

Crystal Data: n.d. *Point Group:* n.d. Needles, of micron size, aggregated in concretions.

Physical Properties: Hardness = ~5 $D(\text{meas.}) = 2.23\text{--}2.40$ $D(\text{calc.}) = \text{n.d.}$

Optical Properties: Semitransparent. *Color:* White to yellow.

Optical Class: n.d. *Orientation:* Elongation positive, extinction parallel. $\alpha = 1.547$ $\beta = \text{n.d.}$
 $\gamma = 1.571$ $2V(\text{meas.}) = \text{n.d.}$

Cell Data: *Space Group:* n.d. $Z = \text{n.d.}$

X-ray Powder Pattern: Boevskoye deposit, Russia.

11.0 (10), 2.42 (9), 3.17 (8), 1.957 (8), 1.395 (8), 4.06 (6), 2.68 (6b)

Chemistry:

	(1)	(2)	(3)
P_2O_5	36.99	34.02	41.37
CO_2	1.88	2.14	
SiO_2	0.00	0.95	
Al_2O_3	0.95	0.00	
Fe_2O_3	0.00	0.60	
BeO	28.97	29.46	29.16
MgO	0.00	trace	
CaO	14.11	12.72	16.34
F	0.00	0.12	
H_2O	13.70	13.70	13.13
insol.	2.90	n.d.	
Total	99.50		100.00

(1) Boevskoye deposit, Russia; corresponds to $\text{Ca}_{0.86}\text{Be}_{3.94}[(\text{PO}_4)_{1.79}(\text{CO}_3)_{0.15}(\text{AlO}_4)_{0.06}]_{\Sigma=2.00}(\text{OH})_{3.63} \cdot 0.80\text{H}_2\text{O}$. (2) Do.; Fe_2O_3 considered to be "limonite"; corresponds to $\text{Ca}_{0.84}\text{Be}_{4.28}[(\text{PO}_4)_{1.76}(\text{CO}_3)_{0.18}(\text{SiO}_4)_{0.06}]_{\Sigma=2.00}[(\text{OH})_{4.34}\text{F}_{0.02}]_{\Sigma=4.36} \cdot 0.62\text{H}_2\text{O}$. (3) $\text{CaBe}_4(\text{PO}_4)_2(\text{OH})_4 \cdot 0.5\text{H}_2\text{O}$.

Occurrence: As segregations in mica-fluorite greisen in illite rocks (Boevskoye deposit, Russia).

Association: Moraesite, fluorite, rutile, "limonite", quartz, mica-clay minerals (Boevskoye deposit, Russia); mitridatite, mormonite, siderite, tourmaline, albite (Paris, Maine, USA).

Distribution: In Russia, from the Boevskoye phenakite-beryl deposit, 35 km southwest of Kamensk-Ural'skii, Ural Mountains. In the Mt. Mica quarry, Paris, Oxford Co., Maine, USA.

Name: From the Latin *glucinium*, *beryllium*, for its content of that element.

Type Material: Il'menskii Preserve Museum, Miass, 11344vr; Mining Institute, St. Petersburg, 118/1; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 65901, 65902.

References: (1) Grigor'ev, N.A. (1963) Glucine, a new beryllium mineral. *Zap. Vses. Mineral. Obshch.*, 92, 691–696 (in Russian). (2) (1964) *Amer. Mineral.*, 49, 1152 (abs. ref. 1).