

Student: _____

Total Points: _____/22

Design Your Own Precipitate Lab—Grading Rubric

Title, Purpose, and Materials	1	2	3
	At least 1 of these items is missing <u>or</u> these items are inaccurate or have minimal amount of completion	Title, purpose, & materials list are provided but at least 1 of them lacks sufficient description	Title is appropriately descriptive & serious, purpose is sufficiently descriptive, materials list is descriptive & complete
Procedure	0	1	2
	Procedure is not provided	Procedure is provided but lacks organization or lacks sufficient detail. Unlikely another student could replicate lab if given this procedure	Complete, neat, and descriptive enough for another HS chem student to replicate
Data <i>Mass of filter paper, mass of each reactant, mass of solid product + filter paper, mass of solid product (actual yield), theo. Yield, % yield</i>	1	2	3
	Tables do NOT include all necessary data	Tables include ALL necessary data but lack clarity, organization, or appropriate units	Tables are clear, organized, and include ALL necessary measurements & calculated results along with appropriate units

Calculations

Work is shown to determine actual yield _____ / 1 pt

Chemical reaction is correct and balanced _____ / 1 pt

Initial mass of other reactant is correct and work is shown _____ / 1 pt

Moles of both reactants & solid product is correct and work is shown _____ / 1 pt

BCA table is provided and includes correct mole values for both reactants & solid product _____ / 1 pt

Theoretical yield of solid product is correct and work is shown _____ / 1 pt

Percent yield is calculated correctly and work is shown _____ / 1 pt

Error Analysis**Claim:** _____ / 2 pts

Provides a clear, concise statement about a potential source of experimental error. Though this error is typically out of your control, you are free to suggest an error that was caused by you if it's legitimate. Sample errors that are not legitimate include things like not "stirring well enough, not measuring correctly, not calculating correctly" or anything that should have obviously been taken care of by you.

Evidence: _____ / 2pts

*Provides appropriate (**correct**) and sufficient (**enough**) evidence from either quantitative data or observations made during the lab that supports the claim. No reasoning should be used here. That means no inappropriate phrases like "therefore...", because of this..., due to this...", etc. No evidence should be provided if it doesn't support the claim or has nothing to do with the claim.*

Reasoning: _____ / 3 pts

Provides a detailed justification as to why this evidence is important and how it supports this claim. Each piece of evidence provided should be justified and linked to the claim. No evidence should be introduced for the first time or repeated. This section is likely to include phrases like "therefore..., because of this..., due to this...", etc.