

crystal in which the new form occurs,) = $125^{\circ} 5'$; making the vertical axis, 0.6082; whilst in the form in question, the same angle is stated to be $149^{\circ} 30'$ which would give 0.2334 for the vertical axis.

CALC-SPAR CRYSTALS FROM SOUTH AFRICA.

The cleavage rhombohedron of Calcareous Spar, in *simple crystals*, is well known to be exceedingly rare. As truly stated by M. Dufrenoy, the simple rhombohedrons often labelled "calc-spar" in collections, belong, in general to Dolomite. The writer of these notes, however, has lately received with other minerals from Namaqualand, in South Africa, several large crystals of calcareous spar, occurring in the simple cleavage form. Most of these crystals are somewhat distorted by elongation, and all are striated on the surface in the direction of a plane at right angles to the vertical axis. They are associated with trap, or trap tufa.

In the dolomite rhombohedrons, the obtuse angle over a polar edge, equals $106^{\circ} 15'$; and the presence of magnesia may be readily detected by dissolving the substance in a few drops of diluted hydrochloric acid—adding a drop of nitric acid, and boiling (to convert any Fe_2O_3 that may be present, into $\text{Fe}^{2+}\text{O}^{3-}$)—and precipitating by ammonia and oxalic acid the iron (if present) and the lime. The magnesia can then be thrown down from the filtered solution, by phosphate of soda, and tested with nitrate of cobalt before the blowpipe. If conducted in test-tubes, and on small quantities, the whole process need not occupy more than ten minutes.

The following logarithmic formula (extracted from some notes by the writer, in the Phil. Mag. of August, 1853,) for the determination of the vertical axis in rhombohedrons, may not be unacceptable to some of our readers:—

Let a = half the inclination, as obtained by measurement, over a polar edge; b , the inclination of a rhombohedral face on the vertical axis; and v , the axial length required. Then:

$$\text{Log } \cos b = \text{log } \cos a + 0.0624694;$$

$$\text{Log } v = \text{log } \cot b - 10.0624694.$$

E. J. C.

PHYSIOLOGY AND NATURAL HISTORY.

CANADIAN STRIGIDAE.

In communicating the following notes on the Canadian Strigidae, the object is mainly to procure information. Nevertheless, those who have not studied the subject may be interested in learning how many varieties of these curious and remarkable birds frequent the neighbourhood of Toronto; as well as in knowing that a tolerably complete collection of specimens of them have been admirably preserved for the University Museum, by the late Mr. Hadgraft and Mr. Passmore, and cannot but prove attractive to every lover of natural objects. It is not, perhaps, presuming too much to hope that intelligent and scientific gentlemen of this district, on observing what has been already procured will use their endeavours to extend the list and assist in obtaining the few other species still wanting, among the more familiar examples, or any novel or rare forms which may present themselves.