Voudourisite Cd(SO<sub>4</sub>)·H<sub>2</sub>O

**Crystal Data**: Monoclinic. *Point Group*: 2/m. As clusters < 0.5 mm of stacked, short prismatic and rounded crystals or powdery crusts.

**Physical Properties**: Cleavage: None. Tenacity: Brittle. Fracture: Conchoidal Hardness =  $\sim$ 3 D(meas.) = 3.80(5) D(calc.) = 3.838 Nonfluorescent.

**Optical Properties**: Transparent to translucent. *Color*: Colorless, white. *Streak*: White. *Luster*: Vitreous.

*Optical Class*: Biaxial(-).  $\alpha = 1.580(2)$   $\beta = 1.624(2)$   $\gamma = 1.640(2)$  2V(meas.) = 70(5)° 2V(calc.) = 61°

**Cell Data**: Space Group:  $P2_1/c$ . a = 7.633(2) b = 7.458(2) c = 8.151(2)  $\beta = 122.35(1)^\circ$  Z = 4

**X-Ray Diffraction Pattern**: Esperanza Mine, Kaminiza area, Lavrion Mining District, Greece. 3.578 (100), 4.890 (66), 3.230 (43), 2.525 (33), 2.395 (29), 3.741 (25), 3.292 (15)

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	(1)	(2)
CdO	47.91	56.69
$SO_3$	36.43	35.35
CuO	5.98	
FeO	1.27	
MgO	0.22	
$H_2O$	[8.28]	7.96
Total	100.09	100.00

(1) Esperanza Mine, Kaminiza area, Lavrion Mining District, Greece; average electron microprobe analysis,  $H_2O$  calculated; corresponds to  $(Cd_{0.81}Cu_{0.16}Fe_{0.04}Mg_{0.01})_{\Sigma=1.02}S_{0.99}O_4 \cdot H_2O$ . (2)  $Cd(SO_4) \cdot H_2O$ .

**Occurrence**: A secondary mineral from the weathering of primary hawleyite and greenockite.

**Association**: Lazaridisite, sphalerite, galena, edwardsite, chalcanthite, gypsum, greenockite.

**Distribution**: At the Esperanza Mine, Kaminiza area, #19 Mine, Ano Sounio area, and at the North Mine, Villia area, Lavrion Mining District, Greece.

**Name**: Honors Professor Panagiotis *Voudouris* (b. 1962), Department of Mineralogy and Petrology, Faculty of Geology and Geoenvironment, National and Kapodistrian University of Athens, Greece, in recognition of his groundbreaking work on the Lavrion deposits.

**Type Material**: Institute for Mineralogy and Crystallography, University of Vienna, Austria, (HS13.077).

**References**: (1) Rieck, B., C.L. Lengauer, and G. Giester (2019) Voudourisite, Cd(SO<sub>4</sub>)•H<sub>2</sub>O, and lazaridisite, Cd<sub>3</sub>(SO<sub>4</sub>)<sub>3</sub>•8H<sub>2</sub>O, two new minerals from the Lavrion Mining District, Greece. Mineral. Mag., 83, 551-559.