

Patricia Lynn (Earl) Stan

(765) 998-4597

ptstan@taylor.edu

Work Experience:

Faculty

August 2000 - Present

Taylor University, Upland, IN
Chemistry Department – Associate professor of chemistry and co-chair teaching Inorganic Chemistry and a variety of classes and labs. Adjunct Faculty teaching a non-major's chemistry class from 2000 – Spring 2006.

Adjunct Faculty

2001 – 2006

Manchester College, N Manchester, IN
Adjunct Faculty teaching a general education chemistry class and college algebra.

Faculty

August 1996 - 2000

Illiana Christian High School, Lansing, IL
Teaching Chemistry and Earth Science

Adjunct Faculty

August 1995 - June 1997

Indiana University Northwest, Gary, IN
Purdue Calumet University, Hammond, IN
Taught Nursing Chemistry class and discussion section. General and Advanced Inorganic labs.

Chemist & Laboratory Manager

June 1993-March 1995
(Summer 1992)

PrismaSystems, Rome, NY
Supervised seven people on daily projects for development of diagnostic tests on a new clinical chemistry analyzer. Some involvement with FDA submissions, QC procedures and GLP guidelines development. Worked in customer service on the phone and in person. Project management trainee, interface between lab, software and engineering. Participated in hiring and training new employees.

Visiting Assistant Professor of Chemistry

July 1991-June 1993

Hamilton College, Clinton, NY
Taught General Chemistry, Advanced Inorganic Chemistry,
Team taught a Jr. level laboratory course, General
Chemistry lab and lab development, Organic lab, and supervised
three senior projects.

Other Research/Teaching/Workshop Experience

Mentoring Matters: Theological explorations of Generational Transition and the Academic Vocation. Symposium September 22-23, 2022. Lumen Research Institute

American Chemical Society Science Coaches Program, interact and support a local high school teacher and her chemistry classes. Spring 2022- Spring 2023

The Biennial Conference on Chemical Education, Purdue University A national meeting sponsored by the American Chemical Society. July 31 – August 4, 2022

Wisdom, Knowledge, and the Good Life. Liberty Fund conference with James R. Otteson,

Carmel, Indiana. June 13-18, 2021

Participated in the Deep Learning and Resilience workshops Taylor University, May 2021

ACS Community Outreach grant for \$500. Chemistry Education major Emily Knight and I used this grant to run a science camp. June 2019

The Biennial Conference on Chemical Education (BCCE) is a national meeting sponsored by the Division of Chemical Education of the American Chemical Society. July 29 – August 2, 2018

Faculty Mentored Undergraduate Summer Scholarship **2018 Summer Awards - Faculty**
“Development of Chemistry Activities for Local Outreach in STEM”. Funded at \$7189.60.

NSF summer teaching workshop: Materials Science and Nanotechnology for Chemists
Beloit College Beloit, WI July 26-31, 2015

NSF summer teaching workshop: Computational Chemistry for Chemistry Educators
San Jose State University San Jose, CA June 14-20, 2015

Food Chemistry Miniworkshop: Chemistry of Baking (Sponsored by the NSF)
Saint Joseph's College of Maine Standish, ME July 18-20, 2014

NSF summer teaching workshop – Chemistry Collaborations, Workshops and Communities of
Scholars- Inorganic chemistry at the Frontiers of Catalysis
UNC Durham, North Carolina summer 2012

Manchester College/Wabash County Solid Waste Management District 2004-2006
Recycling presentations in elementary and middle schools and programs
at an associated nature center.

Northwestern University - Evanston, IL Summer 1999
REST program, (Research Experience for Science Teachers)

Research Experience

Graduate Research 1986-1990
Department of Chemistry, Washington University, St. Louis, MO

Research in Inorganic/Organometallic Chemistry
Research Advisor: Professor John R. Bleeker

Studied the synthesis and reactivity of pentadienyl rhenium complexes. Applied proficiency with dry box and Schlenk air-sensitive techniques to the synthesis of organometallic and inorganic compounds. Utilized knowledge of both one and two dimensional multinuclear FT NMR and FT IR in studying and identifying synthesis products. Experience with crystal mounting, x-ray data collection, and structure solving permitted full characterization of these compounds.

Publications and Presentations

Daniel A. King, Carie A. King, Daniel G. Hammond, Patricia L. Stan. “Using Scientific Literature to Affect Students’ Identification with the Scientific Discourse Community”, *Journal of Chemical Education*, **98**, 506-509, 2020.

D. Brandon Magers, Patricia L. Stan, and Daniel A. King “Graphing Activity for the First General Chemistry Lab Session to Introduce Data Processing” *Journal of Chemical Education* **2019** 96 (8), 1676-1679. DOI: 10.1021/acs.jchemed.9b00226

Stan, Patricia L., Faculty Focus Premium, October 5, 2017. “A Quiz That Promotes Discussion and Active Learning in Large Classes” <https://www.facultyfocus.com/resources/teaching-strategies-techniques/active-learning/quiz-promotes-discussion-active-learning-large-classes/>

Stan, Patricia L. “A Quiz That Promotes Discussion and Active Learning in Large Classes.” *Active Learning: A Practical Guide for College Faculty*, introduction by Maryellen Weimer, et al., Magna Publications, 2017, pp. 81-82.

Emily Hart, Caroline Chow, Patricia Stan, and Daniel King. “Methods for Essential Tremors Assessment: Acoustic Tremor Monitoring (ATM) and Rhythmic Spirals (RS) Methods”, *American Journal of Undergraduate Research*, Vol. 12 (4), pp93-100, 2015.

Stan, P. L. (2015, March). A Quiz That Promotes Discussion and Active Learning in Large Classes. *The Teaching Professor*, 29 (3), p. 1.

Griffiths, Timothy; Hart, Emily; Stan, Patricia; and King, Daniel. “Analysis of Iron and Calcium in a Geothermal System Outflow Stream”. *Proceedings of the Indiana Academy of Science*. Vol. 122(1), pp35-39, 2013.

Bird, B., Case, J., Colgan, M., Sisson, C., & Stan, P. (2011). Collaborating to Improve Student Learning: An Interdisciplinary “Big Idea” Reflection Assignment. *Learning Communities Journal*, Vol. 3, 89-114.

The So-What Factor: Connecting Students to Life Implications in the General Education Core
Chechowich, F., Colgan, M., Hoskins, T., Sigworth, J., Stan, P., Pak, J., Mid-West Scholars Conference, Indianapolis, Indiana, 2010

Patricia Stan, DG Hammond, Daniel King. 2010 General Chemistry Laboratory II CHE202/212. Deer Park, NY: Linus Publications, Inc.

The Big Idea: Reflection Papers on the Big Questions of a Course, Case, J., Colgan, M., Collins, P., Sisson, C., & Stan, P. 29th Annual Lilly Conference November 21, 2009, Miami University, Oxford, Ohio

Patricia Stan, DG Hammond, Daniel King. 2009 General Chemistry Laboratory I CHE201/211. Deer Park, NY: Linus Publications, Inc.

Mechanisms of n^1 -Pentadienyl Ligand Isomerization. First Structural Characterization of a 3- n^1 -Pentadienyl-Metal Complex. *Organometallics* November 1989 J.R. Bleeker and P.L. Earl.

April 14, 1989, 197th National ACS Meeting, Dallas, TX.
Synthesis and First Structural Characterization of a C3-Bound n^1 -Pentadienyl Transition Metal Complex. P.L. Earl, D.A. Moore, J.R. Bleeker.

Professional Membership

American Chemical Society

Education

Ph.D. Inorganic Chemistry
November 1990
GPA: 3.71/4.0

Washington University
St. Louis, Missouri
63130

A.M. Chemistry
May 1987
GPA: 3.50/4.0

Washington University
St. Louis, Missouri
63130

B.S. Chemistry
May 1985
GPA: 3.47/4.0

Houghton College
Houghton, NY
14744