Bursaite

Crystal Data: Orthorhombic. Point Group: 2/m 2/m 2/m. Prismatic crystals, up to 4 mm, and platy elongated grains; partly in radial or polycrystalline aggregates. Twinning: Common, with twin plane || [001], possibly (110); lamellar.

Physical Properties: Cleavage: Tabular [sic]; || [100]. Hardness = Polishing hardness less than chalcopyrite, greater than bismuth. VHN = 126–134 D(meas.) = >6.2 D(calc.) = n.d.


Cell Data: Space Group: Bbmm. a = 13.399(20) b = 20.505(10) c = 4.117(5) Z = 2

X-ray Powder Pattern: Uludağ, Turkey. 2.048 (100), 2.998 (78), 3.670 (67), 3.484 (67), 2.696 (67), 2.794 (44), 3.127 (33)

Chemistry:

<table>
<thead>
<tr>
<th>Element</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pb</td>
<td>45.0</td>
<td>45.03</td>
<td>46.57</td>
</tr>
<tr>
<td>Ag</td>
<td>1.0</td>
<td>1.41</td>
<td></td>
</tr>
<tr>
<td>Bi</td>
<td>38.5</td>
<td>37.43</td>
<td>37.58</td>
</tr>
<tr>
<td>Sb</td>
<td>0.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>14.7</td>
<td>15.53</td>
<td>15.85</td>
</tr>
</tbody>
</table>

Total 99.2 100.01 100.00

(1) Uludağ, Turkey; by electron microprobe, corresponding to (Pb$_{4.72}$Ag$_{0.29}$)$_{Σ=4.92}$Bi$_{4.09}$S$_{10.82}$.
(2) Shumilovsk deposit, Russia; by electron microprobe, corresponding to (Pb$_{4.83}$Ag$_{0.29}$)$_{Σ=5.12}$ (Bi$_{3.99}$Sb$_{0.11}$)$_{Σ=4.10}$S$_{10.78}$.
(3) Pb$_5$Bi$_4$S$_{11}$

Occurrence: In a contact metamorphic scheelite deposit (Uludağ, Turkey); in sulfide veinlets around a greisen Sn–W deposit in granite (Shumilovsk deposit, Russia); in a volcanogenic massive sulfide deposit (Cofer deposit, Virginia, USA).

Association: Sphalerite, tremolite, pyrite, calcite, garnet, quartz, scheelite, chalcopyrite, bismuth (Uludağ, Turkey); kobellite, tintinaite (Boliden, Sweden); wolframite, cassiterite, bismuthinite, galena, cosalite, heyrovskýite, galenobismutite, cannizzarite, tetradymite, joséite-B, bismuth, quartz (Shumilovsk deposit, Russia).

Distribution: From Uludağ, Bursa Province, Turkey [TL]. At Hürky, Czech Republic. From Bâिţa, Romania. At Boliden, Västerbotten, Sweden. From Vulcan, in the Lipari Islands, Italy. In the Shumilovsk Sn–W deposit, western Transbaikai, and from the Strezhana pyrite-polymetallic deposit, locality not otherwise defined, Russia. In the USA, at Organ, Doña Ana Co., New Mexico; large crystals in the Abril mine, Middle Pass district, Cochise Co., Arizona; from near Austin, Reese River district, Lander Co., Nevada; in the Cofer deposit, Louisa Co., Virginia. From the Huemules deposit, Chubut Province, Argentina.

Name: For the locality in Bursa Province, Turkey.

Type Material: n.d.


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