

ABSTRACT

The present invention provides a metal complex of group 10 elements of the periodic table having a carboxylate structure represented by formula (C2); a catalyst for polymerization of olefin mainly comprising the metal complex; and a method for producing polymers by homopolymerizing olefin represented by formula (1), polymerizing two or more kinds of the above olefin, or copolymerizing olefin represented by formula (1) with polar group-containing olefin represented by formula (2) (the meaning of the symbols are as set forth in the description) using the catalyst. A metal complex of group 10 elements of the periodic table, in which all of the coordinating atoms to the metal are a hetero atom is stable and useful as a catalyst component for olefin polymerization, and can be used for a long time in homopolymerization of olefin or copolymerization of two or more kinds of olefin.

