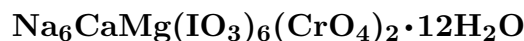


# Georgeericksenite



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**Crystal Data:** Monoclinic. *Point Group:*  $2/m$ . As acicular to prismatic [001] crystals, slightly flattened on {110}, to 0.2 mm, with dominant forms {110}, {100},  $\{\bar{2}33\}$ ; in nodular aggregates.

**Physical Properties:** *Tenacity:* Brittle. Hardness = 3–4  $D(\text{meas.}) = \text{n.d.}$   $D(\text{calc.}) = 3.035$  Readily soluble in  $\text{H}_2\text{O}$ .

**Optical Properties:** Transparent to translucent. *Color:* Bright lemon-yellow to pale yellow. *Streak:* Pale yellow. *Luster:* Vitreous.

*Optical Class:* Biaxial (+). *Pleochroism:* Slight;  $X$  = very pale yellow;  $Z$  = distinct yellow-green. *Orientation:*  $Z \simeq c$ .  $\alpha = 1.647(2)$   $\beta = 1.674(2)$   $\gamma = 1.704(2)$   $2V(\text{meas.}) = \text{n.d.}$   $2V(\text{calc.}) = 88.4^\circ$

**Cell Data:** *Space Group:*  $C2/c$ .  $a = 23.645(2)$   $b = 10.918(1)$   $c = 15.768(1)$   $\beta = 114.42(6)^\circ$   $Z = 4$

**X-ray Powder Pattern:** Oficina Chacabuco, Chile.

10.69 (100), 3.121 (80), 3.051 (80), 3.590 (70), 6.36 (50), 5.65 (50), 4.36 (40)

**Chemistry:** (1) Oficina Chacabuco, Chile; major elemental components and anion groups confirmed by qualitative electron microprobe and IR; by crystal-structure analysis, corresponds to  $\text{Na}_{6.00}\text{Ca}_{1.00}\text{Mg}_{1.00}(\text{IO}_3)_{6.00}[(\text{Cr}_{0.84}\text{S}_{0.16})_{\Sigma=1.00}\text{O}_4]_2 \cdot 12\text{H}_2\text{O}$ .

**Occurrence:** On a museum specimen from a nitrate deposit.

**Association:** Halite, nitratine, niter.

**Distribution:** From Oficina Chacabuco, Taltal district, Antofagasta, Chile.

**Name:** Honors George E. Ericksen (1920–1996), research geologist, U.S. Geological Survey, Reston, Virginia, USA, who studied Chilean nitrate deposits.

**Type Material:** Canadian Museum of Nature, Ottawa, Canada, 82914.

**References:** (1) Cooper, M.A., F.C. Hawthorne, A.C. Roberts, J.D. Grice, J.A.R. Stirling, and E.A. Moffatt (1998) Georgeericksenite,  $\text{Na}_6\text{CaMg}(\text{IO}_3)_6(\text{CrO}_4)_2(\text{H}_2\text{O})_{12}$ , a new mineral from Oficina Chacabuco, Chile: description and crystal structure. *Amer. Mineral.*, 83, 390–399.