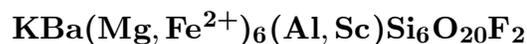


# Magbasite



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**Crystal Data:** n.d. *Point Group:* n.d. As acicular crystals forming fibrous, fan-shaped aggregates, to 5 mm.

**Physical Properties:** Hardness =  $\sim 5$  D(meas.) = 3.41 D(calc.) = n.d.

**Optical Properties:** Transparent to translucent. *Color:* Colorless or pinkish violet. *Luster:* Vitreous.

*Optical Class:* Biaxial (-). *Pleochroism:* X = Y = colorless; Z = lilac. *Orientation:*  $Z \wedge c = 10^\circ$ .  $\alpha = 1.579$   $\beta = 1.609$   $\gamma = 1.615$   $2V(\text{meas.}) = 70^\circ$

**Cell Data:** *Space Group:* n.d. Z = n.d.

**X-ray Powder Pattern:** "Russia."

3.63 (100), 3.23 (100b) 3.16 (100b), 2.59 (80), 2.43 (80), 1.407 (70), 9.5 (50)

**Chemistry:**

	(1)
SiO <sub>2</sub>	39.7
Al <sub>2</sub> O <sub>3</sub>	4.0
Sc <sub>2</sub> O <sub>3</sub>	2.1
FeO	8.9
MgO	21.4
CaO	1.7
BaO	14.8
K <sub>2</sub> O	4.9
F	5.5
-O = F <sub>2</sub>	2.3
Total	100.7

(1) "Russia;" corresponds to  $\text{K}_{0.94}(\text{Ba}_{0.81}\text{Ca}_{0.27})_{\Sigma=1.08}(\text{Mg}_{4.81}\text{Fe}_{1.12}^{2+})_{\Sigma=5.93}(\text{Al}_{0.71}\text{Sc}_{0.28})_{\Sigma=0.99}\text{Si}_{6.00}\text{O}_{20}\text{F}_{2.62}$ .

**Occurrence:** In hydrothermally altered dolostone invaded by alkalic ferro-hornblende-bearing granosyenite.

**Association:** Fluorite, barite, parisite.

**Distribution:** In "one of the [unspecified] Asiatic hydrothermal formations, Russia."

**Name:** For MAGnesium and BARIum in its chemical composition.

**Type Material:** n.d.

**References:** (1) Semenov, E.I., A.P. Khomyakov, and A.V. Bykova (1965) Magbasite, a new mineral. Doklady Acad. Nauk SSSR, 163, 718-719 (in Russian). (2) (1966) Amer. Mineral., 51, 530-531 (abs. ref. 1).