Lepidocrocite

Crystal Data: Orthorhombic. Point Group: 2/m 2/m 2/m. Crystals typically flattened on {010}, isolated, to 2 mm, or aggregated into plumose or rosettelike groups; bladed, micaceous, fibrous, massive.

Physical Properties: Cleavage: {010}, perfect; {100}, less perfect; {001}, good. Fracture: Brittle. Hardness = 5 VHN = 690–782 D(meas.) = 4.09(4) D(calc.) = 3.96


Cell Data: Space Group: Cmc21 (synthetic). a = 3.08(1) b = 12.50(1) c = 3.87(1) Z = 4

X-ray Powder Pattern: Locality unknown. (ICDD 8-98). 6.26 (100), 3.29 (90), 2.47 (80), 1.937 (70), 1.732 (40), 1.524 (40), 1.075 (40)

Chemistry: (1) (2)
Fe₂O₃ 89.90 89.86
H₂O 10.77 10.14
Total 100.67 100.00
(1) Eleonore mine, Mt. Dünsberg, Germany. (2) FeO(OH).

Polymorphism & Series: Trimorphous with feroxyhyte and goethite.

Occurrence: A weathering or oxidation product of other iron-bearing minerals, in soils and mineral deposits; a precipitate from ground water. In marine manganese nodules.

Association: Goethite, pyrite.

Distribution: Many minor localities; well-studied material from: in Germany, from Eiserfeld, Siegen, and at Herdorf and Mäisen, North Rhine-Westphalia; on Mt. Dünsberg, near Giessen, Hesse; and elsewhere. In France, at Rancié-en-Sem, Ariège, and Chizeuil, Saône-et-Loire. From a cave at Dachstein-Mammuthöhle, Austria. At Prüram, Czech Republic. From Travessera, Piedmont, Italy. At the Great Retallack and Gravel Hill mines, Perranzabuloe, and the Trewethen mine, St. Kew, Cornwall, England. From the Kochbulak gold deposit, Chatkal-Kuramin Mountains, eastern Uzbekistan. In the USA, in Pennsylvania, at Easton, Northampton Co., Chestnut Hill, Lancaster Co., and other localities; from the Iron Mountain mine, Shasta Co., California; at Bisbee, Cochise Co., Arizona. At the Iron Monarch quarry, Iron Knob, South Australia. From Tsumeb, Namibia.

Name: From the Greek for scale and thread, for the occasionally feathery or scaly habit.


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