Ein neuer Vertreter des $A_2B_2CX_4$-Typs: $Rb_2Na_2SiO_4$

A New Member of the $A_2B_2CX_4$-Type: $Rb_2Na_2SiO_4$

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Z. Naturforsch. **61b,** 833 – 837 (2006); eingegangen am 27. Februar 2006

Professor Wolfgang Jeitschko zum 70. Geburtstag gewidmet

$Na_2Rb_2SiO_4$ crystallizes in a hitherto unknown $A_2B_2CX_4$ type of structure. The *ortho*-silicate anions and sodium cations form a three-dimensional structure of connected tetrahedral and trigonal-bipyramidal units. The larger rubidium cations complement the cationic part of the structure and display the motif of corrugated hexagonal layers with Rb-Rb distances of less than 400 pm. Single crystal structure data (space group *Pbca*, $Z = 8$, $a = 983.20(7)$, $b = 1092.26(6)$, $c = 1113.04(8)$ pm) are given and a comparison to other $A_2B_2CX_4$-type of structures is presented.

Key words: Silicate, Alkaline Metal, Crystal Structure