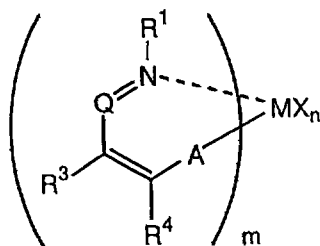


OLEFIN POLYMERIZATION CATALYST AND PROCESS FOR OLEFIN
POLYMERIZATION USING THE POLYMERIZATION CATALYST

ABSTRACT

An olefin polymerization catalyst having a high
polymerization activity at high temperatures and a
process for olefin polymerization using the catalyst are
disclosed. The olefin polymerization catalyst comprises
5 a transition metal compound which is represented by the
following formula (I) and in which the net charge
parameter of the central metal is not more than 2.00.



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(I)

wherein M is a transition metal atom of Group 4 to Group
5 of the periodic table, m is an integer of 1 to 5, Q is
-N= or -C(R²)=, A is -O-, -S-, -Se- or -N(R⁵)-, R¹ is an
15 aliphatic hydrocarbon group or an alicyclic hydrocarbon
group, R² to R⁵ are each a hydrogen atom, a hydrocarbon
group, an oxygen-containing group or the like, n is a
number satisfying a valence of M, and X is a hydrogen
atom, a halogen atom, a hydrocarbon group or the like.

Figure 1