

Name: _____ Lab TA: _____

Lab Day Mon Tue(am) Tue(pm) Wed Thu(am) Thur(pm) Fri

Grade

>95 >90 >85 >80 >70 <70

Report:

Prelaboratory Quiz Score:

Data Collection and Calculations:

	Reaction 1	Reaction 2
1. <u>CaCl₂</u> Exact molarity of the CaCl ₂ solution: <div style="text-align: right;">Initial buret reading:</div> <div style="text-align: right;">Final buret reading:</div> <div style="text-align: right;">Volume of CaCl₂ added:</div> <div style="text-align: right;">Moles of CaCl₂ added:</div> <div style="text-align: right;">Moles of CaCO₃ expected based on moles of CaCl₂ added:</div>		
2. <u>Na₂CO₃</u> Exact molarity of the Na ₂ CO ₃ solution: <div style="text-align: right;">Initial buret reading:</div> <div style="text-align: right;">Final buret reading:</div> <div style="text-align: right;">Volume of Na₂CO₃ added:</div> <div style="text-align: right;">Moles of Na₂CO₃ added:</div> <div style="text-align: right;">Moles of CaCO₃ expected based on moles of Na₂CO₃ added:</div>		
3. <u>Limiting Reagent</u> Identify the Limiting Reagent (CaCl ₂ or Na ₂ CO ₃): Mass of CaCO ₃ Expected:		
4. <u>CaCO₃</u> Mass of Watch Glass: <div style="text-align: right;">Mass of Watch-Glass + CaCO₃ 1st Heating:</div> <div style="text-align: right;">Mass of Watch-Glass + CaCO₃ 2nd Heating:</div> <div style="text-align: right;">Mass of CaCO₃ produced: </div>		
5. <u>Efficiency</u> % Yield:		

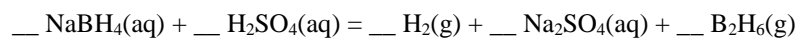
For Reaction #1, show calculational method for:

1. Moles of CaCl ₂ added	1. Moles of CaCO ₃ expected based on moles of CaCl ₂ added.
3. Mass of CaCO ₃ Expected.	5. % Yield

Post Laboratory Question:

Your TA will not help you with this final question.

Diborane, B₂H₆, can be produced by the following reaction:



What is the maximum quantity, in grams, of B₂H₆ that can be prepared starting with 250. mL of 0.0875M H₂SO₄ and 1.55g of NaBH₄?

Na: 22.99 g.mol⁻¹

B: 10.81 g.mol⁻¹

H: 1.01 g.mol⁻¹

S: 32.07 g.mol⁻¹

O: 16.00 g.mol⁻¹