On heating bis(diiodoboryl)methane (1c) and 1,1-bis(diiodoboryl)alkanes 1i, l (alkane = propane, butane) under reduced pressure elimination of BI$_3$ takes place and the corresponding 1,3,5-triiodo-1,3,5-triboracyclohexane derivatives 2c; 2i, l; 2i', l' are formed. Starting with bis(dichloroboryl)- and bis(dibromoboryl)methane (1a, 1b) only small amounts of the trimerization products (H$_2$C-BCl)$_3$ (2a) and (H$_2$C-BBr)$_3$ (2b) are detectable which can not be separated from 1a, b and by-products. Reaction of 1,3,5-trichloro-2,4,6-trimethyl-1,3,5-triboracyclohexane (2d) with BBr$_3$ provides the corresponding bromo derivative 2e in high yield. An attempt to react 2,4-bis(dichloroboryl)-3-chloro-3-borapentane (4d) with 1,1-bis(trimethylstannyl)-2,2-diphenylethene does not lead to the expected trichloro-triboracyclohexane, but the divinylchloroborane ClB(CH=CHPh)$_2$ 6a, is formed. The compositions of the products follow from analytical data and X-ray structure analyses of 2i, 2c, 2e, and 6a.

Key words: 1,3,5-Trihalogeno-1,3,5-triboracyclohexane, Divinylchloroborane, Trimerization