

**ANTHONY N. STRANGES**  
**History Department, Texas A&M University**

***EDUCATION***

PhD	History of Science	University of Wisconsin-Madison
MS	Chemistry	Niagara University, New York
BS	Chemistry	Niagara University, New York

***TEACHING***

**Courses Taught**

- History of the United States, 1877 to the Present: History 106, History 106H (Honors), History 106 I (International)
- Interplay of Scientific Thought and Society: Liberal Arts (LBAR) 203
- History of Science in America: History 363, History 363H (Honors)
- History of Science: History 362, History 362H (Honors)
- Great Lives in Science: History 376
- History 481: Undergraduate Seminars: Science and Society, Science and Religion, Great Scientists in History
- History 485/History 685: Problems
- History 497: University Honors Papers and Projects directed
- History 691: Research

Science, Engineering, and Society (TAMU PREP Program), 1989-93. A six-week summer program designed to introduce scientifically-inclined seventh- and eighth-grade students to the ideas, principles, and applications of science, mathematics, and engineering. A Department of Energy competitive grant supported this program. Dow Chemical and Texas A&M University's Colleges of Science and Engineering provided additional funding.

Video-Electronic Instruction. CD-ROM. "Reflections on the Electron Theory of the Chemical Bond: 1900-1925." In *Physics InfoMall, The Physics Teacher's CD-ROM Toolkit Project*, 1993. Robert Fuller, University of Nebraska, Omaha, director.

History of Science, Texas A&M University Study Abroad Program, Italy, Summer 1982.

**High-Impact Undergraduate Experience (Student Honors Contracts): 7**

**Teaching Grant**

Texas A&M University Honors Program, LBAR Grant. 2004: \$2,000.

## Graduate Faculty Activities

PhD Graduate Committee Chair: 2
PhD Graduate Committee Member: 22
EdD Graduate Committee Member: 2
MS and MA Graduate Committee Chair: 3
MS Graduate Committee Member: 14
MEd Graduate Committee Chair, Co-Chair, Member: 225

## RESEARCH

### PUBLICATIONS

#### Books

- Stranges, Anthony N. *Transforming America*. Dubuque, Iowa: Kendall Hunt Publishing Company, 832 pages, third edition 2018.
- Stranges, Anthony N. *Transforming America*. Dubuque, Iowa: Kendall Hunt Publishing Company, 832 pages, second edition 2017.
- Stranges, Anthony N. *Science Changed the World*. Dubuque, Iowa: Kendall Hunt Publishing Company, 762 pages, second edition 2017.
- Stranges, Anthony N. *Technological Transformation of Gilded Age America*. Dubuque, Iowa: Kendall Hunt Publishing Company, 172 pages, revised edition 2016.
- Stranges, Anthony N. *Science Changed the World*. Dubuque, Iowa: Kendall Hunt Publishing Company, 762 pages, first edition 2015.
- Stranges, Anthony N. *Transforming America*. Dubuque, Iowa: Kendall Hunt Publishing Company, 832 pages, first edition 2014.
- Stranges, Anthony N. *Technological Transformation of Gilded Age America*. Dubuque, Iowa: Kendall Hunt Publishing Company, 160 pages, 2014.
- Stranges, Anthony N. *Electrons and Valence: Development of the Theory, 1900-1925*. College Station: Texas A&M University Press, 292 pages, 1982.

**Book Chapters: 5**

**Refereed Journal Articles (*ISIS, Technology and Culture, and others*): 28**

**Dictionary/Encyclopedia Articles (Oxford, Macmillan, Salem, others): 30**

**Published Book Reviews (*ISIS, Technology and Culture, others*): 21**

### RESEARCH FUNDING

National Science Foundation (NSF) and TAMU: \$ 103, 499 to support research on history of synthetic liquid fuels, for archival research, summer and semester support.

Syntroleum Corporation, Tulsa, OK: \$48,000 for archival research establishing Fischer-Tropsch

Archive online.

## **COLLEGE OF LIBERAL ARTS INTERNATIONAL TRAVEL GRANTS**

\$14,250 total funding secured to support international scholarly presentations.

### **SCHOLARLY PRESENTATIONS**

#### **Most Recent**

Chair and organizer, paper presented at session on “The Technological Transformation of the 1850s and its Environmental Consequences.” International Committee for the History of Technology (ICOHTEC),” 49<sup>th</sup> Symposium, University of Ostrava, Czech Republic, September-October 2022. This was a virtual conference because of Covid-19.

Chair and organizer, paper presented at session on “Acid Rain: Causes, Consequences, Remedies, and Regulation,” 26<sup>th</sup> International Congress of the History of Science and Technology. Prague, The Czech Republic, July 2021. This was a virtual conference because of Covid-19.

Chair and organizer, paper presents at session on “Pioneering Studies on Acid Rain,” International Committee for the History of Technology (ICOHTEC), 47<sup>th</sup> Symposium, Eindhoven, The Netherlands, July 2020. This was a virtual conference because of Covid-19.

Chair and organizer, paper presented at session on “Energy and the Environment,” 46<sup>th</sup> Symposium of the International Committee for the History of Technology (ICOHTEC), Katowice, Poland, July 2019.

Chair and organizer, paper presented at session on “Energy and the Environment,” 45<sup>th</sup> Symposium of the International Committee for the History of Technology (ICOHTEC), Saint-Etienne, France, July 2018.

Chair and organizer, paper presented at session on “Energy and the Environment,” 25<sup>th</sup> Congress of the History of Science, Technology and Medicine, Rio de Janeiro, Brazil, July 2017.

Chair and organizer, paper presented at session on “Environmental Innovations and Crises,” 43<sup>rd</sup> Symposium of the International Committee for the History of Technology (ICOHTEC), Porto, Portugal, July 2016.

**Invited Papers:** 16

**Papers Presented:** 45

**Campus Presentations:** 17

**Other Research Projects and Activities**

*Fischer-Tropsch Website:* With Syntroleum Corporation ( now Emerging Fuels Technology) in Tulsa, Oklahoma, we established the Fischer-Tropsch Archive, a website (www.fischer-tropsch.org) that contains an extensive collection of documents on the development of the Fischer-Tropsch and related synthetic fuels processes in Germany, Britain, Japan, the United States, and other countries from the 1920s to the 1970s. I have catalogued the entire collection of documents (100 archive boxes) in the Texas A&M University Archives and provided copies of the documents to Syntroleum. Syntroleum has converted the documents to electronic form and made them available at the Fischer-Tropsch internet site to researchers worldwide. The purpose of the website is to put in the public domain the chronology of the Fischer-Tropsch's eighty-year development, indicating the current state of the process and the potential for its further technological advancement.

Digitizing of the 300 reels of microfilm on Germany's synthetic fuel industry compiled in 1945-46 by the United States government's Technical Oil Mission to Europe is now complete. The information on the reels is available in DVD format. The cost of digitizing exceeded \$150,000.

*Syntroleum Corporation:* full-time research consultant to Syntroleum, spring and summer 2001, part-time consultant 2001-2010. Syntroleum renamed Emerging Fuels Technology.

*Aviation History and Museum:* Project on the history of aviation with Brian Heckman, a professor of meteorology at the Air Force Academy in Colorado Springs, Colorado. The 1990s project had several objectives, one of which is the establishment of a history of aviation museum in the original 1940 terminal at Hobby Airport in Houston. The project resulted in the museum's developing student internships and offering courses for the general public on the history of aviation and related sciences such as meteorology and the history of aviation in agriculture.

## ***SERVICE***

### ***Professional Service***

Book, Manuscript, and Proposal Reviews: served as reviewer for the National Science Foundation, National Endowment for the Humanities, and journals such as *Technology and Culture*, *Isis*, *Journal of Chemical Education*, and *Annals of Science*.

**Book Manuscript Reviews:** 15

**Journal Manuscript Reviews:** 22

**Proposal Reviews:** 21

**Chair and Organizer:** Lone Star Historians of Science meetings, various years 1990-2020

**Chair and Session Organizer:** International Committee for the History of Technology (ICOHTEC) meetings, various years 1984-2022

**Interviews (Wall Street Journal, CBS, ABC, CNN, Associated Press):** 28

### ***Departmental Service***

Library Committee, 2015- 2023

Faculty Advisor, Phi Alpha Theta, 1998-2011. While I served as adviser, Phi Alpha Theta, beginning in 1992 published seven volumes of its on-line journal *Gaines Junction*. The journal is available at PAT's website <http://pat.tamu.edu>. The Glasscock Center provided funds for the start-up.

Personnel Committee, 1987-2020

Undergraduate Committee, 1980-81, 1983-86, 1988-90, 1994-95

Graduate Committee, 1982-83

American History Survey Readings Committee, 1978-80, 1981-82

### ***College Service***

Advisor, College of Engineering Curriculum Review Committee, 1999-2000

Faculty Distinguished Achievement Award in Teaching Committee, 1989

Academic Resources Committee, 1989

Liberal Arts Council Representative, 1984-86

Moderator, Session on Oil Policy, Phi Alpha Theta Annual Meeting, April 1983

Texas A&M Energy & Mineral Resources Advisory Council, 1981-83

College of Liberal Arts Advisory Committee for Continuing Education, 1980-82

### ***University Service***

Judge, Texas Junior Science and Humanities Symposium, College of Science, Texas A&M University, 2006-2018

Judge, Texas A&M Regional Science Bowl, College of Science, Texas A&M University, 2006-2023

Judge, Texas A&M Regional Junior Science Bowl, College of Science, Texas A&M University 2006-2023

Texas Science Olympiad, Supervisor for the History of Science, College of Science, Texas A&M University, 2006-2012

### ***HONORS AND AWARDS***

Texas A&M University Faculty Development Leave, Spring semester 1999, 1987.

Texas A&M University Association of Former Students University-Level Distinguished Teaching Award, 1988.

### ***PROFESSIONAL MEMBERSHIPS***

History of Science Society

History of Chemistry Society

### ***PROFESSIONAL LISTINGS***

*American Men and Women of Science*

*History of Science Guide*

*International Directory of Distinguished Leadership*  
*Who's Who in American Education*  
*Who's Who in Science and Engineering*  
*Who's Who in Technology*  
*Who's Who in the World*  
*Dictionary of International Biography*