

danger of removing the stain. Upon examination the calcite will be found to have become deeply stained while any dolomite present will remain unaffected. The cover glass may be remounted by placing one drop of a thin solution of balsam in xylene on center of section and then placing cover glass on this drop. Fragments may, of course, be treated in a similar manner.

## THE TRANSMISSION OF LIGHT BY CITRINE

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In a recent paper<sup>1</sup> the writer concluded that citrine is probably colored by sub-microscopic particles of hydrous ferric oxide. This belief was based on analyses, and on a comparison of the color of citrine with that of solutions of colloidal hydrous ferric oxide.

Since this former note was published, the writer has measured the transmission of light through two specimens of Brazilian citrine, and through a colloidal solution of hydrous ferric oxide. The measurements were carried out in the Physical Laboratory of this University, by means of a photospectrometer. The percentage of incident light which emerged after passage through the sections was determined, at intervals averaging about  $20\mu\mu$ , from  $457$  to  $704\mu\mu$ . Curves plotted from the results so obtained are shown in Fig. 1.

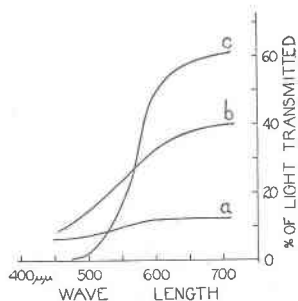


FIGURE 1. Transmission of light through citrine and through a colloidal hydrous ferric oxide solution. (a) Citrine. Color: 19'' 'b (Ridgway); pale yellowish. Thickness of section, 1.7 cm. (b) Citrine. 9k; deep amber. Thickness 0.55 cm. (c) Colloidal hydrous ferric oxide solution. 0.07 per cent  $\text{Fe}_2\text{O}_3$ . 2.0 cm. thick.

<sup>1</sup> The Color of Three Varieties of Quartz. I. Note on the color of citrine. *Am. Min.*, 8, 117-118 (1923).

From these curves it is apparent that the transmission of light in citrine and in the hydrous ferric oxide solution is of the same character. In all three curves there is a continuous increase in the amount of transmitted light from the violet to the red end of the spectrum, with no peaks or depressions. Such a spectrum has no absorption bands, but instead shows a gradual darkening from the red to the violet. This is generally true of the spectra of ferric compounds. It is concluded, therefore, that the nature of the transmission spectrum of citrine substantiates the formerly expressed opinion that the color of that mineral is due to a compound of ferric iron.

## PROCEEDINGS OF SOCIETIES

### NEW YORK MINERALOGICAL CLUB

*Regular Monthly Meeting of February 11, 1925*

A regular monthly meeting of the New York Mineralogical Club was held in the East Assembly Room of the American Museum of Natural History on the evening of February 11th at 8.15 p.m. In the temporary absence of the president, the vice-president, Dr. Frederick I. Allen presided. There was an attendance of 34 members. Mr. Stanton, speaking for the committee on the Gratacap Memorial Tablet, reported progress and stated that the execution of the tablet had advanced to such a stage that its unveiling might be expected in the near future.

Captain Miller submitted the name of Dr. C. V. R. Bumsted, 235 Graften Avenue, Newark, N. J., to the committee on membership. The committee on membership having failed to report on the candidates for membership submitted at the January meeting, the question of election without action of the committee was raised. It was moved by the Chair that the proposed candidates, including Dr. Bumsted, be elected to membership, if such action should not be found inconsistent with the By-Laws. The motion was carried. The names of the candidates thus elected to membership are:

Miss Grace M. Carhart, Hunter College, New York City.

Mr. C. C. Lawson, Yale University, 124 Prospect Street, New Haven, Conn.

Mr. Frederick A. Sach, c/o Hallgarten & Co., 44 Pine St., New York City.

Dr. C. V. R. Bumsted, 235 Graften Ave., Newark, N. J.

Mr. Stanton raised the question as to the advisability of members joining the Club paying dues for one year in advance. Capt. Miller so moved and the motion was carried. Captain Miller extended to the Club an invitation from the Newark Mineralogical Society to attend their meeting on Sunday, March 1, at 3 p.m. in the Newark Technical School. At this point the President assumed the Chair. Dr. Allen read a notice of the death on February 7th of Dr. William Francis Hillebrand, chief chemist of the Bureau of Standards. He spoke of the eminence of Dr. Hillebrand in the field of mineral and rock analysis, and of the lasting value of his bulletin on the Analysis of Silicate and Carbonate Rocks. He drew attention to the little known fact that Dr. Hillebrand was the first to observe and interpret the