Rubicline $Rb(AlSi_3O_8)$

Crystal Data: Triclinic. *Point Group*: $\bar{1}$. As rounded grains to 50 μm in 1-2 cm wide veins of rubidian microcline that crosscut pollucite. *Twinning*: None observed.

Physical Properties: *Cleavage*: Perfect on {001}, good on {010} (by analogy to microcline). *Tenacity*: Brittle. *Fracture*: n.d. Hardness = n.d. D(meas.) = n.d. D(calc.) = n.d.

Optical Properties: Transparent. *Color*: Colorless. *Streak*: [White.] *Luster*: [Vitreous.] *Optical Class*: Biaxial. α, β, and γ slightly greater than microcline. 2V = n.d.

Cell Data: *Space Group*: $P\bar{1}$. $a = 8.81(3)$ $b = 13.01(3)$ $c = 7.18(4)$ $\alpha = 90.3(1)°$ $\beta = 115.7(3)°$ $\gamma = 88.2(1)°$ $Z = 4$

X-ray Powder Pattern: n.d.

Chemistry:

	(1)
SiO_2	58.68
Al_2O_3	16.48
K_2O	6.23
Rb_2O	17.47
Cs_2O	0.92
Fe_2O_3	0.12
Total	99.90

(1) San Piero in Campo, Elba, Italy; average electron microprobe analysis; corresponding to $(Rb_{0.574}K_{0.407}Cs_{0.020})_{\Sigma=1.001}(Al_{0.993}Fe_{0.005})Si_{3.001}O_8$.

Polymorphism & Series: Solid-solution series with microcline.

Mineral Group: Feldspar group.

Occurrence: In the core zones of complex Li-Cs-Rb-enriched, rare-element, granitic pegmatites, by exsolution from a K-Na-Rb-enriched precursor, followed possibly by fluid-induced modification.

Association: Rubidian microcline, albite, muscovite, quartz, apatite, pollucite.

Distribution: From San Piero in Campo, Elba, Italy.

Name: Indicates the *rubi*dium analogue of micro*cline*.

Type Material: R.B. Ferguson Museum of Mineralogy, University of Manitoba, Canada (M 6980 and M 6981).

References: (1) Teertstra, D.K., P. Černý, F.C. Hawthorne, J. Pier, L. Wang, and R.C. Ewing (1998) Rubicline, a new feldspar from San Piero in Campo, Elba, Italy. Amer. Mineral., 83, 1335-1339. (2) Kyono, A. and M. Kimata (2001) Refinement of the crystal structure of a synthetic non-stoichiometric Rb-feldspar. Mineral. Mag., 65, 523-531.