Barysilite

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Pb_8Mn(Si_2O_7)_3
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Crystal Data: Hexagonal. Point Group: 3\overline{2}/m. As platy, subparallel crystals in lamellar and ball-like aggregates, to 3 mm; granular, massive.


Cell Data: Space Group: \(R\overline{3}c\). \(a = 9.821\) \(c = 38.38\) \(Z = 6\)

X-ray Powder Pattern: Långban, Sweden. 2.957 (100), 2.765 (80), 2.675 (80), 3.88 (60), 3.16 (60), 4.57 (50), 3.22 (50)

Chemistry:

\[
\begin{array}{ccc}
\text{SiO}_2 & 16.84 & 17.1 & 16.26 \\
\text{Al}_2\text{O}_3 & 0.59 & & \\
\text{FeO} & 0.23 & & \\
\text{MnO} & 3.33 & 3.7 & 3.20 \\
\text{ZnO} & 0.30 & & \\
\text{PbO} & 77.35 & 78.4 & 80.54 \\
\text{MgO} & 0.78 & & \\
\text{CaO} & 0.21 & 0.6 & \\
\text{H}_2\text{O}^+ & 0.07 & & \\
\text{Total} & 99.70 & 99.8 & 100.00 \\
\end{array}
\]

(1) Franklin, New Jersey, USA. (2) Do.; by electron microprobe. (3) \(Pb_8Mn(Si_2O_7)_3\).

Occurrence: In iron ores (Harstigen mine, Sweden); as thin films and veinlets in a metamorphosed zinc orebody (Franklin, New Jersey, USA).

Association: Garnet, willemite, axinite, hardystonite (Franklin, New Jersey, USA).

Distribution: In the Harstigen mine, near Persberg, and Långban and Jakobsberg, Värmland, Sweden. From Franklin, Sussex Co., New Jersey, USA.

Name: From the Greek for heavy and for SIILicon in its composition.

Type Material: Harvard University, Cambridge, Massachusetts, USA, 114630.


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