Trechmannite AgAsS$_2$

Crystal Data: Hexagonal. Point Group: $\overline{3}$. Crystals short prismatic; equant, also irregular.


Cell Data: Space Group: $R\overline{3}$. $a = 13.98$ $c = 9.12$ $Z = 18$

X-ray Powder Pattern: Binntal, Switzerland. (ICDD 16-700). 2.702 (100), 3.15 (80), 1.887 (80), 1.937 (70), 7.0 (60), 4.26 (60), 3.64 (60)

Chemistry:

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag</td>
<td>43.9</td>
<td>43.69</td>
</tr>
<tr>
<td>As</td>
<td>30.8</td>
<td>30.34</td>
</tr>
<tr>
<td>S</td>
<td>26.1</td>
<td>25.97</td>
</tr>
<tr>
<td>Total</td>
<td>100.8</td>
<td>100.00</td>
</tr>
</tbody>
</table>

(1) Binntal, Switzerland; by electron microprobe. (2) AgAsS$_2$.

Polymorphism & Series: Dimorphous with smithite.

Occurrence: Of hydrothermal origin, in dolostone (Binntal, Switzerland).

Association: Seligmannite, tennantite, pyrite, chromian muscovite (Binntal, Switzerland).

Distribution: From the Lengenbach quarry, Binntal, Valais, Switzerland [TL]. At Niederbeerbach, Odenwald, Hesse, Germany.

Name: Honoring Dr. Charles Otto Trechmann (1851–1917), English crystallographer.

Type Material: n.d.