Idrialite

Crystal Data: Orthorhombic. Point Group: n.d. Small irregular square or six-sided crystals; tabular crystals are precipitated from a chloroform extraction of cinnabar ore.

Physical Properties: Cleavage: \{001\}, perfect; \{100\}, poor. Fracture: Conchoidal. Hardness = 1–1.5 D(meas.) = 1.22–1.236 D(calc.) = 1.286 M.P. 319 °C; fluoresces pale blue under UV.


Cell Data: Space Group: n.d. \(a = 8.07\) \(b = 6.42\) \(c = 27.75\) \(Z = 4\)

X-ray Powder Pattern: Idrija mine, Slovenia. 4.94 (100), 3.40 (80), 4.04 (60), 2.48 (30), 7.08 (20), 4.43 (20), 2.06 (20)

Chemistry: (1) Identification depends on correspondence of X-ray powder patterns and other data with that of synthetic material (dimethylbenzphenanthrene).

Occurrence: Probably formed by pyrolysis of organic material near hot springs or by hydrothermal fluids.

Association: Cinnabar, pyrite, gypsum, quartz, “clay” (Idrija mine, Slovenia); metacinnabar, realgar, “opal” (Skaggs Springs, California, USA).

Distribution: From the Idrija (Idria) mercury mine, 38 km west of Ljubljana, northwestern Slovenia. In the USA, in California, at Skaggs Springs, Sonoma Co.; from the Great Western, Mirabel, Helen, and Research mines, Lake Co.; in the Knoxville mine, Napa Co.

Name: For the Idrija (Idria) mine, Slovenia, from which the first specimens were collected.

Type Material: n.d.