

form $p = \frac{7}{6} \cdot \frac{3}{2}$ (796) which, with complicated symbol, enters autonomously into the form development, is to be regarded as a singular node (6, p. 295).

It is to be expected that singular nodes are not rare. Their determination and the study of their peculiarity and their mode of action might explain some appearances in the development of the forms of crystals hitherto not understood or not observed.

Singular nodes and structures of the particle. Like all autonomous modes, singular nodes are related to the structure of the particle, and may be called upon to give information on this structure. This gives them particular importance. Every singular node corresponds to a singular property in the structure of the particle.

REFERENCES

- (1) V. GOLDSCHMIDT: Über Abteilungen der Kristallsysteme, *Zs. f. Krist.*, **32**, pp. 49-65, 1899.
- (2) ———: Über Entwicklung der Kristallformen, *ibid*, **28**, 1-35, 414-451, 1897.
- (3) ———: Über Kristallsysteme, deren Definition und Erkennung, *ibid*, **31**, pp. 135-159, 1899.
- (4) ———: Über Verknüpfung der Kristallpartikel, *ibid*, **29**, pp. 38-53, 1898.
- (5) ———: *Index der Kristallformen*, **1**, 1886.
- (6) E. ERNEST: Die Kristallformen des Wolfsbergits, *N. Jb. f. Min., Bl. Bd. LXI*, A, pp. 275-315, 1928.

PROCEEDINGS OF SOCIETIES

PHILADELPHIA MINERALOGICAL SOCIETY

Academy of Natural Sciences of Philadelphia, November 6, 1930.

A stated meeting of the Philadelphia Mineralogical Society was held on the above date, Mr. Toothaker presiding. There was an attendance of sixty-five persons. Upon favorable recommendation of the council, Mr. George Wilkes was elected a junior member. A committee was appointed by the chair to formulate resolutions on the death of Dr. J. B. S. Egee, one of the oldest members of the society.

Mr. Lester W. Strock spoke of a trip to "Northern Ontario and the Canadian Rockies." Mineral localities visited included Bedford, New York; Portland, Connecticut; Westfield, Massachusetts; Chester, Vermont; Grenville, Perkins Mills, and Cantley, Quebec; Timmons and various mines near Kirkland Lake, Cobalt, Ontario; and Noranda in western Quebec. Common ore minerals were obtained at these localities, but no fine crystallized specimens. The speaker concluded his remarks with an account of a trip to the Columbian icefield. A series of lantern slides was shown. A vote of thanks was given the speaker.

LESTER W. STROCK, *Secretary*

PHILADELPHIA MINERALOGICAL SOCIETY

Academy of Natural Sciences of Philadelphia, December 4, 1930.

A stated meeting of the Philadelphia Mineralogical Society was held on the above date with the president, Mr. Toothaker, in the chair. There was an attendance of seventy-one persons. Upon favorable recommendation of the council Messrs. William Emtage, Edward Healey, and L. A. Morgan were elected members, and Messrs. George Johnson, Howell Joblins, William Hackett, and James McNair, junior members.

As the subject of the evening, Mr. Edmund Cienkowski spoke on the theme "Southwest by Motor," which was descriptive of a trip across the continent in search of mineral specimens, in which the speaker was accompanied by Messrs. Fred Reinitz, and Edward K. Graham. Many lantern slides were shown, and specimens of the following minerals were exhibited: green, purple, and yellow fluorite from Rosiclare, Illinois; calcite, sphalerite, galena, marcasite, chalcopyrite, and dolomite from the Joplin district; quartz from Hot Springs, Arkansas; wulfenite from the Organ Mountains, and malachite from Bisbee, Arizona; vanadinite from the old Yuma mine near Tucson, Arizona; and also from the Apache mine near Globe; tourmaline from Pala, California; some meteoric iron from Canyon Diablo, Arizona; silicified wood from the Petrified Forest, Arizona; and smithsonite from Kelly, New Mexico. A vote of thanks was given the speaker.

LESTER W. STROCK, *Secretary*

NEW YORK MINERALOGICAL CLUB

The regular meeting of the New York Mineralogical Club was held at the American Museum of Natural History, on the evening of December 17, 1930, with the president, Mr. Allen, in the chair. The following were elected to membership: Mrs. J. R. Algor, Mr. H. E. Engel, Mr. Joseph Sternberg and Mr. Stanley Harzfeld. Mrs. Richard Durkee of New York City was proposed for membership, and her name referred to the membership committee.

Mr. J. C. Boyle, the speaker of the evening, spoke on "*Mineral Collecting in Ontario and Quebec.*" The localities visited are located in the eastern part of Quebec and Ontario. Specimens were secured from Thetford, Quebec, and from Cantley, Bancroft, Hybla, and Wilberforce, Ontario. The nature of the region covered was described, and the lecture illustrated by means of interesting lantern slides taken at the various localities. A selection of the minerals collected was also exhibited. The speaker received a rising vote of thanks.

After the address, members were invited to present problems or matters of special interest. Messrs. Hoadley and Grenzig responded by exhibiting specimens of an unusual nature.

The plan has recently been inaugurated to invite the members to gather and have dinner together at the Hotel Endicott, not far from the Museum, before the regular meetings. Those who have attended these informal dinners have been greatly pleased with the innovation, and will be glad to have others join them.

JAMES F. MORTON, *Secretary*

NEWARK MINERALOGICAL SOCIETY

At the 115th regular meeting held November 2, 1930, at the Newark Technical School, the following officers and trustees for the year 1930-1931 were elected:

President—John A. Grenzig
 Vice-President—George E. Carpenter
 Secretary—Herbert L. Thowless
 Treasurer—Herman M. Lehman

Charles W. Hoadley was re-elected to the Board of Trustees for a three year term. The Board now consists of four officers, Charles W. Hoadley, Paul Walther and Mrs. Victor C. Gilbert.

HERBERT L. THOWLESS, *Secretary*

MINERALOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND

MINERALOGICAL SOCIETY, *November 4.—Anniversary Meeting.*—Sir John S. Flett, president, in the chair. MR. ARTHUR RUSSELL: *An account of British mineral collectors and dealers in the 17th, 18th and 19th centuries.* A first installment of a series of short biographies dealing with:—Nehemiah Grew, F. R. S., (1641-1712); William Borlase, F. R. S., (1696-1772); Rudolf Eric Raspe, (1737-1794); and Philip Rashleigh, F. R. S., (1729-1811).

MR. M. H. HEY: *On Cupriferous melanterite from the Skouriotissa mine, Cyprus.* A crystallographic study of a well-crystallized specimen from an ancient working (perhaps Roman) in the Skouriotissa mine, revealed a very peculiar habit tabular to $b(010)$, and the presence of the new forms $x(161)$, $y(\bar{2}\bar{3}1)$, $g(\bar{1}12)$, $q(\bar{1}02)$, and $\beta(150)$. A partial analysis shows the presence of 7.7% $\text{CuSO}_4 \cdot 7\text{H}_2\text{O}$.

DR. C. E. TILLEY: *On the dolerite-chalk contact zone of Scawt Hill, Co. Antrim.* The production of basic alkali rocks by the assimilation of limestone by basaltic magna. (With chemical analyses by Dr. H. F. Harwood): Assimilation of limestone at the contact of a dolerite intrusion with the chalk at Scawt Hill gives rise to a hybrid zone built up of pyroxene-rich rocks (pyroxenites), titanaugite-melilite rocks, and basic rock-types bearing nepheline (theralite and nepheline-dolerite assemblages). The segregation of a basic alkali residuum is the complementary process in the precipitation of magnesian rich pyroxene in the pyroxenites. Plagioclase is resorbed and gives place to a titaniferous lime-augite rich in alumina, melilite and nepheline, while perovskite, aegirine, and wollastonite are other products in the hybrid zone.

DR. FRANK SMITHSON: *A simple method of observing the magnetic properties of mineral grains.* The tests are made with softened steel needles attached to the poles of a horse-shoe magnet, a strong field being obtained when the points are 1 mm. or so apart. The attraction is observed under the microscope.

MR. M. H. HEY: *On studies of the zeolites. Part I.* General review. A short review of the general properties of the zeolites, with some suggestions on the interpretation of the available data, and a comparison of the zeolites with the clays, ultramarines, permutites, and 'artificial zeolites.'

W. CAMPBELL SMITH, *General Secretary*