

Ferrokinoshitalite**Crystal Data:** Monoclinic. *Point Group:* 2/m. As tabular crystals, to 0.2 mm.**Physical Properties:** *Cleavage:* Perfect on (001). *Fracture:* None. *Tenacity:* Brittle. Hardness = 3
D(meas.) = 3.69(8) D(calc.) = 3.59**Optical Properties:** Translucent. *Color:* Dark green. *Streak:* Green. *Luster:* Vitreous.
Optical Class: Biaxial(-). *n*(calc.) = 1.6939 2V = ~20° *Pleochroism:* Strong; X = grass green,
Y = dark brown-green, Z = dark greenish gray-brown. *Absorption:* X << Z < Y.**Cell Data:** *Space Group:* C2/m. *a* = 5.389(1) *b* = 9.337(2) *c* = 10.054(2) *β* = 100.53(2)° *Z* = 2**X-ray Powder Pattern:** Broken Hill mine, near Aggeneys, northern Cape Province, South Africa.
2.651 (100), 2.176 (40), 1.551 (30), 1.659 (25), 1.529 (25), 3.655 (15), 2.446 (15)

Chemistry:	(1)
TiO ₂	2.68
Al ₂ O ₃	15.80
Fe ₂ O ₃	2.35
FeO	24.27
MnO	1.14
MgO	5.84
BaO	14.14
SrO	0.07
Na ₂ O	0.26
K ₂ O	3.18
F	2.43
Total	100.01

(1) Broken Hill mine, northern Cape Province, South Africa; average electron microprobe analysis, Fe²⁺/Fe³⁺ from high-performance ion chromatography, total corrected for - O = F; corresponds to (Ba_{0.49}K_{0.34}Na_{0.04})_{Σ=0.85}(Fe²⁺_{1.72}Mg_{0.74}Mn_{0.08}Fe³⁺_{0.15}Ti_{0.17})_{Σ=2.87}(Si_{2.44}Al_{1.56})_{Σ=4.00}O₁₀[(OH)_{1.35}F_{0.65}]_{Σ=2.00}.**Polymorphism & Series:** Kinoshitalite-ferrokinoshitalite solid solution. 1M polytype.**Mineral Group:** Brittle mica.**Occurrence:** In massive Pb-Zn-Cu-Ag sulfide orebodies in banded iron formation that underwent high-grade metamorphism.**Association:** Quartz, magnetite, spessartine-rich garnet, apatite, sillimanite, ferroan gahnite, Mn-rich grunerite, manganogrunerite, manganooan fayalite, Mn-rich pyroxferroite.**Distribution:** At the Broken Hill mine, near Aggeneys, northern Cape Province, South Africa.**Name:** Prefix, *ferro*, indicates the Fe²⁺-dominant analog of *kinoshitalite*.**Type Material:** Department of Geological Sciences, University of Cape Town, South Africa.**References:** (1) Guggenheim, S. and H.E. Frimmel (1999) Ferrokinoshitalite, a new species of brittle mica from the Broken Hill Mine, South Africa; structural and mineralogical characterization. *Can. Mineral.*, 37, 1445-1452. (2) (2000) *Amer. Mineral.*, 85(10), 1561-1562 (abs. ref. 1).