Zincochromite

Crystal Data: Cubic. Point Group: 4/m 3 2/m. Crystals euhedral, showing hexagonal sections of dodecahedra, to 50 µm, strongly zoned.


R: (400) —, (420) —, (440) 13.0, (460) 12.4, (480) 12.1, (500) 12.0, (520) 11.9, (540) 11.8, (560) 11.7, (580) 11.6, (600) 11.6, (620) 11.6, (640) 11.6, (660) 11.6, (680) 11.6, (700) 11.6

Cell Data: Space Group: Fd3m (synthetic). \( a = 8.3271(2) \) Z = 8

X-ray Powder Pattern: Onega Lake, Russia. 2.519 (100), 2.954 (50), 1.476 (35), 1.607 (30), 2.088 (25), 4.822 (15), 1.705 (15)

Chemistry:

\[
\begin{array}{ccc}
\text{SiO}_2 & 2.82 & \\
\text{TiO}_2 & 0.14 & \\
\text{Al}_2\text{O}_3 & 1.14 & \\
\text{Fe}_3\text{O}_3 & 2.03 & \\
\text{V}_2\text{O}_3 & 3.52 & \\
\text{Cr}_2\text{O}_3 & 53.30 & 65.13 \\
\text{ZnO} & 37.05 & 34.87 \\
\text{Total} & 100.00 & 100.00
\end{array}
\]

(1) Onega Lake, Russia; by electron microprobe, weighted average of four zones in six grains; total Fe as FeO, total Cr as CrO, total V as VO; corresponding to Zn\(_{0.04}\)(Cr\(_{1.61}\)V\(_{0.11}\)Si\(_{0.11}\)Fe\(_{0.06}\)Al\(_{0.05}\))\(_{2}\) = 1.94O\(_{4}\). (2) ZnCr\(_2\)O\(_4\).

Mineral Group: Spinel group.

Occurrence: Replacing chromian aegirine in micaceous metasomatites.

Association: Quartz, chromian aegirine, and its amorphous breakdown products.

Distribution: From the Velikaya Guba uranium deposit, near Onega Lake, Padma, Zaonezhskii Peninsula, southern Karelia, Russia.

Name: For ZINC and CHROMium in the composition.

Type Material: Mining Institute, St. Petersburg, Russia, 1238/1.


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