃₀ alkyl, optionally substituted C₄-C₃₀ alkoxy, halogen and optionally substituted C₅-C₂₀ aryl, or R₁₃ taken together with R₁₂ or R₁₄ form a ring, or R₁₂ taken together with R₁₁ form a ring and R₁₄ taken together with R₁₅ form a ring, and provided that at least one of R₁₂, R₁₃ and R₁₄ is optionally substituted C₄-C₃₀ alkoxy; M is a transition metal atom in particular selected from Ti, V, Cr, Mn, Fe, Co, Ni, Pd, Rh, Ru, Mo, Nb, Zr, Hf, Ta, W, Re, Os, Ir or Pt; n matches the formal oxidation state of the transition metal atom M; and X is halide, optionally substituted hydrocarbyl, alkoxide, amide, or hydride. The transition metal complexes of the present invention, their complexes with non-coordinating anions and catalyst systems containing such complexes have good solubility in non-polar media and chemically inert non-polar solvents especially aromatic hydrocarbon solvents. The catalyst systems can be used for a wide range of (co)oligomerization, polymerization and dimerization reactions.



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