

**Mathewrogersite****Pb<sub>7</sub>(Fe<sup>2+</sup>, Cu)Al<sub>3</sub>GeSi<sub>12</sub>O<sub>36</sub>(OH, H<sub>2</sub>O)<sub>6</sub>**

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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)

<b>Chemistry:</b>	(1)
	SiO <sub>2</sub> 26.2
	GeO <sub>2</sub> 3.9
	Al <sub>2</sub> O <sub>3</sub> 5.9
	FeO 1.7
	CuO 0.8
	PbO 57.5
	MgO 0.1
	<u>H<sub>2</sub>O 1.9</u>
	Total 98.0

(1) Tsumeb, Namibia; by electron microprobe, H<sub>2</sub>O estimated by elemental analyzer; corresponds to Pb<sub>7.08</sub>(Fe<sub>0.65</sub>Cu<sub>0.28</sub>Mg<sub>0.07</sub>)<sub>Σ=1.00</sub>Al<sub>3.18</sub>Ge<sub>1.03</sub>Si<sub>12</sub>O<sub>41.81</sub>H<sub>5.81</sub>.

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

**Association:** Queitite, 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).