

**CH0310, ORGANIC CHEMISTRY I**  
**Professor Dennis P. Curran**  
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Quiz 9, Take home, due midnight Monday, March 23, 2009

Submit the quiz in pen, or Xerox/fax/scan your pencil copy

Hand in before/after class  
Drop off at 1101 CSC (before 5 pm)  
Fax to 412-624-9861 (till midnight)  
Email to lynne@pitt.edu (till midnight, pdf file only)

**Reactions of Alcohols and Ethers**

To prepare:

- read Chapter 9
- review lecture notes for March 16, 18 and 20
- Do problems 26-40 and 43-50 in Chapter 9

The next test will include names, structures and concepts, but will also have a heavy emphasis on *reactions* and *reaction mechanisms*. Can you write the products of one, two or three step reactions sequences? Given a starting material and a product, can you design a short and efficient sequence of reactions to make the product? Can you draw clear, step-by-step mechanisms for the key reactions that we have studied? This quiz provides a couple of questions that are representative of those that will be on Exam 3.

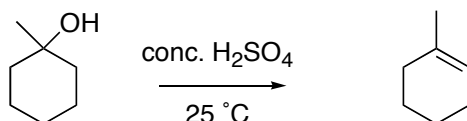
You need to know the suite of transformations for synthesis and reactions of alcohols and ethers in Chapter 9 (Reactions 1-13 in the Chapter Summary on p 374). You should be able to provide missing reagents or products. You should also be able to write mechanisms (except reactions 3 and 4).

NAME

SIGNATURE

### Reactions of Alcohols and Ethers

1) Provide a step-by-step mechanism for the following reaction. Use arrows to track electron flow. (4 points)



2) Fill in the missing PRODUCT(S) as indicated by the question mark. If relevant, be sure to indicate stereochemistry. (6 points):

