

## ABSTRACTS OF MINERALOGIC LITERATURE

NEW MINERAL NAMES. [Second list]. W. E. FORD, of Yale Univ. *Am. J. Sci.* [4], **42**, (6), 504-505, 1916.

A descriptive alphabetical list of six new mineral names, which have appeared or been noticed since the publication of the previous list (June, 1916). Of these, one (*leifite*) appeared in 1915, and has not been noted in *Am. Min.*, but descriptions of the others have been fully abstracted herein. The assignment of the authorship of *spencerite* to Prof. Phillips is apparently erroneous, as it was announced by PROF. T. L. WALKER at a meeting of the Mineralogical Society (London) on June 20th, 1916 (See *Am. Min.* **1**, (3), 48-49, 1916).  
S. G. G.

BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY FOR 1915. JOHN M. NICKLES. U. S. Geol. Survey, *Bull.* **615**, 144 pages, 1916.

This work includes Mineralogy. It is to be regretted that it was not made a 10-year bibliography.  
S. G. G.

INTERNATIONAL CATALOGUE OF SCIENTIFIC LITERATURE. G. MINERALOGY, INCLUDING PETROLOGY AND CRYSTALLOGRAPHY; London, 1916.

THE EMERALD DEPOSITS OF MUZO, COLOMBIA. EDGAR T. WHERRY. *Bull. Am. Inst. Mining Eng.* (Aug.) **1916**, 1869-1870. Discussion of the paper by J. E. POGUE (*Am. Min.* **1**, (3), 70, 1916). It is suggested that the emerald crystallized out only in the upper of the two formations at the locality because by the time the circulating solutions began to deposit emerald all cavities in the lower formation had been filled up, and the solutions could only get into the upper one.  
S. G. G.

SOME NEW FORMS OF NATROLITE. ALEXANDER H. PHILLIPS, of Princeton University. *Am. J. Sci.*, [4] **42** (6), 472-474, 1916.

Natrolite crystals were found at the contact of a nephelite-syenite, and a limestone. Some of the crystals are very large and individually developed, forming reticular masses with angular cavities; individual crystals measure 6 cm. in length and 4 cm. in diameter. A second generation of small water-clear crystals is implanted upon the large milky and translucent ones. These are very rich in forms, with bright and perfect faces. 38 faces, representing 13 forms, were measured on one such crystal only a millimeter in diameter. The following new forms were observed: *e* (210), *r* (130), *o* (151), *t* (531). The larger crystals are very simple in development.  
S. G. G.

A RECENTLY FOUND IRON METEORITE FROM COOKEVILLE, PUTNAM COUNTY, TENNESSEE. GEORGE P. MERRILL, of the U. S. National Museum. *Proc. U. S. Nat. Mus.*, **51**, 325-326, 1916.

An octahedrite which weighed 2,132 grams before cutting. S. G. G.

PREPARATION AND PROPERTIES OF LEAD CHLOR-ARSENATE, ARTIFICIAL MIMETITE. C. C. McDONNELL AND C. M. SMITH, of the Bur. Chem., U. S. Dept. Agr. *Am. J. Sci.* [4], **42**, 139-145, 1916.

Crystals were prepared by dissolving  $PbHAsO_4$  in dilute HCl, nearly neutralizing with  $NH_4OH$ , and pouring into a large volume of water; larger ones were made by nearly precipitating the same solution with  $Pb(C_2H_3O_2)_2$  and allowing to cool. The product is yellowish white, and has sp. gr. = 7.15 and the refractive indices  $\omega = 2.16$ ,  $\epsilon = 2.13$ ; optically uniaxial, —. It contains somewhat more Cl than natural mimetite.

E. T. W.

THE SAPPHIRE MINING INDUSTRY OF ANAKIE, QUEENSLAND. Anonymous. *Bull. Imp. Inst.* **14**, 253-261, 1916. Abstract by R. L. SIBLEY, reprinted by permission from *Chem. Abstr.* **10**, 3048, 1916.

A brief account is given of the nature, mode of occurrence, and mining of sapphire. Evidence tends to show that the sapphire was weathered out of basalt. The sp. gr. of the gems varies from 4.0 to 4.05. The hardness is also variable, some parts of the specimens having a hardness greater than 9. One type of dark violet-blue stone is black when first cut, but shows a greatly increased transparency after heating to redness.

THE FORMATION OF THE OXIDIZED ORES OF ZINC FROM THE SULFIDE. Yinchang Tsenshan Wang, of New York. *Trans. Am. Inst. Mining Eng.*, **52**, 657-710, 1916.

From thirteen experiments and microscopic study of thin sections, the author concludes that: 1. Sphalerite is first attacked by the oxidation products of iron sulfides before the formation of secondary minerals containing zinc; 2. The formation of the oxidized ores rarely occurs by direct replacement of sphalerite; 3. Normal zinc carbonate (smithsonite) is formed when the reagents in solution are bicarbonates; and basic zinc carbonate (hydrozincite) is formed when the reagents are normal carbonates; 4. Limestones may be replaced in nature by a solution of a zinc salt, usually the sulfate; 5. In nature both smithsonite and calamine replace limestones; 6. No free carbon dioxide can be present where silicates and carbonates of zinc occur, and conversely, these minerals of zinc do not appear where free carbon dioxide is present; 7. "Amorphous calamine" may be formed from solutions of silicate and hydroxide under ordinary conditions; 8. Calamine in nature is probably formed by steps, and is precipitated from waters containing ions of some gelatinous silicate and of hydroxides; 9. It is evident that calamine is formed under ordinary conditions in nature, but time is a great factor in the process. Until this factor is satisfied we can hardly expect the production of crystals of calamine by wet methods; 10. Minute crystals of calamine may be formed by heat at or below 900°C. from a chemical mixture; 11. No confirmation is here offered of the change of calamine and smithsonite to willemite and zincite by heat, other than that heat produces changes of optical characters of willemite and zincite respectively (altho the author found that when water is driven from calamine by heating, the product shows fluorescence when exposed to burning magnesium ribbon, tho less strongly than willemite).

S. G. G.