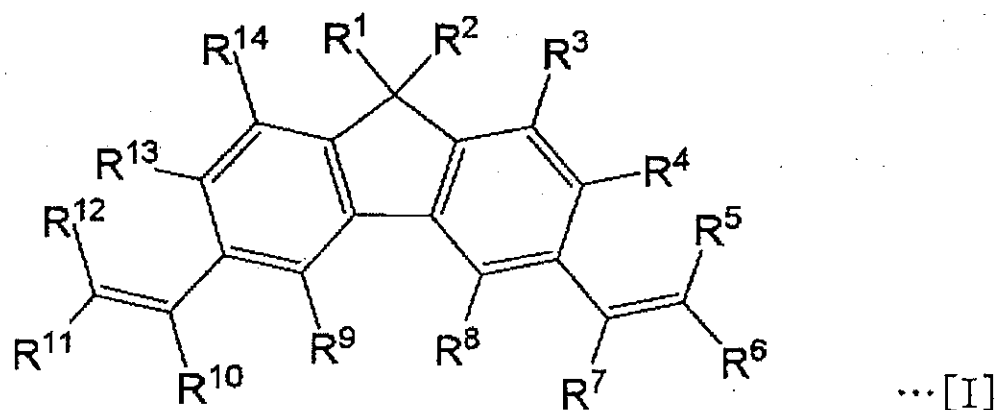


**Fluorene Derivative, Transition Metal Compound, Catalyst For
Olefin Polymerization, And Process For Producing Olefin
Polymer**

ABSTRACT

Provided is a novel fluorene derivative which is useful
as a catalyst component for olefin polymerization, a transition
5 metal compound containing the fluorene derivative as a part of
ligand, a catalyst for olefin polymerization containing the
transition metal compound, and a process for producing olefin
polymer. The fluorene derivative is characterized by being
represented by the following general formula [I]:

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wherein R^1 , R^2 , R^3 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^{11} , R^{12} , and
 R^{14} are each selected from hydrogen, a hydrocarbon group, and
a silicon-containing group, and may be the same as or different
15 from each other, R^4 and R^{13} are each selected from hydrogen, a
hydrocarbon group, a silicon-containing group, a
sulfur-containing group, an oxygen-containing group, a
nitrogen-containing group, and a halogen-containing group, and

may be the same as or different from each other, and adjacent substituents of R^1 to R^{14} may be bonded to each other to form a ring, except that the case where R^4 and R^5 , and R^{12} and R^{13} are each bonded to each other to form a vinylene group. Also

- 5 provided is a bridged metallocene compound having both of the skeleton and a cyclopentadiene skeleton.