Saltonseaitae

Crystal Data: Hexagonal.  \textit{Point Group}: \( \hat{3} \).  As lozenge-shaped and bladed crystals to ~ 10 cm that are composites of parallel-grown \{01\bar{1} 2\} rhombohedra.

Physical Properties: \textit{Cleavage}: Very good on \{110\}.  \textit{Tenacity}: Brittle.  \textit{Fracture}: Irregular.  \textit{Hardness} = \(~ 2.5\)  \(D(\text{meas.}) = 2.26(1)\)  \(D(\text{calc.}) = 2.297\)  Astringent taste.  Markedly hygroscopic.


Cell Data: Space Group: \(R\hat{3}c\).  \(a = 12.0966(5)\)  \(c = 13.9555(10)\)  \(Z = 6\)

X-ray Powder Pattern: Salton Sea, Imperial County, California, USA.  
2.542 (100), 2.851 (68), 2.625 (62), 5.83 (61), 2.689 (32), 1.983 (32), 3.498 (25)

Chemistry:

\begin{align*}
\text{Chemistry:} & \quad \text{(1)} & \quad \text{(2)} \\
\text{K} & \quad 28.79 & \quad 28.75 \\
\text{Na} & \quad 5.35 & \quad 5.64 \\
\text{Mn} & \quad 13.48 & \quad 13.47 \\
\text{Fe} & \quad 0.24 & \\
\text{Cl} & \quad 52.19 & \quad 52.14 \\
\text{Total} & \quad 100.05 & \quad 100.00
\end{align*}

(1) Salton Sea, Imperial County, California, USA; average of 5 electron microprobe analyses; corresponds to \(K_{3.00}Na_{0.95}Mn^{2+}_{1.00}Fe^{2+}_{0.02}Cl_6\).  (2) \(K_3NaMn^{2+}Cl_6\).

Occurrence: The product of natural evaporation of geothermal (hydrothermal) brines enriched in K, Na, Mn, and Cl.

Association: Sylvite, halite, akaganéite.

Distribution: From near the southern shoreline, Salton Sea, Imperial County, California, USA.

Name: For the body of water adjacent to where the first specimens were collected.

Type Material: Natural History Museum of Los Angeles County, Los Angeles, California, USA (23604) and Museum Victoria, Melbourne, Australia (M51615).