**Crystal Data:** Orthorhombic. **Point Group:** 2/m 2/m 2/m. As equidimensional and rarer bladelike grains isolated in altaite, and as irregular rims a few µm thick on pyrrhotite and chalcopyrite in contact with altaite. **Twinning:** In polished section twinning commonly observed perpendicular to elongation axis of the laths.

**Physical Properties:** Hardness = n.d. VHN = 383, 404 (25 g load). D(meas.) = n.d. D(calc.) = 8.00

**Optical Properties:** Opaque. **Color:** In polished section, violet. **Pleochroism:** Weak, colors from pink to cream. **Anisotropism:** Weak, pinkish violet to grayish violet.

R₁−R₂: (400) 50.2–62.2, (420) 51.0–60.3, (440) 51.8–58.4, (460) 51.0–56.6, (480) 49.9–55.6, (500) 48.7–54.7, (520) 48.2–54.2, (540) 47.9–53.9, (560) 47.8–53.9, (580) 47.7–54.0, (600) 47.8–54.3, (620) 48.0–54.7, (640) 48.3–55.2, (660) 48.6–55.6, (680) 48.9–56.3, (700) 49.1–56.9

**Cell Data:** Space Group: Pnnm (synthetic). \( a = 5.3294(6) \) \( b = 6.3223(8) \) \( c = 3.9080(6) \) \( Z = 2 \)

**X-ray Powder Pattern:** Mattagami Lake mine, Canada. 2.805 (10), 2.703 (8), 2.066 (6), 1.843 (4), 3.31 (3), 1.583 (3), 1.514 (2)

**Chemistry:**

\[
\begin{array}{ccc}
& (1) & (2) \\
\text{Co} & 10.3 & 18.76 \\
\text{Fe} & 6.7 & \\
\text{Te} & 82.4 & 81.24 \\
\text{Total} & 99.4 & 100.00
\end{array}
\]

(1) Mattagami Lake mine, Canada; by electron microprobe, average of analyses of three grain sizes, corresponding to \((\text{Co}_{0.54}\text{Fe}_{0.37})\Sigma=0.91\text{Te}_{2.00}\). (2) \(\text{CoTe}_2\).

**Polymorphism & Series:** Forms a series with frohbergite.

**Mineral Group:** Marcasite group.

**Occurrence:** In a small telluride zone in a massive zinc-rich stratiform deposit in Archaen volcanics (Mattagami Lake mine, Canada).

**Association:** Frohbergite, altaite, pyrrhotite, chalcopyrite, magnetite, talc, chlorite (Mattagami Lake mine, Canada).

**Distribution:** From the Mattagami Lake mine, near Matagami, Quebec, Canada [TL]. At the Zhena-Tyube deposit, Kazakhstan. From Fe–Co–Au–U deposits in the the Kuusamo schist belt, northeastern Finland.

**Name:** For its occurrence at Mattagami Lake, Canada.

**Type Material:** Canadian Geological Survey, Ottawa; Royal Ontario Museum, Toronto, Canada, M31956.

**References:** Fe\(\text{Te}_2\), and Co\(\text{Te}_2\). *ActaChem.Scand.*, 24, 1925 − 1940.