Pushcharovskite

Crystal Data: Triclinic. Point Group: T or 1. Crystals are tabular on {010}, elongated along [100], fluted, acicular, fibrous, to 0.5 mm, in subparallel radiating aggregates. Twinning: Polysynthetic on {010}.


Optical Class: Biaxial (+). Orientation: Z ∧ a = 18.4° on {010}. Dispersion: r > v, medium.

Cell Data: Space Group: P1 or P1. a = 6.435(2) b = 11.257(4) c = 18.662(9)

X-ray Powder Pattern: Cap Garonne mine, France. 11.00 (100), 2.920 (60), 2.816 (50), 2.592 (50), 3.171 (30), 18.3 (25), 2.492 (25)

Chemistry:

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
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</thead>
<tbody>
<tr>
<td>As₂O₅</td>
<td>52.31</td>
<td>51.89</td>
</tr>
<tr>
<td>CuO</td>
<td>35.70</td>
<td>35.91</td>
</tr>
<tr>
<td>H₂O</td>
<td>12.00</td>
<td>12.20</td>
</tr>
<tr>
<td>Total</td>
<td>100.01</td>
<td>100.00</td>
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</tbody>
</table>

(1) Cap Garonne mine, France; by electron microprobe, average of seven analyses, H₂O by TGA; corresponds to Cu₁₀₀(as₁₀₁o₃oh)·0.98H₂O. (2) Cu(AsO₃OH)·H₂O.

Polymorphism & Series: Dimorphous with geminite.

Occurrence: A very rare secondary mineral from the oxidized zone of a polymetallic hydrothermal base metal deposit (Cap Garonne mine, France).

Association: Tennantite, covellite, geminite, lindackerite, yvonite, mahnertite, arsenopyrite, bismuth, chalcoprysite, quartz.

Distribution: In France, from the Cap Garonne mine, near le Pradet, Var, and at the Salsigne mine, 15 km north of Carcassonne, Aude.

Name: To honor Professor Dmitry Y. Pushcharovskiy, crystallographer, Moscow State University, Moscow, Russia.

Type Material: Natural History Museum, Geneva, Switzerland.