

ABSTRACT

A catalyst for olefinic polymer production comprises (a) a penta-coordinated, organic aluminium oxide compound, (b) an alkylating agent and (c) a compound of a transition metal of Group IV, V, VI or VIII of the Periodic Table. Olefins are homopolymerized or copolymerized in the presence of the catalyst for olefinic polymer production to produce olefinic polymers. The process does not require a promoter of methylaluminoxane, with which the problem is low solubility and low storage stability. Using therein the penta-coordinated, organic aluminium oxide compound which is relatively inexpensive and can be produced easily, the process realizes high-yield production of olefinic polymers.