Idaite

Crystal Data: Hexagonal. Point Group: n.d. Massive, as rare discrete anhedral grains, as rims on chalcopyrite and as fracture fillings in chalcopyrite; also as exsolution lamellae in bornite.

Physical Properties: Hardness = 2.5–3.5 VHN = n.d. D(meas.) = 4.20 D(calc.) = 4.21


Cell Data: Space Group: n.d. a = 3.90 c = 16.95 Z = 1

X-ray Powder Pattern: Ida mine, Khan, Namibia. 3.14 (100), 2.82 (100), 1.89 (100), 1.85 (100), 1.564 (100), 2.70 (80), 1.317 (80)

Chemistry:

<table>
<thead>
<tr>
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<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cu</td>
<td>51.34</td>
<td>50.87</td>
</tr>
<tr>
<td>Fe</td>
<td>14.5</td>
<td>14.90</td>
</tr>
<tr>
<td>S</td>
<td>33.66</td>
<td>34.23</td>
</tr>
<tr>
<td>Total</td>
<td>99.50</td>
<td>100.00</td>
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</tbody>
</table>

(1) Skouriotissa, Cyprus; by electron microprobe, average of five analyses. (2) Cu₃FeS₄.

Occurrence: A lamellar decomposition product of bornite, commonly associated with fine spindles of chalcopyrite; apparently of secondary origin, a first product of enrichment.

Association: Chalcopyrite, bornite, pyrite, sphalerite, chalcocite, pyrrhotite, mackinawite (Skouriotissa, Cyprus).

Distribution: Now noted at numerous localities world-wide. In Namibia, from the Ida mine, Khan River Valley, Swakopmund district [TL]; and at Tsumeb. Found near Bou Azzer, Morocco. At Nchanga, Zambia. From Skouriotissa, Cyprus. In Switzerland, near Grimentz, Valais. From the Clara mine, near Oberwolfach, Black Forest, Germany. At the Repparfjord copper deposit, Finnmark, Norway. From Gruverget, Sweden. At Sasca Montana and Ciresu, Mehedinti Mountains, Romania. From the Radka deposit, Pazardzhik, and the Chelopech deposit, Sofia, Bulgaria. In the USA, at upper White Canyon, San Juan Co., Utah. From Canada, at Algoma, Jarvis Township, Ontario. In Brazil, at Caraiba, Bom Fin, Bahia. In Chile, from several mines in the Copiapó district, Atacama, and at El Indio, east of Coquimbo. In the Kaikita mine, Aomori Prefecture; the Ojamine mine, Yamagata Prefecture; and other localities in Japan.

Name: For the Ida mine in Namibia.

Type Material: n.d.