

LAURIE SHAFFER STARKEY

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<http://www.youtube.com/user/ChemistryConnected>

Education

University of California, Los Angeles Doctor of Philosophy in Organic Chemistry, September 1996 Research Advisor: Dr. Michael E. Jung	1991 – 1996
University of Connecticut, Storrs Bachelor of Science in Chemistry, May 1991 Graduated Summa Cum Laude President, Student Affiliates of the ACS (SAACS)	1987 – 1991

Honors and Awards

Veterans Resource Center Outstanding Faculty Award, Cal Poly Pomona	2017
Athletics Faculty/Staff Appreciation Award, Cal Poly Pomona	2017
Fanning Elementary PTA Honorary Service Award	2016
eLearning Wall of COOL, Cal Poly Pomona	2014
Provost's Award for Teaching Excellence, Cal Poly Pomona	2013
Science Council Advisor of the Year Award, Cal Poly Pomona	2001, 2006
Honorary Member of the Golden Key International Honour Society	2006
College of Science Distinguished Teaching Award, Cal Poly Pomona	2000
Dissertation Year Fellow, UCLA	1995
Outstanding Teaching Assistant Award, UCLA	1992
The University of Connecticut Dean's List (every semester)	1987 – 1991
Phi Lambda Upsilon, National Honorary Chemical Society	1990
Phi Kappa Phi, National Honor Society	1989
Scholarship from Junior Achievement of Western Connecticut	1987

Experience

Dept. of Chemistry & Biochemistry, California State Polytechnic University, Pomona

Professor	2007 – present
Associate Professor	2002 – 2007
Assistant Professor	1996 – 2007

- Teaching Organic Chemistry, Organic Synthesis and Organic Analysis lecture and laboratory courses
- Creating online tutorials and animations for Organic Chemistry laboratory courses
- Designing, maintaining and assessing online prelab quizzes for Organic lab courses
- Cal Poly Pomona administrator for Calibrated Peer Review™ (CPR)

Department of Chemistry, University of California, Los AngelesGraduate Research Associate

June 1993 – June 1996

- Worked toward the synthesis of biologically active natural products
- Developed new methodology for organic synthesis

Teaching Associate

September 1991 – June 1993

Department of Chemistry, University of California, Los Angeles

- Taught undergraduate organic chemistry discussion and laboratory sections
- Trained, evaluated, counseled first year teaching assistants as TA Coordinator 1992
- Designed and conducted workshops at the 1993, 1994 and 1995 UCLA Campus wide TA Training Conferences as TA Coordinator

Bristol-Myers Squibb, Wallingford, ConnecticutResearch Intern

May – August 1991

May – August 1990

- Synthesized new drug candidates for central nervous system disorders

Chesebrough-Pond's, Trumbull, ConnecticutResearch Intern

May – August 1989

- Developed and implemented several new testing procedures
- Created time-saving computer programs to process data and established a database

Publication, Presentations and Professional Work

Starkey, L. S. "Teaching with Videos and Animations: Tuning in, Getting Turned on, and Building Relationships." In *Videos in Chemistry Education: Applications of Interactive Tools*; Parr, J., Ed.; ACS Symposium Series; American Chemical Society: Washington, DC, **2019**; Vol. 1325, pp 35-51.

Starkey, L. S. "Introduction to Strategies for Organic Synthesis, 2nd edition" Wiley **2018**.
An undergraduate or beginning-graduate level textbook.

"Creating videos and animations to enhance Organic Chemistry lecture and laboratory instruction" Starkey, L. S. A talk presented at the 255th American Chemical Society National Meeting in New Orleans, March **2018**.

"Technology-Infused Teaching for Better Engagement & Student Success" Starkey, L. S. A "Wall of COOL" awardee talk at Cal Poly Pomona, Faculty Center for Professional Development, March **2018**.

"Mind-tricks for Mastery: Redesigning an Organic Chemistry Course by Focusing on Productive Persistence (a Non-Technology CSU-CRT project)" Starkey, L. S. and "Technology-Infused Organic Chemistry: Course-Redesign with Technology (CSU-CRT)" Starkey, L. S. Posters presented at Poly Teach April **2017** (Cal Poly Pomona, CA)

"Technology-Infused Teaching for Engagement & Student Success" Starkey, L. S. A talk presented at Wiley EdTech Forum Feb. **2016** (Celebration, FL), March **2017** (Dana Point, CA)

"Technology-Infused Teaching: Better, Stronger, Faster" Starkey, L. S. A talk presented at the Cal Poly Pomona Faculty Center for Professional Development, January **2014**.

"Calibrated Peer Review (CPR): Getting the Most Out of a Writing Assignment." Presented seminars and workshops for faculty, **2002-2017**.

Starkey, L. S. "Introduction to Strategies for Organic Synthesis" Wiley **2012**. An undergraduate or beginning-graduate level textbook.

"Chemistry in a Baggie" demonstration developed and presented by Starkey, L. S. ChemDemo Exchange at the National ACS meeting in San Diego, California, March **2012**.

"Paper Chromatography" demonstration developed and presented by Starkey, L. S. at ChemDemo Exchange at the National ACS meeting in Anaheim, California, March **2011**.

Organic Chemistry lectures prepared for Educator.com, **2010-16**.

"Online Tutorials and Computer Animations for the Organic Chemistry laboratory" Starkey, L. S. A talk presented at the 239th National Meeting of the American Chemical Society, San Francisco, March **2010**.

"Using an Online Writing Assignment to Teach About Resonance and Acid Strength" Starkey, L. S. A talk presented at the 239th National Meeting of the American Chemical Society, San Francisco, March **2010**.

"Online Laboratory Demonstrations: Design, Implementation & Impact" Starkey, L. S. A talk presented at the 235th National Meeting of the American Chemical Society, New Orleans, April **2008**.

"Using Online Quizzes to Improve Student Learning" Starkey, L. S. A talk presented at the 235th National Meeting of the American Chemical Society, New Orleans, April **2008**.

"Improving Student Preparation and Student Learning with Online Prelab Quizzes" Presentation at the American Society for Engineering Education Pacific Southwest Section Conference, April **2006**, Cal Poly Pomona CA.

"In-Depth Student Learning with Online Prelab Quizzes" Presentation at the 8th CSU Symposium on University Teaching in Pomona, April **2005**.

"Calibrated Peer Review™ (CPR): Getting the Most Out of a Writing Assignment" Presentation at the 7th CSU Symposium on University Teaching in San Bernardino, March **2003**.

Presented seminars and workshops for Cal Poly Pomona faculty, **2002**, "Calibrated Peer Review™ (CPR): Getting the Most Out of a Writing Assignment."

L. S. Starkey, "The Use of Stick Figures to Visualize Fischer Projections." *J. Chem. Ed.*, **2001**, 78, 1486-1487.

"Using Modern Tools to Update the Organic Chemistry Laboratory" Starkey, L. S. Presentation at the 221st American Chemical Society Nat'l Meeting in San Diego, April **2001**,

Poster presentation at the 219th American Chemical Society Nat'l Meeting in San Francisco, March **2000**, "Dipeptide Synthesis: a Multi-Step Transformation for the Organic Chemistry Laboratory."

Presentation at the 218th American Chemical Society Nat'l Meeting in New Orleans, August **1999**, "Mock Job Interviews to Assess Student Learning Outcomes."

Poster presentation at the 218th American Chemical Society Nat'l Meeting in New Orleans, August **1999**, "A New Perspective on Visualizing Fischer Projections."

Contributed an experimental protocol in the chapter, "Preparation and use of organozinc halides" by R. F. W. Jackson, in *Organozinc Reagents: A Practical Approach* (Eds. P. Knochel; P. Jones). Oxford: New York, **1999**, pp. 37–56.

Jung, M.E.; Starkey, L.S. *Tetrahedron* **1997**, *53*, 8815–8824. "Total Synthesis of (*S,S*)-Isodityrosine."

Jung, M.E.; Starkey, L.S. *Tetrahedron Lett.* **1995**, *36*, 7363–7366. "New Preparation of *o*-Aryloxyphenols via Cyclohexenone Oxides."

Science Ambassador Service Activities

- Developed and conducted hands-on K-6 science lessons for every classroom at Fanning Elementary in Brea, Kindergarten through 6th grade (**2008-current**)
- ChemistryConnected channel on YouTube: organic laboratory tutorials and hands-on activities for K-12 students and teachers, **2012-current**.
- "Careers in Organic Chemistry" and "Organic Chemistry Made it Possible" various presentations since **2008** (annual AAUW Math/Science Conferences for 8th Grade Girls and lecture at California Rehabilitation Center Prison in Norco, October **2016**)
- "Becoming (and Surviving as) a Woman Organic Chemist" Femmes in STEM talk for Cal Poly Pomona residential halls (November **2017**)
- Participated in March for Science, Los Angeles CA (April **2017**)

Affiliations

- Member of American Chemical Society, ACS (1996-present).
- Alternate Councilor for local ACS San Geronio Section (2012-2018).
- Member of GRE-Chemistry Committee of Examiners (2008-2018).
- Served on MERLOT Chemistry Review board.
- Calibrated Peer Review (CPR) administrator for Cal Poly Pomona.
- Advisor to student clubs at Cal Poly Pomona:
 - SMACS chemistry club (1996-present)
 - Pre-Optometry club (2012-2018)
 - Pre-Dental club (2013-present)