

## CHAPTER I.

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### *Descriptions of the principal minerals of which the rocks of Maryland are composed.*

Our earth for the most part consists of rocky masses, many of which "crop out," or become visible at the surface, or are met with in mining or sinking wells.

Although there are many varieties of rocks, yet we find that the number of mineral species considered essential to their composition is quite limited.

In order that the characters of these rocks may be better understood, I shall briefly describe the most important simple minerals which constitute their mass, before entering into a description of the rocks.

### 1.— QUARTZ.

This substance presents itself under a variety of different aspects, so that the term is more properly applied to a group of what are termed "silicious minerals."

All the varieties of quartz are principally composed of silica, a name which has become familiar to most persons, because of being constantly stated in reports of analyses of soils, manures, ores, ashes of plants, and other matters.

Silica was formerly supposed to be one of the simple elementary substances, but modern chemistry proves it to consist of a peculiar substance called silicium, . 48.05 per ct.  
Chemically combined with oxygen, . 51.95 "

It is believed that silica constitutes more than one-half of the mineral mass of the earth to the depth to which man has penetrated, and it plays an important part in the economy of vegetation. It is one of what are called the inorganic constituents of plants, being always found in their ashes. It will be again referred to in a subsequent chapter.