

ABSTRACT

A high molecular weight propylene polymer exhibiting high stereoregularity (isotactic) and high position selectivity can be effectively produced by polymerizing at least one monomer selected from propylene, α -olefins and polyenes in the presence of a catalyst for olefin polymerization comprising:

(A) a bridged metallocene compound represented by the General Formula [I] given in claims

(diphenylmethylene(3-tert-butyl-5-ethyl-cyclopentadienyl)(fluorenyl)zirconium dichloride, etc.); and

(B) one or more compound(s) selected from

(b-1) an organoaluminumoxy compound

(b-2) a compound which reacts with the bridged metallocene compound (A) to form an ion pair, and

(b-3) an organoaluminum compound.