

Crystal Data: Monoclinic. *Point Group:* 2/m. As prismatic crystals or aggregates, to 10 mm., elongated on [001], flattened on {010} with forms {010}, {100}, {110}, {131}, {111}, and $\{\bar{3} 11\}$.

Physical Properties: *Cleavage:* None. *Fracture:* Conchoidal. *Tenacity:* Brittle. Hardness = 5 D(meas.) = 4.18(2) D(calc.) = 4.182(1)

Optical Properties: Translucent (slightly metallic). *Color:* Brown or brown-black. *Streak:* Bright brown to yellow-gray. *Luster:* Adamantine. *Optical Class:* Biaxial (-). $\alpha = 1.870(2)$ $\beta = 1.897(2)$ $\gamma = 1.900(2)$ $2V(\text{meas.}) = 35(2)^\circ$ $2V(\text{calc.}) = 36.5(3)^\circ$ *Dispersion:* $r < v$, strong. *Orientation:* $X \wedge a = 5^\circ$, $Y = b$, $Z \wedge c = 17^\circ$. *Pleochroism:* Moderate; $X =$ orange brown, yellow; $Z = Y =$ grayish yellow, colorless.

Cell Data: *Space Group:* C2/c. $a = 12.181(1)$ $b = 12.807(1)$ $c = 6.6391(5)$ $\beta = 112.441(9)^\circ$ $Z = 4$

X-ray Powder Pattern: Erciyes volcanic complex, Kiranardi, Turkey. 2.780 (100), 3.202 (40), 2.611 (40), 3.575 (30), 6.400 (20), 5.630 (20), 3.766 (15)

| | |
|--------------------------------|--------|
| Chemistry: | (1) |
| Na ₂ O | 5.10 |
| MgO | 4.12 |
| MnO | 3.70 |
| ZnO | 0.30 |
| Fe ₂ O ₃ | 27.20 |
| As ₂ O ₅ | 56.94 |
| H ₂ O | 2.64 |
| Total | 100.00 |

(1) Erciyes volcanic complex, Kiranardi, Turkey; average of 5 electron microprobe analyses, H₂O by difference and confirmed by IR spectroscopy; corresponding to $\text{Na}_{0.99}\text{Fe}^{3+}_{2.05}(\text{Mg}_{0.61}\text{Mn}_{0.32}\text{Zn}_{0.02})_{\Sigma=0.95}\text{As}_{2.99}\text{O}_{12} \cdot 0.88\text{H}_2\text{O}$.

Occurrence: A hydrothermal mineral in fissures cutting porphyritic andesite in a stratovolcano.

Association: Cassiterite, hematite, magnetite, orpiment, realgar, tridymite.

Distribution: Erciyes stratovolcanic complex, 10 km south of the prefecture of Kayseri, near Hisarcik, Kiranardi, Turkey.

Name: Honors Dr. Evren Yazgan (b. 1943), a geologist who found the first specimens.

Type Material: Department of Mineralogy, Natural History Museum of Geneva, Switzerland, (478.188).

References: (1) Sarp, H. and R. Černý (2005) Yazganite, $\text{NaFe}^{3+}_2(\text{Mg,Mn})(\text{AsO}_4)_3 \cdot \text{H}_2\text{O}$, a new mineral: its description and crystal structure. *Eur. J. Mineral.*, 17, 367-373. (2) (2005) *Amer. Mineral.*, 90, 1950 (abs. ref. 1).