Khibinskite $K_2ZrSi_2O_7$

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Crystal Data: Monoclinic, pseudohexagonal. *Point Group:* $2/m$. As irregular grains, to 3 mm, in small ovoids zoned with eudialyte.

Physical Properties: Hardness = 4.5–5.5 D(meas.) = 3.40 D(calc.) = 3.33

Optical Properties: Translucent. *Color:* Pale yellowish to white. *Luster:* Dull or greasy. *Optical Class:* Biaxial (–). $\alpha = 1.665$ $\beta = 1.715$ $\gamma = 1.715$ 2V(meas.) = 6°–16°

Cell Data: *Space Group:* $B2/m$ (synthetic). $a = 19.188$ $b = 14.072$ $c = 11.075$ $\gamma = 117°04'$ Z = 16

X-ray Powder Pattern: Khibiny massif, Russia.
2.76 (100), 2.95 (70), 1.630 (65), 2.133 (50), 1.381 (50), 1.252 (45), 1.595 (40)

Chemistry:

	(1)
SiO_2	33.8
TiO_2	0.6
ZrO_2	37.8
CaO	trace
K_2O	27.0
Total	99.2

(1) Khibiny massif, Russia; by electron microprobe, corresponds to $K_{1.98}(Zr_{1.06}Ti_{0.03})_{\Sigma=1.09}Si_{1.94}O_{7.05}$.

Occurrence: In aegirine-rich metasomatic rocks in a differentiated alkalic massif.

Association: Eudialyte, zircon.

Distribution: From the Khibiny massif, in the Hackmann Valley, Kola Peninsula, Russia.

Name: For the locality in the Khibiny massif, Kola Peninsula, Russia.

Type Material: Geology Museum, Kola Branch, Academy of Sciences, Apatity, 5089; Mining Institute, St. Petersburg, 1078/1; Institute of Mineralogy and Geochemistry of Rare Elements, Moscow; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 76326–76328; National School of Mines, Paris, France; The Natural History Museum, London, England, 1994,11.

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