

## NOTES AND NEWS

### GRATONITE—PRELIMINARY DESCRIPTION OF A NEW MINERAL FROM CERRO DE PASCO, PERU

CHARLES PALACHE, *Harvard University*,

and

D. JEROME FISHER, *University of Chicago*.

The mineral here named was sent to the Harvard Mineralogical Laboratory for identification by Mr. Vance of Ward's Natural Science Establishment in October 1938. A little later specimens were received at Chicago by Dr. Fisher, sent by Dr. George W. Rust of the Geological Staff at Cerro de Pasco.

Preliminary examinations at both institutions have shown that the mineral is not jordanite as thought by Dr. Rust, from the study of its physical properties and analysis; and that it is not identical with any known species. The following data give its principal characteristics:

Hexagonal, rhombohedral.  $a:c=1:0.4428$

Forms:  $a$  11 $\bar{2}0$ ,  $m$  10 $\bar{1}0$  (trigonal),  $c$  0001,  $r$  10 $\bar{1}1$ ,  $M$  40 $\bar{4}1$ ,  $e$  01 $\bar{1}2$ ,  $s$  02 $\bar{2}1$

Angle  $c \wedge r$  27°04½'     $c \wedge s$  45°38'

The principal forms are the prism and the rhombohedron  $s$  02 $\bar{2}1$ , which is not selected as unit form on the basis of  $x$ -ray study of the unit cell. Twinning not seen.

Cleavage none.  $H=2\frac{1}{2}$ .  $G=6.22$ . Color dark lead gray. Streak black.

Composition  $Pb_9As_4S_{15}$  on basis of two closely agreeing analyses, the one by the chemist of the Cerro de Pasco Corporation, the other by F. A. Gonyer in the Harvard Laboratory.

A more detailed description will appear shortly. The name *gratonite* is in honor of L. C. Graton, Professor of Mining Geology at Harvard University. This name has already appeared in print in the *New York Times*, December 28, 1938.