

present. The water was disregarded. It thus appeared that the sample was composed as follows:

	Per cent
Lead silicate	88.66
Garnet	7.69
Willemite	2.29
Water	0.73
	<hr/>
	99.37

The lead silicate, recalculated to 100% gave the figures in Column 3 and the molecular ratios as shown in Column 4 correspond reasonably closely to the formula $3(\text{Pb, Mn})\text{O} \cdot 2\text{SiO}_2$ which is that of barysilite.

The mineral is easily fusible to a blackish purple glass. It is slowly decomposed by hot concentrated hydrochloric acid with separation of silica.

PROCEEDINGS OF SOCIETIES

PHILADELPHIA MINERALOGICAL SOCIETY

Academy of Natural Sciences of Philadelphia, March 11, 1925

A stated meeting of the Philadelphia Mineralogical Society, held on the above date, was attended by twenty-seven members and six visitors. Vice-president Arndt presided in the absence of President Vaux.

Mr. Karl Kugler, of Philadelphia, was elected to junior membership.

Announcement was made that in accordance with the amendment to the By-Laws, recently adopted, the society will hereafter meet on the first Thursday of each month, excepting July and August.

The society was addressed by Mr. J. W. Radu, of New York City, on "*The Orientation and Cutting of Gem Minerals.*" The geometrical proportions of the perfect "brilliant" cut were first described. In this form the gem has 58 faces, arranged in three principal regions, which are called respectively the table, the girdle, and the culet.

Zonally colored minerals, such as sapphire, emerald, or amethyst, should be cut so that the culet lies in the zone of deepest color. Even if the remainder of the stone is colorless, the whole will then appear colored when viewed from the top. Dichroic minerals should be cut with the axis of the culet perpendicular to the *c*-axis of the crystal.

Synthetic rubies and sapphires usually have their *c*-axis perpendicular to the longest axis of the "boule," as the uncut synthetic crystal is called. The boules are very unstable and shatter very readily when struck. The synthetic rubies are cheaper than the sapphires because their boules usually break into larger pieces, and are therefore more easily cut.

As the second part of his program the speaker gave a demonstration of the fluorescence of many specimens of willemite, pectolite, and other minerals in the ultraviolet light from an iron arc. Phosphorescence was also shown by means of a number of artificial salts. After the meeting adjourned the exhibition was continued informally until a late hour.

HORACE R. BLANK, *Secretary*

NEWARK MINERALOGICAL SOCIETY

The seventy-eighth meeting of the Newark Mineralogical Society was held on Jan. 3, 1926. President Miller presided, forty-seven members being present.

Mr. Thowless made a motion to have the By-Laws amended so as to conform to the laws of incorporation. This motion was carried. Messrs. Thowless, Carpenter and Broadwell were appointed on the committee to draft the revision.

In response to a letter from Mr. Van Horn the Secretary urged all members to become subscribers to THE AMERICAN MINERALOGIST. The applications of the eight prospective members that were in the hands of the committee were accepted.

Mr. Bates made a motion that a set of resolutions be spread upon the minutes with reference to the death of Professor Colton. Dr. Colton was the first president of the Newark Society and occupied the chair from the time of the installation, November 17, 1915, until December 4, 1920, when he relinquished the office to retire to his home in Dutchess Co., New York.

Mr. J. W. Radu then presented his paper on "*Gem Stones.*" Mr. Radu had hundreds of dollars worth of cut and uncut stones on exhibit and gave a very detailed account of the cutting and polishing of gems. Mr. O. Ivan Lee supplemented this talk with a discussion on the chemistry of gem stones.

WM. H. BROADWELL, *Secretary*

The seventy-ninth meeting of the Newark Mineralogical Society was held on February 7, 1926. President Miller presided and thirty members were present. A motion was made that a letter of thanks be sent Dr. Whitlock for the copy of "*The Calcites of New York*" which was presented to the Society and also for his kindness in being present and explaining special features of the collection to the members upon their recent visit to the American Museum of Natural History.

At the close of the business meeting Mr. Miller presented his paper on "*Notes on Calcites.*" Mr. Miller explained the crystal system, Mr. Broadwell the formation and genesis and Mr. Walther spoke on the "*Calcites of England.*" This was followed by brief talks by several other members.

WM. H. BROADWELL, *Secretary*

The eightieth meeting of the Newark Mineralogical Society was held on March 7, 1926. Mr. Thowless presided and eighteen members were present. A letter from the New York Club inviting the members to attend their next meeting and bring for exhibition purposes specimens of the rare earths was read and accepted. A progress report was made on the By-Laws. Three applications for membership were received and accepted.

It was then arranged that a trip to Philadelphia be made on March 21 to view the Vaux collection of minerals at the Academy of Sciences.

Mr. Lee then gave a talk on "*The Rare Earths,*" stressing particularly the

newest member—hafnium. This was followed by talks from other members, all of whom had exhibits on display.

WM. H. BROADWELL, *Secretary*

NOTES AND NEWS

KOENIG MINERAL COLLECTION FOR UNIVERSITY

A gift of a valuable collection of minerals to the University of Pennsylvania has been announced by Dr. Frederick Ehrenfeld, Professor of Geology. The collection contains about three thousand specimens and is the gift of George E. Nitzsche. The collection was the property of the late George A. Koenig, who was Professor of Geology and Chemistry at the University for many years. The minerals were gradually acquired by Dr. Koenig from 1875 to 1910; and in 1923 the collection became the property of Mr. Nitzsche, who has just presented them to the University, together with a fund for their perpetual care and for adding specimens to it from time to time. The collection has been installed in the Geological Museum of the University and will be known as "The George A. Koenig Memorial Collection."

This was a significant gift, since the University, for many years, was pre-eminent in America for its Geological Department and Dr. Koenig was a contemporary and friend of John A. Rider, Edward Drinker Cope, Joseph Leidy and many other naturalists who were connected with the University of Pennsylvania. Dr. Koenig also assisted in completing some of the great mineral collections in America, among them that of the late Clarence Bement, whose valuable collection, only within recent years, was sold to the New York Museum of Natural History.

With its many other special collections, the University now possesses one of the largest and most important collections of minerals in the United States. It has, however, always been cramped for space, and has never been able to display adequately, even some of the rarer specimens. If properly housed, the University's present Geological collections could easily fill a spacious Geological Museum building.

Mrs. Elsie Koenig Nitzsche has also presented the University with a bronze memorial tablet in honor of her father.—*The Pennsylvania Gazette*

Professor B. S. Hopkins of the University of Illinois has recently isolated the hitherto unknown element No. 61. Four hundred pounds of monazite residues yielded the element after repeated fractional crystallizations. The discovery is based on new lines found in the spectrum, bands in the absorption spectrum and lines in the x-ray spectrum. The new element has been named *illinium* with the chemical symbol *Il*. At the present time all but two of the ninety-two elements have been discovered. The missing elements are numbers 85 and 87.

A copy of Bulletin 31 of the United States National Museum publications dealing with The Minerals of Idaho, by Earl V. Shannon, has just been received. This volume of 480 pages and 19 plates contains a description of approximately 230 minerals found in Idaho. It is a comprehensive work on regional mineralogy and will be welcomed by all American mineralogists. A limited number of copies are available for free distribution by the Museum and may be had upon request by any interested party. After the exhaustion of the free quota a few additional copies