

The niobium phosphate bronze β -K₂Na_{2- x}Nb₈P₅O₃₄, second form of the first member of the series (K₃Nb₆P₄O₂₆)_nKNb₂PO₈

Authors

A Benabbas, MM Borel, A Grandin, J Chardon, A Leclaire, B Raveau

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Description

A new niobium phosphate bronze β -K₂Na_{2- x}Nb₈P₅O₃₄ has been isolated. Its structure was solved by single crystal X-ray diffraction for $x = 0.27$. It crystallizes in the space group $P4/m2$ with $a = 10.612(1)$ and $c = 6.384(1)$ Å. This phase is the second form of the first member of the series (K₃Nb₆P₄O₂₆)_nKNb₂PO₈. The structural relationships with the other members of this series and especially with K₇Nb₁₄P₉O₆₀ ($n = 2$) are discussed.