

PROCEEDINGS OF SOCIETIES

PHILADELPHIA MINERALOGICAL SOCIETY

Academy of Natural Sciences of Philadelphia, March 2, 1933

President Trudell presided at a stated meeting of the society, with 48 members and 43 visitors present. Dr. Joseph L. Gillson was elected a member.

Dr. Frederick M. Oldach of the University of Pennsylvania described "The French Creek Orebody." Geologic details were given, and the results of a study of the various stages of mineralization, and the mineral sequences. While the mines are now abandoned, the dumps still yield specimens. A chalcopyrite crystal one and a half inches long was found last year.

W. H. FLACK, *Secretary*

MINERALOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND

MINERALOGICAL SOCIETY, March 23rd, 1933. SIR JOHN S. FLETT, President, in the chair.

DR. L. J. SPENCER: *Biographical notices of mineralogists recently deceased* (fifth series).

MR. MAX H. HEY: *A possible source of error in the determination of symmetry from optical extinction-angles*. In certain cases a small departure of a cut plate from the intended section direction may lead to comparatively large errors in the extinction angle and hence to an incorrect determination of symmetry. This is well illustrated by mesolite.

MR. MAX H. HEY: *Studies on the Zeolites. Part V. Mesolite*. New analyses and x-ray studies of mesolite indicate that the correct formula is $\text{Na}_4\text{Ca}_6\text{Al}_{16}\text{Si}_{24}\text{O}_{80} \cdot 22\text{H}_2\text{O}$. There is often a slight replacement of Na by K, and generally an appreciable replacement of Ca by 2Na. The axial ratio has been determined by goniometric and x-ray methods. Refractive index, birefringence and optical axial angle measurements have been made. The vapor pressure has been studied by the isohydric method previously described. A number of base exchange products have been prepared and the potassium and lithium derivatives shown to be identical with those obtained from natrolite. This provides the first conclusive proof that mesolite and natrolite are, as has been commonly assumed, isostructural. X-ray photographs of mesolite are very similar to those of natrolite, but show distinct differences. The space-group is C_2' .

DR. A. E. MOURANT: *The dehydration of thomsonite*. A study of the dehydration of thomsonite by the isobaric method. The results, obtained some years ago, are supplementary to those obtained by Hey by the isohydric method and differ from them in some respects. Dehydrated thomsonite does not absorb air. The lattice-shrinkage reaction has been further investigated.

MR. F. J. TURNER: *Note on the occurrence of piedmontite in quartz-muscovite-schist from the Shotover valley, western Otago, New Zealand*. The description of piedmontite in schist occurring as boulders in the Shotover river. The mineral has not previously been recorded from New Zealand.