Parascorodite  \( \text{Fe}^{3+}\text{AsO}_4\cdot2\text{H}_2\text{O} \)

**Crystal Data:** Hexagonal. *Point Group:* \( \overline{3} 2/m \). Tabular to prismatic hexagonal crystals, to 1 µm, may be fan-shaped, in crudely hemispherical aggregates. *Twinning:* Observed.

**Physical Properties:** *Fracture:* Earthy to conchoidal in compact masses. *Hardness:* Soft.

\[
\text{D(meas.)} = 3.213(3) \quad \text{D(calc.)} = 3.358
\]

**Optical Properties:** Semitransparent. *Color:* Yellowish white, greenish gray; very pale yellow to brown in transmitted light. *Streak:* Yellowish-white.

\[
\text{Optical Class: Uniaxial, very low birefringence.} \quad n(\text{calc.}) = 1.797 \quad \omega = \text{n.d.} \quad \varepsilon = \text{n.d.}
\]

**Cell Data:** *Space Group:* \( P\overline{3}c \)1. \( a = 8.9232(2) \quad c = 9.296(3) \quad Z = 6 \)

**X-ray Powder Pattern:** Kaňk, Czech Republic.

4.076 (100), 2.806 (68), 3.053 (67), 4.973 (61), 2.661 (59), 2.520 (54), 4.184 (44)

**Chemistry:**

\[
\begin{array}{llll}
\text{SO}_3 & 1.53 & (1) \\
\text{P}_2\text{O}_5 & 0.84 \\
\text{As}_2\text{O}_5 & 44.45 & 49.79 & (2) \\
\text{Al}_2\text{O}_3 & 0.17 \\
\text{Fe}_2\text{O}_3 & 34.55 & 34.60 \\
\text{H}_2\text{O}^+ & 16.81 \\
\text{H}_2\text{O}^- & 1.60 \\
\text{H}_2\text{O} & 15.61 \\
\text{Total} & 99.95 & 100.00
\end{array}
\]

(1) Kaňk, Czech Republic; average of two analyses, corresponding to \((\text{Fe}_{0.98}\text{Al}_{0.01})\Sigma=0.99[(\text{AsO}_4)_{0.88} (\text{SO}_4)_{0.04}\text{(PO}_4)_{0.03}]\Sigma=0.95\cdot2.05\text{H}_2\text{O}.\) (2) \(\text{FeAsO}_4\cdot2\text{H}_2\text{O}\).

**Polymorphism & Series:** Dimorphous with scorodite.

**Occurrence:** A rare secondary mineral in mine dumps, presumed to be a pre-mining weathering product of arsenopyrite (Kaňk, Czech Republic).

**Association:** Scorodite, pitticite, bukovskýite, kaňkite, zýkaite, gypsum, jarosite, iron hydroxides (Kaňk, Czech Republic); scorodite, kaňkite, arsenic, pyrite, proustite (Svornost mine, Czech Republic).

**Distribution:** From the Kuntery mine, Kaňk, Kutná Hora district, and in the Svornost mine, Jáchymov (Joachimsthal), central Bohemia, Czech Republic.

**Name:** From the Greek *para*, for *near*, and the dimorphic relation to scorodite.

**Type Material:** National Museum, Prague, Czech Republic, P1p 25/98.