Khatyrkite  
(Cu, Zn)Al₂

Crystal Data:  Tetragonal.  Point Group:  4/m 2/m 2/m.  As prismatic crystals, to 400 µm, and intimately intergrown with cupalite in small grains.


Optical Properties:  Opaque.  Color:  Steel-gray yellow; in reflected light, isotropic sections are pale blue, anisotropic sections are blue to creamy pink.  Luster:  Metallic.  Anisotropism:  Distinct, grayish yellow to brownish red.

Cell Data:  Space Group:  I4/mcm.  a = 6.07(1) c = 4.89(1) Z = 4

X-ray Powder Pattern:  Listvenitovyi Stream, Russia.  4.27 (10), 2.119 (8), 2.372 (7), 1.920 (7), 3.04 (5), 1.894 (4), 2.156 (2)

Chemistry:  (1)  

<table>
<thead>
<tr>
<th>Element</th>
<th>Cu</th>
<th>Zn</th>
<th>Al</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>53.93</td>
<td>1.28</td>
<td>45.11</td>
<td>100.32</td>
</tr>
</tbody>
</table>

(1) Listvenitovii Stream, Russia; by electron microprobe, average of analyses on nine grains; corresponding to (Cu₁⁺0.02Zn₀.₀₂)Σ=1.₀₄Al₂.₀₀.

Occurrence:  In black slick washed from greenish gray cover weathering from serpentine.

Association:  Cupalite, two unnamed zinc aluminides.

Distribution:  From near the Listvenitovyi Stream, Khatyrka ultramafic zone of the Koryak-Kamchata fold area, Koryak Mountains, Magadan district, Russia [TL].

Name:  For the occurrence in the Khatyrka ultramafic zone, Russia.

Type Material:  Mining Institute, St. Petersburg, Russia, 1687/1.


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