Orickite  

\((\text{Na,K})_{0.4}\text{CuFeS}_{2}\cdot 0.3\text{H}_2\text{O}\)

Crystal Data:  Hexagonal.  Point Group: n.d.  As grains and laths, to 150 \(\mu\)m.


\[R_1 - R_2: (470) \text{34.7, (546) 39.9, (589) 42.8, (650) 46.9}\]

Cell Data:  Space Group: n.d.  \(a = 3.695(1)\)  \(c = 6.16(1)\)  \(Z = 4\)

X-ray Powder Pattern:  Near Orick, California, USA.

3.08 (100), 3.20 (90), 1.85 (70), 2.84 (60), 1.73 (55), 1.583 (30), 2.20 (20)

Chemistry:

\[
\begin{array}{ll}
\text{Na} & 0.4 \\
\text{K} & 0.2 \\
\text{Cu} & 31.7 \\
\text{Fe} & 31.0 \\
\text{S} & 33.6 \\
\text{H}_2\text{O} & [3.1] \\
\text{Total} & [100.0]
\end{array}
\]

(1) Near Orick, California, USA; by electron microprobe, average of six grains, \(\text{H}_2\text{O}\) by difference (1.5% to 5.1% oxygen qualitatively determined, presumed to be in \(\text{H}_2\text{O}\)); then corresponds to \((\text{Na}_{0.03}\text{K}_{0.01})\Sigma=0.04\text{Cu}_{1.06}\text{Fe}_{2.00}\cdot 0.33\text{H}_2\text{O}\).

Occurrence:  In an alkalic mafic diatreme, in small pegmatitic clots thought to have crystallized late in the consolidation of the Coyote Peak intrusive.

Association:  Djerfisherite, rasvumite, bartonite, erdite, coyoteite, phlogopite, schorlomite, acmite, sodalite, cancrinite, pectolite, natrolite, magnetite, calcite.

Distribution:  From Coyote Peak, near Orick, Humboldt Co., California, USA [TL].

Name:  For the town of Orick, California, USA, near the locality.
