Kristallstrukturen der iodierten *closo*-Hexaborate *trans*-$(Ph_4P)_2[B_6H_4I_2]$, *mer*-$(Ph_4P)_2[B_6H_3I_3] \cdot 2\ CH_2Cl_2$, *trans*-$(Ph_4P)_2[B_6H_2I_4] \cdot 2\ CH_3CN$ und $(CH_2Py_2)[B_6HI_5]$

Crystal Structures of the Iodized *closo*-Hexaborates *trans*-$(Ph_4P)_2[B_6H_4I_2]$, *mer*-$(Ph_4P)_2[B_6H_3I_3] \cdot 2\ CH_2Cl_2$, *trans*-$(Ph_4P)_2[B_6H_2I_4] \cdot 2\ CH_3CN$ and $(CH_2Py_2)[B_6HI_5]$

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Z. Naturforsch. **53 b,** 206–210 (1998); eingegangen am 7. November 1997

Iodized *closo*-Hexaborates(2-), Crystal Structure

X-ray structure determinations have been performed on single crystals of *trans*-$(Ph_4P)_2[B_6H_4I_2]$ (**1**) (triclinic, space group P1, a = 9.9680(12), b = 10.9690(11), c = 11.0470(14) Å, α = 88.167(9), β = 80.466(12), γ = 68.839(11)°, Z = 1), *mer*-$(Ph_4P)_2[B_6H_3I_3] \cdot 2\ CH_2Cl_2$ (**2**) (triclinic, space group P1, a = 11.8694(11), b = 15.1699(13), c = 17.051(2) Å, α = 75.118(9), β = 71.953(10), γ = 69.331(8)°, Z = 2), *trans*-$(Ph_4P)_2[B_6H_2I_4] \cdot 2\ CH_3CN$ (**3**) (monoclinic, space group $P2_1/n$, a = 14.9665(10), b = 7.6783(10), c = 23.385(3) Å, β = 95.78(9)°, Z = 2), and $(CH_2Py_2)[B_6HI_5]$ (**4**) (orthorhombic, space group Pnma, a = 13.660(2), b = 11.8711(13), c = 13.839(2) Å, Z = 4). The B_6 octahedra are compressed in the direction of the B-I bonds, resulting in shortened diagonal B···B distances with average values of the groups I-B···B-I = 2.37 and I-B···B-H = 2.43 Å as compared with H-B···B-H = 2.49 Å.

* Sonderdruckanforderungen an Prof. Dr. W. Preetz.