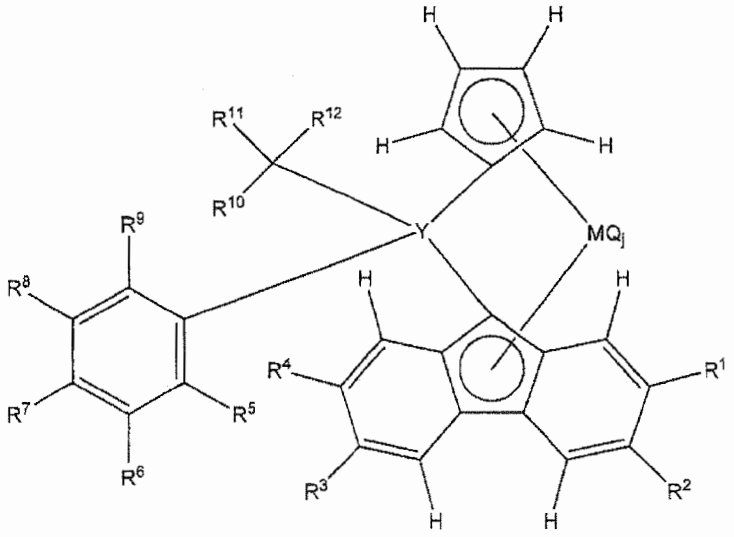
ABSTRACT

[Object] There is provided a method which enables an olefin polymer having high melting point and high molecular weight to be produced even at high temperature proper in an industrial production process. [Solution] A method for producing an olefin polymer is provided, the method including polymerizing an olefin having two or more carbon atoms in the presence of a catalyst for olefin polymerization, wherein the catalyst for olefin polymerization includes (A) a bridged metallocene compound represented by Formula [1] and (B) at least one compound selected from, for example, an organoaluminum oxy-compound and an organoaluminum compound:



. . . [1]

[where R^1 to R^4 each represent, for example, a hydrocarbon group; R^5 to R^9 each represent, for example, a hydrogen atom or a halogen atom; R^{10} and R^{11} each represent, for example, a hydrogen atom; and R^{12} represents, for example, a hydrocarbon

group. Y represents, for example, a carbon atom. M represents, for example, Zr; Y represents, for example, a carbon atom; and Q represents, for example, a halogen atom. j is an integer from 1 to 4].