

Gabbro occurs as an eruptive rock among the older formations, likewise in large bosses and dikes in volcanic cores of Tertiary age (Mull, Skye). Average composition: silica, 49; alumina, 15; lime, 9.5; magnesia, 9.7; oxides of iron and manganese, 11.5; potash, 0.3; soda, 2.5. Loss by ignition, 2.5; specific gravity, 2.85–3.10.

The following varieties may be noticed: Olivine-gabbro—a granitoid or ophitic compound of plagioclase, augite, olivine, and magnetic or titaniferous iron; good examples are found among the deep-seated parts of some of the Tertiary volcanic vents of the Inner Hebrides. Hypersthene-gabbro or Norite (Hyperstheneite, Hyperite, Schillerfels)—with a rhombic pyroxene in addition to or in place of the augite. Troctolite (Forellenstein)—a mixture of white anorthite with dark-green olivine, receives its name from the supposed resemblance of its speckled appearance to that of the side of a trout. Pyroxene-granulite (granular diorite, trap-granulite)—consisting of plagioclase, pyroxene (monoclinic and rhombic), hornblende, and garnet, distinguished by the granular condition of these minerals, and found among gneisses and other schistose rocks; this is probably an altered condition of some original pyroxenic eruptive rock.

**Dolerite**—an important group of basic rocks, which connect the gabbros with the basalts and include many of the rocks once termed “Greenstones.” They are composed of labradorite (or anorthite), with some ferro-magnesian mineral (augite, enstatite, olivine, or mica) and magnetic or titaniferous iron. As a rule, they are holocrystalline, the constituent felspar and pyroxene or olivine being characteristically grouped in ophitic structure, but a little residual glass may occasionally be detected. They occur in bosses, intrusive sheets, and dikes, especially as the subterranean accompaniments of the volcanic action which has thrown out augite-andesites and basalts to the surface.

Normal or ordinary dolerite consists of plagioclase and augite, with magnetite or titanite iron and frequently olivine. Average composition: silica, 45–55; alumina, 12–16; lime, 7–13; magnesia, 3–9; oxides of iron and manganese, 9–18; potash, 0.1; soda, 2–5. Loss by ignition (water, etc.), 0.5–3; specific gravity, 2.75–2.96.

Different names have been proposed for the chief varieties. The most important of these are Olivine-dolerite—a dark, heavy, close-grained finely-crystalline rock, with scattered olivine, apt to weather with a brown crust. Oli-