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  $\{\overline{3}\ 11\}$ .

**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(meas.) = 35(2)° 2V(calc.) = 36.5(3)° *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 = gravish 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)	
Ν	Ja <sub>2</sub> O 5.10	
Μ	4.12 dgO	
Μ	4nO 3.70	
Zı	uno 0.30	
Fe	$e_2O_3$ 27.20	
А	56.94	
<u>H</u>	I <sub>2</sub> O 2.64	
Te	otal 100.00	

(1) Ercives volcanic complex, Kiranardi, Turkey; average of 5 electron microprobe analyses, H<sub>2</sub>O by difference and confirmed by IR spectroscopy; corresponding to  $Na_{0.99}Fe^{3+}_{2.05}(Mg_{0.61}Mn_{0.32}Zn_{0.02})_{\Sigma=0.95}As_{2.99}O_{12} \bullet 0.88H_2O.$ 

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,  $NaFe^{3+}_{2}(Mg,Mn)(AsO_{4})_{3}$ ·H<sub>2</sub>O, a new mineral: its description and crystal structure. Eur. J. Mineral., 17, 367-373. (2) (2005) Amer. Mineral., 90, 1950 (abs. ref. 1).