Congolite

\((\text{Fe}^{2+}, \text{Mg})_3\text{B}_7\text{O}_{13}\text{Cl}\)

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Crystal Data: Hexagonal. Point Group: 3m. As grains, to 0.2 mm.

Physical Properties: Hardness = 7 \text{ D(meas.) = 3.58 D(calc.) = [3.52]}

Optical Properties: Transparent. Color: Pink. Optical Class: Uniaxial (−). \(\omega = 1.755(5) \quad \epsilon = 1.731(2)\)

Cell Data: Space Group: \text{R}3c. \quad a = 8.6225(15) \quad c = 21.054(5) \quad Z = 6

X-ray Powder Pattern: Brazzaville, Congo. 2.725 (100), 3.05 (80), 2.061 (75), 2.058 (75), 1.838 (70), 1.834 (70), 2.158 (60)

Chemistry:

\[
\begin{align*}
\text{B}_2\text{O}_3 & \quad [56.42] \\
\text{FeO} & \quad 25.54 \\
\text{MnO} & \quad 0.26 \\
\text{MgO} & \quad 13.52 \\
\text{Cl} & \quad 7.83 \\
\text{O} = \text{Cl}_2 & \quad 1.77 \\
\text{Total} & \quad [101.80]
\end{align*}
\]

(1) Penobsquis mine, Canada; by electron microprobe, \text{B}_2\text{O}_3 calculated for stoichiometry; corresponds to \((\text{Fe}_{1.55}\text{Mg}_{1.45})\Sigma=3.00\text{B}_7\text{O}_{13}\text{Cl}_{0.95}.

Polymorphism & Series: Dimorphous with ericaite.

Occurrence: Part of insoluble residue from a drill core into sedimentary evaporites (Brazzaville, Congo); in a marine evaporite deposit (Penobsquis mine, Canada).

Association: Anhydrite, halite (Brazzaville, Congo).

Distribution: From Brazzaville, Congo. In the Penobsquis evaporite deposit, near Sussex, New Brunswick, Canada. At Bischofferode, Thuringia, Germany.

Name: For Congo, the country in which the first specimens were collected.

Type Material: n.d.