

Crystal Data: Hexagonal. *Point Group:* 32. As equant crystals terminated by trigonal pyramids, to 5 mm.

Physical Properties: *Tenacity:* Brittle. Hardness = 3–4 D(meas.) = 3.31(5)
D(calc.) = 3.31 Light blue cathodoluminescence.

Optical Properties: Semitransparent. *Color:* Brown. *Streak:* Light brown.
Luster: Vitreous.
Optical Class: Uniaxial (-). $\omega = 1.671(1)$ $\epsilon = 1.644(1)$

Cell Data: *Space Group:* R32. $a = 10.526(6)$ $c = 15.736(9)$ $Z = 6$

X-ray Powder Pattern: Vuoriyarvi complex, Russia.
5.23 (100), 2.96 (90), 3.59 (80), 3.02 (80), 2.57 (60), 2.106 (60)

Chemistry:	(1)
SiO ₂	34.44
ZrO ₂	24.94
HfO ₂	0.46
FeO	0.33
MnO	0.00
CaO	0.08
BaO	28.19
K ₂ O	0.13
H ₂ O	[11.43]
Total	[100.00]

(1) Vuoriyarvi complex, Russia; by electron microprobe, H₂O by difference (H₂O 10% to 11.5% by coulometric analysis); corresponds to (Ba_{0.95}Fe_{0.02}Ca_{0.01}K_{0.01})_{Σ=0.99}(Zr_{1.04}Hf_{0.01})_{Σ=1.05}Si_{2.95}O₉·3.08H₂O.

Occurrence: Apparently altering from catapleiite, in dolomitic veinlets cutting metasomatically altered pyroxenites, in a carbonatite.

Association: Dolomite, strontianite, phlogopite, barite, georgechaoite, pyrite.

Distribution: In the Vuoriyarvi carbonatite complex, Kola Peninsula, Russia.

Name: To honor Russian mineralogist and crystallographer Aleksandr Ivanovich Komkov (1926–1987), Karpinskii All-Union Research Institute of Geology, St. Petersburg, Russia.

Type Material: Geology Museum, Kola Branch, Academy of Sciences, Apatity; Mining Institute, St. Petersburg, 2037/1; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, p462/1.

References: (1) Voloshin, A.V., Y.A. Pakhomovskii, Y.P. Men'shikov, Y.V. Sokolova, and Y.K. Yegorov-Tismenko (1990) Komkovite – a new hydrous barium zirconosilicate from the carbonatites of Vuoriyarvi (Kola Peninsula). *Mineral. Zhurnal*, 12(3), 69–73 (in Russian). (2) (1992) *Amer. Mineral.*, 77, 207–208 (abs. ref. 1). (3) Sokolova, E.V., A.V. Araktscheeva, and A.V. Voloshin (1991) Crystal structure of komkovite. *Doklady Acad. Nauk SSSR*, 320, 1384–1388 (in Russian). (4) (1993) *Amer. Mineral.*, 78, 454 (abs. ref. 3).