## **Fritzscheite**

**Crystal Data:** [Tetragonal] (by analogy to the autunite group). Point Group: n.d. Rectangular platy crystals, may overgrow or border autunite or torbernite.

Cleavage: Basal, perfect; prismatic, distinct. Hardness = 2.25-3**Physical Properties:** D(meas.) = 3.504 (may be low). D(calc.) = n.d. Radioactive.

Optical Properties: Translucent to opaque. Color: Reddish brown to hyacinth-red. Streak: Reddish brown to hyacinth-red. Luster: Vitreous to pearly. Optical Class: [Uniaxial] (by analogy to the autunite group).  $\omega = n.d. \epsilon = n.d.$ 

Cell Data: Space Group: n.d. Z = n.d.

X-ray Powder Pattern: n.d.

**Chemistry:** (1) Germany; qualitative chemical tests indicate the mineral to be a manganese uranium phosphate-vanadate hydrate.

Mineral Group: Autunite group.

**Occurrence:** In a hematite deposit (Nove Hamry, Czech Republic).

Association: Autunite, torbernite.

**Distribution:** In Germany, from the Georg Wagsfort mine, Johanngeorgenstadt, and at Schneeberg, Saxony. From Nove Hamry, near Nejdek (Neuhammer, near Neudeck), Czech Republic.

**Name:** To honor Professor Carl Julius Fritzsche (1808–1871), German chemist.

**Type Material:** Natural History Museum, Vienna, Austria, Aa 5699.

References: (1) Breithaupt, A. (1865) Mineralogische Studien. Berg- und Huettenmænnische Zeitung, 2(4), 301–303 (in German). (2) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 984. (3) Frondel, C. (1958) Systematic mineralogy of uranium and thorium. U.S. Geol. Sur. Bull. 1064, 195-196.