Eskimoite $Ag_7Pb_{10}Bi_{15}S_{36}$

Crystal Data: Monoclinic. *Point Group:* $2/m$ or m. As lamellar grains, the average size of which is 0.5 mm. *Twinning:* On {010}, twin lamellae ∥ [001] may be present.

Physical Properties: Hardness = n.d. VHN = 162–223, 191 average (50 g load). D(meas.) = n.d. D(calc.) = 7.12

Optical Properties: Opaque. *Color:* In polished section, galena-white. *Pleochroism:* Absent in air, absent to weak in oil. *Anisotropism:* Distinct to strong, pale gray to steel bluish black. R_1–R_2: n.d.

Cell Data: *Space Group:* $B2/m$ or Bm. $a = 13.459$ $b = 30.194$ $c = 4.100$ $\beta = 93.35°$ $Z = 1$

X-ray Powder Pattern: Ivigtut, Greenland.
3.36 (100), 2.87 (60), 2.96 (50), 2.05 (50), 1.754 (50), 2.08 (40), 1.667 (40)

Chemistry:

	(1)	(2)	(3)
Ag	9.64	9.68	10.61
Pb	30.42	28.80	29.12
Cu	0.21	0.30	
Bi	44.79	46.70	44.05
S	16.40	16.17	16.22
Total	101.46	101.65	100.00

(1) Ivigtut, Greenland; by electron microprobe, average of 9 grains; corresponds to $Ag_{6.29}Cu_{0.23}Pb_{10.33}Bi_{15.09}S_{36.00}$. (2) Ivigtut, Greenland; by electron microprobe, average of 15 grains; corresponds to $Ag_{6.41}Cu_{0.34}Pb_{9.92}Bi_{15.95}S_{36.00}$. (3) $Ag_7Pb_{10}Bi_{15}S_{36}$.

Occurrence: In a cryolite deposit (Ivigtut, Greenland).

Association: Berryite, aikinite, galena (Ivigtut, Greenland); pyrite, enargite (Flathead mine, Montana, USA).

Distribution: From the Ivigtut cryolite deposit, southwestern Greenland [TL]. In the USA, from about 13 km north of Niarada, in the Flathead mine, Flathead Co., Montana, and at Manhattan, Nye Co., Nevada. In the Kochbulak gold deposit, Chatkal-Kuramin Mountains, eastern Uzbekistan. From the La Roche-Balue quarry, west of Nantes, Loire Atlantique, France. At Monteneme W–Sn deposit, Galicia?? [=Gallaecia= La Coruña, Lugo, Orense, Pontevedra Provinces = which??], Spain. From Rauriser Goldberg, Salzburg, Austria.

Name: For the Eskimos, early settlers of Greenland.

Type Material: University of Copenhagen, Copenhagen, Denmark, 1973,156.

References: (1) Karup-Møller, S. (1977) Mineralogy of some Ag–(Cu–Pb–Bi) sulfide associations. Bull. Geol. Soc. Denmark, 26, 41–68. (2) Makovicky, E. and S. Karup-Møller (1977) Chemistry and crystallography of the lillianite homologous series II: Definition of new minerals: eskimoite, vikingite, ourayite, and treasurite. Redefinition of schirmerite and new data on the lillianite–gustavite solid solution series. Neues Jahrb. Mineral., Abh., 131, 56–82. (3) (1979) Amer. Mineral., 64, 243–244 (abs. refs. 1 and 2).