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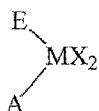
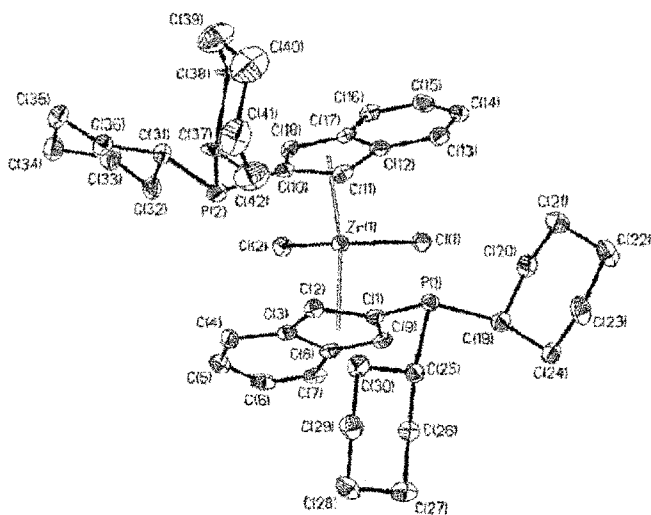
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(54) Title: PHOSPHORUS SUBSTITUTED METALLOCENE COMPOUNDS FOR OLEFIN POLYMERIZATION



(I)

(57) Abstract: This invention relates to a metallocene compounds represented by formula: wherein M is a group 3, 4, 5 or 6 transition metal atom, or a lanthanide metal atom, or actinide metal atom; E is an indenyl ligand that is substituted with a PR₂ group in the two position of the indenyl ligand, where each R is, independently a hydrocarbyl, substituted hydrocarbyl, halocarbyl, or substituted halocarbyl substituent, and additionally, E may be substituted with 0, 1, 2, 3, 4, 5 or 6 R° where each R° is, independently, a hydrocarbyl, substituted hydrocarbyl, halocarbyl, substituted halocarbyl, silylcarbyl, substituted silylcarbyl, germlylcarbyl, or substituted germlylcarbyl substituent, and optionally, two or more adjacent R° substituents may join together to form a substituted or unsubstituted, saturated, partially unsaturated, or aromatic cyclic or polycyclic substituent; A is a substituted or unsubstituted cyclopentadienyl ligand, a substituted or unsubstituted heterocyclopentadienyl ligand, a substituted or unsubstituted indenyl ligand, a substituted or unsubstituted heteroindenyl ligand, a substituted or unsubstituted fluorenyl ligand, a substituted or unsubstituted heterofluorenyl ligand, or other mono-anionic ligand, or A may, independently, be defined as E or as X; each X is, independently, an univalent anionic ligand, or both X are joined and bound to the metal atom to, form a metallocycle ring, or, both X join to form a chelating ligand, a diene ligand, or an

alkylidene ligand.



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