

ABSTRACTS OF MINERALOGIC LITERATURE

NOTES ON THE GENESIS OF THE DIAMOND. DAVID DRAPER and W. H. GOODCHILD. *Mining Journal* (London), 113, 357-359 and 365 (May 20 and 27), 1916.

An exceptionally able discussion of the origin of the diamonds of South Africa (heretofore overlooked by abstractor because of the rather unusual place of publication). By applying modern advances in mineralogy and related sciences, all the features shown by the deposits are adequately accounted for. For instance, the concentration of basic minerals in the volcanic "pipes" is readily explainable as the result of gravitative differentiation, the heavier minerals, such as olivine and iron-bearing pyroxenes, sinking and collecting, to form peridotite. After solidification of the upper portions of the magma, the still molten lower parts have evidently been acted upon by magmatic gases. The serpentinization observed in the rocks is much more likely to have been produced by the action of water at high temperatures and pressures than by weathering, as is often assumed. The well-known physico-chemical principle, according to which in the presence of a solvent saturated with a given substance, large crystals always tend to grow at the expense of smaller ones (which is usually overlooked in discussions of mineral genesis), is shown to be applicable here. For under these conditions diamond is undoubtedly slightly soluble in the magma, and numerous minute crystals formed at an early stage would later undergo transformation into small numbers of relatively large ones. The problem of the origin of these remarkable diamond deposits may thus be regarded as completely solved. E. T. W.

THE ORIGIN OF CHERT. FRANCIS M. VAN TUYL. *Colo. Sch. Mines. Am. J. Sci.* [4], 45, (6), 449-456 (1918).

Many instances are described in which the evidence is overwhelmingly in favor of the formation of chert by replacement of preëxisting limestone strata. The view of Tarr, recently abstracted in these columns, that the Burlington chert is of primary origin certainly does not apply to a large number of deposits, altho the silica may well have been of inorganic origin. E. T. W.

NEW MINERAL NAMES. [Fourth List.] W. E. FORD. *Yale Univ. Am. J. Sci.* [4], 44, (6), 484-486, 1917.

A descriptive list of 6 new minerals announced during 1917. All have been noted in *Am. Min.* E. T. W.

NEW MINERAL NAMES. [Fifth List.] W. E. FORD. *Yale Univ. Am. J. Sci.* [4], 45, (6), 477-478, 1918.

Five additional new minerals described during the latter part of 1917 and the early part of 1918 are listed. Among them is gilpinite, which was first published in *Am. Min.* (2, (6), 75-79; June, 1917). The others have been noted in our New Minerals column. E. T. W.

AN ALPINE OCCURRENCE OF SAPPHIRINE. H. P. CORNELIUS. *Centr. Min. Geol.*, 1916, 265-269; thru *Chem. Abstr.*, 11, (15), 2181, 1917.

Sapphire is found in the Codera valley in metamorphic rocks.

E. T. W.