

**Crystal Data:** Tetragonal. *Point Group:*  $4/m\ 2/m\ 2/m$ . Crystals rounded, tabular, flattened on {001}, showing {111}, {110}, rarely {100}, to 1 mm.

**Physical Properties:** *Cleavage:* {110}, perfect; {001}, excellent. *Fracture:* Conchoidal. *Tenacity:* Brittle, thin fragments slightly elastic. Hardness = 2 D(meas.) = 2.78(1) D(calc.) = 2.94 Hygroscopic, soluble in H<sub>2</sub>O, altering to CaCl<sub>2</sub> and CaF<sub>2</sub>; weak violet fluorescence under LW UV.

**Optical Properties:** Transparent, becoming turbid on exposure to moist air. *Color:* Colorless. *Streak:* White. *Luster:* Vitreous. *Optical Class:* Uniaxial (-).  $\omega = 1.668(2)$   $\epsilon = 1.635(2)$

**Cell Data:** *Space Group:*  $[P4/nmm]$  (by analogy to matlockite).  $a = 3.890(1)$   $c = 6.810(1)$   $Z = 2$

**X-ray Powder Pattern:** Kopeysk, Russia.  
2.557 (100), 6.81 (45), 2.267 (35), 2.138 (32), 1.560 (32), 3.396 (30), 1.363 (25)

Chemistry:	(1)	(2)
Mg	3.63	
Ca	38.94	42.40
F	23.29	20.10
Cl	34.24	37.50
Total	100.10	100.00

(1) Kopeysk, Russia; corresponds to  $(\text{Ca}_{0.89}\text{Mg}_{0.13})_{\Sigma=1.02}\text{F}_{1.00}(\text{Cl}_{0.88}\text{F}_{0.12})_{\Sigma=1.00}$ . (2) CaFCl.

**Occurrence:** Within carbonized wood in burnt coal dumps.

**Association:** Fluorite, periclase, troilite.

**Distribution:** From Kopeysk, Chelyabinsk coal basin, Southern Ural Mountains, Russia.

**Name:** From the Latin for *dew*, in allusion to the transparent drops that cover the mineral in moist air.

**Type Material:** Mining Institute, St. Petersburg, 2073; Il'menskii Preserve Museum, Miass, 5880; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, r460/1.

**References:** (1) Chesnokov, B.V., T.P. Nishanbaev, and L.F. Bazhenova (1990) Rorisite CaFCl – a new mineral. *Zap. Vses. Mineral. Obshch.*, 119(3), 73–76 (in Russian). (2) (1991) *Amer. Mineral.*, 76, 1731 (abs. ref. 1).