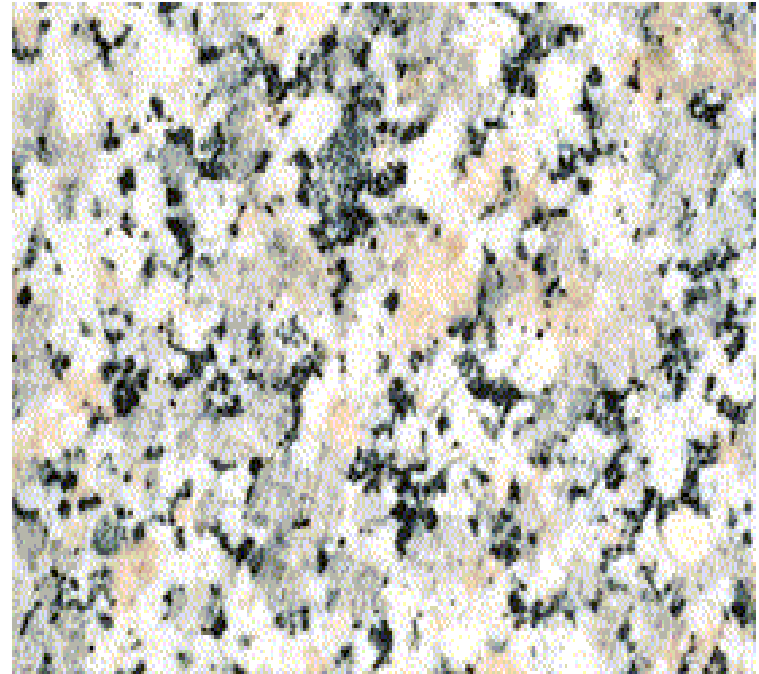


# ***Rock Forming***

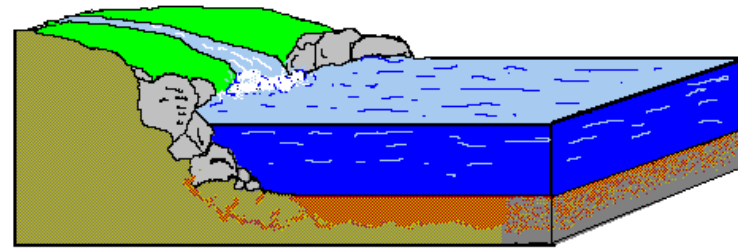


# ***Minerals***

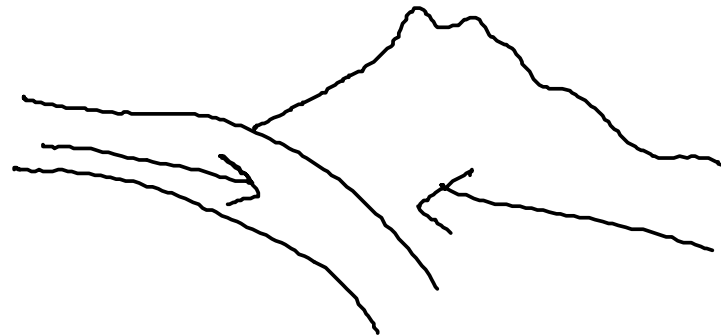
# *There are 3 types of rocks*



*igneous*



*sedimentary*



*metamorphic*

# Quartz $\text{SiO}_2$

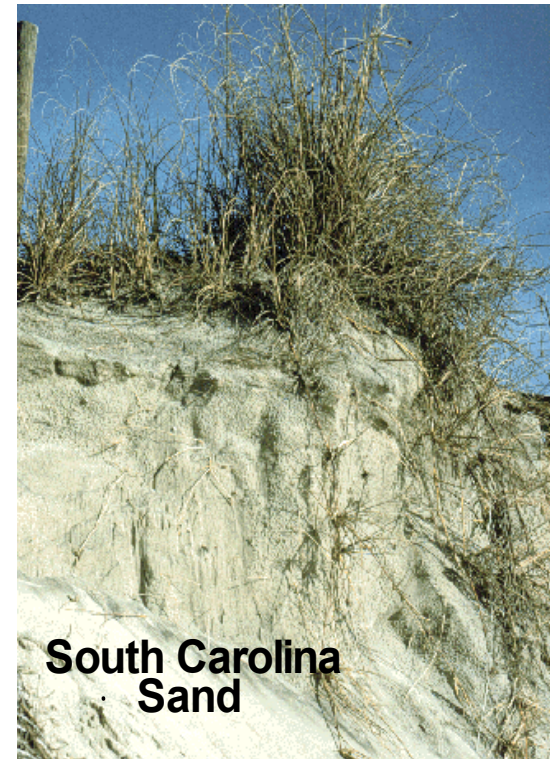
*hardness (7)*

*conchoidal fracture*

*clear to white*

*used as a gemstone, mortar,  
scientific apparatus,  
electronic industry*

*important: metamorphic, igneous  
sedimentary*



## Feldspar Group



cleavage

hardness (<7)

white to pink

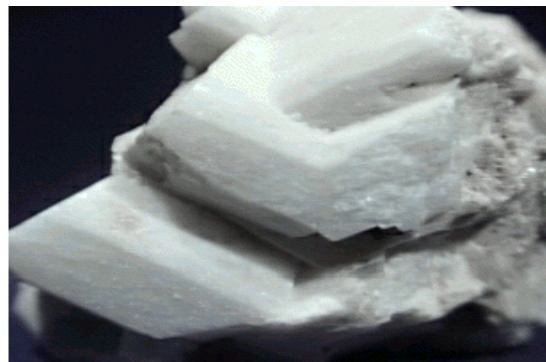
ceramics, ornamental

*important:* igneous,  
metamorphic,  
sedimentary (clastic)

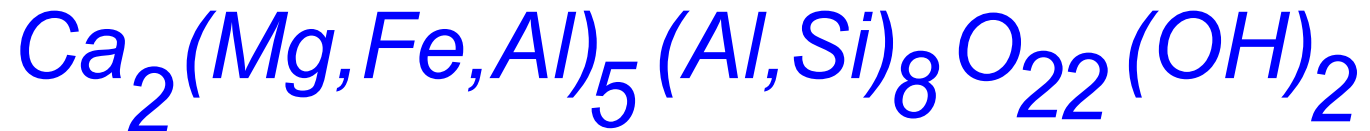
microcline



albite



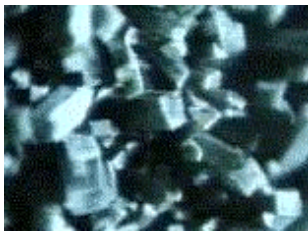
# Amphibole Group



Tremolite



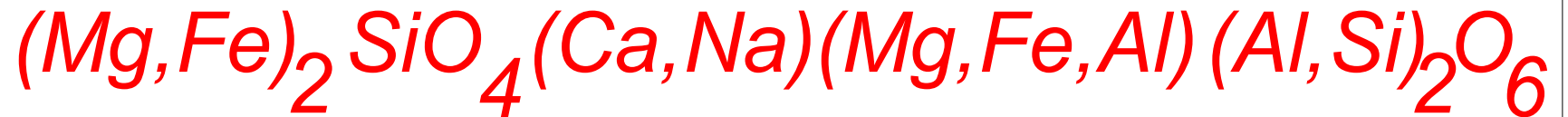
*cleavage (56° and 124°)  
green to black  
some forms are used as  
asbestos*



Actinolite

*important: igneous, metamorphic  
(hornblende most common)*

# Pyroxene Group



*cleavage (87° and 93°)*

*short prisms*

*dark*

*used as specimens, some gemstones*



**hedenbergite**

*important: igneous, metamorphic  
(augite most common)*

# Mica Group



*perfect cleavage*

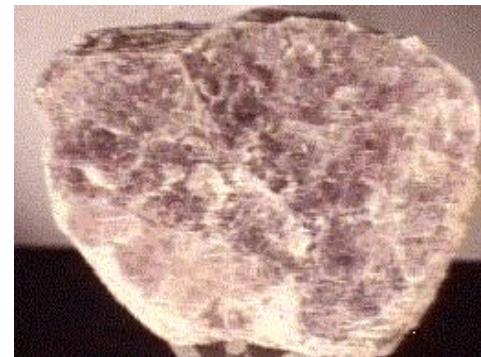
*thin sheets flexible*

*clear to black*

*used in electrical, fireproofing,  
lubricant, wall paper*



**muscovite**



**lepidolite**

*important: metamorphic, igneous*

*accessory: sedimentary*

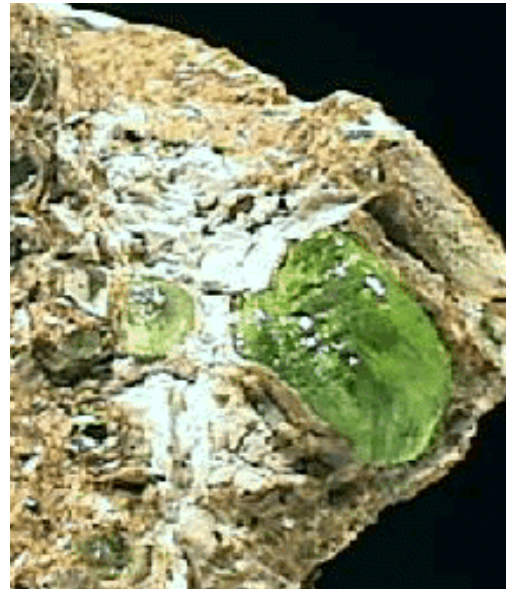
# **Olivine** $(Mg,Fe)_2SiO_4$

*green*

*conchoidal fracture*

*vitreous look*

*some used as a gem,  
abrasives.*



*important: igneous*



# Calcite $\text{CaCO}_3$



*rhombohedral crystals*  
*effervesces with acid*  
*used in manufacture of cement,*  
*fertilizer*

# Dolomite $\text{CaMgCO}_3$



*important: sedimentary*  
*metamorphic*

## *Web Sites of Interest*

[\*http://mineral.galleries.com\*](http://mineral.galleries.com)

*minerals by chemical group, name*

[\*http://minerals.er.usgs.gov/minerals\*](http://minerals.er.usgs.gov/minerals)

*U.S. Geological Survey, minerals in U.S.*

[\*http://www.kgs.ukans.edu/AASG\*](http://www.kgs.ukans.edu/AASG)

*Link to all state geological surveys*