Poster Presentations

[MS10-P04] Crystal structure of $Nax P_2 W_{10} O_{34}$, the m= 10 member of the series of $Nax(PO_4)_2(WO_3)_{2m}$.

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The phosphates of transition metals M(M=W, Mo, Ti, V, …) form a huge family of compounds. They are characterized by a framework formed by MO_6 octahedra and $M'O_4$ tetrahedra (M'=P,Si). A new member, *m*=10 of the series $Nax(PO_4)_2(WO_3)_2m$ has been isolated and studied by single crystal X-ray diffraction. The structure corresponds to that of the Monophosphates Tungsten Bronzes with hexagonal tunnels (MPTBh's) [1-5]. It has been solved and refined to conventional *R*=0.0466, with 665 independent reflections with $I>4\sigma(I)$. The unit cell is monoclinic (space group $P2_1/m$) with a = 6.651(7)Å, b =5.293(5) Å, c = 18.125(4) Å, β = 94.54(2)°. The structure is described and compared with those of other members of the series including Na- and K-based analogues.

Références :

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