

Crystal Data: Triclinic. *Point Group:* $\bar{1}$. As crude platy crystals elongated along [001] and flattened on {010}, with frosty surfaces, to 0.5 mm. *Twinning:* Simple contact and polysynthetic twinning on {100} by rotation about [010] is ubiquitous.

Physical Properties: *Cleavage:* Two fair at ~90°, probably {010} and {001}. *Tenacity:* Brittle. *Fracture:* Conchoidal to irregular. Hardness = 2.5 D(meas.) = 2.67(3) D(calc.) = 2.670 Dissolves slowly in concentrated HCl.

Optical Properties: Transparent. *Color:* Colorless. *Streak:* White. *Luster:* Vitreous. *Optical Class:* Biaxial (+). $\alpha = 1.493(1)$ $\beta = 1.495(1)$ $\gamma = 1.520(1)$ $2V(\text{meas.}) = 33(5)^\circ$ $2V(\text{calc.}) = 32^\circ$ *Dispersion:* $r < v$. *Orientation:* $Z \approx b$, X and Z at 40-50° from a and c .

Cell Data: *Space Group:* $P\bar{1}$. $a = 6.1933(7)$ $b = 9.871(1)$ $c = 13.580(2)$ $\alpha = 89.716(3)^\circ$ $\beta = 75.303(4)^\circ$ $\gamma = 88.683(4)^\circ$ $Z = 2$

X-ray Powder Pattern: Gigante pegmatite, Punilla department, Córdoba Province, Argentina. 5.994 (100), 2.945 (85), 7.904 (70), 3.280 (58), 2.887 (44), 3.113 (30), 2.262 (27)

Chemistry:	(1)	(2)
CaO	34.71	34.71
MgO	0.01	
FeO	0.10	
MnO	0.17	
Al ₂ O ₃	15.92	15.78
SiO ₂	0.06	
TiO ₂	0.01	
P ₂ O ₅	21.94	21.96
F	21.35	23.52
H ₂ O	[15.08]	13.94
- O = F	8.99	9.90
Total	100.39	100.00

(1) Gigante pegmatite, Punilla department, Córdoba Province, Argentina; average of 12 electron microprobe analyses, H₂O calculated from stoichiometry; corresponding to (Ca_{3.98}Mn_{0.02}Fe_{0.01})_{Σ=4.0}Al_{2.01}(P_{1.99}Si_{0.01}O₈)F_{7.23}(OH)_{0.77}•5H₂O. (2) Ca₄Al₂(PO₄)₂F₈•5H₂O.

Occurrence: A late-stage hydrothermal mineral that crystallized from fluorine-rich solutions in intragranitic pegmatite.

Association: Morinite, strengite.

Distribution: From the Gigante pegmatite, 18.45 km west-southwest of Tanti, Punilla department, Córdoba Province, Argentina.

Name: Honors Miguel Ángel Galliski (b. 1948), Argentine mineralogist and pegmatite specialist for his research on the pegmatites of the Pampean Pegmatite Province of northwestern Argentina.

Type Material: Natural History Museum of Los Angeles County, Los Angeles, California, USA (62500).

References: (1) Kampf, A.R., F. Colombo, W.B. Simmons, A.U. Falster, and J.W. Nizamoff (2010) Galliskiite, Ca₄Al₂(PO₄)₂F₈•5H₂O, a new mineral from the Gigante granitic pegmatite, Córdoba province, Argentina. *Amer. Mineral.*, 95, 392-396.