

## **GY302 Mineralogy Laboratory: Thin Section Mineral I.D.**

For this lab you should identify the 3 most common minerals in each of 4 thin sections that you randomly select from the thin section box that I provide you for this lab.

For each of the chosen thin sections turn in a page listing the below properties of each of the 3 most common minerals. Use the form on the following page for each thin section. Make sure to fill in the label of the thin section on each page.

1. Cleavage (or fracture)
2. Color/Pleochroism (plane polarized light)
3. Relief (high/med/low)
4. Birefringence (maximum; see chart)
5. Twinning (if present)
6. Extinction angle/symmetrical extinction/undulose extinction

NOTE: not all minerals possess the above properties. For example, quartz is the only common rock-forming mineral with undulose extinction, and it does not have twinning. If a mineral does not have a property such as pleochroism, just put "N/A" by the property.

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**Thin Section :** \_\_\_\_\_

Student Name : \_\_\_\_\_

Mineral #1 : \_\_\_\_\_

Cleavage: \_\_\_\_\_

Color/Pleochroism: \_\_\_\_\_

Relief: \_\_\_\_\_

Birefringence (maximum): \_\_\_\_\_

Twinning (if present): \_\_\_\_\_

Extinction angle / symmetrical / undulose : \_\_\_\_\_

Mineral #2 : \_\_\_\_\_

Cleavage: \_\_\_\_\_

Color/Pleochroism: \_\_\_\_\_

Relief: \_\_\_\_\_

Birefringence (maximum): \_\_\_\_\_

Twinning (if present): \_\_\_\_\_

Extinction angle / symmetrical / undulose : \_\_\_\_\_

Mineral #3 : \_\_\_\_\_

Cleavage: \_\_\_\_\_

Color/Pleochroism: \_\_\_\_\_

Relief: \_\_\_\_\_

Birefringence (maximum): \_\_\_\_\_

Twinning (if present): \_\_\_\_\_

Extinction angle / symmetrical / undulose : \_\_\_\_\_

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**Thin Section :** \_\_\_\_\_

Group # : \_\_\_\_\_

Mineral #1 : \_\_\_\_\_

Cleavage: \_\_\_\_\_

Color/Pleochroism: \_\_\_\_\_

Relief: \_\_\_\_\_

Birefringence (maximum): \_\_\_\_\_

Twinning (if present): \_\_\_\_\_

Extinction angle / symmetrical / undulose : \_\_\_\_\_

Mineral #2 : \_\_\_\_\_

Cleavage: \_\_\_\_\_

Color/Pleochroism: \_\_\_\_\_

Relief: \_\_\_\_\_

Birefringence (maximum): \_\_\_\_\_

Twinning (if present): \_\_\_\_\_

Extinction angle / symmetrical / undulose : \_\_\_\_\_

Mineral #3 : \_\_\_\_\_

Cleavage: \_\_\_\_\_

Color/Pleochroism: \_\_\_\_\_

Relief: \_\_\_\_\_

Birefringence (maximum): \_\_\_\_\_

Twinning (if present): \_\_\_\_\_

Extinction angle / symmetrical / undulose : \_\_\_\_\_

# GY302 Mineralogy Laboratory: Thin Section Mineral I.D.

**Thin Section :** \_\_\_\_\_

Group # : \_\_\_\_\_

Mineral #1 : \_\_\_\_\_

Cleavage: \_\_\_\_\_

Color/Pleochroism: \_\_\_\_\_

Relief: \_\_\_\_\_

Birefringence (maximum): \_\_\_\_\_

Twinning (if present): \_\_\_\_\_

Extinction angle / symmetrical / undulose : \_\_\_\_\_

Mineral #2 : \_\_\_\_\_

Cleavage: \_\_\_\_\_

Color/Pleochroism: \_\_\_\_\_

Relief: \_\_\_\_\_

Birefringence (maximum): \_\_\_\_\_

Twinning (if present): \_\_\_\_\_

Extinction angle / symmetrical / undulose : \_\_\_\_\_

Mineral #3 : \_\_\_\_\_

Cleavage: \_\_\_\_\_

Color/Pleochroism: \_\_\_\_\_

Relief: \_\_\_\_\_

Birefringence (maximum): \_\_\_\_\_

Twinning (if present): \_\_\_\_\_

Extinction angle / symmetrical / undulose : \_\_\_\_\_