

Mathewrogersite**Pb₇(Fe²⁺, Cu)Al₃GeSi₁₂O₃₆(OH, H₂O)₆**

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Crystal Data: Hexagonal. *Point Group:* 3, $\bar{3}$, 32, 3*m*, or $\bar{3}2/m$. As platy, six-sided crystals, to 0.3 mm, flattened on {0001}. Also as radiating groups, to < 1 mm, of intergrown blades and scales.

Physical Properties: *Cleavage:* Perfect on {0001}. *Hardness* = ~2 *D*(meas.) = 4.7
D(calc.) = 4.76

Optical Properties: Translucent. *Color:* Colorless, white, or pale greenish yellow.

Streak: White. *Luster:* Vitreous, weakly pearly on cleavages.

Optical Class: Uniaxial (-). $\omega = 1.810(4)$ $\epsilon = 1.745(3)$

Cell Data: *Space Group:* *R*3, $R\bar{3}$, *R*32, *R*3*m*, or $R\bar{3}2/m$. *a* = 8.457(2) *c* = 45.970(22)
Z = 3

X-ray Powder Pattern: Tsumeb, Namibia.

3.257 (100), 15.30 (70), 2.030 (70), 7.68 (60), 2.766 (60), 1.762 (60), 4.08 (50)

Chemistry:

	(1)
SiO ₂	26.2
GeO ₂	3.9
Al ₂ O ₃	5.9
FeO	1.7
CuO	0.8
PbO	57.5
MgO	0.1
H ₂ O	1.9
Total	98.0

(1) Tsumeb, Namibia; by electron microprobe, H₂O estimated by elemental analyzer; corresponds to Pb_{7.08}(Fe_{0.65}Cu_{0.28}Mg_{0.07})_{Σ=1.00}Al_{3.18}Ge_{1.03}Si₁₂O_{41.81}H_{5.81}.

Occurrence: In cavities of corroded Pb-Zn ores in the lower oxidation zone of a polymetallic mineral deposit.

Association: Quitite, alamosite, melanotekite, kegelite, larsenite, schaurteite, anglesite, willemite, leadhillite, mimetite.

Distribution: From Tsumeb, Namibia.

Name: To honor Mathew Rogers, the first European prospector at Tsumeb, Namibia.

Type Material: University of Stuttgart, Stuttgart, Germany, NM15; National Museum of Natural History, Washington, D.C., USA.

References: (1) Keller, P. and P.J. Dunn (1986) Mathewrogersit, ein neues Bleisilikatmineral von Tsumeb, Namibia. *Neues Jahrb. Mineral., Monatsh.*, 203–208 (in German with English abs.).
(2) (1987) *Amer. Mineral.*, 72, 1025 (abs. ref. 1).