# NEW MINERAL NAMES

### Ghassoulite

GEORGES MILLOT, La Ghassoulite, pole magnesien de la serie des Montmorillonites. Compt. rendu, 238, 257-259 (1954).

Material from Ksabi province, eastern Morocco, was analyzed in 1843 by Damour who found SiO<sub>2</sub> 55, Al<sub>2</sub>O<sub>3</sub> 1.2, Fe<sub>2</sub>O<sub>3</sub> 1.4, MgO 2.8 (evidently a misprint for 28 M.F.), CaO 1.01, K<sub>2</sub>O 0.52, H<sub>2</sub>O 10.35, sand 1.5; sum 98.98%. (Damour and later workers referred the material to sepiolite). X-ray study shows this to be a member of the montmorillonite group with a basal spacing of 15 Å. After treatment with glycerol, the spacings were (in Å) 17.5 very strong, 8.8 medium, 5.85 weak, 4.48 weak, and 3.55 weak. The analysis gives the formula  $(Ca_{0.07}K_{0.05})(Mg_{2.36}Fe_{0.07})(Si_{3.78}Al_{0.09})O_{10}(OH)_2$  or Mg<sub>3</sub>Si<sub>4</sub>O<sub>10</sub>(OH)<sub>2</sub>, an end member of the montmorillonite group, saponite having part of the Mg replaced by Al. The name is from the Moroccan term "ghassoul" meaning a clay used in laundering.

DISCUSSION: The material is obviously identical with stevensite, see Faust and Murata, Am. Mineral., 38, 973–987 (1953), and the name ghassoulite is therefore unnecessary.

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#### Cardenite

D. M. C. MACEWAN, "Cardenite," a trioctahedral montmorillonoid derived from biotite. Clay Minerals Bull., Vol. 2, No. 11, pp. 120-126 (1954).

Mitchell and Muir in 1937 observed that certain Scottish soils had a very high cation exchange capacity relative to the amount of clay minerals present. Further work by Mitchell, Muir, and Hart showed that the high cation exchange capacity, 91 milliequivalents/100 g. was due to "weathered biotite." This material was dark brown, biaxial negative with  $\gamma$  1.598. Analysis (by Muir) of NH<sub>4</sub>-saturated material gave SiO<sub>2</sub> 39.00, Al<sub>2</sub>O<sub>3</sub> 15.54, Fe<sub>2</sub>O<sub>3</sub> 11.46, FeO 2.33, MgO 12.76, CaO 1.36, K<sub>2</sub>O 0.29, Na<sub>2</sub>O 0.68, MnO 0.21, TiO<sub>2</sub> 0.03, loss on ignition 17.33; sum 100.99%, cation exchange capacity 84 m.eq./100 g.

X-ray study by MacEwan showed the presence of a little fresh biotite and some material of vermiculitic or hydrobiotitic nature; the bulk of the material was definitely a member of the montmorillonite group. X-ray powder data are given; the strongest line is at 10.7 Å; glycerol treatment gives a strong reflection at 17.8 Å. The NH<sub>4</sub>-saturated material gave a spacing of 12 Å in contact with excess H<sub>2</sub>O; the Ca-saturated material gave 15 Å under similar conditions.

Recalculation of the analysis above gives  $(Al_{0.89}Fe_{1.37}'''Fe_{0.30}''Mg_{3.00}Ca_{0.24})(Si_{6.17}Al_{1.83})$  $O_{20}(OH)_4 + M_{0.401}$  where  $M = NH_4$ . The mineral is decomposed easily by even mild acid treatment, as, for example, by normal oxalic acid in the cold. It is believed that biotite altered first to hydrobiotite or vermiculite and then further to cardenite.

The name is for the locality, Carden Wood, Aberdeenshire, Scotland.

M. F.

## Corrensite

FRIEDRICH LIPPMANN, Über einen Keuperton von Zaisersweiher bei Maulbronn Heidelberg. Beitr. Mineral. Petrog., 4, 130–134 (1954).

The name corrensite is given to a clay mineral that is especially abundant in the finest fraction  $(<0.6\mu)$  of a red Keuper clay. X-ray and D.T.A. data are given. The material is characterized by giving x-ray spacings at 28 Å and 14 Å that remain when the sample is heated to 500° (chlorite group) and by giving spacings of 16 Å and 32–33 Å after treatment with glycerol. Similar material had previously been described by Honeyborne, *Clay Min*-

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erals Bull., 1, No. 5, 150-157 (1951), and by Stephen and MacEwan, Ibid., 157-162, and Geotechnique, 2, 82 (1950).

The name is for Prof. Carl W. Correns, 1893-, Director of the Sedimentary Petrography Institute, Göttingen University.

M. F.

#### Ulvöspinel

FREDRIK MOGENSEN, A ferro-ortho-titanate ore from Södra Ulvön. Geol. Fören. Förk., 68, 578-588 (1946).

PAUL RAMDOHR, Ulvöspinel and its significance in titaniferous iron ores. Econ. Geol., 48, 677-688 (1953).

The name ulvöspinel (for the locality, Ulvö Islands, Ångermanland archipelago, northern Sweden) is given to the spinel  $TiFe_2O_4(a_0=8.74 \text{ Å})$ . Ramdohr shows it to be a common constituent of tinaniferous magnetites, generally as very fine exsolution lamellae, parallel to (100) of magnetite.

M. F.

It is with deep regret that we record the death of Dr. Charles Palache, professor emeritus of mineralogy and crystallography of Harvard University and Honorary President of The Mineralogical Society of America. Dr. Palache suffered a stroke and died at his home in Charlottesville, Virginia, on Dec. 5, 1954. He was 84 years old. He was a member of the National Academy of Sciences, recipient of the first Roebling Medal in 1937 and served as President of the Mineralogical Society in 1921 and as President of the Geological Society of America in 1937.

Frank H. Riddle, vice-president of the Champion Spark Plug Company of Detroit, Michigan, has been named the 1955 recipient of the Albert Victor Bleininger Award. The award is the highest honor conferred in this country for distinguished achievement in the field of ceramics and is given annually by the Pittsburgh Section.