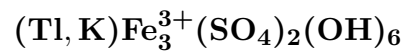


Dorallcharite

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Crystal Data: Hexagonal. *Point Group:* $\bar{3} 2/m$. As fine-grained earthy masses of pseudocubic and rhombohedral crystals, to 8 μm .

Physical Properties: *Cleavage:* On {0001}, distinct. Hardness = n.d. D(meas.) = n.d. D(calc.) = 3.85

Optical Properties: Semitransparent. *Color:* Golden yellow, brownish yellow; colorless in transmitted light. *Streak:* Yellow.

Optical Class: Uniaxial (-). $\omega = 1.822(3)$ $\epsilon = 1.768(2)$

Cell Data: *Space Group:* $R\bar{3}m$. $a = 7.3301(3)$ $c = 17.6631(7)$ $Z = 3$

X-ray Powder Pattern: Alšar, Macedonia.

3.112 (100), 5.974 (87), 3.666 (34), 1.991 (29), 1.833 (23), 2.988 (22), 2.577 (21)

Chemistry:

	(1)
SO ₃	26.52
As ₂ O ₅	1.19
Fe ₂ O ₃	39.54
K ₂ O	1.23
Tl ₂ O	24.28
H ₂ O	[7.59]
Total	[100.35]

(1) Alšar, Macedonia; by electron microprobe, average of seven analyses with lowest Fe/(Tl + K) ratios, H₂O calculated by analogy to jarosite; after deduction of excess Fe and As, corresponds to $(\text{Tl}_{0.81}\text{K}_{0.19})_{\Sigma=1.00}\text{Fe}_3(\text{SO}_4)_2(\text{OH})_6$.

Mineral Group: Alunite group.

Occurrence: In oxidized portions of a Tl-bearing hydrothermal sulfide-sulfosalt deposit.

Association: Amorphous Fe–Mn arsenate-sulfate, gypsum, bassanite, rösslerite, pharmacosiderite, melanterite, barite.

Distribution: From Alšar (Allchar), near Rošden, Macedonia.

Name: From the French *doré*, *golden yellow*, and the famous mining locality, Alšar (Allchar), Macedonia.

Type Material: University of Copenhagen, Copenhagen, Denmark, 1993.7.

References: (1) Balić Žunić, T., Y. Moëlo, Ž. Lončar, and H. Micheelsen (1994) Dorallcharite, $\text{Tl}_{0.8}\text{K}_{0.2}\text{Fe}_3(\text{SO}_4)_2(\text{OH})_6$, a new member of the jarosite-alunite family. *Eur. J. Mineral.*, 6, 255–263. (2) (1995) *Amer. Mineral.*, 80, 184–185 (abs. ref. 1).