

Crystal Data: Monoclinic, pseudo-orthorhombic. *Point Group:* $2/m$. Rare crystals, with pyramidal terminations, in parallel growths; more commonly as cleavable masses, to 17 cm.

Physical Properties: *Cleavage:* {100}, perfect. *Tenacity:* Cleavage lamellae are flexible, inelastic; somewhat sectile. Hardness = 1.5–2 D(meas.) = 4.3(1) D(calc.) = 4.619

Optical Properties: Transparent. *Color:* Colorless to pale brown. *Luster:* Pearly on the cleavage.

Optical Class: Biaxial (+). *Orientation:* $Y = b$; $X \wedge a = 11^\circ$; $Z \wedge c = 10^\circ$. *Dispersion:* $r < v$, very strong. $\alpha = 1.87(1)$ $\beta = 1.880(5)$ $\gamma = 1.98(1)$ $2V(\text{meas.}) = 26.5(1.0)^\circ$

Cell Data: *Space Group:* $P2_1/c$. $a = 4.542(1)$ $b = 5.022(1)$ $c = 17.597(5)$
 $\beta = 90.81(3)^\circ$ $Z = 4$

X-ray Powder Pattern: Tsumeb, Namibia; strong preferred orientation.
 2.940 (400), 4.405 (100), 8.808 (32), 1.761 (22), 3.133 (21), 2.884 (19), 3.163 (18)

Chemistry:

	(1)
As ₂ O ₃	71.4
FeO	0.5
ZnO	28.5
Total	100.4

(1) Tsumeb, Namibia; corresponds to $(\text{Zn}_{0.97}\text{Fe}_{0.02})_{\Sigma=0.99}\text{As}_2^{3+}\text{O}_4$.

Occurrence: With other zinc- and arsenic-bearing minerals, apparently formed at low temperatures in an oxidized zone in a dolostone-hosted hydrothermal polymetallic ore deposit.

Association: Chalcocite, tennantite, reinerite, schneiderhöhnite, zincian stottite, zincroselite, tsumcorite, stranskiite, legrandite, smithsonite.

Distribution: From Tsumeb, Namibia.

Name: For Luis Antonio Bravo Teixeira-Leite (1942–1999), Portuguese-South African amateur mineralogist of Pretoria, South Africa, who noted the first specimen.

Type Material: University of Pierre and Marie Curie, Paris, France; The Natural History Museum, London, England, 1976,432; Royal Ontario Museum, Toronto, Canada, M34727; National Museum of Natural History, Washington, D.C., USA, 137105.

References: (1) Cesbron, F.P., R.C. Erd, G.K. Czamanski, and H. Vachey (1977) Leiteite, a new mineral from Tsumeb. *Mineral. Record*, 8(3), 95–97. (2) (1977) *Amer. Mineral.*, 62, 1259–1260 (abs. ref. 1). (3) Ghose, S., P.K. Sen Gupta, and E.O. Schlemper (1987) Leiteite, ZnAs_2O_4 : a novel type of tetrahedral layer structure with arsenite chains. *Amer. Mineral.*, 72, 629–632.