Nordströmite

\[ \text{Pb}_3\text{CuBi}_7(\text{S, Se})_{14} \]

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Crystal Data:  Monoclinic.  \textbf{Point Group}: \(2/m\).  Fibrous, to 3.5 mm.


Optical Properties:  Opaque, presumably.  \textit{Color}: Lead-gray; white with a gray tint in reflected light.  \textit{Anisotropism}: Dark gray to brown.

Cell Data:  \textbf{Space Group}: \(P2_1/m\).  \(a = 17.97(8)\)  \(b = 4.11(2)\)  \(c = 17.62(8)\)  \(\beta = 94.3(2)^\circ\)  \(Z = 2\)


Chemistry:

\begin{align*}
\text{Pb} & \quad 21.73 \\
\text{Cu} & \quad 2.04 \\
\text{Bi} & \quad 51.95 \\
\text{Se} & \quad 11.16 \\
\text{S} & \quad 10.88 \\
\hline
\text{Total} & \quad [97.76]
\end{align*}

(1) Falun, Sweden; by electron microprobe, original total given as 97.75%; corresponding to \(\text{Pb}_{3.06}\text{Cu}_{0.94}\text{Bi}_{7.24}\)\((\text{S}_{0.88}\text{Se}_{4.12})_{14} = 14.60\).

Occurrence:  Of hydrothermal origin.

Association:  Wittite, friedrichite, bismuthinite (Falun, Sweden); gold, chalcopyrite, neyite, quartz (Johnny Lyon Hills, Arizona, USA).

Distribution:  From Falun, Kopparberg, Sweden [TL].  In the Johnny Lyon Hills, north of Benson, Cochise Co., Arizona, USA.

Name:  To honor T. Nordström (1843–1920), Swedish mining engineer who first studied the sulfosalts from Falun.

Type Material:  Royal Ontario Museum, Toronto, Canada, M12992.