Ikranite

$(Na,H_3O)_{15}(Ca,Mn,REE)_6Fe^{3+}{}_2Zr_3(M,Zr)(MSi)Si_{24}O_{66}(O,OH,Cl)\bullet nH_2O$

TRIGONAL

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^3 (meas.), 2.63 g/cm^3 (calc.). **Crystallography**: Trigonal, *R*3*m*, *a* 14.167, *c* 30.081 Å, *V* 5228.5 Å^3, *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_2O 7.95, K_2O 0.44, CaO 6.29, MnO 3.40, FeO 0.38, SrO 1.61, Fe_2O_3 4.80, La_2O_3 0.62, Ce_2O_3 1.53, Nd_2O_3 0.19, SiO_2 48.91, TiO_2 0.37, ZrO_2 13.94, HfO_2 0.28, Nb_2O_5 0.28, H_2O 7.70, F 0.10, Cl 0.89, sum 99.68, less O = F + Cl 0.24, Total 99.44 wt.%. Empirical formula: $Na_{7.12}K_{0.26}Ca_{3.11}Sr_{0.43}Ce_{0.26}La_{0.11}Nd_{0.03}Mn_{1.33}Fe^{2+}{}_{0.15}Fe^{3+}{}_{1.67}Zr_{3.14}Ti_{0.13}Hf_{0.04}Nb_{0.06}Cl_{0.70}F_{0.15}Si_{22.5N8}H_{23.71}O_{75.15}$. **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, $(Na,H_3O)_{15}$ $(Ca,Mn,REE)_6Fe^{3+}{}_2Zr_3$ $(M,Zr)(MSi)Si_{24}O_{66}(O,OH,Cl)\bullet nH_2O$ and raslakite, $Na_{15}Ca_3Fe_3(Na,Zr)_3Zr)_3(Si,Nb)(Si_{25}O_{73})(OH,H_2O)_3(Cl,OH)$, 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.