

Crystal Data: Monoclinic. *Point Group:* 2/m. As isolated anhedral grains to 60 μm .

Physical Properties: *Cleavage:* Distinct on {001}, by analogy with allactite. *Fracture:* n.d.
Tenacity: Brittle. Hardness = 3.5-4 D(meas.) = 3.71(5) D(calc.) = 3.676

Optical Properties: Transparent. *Color:* Orange. *Streak:* Pale orange. *Luster:* Vitreous.
Optical Class: Biaxial (-). $\alpha = \sim 1.74$ $\beta = 1.762(2)$ $\gamma = \sim 1.77$ $2V(\text{calc.}) = \sim 62^\circ$
Pleochroism: Distinct, orange-yellow to orange.

Cell Data: *Space Group:* $P2_1/n$. $a = 5.5038(2)$ $b = 12.2665(5)$ $c = 10.1055(5)$ $\beta = 95.559(4)^\circ$ $Z = 2$

X-ray Powder Pattern: Pipji glacier, Turtmann Valley, Central Alps, Switzerland.
 3.074 (100), 2.687 (70), 3.395 (60), 3.708 (50), 2.945 (50), 2.522 (50), 2.324 (40)

Chemistry:	(1)
V ₂ O ₅	17.27
As ₂ O ₅	8.16
CaO	0.16
MgO	2.02
MnO	60.49
NiO	0.36
ZnO	0.10
SrO	0.09
H ₂ O	[9.40]
Total	98.05

(1) Pipji glacier, Turtmann Valley, Central Alps, Switzerland; average of 23 electron microprobe analyses supplemented by FTIR spectrometry, H₂O calculated for charge balance; corresponds to $(\text{Mn}_{6.54}\text{Mg}_{0.38}\text{Ni}_{0.04}\text{Ca}_{0.02}\text{Zn}_{0.01}\text{Sr}_{0.01})_{\Sigma=7.00}(\text{V}_{1.46}\text{As}_{0.54})_{\Sigma=2.00}\text{O}_8(\text{OH})_{8.00}$.

Occurrence: In a metamorphosed (upper greenschist facies) lens of synsedimentary exhalative Mn-Fe ore enriched in V relative to As in dolomitic marble.

Association: Pyrobelonite, reppiaite.

Distribution: From underneath the Pipji glacier, Turtmann Valley, Central Alps, Switzerland.

Name: Honors Swiss geologist Émile Argand (1879-1940) for his contribution to understanding Alpine geology in general and the geology of Turmanntal in particular.

Type Material: Geological Museum, Lausanne, Switzerland (MGL90369) and the South Australian Museum, Adelaide, South Australia (G32923).

References: (1) Brugger, J., P. Elliott, N. Meisser, and S. Ansermet (2011) Argandite, $\text{Mn}_7(\text{VO}_4)_2(\text{OH})_8$, the V analogue of allactite from the metamorphosed Mn ores at Pipji, Turtmann Valley, Switzerland. *Amer. Mineral.*, 96, 1894-1900.