

the author. Two substances, tetramethylammonium iodide  $N(CH_3)_4I$  and tetraethylammonium iodide  $N(C_2H_5)_4I$  were investigated. The unit cell of  $N(CH_3)_4I$  is a tetragonal unit of dimensions,  $a = 8.05 \text{ \AA}$  and  $c = 5.75 \text{ \AA}$ , and the space group is either  $D_4^2$  or  $V_4^2$ , most probably the latter. Hence the crystal class is not the holohedral one proposed by L. Vegard. The unit cell of  $N(C_2H_5)_4I$  has dimensions  $a = 12.29 \text{ \AA}$ ,  $c = 6.82 \text{ \AA}$ , when referred to the axes demanded by the scalenohedral space group  $V_4^2$  to which the substance belongs. A smaller unit can be found, using as "a" axis half the base-diagonal; the cell then has  $a = 8.86 \text{ \AA}$ , and  $c = 6.82 \text{ \AA}$ . The nitrogen and the iodine atoms in both substances are crystallographically identical, but the methyl and ethyl radicles may be half of one kind and half of another. The hypothetical structures, suggested for these substances by Groth, as deduced from topic axes, are also discussed.

Dr. L. J. Spencer: "Biographical notices of mineralogists recently deceased. (Third series.)"

The average age of the forty lives described is 68 years.

## CORRESPONDENCE.

### KEILORITES.

SIR,—Would Mr. R. S. Allan kindly explain or supplement his letter in your May number (p. 240)?

Is *Keilorites* intended to replace *Trachyderma* Phillips? If so, it must have the same geno-holotype, and that cannot be *T. crassituba* Chapman. The geno-holotype of *Trachyderma* was not fixed by Phillips, and does not appear to have been selected subsequently. There are two geno-syntypes: *T. coriacea* and *T. squamosa*. Since *T. squamosa* was the first mentioned by Phillips (1848, *Mem. Geol. Surv. Gt. Brit.*, ii, pt. i, p. 230), and is more widely distributed, I hereby take it as genolectotype, and as lectoholotype of the species I fix on the specimen figured by Phillips (1848, pl. iv, fig. 3), which is in the Museum of Practical Geology (Regd. 38371).

Is *Keilorites* intended to apply only to "the Australian forms in question" and to exclude *Trachyderma* Phillips? That, which is the straightforward interpretation of Mr. Allan's last two sentences, is correct on principles of nomenclature, but leaves *Trachyderma* Phillips as it was before.

If *Keilorites* is to be distinguished from *Trachyderma* Phillips, then the duty devolves on Mr. Allan of justifying his procedure by a diagnosis of his new genus. The only difference hinted at by Chapman is the slightly thicker and perhaps more calcified tube.

Does Mr. Allan include the Australian "*Trachyderma* cf. *squamosa*" in his *Keilorites*? If so, does he disagree with Chapman's comparison of it to *T. squamosa* Phillips?

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