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Multipole refinement and topological analysis of chemical bonding in β -boron

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The crystal structure of the elemental boron polymorph β -rhomohedral boron has been investigated by means of high-resolution X-ray diffraction using synchrotron radiation and samples of high purity. We will discuss the peculiar chemical bonding in this complex boron polymorph based on a multipolar refinement and the resulting electron density.

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