

we also have, however, certain diagenetic crystals like the crystals of gypsum and the hopper shaped crystals of salt which sometimes occur in shales.

B. Centers of crystallization extremely sparse (Punktformig). This might apply to the rarer minerals of the pegmatites and is pretty nearly what is meant by disseminated or sparsely disseminated.

C. Centers of crystallization scattered on a thin crack.

1. If combined with a radiated structure, we have a stellate appearance as in wavellite.

2. If there is growth out in tree-like form from these centers, we have the dendritic form.

D. Centers of crystallization scattered on surface. We have the botryoidal, reniform, or mammillary structures above mentioned.

E. Crystallization growing in from the surface of the cavity. This is the drusy structure, when they differ from the wall rock, miarolitic when they are the minerals of the rock.

F. Crystallization centers scattered abundantly through the solid gives a granular structure: fine grained texture when less than a mm. apart; medium grained when one mm. to a cm.; coarse when over a cm.

NOTES AND NEWS

A NEW OCCURRENCE OF SYNGENITE

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Syngenite, $(\text{CaSO}_4 \cdot \text{K}_2\text{SO}_4 \cdot \text{H}_2\text{O})$, has previously been described only from salt deposits in association with halite, gypsum and anhydrite. I have recently identified as syngenite the mineral which appears to comprise over 99% of a fine white powder, whose maximum grain size is 0.3 mm., collected in 1902 by Whitman Cross on the island of Maui, Hawaiian Islands. One portion of the powder was designated "Crater of Haleakala. Incrustation on lava with solid crust"; another bears the label: "Haleakala. In the 'cave' used as retreat."

Qualitative tests showed the powder to be a hydrous potassium calcium sulphate.

The identification was made on the basis of the composition and of the following properties determined on the larger grains: good prismatic cleavage, twinning not infrequent, parallel (100); $c \wedge X = 4^\circ \pm 2^\circ$, $2V$ (estimated) 25° , $\rho < \nu$, strong. $\alpha = 1.500$, $\beta = 1.515$, $\gamma = 1.520$. These data are fairly close to the accepted values for syngenite.

In response to invitations from the Tulsa Geological Society and The American Association of Petroleum Geologists, the Council of the Geological Society of America has voted to hold the next annual meeting in Tulsa, Oklahoma, Tuesday, Wednesday and Thursday, December 29, 30 and 31, 1931. As in previous years the Mineralogical Society will hold its meetings at the same time and place.

A series of three field trips on December 28 is being arranged as follows:

- (1) Spavinaw granite
- (2) Cushing structure
- (3) Oklahoma City oil field

A two day trip also is being offered to the Arbuckle Mountains, January 1 and 2, 1932, followed by trips to the Ouachitas and Wichitas.

Reduced railroad rates on the certificate plan of fare and a half are being arranged for the Tulsa meeting.

A report from Winnipeg, Manitoba, states that a discovery of a rich deposit of iron ore has been reported in the Steep Rock Lake area near Atikokan, Ontario, on the Canadian National Railways west of Fort William. The ore is hematite and is said to be of good quality. The new discovery should not be confused with the Atikokan Rim Range which is a high sulphur magnetite. An analysis of the ore shows that it contains 65 per cent iron and 23 per cent silica with 0.03 per cent phosphorus.

The Canadian Gypsum Company, a subsidiary of the United States Gypsum Company, has purchased property at Willow Grove, south of Hamilton, Ontario, where a new vein of massive gypsum has been located, according to the Industrial Department of the Canadian National Railways. The new company will construct a plant to manufacture a full line of gypsum products.

A news item from Toronto, Canada, states that a government assay of ore from the pitch-blende deposits in the Great Bear Lake district of the Northwest Territories indicates the possibility of this area being rich in radium-bearing ore of a commercial character. The government tests which were made on two samples showed 144.51 and 162.39 milligrams, respectively, of radium per ton. So far, the known deposit consists of two veins, one about 2000 feet long and varying in width from 5 to 20 feet, and the other of about 700 feet in length and varying from 6 to 10 feet in width. Within the veins are outcroppings of pitch-blende ore from 2 to 9 inches in width running with the vein.

The value of Canada's mineral production in 1930 amounted to \$276,865,000. The thirteen leading mineral products were: Coal \$53,000,000; gold \$43,199,000; copper \$38,687,000; nickel \$24,449,000; cement \$17,686,000; sand, gravel and stone \$16,500,000; lead \$12,992,000; clay products \$11,000,000; natural gas \$10,561,000; silver \$10,057,000; zinc \$9,393,000; asbestos \$8,600,000; and petroleum \$5,120,000.