

Traskite**Ba₉Fe₂²⁺Ti₂(SiO₃)₁₂(OH, Cl, F)₆·6H₂O**

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Crystal Data: Hexagonal. *Point Group:* $\bar{6}m2$. Rarely as euhedral pyramidal crystals, with {0001} and {10 $\bar{1}0$ } prominent. Commonly as equant anhedral grains, to 3 mm.

Physical Properties: *Fracture:* Conchoidal. *Hardness* = ~5 *D*(meas.) = 3.71(2)
D(calc.) = 3.75

Optical Properties: Transparent to translucent. *Color:* Brownish red. *Streak:* Pale reddish brown. *Luster:* Vitreous.

Optical Class: Uniaxial (-). *Pleochroism:* *O* = brownish red; *E* = colorless or straw-yellow.
 $\omega = 1.714(3)$ $\epsilon = 1.702(3)$

Cell Data: *Space Group:* $P\bar{6}m2$. *a* = 17.89(1) *c* = 12.33(1) *Z* = 3

X-ray Powder Pattern: Big Creek area, California, USA.

2.96 (100), 15.4 (50), 3.51 (40), 3.08 (35), 3.27 (25), 2.90 (25), 3.21 (20)

Chemistry:

	(1)		(1)
SiO ₂	27.77	SrO	0.34
TiO ₂	5.6	BaO	51.19
Al ₂ O ₃	0.33	K ₂ O	< 0.05
FeO	4.2	F	0.4
MnO	1.36	Cl	3.5
MgO	0.30	LOI	[5.1]
CaO	0.86	-O = (F, Cl) ₂	1.0
		Total	[100.00]

(1) Big Creek area, California, USA; K and Cl by XRF, loss on ignition taken as H₂O, recalculated to 100.00%; corresponds to (Ba_{8.46}Ca_{0.39}Sr_{0.08}K_{0.03})_{Σ=8.96}(Fe_{1.48}²⁺Mn_{0.47}²⁺Mg_{0.19})_{Σ=2.14}Ti_{1.78}(Si_{11.84}Al_{0.16})_{Σ=12.00}O_{29.91}[(OH)_{14.36}Cl_{2.50}F_{0.53}]_{Σ=17.39}.

Occurrence: As local concentrations in thin layers in metamorphic sanbornite-quartz rock.

Association: Sanbornite, quartz, celsian, diopside, taramellite, fresnoite, muirite, verplanckite, pyrrhotite, pyrite.

Distribution: In the Rush Creek and Big Creek areas, Fresno Co., California, USA.

Name: For Dr. John Boardman Trask (1824–1879), first California State Geologist (1850–1857).

Type Material: California Division of Mines & Geology, San Francisco, California, USA.

References: (1) Alfors, J.T., M.C. Stinson, R.A. Matthews, and A. Pabst (1965) Seven new barium minerals from eastern Fresno County, California. *Amer. Mineral.*, 50, 314–340. (2) Alfors, J.T. and G.W. Putman (1965) Revised chemical analyses of traskite, verplanckite and muirite from Fresno County, California. *Amer. Mineral.*, 50, 1500–1503. (3) Malinovskii, Y.A., E.A. Pobedimskaya, and N.V. Belov (1976) Crystal structure of traskite. *Doklady Acad. Nauk SSSR*, 229, 1101–1104 (in Russian). (4) (1976) *Chem. Abs.*, 85, 152258 (abs. ref. 3).