NOTE ON THE CHEMICAL SIMILARITY OF IDOCRASE AND CERTAIN GARNETS

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Several years ago, while investigating certain garnets, it became desirable to obtain a more accurate picture of the chemical relationships among andradite, grossularite and idocrase. Because this information may be of interest to other investigators a diagram showing these relations is reproduced here.

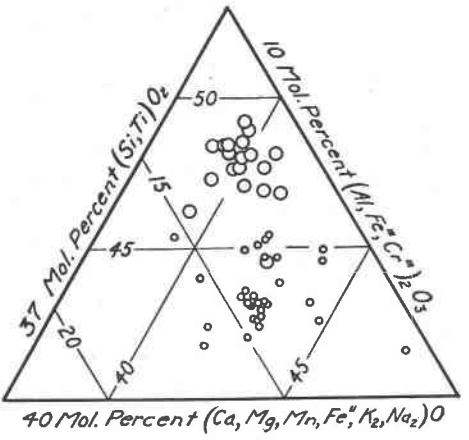

FIG. 1. Diagrammatic representation of non-volatile constituents of idocrase (larger circles) and garnets (smaller circles).

This diagram represents a compilation of most of the seemingly reliable analyses which were recorded from 1909 to 1937. The analyses are plotted in terms of the molecular per cents of the various oxides. The larger circles represent analyses of idocrase and the smaller circles garnets. The 49 analyses are distributed as follows:

Idocrase	19
Grossularite	17
Andradite	10
Schorlomite and melanite	3

One of the analyses of idocrase is somewhat removed from the others and lies in the area occupied by garnets. This specimen is from Almunge, analyzed by R. Mauzelius and described by P. Quensel.[1] The garnet

[1] *Centrb. Mineral.*, p. 203, **1915.**

which appears at the lower right of the diagram is a titanium-rich variety from Kuusamo, analyzed and described by O. Zedlitz.[2]

B. E. Warren and D. I. Modell[3] have demonstrated the structural similarities of garnet and idocrase and this compilation shows the chemical similarities. The most apparent difference in the compositions is the relatively greater abundance of (Ca,Mg,Mn,Fe,K_2,Na_2)O in idocrase.

[2] *Ibid.*, Abt. A, p. 73, **1935.**
[3] *Zeits. Krist.*, vol. **78,** pp. 422–432, 1931.

Dr. A. E. Alexander, for the past three years ceramic engineer with the Electric Auto-Lite Company of Toledo, Ohio, has resigned to accept an Industrial Fellowship in mineralogy and petrography at the Mellon Institute of Industrial Research, Pittsburgh, Pa.

PROCEEDINGS OF SOCIETIES

MINERALOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND

Thursday, November 3rd, 1938.

ANNIVERSARY MEETING. Dr. L. J. Spencer in the Chair.

The following papers were read:—

(1) *On an example of α-quartz showing good cleavages parallel to the three prism faces.* By DR. J. DRUGMAN.

(2) *On an example of α-quartz crystals with a steep rhombohedron as predominant form.* By DR. J. DRUGMAN.

(3). *The relation of stellerite and epidesmine to stiblite.* By DR. A. PABST (communicated by MR. F. A. BANNISTER).

It is shown that stellerite and epidesmine are varieties of stilbite which, though truly monoclinic, are both optically and morphologically pseudo-orthorhombic. A new analysis of stellerite-like stilbite is reported.

(4). *The Adinoles of Dinas Head, Cornwall.* By MR. S. O. AGRELL.

Adinoles associated with spilosites and spotted slates occur at the contact of an albite-dolerite intrusion with black limestone-bearing slates of Upper Devonian age. Four main types are recognized.

1. Normal adinoles—grading into rocks composed essentially of dravite.
2. Adinoles with pseudomorphs, probably after andalusite.
3. Adinoles with globular masses of ankerite showing concentric structures.
4. Polygonal and spherulitic adinoles.

Chemically, the adinoles resemble quartz-keratophyres and their tuffs but the evidence at Dinas Head shows that they are due to the effect of the intrusion on the sedimentary rocks. The first change was purely thermal and was followed by albitization and then by carbonatization, the metasomatizing fluids coming from the dolerite.

(5) *On three australites of unusual form.* By MR. F. A. SINGLETON (communicated by the General Secretary).

The paper describes a Tasmanian button form with an exceptionally broad translucent flange; a New South Wales aberrant canoe form in which the normal sculptures of the two surfaces are not differentiated; and a South Australian button core which is hollow and translucent.

(6) *Merosymmetry versus Merohedrism.* By Prof. AUSTIN F. ROGERS.