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JASKÓLSKIITE, A NEW HOMOLOGUE OF MENEGHINITE  
FROM VENA, SWEDEN

[UKD 549.35:546.815+546.56+546.86/87 Jaskólskit:001.4:549.356.2.01:553.484.3(485-191.2 Vena)

Jaskólskiite is a new Pb—Cu—Sb—Bi sulphosalt from the Vena Cu—Co deposit in the Bergslagen metallogenic province in central Sweden. It occurs in aggregates up to a few mm in diameter, intergrown with mineral "S", another new Pb—Cu—Sb—Bi sulphosalt, native bismuth, galena, pyrrhotite and, rarely, native antimony. The specimens examined contain also: chalcopyrite, arsenopyrite, cobaltite, pyrite, sphalerite, cubanite, freibergite, gudmundite, marcasite, costibite and mackinawite.

The mean result of 16 electron-microprobe analyses is Pb 50.74, Cu 1.31, Sb 15.74, Bi 14.35, S 17.51, sum 99.65 wt.%, leading to a balanced and normalized formula  $Pb_{2.22}Cu_{0.19}Sb_{1.17}Bi_{0.62}S_5$ , or idealized  $Pb_{2+x}Cu_x(Sb, Bi)_{2-x}S_5$  where Sb, Bi and  $x$  is about 0.2. Jaskólskiite corresponds to synthetic  $Pb_2Sb_2S_5$  of Wang (1973). The mineral has an orthorhombic unit cell with  $a$  11.331(1),  $b$  19.871(2),  $c$  4.100(1) Å,  $Z = 4$ . Space group Pbnm was determined, using a single crystal from Vena, by Dr. E. Makovicky (Copenhagen). The crystal structure determination shows that jaskólskiite belongs to the meneghinite homologous series with  $N = 4$  in the general formula of end-members  $Me_{2N}^{2+} - 4Me_4^{3+}S_{2N+2}$  and  $Cu^+Me_{2N}^{2+} - 2Me_2^{3+}S_{2N+2}$  (Makovicky et al., written comm. 1983). The strongest lines of the X-ray powder diffraction pattern are: 3.711(100)(310), 3.594(50)(121), 3.332(60)(131), 2.969(80)(231), 2.761(60)(241), 2.751(50)(311), 2.050(50)(002).

Jaskólskiite is lead grey with metallic lustre. Streak dark grey. Calculated density 6.50 g/cm<sup>3</sup>. In reflected light has a grey colour with greenish to yellowish tints due to birefractance. No internal reflections. The reflectances in air: 470 nm — 44.9, 37.2%; 546 nm — 44.2, 36.3; 590 nm — 43.7, 36.1; 650 nm — 41.9, 34.8. The polishing hardness is higher than that of galena and mineral "S", lower than that of pyrrhotite. The microindentation hardness gave  $VHN_{100} 165-179$ .

Jaskólskiite is named in honour of Dr. Stanisław Jaskólski (1896—1981), pioneer in ore microscopy in Poland, Professor of the Academy of Mining and Metallurgy in Kraków. The mineral and name have been approved by the IMA Commission on New Minerals and Mineral Names in September 1982. The second occurrence of jaskólskiite is reported by Dr. D. C. Harris and co-workers (written comm. 1982) from Izok deposit in Canada. An extensive publication on jaskólskiite is in preparation for Canadian Mineralogist.

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**JASKÓLSKIITE, NOWY HOMOLOG MENEGHINITU,  
Z VENA (SZWECJA)**

Streszczenie

Jaskólskiite, nowy minerał z grupy siarkosoli, rozpoznano w złożu miedziowo-kobaltowym Vena w centralnej Szwecji. Na podstawie analiz w mikroobszarze ustalono jego wzór chemiczny:  $Pb_{2,22}Cu_{0,19}Sb_{1,17}Bi_{0,62}S_5$ . Minerał nazwany został na cześć prof. dr Stanisława Jaskólskiego, pioniera mikroskopii kruszcowej w Polsce. Pełny opis minerału zamieszczony będzie w Canadian Mineralogist.

Марек А. ЗАКШЕВСКИ

**ЯСКУЛЬСКИИТ, НОВЫЙ ГОМОЛОГ МЕНЕГИНИТА  
ИЗ ВЕНА (ШВЕЦИЯ)**

Резюме

Яскульскиит, новый минерал из группы сульфосолей, изучен в медно-кобальтовом месторождении Вена в центральной Швеции. На основании анализов микрозондом установлена его химическая формула:  $Pb_{2,22}Cu_{0,19}Sb_{1,17}Bi_{0,62}S_5$ . Минерал назван в честь профессора д-ра Станислава Яскульского, пионера рудной микроскопии в Польше. Полное описание минерала замещено будет в журнале Canadian Mineralogist.