

Crystal Data: Tetragonal. *Point Group:* 4/*m*. Crystals are commonly dipyramidal {111}, {101}, with {011}, {112}, {001}, complex development with over 30 other forms recorded; may be flat tabular {001}, {101}, to 6 cm.

Physical Properties: *Cleavage:* Imperfect on {001}; indistinct on {011}.
Fracture: Conchoidal to uneven. *Tenacity:* Brittle. Hardness = 2.5–3 D(meas.) = 8.34
 D(calc.) = 8.408 May fluoresce bright red to red-orange under LW UV and lemon-yellow under SW UV.

Optical Properties: Translucent, transparent in thin pieces. *Color:* Reddish brown, brown, yellowish gray, smoky gray, straw-yellow, lemon-yellow; may be green, orange, red.
Streak: White. *Luster:* Resinous, subadamantine.
Optical Class: Uniaxial (-). $\omega = 2.27$ $\epsilon = 2.18$ –2.19

Cell Data: *Space Group:* I4₁/a (synthetic). $a = 5.4695(3)$ $c = 12.0432(3)$ $Z = 4$

X-ray Powder Pattern: Synthetic.
 3.25 (100), 2.024 (35), 1.6606 (35), 2.732 (30), 3.01 (20), 1.7820 (20), 1.931 (16)

Chemistry:	(1)	(2)
WO ₃	51.34	50.95
MnO	0.78	
PbO	47.44	49.05
Total	99.56	100.00

(1) Broken Hill, Australia. (2) PbWO₄.

Polymorphism & Series: Dimorphous with raspite.

Occurrence: An uncommon mineral in the oxidized zone of hydrothermal tungsten-bearing lead deposits.

Association: Raspite, cerussite, anglesite, pyromorphite, mimetite.

Distribution: At many localities in small amounts. From Cínovec (Zinnwald), Czech Republic. At Bleiberg, Carinthia, Austria. Large crystals in the Sainte-Lucie mine, Saint-Léger de Peyre, Lozère, France. From La Tala, Salamanca Province, Spain. At several mines in Caldbeck Fells, Cumbria, England. Fine examples from Broken Hill, New South Wales, Australia. At Yaogangxian, Hunan Province, China. From the Kramat Pulai mine, Kinta district, Perak, Malaysia. In the Sumidoro gold placers, Minas Gerais, Brazil. At Diko Ajuba, Nigeria. From Djebel Aouam, Morocco. Large crystals from Tsumeb, Namibia. In the USA, in Arizona, at the Reef mine, Huachuca Mountains, the Primos mine, Little Dragoon Mountains, and the Cohen mine, Dragoon Mountains, Cochise Co.; large crystals at the Fat Jack mine, Bradshaw Mountains, Yavapai Co.; from the Thompson mine, Darwin district, Inyo Co., California; in the Emma mine, Little Cottonwood Canyon district, Salt Lake Co., Utah; at the Black Pine mine, Phillipsburg, Granite Co., Montana.

Name: To honor Dr. Joseph Alexis Stolz (1803–1896), Teplice, Czech Republic, who provided the first specimen.

Type Material: Mining Academy, Freiberg, Germany, 17596.

References: (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 1087–1089. (2) Hazen, R.M., L.W. Finger, and J.W.E. Mariathasan (1985) High-pressure crystal chemistry of scheelite-type tungstates and molybdates. *J. Phys. Chem. Solids*, 46, 253–263. (3) Xu Keqin, Xue Jiyue, Ding Yang, and Lu Guanglie (1994) Discovery of stolzite in China and refinement of its crystal structure. *Acta Geologica Sinica*, 68(3), 287–292 (in Chinese with English abs.). (4) (1967) NBS Mono. 25, 5, 34.

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