

INTRODUCTORY NOTICE.

The title-page to this little work indicates succinctly the scope and character of the book. The work comprises two distinct parts: an introductory sketch of the use of the Blowpipe in qualitative mineral examinations; and a series of Tables, with chemical and crystallographic notes, for the practical determination of minerals, generally. In the first portion of the work, the writer's aim has been to systematise and condense as far as possible: but, although confessedly a mere outline of the subject, this introductory portion will not be found altogether devoid of original matter. The sixth section, more especially, contains a new and greatly simplified plan of BLOWPIPE ANALYSIS, by which the general composition of an unknown substance may be determined in most cases very rapidly and with comparatively little trouble. As a rule, the methods of Blowpipe Analysis, hitherto published, are little more than Tables of Reactions. They attempt no separation of electro-negative bodies from bases, but mix up the two, very illogically; and they exact the performance of many unnecessary experiments, by which certain components become detected over and over again, whilst others escape detection, altogether, or are recognized only after much unnecessary delay.* These defects are remedied very materially, it is thought, in the method now proposed. The Determinative Tables, which occupy the second and principal portion of the work, are also original. In their arrangement, an attempt is made to place bodies of related composition, only, under the same subdivision: so as to avoid, wherever possible, the unnatural collocations so commonly seen in Tables of this character. It will be evident, however, that without greatly increasing the number of the Tables, complete success in this respect is not always attainable. The Tables include, practically, all

* After the first part of this work was in type and entirely struck off, the author received from HERR LANDAUER, of Brunswick, a copy of his "*Systematischer Gang der Löthrohr-Analyse*." Herr Landauer's method entirely meets the above objections, and is without doubt the most satisfactory plan of Blowpipe Analysis hitherto published. It has been subsequently incorporated by its author into a little work on the Blowpipe, an English translation of which, under the title of "*Blowpipe Analysis*," has recently appeared.