

**Colorado State University
Spring Session 2018**

**CHEM 475
Physical Chemistry Laboratory - 1
Writing Exercise – The SUPER CAPTION**

Assertion: Sometimes it is difficult to get started writing a laboratory report or a manuscript of any kind. This writing method aims to:

- Help students (authors) get started writing about their results;
- Encourage students to think deeply about their results;
- Provide a robust method for students to follow for writing laboratory reports.

SUPER CAPTION writing concept:

In chemistry laboratory courses, students generate experimental results. These results are presented in various graphical forms. The **SUPER CAPTION** concept encourages students to consider a figure representing their results, focus deeply on what is represented in the figure and to use the figure to guide their writing.

In the first step of the process, a **SUPER CAPTION** describes everything that the author wants the reader to notice about the figure. It includes a beginning statement succinctly stating what the figure shows. Subsequently, the **SUPER CAPTION** describes in detail the important features and trends in the data presented in the figure. The **SUPER CAPTION** may or may not include comparisons to known data or interpretation of the data. In this process and at this step it is important that a “brainstorming” mentality be employed, that is, write as many things (observations, features, guesses) down no matter how trivial. A later step will be to cull this list - not yet.

The second explicit step is to edit the list of everything, clarifying each item so that *others* can understand what you are thinking, deleting items that you do not wish to communicate to the reader, combining multiple items where it makes sense.

The third step is to sit back and admire the now created **SUPER CAPTION**. You may wish to edit it a bit further to clean up some rough edges.

The fourth step is the kicker. Take the **SUPER CAPTION** text, remove it from the actual figure caption and put it into the text of your document. Replace the **SUPER CAPTION** with a simpler, crisper, more succinct description of the figure which will serve as the final figure caption.

What follows is an example exercise of this process

The Exercise:

The figure below represents the simulated potential energy diagram of a pair of neutral hydrogen atoms calculated using the Gaussian program together with a least squares fit of this data to an offset polynomial function.

1. Write a caption for the figure below.
2. Write a **SUPER CAPTION** for the figure below.
3. Convert the **SUPER CAPTION** into text for the document and write a simpler figure caption.

