

Abstract

The present invention relates to the technical field of olefin polymerization catalysts. Disclosed are 5,6,7,8-tetrahydro-1-naphthol-phosphine post-transition metal complexes, a preparation method therefor, and the use thereof. The structure of the complexes is as shown in formula (I), in which R_7 - R_{11} are selected from hydrogen, halogens, hydroxyl, and substituted or unsubstituted C1-C15 hydrocarbyls, and R_2 and R_3 are selected from halogens, C1-C10 hydrocarbyls, $P(R_4)_3$, NR_5R_6 and $OR_{12}R_{13}$, wherein R_4 is selected from substituted or unsubstituted C1-C10 hydrocarbyls, and R_5 , R_6 , R_{12} and R_{13} are selected from C1-C6 hydrocarbyls, or R_5 and R_6 are linked to N to form a five-membered ring or six-membered ring, or R_{12} and R_{13} are linked to O to form a five-membered ring or six-membered ring. Said complexes have good thermal stability, have relatively high ethylene polymerization activity at relatively high temperatures, and has a relatively good property of copolymerization with acrylate type monomers, prepared polymers having relatively good properties.

