

Muscovite

Mineral Properties and uses



Photo by Dennis Tasa

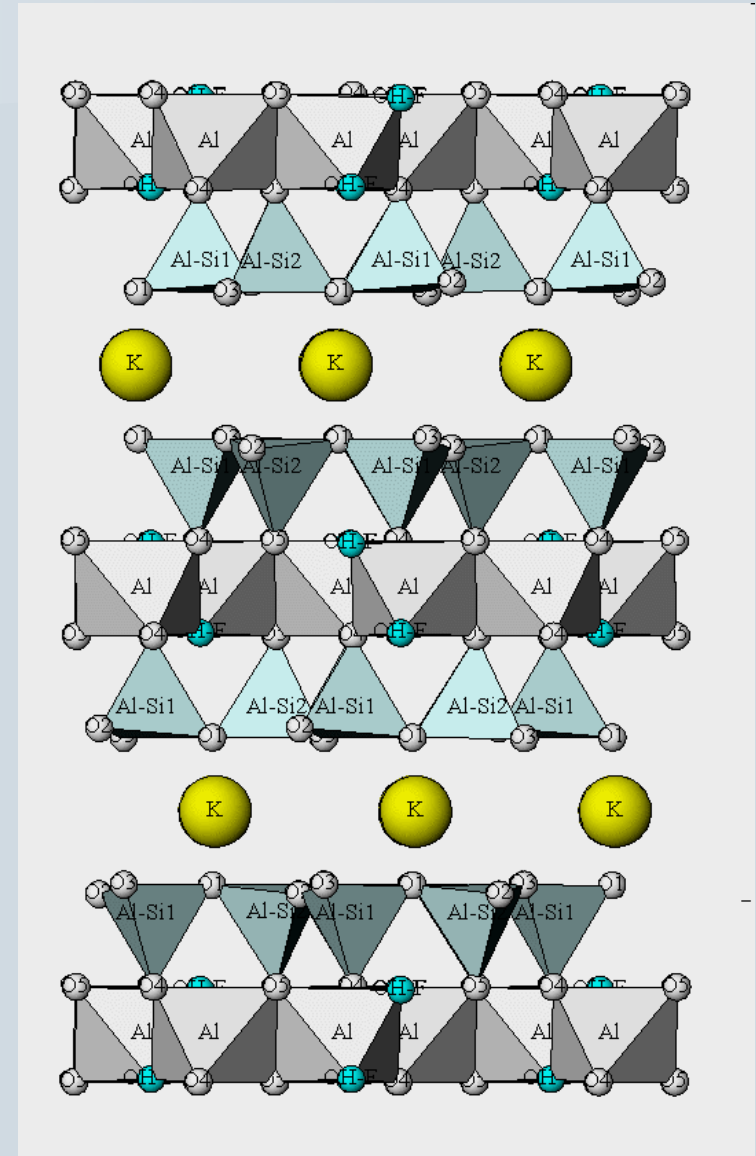
Wes Brown

Fast Facts:

- Muscovite is the most common mineral in the mica family
- Micas are easily distinguished in that they are sheet silicates, they easily cleave in perfect sheets
- Muscovite is found in granites, pegmatites, schists, and gneisses
- The largest sheets of Muscovite have been found in Nellore, India and measure 5 meters by 3 meters
- Formula: $KAl_2(AlSi_3O_{10})(F,OH)_2$, or $(KF)_2(Al_2O_3)_3(SiO_2)_6(H_2O)$

Where is found? How it Forms?

Muscovite can be found in many igneous and metamorphic rocks, at the bottom of Bowen's Reaction Sequence. Therefore it is felsic composition, has a high silica content, and is late to crystallize.



Sheet silicate atom structure

Practical Uses

Muscovite easily separates into thin, transparent, heat resistant sheets and therefore has many practical uses:

- ❑ Fireproofing / insulating
- ❑ Circuit boards
- ❑ Lubricant (powder)
- ❑ Primitive windows
- ❑ Modern heat resistant windows



Sources

Wikipedia:

<http://en.wikipedia.org/wiki/Mica>

<http://en.wikipedia.org/wiki/Muscovite>

Geology.about.com:

<http://geology.about.com/od/minerals/ig/minpicmicas/minpicmicamuscovite.htm>

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<http://geology.com/minerals/muscovite.shtml>

