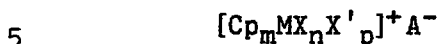


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ABSTRACT

A process for preparing syndiotactic vinyl aromatic polymers comprising contacting one or more aromatic monomers under polymerization conditions with a catalyst corresponding to the formula:



wherein:

Cp is a single η^5 -cyclopentadienyl or η^5 -substituted cyclopentadienyl group;

10 M is a metal of Group 3, 4, 5, 6, 8, 9, 10 or the Lanthanide Series of the Periodic Table;

X each occurrence is an inert anionic lignd, with the proviso that at least one X is R;

15 X' is an inert, neutral, donor ligand;

R is hydrocarbyl, silyl, a combination thereof or a substituted derivative thereof having up to 20 carbon, silicon or carbon and silicon atoms;

m and p are independently 0 or 1;

20 n is an integer greater than or equal to 1;

the sum of m and n is equal to the valence of

M; and

A⁻ is a noncoordinating, compatible anion of a Bronsted acid salt.

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