

Crystal Data: Monoclinic. *Point Group:* 2/m. As crusts of coarse spherulites, to 1 mm, with a rough surface formed by crude crystals to 0.02 mm. *Twinning:* Polysynthetic twins, very thin twin lamellae form “belts” crossing some grains, observed under the microscope.

Physical Properties: *Cleavage:* One direction, imperfect. *Tenacity:* Brittle. *Fracture:* Uneven. Hardness = ~ 3.5 D(meas.) = n.d. D(calc.) = 3.508 Water soluble and hydroscopic.

Optical Properties: Transparent to translucent. *Color:* Colorless to light blue, with a greenish hue; light brown; colorless with slight bluish tint in plane polarized light. *Streak:* White. *Luster:* Vitreous.

Optical Class: Biaxial (-). $\alpha = 1.624(3)$ $\beta = 1.661(3)$ $\gamma = 1.663(3)$ $2V(\text{meas.}) = 35(10)^\circ$ $2V(\text{calc.}) = 26^\circ$ *Dispersion:* Distinct, $r > v$.

Cell Data: *Space Group:* $P2_1/n$. $a = 4.8141(3)$ $b = 8.4443(5)$ $c = 6.7731(4)$ $\beta = 94.598(5)^\circ$ $Z = 2$

X-ray Powder Pattern: Second Scoria Cone, Tolbachik volcano, Kamchatka, Russia.
2.637 (100), 4.175 (68), 2.430 (68), 3.666 (64), 3.579 (63), 3.443 (59), 2.719 (41)

Chemistry:	(1)	(2)
MgO	11.00	14.39
MnO	0.16	
CuO	31.18	28.42
ZnO	2.62	
SO_3	54.76	57.19
Total	99.72	100.00

(1) Second Scoria Cone, Tolbachik volcano, Kamchatka, Russia; average of 7 electron microprobe analyses supplemented by FTIR spectroscopy; corresponds to $\text{Mg}_{0.79}\text{Mn}_{0.01}\text{Cu}_{1.14}\text{Zn}_{0.09}\text{S}_{1.99}\text{O}_8$.
(2) $\text{CuMg}(\text{SO}_4)_2$.

Occurrence: Forms sublimes around active fumaroles.

Association: Dolerophanite, euchlorine, tenorite, hematite, langbeinite, steklite, fedotovite, wulffite, anhydrite, anglesite (Arsenatnaya fumarole); euchlorine, chalcocyanite, steklite, alumoklyuchevskite, piypite, parawulffite, cryptochalcite, dolerophanite, hematite, tenorite, vergasovaite, cupromolybdite, yaroshevskite, ziesite (Yadovitaya fumarole).

Distribution: From the Arsenatnaya and Yadovitaya fumaroles, Second Scoria Cone, Northern Breakthrough, Tolbachik volcano, Kamchatka, Far-Eastern Region, Russia.

Name: Honors the Russian mineralogist and geologist Petr Lyudovikovich Dravert (1879-1945) for his significant contribution to the mineralogy of Siberia.

Type Material: A.E. Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia (95001).

References: (1) Pekov, I.V., N.V. Zubkova, A.A. Agakhanov, V.O. Yapaskurt, N.V. Chukanov, D.I. Belakovskiy, E.G. Sidorov and D.Y. Pushcharovsky (2017) Dravertite, $\text{CuMg}(\text{SO}_4)_2$, a new mineral species from the Tolbachik volcano, Kamchatka, Russia. Eur. J. Mineral., 29(2), 323-330. (2) (2018) Amer. Mineral., 103, 659-660 (abs. ref. 1).