

oblique angles Lustre vitreous, but often pearly on the face; perfect cleavage; usually translucent to opaque. Hardness 6 to 7. Color, white, grayish, reddish or green. Composition, silicate of alumina and either lime, soda, potash or perhaps two together.

Anorthite is a lime feldspar. Color, white or grayish; crystals tabular; fuses with difficulty in blowpipe flame; decomposed by hydrochloric acid.

Albite a soda feldspar Color, white, occasionally with some light tint; crystals thick; usually occurs massive with a granular laminated structure; fuses to a clear or white glass, coloring flame intense yellow. Is not affected by acid.

Orthoclase, (common feldspar,) a potash variety, in thick prisms or massive, fine or coarse, color white, gray, flesh-color, or greenish. Fuses with difficulty; not acted on by acid. By decomposition this forms the base of clay. It is one of the constituents of granite, syenite and gneiss and occurs in porphyry.

Oligoclase, a soda-lime variety, sometimes with potash also. Fuses without difficulty to a clear or enamel-like glass; not materially affected by acid.

Labradorite, a lime-soda form; color dark gray or greenish brown: usually in cleavable masses showing a beautiful internal reflection of blue, green or yellowish light; used as a gem. It forms a part of most varieties of diorite and amygdaloid.

MICA—(Muscovite.)

This is a silicate of alumina and potash with a small amount of iron; some varieties have other elements in small quantity. It usually contains from one to four per cent of water. Mica usually occurs in plates or scales, which split easily into thin laminae which are remarkable for their toughness and elasticity. It is probably not

equaled in the combination of these two properties by any other substance.

It is sometimes found crystallized in six-sided or diamond-shaped prisms. Color usually white, grey or brown, sometimes green or red lustre transparent or translucent; hardness 2. The transparent variety when found in large sheets is used in place of glass in stove doors, lanterns, &c., and is improperly called isinglass. A variety with scales arranged in a feathery form is called *plumose mica*.

Mica is found in many of the older rocks, as granite, gneiss and mica schist; also found in limestone.

Formerly most of the large sheets of mica used in this country came from Russia, but it is now found in excellent quality in several places, as Grafton, N. H., Paris, Me., North Carolina, and in the Rocky Mountains

It is decomposed by long exposure to the air and water, but much more slowly than the feldspar, with which it is usually associated, so that the glistening particles of this mineral are often seen in the soil and sand. It is frequently colored by oxide of iron to a golden yellow, so that it is not unfrequently mistaken for scales of gold. *Biotite* is a black or dark green variety of mica. *Phlogopite* is a yellowish brown, or brownish-red variety usually found in granular limestone. *Lepidolite* occurs in aggregations of scales of a lilac or rose-red color, containing the rare metal lithium.

The asteroids, or minor planets, are situated in a ring or cluster between the orbits of Mars and Jupiter. Ceres and Vesta are the largest of the group, their diameters being about two hundred to four hundred miles. The disks of all are so small as to defy exact measurement.