

Crystal Data: Orthorhombic. *Point Group:* n.d. Flat needles or thin plates, to 5 mm, elongated || [001], flattened on {010}; in aggregates.

Physical Properties: *Cleavage:* {100}, perfect; {001}, distinct. *Tenacity:* Flexible. Hardness = n.d. D(meas.) = ~4.5 (synthetic). D(calc.) = 4.72

Optical Properties: Transparent. *Color:* Light greenish yellow to nearly colorless.

Luster: Adamantine.

Optical Class: Biaxial (+); very high birefringence. *Orientation:* X = b; Y = a; Z = c.

$\alpha = \text{n.d.}$ $\beta = > 2.0$ $\gamma = > 2.0$ $2V(\text{meas.}) = \text{Very large.}$

Cell Data: *Space Group:* Pbnm (synthetic). a = 3.954 b = 13.808 c = 3.690 Z = 4

X-ray Powder Pattern: Krupka, Czech Republic.

3.25 (10+), 3.80 (10), 3.45 (9), 6.90 (6), 1.294 (5), 2.64 (4), 2.31 (4b)

Chemistry: (1) Krupka, Czech Republic; by semimicroanalysis, Mo = 66.2% [MoO₃ = 99.7%]; Si 0.X%; Ca 0.0X%; Al, Ag, Be, Bi, Cu, Fe, Mg, Mn, Pb, Zn traces.

Occurrence: In cavities and coating molybdenite in a weathered quartz vein near its contact with topaz-quartz greisen.

Association: Molybdenite, betpakdalite, quartz.

Distribution: Most material thought to be molybdite proves on examination to be ferrimolybdite. An authentic occurrence is at Krupka, Krušné hory Mountains, Czech Republic.

Name: As an oxide of *molybdenum*.

Type Material: Charles University, Prague, Czech Republic.

References: (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 1095–1097 [molybdite = ferrimolybdite, part]. (2) Čech, F. and P. Povondra (1963) Natural occurrence of molybdenum trioxide, MoO₃, in Krupka (Molybdite, a new mineral). Acta Univ. Carolinae, Geologica, 1, 1–14 (in Czech with English abs.). (3) (1964) Amer. Mineral., 49, 1497–1498 (abs. ref. 2).