Hollandite

Crystal Data: Monoclinic, pseudotetragonal. Point Group: 2/m. Crystals short prismatic with flat pyramidal termination, to several cm; radial fibrous, massive. Twinning: Common on {101} or {101}.


Cell Data: Space Group: I2/m. a = 10.013(1) b = 2.8801(2) c = 9.733(1) β = 90.970(4)° Z = 1

X-ray Powder Pattern: Langenberg, Germany; easily mistaken for coronadite.

Chemistry:

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(1)</th>
<th>(2)</th>
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</thead>
<tbody>
<tr>
<td>SiO₂</td>
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<td></td>
<td>MnO</td>
<td>5.12</td>
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<tr>
<td>MnO₂</td>
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<td>62.91</td>
<td>PbO</td>
<td>4.45</td>
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<tr>
<td>Al₂O₃</td>
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<td>1.45</td>
<td>BaO</td>
<td>17.59</td>
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<tr>
<td>Fe₂O₃</td>
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<td>12.63</td>
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<td>Mn₂O₃</td>
<td>4.57</td>
<td></td>
<td>K₂O</td>
<td>0.23</td>
</tr>
</tbody>
</table>

Total 99.84 [101.21]

(1) Kajlidongri, India; corresponds to Ba₀.₉₅[ Mn₀.₉₃Mn₀.₂₃Fe₁.₂₄Al₁.₂₄O₆ ]₂[Si₀.₀₈O₁₆]²⁻ (2) Stuar Njvoskes, Sweden; by electron microprobe, average of several analyses, Mn⁴⁺:Mn³⁺ calculated for charge balance; corresponds to (Ba₀.₇₅Pb₀.₁₈Na₀.₁₀K₀.₀₄)Σ=1.₅₃(Mn₀.₆₈Fe₃.₃₂Mn₀.₅₀Al₀.₂₃Sio.₀₈)Σ=8.₂₁O₁₆

Mineral Group: Cryptomelanegroup.

Occurrence: A primary mineral in contact metamorphic manganese ores, and a secondary weathering product of earlier manganese-bearing minerals.

Association: Bixbyite, braunite, piemontite, other manganese oxides.

Distribution: In India, at Kajlidongri and Sitapar, Chhindwara district, Madhya Pradesh; in the Nagpur and Balaghat districts, Maharashtra; at Banswara, Rajasthan; and elsewhere. From Sørhärads, Ultevis, Sweden. In Norway, from Tangen, Hurdal. At Langenberg, Saxony, Germany. From Inken, Tiovine region, Morocco. In the USA, in the Artillery Mountains, Mohave Co., and in the Apache mine, Sierra Ancha district, Gila Co., Arizona.

Name: For Dr. Thomas Henry Holland (1868–1947), Director of the Indian Geological Survey.

Type Material: n.d.


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