

# LAB REPORT EXPECTATIONS

## CEM 415 SS18

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### Title

### Short introduction

- This should be in paragraph form about 1 paragraph or more explaining the purpose the experiment
- This should be in your own words and no plagiarism should ever be observed.

### Experimental

- 3rd person past tense in paragraph form with passive voice
- Use your own words. It is not okay to copy exactly what the lab handout says for you to do.
- Write what YOU actually did (amounts of reagents too)
- If you obtain chemicals from another group or person, mention that in your report.
- In the correct form put amount added in parentheses after the chemical or reagent.
  - For solvents just the volume or amount added.
    - “THF (10 mL) was added....”
  - For substrates or reagents include the amount added and the number of moles or millimoles
    - “A 25 mL round bottom flask was charged with cadmium oxide (128 mg, 1 mmol).”
  - For catalysts you need to include the mol % of catalyst as compared to the limiting reagent or substrate.
    - “In a glovebox under an atmosphere of N<sub>2</sub>, [Ir(OMe)cod]<sub>2</sub> (9.9 mg, 0.015 mmol, 1.5 mol %) was carefully weighed and added to a 3 mL conical vial.”
- There should always be a space between a number and the units
  - E.g. mass: 5 g or volume: 5 mL
  - There must also be a space between mol and the % sign for catalysts (see above)

### Results and Discussion

- Should be a narrative in paragraph form
- Needs to include things you witnessed such as color changes, pH readings, and gas evolutions.
- Figures
  - Explain the figures and discuss what they show and what the

results mean.

- Figures should have proper labels on them including a caption with a figure number below the figure.
- Tables
  - Should be clear with a heading above the table and a table number.
  - Pertinent information should also be discussed.
- Schemes
  - Should have a heading and scheme number above the scheme
  - Schemes must be made using ChemDraw.

### **Questions**

- Answers to questions should be in paragraph form in the Results and Discussion Section
- The questions should be answered thoroughly yet concisely in full sentences.
- Make sure to balance any chemical equations that are in this section.

### **Conclusions**

- This should be in paragraph form about 1 paragraph or more regarding any conclusions from the experiments and your data.

### **References**

- Use ACS style

### **Spectra (if applicable)**

- All peaks should be properly assigned even if it is an impurity.
- All spectra should be properly labeled.