

For each unit that you complete you must submit a final report. This document describes the format you should follow in preparing those reports.

1. General remarks-
  - a. Each report must be typewritten.
  - b. Equations must be created with ChemSketch, a chemical structure drawing program. This program is available free from ACDLabs at <http://www.acdlabs.com/download/chemsk.html>.
  - c. Spectroscopic data must accompany each report.
2. Report format
  - a. Heading The heading should contain the following information presented in the format shown in the example:
    1. your name
    2. the date
    3. a title
  - b. Equation An equation describing the reaction you performed.
    1. Use the J. Mol. Model format for drawing structures.
    2. Use 10 or 12 point New Times Roman font for text.
  - c. Table of reagents This table should summarize the following information
    1. the reagents you used and the product(s) that were formed
    2. the formula weight of each reagent/product or the concentration of the reagent if it was available as a solution
    3. the mass or volume of each reagent you used and product you obtained
    4. the number of mmol of each reagent you used and product you obtained
    5. the solvent and the volume of it that you used
  - d. Summary of your procedure Provide a concise description of the procedure you followed. Include the mass and/or volumes and molar quantities of the reactants as well as the volume of solvent you used. Include reaction times. Describe your observations. Report the yield and the per-cent yield of your product. Provide supporting TLC data where appropriate. Do not include such details as how you set up a filtration apparatus to filter your product or made applicators for TLC or prepared a sample to record an IR spectrum.
  - e. Analysis of spectral data In this section you should provide a detailed interpretation of the spectral data that you recorded; IR, NMR, GC-MS, etc. for the product of interest. Your analysis should indicate clearly how the spectral data supports the structure of the compound in question. It should compare the expected values, as obtained from correlation charts, with your experimental values.
  - f. Spectral data Images of required spectra must be copied into your report. The actual spectra must be stapled to the back of the report.

A sample formal report entitled [Preparation of \*trans\*-Stilbene](#) is available.