Crystal Data: Triclinic. *Point Group*: $\bar{1}$. Crystals, platy on {001}, to 8 x 15 x 2 mm; as star shaped aggregates.

Physical Properties: *Cleavage*: Perfect on {001}. *Fracture*: Splintery.
Tenacity: Brittle. Hardness = < 5 D(meas.) = 3.871(1), impure sample. D(calc.) = 4.018

Optical Properties: Translucent. *Color*: Orange-red to brownish-red. *Streak*: Pale yellow.
Luster: Vitreous.
Optical Class: Biaxial (+). *Pleochroism:* Strong; X = light brown; Y = reddish brown; Z = yellow-brown. *Absorption*: Z < X < Y. γ(calc) = 1.866 2V(meas.) = 93(1)°
Orientation: X ^ a = 90.4°; Y ^ b = 86.9°; Z ^ c = 103.9°.

Cell Data: *Space Group*: $C\bar{1}$. a = 10.6965(7) b = 13.7861(9) c = 21.478(2)
α = 99.345(1)° β = 92.315(2)° γ = 89.993(2)° Z = 4

X-ray Powder Pattern: Verkhnee Espe Deposit, Akjailyautas Mountains, eastern Kazakhstan.
2.63 (100), 2.79 (90), 1.721 (70), 3.39 (50), 3.18 (50), 2.101 (50), 2.87 (40)

Chemistry:

	(1)		(1)
SiO_2	25.25	CaO	0.56
TiO_2	15.69	BaO	21.11
ZrO_2	0.33	FeO_{total}	16.54
Al_2O_3	0.13	Na_2O	1.41
Fe_2O_3	2.77	K_2O	0.84
Nb_2O_5	1.57	F	3.11
MnO	9.46	H_2O_{calc}	1.84
ZnO	0.12	$-O = F_2$	1.31
MgO	0.21	Total	99.63

(1) Verkhnee Espe Deposit, Akjailyautas Mountains, eastern Kazakhstan, average of 13 electron microprobe analyses, Fe^{3+}/Fe^{2+} by Mössbauer spectroscopy, H_2O from structure analysis; corresponding to $(Ba_{2.61}K_{0.34})_{\Sigma=2.95}(Na_{0.86}Ca_{0.14})_{\Sigma=1}(Ti_{3.72}Nb_{0.22}Al_{0.05})_{\Sigma=3.99}$ $(Fe^{2+}_{4.36}Fe^{3+}_{0.66}$ $Mn_{2.53}Mg_{0.10}Zr_{0.05}Zn_{0.03}Ca_{0.05})_{\Sigma=7.78}Si_{7.97}O_{35.89}H_{3.88}F_{3.11}$.

Occurrence: A hydrothermal mineral in the extensively recrystallized contact zone of a fenitized granite.

Association: Bafertisite, jinshajiangite, zircon, pyrochlore-group minerals, thorite, monazite, xenotime, fluoroleakeite (as inclusions).

Distribution: Verkhnee Espe Deposit, Akjailyautas Mountains, eastern Kazakhstan.

Name: Honors Fernando Cámara (b. 1967) of Melilla, Spain, in recognition of his contributions to the mineralogy and crystallography of Ti-silicates, amphiboles, and arrojadite-group and cancrinite-group minerals.

Type Material: Fersman Mineralogical Museum, Moscow, Russia (catalog no. 3828/1 and 3828/2).

References: (1) Sokolova, E., Y. Abdu, F.C. Hawthorne, A.V. Stepanov, G.K. Bekenova, and P.E. Kotel'nikov (2009) Cámaraite, $Ba_3NaTi_4(Fe^{2+},Mn)_8(Si_2O_7)_4O_4(OH,F)_7$. I. A new Ti-silicate mineral from the Verkhnee Espe Deposit, Akjailyautas Mountains, Kazakhstan. Mineral. Mag., 73, 847–854. (2) Cámara, F., E. Sokolova, and F. Nieto (2009) Cámaraite, $Ba_3NaTi_4(Fe^{2+},Mn)_8(Si_2O_7)_4O_4(OH,F)_7$. II. The crystal structure and crystal chemistry of a new group-II Ti-disilicate mineral. Mineral. Mag., 73, 855–870. (3) (2010) Amer. Mineral., 95, 1357–1358 (abs. refs. 1 and 2).