

Attempted Synthesis of Divalent Neodymium Derivatives. Crystal Structure of the Nd(III) Complex $[\{\text{NdCl}_2(2,4,6\text{-}t\text{-Bu}_3\text{C}_6\text{H}_2\text{O})(\mu\text{-Cl})(\text{THF})\}\text{Li}(\text{THF})_2]_2$

E. N. Kirillov^a, A. A. Trifonov^a, S. E. Nefedov^b, I. L. Eremenko^b, F. T. Edelmann^c, and M. N. Bochkarev^a

^a G. A. Razuvaev Institute of Organometallic Chemistry of the Russian Academy of Sciences, ul. Tropinina 49, 603600 Nizhny Novgorod, Russia, Fax: (8312) 661497, E-mail: mboch@imoc.sinn.ru

^b N. S. Kurnakov Institute of General and Inorganic Chemistry of the Russian Academy of Sciences, Leninskii prospect, 31, 117907 Moscow, Russia

^c Otto-von-Guericke University, Universitätsplatz 2, D-39106 Magdeburg, Germany, Fax: (+49 391) 67 12933, E-mail: frank.edelmann@vst.uni-magdeburg.de

Reprint requests to Prof. Dr. M. N. Bochkarev or Prof. Dr. F. T. Edelmann

Z. Naturforsch. **54 b**, 1379–1384 (1999); received March 3, 1999

Neodymium, Divalent Oxidation State, Synthesis, Structure, Phenoxide

The interaction of NdCl_3 with lithium metal in THF in the presence of naphthalene produces a mixture of naphthalene complexes of di- and trivalent neodymium chloride of an aggregate composition $[\text{NdCl}_2(\text{THF})_2\text{LiCl}]_n\text{C}_{10}\text{H}_8$ ($n = 4 - 7$). By the reaction of these compounds with 2,4,6-*t*- $\text{Bu}_3\text{C}_6\text{H}_2\text{OH}$ in THF the complex $[\{\text{NdCl}_2(2,4,6\text{-}t\text{-Bu}_3\text{C}_6\text{H}_2\text{O})(\mu\text{-Cl})(\text{THF})\}\text{Li}(\text{THF})_2]_2$ has been obtained in 70% yield and its X-ray crystal structure determined.