Generation of Bis[2,6-di(4-methoxy-phenyl)phenyl]plumbylene and its Insertion into n-Butyliodide to Give a Tetrahedral Triorganolead(IV) Iodide

Gerald L. Wegner, Raphael J. F. Berger, Annette Schier, and Hubert Schmidbaur

Anorganisch-chemisches Institut der Technischen Universität München, Lichtenbergstrasse 4, D-85747 Garching, Germany

Reprint requests to Prof. Dr. H. Schmidbaur. E-mail: H.Schmidbaur@lrz.tum.de

Dedicated to Professor H. Schumann on the occasion of his 65th birthday


Lithium-terphenyl Compound, Lead(II) bis(terphenyl) Compound, Plumbylene Insertion

1-Iodo-2,6-bis(4-methoxy-phenyl)benzene (BipapI) was prepared in a Grignard reaction from 4-bromo-anisol and 2,6-dibromo-1-iodo-benzene in tetrahydrofuran (61% yield). Treatment of BipapI with n-butyllithium in hexane/diethylether gave the corresponding terphenyl-lithium compound BipapLi which crystallized as the dietherate in 83% yield. The structure of BipapLi \( \cdot (\text{OEt}_2)_2 \) has been determined by single crystal X-ray methods. The molecule is a monomer in the lattice, and the lithium atom is three-coordinate. Preparation of BipapLi in the presence of \( \text{PbCl}_2 \) in diethylether gave a green solution, from which yellow crystalline \( (n\text{-Bu})(\text{Bipap})_2\text{PbI} \) was isolated in 73% yield. In the crystal this triorganolead(IV) iodide is monomeric and has tetrahedrally four-coordinate lead atoms.