

other writers, petrosilex or cornean). Such a basis, with crystals of felspar and hornblende, is often called green-stone porphyry, green porphyry, &c.

Dolerite (mimose of Brongniart) differs from diorite by holding augite instead of hornblende; its fine-grained varieties pass into the vague group of *basalts* or whinstones, which, if restricted to a common definition, should contain magnetic (titaniferous) iron ore.

Augite alone rarely constitutes a rock (lherzolite, or *augite rock*). The compact rocks, like aphanite, compact basalts, &c., change to *amygdaloids*, when they include masses of extraneous minerals, which fill, or appear to fill, cavities in the stone like those common in lava; the basis of many amygdaloids is earthy, and is called *wacké*. The rock called *gabbro* (euphotide, diallage rock, hypersthene rock) is characterised by its mixed felspar and diallage, or hypersthene; and *serpentine* is a corresponding but uncrystallised mass of felspar and schiller spar, usually enclosing several talcose minerals.

Felspar, the most abundant of all the minerals in rocks of igneous origin, is variable as to the alkaline portion of it; for in some (common felspar), potash — in others (labradorite), soda — in others (albite), lime and soda, are found. Von Dechen tells us that common felspar is mostly found in quartziferous and hornblendic mixtures; labradorite in mixtures with augitic minerals; while albite, though sometimes mixed with common felspar, constitutes but a small part of the masses of igneous rocks.

Chemical Composition of the Rocks of Igneous Origin.

The permutations which take place among the mineral ingredients of igneous rocks are easily and clearly intelligible by considering the chemical composition of these minerals, which, as in the case of hornblende, augite, hypersthene, and diallage, often differ from one another, rather by the crystalline arrangement of the