

## 12.108 Lab 10: Ino-, Tecto-, and Phyllosilicates

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

Draw an example of each.

What are the different types of K-feldspar?

How do Feldspathoids form?

What is Nepheline commonly confused with?

### **Minerals**

#### **Single Chain Ino- Augite**

Composition:

Color:

Habit:

Luster:

Cleavage:

G:

H:

Crystal System:

Occurrence

Diagnostic Features:

### **Spodumene**

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

Crystal System:  
Occurrence

Diagnostic Features:

### **Enstatite**

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

Crystal System:  
Occurrence

Diagnostic Features:

### **Aegirine**

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

Crystal System:  
Occurrence

Diagnostic Features:

### **Wollastonite**

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

Crystal System:  
Occurrence

Diagnostic Features:

### **Rhodonite**

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

Crystal System:  
Occurrence

Diagnostic Features:

### **Double Chain Ino- Hornblende**

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

Crystal System:  
Occurrence

Diagnostic Features:

### **Anthophyllite**

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

Crystal System:  
Occurrence

Diagnostic Features:

### **Tremolite**

Composition:

Color:

Habit:

Luster:

Cleavage:

G:

H:

Crystal System:

Occurrence

Diagnostic Features:

### **Actinolite**

Composition:

Color:

Habit:

Luster:

Cleavage:

G:

H:

Crystal System:

Occurrence

Diagnostic Features:

### **Phyllosilicates**

#### **Serpentine (Antigorite, Lizardite, Chrysotile)**

Composition:

Color:

Habit:

Luster:

Cleavage:

G:

H:

Crystal System:

Occurrence

Diagnostic Features:

### **Muscovite**

Composition:

Color:

Habit:

Luster:

Cleavage:

G:

H:

Crystal System:

Occurrence

Diagnostic Features:

### **Biotite**

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

Crystal System:  
Occurrence

Diagnostic Features:

### **Lepidolite**

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

Crystal System:  
Occurrence

Diagnostic Features:

### **Talc**

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

Crystal System:  
Occurrence

Diagnostic Features:

### **Tectosilicates**

#### **Quartz**

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

Crystal System:  
Occurrence

Diagnostic Features:

### **Plagioclase**

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

Crystal System:  
Occurrence

Diagnostic Features:

### **K-Feldspar**

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

Crystal System:  
Occurrence

Diagnostic Features:

### **Leucite**

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

Crystal System:  
Occurrence

Diagnostic Features:

### **Sodalite**

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

Crystal System:  
Occurrence

Diagnostic Features:

## **Nepheline**

Composition:

Color:

Habit:

Luster:

Cleavage:

G:

H:

Crystal System:

Occurrence

Diagnostic Features: