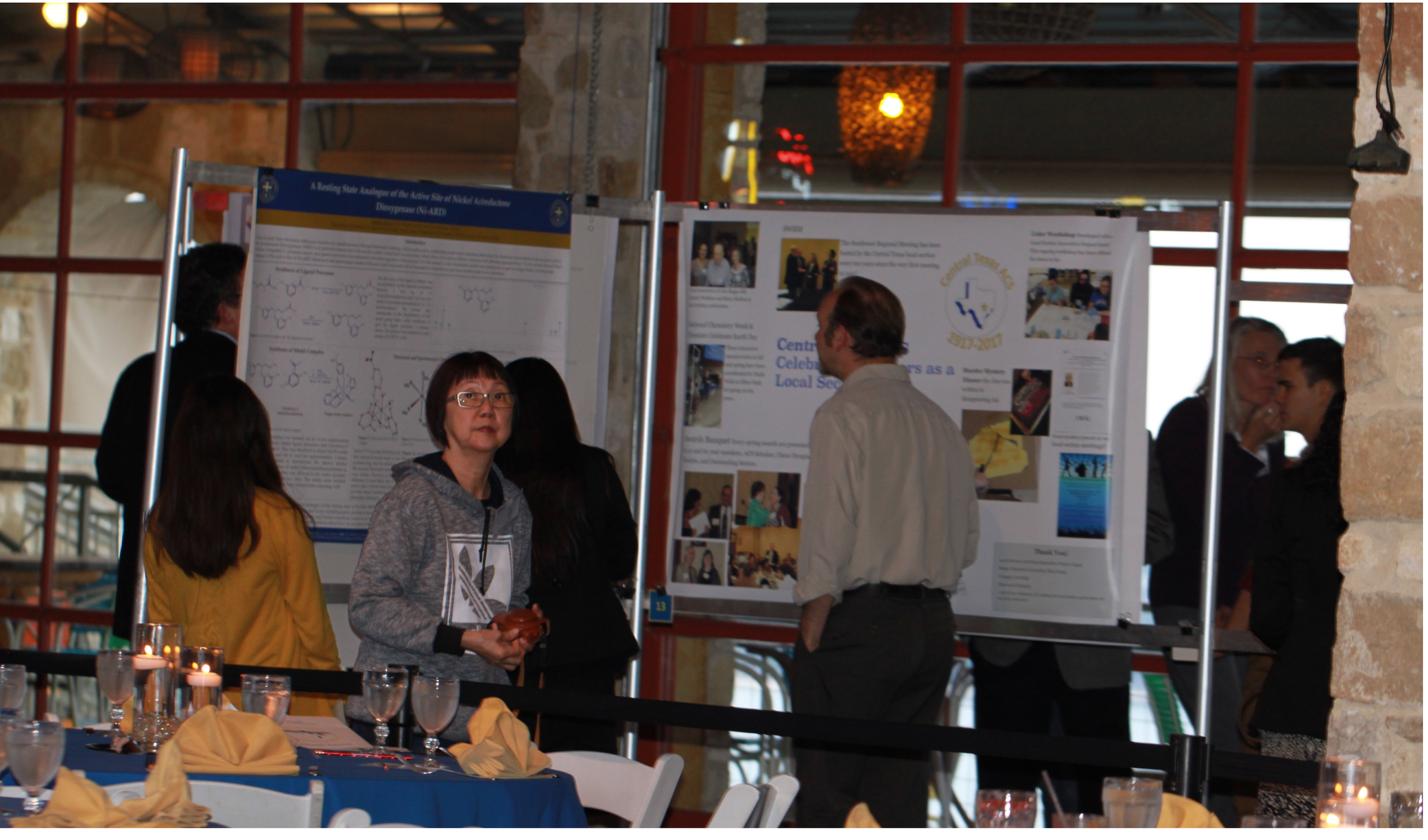
Registration: More than 110 attendees!

Poster Session included 24 posters!



A page from the poster program: twenty four posters were presented on topics including research, student organizations, section activities and history of science.

10 **PREM Pipeline to Success**

Heather Hansen, Carlos Corona, and William Brittain

Texas State University

The PREM student organization originates from the NSF-funded research partnership. Members include driven students conducting materials science research, organizers planning collaboration events, and research faculty serving as mentors for dozens of undergraduate and graduate students at Texas State University.

11 **A Control Chart for pH Meter Calibration**

Kyle C. Hemmes and Paul R. Hemmes

Texas State University

Control charts are widely used industrially for statistical process control(SPC) of a great many processes. The measurement of pH is said to be the most common quantitative measurement in chemistry. Yet the literature is virtually silent on application of SPC to pH measurements. One likely reason for this is that the conventional control charts constructed using the x bar -R method fail. We have found that the within run error (the standard deviation of repeated results following one pH meter calibration) is much smaller than the between run error (the standard deviation of the repeated measurements of the same sample following multiple calibrations). This difference is believed due to variations of the liquid junction potentials, We have found that a control chart based on moving averages allows one to conclude that pH electrode calibration demonstrate statistical control or not.

12 **A Resting State Analogue of the Active Site of Nickel Acireductone Dioxygenase (Ni-ARD)**

Jennifer Jaimes, Dr. Vincent Lynch, and Dr. Santiago Toledo

St. Edwards University

A way to study how structure influences function of a metalloenzyme is through biomimetic modeling, which is achieved by synthesizing small metal complexes that mimic the electronic environment of the enzyme's active site. Acireductone Dioxygenase (ARD) is of particular interest due to the enzyme's ability to bind both iron and nickel, which allows it to catalyze distinct reactions with differing regiospecificity. For this research, a new biomimetic model was synthesized as part of a larger family of resting state analogues of the active site of Ni-ARD.

13 **Central Texas ACS Celebrates 100 Years as a Local Section**

Diane Kneeland

ACS Central Texas Local Section

The Central Texas Local Section, established in 1917, is defined by the five counties of Travis, Williamson, Bastrop and Caldwell. The local section hosts monthly meetings on science, community outreach activities, and a Regional Meeting every decade.

14 **TBD**

Felicia Konopka

University of Texas

15 **"Signal-on" Electrochemical**
Assembly of Gold Nanostars

Luisa A. Mayorga, Kenneth N. Hipp, Yu

St. Edwards University

We report the design and fabrication of two "sig
on gold nanostars-modified gold disk electrodes. The
based on target binding-induced change in the conforma
and methylene blue-modified DNA probe. With further chara
these sensors could find applications in hybrid electrochemical an
spectroscopy (EC-SERS) detection of DNA sequences relevant to cance

16 **The Periodic Table of the Elements: A Brief History**

Karen A. Lewis

Texas State University

An overview of the chemical and artistic evolution of the Periodic Table of the Elements, beginning with Antoine Lavoisier's 1789 list of the "simple substances" and culminating with the 2016 release of the "completed" Periodic Table of the Elements. We take a look at how over a dozen people, including Mendeleev, Bohr, and van den Broek, have tried to organize the elements using a variety of tables, spirals, trees, and helices.

17 **Effect of *Trichoderma viride* Volatile Organic Compounds on Growth Inhibition and Protein Synthesis in *Neolentinus lepideus***

Elizabeth Nguyen, Sydney Mitchell, Joseph Wagner, Andrew Kocian, and Dr. Mary A. Kopeck
Fjetland

St. Edwards University

Trichoderma viride, a competitive soil fungus, inhibits the growth of wood decayin
as *Neolentinus lepideus* via production of volatile organic compounds. This inter
potential to serve as an alternative to chemical treatment of fungal wood infe
focuses on further elucidating the impact of VOCs on *N. lepideus* growth inh
synthesis thus enhancing our understanding of their potential biocontrol

18 **Synthesis, Characterization and Polymerization of Salen Iron(III) Co**

Horsfall Somina, Sara Mackey, Vincent Lynch, Steve Socol, Lino Or

Tillotson University

We will study the syntheses of salen iron (III) complexes u
products will be characterized using methods such as Gr
crystallography.

Journalism students conducted video interviews with senior chemists

The view from the deck

1917 Periodic table made of cupcakes

The Event Program

4:30 pm	**Poster session, networking**
5:30 pm	**Social Hour**
5:36 pm	**Official Sunset at the Oasis**
6:30 pm	**Buffet**
7:00 pm	**Speakers**

Dr. Robert L. Soulen, Southwestern University, retired
"Founders of the ACS Central Texas Section"

Dr. Barry J. Streusand, Texas State University
"The First Regional Meeting, Austin 1945"

Dr. Alan Campion, University of Texas
"Remembering Norman Hackerman"

Keynote Presentation

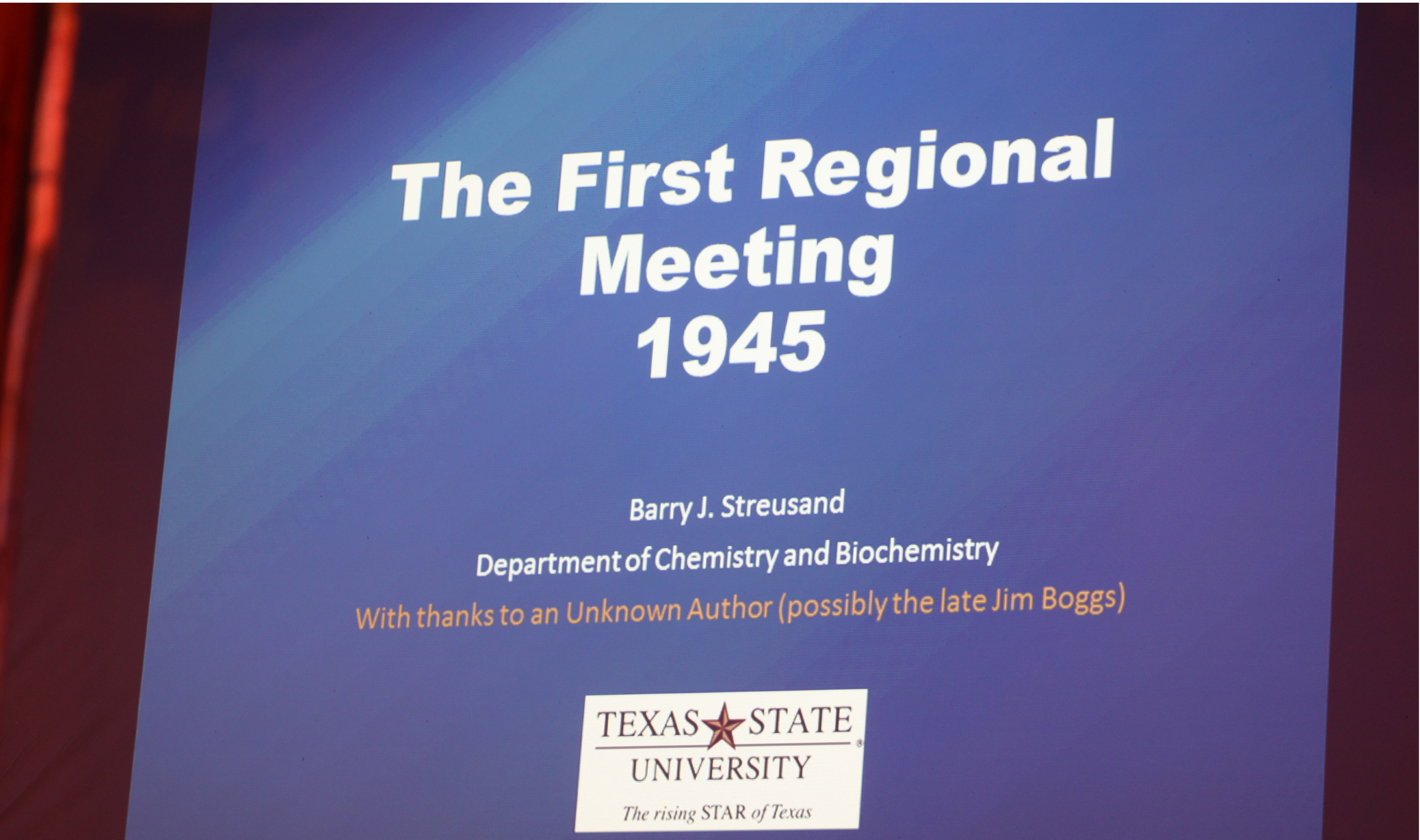
Dr. Nancy Ryan Gray
President and CEO, Gordon Research Conferences
"100 Years of Chemistry in 140 Characters"

8:30 pm **Adjourn**

The Central Texas Section Centennial recognized with a plaque and certificate

Dr. Robert Soulen presents on the founders of the Central Texas ACS

Central Texas hosted the first regional meeting of the ACS in 1945



From left: Margaret Connor, Chair, Central Texas; Dr. Nancy Gray, President and CEO, Gordon Research Conferences; Dr. Alan Campion, UT Austin; Dr. Robert Soulen, Southwestern University, retired; Dr. Paul Jagodzinski, ACS Director; Ms. Kate Fryer, ACS Membership and Society Services; Dr. Barry Streusand, Texas State University; Dr. Diane Kneeland, Chair-Elect, Central Texas

The give away: a pint glass with our new logo!