

12.108 Lab 9: Neso- Soro- and Cyclosilicates

What is the major structural difference between the three groups of silicates in this lab?

Draw an example of each.

Minerals

Olivine

Composition:

Color:

Habit:

Luster:

Cleavage:

G:

H:

Crystal System:

Occurrence

Diagnostic Features:

Garnet

Composition:

Color:

Habit:

Luster:

Cleavage:

G:

H:

Crystal System:

Occurrence

Diagnostic Features:

Zircon

Composition:

Color:

Habit:

Luster:

Cleavage:

G:

H:

Crystal System:

Occurrence

Diagnostic Features:

Al₂SiO₅ Polymorphs (Kyanite, Andalusite, and Sillimanite)

Kyanite

Composition:

Color:

Habit:

Luster:

Cleavage:

G:

H:

Crystal System:

Occurrence

Diagnostic Features:

Andalusite

Composition:

Color:

Habit:

Luster:

Cleavage:

G:

H:

Crystal System:

Occurrence

Diagnostic Features:

Sillimanite

Composition:

Color:

Habit:

Luster:

Cleavage:

G:

H:

Crystal System:

Occurrence

Diagnostic Features:

Topaz

Composition:
Color:
Habit:
Luster:
Cleavage:
G:
H:

Crystal System:
Occurrence

Diagnostic Features:

Staurolite

Composition:
Color:
Habit:
Luster:
Cleavage:
G:
H:

Crystal System:
Occurrence

Diagnostic Features:

Epitote

Composition:
Color:
Habit:
Luster:
Cleavage:
G:
H:

Crystal System:
Occurrence

Diagnostic Features:

Vesuvianite

Composition:
Color:
Habit:
Luster:
Cleavage:
G:
H:

Crystal System:
Occurrence

Diagnostic Features:

Beryl

Composition:

Color:

Habit:

Luster:

Cleavage:

G:

H:

Crystal System:

Occurrence

Diagnostic Features:

Cordierite

Composition:

Color:

Habit:

Luster:

Cleavage:

G:

H:

Crystal System:

Occurrence

Diagnostic Features:

Tourmaline

Composition:

Color:

Habit:

Luster:

Cleavage:

G:

H:

Crystal System:

Occurrence

Diagnostic Features: