

Acetamidine complexes as catalysts for ethylene polymerization

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The reaction of (2,6-diisopropyl-phenyl)-acetimidoyl chloride or (2,6-dimethyl-phenyl)-acetimidoyl chloride with 2,6-dimethylaniline in the presence of triethylamine yields a mixture of isomers

N[?]-(2,6-diisopropyl-phenyl)-N-[1-(2,6-diisopropyl-phenylimino)-ethyl]-N-(2,6-dimethyl)-acetamidine (1a) and

N-(2,6-diisopropyl-phenyl)-N-[1-(2,6-diisopropyl-phenylimino)-ethyl]-N[?]-(2,6-dimethyl)-acetamidine (1b), and N,N[?]-bis-(2,6-dimethyl-phenyl)-N-[1-(2,6-dimethyl-phenylimino)ethyl]-acetamidine (2),

respectively. The addition of isomers (1a + 1b) to nickel (II) dibromide 2-methoxyethyl ether,

(NiBr₂[O(C₂H₄OMe)₂]) gives a mixture of new nickel complexes,

[NiBr₂{N[?]-(2,6-diisopropyl-phenyl)-N-[1-(2,6-diisopropyl-phenylimino)-ethyl]-N-(2,6-dimethyl)-acetamidine}] (3a) and

[NiBr₂{N-(2,6-diisopropyl-phenyl)-N-[1-(2,6-diisopropyl-phenylimino)-ethyl]-N[?]-(2,6-dimethyl)-acetamidine}] (3b). Similarly, ligand 2 reacts with nickel (II) dibromide 2-methoxyethyl ether to afford the

complex [NiBr₂{N,[?]-bis-(2