Well-defined single-site thiobis(phenolate) group 4 metal catalysts for heterogeneous olefin polymerization.

Autorzy

Zofia Janas

Rok wydania

2010

Czasopismo

Coordination Chemistry Reviews

Numer woluminu

254

Strony

2227-2233

DOI

10.1016/j.ccr.2010.05.008

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

The tridentate (OSO-function) thiobis(phenolate) ligand derived from 2,2′-thiobis[4-(1,1,3,3-tetramethylbutyl)phenol] (tbopH_2) is an alternative to the cyclopentadienyl ancillary group for Group 4 heterogeneous olefin polymerization. The tbop ligand placed on titanium, zirconium and hafnium forms a wide family of homoleptic compounds as well as heteroleptic alkoxo- and aryloxo-bridged complexes modified with coligands like chlorides, imides, and monoaryloxides. Among these heteroleptic titanium complexes when activated with cocatalysts and supported on $MgCl_2$ are highly effective heterogeneous, well-defined, single-site ethene polymerization catalysts. The active centres of these catalysts consist of Ti(III) species with the alkyl group and the sulfur atom of the tbop ligand coordinated in axial positions. Titanium, zirconium and hafnium systems both heteroleptic and homoleptic show moderate activity in 1-hexene polymerization producing atactic poly(1-hexenes).

Słowa kluczowe

Heterogeneous polymerization, Thiobis(phenolate) ligands, Titanium, Zirconium, Hafnium

Adres publiczny

https://doi.org/10.1016/j.ccr.2010.05.008

Strona internetowa wydawcy

http://www.elsevier.com