Kolymite

Crystal Data: Cubic. Point Group: $4/m \ 3 \ 2/m$, $\bar{4}3m$, or 432. Intergrown with copper aggregates, with individual crystals of cubo-octahedral form, less than 5 µm in size.


R: (400) — , (420) 59.0, (440) 61.4, (460) 63.8, (480) 66.8, (500) 69.4, (520) 71.2, (540) 72.1, (560) 72.8, (580) 73.6, (600) 74.0, (620) 74.6, (640) 75.3, (660) 76.0, (680) 76.9, (700) 77.8

Cell Data: Space Group: $Im\overline{3}m$, $I\bar{4}32$, or $I\bar{4}3m$. Synthetic material is $I\bar{4}3m$. $a = 9.418(4)$ Z = 4

X-ray Powder Pattern: Magadan region, USSR. 2.22 (100), 2.52 (42), 2.98 (25), 2.09 (25), 2.01 (25), 1.279 (25b), 1.524 (18b)

Chemistry:

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
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</thead>
<tbody>
<tr>
<td>Cu</td>
<td>26.6</td>
<td>26.98</td>
</tr>
<tr>
<td>Hg</td>
<td>72.6</td>
<td>73.02</td>
</tr>
<tr>
<td>Total</td>
<td>99.2</td>
<td>100.00</td>
</tr>
</tbody>
</table>

(1) Magadan region, USSR; by electron microprobe, average of nine analyses, corresponding to Cu$_{6.97}$Hg$_{6.03}$ (2) Cu$_7$Hg$_6$.

Occurrence: Found in the heavy mineral fraction of concentrates (Magadan region, USSR).

Association: Copper, stibnite, berthierite, pyrite, arsenopyrite, quartz (Magadan region, USSR).

Distribution: At the Krokhalin antimony deposit, Magadan region, basin of the Kolyma River, Yakutia, USSR. At a prospect near Marcelita, about 70 km southeast of Copiapó, Chile.

Name: For the locality near the Kolyma River, USSR.

Type Material: Institute of Mineralogy and Geochemistry of Rare Elements; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, USSR.