

Chemistry 251 Aspirin synthesis (PLKE 8) Winter 2009

REPORT GUIDE Report Due: Monday Feb 23rd.

For this lab you will write a 'Formal report'

This report will be done individually.

This lab is a Synthesis lab.

Be sure your report has these sections (in order on the lab report): Purpose, Theory, Data, analysis, conclusion and questions to be answered.

Finer points

The Purpose should be the reaction equation for this experiment.

The Theory is usually the mechanism for the reaction but since we haven't covered this mechanism in class yet you are not required to propose one. (Feel free to propose one if you like however)

For the Data section. Report the weight, mp range, ferric chloride test results and % yield of the purified product. Be sure to turn in your aspirin sample.

For the analysis section Show calculation for % yield. Comment on the data in regards to the success of the reaction (success entails both yield and the purity of you product). You want to convince your reader that you did indeed produce aspirin of high purity. If you had a low yield or low purity speculate on what might have went wrong.

For the conclusion, surmise all the data and state if you succeeded in synthesizing the final product.

Additional questions

1. What happened to the acetic acid side product of this reaction?
2. How might you purify your aspirin product if it contained unreacted salicylic acid (what purification technique might you use)?