

Crystal Data: Tetragonal. *Point Group:* $\bar{4}2m$. Massive, as minute embedded grains and as exsolution lamellae, to 2 mm. *Twinning:* Parallel to {112} and {111}.

Physical Properties: Hardness = 3.0–3.5 VHN = n.d. D(meas.) = 4.2 D(calc.) = 4.35

Optical Properties: Opaque. *Color:* Gray. *Streak:* Gray-black. *Anisotropism:* Low.

R: (400) 20.7, (420) 19.9, (440) 19.4, (460) 18.8, (480) 18.5, (500) 18.1, (520) 17.9, (540) 17.7, (560) 17.5, (580) 17.4, (600) 17.2, (620) 17.1, (640) 17.0, (660) 16.9, (680) 16.8, (700) 16.6

Cell Data: *Space Group:* $I\bar{4}2d$. $a = 5.360$ $c = 10.49$ $Z = 4$

X-ray Powder Pattern: Synthetic.

3.07 (100), 1.876 (90), 1.610 (90), 1.089 (90), 1.894 (60), 1.215 (60), 1.076 (60)

Chemistry:	(1)	(2)	(3)	(4)
Cu	30.8	31.2	33.5	32.19
Pb	2.3			
Zn	4.4	1.7	1.2	
Fe	4.9	2.3	2.8	
Ga	29.2	32.4	30.2	35.32
Ge		0.3	0.5	
S	28.4	32.8	31.8	32.49
Total	[100.0]	100.7	100.0	100.00

(1) Tsumeb, Namibia; by electron microprobe, recalculated to 100.0% after deduction of impurity phases. (2) Do.; by electron microprobe. (3) Kipshi, Congo. (4) CuGaS₂.

Mineral Group: Chalcopyrite group.

Occurrence: In base-metal vein deposits with relatively high gallium content.

Association: Reniérite, germanite, bornite, chalcocite, digenite, pyrite, sphalerite, galena, tetrahedrite.

Distribution: From Tsumeb, Namibia [TL]. In Congo (Zaire), at Kipushi, 28 km southwest of Lubumbashi, Katanga (Shaba) Province. From the Radka deposit, Pazardzhik, and the Chelopech deposit, Sofia, Bulgaria. In Cuba, in northwestern Pinar del Rio Province. From Yauricocha, Peru.

Name: For the mineral's gallium content.

Type Material: Berlin Technical University, Berlin, Germany, 86/67, 87/564, 396.

References: (1) Strunz, H., B.H. Geier, and E. Seeliger (1958) Gallit, CuGaS₂, das erste selbständige Galliummineral, und seine Verbreitung in den Erzen der Tsumeb- und Kipushi-Mine. Neues Jahrb. Mineral., Monatsh., 241–264 (in German). (2) (1959) Amer. Mineral., 44, 906 (abs. ref. 1). (3) Springer, G. (1969) Microanalytical investigations into germanite, renierite, briartite, and gallite. Neues Jahrb. Mineral., Monatsh., 435–441. (4) Criddle, A.J. and C.J. Stanley, Eds. (1993) Quantitative data file for ore minerals, 3rd ed. Chapman & Hall, London, 188.