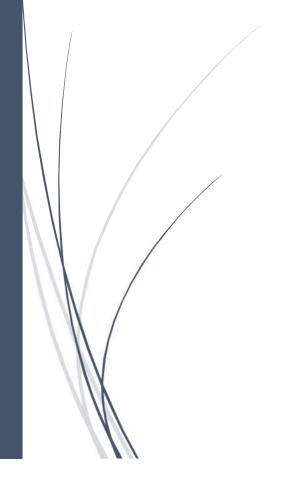
1/23/2019

## Mineral Identification Guide

Lab#1



Instructor: Soheil Roudini CLEMSON UNIVERSITY

Specimen Number	Mineral Name	Diagnostic Properties
1	Quartz	No cleavage plane, vitreous, light colored, translucent, H=7, various colors
2	Orthoclase	2 cleavage planes, vitreous, light colored, various colors, H=6
3	Plagioclase	2 cleavage planes, striations, grey or colorless, vitreous, H=6- 6.5
4	Muscovite	1 cleavage, light colored, translucent, Brown to golden, sheets, Metallic luster, H=2-2.5
5	Biotite	1 cleavage, dark colored, translucent, sheets, metallic luster, H=2.5-3
6	Olivine	No cleavage planes, green, dull luster, H=6.5- 7
7	Garnet	Vitreous, no cleavage planes, opaque, reddish brown, dodecahedral crystals, H=6.5-7.5
8	Hornblende	2 cleavage plane with angle 120/60 degree, vitreous, opaque, dark green, H=5-6
9	Augite	Two perpendicular cleavage, prismatic crystals, vitreous, H=5-6
10	Calcite	Effervescent, transparent to translucent, usually white and colorless, 3 oblique cleavage planes, H=3
11	Gypsum	2 cleavage planes, translucent, usually white and colorless, vitreous, H=2

12	Halite	Salty, cubic crystals, 3
		perpendicular cleavage
		planes, vitreous, H=2.5
13	Hematite	Weakly magnetic,
		reddish brown streak,
		opaque, no cleavage
		planes, submetallic
		luster, H=5-6
14	Magnetite	No cleavage planes,
		metallic luster, opaque,
		magnetic, usually black
		and grey, H=5.5-6.5
15	Pyrite	Fool's gold, greenish
		black streak, metallic
		luster, opaque, no
		cleavage planes, H=6-6.5
17	Galena	3 perpendicular cleavage
		planes, opaque, metallic
		luster, cubic crystals,
		heavy, usually lead grey
		to silver grey, H=2.5
26	Fluorite	4 cleavage planes,
		vitreous, light colored,
		various colors, H=4
28	Talc	1 cleavage plane, light
		colored, greasy luster,
		the most soft mineral
		H=1
29	Kaolinite	Dull luster, opaque, clay
		family, H=2-2.5
30	Graphite	1 cleavage plane,
		opaque, sub metallic
		luster, usually silver
		black, H=1-2