

Crystal Data: Hexagonal. *Point Group:* 3*m*. Prismatic crystals display {10 $\bar{1}$ 0}, {11 $\bar{2}$ 0}, {10 $\bar{1}$ 1} and {0001}, to 0.3 mm.

Physical Properties: *Parting:* Distinct on {0001}. *Fracture:* Conchoidal. *Tenacity:* Brittle. Hardness = 7.5 VHN = 14540 (50 g load). D(meas.) = 3.32(2) D(calc.) = 3.299; 3.315

Optical Properties: Transparent. *Color:* Emerald-green. *Streak:* Green. *Luster:* Vitreous. *Optical Class:* Uniaxial (-). $\omega = 1.765(5)$ $\epsilon = 1.715(5)$ *Pleochroism:* Strong, *O* = dark green; *E* = yellow-green.

Cell Data: *Space Group:* R3*m*. $a = 16.1121(3)$ $c = 7.3701(1)$ $Z = 3$

X-ray Powder Pattern: Calculated pattern.

2.61 (100), 6.52 (68), 4.02 (63), 3.02 (57), 3.56 (49), 2.07 (47), 4.29 (40)

Chemistry:	(1)		(1)
SiO ₂	31.73	MgO	7.49
TiO ₂	0.32	Na ₂ O	2.78
B ₂ O ₃	[9.35]	K ₂ O	0.08
Al ₂ O ₃	3.61	F	0.78
Cr ₂ O ₃	36.25	- O = F	0.33
V ₂ O ₃	5.81	H ₂ O	[2.16]
		Total	100.03

(1) Sludyanka, Lake Baikal, Russia; average of 15 electron microprobe analyses, B₂O₃ and H₂O calculated from stoichiometry; corresponds to ^X(Na_{1.00}K_{0.02})^Y(Cr³⁺_{1.95}V³⁺_{0.87}Mg_{0.14}Ti_{0.04})^Z(Cr³⁺_{3.37}Mg_{1.93}Al_{0.69})^T[(Si_{5.90}Al_{0.10})O₁₈]^B(BO₃)₃^V(OH)_{2.67}O_{0.33}^W[O_{0.54}F_{0.46}].

Polymorphism & Series: Solid-solution exists with chromium-dravite, oxy-dravite, and chromo-alumino-povondraite.

Mineral Group: Tourmaline supergroup, alkali group, oxy-subgroup 3.

Occurrence: In Cr-V-bearing calcite-quartz-diopside metamorphic rocks (granulite facies).

Association: Quartz, calcite, chromphyllite, eskolaite, chromite, uvarovite, chromian phlogopite, diopside-kosmochlor, chromian tremolite, chromian titanite, chromian rutile, pyrite (quartzite); Cr-V-bearing diopside, quartz, calcite, magnesiochromite, eskolaite-karelianite (quartz-diopside rock).

Distribution: From the Pereval marble quarry, near Sludyanka, Irkutsk region, Southern Lake Baikal, Russia.

Name: As an oxy-dravite with dominant chromium in the Y and Z sites and magnesium the dominant divalent cation in Z.

Type Material: Museum of Mineralogy, Earth Sciences Department, Sapienza University of Rome, Italy (33064).

References: (1) Bosi, F., L.Z. Reznitskii, and E.V. Sklyarov (2012) Oxy-chromium-dravite, NaCr₃(Cr₄Mg₂)(Si₆O₁₈)(BO₃)₃(OH)₃O, a new mineral species of the tourmaline supergroup. *Amer. Mineral.*, 97, 2024-2030.