

substance: boron compounds, general properties
property: orthorhombic SiB_6 structure

The unit cell consists of approximately 280 atoms [81A]. The major elements of the structure are (i) fifteen-atom clusters, icosihexahedra, which contain both Si and B atoms; (ii) twelve-atom, boron-rich icosahedral clusters; (iii) individual, tetrahedrally coordinated Si atoms [59K, 79A, 86V].

Representative of the SiB_6 structure

B_6Si

87L

References:

- 59K Knarr, W.A.: PhD Thesis (1959) .
- 79A Arabei, B.G.: Neorg. Mater. 15 (1979) 1589.
- 81A Armas, B., Malé, G., Salanoubat, D., Chatillion, C., Allibert, M.: J. Less-Common Met. 82 (1981) 245. (Proc. 7th Int. Symp. Boron, Borides and Rel. Compounds, Uppsala, Sweden, 1981).
- 86V Vlasse, M., Slack, G.A., Garbauskas, M., Kasper, J.S., Viala, J.C.: J. Solid State Chem. 63 (1986) 31.
- 87L Lee, W.H., Shelton, R.N.: J. Low Temp. Phys. 68 (1987) 147.