

4. There are a few substances which have been more or less perfectly described in former works on the sole authority of the discoverers of them, but of which there are not any specimens, as far as we have been able to ascertain, existing in any known collection. Of this class desmine affords an example. With respect to these, as it is not desirable to retain any uncertain kinds, or to exclude any really distinct minerals, we shall give them as they were originally described, and leave it to the judgment of future observers to retain them or to reject them from future systems.

DESCRIPTIVE CHARACTERS.

5. The several principal characters employed in describing minerals may be classed under the following heads. They will be separately considered, and the subordinate characters given in the immediately ensuing sections.

<i>Form.</i> 8	<i>Touch.</i> 75.
<i>Cleavage.</i> 55	<i>Hardness.</i> 69.
<i>Structure.</i> 56.	<i>Specific gravity.</i> 70.
<i>Fracture.</i> 57.	<i>Magnetism.</i> 73.
<i>Transparency.</i> 58.	<i>Electricity.</i> 73.
<i>Lustre.</i> 58.	<i>Phosphorescence.</i>
<i>Refraction.</i> 59.	<i>Smell.</i> 75
<i>Colour.</i> 65.	<i>Taste.</i> 75
<i>Streak.</i> 68.	<i>Effects of heat in glass tubes.</i>
<i>Sectility.</i> 68.	<i>Effects of heat before the blowpipe.</i>
<i>Malleability.</i> 68	<i>Effects of liquid reagents.</i>
<i>Flexibility.</i> 68.	<i>Chemical composition.</i>

FORM.

6. The forms under which minerals occur are either determinate, being those of geometric solids, named crystals, which are generally proper to the mineral substances of which they respectively consist, or they are indeterminate, being irregular and accidental shapes, some of which have been termed imitative, and all of which may be common to many different kinds of minerals.

7. In the following treatise the mutual inclination of any two of the planes which bound a solid, will be expressed by the angle between straight lines drawn from a point within the solid, respectively perpendicular to the two planes. The angle between perpendiculars to the planes, or normals as they will generally be called, is the supplement of the angle between the planes according to the usual mode of expressing it. If the