Karlditmarite

**Cu₉O₄(PO₄)₂(SO₄)₂**

Crystal Data: Triclinic. *Point Group*: \(\tilde{1}\).

Physical Properties: *Cleavage*: Tenacity: Fracture:

Hardness = D(meas.) = D(calc.) =

Optical Properties: *Color*: Streak: Luster:

Optical Class:

Cell Data: *Space Group*: *P\(\tilde{1}\)*. \(a = 6.1256(7)\) \(b = 7.9192(8)\) \(c = 7.9866(8)\) \(\alpha = 75.173(2)^\circ\)

\(\beta = 86.639(2)^\circ\) \(\gamma = 88.660(2)^\circ\)

X-Ray Diffraction Pattern: Arsenatnaya fumarole, Tolbachik volcano, Kamchatka, Far-Eastern Region, Russia.

7.72 (100), 6.28 (37), 4.262 (31), 3.283 (31), 3.310 (26), 4.769 (25), 3.750 (22)

Chemistry:

Polymorphism & Series:

Mineral Group:

Occurrence:

Association:

Distribution: From the Arsenatnaya fumarole, second scoria cone of the Northern Breakthrough of the Great Tolbachik fissure eruption, Tolbachik volcano, Kamchatka, Far-Eastern Region, Russia.

Name:

Type Material: A.E. Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia (5589/1).