

Unknown Identification Reports

1.) Provide a Title

Introduction:

2.) Introductory statement. Brief description of objective.

Experimental Procedures:

3.) Description of Qualitative analysis:

a.) **solid/liquid**

b.) **color and smell**

4.) Physical properties

a.) **MP/BP**

b.) **Refractive index**

Include description of protocol employed in acquiring measurements.

Give instruments description of apparatus used.

5.) Spectroscopy:

a.) **IR**

Include description of protocol for acquiring spectra/preparation of samples.

Include spectra and "mark ups" indicating analysis of spectra

b.) **NMR**

Include copy of spectra and "mark ups" indicating analysis of spectra.

Results and Conclusion:

6.) Analysis of data. Provide a brief analysis of the collected data and literature examples as they contribute to identification of the unknown compound.

7.) References for spectra and constants.

Note:

- In protocol and apparatus descriptions, provide enough information so that someone reading your report could reproduce the experiments.
- If you use a spectra database to aid in determining your unknown, provide the name of the database used and include the link. You will still need to use and cite at least one of the reference books suggested in the "Organic Laboratory Techniques" text.
- With the spectra, make copies to mark up to indicate analysis. Clearly label assignments/structural elements associated with important signals/absorptions. Once you have identified the unknown, draw the structure on the submitted spectrum.
- In confirming assignment of the unknown, include references and citations for specific statistics or spectra.
- **When writing your report, avoid using the 1st person.**