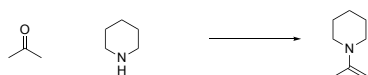


Assignment #3 (Due Feb 28, 2024)

Chem 436 – Spring 2024

1a) Draw the full arrow pushing mechanism for the following reactions.

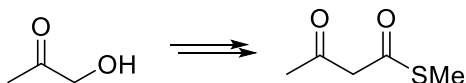


1b) Explain why the major product is an enamine and not an imine.

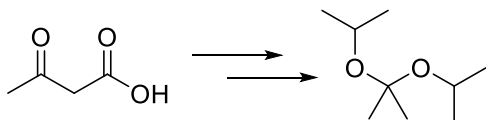
1c) What would the product be between acetone and methylamine? Would an enamine or a imine be the major product?

2) Propose a multistep synthesis for each of the intermediates / products in the following questions. Show all relevant reagents, solvents, and reaction conditions.

a)



b)



3) Starting from ANY reagent, come up with two multistep reaction sequences that must be at least five steps long. At least one reaction must be from Chapter 19.11-

Chapter 20 (The Chemistry of Carboxylic Acids).

a)

b)

3) How do you think you did in Midterm #1? What changes will you make to improve your results?