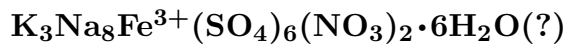


Clinoungemachite



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Crystal Data: Monoclinic, pseudohexagonal. *Point Group:* $2/m$ (?). As minute thick tabular pseudorhomboidal crystals, visibly indistinguishable from ungemachite; forms include $\{001\}$, $\{100\}$, $\{\bar{1}02\}$, $\{111\}$, twenty others.

Physical Properties: Hardness = n.d. $D(\text{meas.}) = \text{n.d.}$ $D(\text{calc.}) = \text{n.d.}$

Optical Properties: Transparent. *Color:* Colorless to pale yellow. *Luster:* Vitreous. *Optical Class:* Biaxial. $\alpha = \text{n.d.}$ $\beta = \text{n.d.}$ $\gamma = \text{n.d.}$ $2V(\text{meas.}) = \text{n.d.}$

Cell Data: *Space Group:* n.d. $a = \text{n.d.}$ $b = \text{n.d.}$ $c = \text{n.d.}$ $\beta = 110^\circ 40'$ $Z = \text{n.d.}$

X-ray Powder Pattern: n.d.

Chemistry: (1) No analysis was made, presumed to be the same as ungemachite.

Occurrence: Very rarely formed by the oxidation of pyrite in an arid climate, in veins and cavities in other massive iron sulfates.

Association: Ungemachite, jarosite, sideronatrite, metasideronatrite, metavoltine, fibroferrite.

Distribution: From Chuquicamata, Antofagasta, Chile.

Name: As the probable monoclinic dimorph of *ungemachite*.

Type Material: Harvard University, Cambridge, Massachusetts, USA.

References: (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 597–598.