

eliminated in Fig. 2-d by the use of a holder with a larger opening and with very little metal bathed by the primary x-ray beam.

The final display (Fig. 2-e) is a comparison of the record from a milligram of a 1:1 mixture by volume of quartz and montmorillonite. This amount of material is about half the amount of powder shown being mounted in Figure 1-c, d. The excessive "hash" in the glass-slide record masks the (02) montmorillonite band at $20^\circ 2\theta$ and yields many random deflections that might be erroneously interpreted as true diffraction maxima.

APPENDIX

Materials required for this method:

1. Collodion or similar plastic dissolved in a lyophobic solvent.
2. Dropper bottle.
3. Petri dish or similar container filled with water.
4. Tweezers, toothpick, or any other instrument for trimming away excess membrane.
5. Standard diffractometer sample holders.

REFERENCE

- BUERGER, M. J. AND KENNEDY, G. C. (1958), An improved specimen holder for the focusing-type X-ray spectrometer: *Am. Mineral.*, **43**, 756-757.

THE AMERICAN MINERALOGIST, VOL. 46, JULY-AUGUST, 1961

THE MORPHOLOGY OF ESKOLAITE, Cr_2O_3

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Kouvo & Vuorelainen* described in 1958 the new mineral eskolaite, natural Cr_2O_3 isotypic with Al_2O_3 and Fe_2O_3 , forming idiomorphic crystals up to about 5 mm. in size, from Outokumpu, Finland. The authors mention that the prismatic or platy crystals show the forms: $\{11\bar{2}0\}$, $\{0001\}$, and $\{11\bar{2}3\}$, but the rhombohedrons $\{01\bar{1}2\}$ and $\{10\bar{1}4\}$ which should be dominant, were not observed.

The Institute of Mineralogy of the Technical University of Berlin got some well developed eskolaite crystals from the type locality, with a length up to 12 mm. (Fig. 1). They have, in addition to the reported forms, also the rhombohedron $r \{10\bar{1}1\}$ in the combinations of Fig. 2. Our indices are derived from the morphological axial ratio $c/a=1,3715$ as used for Al_2O_3 and Fe_2O_3 in Dana (System of Mineralogy 1944) and in Strunz (Mineralogische Tabellen 1957).

* Kouvo, O. and Vuorelainen, Y. (1958), Eskolaite, a new chromium mineral. *Am. Mineral.*, **43**, 1098-1106.

Eskolaite from Outokumpu, Finland
 $c/a=1.3715$, $\alpha=85^{\circ}22'$, $\rho_0:r_0=1.5837:1$

Hexagonal	Rhombohedral	ϕ	ρ	A_1	A_2
c 0001	111	—	$0^{\circ}00'$	$90^{\circ}00'$	$90^{\circ}00'$
a $11\bar{2}0$	$10\bar{1}$	$0^{\circ}00'$	$90^{\circ}00'$	$60^{\circ}00'$	$60^{\circ}00'$
r $10\bar{1}1$	100	$30^{\circ}00'$	$57^{\circ}44'$	$42^{\circ}55'$	$90^{\circ}00'$
n 2243	$31\bar{1}$	$0^{\circ}00'$	$61^{\circ}20'$	$63^{\circ}59'$	$63^{\circ}59'$

With cell dimensions $a_0=4.958 \text{ \AA}$, $c_0=13.60 \text{ \AA}$ and $c_0/a_0=2.743^*$ the indices would be $c\{0001\}$, $a\{11\bar{2}0\}$, $r\{10\bar{1}1\}$, $n\{11\bar{2}3\}$. $a_{rh}=5.361 \text{ \AA}$, $\alpha=55^{\circ}05'$.

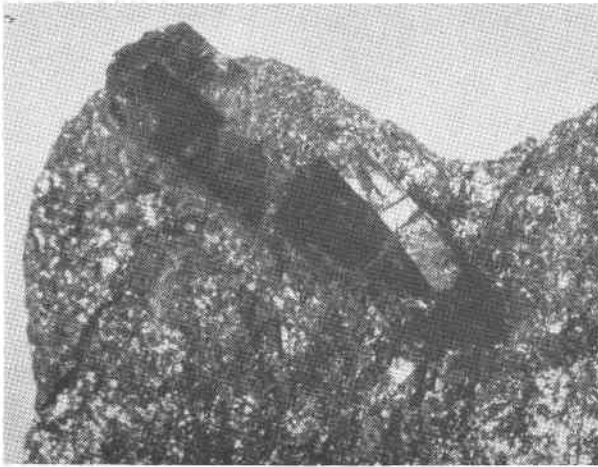


FIG. 1. Eskolaite crystals in chalcopyrite and pyrrhotite. Natural length 12 mm.

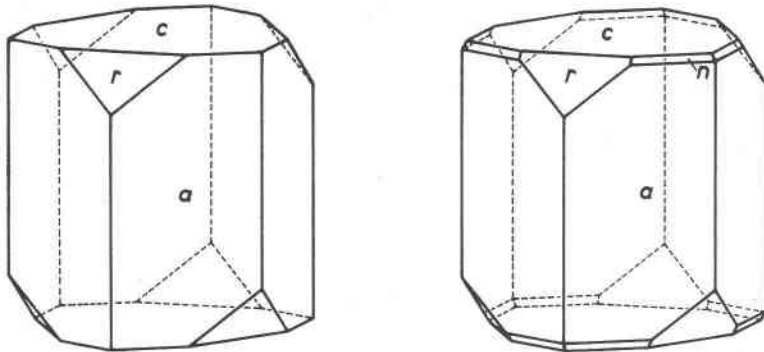


FIG. 2. Eskolaite. The two observed combinations.

PITTSBURGH DIFFRACTION CONFERENCE

The annual Pittsburgh Diffraction Conference will be held November 1-3, 1961, at Mellon Institute, Pittsburgh, Pennsylvania. Sessions will be devoted to metals and alloys, instrumentation, structures, polymers and fibers, refractories, and electron probe, including special sessions on electron diffraction and X-ray diffraction microscopy. The evening meeting will be addressed by Dr. Peter J. W. Debye, emeritus professor of chemistry, Cornell University. Further information can be obtained from T. B. Massalski, Mellon Institute, 4400 Fifth Avenue, Pittsburgh 13, Pennsylvania.

Cap. John Sinkankas, recently retired from the U. S. Navy, has been appointed editor of the *Lapidary Journal*, effective Sept 1, 1961.

ERRATUM

TOM. F. W. BARTH

Those who have read my speech of acceptance of the Roebling Medal (*Am. Mineral.* **46**, 509-10, 1961) may have wondered what Dr. H. S. Washington said to me at the Geophysical Laboratory in 1930, when he taught me the art of making chemical analyses of rocks. His consoling words were: "In order to do research it is *not* necessary to have a particularly brilliant mind, or a very high intelligence. To be able to do good research is a state of mind."

On page 510, 8th line from the bottom, the little word *not* is missing in the above quotation.