Sterlinghillite

\[ \text{Mn}^{2+} (\text{AsO}_4)_2 \cdot 4\text{H}_2\text{O} \]

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Crystal Data: n.d.  
Point Group: n.d.  
As bundles and hemispherical clusters of lathlike to platy crystals, to 0.1 mm.

Physical Properties:  
Cleavage: One, perfect, parallel to elongation.  
Hardness = 3
\[ \text{D(meas.)} = 2.95 \quad \text{D(calc.)} = \text{n.d.} \]

Optical Properties:  
Semitransparent.  
Color: White to light pink.  
Streak: White.
Luster: Dull to silky.
Optical Class: Biaxial.  
Orientation: Inclined extinction, wavy.  
\[ \alpha = 1.656(3) \quad \beta = \text{n.d.} \]
\[ \gamma = 1.671(3) \quad 2\text{V(meas.)} = \text{n.d.} \]

Cell Data:  
Space Group: n.d.  
Z = n.d.

X-ray Powder Pattern: Sterling Hill, New Jersey, USA.
11.12 (100), 3.209 (100), 2.751 (60), 2.880 (40), 2.848 (40), 6.39 (30), 3.692 (30)

Chemistry:

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\text{As}_2\text{O}_5)</td>
<td>44.7</td>
<td>44.65</td>
</tr>
<tr>
<td>(\text{FeO})</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>(\text{MnO})</td>
<td>39.5</td>
<td>41.35</td>
</tr>
<tr>
<td>(\text{ZnO})</td>
<td>2.9</td>
<td></td>
</tr>
<tr>
<td>(\text{MgO})</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>(\text{H}_2\text{O})</td>
<td>[12.6]</td>
<td>14.00</td>
</tr>
<tr>
<td>Total</td>
<td>[100.0]</td>
<td>100.00</td>
</tr>
</tbody>
</table>

(1) Sterling Hill, New Jersey, USA; by electron microprobe, total Mn as MnO, \(\text{H}_2\text{O}\) by difference.
(2) \(\text{Mn}_3(\text{AsO}_4)_2 \cdot 4\text{H}_2\text{O}\).

Occurrence: A very rare mineral in seams in franklinite ore from a metamorphosed stratiform zinc orebody.

Association: Franklinite, sphalerite, löllingite, calcite.

Distribution: From Sterling Hill, Ogdensburg, Sussex Co., New Jersey, USA.

Name: For the Sterling Hill mine, New Jersey, USA.
