

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

Physical Properties: Hardness = 5.8 VHN = 620 D(meas.) = n.d. D(calc.) = 5.434 Weakly paramagnetic.

Optical Properties: Opaque, translucent in thin slivers. *Color:* Brownish black; brown in transmitted light; brownish gray in reflected light, with rare brown internal reflections.

Streak: Brown. *Luster:* Semimetallic.

Optical Class: Isotropic.

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:* $Fd\bar{3}m$ (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:

| | (1) | (2) |
|--------------------------------|--------|--------|
| SiO ₂ | 2.82 | |
| TiO ₂ | 0.14 | |
| Al ₂ O ₃ | 1.14 | |
| Fe ₂ O ₃ | 2.03 | |
| V ₂ O ₃ | 3.52 | |
| Cr ₂ O ₃ | 53.30 | 65.13 |
| ZnO | 37.05 | 34.87 |
| Total | 100.00 | 100.00 |

(1) Onega Lake, Russia; by electron microprobe, weighted average of four zones in six grains; total Fe as Fe₂O₃, total Cr as Cr₂O₃, total V as V₂O₃; corresponding to Zn_{1.04}(Cr_{1.61}V_{0.11}Si_{0.11}Fe_{0.06}Al_{0.05})_{Σ=1.94}O₄. (2) ZnCr₂O₄.

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.

References: (1) Nesterov, A.R. and Y.V. Rumyantseva (1987) Zincochromite ZnCr₂O₄ – a new mineral from Karelia. Zap. Vses. Mineral. Obshch., 116, 367–371 (in Russian with English abs.). (2) (1988) Amer. Mineral., 73, 931–932 (abs. ref. 1). (3) (1988) Mineral. Abs., 39, 122–123 (abs. ref. 1). (4) O'Neill, H.St.C. and W.A. Dollase (1994) Crystal structures and cation distributions in simple spinels from powder XRD structural refinements: MgCr₂O₄, ZnCr₂O₄, Fe₃O₄ and the temperature dependence of the cation distribution in ZnAl₂O₄. Phys. Chem. Minerals, 20, 541–555. (5) (1971) NBS Mono. 25, 9, 59.

; zinchochromite-8H = zinchochromite-2N2S; zinchochromite-16H = zinchochromite-2N6S; [full list given under högbomite];

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