Hydrocarbon-bridged Metal Complexes, LII [1].

$N^1, N^2$-Di(tert-butoxycarbonyl)-1,2,4-triaminobutane, a Useful Reagent for the Synthesis of Hydrocarbon-bridged Bis(ethylenediamine) Ligands by Reactions with Dicarboxylic Acids

Bernhard Miller, Janina Altman, and Wolfgang Beck

Department Chemie und Biochemie, Ludwig-Maximilians-Universität München, Butenandtstr. 5–13, 81377 München, Germany

Reprint requests to Prof. W. Beck. E-mail: wbe@cup.uni-muenchen.de


Dedicated to Professor Gérard Jaouen on the occasion of his 65th birthday

The reactions of $N^1, N^2$-Di-boc-1,2,4-triaminobutane with bridged dicarboxylic acids afford the corresponding bis-amides from which – after removal of the Boc groups – bis($N,N'$-bidendate) ligands $H_2NCH_2CH(NH_2)(CH_2)_2NHCO-X-CONH(CH_2)_2CH(NH_2)CH_2NH_2$ can be obtained. New examples are the reactions of the triaminobutane with pyridine-2,6-dicarboxylic acid, with phenylene-1,4-diacetic acid, with terephthalic acid dichloride and with benzene-1,2,4,5-tetracarboxylic acid. From the new ligands with two terminal ethylenediamine groups, the bis(dichloroplatinum) complexes were synthesized.

Key words: 1,2,4-Triaminobutane, Dicarboxylic Acids, Bis(ethylenediamine) Ligands, Platinum