Owyheeite

Crystal Data: Orthorhombic. Point Group: 2/m 2/m 2/m. Massive to coarsely fibrous, acicular, striated longitudinally || [001]; rarely as minute felted hairlike crystals.

Physical Properties: Cleavage: {001}. Tenacity: Very brittle. Hardness = 2.5 VHN = 92–121 (110 g load). D(meas.) = 6.22–6.51 D(calc.) = 6.43


R₁–R₂: (400) 41.0–45.2, (420) 40.5–45.2, (440) 39.8–45.2, (460) 39.6–45.2, (480) 39.2–45.4, (500) 38.9–45.3, (520) 38.6–45.1, (540) 38.3–44.7, (560) 38.0–44.2, (580) 37.7–43.7, (600) 37.4–43.1, (620) 37.1–42.5, (640) 36.6–41.8, (660) 36.2–41.1, (680) 35.4–40.1, (700) 34.8–39.3

Cell Data: Space Group: Pnam. a = 22.82 b = 27.20 c = 8.19 Z = 8

X-ray Powder Pattern: Poorman mine, Idaho, USA. 3.25 (100), 3.49 (70), 2.84 (60), 2.05 (60), 2.90 (50), 2.23 (50), 3.37 (40)

Chemistry:

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
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<tr>
<td>Pb</td>
<td>40.77</td>
<td>43.86</td>
<td>46.9</td>
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<tr>
<td>Ag</td>
<td>7.40</td>
<td>6.14</td>
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<td>Cu</td>
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<tr>
<td>Fe</td>
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<td>0.05</td>
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<tr>
<td>Sb</td>
<td>30.61</td>
<td>29.26</td>
<td>28.7</td>
<td>28.91</td>
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<td>S</td>
<td>20.81</td>
<td>19.60</td>
<td>18.4</td>
<td>19.38</td>
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</table>

Total 100.80 99.92 100.5 100.00

(1) Poorman mine, Idaho, USA; corresponds to Ag₂₂₉₆(Pb₈₉₄Cu₀₆₁Fe₀₃₆)S₂₉·₉₄₆Sb₁₀₈₅S₂₈·₀₀
(2) Sheba mine, Nevada, USA; average of two analyses, corresponds to Ag₂₂₉₆(Pb₉₇₇Cu₁₁₅Fe₀₈₄)S₁₁₃₂S₂₈·₀₀
(3) Freiberg, Saxony, Germany; by electron microprobe, corresponding to Ag₂₂₉₆Pb₁₁₀₄Sb₁₁₅₂S₂₈·₀₀
(4) Ag₃Pb₁₀Sb₁₁S₂₈

Occurrence: In veins of hydrothermal origin.

Association: Galena, sphalerite, pyrite, arsenopyrite, chalcopyrite, tetrahedrite, pyrrylgyrite, diaphorite, miargyrite, jamesonite, boulangerite, ramdohrite, andorite, meneghinite.

Distribution: In the USA, in Idaho, from the Poorman mine, Silver City district, Owyhee Co., Idaho [TL] and at the Banner mine, Boise Co.; from the Sheba mine, Star City, and at Rochester and in the Kaiser Tunnel, Morey district, Nye Co., Nevada; from the Domingo and Garfield mines, Gunison Co., Colorado; at the McAlpine mine, Tuhomune Co., California. From the Alma property and Rambler mine, Slocan mining district, British Columbia; and the Tintina silver mines, Yukon Territory, Canada. From Yecora, five km west of Iglesia, Sonora, Mexico. At Marmato, Colombia. From the Wongahah mine, Drake and Rivertree mining fields, New South Wales, and at the Meerschaum mine, near Omeo, Victoria, Australia. From the Rajpura Dariba polymetallic deposit, Rajasthan, India. At the Zlata Bana deposit, Slanske vrchy Mountains, Slovakia. From Kutná Hora, Czech Republic. At Bourneix, Haute-Vienne, France. From Roc-Blanc, Morocco. In the Srednoglotaiskoe gold deposit, eastern Transbaikalia, Siberia, Russia. Known from a few other localities.

Name: For the locality in Owyhee Co., Idaho, USA.


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