**Miersite** *(Ag, Cu)I*

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**Crystal Data:** Cubic. **Point Group:** 43m. As tetrahedra, (+) and (–) forms of which may be balanced to give pseudo-octahedra, or, with the cube, to give pseudocubo-octahedra, to 1 mm; cube faces striated || tetrahedral faces. In crystalline crusts and aggregates. **Twinning:** On {111}, may be repeated.

**Physical Properties:** Cleavage: {011}, perfect. Fracture: Conchoidal. Tenacity: Somewhat brittle. Hardness = 2.5 D(meas.) = 5.64 D(calc.) = 5.67


**Cell Data:** Space Group: F43m. a = 6.504 Z = 4

**X-ray Powder Pattern:** Locality not stated [Broken Hill, Australia]. 3.23 (s), 2.28 (m), 1.948 (m), 3.72 (w), 1.489 (vw), 1.320 (vw), 1.290 (vw)

**Chemistry:**

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag</td>
<td>38.17</td>
<td>45.95</td>
</tr>
<tr>
<td>Cu</td>
<td>5.64</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>56.58</td>
<td>54.05</td>
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<tr>
<td>Total</td>
<td>100.39</td>
<td>100.00</td>
</tr>
</tbody>
</table>

(1) Broken Hill, Australia. (2) AgI.

**Occurrence:** A rare mineral in the oxidized zone of some Pb–Zn–Cu–Ag deposits, especially in arid regions.

**Association:** Iodargyrite, chlorargyrite, malachite, cerussite, cuprite (Broken Hill, Australia); gerhardtite, likasite (Likasi, Congo).

**Distribution:** From Broken Hill, New South Wales, Australia. In the USA, at the Contention mine and Joe shaft, Tombstone; in the Southwest mine, Bisbee, Cochise Co.; and from the Mildren and Steppe claim, South Comobabi Mountains, Pima Co., Arizona. In the Likasi mine, Katanga Province, Congo (Shaba Province, Zaire).

**Name:** Honors Henry Alexander Miers (1858–1942), Professor of Mineralogy, Oxford University, Oxford, England.

**Type Material:** Natural History Museum, Paris, France, 112.405; The Natural History Museum, London, England, 83822.