Magnolite

Crystal Data: Orthorhombic. Point Group: mm2. Crystals bladed, showing {100} and {010}, striated on {001} || [001], in parallel to subparallel groups, or acicular, elongated along [001], to 1 mm, in tufted aggregates.


Cell Data: Space Group: Pbm2. a = 5.958(1) b = 10.576(2) c = 3.749(1) Z = 2

X-ray Powder Pattern: Colorado, USA. 3.043 (100), 3.95 (70), 5.25 (50), 2.587 (50), 1.757 (50), 3.74 (40), 1.986 (40)

Chemistry:

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TeO₂</td>
<td>28.9</td>
<td>27.67</td>
</tr>
<tr>
<td>Hg₂O</td>
<td>72.3</td>
<td>72.33</td>
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<tr>
<td>Total</td>
<td>101.2</td>
<td>100.00</td>
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</tbody>
</table>

(1) Keystone mine, Colorado, USA; by electron microprobe, average of five analyses, valences from crystal-structure analysis; corresponds to Hg₁.₉₄Te₁.₀₁O₃. (2) Hg₃TeO₃.

Occurrence: A late alteration product of coloradoite, formed at low temperature and oxygen fugacity, in the oxidized zone of complex polymetallic hydrothermal mineral deposits.

Association: Mercury, coloradoite, tellurite, gold, tellurium, keystoneite, “limonite”, manganese oxides, quartz.

Distribution: From the Keystone and Mountain Lion mines, Magnolia district, Boulder Co., Colorado, USA.

Name: For the Magnolia district, Colorado, USA, in which the species was first noted.
