

Ethics in Graduate School



How to write a thesis

Acknowledgements

American Chemical Society

- "Are you up to date on Copyright issues?"

University of Missouri

- M-book

<http://www.missouri.edu/~pattonmd/plag.html>

Chemistry Department Faculty

What is a Copyright?

When you write a paper, figure, table, website or even computer program, you 'own' certain rights to that 'work.'

Your rights are:

1. To reproduce the copyrighted work.
2. To use it in future work.
3. To distribute or sell the work.

My thesis for example:

Copyright © 1996 Timothy E. Glass

Who Owns the Copyright?

If you write a paper, who owns the copyright on the paper?

Answer: the publishing company!

Why? Because you signed over the copyright to them...



AMERICAN CHEMICAL SOCIETY COPYRIGHT STATUS FORM

Please submit form to appropriate Editor's Office.

Name of ACS Publication: _____

Author(s): _____

MS No. _____

Ms Title: _____

Received _____

This manuscript will be considered with the understanding you have submitted it on an exclusive basis. You will be notified of a decision as soon as possible.

Print or Type Author's Name and Address

[THIS FORM MAY BE REPRODUCED]

COPYRIGHT TRANSFER

The undersigned, with the consent of all authors, hereby transfers, to the extent that there is copyright to be transferred, the exclusive copyright interest in the above cited manuscript, including the published version in any format (subsequently called the "work"), to the American Chemical Society subject to the following. (If the manuscript is not accepted by ACS or withdrawn prior to acceptance by ACS, this transfer will be null and void.)

- A. The undersigned author and all coauthors retain the right to revise, adapt, prepare derivative works, present orally, or distribute or transmit to not more than 50 colleagues, their own paper, provided that copyright credit is given to the source and ACS, that recipients are informed that they may not further disseminate or copy the paper, and that all such use is for the personal noncommercial benefit of the author(s) and is consistent with any prior contractual agreement between the undersigned and/or coauthors and their employer(s). Authors/employers may post the title of the paper, abstract (no other text), tables, and figures of their own papers on their own Web sites, and include these items in their own scholarly, research papers.
- B. Where a work is prepared as a "work made for hire" for an employer, the employer(s) of the author(s) retain(s) the right to revise, adapt, prepare derivative works, publish, reprint, reproduce, and distribute the work in print format, and to transmit it on an internet, secure network for use by its employees only, and additional rights under A, provided that all such use is for the promotion of its business enterprise and does not imply endorsement by ACS.
- C. Whenever the American Chemical Society is approached by third parties for individual permission to use, reprint, or republish specified articles (except for classroom use, library reserve, or to reprint in a collective work) the undersigned author's or employer's permission will also be required.
- D. No proprietary right other than copyright is claimed by the American Chemical Society.
- E. For works prepared under U.S. Government contract or by employees of a foreign government or its instrumentalities, the American Chemical Society recognizes that government's prior nonexclusive, royalty-free license to publish, translate, reproduce, use, or dispose of the published form of the work, or allow others to do so for noncommercial government purposes. Your contract number: _____
- F. ACS reserves the right to use on the publication cover all figures submitted with the manuscript.

SIGN HERE FOR COPYRIGHT TRANSFER: I hereby certify that I am authorized to sign this document either in my own right or as an agent for my employer, and have made no changes to the current valid document supplied by ACS.

Print Authorized Name(s) and Title(s)



Original Signature(s) (in ink)

Date

What does this have to do with me?

Plagiarism:

a piece of writing or artwork that has been copied from someone else and is presented as being your own work

It is **not** legal or ethical to copy someone else's words or figures for any class project, thesis project, or publication.

Doing so is against the law and University of Missouri policy.

So... What do you mean?

Timothy Glass:

Chemical sensors can play a critical role in the elucidation of cellular mechanisms by giving real-time information about the environment of a cell in a non-destructive manner.¹ For these applications, sensor affinity and selectivity are of utmost concern. (*J. Am. Chem. Soc.* **2000**, 122, 4522)

Fluorescent chemical sensing of biologically important analytes continues to be an essential tool in biochemistry.¹ Expanding the scope of analytes which can be quantified with fluorescent probes is therefore an area of active interest. (*J. Org. Chem. Soc.* **2001**, 66, 6505)

Student thesis:

Chemical sensors can play a critical role in the elucidation of cellular mechanisms by giving real-time information about the environment of a cell in a non-destructive manner.¹ Expanding the scope of analytes which can be quantified with fluorescent probes is therefore an area of active interest.²

So... What do you mean?

In some countries, the ability to quote others is considered a sign of intelligence.

In the US:

This is plagiarism.

This is illegal.

This is considered cheating.

This has never been considered acceptable.

What is the right way?

Timothy Glass:

Chemical sensors can play a critical role in the elucidation of cellular mechanisms by giving real-time information about the environment of a cell in a non-destructive manner.¹ For these applications, sensor affinity and selectivity are of utmost concern. (*J. Am. Chem. Soc.* **2000**, 122, 4522)

Fluorescent chemical sensing of biologically important analytes continues to be an essential tool in biochemistry.¹ Expanding the scope of analytes which can be quantified with fluorescent probes is therefore an area of active interest. (*J. Org. Chem. Soc.* **2001**, 66, 6505)

Student thesis:

Glass writes that "Chemical sensors can play a critical role in the elucidation of cellular mechanisms by giving real-time information about the environment of a cell in a non-destructive manner."¹ He also says that "Expanding the scope of analytes which can be quantified with fluorescent probes is therefore an area of active interest."²

A paragraph of quotes is not a good introduction!

What if I rewrite it?

Timothy Glass:

Chemical sensors can play a critical role in the elucidation of cellular mechanisms by giving real-time information about the environment of a cell in a non-destructive manner.¹ For these applications, sensor affinity and selectivity are of utmost concern. (*J. Am. Chem. Soc.* **2000**, 122, 4522)

Student thesis:

Chemical sensors are important for helping us understand what happens inside of a cell by providing information on the cell interior in a way that doesn't damage the cell. The affinity and selectivity of the sensor are the most important things to consider for these applications.

Still not acceptable!

This says the same thing just in slightly different words. The student has plagiarized the ideas in the original paper.

So, how do I do it then?

- First, read all of the relevant papers in the area you wish to review.
- Look up any words or concepts that you do not understand.
- Put the articles away.
- Type your review in your own words.
- Do not look at the papers for hints on how to phrase or discuss the topic. The paper/thesis/report should be entirely from your own thoughts.
- Do not paraphrase one sentence at a time.
- Reference the articles from which you took the general concepts.

Are you serious?

But, writing this way is very difficult.

But, I am not a native English speaker.

Answer: get over it.

Writing proper reports is a time consuming and sometimes difficult task when done correctly.

If English is not your native language (even if it is), get native English speakers to review your work and give corrections and suggestions.

What if it is MY paper?

Can I include figures and text in my thesis from papers that I have published as a graduate student?

Answer: Technically NO!

Why?: Because the publisher owns the copyright! You need written permission from the publisher.

But...

All chemistry journals give students the specific right to use their own papers in their theses.

From the ACS website

ACS extends blanket permission to students to include in their theses and dissertations their own articles, or portions thereof, that have been published in ACS journals or submitted to ACS journals for publication, provided that the ACS copyright credit line is noted on the appropriate page(s).

From the Elsevier website

As an author, you retain rights for a large number of author uses, including use by your employing institute or company. These rights are retained and permitted without the need to obtain specific permission from Elsevier. These include:

the right to include the article in full or in part in a thesis or dissertation (provided that this is not to be published commercially)

the right to prepare other derivative works, to extend the article into book-length form, or to otherwise re-use portions or excerpts in other works, with full acknowledgement of its original publication in the journal.

What if it is MY paper?

Legally, you may use text and figures in your thesis from any paper on which you are an author.

BUT, check with your advisor first.

What if it is MY paper?

Legally, you may use text and figures in your thesis from any paper on which you are an author.

BUT, check with your advisor first.

What if it is an early paper from my group, but I am not an author?

Answer: Copying figures or text from any paper on which you are not an author is plagiarism, even if the paper is one your advisor wrote.

Copying anything from a former group thesis is also wrong!

Classroom Assignment

What about research presentations and reports for my classes?

Answer: The same rules apply.

Anytime you turn in an assignment for credit or for your degree it should follow these guidelines.

Websites

But, I found a picture/figure on the web. Isn't this free information for anyone to use?

Answer: NO!

The US court system has applied all copyright law to material posted on the web.

If you wish to use something you found on the web, you must get written permission from the owner of the site.

Fair Use

What if I am reviewing a paper for a group meeting presentation? Can I copy figures from the paper for my presentation?

Answer: Probably.

Copyright law contains a "Fair Use" provision which allows you to copy another person's work for commentary purposes.

As long as you do not publish the copy, or use it for an official University assignment, it is allowable under Fair Use.

Bottom Line

Plagiarism is not tolerated for University assignments

Specifically:

- Class projects and reports
- Oral comprehensive exams
- M. S. or Ph. D. theses

Department Policies

Class assignments

- At the discretion of the lecturer you may:
 - Fail the specific assignment that was plagiarized.
 - Fail the class.

Theses:

At the discretion of your thesis committee and the graduate director: if you have plagiarized any portion of your thesis, you will be disciplined, up to and including, failing your thesis defense and/or permanent expulsion from the university.

Department Policies

Starting 12/2/05, when a chemistry graduate student submits his/her M. S. or Ph. D. thesis to his/her thesis committee, an electronic copy must be submitted to the Graduate director. This copy will be evaluated for conformance to proper writing practices.

Conclusion

This is very simple:

- Write in your own words
- Do not copy from other sources
- Do not use a close paraphrase

If you have any doubts about what is appropriate, ASK!