Roquesite

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Crystal Data: Tetragonal. Point Group: $42m$. Typically as inclusions in other sulfides, to 0.3 mm. Twinning: Polysynthetic.


Cell Data: Space Group: $I42d$ (by analogy to chalcopyrite group). $a = 5.51$ $c = 11.05$ $Z = 4$

X-ray Powder Pattern: Charrier, France.
3.19 (vvs), 1.95 (vs), 1.66 (s), 2.76 (mw), 1.268 (vw), 1.127 (vvw), 3.08 (f)

Chemistry:

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cu</td>
<td>26.8</td>
<td>28.4</td>
<td>26.20</td>
</tr>
<tr>
<td>Fe</td>
<td>0.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In</td>
<td>47.8</td>
<td>45.9</td>
<td>47.35</td>
</tr>
<tr>
<td>S</td>
<td>27.3</td>
<td>26.2</td>
<td>26.45</td>
</tr>
</tbody>
</table>

Total 101.9 101.1 100.00

(1) Charrier, France; by electron microprobe, corresponds to Cu$_{0.99}$In$_{0.98}$S$_{2.00}$. (2) Geevor mine, England; by electron microprobe, corresponds to Cu$_{1.09}$Fe$_{0.03}$In$_{0.98}$S$_{2.00}$. (3) CuInS$_2$.

Mineral Group: Chalcopyrite group.

Occurrence: In association with copper sulfides in high-temperature Sn–W–Bi–Mo hydrothermal veins in highly metamorphosed rocks (Charrier, France); a late-stage mineral in a skarn Fe–W ore pipe (Ulsan mine, South Korea); in magnetite-bearing massive chalcopyrite ore (Akenobe mine, Japan).

Association: Chalcopyrite, bornite, cubanite, covellite, sphalerite, tetrahedrite, emplcetite, wittichenite, stannoidite, pyrite, löllingite, arsenopyrite, bismuth, cassiterite, ferberite, magnetite.

Distribution: In France, from Charrier, Allier [TL]; in Lautaret Pass, Hautes-Alpes; at La Telhaie, Morbihan; and from Vaultry, Haute-Vienne. In the Geevor mine, St. Just, Cornwall, England. At Listulli, Telemark, and Långban, Värmland, Sweden. From the Radka deposit, Pazardzhik, Bulgaria. At Cinovec (Zinnwald), Czech Republic From Syrymbet, Kazakhstan. In the Akenobe and Ikuno mines, Hyogo Prefecture, Japan. In the Ulsan mine, Kyongsang Province, South Korea. At the Tosham tin prospect, Bhiwani district, Haryana, India. In Canada, from Mount Pleasant, New Brunswick. At the Sure Fire mine, Pyramid district, Washoe Co., Nevada, USA. Found in the Mangabeira tin deposit, Goiás, Brazil. Additional localities are now known.

Name: Honors Professor Maurice Roques (1911– ), French geologist, University of Clermont-Ferrand, Clermont-Ferrand, France.


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