## Raslakite $Na_{15}Ca_3Fe_3(Na,Zr)_3Zr_3(Si,Nb)(Si_{25}O_{73})(OH,H_2O)_3(Cl,OH)$

**Crystal Data**: Hexagonal. *Point Group*: 3. As equant grains to 3 cm.

**Physical Properties**: *Cleavage*: None. *Fracture*: Conchoidal. *Tenacity*: Brittle. Hardness = 5 D(meas.) = 2.95(1) D(calc.) = 2.945

**Optical Properties**: Transparent. *Color*: Brownish red. *Streak*: White. *Luster*: Vitreous. *Optical Class*: Uniaxial (+). $\omega$ = 1.608(1) $\varepsilon$ = 1.611(1)

**Cell Data**: *Space Group*: *R*3. *a* = 14.229(7) *c* = 30.019(15) Z = 3

**X-ray Powder Pattern**: Mt. Kedykverpakhk, Lovozero alkaline massif, Kola Peninsula, Russia. 2.853 (100), 2.974 (86), 4.311 (66), 3.209 (58), 3.023 (40), 4.095 (37), 5.72 (35)

**Chemistry**:

| | (1) | | (1) |
|---|---|---|---|
| $Na_2O$ | 15.97 | $Nd_2O_3$ | 0.42 |
| $K_2O$ | 0.48 | $SiO_2$ | 49.10 |
| CaO | 5.64 | $TiO_2$ | 0.37 |
| SrO | 0.69 | $ZrO_2$ | 15.07 |
| MgO | 0.28 | $HfO_2$ | 0.43 |
| MnO | 2.01 | $Nb_2O_5$ | 0.71 |
| FeO | 5.02 | Cl | 1.34 |
| $Al_2O_3$ | 0.26 | $H_2O$ | 1.35 |
| $La_2O_3$ | 0.44 | - O = Cl | 0.30 |
| $Ce_2O_3$ | 0.87 | Total | 100.15 |

(1) Mt. Kedykverpakhk, Lovozero alkaline massif, Kola Peninsula, Russia; average of electron microprobe analyses supplemented by IR spectroscopy, $H_2O$ by TGA; corresponding to $Na_{16.02}K_{0.32}Ca_{3.13}Sr_{0.21}Mg_{0.22}Fe_{2.17}Mn_{0.88}Ce_{0.16}La_{0.08}Nd_{0.08}Ti_{0.14}Zr_{3.80}Hf_{0.06}Nb_{0.17}Al_{0.16}Si_{25.40}Cl_{1.18}H_{4.66}O_{76.465}$.

**Mineral Group**: Eudialyte group.

**Occurrence**: In an agpaitic pegmatite in an alkaline igneous complex.

**Association**: Microcline, aegirine, nepheline, lamprophyllite, kazakovite, terskite, fluorcaphite.

**Distribution**: At Mt. Kedykverpakhk, Lovozero alkaline massif, Kola Peninsula, Russia.

**Name**: For the *Raslak* cirque, which is nearby the type locality.

**Type Material**: A.E. Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia.

**References**: (1) Chukanov, N.V., I.V. Pekov, A.E. Zadov, V.V. Korovushkin, I.A. Ekimenkova, and R.K. Rastsvetaeva (2003) Ikranite, $(Na,H_3O)_{15}(Ca,Mn,REE)_6Fe^{3+}{}_2Zr_3(\square,Zr)(\square,Si)Si_{24}O_{66}(O,OH)_6Cl\bullet nH_2O$ and raslakite $Na_{15}Ca_3Fe_3(Na,Zr)_3Zr_3(Si,Nb)(Si_{25}O_{73})(OH,H_2O)_3(Cl,OH)$ - new eudialyte-group minerals from the Lovozero massif, Kola Peninsula. Zapiski Vseross. Mineral. Obshch., 132(5), 22-33 (in Russian, English abs.). (2) (2004) Amer. Mineral., 89, 1827-1828 (abs. ref. 1).