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ABSTRACT

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ADDITION POLYMERIZATION CATALYST
WITH OXIDATIVE ACTIVATION

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Addition polymerization catalysts of the formula $L_l MX^+ A^-$ prepared by oxidation of a Group 4 or Lanthanide metal derivative of the formula $L_l MX_2$ with an oxidizing agent of the formula $(Ox^{+a})_b (A^-)_d$ are free of interfering amine byproducts. In these formulae:-

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L independently each occurrence is a ligand or ligand system, especially a η^5 -cyclopentadienyl group optionally covalently bonded to M through a substituent;

l is an integer, especially 1;

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M is a Group 4 or Lanthanide metal, especially titanium or zirconium;

X is a hydride or a hydrocarbyl, silyl or germyl group having up to 20 carbon, silicon or germanium atoms, especially benzyl;

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A^- is a monovalent compatible noncoordinating anion, especially perfluorotetraphenyl borate;

Ox^{+a} is a cationic oxidizer having a charge $(+a)$, especially Ag^+ or ferrocenium;

A^- is a compatible noncoordinating anion; and

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b and d are integers selected to provide charge balance.

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This Sheet Has Been Replaced

