Synthesis and Structure of Pyrrolidinobromodiboranes(4)

Yong Nie, Hans Pritzkow, and Walter Siebert

Anorganisch-Chemisches Institut der Universität Heidelberg, Im Neuenheimer Feld 270, D-69120 Heidelberg, Germany

Reprint requests to Prof. W. Siebert.
Fax: + 49-(0)6221/545609.
E-mail: walter.siebert@urz.uni-heidelberg.de

Z. Naturforsch. **60b,** 1016 – 1019 (2005);
received April 7, 2005

Dedicated to Professor Heinrich Vahrenkamp on the occasion of his 65th birthday

The reaction of tetrapyrrolidinodiborane(4) (**1**) with BBr_3 in a 1:1 molar ratio yields a mixture of 1,2-dibromo-1,2-dipyrrolidinodiborane(4) (**2**) and bromotripyrrolidino- diborane(4) **(3)**, while a 1:2 molar ratio leads in Et_2O to compound **2** as the main product along with a small amount of $[(C_4H_8N)_2B_2Br_3(OEt)]$ (**4**). The new compounds have been characterized by NMR and MS data, as well as by X-ray structure analyses of **2** and **4**, of which the former exhibits an interesting polymorphism phenomenon.

Key words: Boron, Borane, Diborane(4), Polymorphism