

Designing ancillary ligands for heteroleptic/homoleptic zinc complex formation: synthesis, structures and application in ROP of lactides.

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Streszczenie

Synthesis and characterization of a series of new amino-phenol/naphthol ligands (L1,2-H), have been developed and their respective zinc complexes (1, 2-Zn) have been synthesized. The molecular structure of L1-H and 1, 2-Zn explored in detail by NMR, single-crystal X-ray studies and DFT calculations, confirmed existence of complexes as stable dimers both in a solution and in a solid state. All complexes mediate the ring - opening polymerization (ROP) of lactide highly efficiently, at room temperature, in a controlled fashion. The influence of architecture of the ligand on the desired homo/heteroleptic complex formation, as well as the relationship between the initiator design and the catalytic activity have been investigated.

Adres publiczny

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