

Copper Cycle Expectations

Congratulations on making it to the end of AP Chemistry!

For your penultimate action as AP Chemistry students you will be taking solid copper through the copper cycle. These chemical reactions are part of the purification process that are used to isolate copper from copper ore. As someone who spent considerable time in the Copper Country and is a chemistry connoisseur, these reactions represent a great synopsis of the school year. This guide will provide you with the expectations for reporting on the Copper Cycle steps.

Lab Report Guidelines

Each section is worth 5 points. The balanced equation and procedure must be checked before the reaction is approved and will count as a formative assessment. Guidance will be provided when the procedure is submitted and edits must be evident when writing the lab report.

A separate lab report will be written for each reaction step totaling 5 reports overall. The final report should have a comprehensive conclusion that includes the whole reaction series, percent yield, error analysis, and steps for improvements.

Lab Report Sections:

Introduction- Each reaction should start with an introduction that states the purpose of the single reaction. It should also include any background information of how this could be used in the purification process for copper ore.

Balanced Equation and Net Ionic Reaction- State the complete balanced equation and net ionic equation including the states of matter for each step.

Methods/Procedure- State the steps and conditions for the reaction. This includes concentrations of reactants, volumes needed, resources (like hot plate, bunsen burner, filtration, etc), and safety (fume hood or more).

Results/Conclusion- Each reaction should be summarized with observations or measurements. There should also be a statement explaining the overall success of the reaction (how did you know it worked? Was there error or sample loss?).