Highly efficient magnesium initiators for lactide polymerization.

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Streszczenie

Two monomeric, six-coordinated magnesium complexes with bulky aminophenolate ligands $[(Htbpoa)_2Mg]$ (**1**) and $[(Htbpca)_2Mg(THF)_2]$ (**2**), where Htbpoa = *N*-[methyl(2-hydroxy-3,5-di-*tert*-butylphenyl)]-*N*-methyl-*N*-methyl-1,3-dioxolaneamine and Htbpca = *N*-[methyl(2-hydroxy-3,5-di-*tert*-butylphenyl)]-*N*-methyl-*N*-cyclohexylamine have been prepared, characterized and employed as initiators for lactide polymerization. The crystal structure of the homoleptic compound **1** has been determined and shows that the six-coordinate magnesium atom i n **1** is surrounded by two tridendate tbpoa ligands. In the solution, however, complex **1** exists in equilibrium with a five-coordinate species **1a** having one oxolane fragment dangling. The tbpoa and tbpca ligands in **1** and **2** play a dual role, as the ancillary ligand stabilizing the monomeric magnesium species and as the initiating polymerization group.

Adres publiczny

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