

Susan A. Rutkowsky

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Education

| Institution | Degree | Year | Field of Study |
|--|--------|------|-----------------------|
| Villanova University Villanova, PA | B.S. | 1992 | Comprehensive Science |
| Drexel University Philadelphia, PA | M.S. | 1994 | Organic Chemistry |
| Drexel University Philadelphia, PA Advisor: Robert O. Hutchins | Ph.D. | 2000 | Organic Chemistry |

Appointments

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| September 2022 | Promotion to Teaching Professor Drexel University, Department of Chemistry |
| 2016-2022 | Associate Teaching Professor Drexel University, Department of Chemistry |
| 2015-present | Assistant Department Head Drexel University, Department of Chemistry |
| 2013-present | Director of Science in Motion Outreach Program Drexel University, Department of Chemistry |
| 2010-2016 | Assistant Teaching Professor Drexel University, Department of Chemistry |
| 2001-2010 | Assistant Director of Science in Motion - Development of chemistry lab experiments - Purchasing of chemistry equipment and materials - Grant and report writing - Attending organizational meetings at Juniata College |

- 2001-2010 Adjunct Assistant Instructor
Drexel University, Department of Chemistry
- Courses taught include: General Chemistry lectures,
recitations, and labs; Organic Chemistry lectures and labs
- Preparing chemistry exams and grading guides, assisting in
lecture planning, set-up/clean-up of labs
- 1997-2000 Assistant Coordinator of General Chemistry, Drexel University
Prepared chemistry exams, grading guides, course content and
assisted in lecture planning.
- 1993-2000 Teaching Assistant, Drexel University
Conducted recitations, graded exams and performed lectures for
General Chemistry. Supervised laboratories in General, Organic,
and Qualitative Organic Chemistry.
- 1994-2000 Research Assistant, Drexel University

Funding

2021-2022- Vernier Software & Technology 40th Anniversary Grant Awardee -
\$1,000 in Vernier technology, a one-year subscription to Vernier Graphical Analysis™
Pro, and three hours of virtual professional development

2017-2023- “Science in Motion Van Project” State of PA; \$107,317.08 per fiscal year

2015-2017 - “Science in Motion Van Project” State of PA; \$87,804 per fiscal year

2013-2015 - “Science in Motion Van Project” State of PA; \$57,777 per fiscal year

Publications and Presentations

1. Sally D. Solomon, Susan A. Rutkowsky, Megan L. Mahon, Erica M. Halpern.
“Synthesis of Copper Pigments, Malachite and Verdigris: Making Tempera Paint”,
J. Chem. Educ., **2011**, 88, 1694.
2. Sally D. Solomon and Susan A. Rutkowsky. “Dissolving Carboxylic Acids and
Primary Amines on the Overhead Projector”, *J. Chem. Ed.*, **2010**, 87, 398.
(Cover of April Issue)
3. Sally D. Solomon, Susan A. Rutkowsky, Mozghan Bahadory, Charles Boritz, Robert
German and Charles A. Sineri. “Determination of Curcuminoids in Turmeric Using
Visible Spectroscopy”, *The Chemical Educator*, Jan 16, **2010** issue (Vol 15), p. 59.
4. Sally D. Solomon, Mozghan Bahadory, Aravindan V. Jeyarajasingam, Susan A.
Rutkowsky, Charles Boritz, and Lorraine Mulfinger. “Synthesis and Study of
Silver Nanoparticles”, *J. Chem. Ed.*, **2007**, 84, 322.

5. Peter A. Wade, Susan A. Rutkowsky, and Daniel B. King. "A Simple Combinatorial Experiment Based on Fischer Esterification. An Experiment Suitable for the First-Semester Organic Chemistry Lab", *J. Chem. Ed.*, **2006**, *83*, 927.
6. Sally D. Solomon, Susan A. Rutkowsky. "Chemical Demonstration Show", *The Chemical Educator*, Feb 1, **2006** issue (Vol 11, Issue 1).
7. Sally D. Solomon, Susan A. Rutkowsky, and Joseph Bennet. "Using Ice-Cooled Condensers in Chemistry Laboratory", *J. Chem. Ed.*, **2002**, *80*, 299.
8. Robert O. Hutchins, H. Shin and Susan Rutkowsky. "Diastereoselective Synthesis of Protected Secondary Amines via Reduction/Alkylation or Deprotonation/Alkylation", *The Thirteenth Biennial Philadelphia Organic Chemists' Club Day* **2001**, Philadelphia.
9. Robert O. Hutchins, Susan A. Rutkowsky, and S. J. Rao. "Stereoselective Hydride Reductions of Cyclic N-Diphenylphosphinyl Imines", *The Eleventh Biennial Philadelphia Organic Chemists' Club Day* **1997**, Philadelphia.

Textbooks/Manuals

1. Susan A. Rutkowsky, Daniel Kleier. "Chemistry 151 Lab Manual", 2016, Kendall Hunt Publishing Company.
2. Sally Solomon, Susan A. Rutkowsky, Charles Boritz. "Everyday Investigations for General Chemistry", 2009, John Wiley & Sons, Inc.
3. Sally Solomon, Susan A. Rutkowsky. "Experiments in General Chemistry Laboratory Manual", 2005, John Wiley & Sons, Inc.
4. *Laboratory Manual: Chem 122 – General Chemistry* (Remote Quarter Activities)
Monica Ilies, Edward J. Thorne, Susan A. Rutkowsky and Craig P. McClure
Drexel University Department of Chemistry, Academic Year 2020-2021
5. *Laboratory Manual: Chem 102 – General Chemistry* (Remote Quarter Activities)
Monica Ilies, Edward J. Thorne, Susan A. Rutkowsky and Craig P. McClure
Drexel University Department of Chemistry, Academic Year 2020-2021
6. Susan A. Rutkowsky, Daniel Kleier. "Chemistry 151 Lab Manual, Third Edition", (web-based format), 2022, Kendall Hunt Publishing Company.

Course and Curriculum Development

1. Revised and developed experiments for the Business Majors, which resulted in a new lab manual.
2. Developed new experiments for the Chemistry Majors only General Chemistry I and II Laboratories, and developed General Chemistry III lecture for Chemistry Majors only. These courses are now CHEM 121, CHEM 122, and CHEM 123 at Drexel.
3. Assisted in developing 2 experiments for Organic Chemistry I Lab. One of the experiments was published in the *Journal of Chemical Education*.
4. Assisted in developing several General Chemistry Lab experiments which were included in a laboratory manual, "Everyday Investigations for General Chemistry", in 2009, published by John Wiley & Sons, Inc.
5. Assisted in developing demonstrations for General Chemistry classes which were published in *The Chemical Educator* and the *Journal of Chemical Education*.
6. Assisted in incorporating a Chemistry course into a program to teach science to English language learners.
7. Assisted in developing a web-format of the CHEM 151 lab manual (third edition) as we take the course to (nearly) paperless delivery. Students download and print only the data and results sheets (thus eliminating hundreds of sheets of one-off used paper).

Other Presentations

Invited

1. "Forensic Chemistry" Phila School Board sponsored "Crime Camp" July, 2005
2. "Chemical Demonstrations" Rasheed Wallace Basketball camp, Phila PA July, 2005

and a television appearance

"Effectiveness of Orange Cleaners" Consumer Segment for ABC Ch. 6 Action News; appeared on the news segment; aided in editing script and figures/animations. Feb 2003.

Others:

1. 2004 Video "Periodic Table" worked on production (NFL films)

Workshops

1. "Nanotechnology short course for Community College Professors" funded by NSF DUE, Luzzi et al (August 1-5, 2005), workshop leader

2. "Nanotechnology Outreach to High Schools" for the Nanotechnology Institute and DVIRC (2004), workshop leader
3. Science in Motion Connelly Foundation archdiocese teacher training (2004), workshop leader

Awards and Professional Affiliations

Drexel University Teaching Assistant Excellence Award (1993)

American Chemical Society, Division of Organic Chemistry (1994-present)

Philadelphia Organic Chemists' Club (1994-present)