

These preliminary observations were necessary for enabling the reader to understand the subdivisions in the annexed tabular view. We shall now proceed to describe the specific characters and shall begin with colour, because it is the first which strikes the eye, and is one of the most important characters of minerals.

EXTERNAL CHARACTERS

### COLOUR.

Before the time of Werner, the colours of minerals were neither defined nor accurately distinguished from one another; he soon, however, saw that this character was of the greatest importance, scarcely yielding to that of chrySTALLIZATION, and therefore devoted a considerable share of attention to its development. The method he followed in raising this character from its state of neglect was, 1st, To establish a certain number of fixed or standard colours, to which all others could be referred; 2d, To define the varieties and arrange them, according to their resemblance to these standard colours; and 3dly, To place the varieties in such a manner that the whole suite of colour forms a connected series or circle.

In establishing the fixed or standard colours, he thought he could not do better than adopt those as simple colours, which are considered as such in common life; of these he enumerates eight, which he denominates *chief or principal colours*; they are *white, grey, black, blue, green, yellow, red, and brown*. Although several of these colours are physically compound, yet for the purposes of the oryctognost it is convenient to consider them as simple.

Werner remarks, "I could not here enter into an adoption of the seven colours into which the solar ray is divided by the prism as principal colours, nor into the distinction of the colours accordingly as they are either simple or