

Fuses with much difficulty. The first four of the above species contain over 60 per cent of silica, and hence are called *acidic* feldspars, while labradorite and anorthite are called *basic* feldspars.

The following are a few other related silicates containing potash, soda, or lime : —

LEUCITE. — In white to gray trapezohedrons, like those of garnet (Fig. 44, page 66). Occurs in some lavas, as those of Vesuvius. Composition : Silica 55.0, alumina 23.5, potash 21.5 = 100. Infusible.

NEPHELITE. — In hexagonal prisms and massive ; luster of the massive, greasy, hence the name *elæolite* from the Greek *elaion*, *oil*. Composition : Silica 44.0, alumina 33.2, soda 15.1, potash 7.7 = 100. Fuses easily. Treated with hot hydrochloric acid forms a jelly.

SCAPOLITES. — In square prisms with square pyramidal terminations. Fuses easily. Several species are here included. *Wernerite* has the composition : Silica 48.4, alumina 28.5, lime 18.1, soda 5.0 = 100. *Meionite* is a lime-scapolite.

SAUSSURITE. — A compact whitish uncrystalline mineral into which crystals of labradorite and anorthite are sometimes changed. Contains soda and has nearly the composition of labradorite. Has a higher specific gravity than the feldspars, 2.9–3.5.

THE MICA GROUP. — The micas are cleavable into thin elastic leaves. Often used, when transparent, in the doors of stoves and lanterns. Occurs colorless to brown, green, reddish, and black ; and either in small scales disseminated through rocks — as in granite — or in plates a yard in diameter. Contains silica, alumina, and much potash or soda, like a feldspar, but besides these, in most species, magnesia and iron, which do not exist in any feldspars. Fluorine is sometimes present. Some varieties resemble crystallized talc and chlorite, from which they differ in being elastic. But hydrous micas are generally inelastic, and have also the greasy feel of talc. The more common species of mica are : —

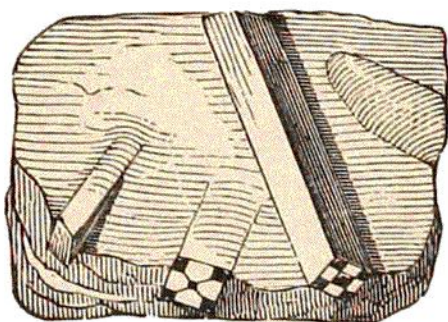
Muscovite (Muscovy glass of early mineralogy). — Light colored to brownish, and usually transparent in thin leaves. One variety afforded silica 46.3, alumina 36.8, iron sesquioxide 4.5, potash 9.2, fluorine 0.7, water 1.8 = 99.3. Three to five per cent of water are often present ; and when 4 to 5 per cent, it is called *hydromica* (or hydrous mica). *Sericite* and *damourite* are kinds of hydromica.

Biotite. — Color, usually black, rarely white. One analysis afforded silica 40.0, alumina 17.28, iron sesquioxide 0.72, iron protoxide 4.88, magnesia 23.91, potash 8.57, soda 1.47, water 1.37, fluorine 1.57 = 99.77. Another black mica, *lepidomelane*, contains 20 to 30 per cent of iron oxides.

Phlogopite. — A brown mica occurring in crystalline limestone in northern New York.

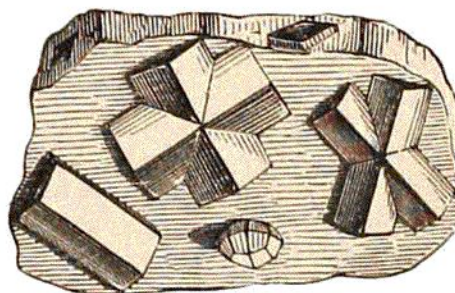
The following are other aluminium silicates often disseminated through crystalline schists or slates : —

38.



Andalusite, var. Chlaxtolite.

39.



Stauroilite.

ANDALUSITE, CYANITE (spelt also *Kyanite*), **FIBROLITE**, are alike in composition, consisting simply of silica 36.9 and alumina 63.1 = 100. They occur in oblong prisms, often