

Instructions for Authors

Journal of Physical Chemistry Lab

First draft papers for peer review should adhere to the following guidelines, with the exception that the body text must be DOUBLE SPACED to allow room for comments. Authors should submit 3 copies of their paper for review, 2 of which have the author names removed.

Final papers describing independent projects conducted in the Physical Chemistry Lab course should be submitted electronically with the formatting requirements described below. Figures should be included in the MSWord document *and* as separate files from the original software. Electronic submission must take **one** of the following forms:

- Zip disk, floppy disk, or CD, labeled with authors' names and any relevant file name information
- E-mail to Dr. Loh, with the files included as an attachment and authors' names included in the body of the message.
- Ready for FTP (by Dr. Loh) from one of the pchem lab computers. Instructions must be submitted to Dr. Loh giving the authors' names, the location of the file on the relevant pchem lab computer, and the name of the file to be transferred. Files for FTP may not be password protected.

Papers from previous semesters are available on the course web site, and should be consulted as examples of formatting when in doubt. The majority of the layout (double columns, indented sections, etc.) will be performed by the journal editor.

1. Title and by-line format:

Title should be in GARAMOND, 14 point bold, with Title Case capitalization. The author(s) names should be in GARAMOND, 11 point bold, with the UW-L byline as in the example below (GARAMOND, 11 point italics).

Analyzing the Effect of Carbon-Chain Length on the Equilibrium Position of the Oxoacid Hydration Reaction

J. Prescher, E. Schmidt

Department of Chemistry, University of Wisconsin-La Crosse

2. Abstract format:

The abstract should be in GARAMOND, 10 point, single-spaced. Margins need not be adjusted for submission (the editor will take care of that).

3. Body Text format:

- The body of the paper should be formatted in GARAMOND, 11 point, except for Greek letters (SYMBOL font, 11 point).
- Section headings should be **CAPITALIZED**, in GARAMOND, 11 point bold.
- Subheadings should be *Italicized* in GARAMOND, 11 point.
- As noted above, the first submission for review should be *double-spaced*, but the final submission must be *single-spaced*.
- All pages should be numbered.

4. Equations:

- Equations **must** be prepared using the MSWord equation editor, with GARAMOND 11 point as the default font. Each equation should appear on a separate line and be identified by a number in parentheses, on the right. For example,

$$\Delta G^\circ = -RT \ln K_{eq} \quad (3)$$

- The line spacing should be adjusted to 6 pt. before and after the equation line. This can be achieved by highlighting the equation number, then adjusting the spacing in the **Format ... Paragraph** pull-down menu.

5. Figures:

- Figures from MS Excel, drawing programs, or other graphics should be pasted into the appropriate location in the Word document using the **Paste Special ... Picture** option under the **Edit** menu, with “**Float over text**” deselected.
- Check to make sure that your figures are readable when *reduced to a width of 3.1*” by printing a test page containing the graphic reduced to that size. This includes readability of axes labels, symbols, legends, dashed/dotted etc. lines, and so forth. Overly bit-mapped (digitized) graphics are *not acceptable*. If you have questions about how to achieve a good quality graphic, please consult the editor of the journal *well before submission of the final paper*.

6. Table format:

Tables should be single-spaced, with column headings in ARIAL 9 point bold, and the body in GARAMOND 10 point. Units should be specified in the column headings, and errors given with the data where appropriate. The table should be surrounded by a box outline, and lines used to separate columns but *not* rows, except for the header row. *Do not use spaces to separate columns: use the Table tool in MSWord*. An example is shown below.

Table 3: Calculated thermodynamic parameters for the hydration reactions of pyruvic acid and 2-ketobutyric acid.

Oxoacid	ΔH° (kJ/mol)	ΔS° (J/mol·K)	ΔG° (kJ/mol) @ 298 K
Pyruvic Acid	-25.1 ± 0.6	-89.1 ± 1.8	1.50 ± 0.79
2-Ketobutyric Acid	-22.4 ± 0.3	-83.8 ± 1.0	2.58 ± 0.44

7. Figure Captions and Table Headings:

Captions and headings should be descriptive and should identify the purpose of the figure or table. Formatting requirements are as follows:

- Figure and table numbers should be in ARIAL 9 point bold.
- Figure and table captions/headings should be in GARAMOND, 10 point, single-spaced.
- Figure caption should be placed *below* the figure, while Table headings appear *above* the table.
- The line spacing should be adjusted to 6 pt. between the caption/heading and the Figure/Table.

An example of a figure caption is shown below, and a table heading is shown above.

Figure 4: Temperature dependence of the equilibrium constant for the hydrolysis of pyruvic acid.

8. References:

Every journal has a specific reference and citation format. For this journal, citations within the text are made using the source number in parentheses and italics (for example, (1)), in order of appearance. Reference formats at the end of the text for a journal article and a book section are given below: For formatting examples of other reference materials, please consult the editor.

- Journal: Authors, "Title", *Journal Abbreviation* (year), volume, pages.
- Book: Authors, *Title*, Publisher, City, year, relevant pages.

Specific examples are given below:

- (1) Hengge, A. C.; Hoff, R. H., "Entropy and Enthalpy Contributions to Solvent Effects on Phosphate Monoester Solvolysis. The Importance of Entropy Effects in the Dissociative Transition State." *J. Org. Chem.* (1998), 63, 6680-6688.
- (2) Carey, F. A. *Organic Chemistry*; The McGraw-Hill Companies, Inc.: New York, 1996, 439-442.

9. Appendices:

Appendices should only be included when it is necessary to include a significant body of background material, but this material interrupts the flow of the paper and thus does not belong in the body of the paper (see Wienkes and Giesler, *JPCL*, v.1 p.13-19, 2000 for an example of such an instance). Consecutive appendices should be numbered starting with the letter **A**. If there is only one appendix, a letter is not needed. Each appendix should have a short, descriptive title.