Coloradoite **HgTe**

Crystal Data: Cubic. *Point Group:* $\bar{4}3m$. Known only massive, granular.

Physical Properties: *Fracture:* Uneven to subconchoidal. *Tenacity:* Brittle, friable. Hardness = 2.5 VHN = 25–28 (100 g load). D(meas.) = 8.10 D(calc.) = 8.092

Optical Properties: Opaque. *Color:* Iron-black inclining to gray; in polished section, white with slight grayish brown tint, tarnishing to dull purple. *Luster:* Bright metallic. *Anisotropism:* Moderate, dark brownish red to blue-gray.
R: (400) 33.8, (420) 35.4, (440) 36.5, (460) 36.9, (480) 36.5, (500) 36.1, (520) 35.9, (540) 36.2, (560) 37.0, (580) 38.2, (600) 38.6, (620) 38.2, (640) 37.4, (660) 36.7, (680) 36.0, (700) 35.5

Cell Data: *Space Group:* $F\bar{4}3m$. a = 6.453 Z = 4

X-ray Powder Pattern: Kalgoorlie, Australia.
3.74 (100), 2.29 (90), 1.949 (70), 1.318 (40), 1.484 (30), 1.244 (30), 1.090 (30)

Chemistry:

	(1)	(2)	(3)
Hg	60.95	61.0	61.12
Te	39.38	38.7	38.88
Total	100.33	99.7	100.00

(1) Kalgoorlie, Australia; corresponding to $Hg_{0.98}Te_{1.00}$. (2) Do.; by electron microprobe, corresponding to $Hg_{1.00}Te_{1.00}$. (4) HgTe.

Occurrence: In hydrothermal tellurium-bearing precious metal veins.

Mineral Group: Sphalerite group.

Association: Altaite, calaverite, krennerite, petzite, gold, pyrite, chalcopyrite, sphalerite, galena, pyrrhotite, tetrahedrite–tennantite.

Distribution: In the USA, in Colorado, at the Good Hope mine, Vulcan, Gunnison Co.; in the La Plata district, La Plata Co.; and at the Keystone, Mountain Lion, Smuggler, and Ellen mines, Boulder Co. [TL]; from the Cresson mine, Cripple Creek district, Teller Co.; in California, at the Norwegian mine, near Tuttletown, and the Jamestown mine, Tuolumne Co.; in Nevada, at the Twin Creeks and Getchell mines, Potosi district, Humboldt Co.; from the Outlaw mine, Round Mountain district, Nye Co.; and at the Gus Schave property, Olinhouse district, Washoe Co.; from the Mayflower mine, Tobacco Root Mountains, Madison Co., Montana. In Canada, at a number of mines in the Kirkland Lake district, in the Hemlo gold deposit, Thunder Bay district, and at Hollinger in the Porcupine district, Ontario; also found at the Ardeen mine and the Robb-Montbray mine, Quebec. From the Jeronimo gold deposit, near Potrerillos, Atacama, Chile. In the Uzel'ginsk deposit and the Yaman-Kasy Cu–Zn–pyrite deposits, Southern Ural Mountains, Russia. From Săcărîmb, Romania. At the Zarshuran gold deposit, 35 km north of Takab, northwestern Iran. From Kalgoorlie, Western Australia. In the Emperor mine, Vatukoula, and in the Tuvatu Au–Ag–Te deposit, Viti Levu, Fiji Islands. At the Bulawan deposit, Negros Occidental, Phillipines. From the Guilaizhuang gold deposit, Shandong Province, China. In the Commoner mine, 50 km west-southwest of Kadoma, Zimbabwe. Additional localities are known.

Name: For the Keystone and Mountain Lion mines, Magnolia, Magnolia district, and Smuggler mine, Ballerat district, Boulder Co., type localities in Colorado, USA.

Type Material: n.d.

References: (1) Palache, C., H. Berman, and C. Frondel (1944) Dana's system of mineralogy, (7th edition), v. I, 218–219. (2) Thompson, R.M. (1949) The telluride minerals and their occurrence in Canada. Amer. Mineral., 34, 342–382. (3) de Jong, W.F. (1926) XXIV> Die Struktur des Tiemannit und Koloradoit [=coloradoite]. Zeits. Krist., 63, 466–472 (in German). (4) Ramdohr, P. (1969) The ore minerals and their intergrowths, (3rd edition), 520–521. (5) Criddle, A.J. and C.J. Stanley, Eds. (1993) Quantitative data file for ore minerals, 3rd ed. Chapman & Hall, London, 106.