

Crystal Data: Tetragonal, pseudocubic. *Point Group:* 4/*m*. Crystals are tetragonal dipyramidal, pseudo-octahedral, with dominant {111}, modified by {100}, {110}, {101}, {102}, {001}, and others, to 1 cm.

Physical Properties: *Cleavage:* {100}, {010}, good; {001}, poor. Hardness = 4.5
D(meas.) = 3.596 D(calc.) = [3.54]

Optical Properties: Transparent to translucent. *Color:* Brown, green, orange, red; in transmitted light, orange-brown, may be zoned with light olive-gray to nearly colorless centers. *Streak:* Grayish white. *Luster:* Resinous to adamantine, greasy on cleavages. *Optical Class:* Uniaxial (-); anomalously biaxial. *Dispersion:* $r > v$. $\omega = 1.737\text{--}1.738$
 $\epsilon = 1.728$ 2V(meas.) = Small.

Cell Data: *Space Group:* $P4_2/n$. $a = 7.594(4)$ $c = 7.488(6)$ $Z = 4$

X-ray Powder Pattern: Tsumeb, Namibia.

3.767 (vs), 2.655 (s), 1.687 (ms), 2.171 (m), 1.886 (m), 1.672 (m), 1.538 (m)

Chemistry:

	(1)	(2)
GeO ₂	41.75	45.38
FeO	34.81	31.17
MnO	0.88	
MgO	0.46	
CaO	0.34	
H ₂ O	21.84	23.45
Total	100.08	100.00

(1) Tsumeb, Namibia; corresponds to (Fe_{1.15}²⁺Mg_{0.03}Mn_{0.03}Ca_{0.01})_{Σ=1.22}Ge_{0.95}⁴⁺(OH)₆.

(2) FeGe(OH)₆.

Mineral Group: Stottite group.

Occurrence: A rare secondary mineral formed in an oxidized zone of a germanium-rich dolostone-hosted hydrothermal polymetallic ore deposit.

Association: Tennantite, germanite, reniérite, chalcocite, leiteite, schneiderhöhnite, brunogeierite, siderite.

Distribution: From Tsumeb, Namibia.

Name: To honor Charles E. Stott (1896–1978), geologist and formerly General Director of the Tsumeb mine, Tsumeb, Namibia.

Type Material: Technical University, Berlin, Germany; National School of Mines, Paris, France; Harvard University, Cambridge, Massachusetts, USA, 111460.

References: (1) Strunz, H., G. Söhne, and B.H. Geier (1958) Stottit, ein neues Germanium-Mineral, und seine Paragenese in Tsumeb. Neues Jahrb. Mineral., Monatsh., 85–96 (in German). (2) (1958) Amer. Mineral., 43, 1006 (abs. ref. 1). (3) Ross, C.R., II, L.R. Bernstein, and G.A. Waychunas (1988) Crystal-structure refinement of stottite, FeGe(OH)₆. Amer. Mineral., 73, 657–661.