

PROCEEDINGS OF SOCIETIES

THE MINERALOGICAL SOCIETY (ENGLAND)

Mineralogical Society, June 12, 1928. DR. G. T. PRIOR, F. R. S., President, in the chair.

PROF. F. SLAVIK and DR. L. J. SPENCER: *Place-names of mineral-localities in central Europe*. Many important mining districts in the former Austro-Hungarian monarchy are now in other countries and the localities are now known officially by other names. Lists are given for each county and province with equivalent place-names in the various languages (fifteen in all), together with a statement of the principal minerals from each locality. A key to the pronunciation of letters with diacritical marks and a glossary of geographical terms that enter into the construction of place-names are added.

DR. L. J. SPENCER: *Eleventh list of new mineral names*. The first list of this series was published in 1897 and gave all the names of minerals not in the sixth edition of Dana's "System of Mineralogy" (1892). Others have appeared every three years at the end of each volume of the "Mineralogical Magazine." They are intended as dictionary lists of new names rather than lists of new minerals. About 170 names are now added.

MR. A. F. HALLIMOND: *On the atomic volume relations in certain isomorphous series III*. In the preceding parts of the paper it was shown that the volume-differences in isomorphous series derived from the same group of eutropic elements stood in a constant ratio in all series, and that this relation could be used to calculate atomic volumes for the elements in the combined state. It is now shown that compressibilities agreeing with those determined by Slater for eleven alkali halides can be calculated from the atomic volumes already assigned to the combined elements, by means of the relations $\beta = V/K$, $\beta' = V'/K'$, where β , V , are the compressibilities and atomic volumes of the combined metals; β' , V' those of the halogens. For all the metals K has the value -4×10^{-6} , for the halogens K' is approximately -2.5×10^{-6} . The compressibilities of the free metals, as well as the atomic volume relations and the compressibilities in the combined state, are shown to be consistent with relations of the type $pv = K$, already indicated by Richards for the free metals; K , the constant for the eutropic group, assuming a new value in each isomorphous salt-series. The atoms thus behave as regions of a perfect gas under a high pressure.

MR. H. COLLINGRIDGE: *On the determination of optic axial angles and crystal-forms from observations by the Becke Method in thin sections*. A suggested method of combining separate observations of different sections in one stereographic diagram and incidentally finding from the combined diagram the forms and axial ratios and optic axial angle of the crystal. The method is illustrated by an example of olivine in an olivine-basalt.

MR. S. I. TOMKIEFF: *A contribution to the petrology of the Whin Sill*. In this paper are described certain rare varieties of the Whin Sill, such as the coarse gabbroidal rock, occurring in the form of bands within the mass of the normal dolerite, the coarse rock with red granophyric spots, the red felsitic veinlets, and spherical aplitic inclusions. A scheme of differentiation is applied to explain the origin of these varieties.