Trikalsilite $(K, Na)AlSiO_4$

Crystal Data: Hexagonal. *Point Group:* 6. Extremely fine-grained; in parallel growth with nepheline and kalsilite.

Physical Properties: Hardness = n.d. D(meas.) = n.d. D(calc.) = n.d.

Optical Properties: Semitransparent. *Color:* [White.]
Optical Class: [Uniaxial.] ω = n.d. ϵ = n.d.

Cell Data: *Space Group:* $P6_3$. $a = 15.339(4)$ $c = 8.501(2)$ Z = n.d.

X-ray Powder Pattern: Kabfumu volcanic flow, Congo.
3.076 (100), 3.050 (95), 2.558 (45), 4.269 (35), 2.410 (35), 3.932 (30), 3.384 (25)

Chemistry: Apparently no analysis is available.

Polymorphism & Series: Polymorphous with kaliophilite, kalsilite, and panunzite.

Occurrence: In lava.

Association: Nepheline, kalsilite.

Distribution: From the Kabfumu volcanic flow, between the Mt. Mikeno and Mt. Nyiragongo volcanos, Kivu Province, Congo (Zaire).

Name: For the length of the [100] axis, three times that of *kalsilite*.

Type Material: n.d.

References: (1) Sahama, T.G. and J.V. Smith (1957) Tri-kalsilite, a new mineral. Amer. Mineral., 42, 286. (2) Bonaccorsi, E., S. Merlino, and M. Pasero (1988) Trikalsilite: its structural relationships with nepheline and tetrakalsilite. Neues Jahrb. Mineral., Monatsh., 559–567. (3) Sahama, T.G. (1957) Complex nepheline-kalsilite phenocrysts in Kabfumu lava, Nyiragongo area, north Kivu in Belgian Congo. J. Geol., 65, 515–526.