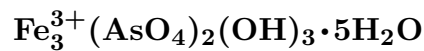


Ferrisymplemite

©2001-2005 Mineral Data Publishing, version 1

Crystal Data: Monoclinic. *Point Group:* n.d. Finely fibrous.**Physical Properties:** Hardness = n.d. $D(\text{meas.}) = 2.885$ (of the mixture). $D(\text{calc.}) = \text{n.d.}$ **Optical Properties:** Semitransparent. *Color:* Deep amber-brown, yellow-brown, yellow.*Luster:* Resinous.*Optical Class:* Biaxial; strongly birefringent. *Pleochroism:* Faint. *Orientation:* Parallel extinction. $n = 1.650$ $2V(\text{meas.}) = \text{n.d.}$ **Cell Data:** *Space Group:* n.d. $Z = \text{n.d.}$ **X-ray Powder Pattern:** Neubulach, Germany.

6.77 (10), 4.00 (6), 3.72 (6), 2.96 (5), 2.83 (5), 8.93 (4), 3.38 (4)

Chemistry:

	(1)	(2)
As ₂ O ₅	38.79	39.19
SiO ₂	0.88	
Al ₂ O ₃	0.31	
Fe ₂ O ₃	11.67	40.84
CoO	16.86	
NiO	5.73	
MgO	1.05	
CaO	1.46	
H ₂ O	24.05	19.97
Total	100.80	100.00

(1) Hudson Bay mine, Canada; after deduction of erythrite-annabergite 69%, corresponds to $\text{Fe}_{2.98}(\text{AsO}_4)_{2.00} \cdot 15.4\text{H}_2\text{O}$. (2) $\text{Fe}_3(\text{AsO}_4)_2(\text{OH})_3 \cdot 5\text{H}_2\text{O}$.**Occurrence:** In the oxidized zone of a Co-Ni sulfide deposit (Hudson Bay mine, Canada); in the oxidized zone of a polymetallic hydrothermal ore deposit (Neubulach, Germany).**Association:** Erythrite-annabergite (Hudson Bay mine, Canada); copper, malachite (Neubulach, Germany).**Distribution:** From the Hudson Bay mine, Timiskaming district, Cobalt, Ontario, Canada. At Neubulach, Black Forest, Germany.**Name:** For its *ferric* iron content and supposed relation to *symplemite*.**Type Material:** Royal Ontario Museum, Toronto, Canada, M14248; Harvard University, Cambridge, Massachusetts, 101313; National Museum of Natural History, Washington, D.C., USA, 95461.**References:** (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 753. (2) Walenta, K. (1979) Die Sekundärminerale der Erzgänge von Neubulach im nördlichen Schwarzwald. *Aufschluss*, 30, 213-252, esp 232-233 (in German).