Hennomartinite

\( \text{SrMn}_{3+}^{3+}\text{Si}_2\text{O}_7(\text{OH})_2\cdot\text{H}_2\text{O} \)

(\(2\text{001 Mineral Data Publishing, version 1.2}\))

**Crystal Data:** Orthorhombic. *Point Group:* 2/m 2/m 2/m. Rarely in feltlike masses; as irregular aggregates, to 1 mm, embedded in other minerals.

**Physical Properties:** Hardness = \(\sim 4\) D(meas.) = n.d. D(calc.) = 3.68

**Optical Properties:** Translucent. *Color:* Yellow-brown; yellow-brown in thin section. *Luster:* Vitreous. *Optical Class:* Biaxial. *Pleochroism:* Strong; from yellowish brown to dark red-brown. \(n > 1.82\). \(\alpha = n.d.\) \(\beta = n.d.\) \(\gamma = n.d.\) 2V(meas.) = 63(1)°

**Cell Data:** Space Group: Cmcm. \(a = 6.255(1)\) \(b = 9.034(2)\) \(c = 13.397(2)\) \(Z = 4\)

**X-ray Powder Pattern:** Wessels mine, South Africa; intensities calculated. 2.833 (100), 2.695 (98), 4.804 (86), 2.807 (82), 2.401 (68), 3.373 (66), 2.715 (58)

**Chemistry:**

\[
\begin{array}{ll}
\text{SiO}_2 & 28.22 \\
\text{TiO}_2 & 0.00 \\
\text{Al}_2\text{O}_3 & 0.00 \\
\text{Fe}_2\text{O}_3 & 0.53 \\
\text{Mn}_2\text{O}_3 & 37.82 \\
\text{CaO} & 0.02 \\
\text{SrO} & 24.32 \\
\text{BaO} & 0.46 \\
\text{H}_2\text{O} & [8.62] \\
\hline
\text{Total} & [99.99] \\
\end{array}
\]

(1) Wessels mine, South Africa; by electron microprobe, average of 13 analyses, Li and F not detected by ion microprobe, \(\text{H}_2\text{O}\) from ideal stoichiometry; corresponds to \((\text{Sr}_{0.98}\text{Ba}_{0.01})\Sigma=0.99 \left(\text{Mn}_{2.01}\text{Fe}_{3.03}\right)\Sigma=2.04\text{Si}_{1.97}\text{O}_7(\text{OH})_2\cdot\text{H}_2\text{O}\).

**Occurrence:** From a hand specimen, in veinlets of sérandite-pectolite cutting sugilite, probably of hydrothermal origin in a bedded manganese deposit.

**Association:** Sérandite-pectolite, sugilite, braunite, taikanite, kornite.

**Distribution:** In the Wessels mine, near Kuruman, Cape Province, South Africa.

**Name:** For Henno Martin, German geologist, who has worked on the Precambrian geology of the general area where the mineral occurs.

**Type Material:** Natural History Museum, Bern, Switzerland, B5564.