**Fritzscheite**

\[ \text{Mn}^{2+} (\text{UO}_2) \text{P}_2 \text{(PO}_4 \text{)}_2 \left( \text{V} \text{O}_4 \right) \text{•} 10\text{H}_2\text{O}(?) \]

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

**Physical Properties:**  
*Cleavage:* Basal, perfect; prismatic, distinct.  
*Hardness =* 2.25–3  
*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).  
\(\omega = \text{n.d.}\)  
\(\epsilon = \text{n.d.}\)

**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:**  