New 2-tetrahydrofurfuryloxotitanium(IV) intermediates for the synthesis of olefin polymerization catalysts.

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Streszczenie

The complexes [$TiCl_3$(tmen){η^1-$OCH_2CH(CH_2)_3O$}] 1, [$Ti_2(\mu$-$Cl)_2Cl_4${η^2-$OCH_2CH(CH_2)_3O$}$_2$] 2 and [$TiCl_4$(tmen)] 3 (tmen = $Me_2NCH_2CH_2NMe_2$) have been synthesized and structurally characterized by X-ray diffraction. The crystals of 1 consist of monomeric [$TiCl_3$(tmen){η^1-$OCH_2CH(CH_2)_3O$}] molecules. Three chloride, one oxygen and two nitrogen atoms form a distorted octahedron around the titanium atom. Compound 2 has a dimeric structure. Each titanium atom is surrounded by two bridging chloride atoms, two terminal chloride atoms and two oxygen atoms of the 2-tetrahydrofurfuryloxide ligand. The crystals of compound 3 consist of monomeric molecules in which four terminal chloride atoms and two nitrogen atoms from the chelate tmen ligand form a distorted octahedron around Ti. High catalytic activity was found for 1 and 2.

Adres publiczny

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