GLY 4200C
36 points
8 students took exam

Name	
December 7, 2011	
1:15 p.m.	

# LAB FINAL EXAMINATION KEY

Open Notes

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DCICII	mic	11 /	Jacii	O1	uic	TOIL	OWINE	grams	10	130110	pic oi	amsono	pic. (		pomis

	Determine if each of the following grains is i	sotropic or anisotropic. (2 points)					
0	1. Anisotropic						
0	2. <u>Isotropic</u>						
	Estimate the relief (in words and numerically	r) of each of the following grains. (8 points)					
10	3. <u>≈1.9 Very High</u>						
6	4. <u>1.58 Low</u> Indicate what technique was used to determine and show calculations.	ne the relief, explain how you used the technique					
	3 Becke line In	4 Becke line in   Oblique illumination - white line away					
	Name the type of twinning seen in each cryst	al. (3 points)					
1	5. <u>Tartan (gridiron, crosshatch)</u>						
1	6. <u>Deformational albite</u>						
1	7. <u>Carlsbad</u>						
	Name the feature seen in this crystal (zoning	ex-solution) (2 points)					
2	8. Ex-solution (perthite)						

De	escribe the cleavage or fracture (2 points)
9.	
	etermine the interference color (color and order) of the grain under the cross-hair. points)
10	. 3° green
11	. 1° white
teo	dicate what technique was used to determine the interference color, explain how you used the chnique, and show calculations (if any were used).  Goes to pastel colors upon addition,   11 Turns reddish in PN  2° blue-green on subtraction
yo po	escribe the pleochroism or absorption, if any, seen in the following grains. Indicate whether ou are reporting pleochroism or absorption. List the color range associated with each grain(3 pints)  2. Pleochroism medium green to brownish light green
13	. Absorption - slight change in brown color
14	. Pleochroism - light brown to medium green
17	

Determine if each of the following grains shows parallel, inclined, symmetric, undulatory, or continuous extinction. Report the extinction angle,  $\tau$ , if applicable (4 points)

		Type of Extinction	Extinction Angle, τ	
5,3	15.	Undulatory	τ <u>≈</u> °	
2,4	16.	Inclined	t_= 24 °	
	space l	nine the optical class, and sign if appropelow, sketch the inference figure you ined. If appropriate, estimate 2V in yo Optical Class	obtained, and describe how the sign	
		_	-	
4	17.	<u>Biaxial</u>	2 Negative	5 <u>≈35°</u>
4	18.	Uniaxial	2 Positive	
	17		18	
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#### Final Lab Exam Results (50 possible)

### **Previous Years Results - Lab Final Examination**

Term, Year	Mean, %
Fall, 2011	74.1
Fall, 2010	54.1
Fall, 2009	72.2
Spring, 2009	58.5
Fall, 2007	64.4
Fall, 2006	91.5
Fall, 2005	76.8
Spring, 2004	64.5
Fall, 2002	78.5

Prior to 2002, lab exams were given in a different format, and are not as comparable. All of these exams covered the same material, and were, as nearly as possible, of the same level of difficulty.

### **TOTAL LABORATORY SCORES (OUT OF 450)**

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423.3 A
417.5
413.3 A-
401.7
399.5
395.2 B+
389.1
            MEAN = 383.6 (85.2\%)
386.8
            MEDIAN = 385.7
384.5
384.4
378.4
377.6 B
368.8
363.1 B-
333.3
       C
321.7
       C-
```

## **Previous Years Results - Laboratory Scores**

Term, Year	Mean, %
Fall, 2011	85.2
Fall, 2010	83.2
Fall, 2009	86.3
Spring, 2009	84.5
Fall, 2007	84.6
Fall, 2006	87.9
Fall, 2005	80.9
Spring, 2004	86.8
Fall, 2002	88.3

Prior to 2002, lab exams were given in a different format, and are not as comparable. All of these exams covered the same material, and were, as nearly as possible, of the same level of difficulty.