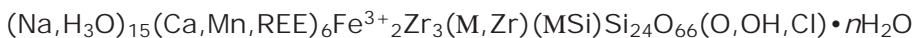


# Ikranite



TRIGONAL

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**Locality:** Mount Karnasurt, Lovozero alkaline massif, Kola Peninsula, Russia.

**Occurrence:** In peralkaline pegmatites. Associated minerals are: aegirine, microcline, lorenzenite, nepheline, lamprophyllite, murmanite and arfvedsonite.

**General appearance:** Grains up to 3 cm.

**Physical, chemical and crystallographic properties:** *Luster:* vitreous. *Diaphaneity:* transparent. *Color:* brownish yellow. *Streak:* yellowish white. *Luminescence:* nonfluorescent. *Hardness:* 5. *Tenacity:* brittle. *Cleavage:* none. *Fracture:* conchoidal. *Density:* 2.82 g/cm<sup>3</sup> (meas.), 2.63 g/cm<sup>3</sup> (calc.). **Crystallography:** Trigonal, *R3m*, *a* 14.167, *c* 30.081 Å, *V* 5228.5 Å<sup>3</sup>, *Z* = 3, *c:a* = 2.1233. *Morphology:* no forms were mentioned. *Twinning:* none mentioned. **X-ray powder-diffraction data:** 6.41(41)(104), 4.30(91)(205), 4.09(36)(116), 3.521(57)(027), 3.205(44)(208), 2.963(92)(315), 2.841(100)(404), 2.588(37)(039). **Optical data:** Uniaxial (+), *T* 1.612, *g* 1.615, pleochroism colorless to yellow, weak. **Chemical analytical data:** Mean of three sets of electron-microprobe data: Na<sub>2</sub>O 7.95, K<sub>2</sub>O 0.44, CaO 6.29, MnO 3.40, FeO 0.38, SrO 1.61, Fe<sub>2</sub>O<sub>3</sub> 4.80, La<sub>2</sub>O<sub>3</sub> 0.62, Ce<sub>2</sub>O<sub>3</sub> 1.53, Nd<sub>2</sub>O<sub>3</sub> 0.19, SiO<sub>2</sub> 48.91, TiO<sub>2</sub> 0.37, ZrO<sub>2</sub> 13.94, HfO<sub>2</sub> 0.28, Nb<sub>2</sub>O<sub>5</sub> 0.28, H<sub>2</sub>O 7.70, F 0.10, Cl 0.89, sum 99.68, less O = F + Cl 0.24, Total 99.44 wt.%. Empirical formula: Na<sub>7.12</sub>K<sub>0.26</sub>Ca<sub>3.11</sub>Sr<sub>0.43</sub>Ce<sub>0.26</sub>La<sub>0.11</sub>Nd<sub>0.03</sub>Mn<sub>1.33</sub>Fe<sup>2+</sup><sub>0.15</sub>Fe<sup>3+</sup><sub>1.67</sub>Zr<sub>3.14</sub>Ti<sub>0.13</sub>Hf<sub>0.04</sub>Nb<sub>0.06</sub>Cl<sub>0.70</sub>F<sub>0.15</sub>Si<sub>22.5</sub>N<sub>8</sub>H<sub>23.71</sub>O<sub>75.15</sub>. **Relationship to other species:** It is a member of the eudialyte group.

**Name:** Recalls the Russian acronym IKRAN (*Institut Kristallografii Rossiskoy Akadameii Nauky*).

**Comments:** IMA No. 2000–010.

CHUKANOV, N.V., PEKOV, I.V., ZADOV, A.E., KOROVUSHKIN, V.V., EKIMENKOVA, I.A. & RASTSVETAeva, R.K. (2003): Ikranite, (Na,H<sub>3</sub>O)<sub>15</sub>(Ca,Mn,REE)<sub>6</sub>Fe<sup>3+</sup><sub>2</sub>Zr<sub>3</sub>(M,Zr)(MSi)Si<sub>24</sub>O<sub>66</sub>(O,OH,Cl)•nH<sub>2</sub>O and raslakite, Na<sub>15</sub>Ca<sub>3</sub>Fe<sub>3</sub>(Na,Zr)<sub>3</sub>Zr<sub>3</sub>(Si,Nb)(Si<sub>25</sub>O<sub>73</sub>)(OH,H<sub>2</sub>O)<sub>3</sub>(Cl,OH), the new eudialyte-group minerals from Lovozero massif, Kola Peninsula. *Zapiski Vserossiyskogo Mineralogicheskogo Obshchestva* 132(5), 22-33 (in Russ.).

RASTSVETAeva, R.K. & CHUKANOV, N.V. (2003): Ikranite: composition and structure of a new mineral of the eudialyte group. *Crystallogr. Rep.* **48(5)**, 717-720.