Novákite

(Cu, Ag)$_{21}$As$_{10}$

Crystal Data: Monoclinic, pseudotetragonal. Point Group: 2, $m$, or 2$/m$. As irregular aggregates, with grains to 3 cm, and as veinlets in arsenic; botryoidal.


Cell Data: Space Group: C2, Cm, or C2/m. $a = 16.269(3)$ $b = 11.711(2)$ $c = 10.007(2)$ $\beta = 112.74^\circ$ $Z = 4$

X-ray Powder Pattern: Černý Důl mine, Czech Republic. 1.877 (10), 1.959 (9), 1.180 (9), 1.998 (8), 1.351 (6), 1.225 (6), 6.41 (5)

Chemistry: (1)

<table>
<thead>
<tr>
<th>Element</th>
<th>Formula</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cu</td>
<td>60.30</td>
<td></td>
</tr>
<tr>
<td>Ag</td>
<td>4.33</td>
<td></td>
</tr>
<tr>
<td>As</td>
<td>35.30</td>
<td></td>
</tr>
</tbody>
</table>

Total 99.93

(1) Černý Důl mine, Czech Republic; by electron microprobe, average of 10 analyses; corresponds to (Cu$_{20.14}$Ag$_{0.85}$)$_{\Sigma=20.99}$As$_{10.00}$.

Occurrence: In hydrothermal carbonate veins up to 20 cm thick, cutting diopside hornfels lenses in pyroxene gneiss and less commonly in mica schist (Černý Důl mine, Czech Republic).

Association: Arsenic, arsenolamprite, koutekite, silver, löllingite, chalcoite, skutterudite, chalcopryite, bornite, uraninite, calcite (Černý Důl mine, Czech Republic); algodonite, koutekite, djurleite, domeykite (Cashin mine, Montrose Co., Colorado, USA).

Distribution: From the Černý Důl mine, Krkonoše (Giant Mountains), Czech Republic [TL]. In the Cashin mine, Montrose Co., Colorado, USA.

Name: In honor of Jiří Novák (1902–1971), Professor of Mineralogy, Charles University, Prague, Czech Republic.
