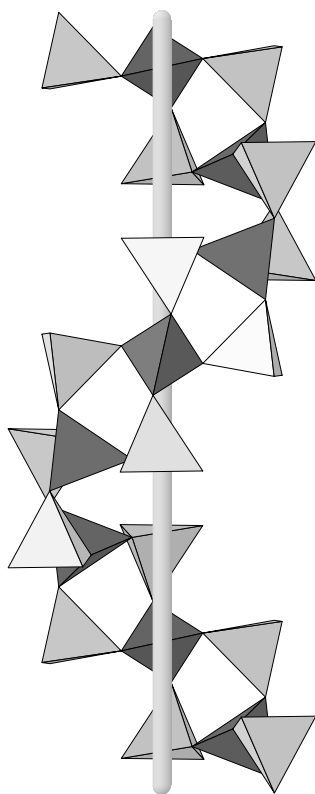


NaMn(H₂O)₂[BP₂O₈]·H₂O [1]

Structural features: BO₄ and PO₄ tetrahedra share vertices to form infinite twisted chains, which are interconnected via Mn(O₄[OH₂]₂) octahedra to form a 3D-framework; additional H₂O in channels of hexagonal cross-section parallel to [001]. See Fig. IV.48.

Fig. IV.48. **NaMn(H₂O)₂[BP₂O₈]·H₂O**

A twisted chain of BO₄ (dark) and PO₄ (light) tetrahedra parallel to [001].

Knies R. et al. (1997) [1]

BH₆MnNaO₁₁P₂

a = 0.9589, *c* = 1.5939 nm, *c/a* = 1.662, *V* = 1.2692 nm³, *Z* = 6

site	Wyck.	sym.	<i>x</i>	<i>y</i>	<i>z</i>	occ.	atomic environment
O1	12 <i>c</i>	1	0.2147	0.0206	0.4013		non-colinear BP
(OH ₂)2	12 <i>c</i>	1	0.2985	0.4899	0.1138		non-colinear MnNa
O3	12 <i>c</i>	1	0.3837	0.3096	0.3808		single atom P
P4	12 <i>c</i>	1	0.3873	0.1652	0.4156		tetrahedron O ₄
O5	12 <i>c</i>	1	0.4155	0.1815	0.5127		non-colinear BP
O6	12 <i>c</i>	1	0.623	0.1353	0.121		single atom P
Na7	6 <i>b</i>	..2	0.1939	0.3878	1/4		non-colinear (OH ₂) ₂
Mn8	6 <i>b</i>	..2	0.54918	0.09836	1/4		octahedron O ₄ (OH ₂) ₂
B9	6 <i>b</i>	..2	0.8493	0.6986	1/4		tetrahedron O ₄
(OH ₂)10	6 <i>a</i>	.2.	0.1267	0	0		non-colinear Na ₂

Experimental: single crystal, diffractometer, X-rays, *R* = 0.080, *T* = 275 K

Remarks: Hydrogen atoms are not taken into consideration for Pearson symbol, Wyckoff sequence and atomic environments. In footnote 4 of [1] the number of formula units per cell *Z* is misprinted as 4 instead of 6.

References: [1] Kniep R., Will H.G., Boy I., Röhr C. (1997), *Angew. Chem. Int. Ed. Engl.* 36, 1013-1014
(*Angew. Chem.* 109, 1052-1054).