

# Column Chromatography Lab Report

NAME: \_\_\_\_\_

PARTNER'S NAME: \_\_\_\_\_

LAB SECTION: \_\_\_\_\_

DATE: \_\_\_\_\_

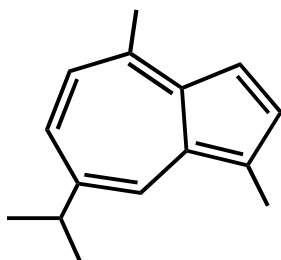
**% SCORE:**

## Laboratory Techniques: Chromatography

	Points possible	
A. Lab Data		
B. Spectroscopy		
C. Questions		
D. Discussion		
E. Prelab quiz	10	
<b>Total</b>		

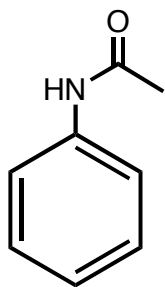
## ***B. SPECTROSCOPY***

1., Label the carbons with letters on the guaiazulene structure below. Give equivalent carbons the same letter. How many unique carbons does guaiazulene possess?



Guaiazulene

2. Label the carbons with letters on the in acetanilide structure below. Give equivalent carbons the same letter. How many unique carbons does acetanilide possess?



Acetanilide

3. Label your IR spectrum of Acetanilide with the sample name, your name and stretches due to C=O and O-H. Attach to your report.

4. Label your IR spectrum of Guaizulene with the sample name, your name and stretches due to C=C and sp<sup>2</sup> C-H. Attach to your report.

### ***C. QUESTIONS***

1. How does your acetanilide melting point compare with the literature value? What can you conclude about the purity of your recovered acetanilide?
2. Which intermolecular forces are helping to separate the acetanilide and guaiazulene on the silica gel column?
3. How would your separation be affected if you filled up your column with solvent before you allowed the sample to absorb into the top of the column of silica gel?

### ***D. DISCUSSION***

**Compare** the two techniques you used, **TLC** and **Column Chromatography**. Indicate the similar principle they are based on and the differences in the two procedures with respect to time, quantity of material, and utility.