Volaschioite

\[ \text{Fe}_4(\text{SO}_4)\text{O}_2(\text{OH})_6 \cdot 2\text{H}_2\text{O} \]

Crystal Data: Monoclinic. Point Group: 2/m. As radial clusters of bladed crystals to 0.1 mm, elongated along [010].


Cell Data: Space Group: C2/m. \( a = 18.068(4) \) b = 3.058(1) c = 10.929(2) \( \beta = 93.82(3)^\circ \) Z = 2

X-ray Powder Pattern: Fornovolasco, Apuan Alps, Tuscany, Italy. 8.03 (s), 4.37 (m), 3.989 (m), 3.343 (mw), 2.633 (mw), 3.028 (w), 2.73 (w)

Chemistry:

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \text{Fe}_2\text{O}_3 )</td>
<td>63.33</td>
<td>65.24</td>
</tr>
<tr>
<td>( \text{SO}_3 )</td>
<td>14.07</td>
<td>16.36</td>
</tr>
<tr>
<td>( \text{H}_2\text{O} )</td>
<td>17.18</td>
<td>18.40</td>
</tr>
<tr>
<td>Total</td>
<td>94.58</td>
<td>100.00</td>
</tr>
</tbody>
</table>

(1) Fornovolasco, Apuan Alps, Tuscany, Italy; average of 11 electron microprobe analyses, \( \text{H}_2\text{O} \) and \( \text{OH}^- \) calculated from structure analysis; corresponding to \( \text{Fe}_{4.16}(\text{SO}_4)_{0.92}\text{O}_2.32(\text{OH})_6 \cdot 2\text{H}_2\text{O} \).

(2) \( \text{Fe}_4(\text{SO}_4)\text{O}_2(\text{OH})_6 \cdot 2\text{H}_2\text{O} \).

Occurrence: An oxidation product of pyrite in tunnels through a magnetite-pyrite deposit.

Association: Pyrite, fibroferrite, goethite, melanterite, römerite.

Distribution: Cava del Ferro mining complex, Fornovolasco, Apuan Alps, Tuscany, Italy.

Name: Derived from the ancient name for the first known locality, believed to be derived from forno (furnace) and Volaschio (a locally significant proper noun).

Type Material: Museum of Natural History, University of Pisa, Italy; 19300.