

**Crystal Data:** Triclinic. *Point Group:* 1. Rare in complex flattened to needlelike crystals, to 8 mm, with 26 forms noted; lamellar to coarse crystalline, in coatings.

**Physical Properties:** *Cleavage:* One, very good. *Tenacity:* Waxlike. Hardness = 1  
D(meas.) = 1.036–1.06 D(calc.) = 1.064 M.P. 71 °C–71.5 °C.

**Optical Properties:** Translucent. *Color:* White, gray, yellowish gray, colorless.  
*Luster:* Vitreous.

*Optical Class:* Biaxial (+). *Dispersion:*  $r > v$ , perceptible.  $\alpha = 1.546$   $\beta = 1.555$   $\gamma = 1.587$   
 $2V(\text{meas.}) = 57(7)^\circ$

**Cell Data:** *Space Group:* *P*1.  $a = 11.407(1)$   $b = 20.952(2)$   $c = 7.4060(8)$   
 $\alpha = 93.941(9)^\circ$   $\beta = 100.750(8)^\circ$   $\gamma = 80.499(9)^\circ$   $Z = 4$

**X-ray Powder Pattern:** Bílina mine, Czech Republic.  
5.54 (100), 10.38 (34), 6.59 (33), 6.11 (18), 5.58 (17), 3.446 (13), 3.850 (11)

Chemistry:	(1)	(2)	(3)
C	87.47	87.45	87.51
H	12.05	12.55	12.49
Total	99.52	100.00	100.00

(1) Oberhart, Austria. (2) Bílina mine, Czech Republic. (3) C<sub>20</sub>H<sub>34</sub>, (+)-phylocladane.

**Occurrence:** Rare, in lignite seams and fractures in fossil coalified and silicified tree trunks. Typically obtained by leaching lignite with organic solvents and reprecipitation.

**Association:** Siderite, “limonite” (Bílina mine, Czech Republic).

**Distribution:** In Austria, from Oberhart, near Gloggnitz, Lower Austria; at Rosenthal and Oberdorf, near Köflach, and from Göriach, near Turnau, Styria. In Italy, at Terni, Umbria, and from Castelnuovo di Valdarno, near Florence, Tuscany. In the Bílina coal mine, at the former village of Liptice, northwest of Bílina, and at the former village of Jenišöv Újezd, west of Bílina, Czech Republic.

**Name:** For its discovery locality, Oberhart, Austria.

**Type Material:** Krahuletz Museum, Eggenburg, Austria.

**References:** (1) Dana, E.S. (1892) Dana’s system of mineralogy, (6th edition), 1001. (2) Hintze, C. (1933) Handbuch der Mineralogie. Gruyter & Co., Berlin, 1(4.2), 1358–1360 (in German). (3) Bouška, V., Císařová, R. Skála, Z. Dvořák, J. Zelinka, and K. Žák (1998) Hartite from Bílina. Amer. Mineral., 83, 1340–1346.