Chromdravite

NaMg$_3$(Cr$^{3+}$, Fe$^{3+}$)$_6$(BO$_3$)$_3$Si$_6$O$_{18}$(OH)$_4$

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Crystal Data: Hexagonal.  Point Group: 3m. In pyramidal acicular crystals, to 0.1 mm.


Cell Data: Space Group: R3m.  a = 16.11  c = 7.27  Z = [3]

X-ray Powder Pattern: Velikaya Guba deposit, Karelia. 2.62 (100), 3.58 (75), 3.04 (75), 6.57 (50), 4.05 (50), 2.079 (50), 4.31 (40)

Chemistry:

\[
\begin{array}{ll}
\text{SiO}_2 & 30.75 \\
\text{TiO}_2 & 0.13 \\
\text{B}_2\text{O}_3 & 9.00 \\
\text{Al}_2\text{O}_3 & 2.92 \\
\text{Fe}_2\text{O}_3 & 7.65 \\
\text{V}_2\text{O}_3 & 1.46 \\
\text{Cr}_2\text{O}_3 & 31.60 \\
\text{MnO} & 0.19 \\
\text{MgO} & 9.05 \\
\text{CaO} & 0.16 \\
\text{Na}_2\text{O} & 2.66 \\
\text{LOI} & 4.43 \\
\end{array}
\]

Total [100.00]

(1) Velikaya Guba deposit, Karelia; recalculated to 100.00% after correction for 6.5% chromian phengite; corresponds to \((\text{Na}_{0.97}\text{Ca}_{0.03})\Sigma=1.00(\text{Mg}_{2.57}\text{V}_{0.22}\text{Al}_{0.22}\text{Mn}_{0.03}\text{Ti}_{0.02})\Sigma=3.00(\text{Cr}^{3+}_{4.71}\text{Fe}^{3+}_{1.08}\text{Al}_{0.21})\Sigma=6.00(\text{B}_{0.97}\text{Al}_{0.03})\Sigma=1.00\text{O}_3\Sigma(\text{Si}_{5.81}\text{Al}_{1.19})\Sigma=6.00\text{O}_{18}(\text{OH})_{3.77}\text{O}_{2.23}\Sigma=4.00\Sigma.

Mineral Group: Tourmaline group.

Occurrence: In micaceous metasomatic clay-carbonate rocks.

Association: Chromian phengite, taeniolite, vanadian muscovite, quartz, dolomite.

Distribution: From the Velikaya Guba uranium deposit, Zaonezhskii Peninsula, southern Karelia.

Name: For CHROMium in the composition and similarity to dravite.

Type Material: Mining Institute, St. Petersburg, Russia, 1239/1; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 82811.


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