Novákite

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.


R₁ – R₂: (400) 43.6–49.0, (420) 45.4–50.5, (440) 47.2–52.0, (460) 48.3–53.0, (480) 49.1–53.9, (500) 49.8–54.6, (520) 50.2–55.2, (540) 50.6–55.6, (560) 50.9–56.0, (580) 51.2–56.3, (600) 51.3–56.6, (620) 51.4–56.8, (640) 51.5–56.9, (660) 51.5–57.0, (680) 51.5–57.1, (700) 51.5–57.2

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:

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

Total 99.93

(1) Černý Důl mine, Czech Republic; by electron microprobe, average of 10 analyses; corresponds to \((\text{Cu}_{20.14}\text{Ag}_{0.85})\Sigma=20\text{As}_{10.00}\).

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, chalcocite, skutterudite, chalcoryrite, bornite, uraninite, calcite (Černý Důl mine, Czech Republic); algodonite, koutekeite, 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.
