

Taseqite

Crystal Data: Hexagonal. *Point Group:* 3*m*. As platy crystals flattened on {0001}, to 3 mm, and in aggregates.

Physical Properties: *Cleavage:* Fair on {0001}. *Fracture:* Uneven. *Tenacity:* Brittle.
Hardness = 5.5 D(meas.) = 3.24(1) D(calc.) = 3.20

Optical Properties: Transparent. *Color:* Clove to yellowish brown, lemon-yellow. *Streak:* White to light brown. *Luster:* Vitreous.
Optical Class: Uniaxial (-). $\varepsilon = 1.6378(5)$ $\omega = 1.6494(3)$

Cell Data: *Space Group:* R3*m*. $a = 14.286(6)$ $c = 29.99(2)$ $Z = 3$

X-ray Powder Pattern: Ilímaussaq alkaline complex, South Greenland.
2.98 (100), 2.86 (100), 9.51 (90), 3.43 (90), 3.19 (80), 11.49 (50)

| Chemistry: | (1) | | (1) |
|--------------------------------|-------|--------------------------------|-------------|
| Na ₂ O | 7.71 | ZrO ₂ | 9.89 |
| K ₂ O | 0.23 | HfO ₂ | 0.32 |
| CaO | 8.19 | Nb ₂ O ₅ | 4.38 |
| SrO | 13.98 | Ta ₂ O ₅ | 0.24 |
| MnO | 3.02 | SiO ₂ | 41.64 |
| FeO | 3.92 | Cl | 1.91 |
| Y ₂ O ₃ | 0.28 | H ₂ O | [0.59] |
| Ce ₂ O ₃ | 0.08 | <u>-O = Cl</u> | <u>0.43</u> |
| SnO ₂ | 0.13 | Total | 96.08 |

(1) Ilímaussaq alkaline complex, South Greenland; average of 3 electron microprobe analyses, H₂O calculated, presence of CO₃, OH and H₂O confirmed by IR spectroscopy; corresponding to (Na_{8.81}Sr_{4.78}K_{0.17}Ce_{0.02}) $\Sigma=13.78$ (Ca_{5.17}Mn_{0.59}Y_{0.09}) $\Sigma=5.85$ (Fe_{1.93}Mn_{0.92}) $\Sigma=2.85$ (Zr_{2.84}Nb_{0.11}Hf_{0.05}) $\Sigma=3.00$ (Nb_{1.06}Ta_{0.04}Sn_{0.03}) $\Sigma=1.13$ Si_{24.55}O₇₃(O_{1.65}OH_{0.75}(H₂O)_{0.74}) $\Sigma=3.14$ (Cl_{1.91}OH_{0.09}) $\Sigma=2.00$.

Mineral Group: Eudialyte group.

Occurrence: In a cavity in a late-stage hydrothermal albitite vein in alkaline igneous complex.

Association: Albite, aegirine, analcime, ancylite-(La), calcite, catapleiite, dolomite, ferrobustamite, fluorapatite, hemimorphite, pectolite, sphalerite, strontianite.

Distribution: From the Taseq slope, northern part of the the Ilímaussaq alkaline complex, Narsap Kommunea, South Greenland.

Name: For the *Taseq* slope of the Ilímaussaq alkaline complex near which the first specimens were collected.

Type Material: Geological Museum, Copenhagen, Denmark.

References: (1) Petersen, O.V., O. Johnsen, R.A. Gault, G. Niedermayr, and J.D. Grice (2004) Taseqite, a new member of the eudialyte group from the Ilímaussaq alkaline complex, South Greenland. *Neues Jahrb. Mineral. Monatsh.*, 83-96. (2) (2004) *Amer. Mineral.*, 89, 1831-1832 (abs. ref. 1).