

water, present to the amount of about 4·5 per cent. in these minerals, is only expelled by intense and long-continued ignition.

Bronzite occurs in schistose or foliated examples of a dark-brown or dark-green colour, with pseudo-metallic bronze-like lustre, and perfect cleavage in one direction. H 4 to 5; sp. gr. 2·9 to 3·5. Not attacked by acids. Infusible, or vitrifying only on thinnest edges in a well-sustained flame. Usually regarded as a foliated variety of *Enstatite*; closely related also to *Anthophyllite*, a substance of very similar aspect, but shewing in typical examples a cleavage angle of $124^{\circ} 30'$, characteristic of *Amphibole*. These minerals are distinguished from micas, by being brittle or non-elastic in thin laminae, and by their greater hardness.

Muscovite, *Phlogopite*, and *Biotite*—characteristic species of *Mica*—are distinguished by their metallic-pearly lustre and their occurrence in foliated and scaly masses which admit of ready separation into thin, elastic leaves. They occur also in crystals and crystal-plates of hexagonal or rhombic shape, which split in the same manner into fine leaves parallel with the base. BB, thin scales become white and opaque, and fuse more or less readily on the edges; and most examples give off traces of water by ignition in the bulb-tube. *Muscovite* is commonly brown, black, white or greenish in colour, and is insoluble in acids. *Phlogopite* is commonly brownish-yellow or golden-brown in colour, and is decomposed, in powder, by strong sulphuric acid, the silica separating in minute, colourless scales. *Biotite* is a ferro-magnesian mica, (see Text-Books for optical characters), mostly of a dark-green, black, or dark-brown colour, and also decomposable