



American Chemical Society

East Texas Section

March 2016

Next Section Meeting

Date: Tuesday, March 22
Place: Building 86, Estes Drive
Eastman Chemical Company
Longview, TX

Dinner: On your own
Time: Speaker 7:00 P.M. (No charge for the talk)

Epoxybutene and Derivatives: Novel Processes from Butadiene

Jerome Stavinoha
Eastman Chemical Company

The Eastman process to produce 3,4-epoxy-1-butene from butadiene represents the only example of an olefin other than ethylene to be selectively epoxidized in the vapor phase using molecular oxygen. The catalyst for ethylene epoxidation also uses a silver-based catalyst, but because the kinetics of butadiene epoxidation are significantly different from those for ethylene epoxidation, the promoter requirements and reaction conditions are very different. The highly functional nature of epoxybutene makes this molecule an especially attractive starting material for many specialty and commodity chemicals. Eastman has also developed novel processes for three key isomers of epoxybutene, thus providing a variety of useful materials for fine and specialty chemical applications. The research work that led to the development of these Eastman processes will be discussed.

Speaker Bio

Jerome Stavinoha is a Technology Fellow for Eastman Chemical Company at its site in Longview Texas. Stavinoha received a bachelor's degree in chemistry from the University of St. Thomas in 1975 and a Ph.D. in organic chemistry from Texas A&M University in 1979, working with Patrick Mariano. He began his career at Eastman Kodak in 1979 as a chemist at its Texas Eastman facility in Longview, Texas. Stavinoha continued to work for Eastman Chemical when the company was spun off from Kodak and rose through the technical ranks to the position of fellow in 2008. He had made major contributions in several important Eastman technologies, including hydroformylation, epoxidation, and hydrogenation. Stavinoha's work was instrumental in developing a key monomer process for the introduction of Eastman's Tritan™ copolyester. In addition, Stavinoha is the author of 15 publications and holds 44 United States patents. He was named an ACS Industrial and Engineering Chemistry Division Fellow in 2010. On a personal note, Stavinoha and his wife, Deya, have



been married for 34 years and have three children and two grandchildren. Stavinoha's favorite hobbies include photography and gardening.

Upcoming Dates

March 13-17	ACS Spring National Meeting, San Diego, CA
March 22	Jerome Stavinoha, Eastman Chemical, Longview
April 21	Connie Hendrickson, Arkon Consultants @ UT-Tyler
August 13-17	ACS Fall National Meeting, Philadelphia, PA
September	Jeff Gaffney, University of Arkansas-Little Rock @ Texarkana College
October	Dawn Mason, Eastman Chemical, Kingsport, TN @ ETBU, Marshall
November	TBA
November 10-13	Southwest Regional Meeting, Galveston, TX

Section Website is Live!!

Check out the Section's website for the latest and additional news: <http://easttexasacs.sites.acs.org>

Attention High School Chemistry Teachers

The East Texas Section of the American Chemical Society is offering a limited number of grants to High School Chemistry teachers in our area. We have two different grant programs:

1. High School Chemistry Program that will fund up to \$500 for materials, chemicals or other resources for a chemistry-related project.
2. Chemistry Professional Meeting Support Program that will fund up to \$500 for meeting registration or housing at a professional meeting sponsored by a chemical society, or by a science-related society.

To receive the support applications (electronic format only) please contact Dr. Bruce Hathaway (BruceHathaway@letu.edu) the grants program committee chair.

2016 Section Officers

Chair	Bruce Hathaway	BruceHathaway@letu.edu
Chair-elect	Mike Sheets	mike.sheets@texarkanacollege.edu
Treasurer	Paul Zhang	pzhang@ana-lab.com
Secretary	Mike Sheets	mike.sheets@texarkanacollege.edu
Councilor	Mike Sheets	mike.sheets@texarkanacollege.edu
Alt. Councilor	Philip Verhalen	philip.verhalen@gmail.com
Webmarm	Kristin Butterworth	kmb681@gmail.com

Pictures from the February meeting – Program in a Box



Group at East Texas Baptist University



Part of the attendees at LeTourneau University

East Texas Section ACS Regional Science Fair Winners

Best Chemistry Project in:

Junior Life Sciences (\$40) – Connor Bailey, 6th grade, Sulphur Spring Middle School
“Long Live the Apple”

Junior Physical Sciences (\$40) – Madison Bowers, 8th grade, Texas Middle School, Texarkana ISD
“There’s no resisting graphene”

Senior Life Sciences (\$60) – Cameron Gipson, 10th grade, Gilmer High School
“Effects of Temperature and Probiotics on the Growth of *Cyprinidae*”

Senior Physical Sciences (\$60) – Sheetal Bapu, 9th grade, Nacogdoches High School
“Self powered CO₂ Scrubber”



Sheetal Bapu, Cameron Gipson,
Connor Bailey



Sheetal Bapu at her exhibit

Upcoming ACS Webinars

March 10, 2016

Chemistry of Hello: Lithium Ion Batteries

<http://acswebinars.org/technology-innovation/batteries>

Consumers are demanding an increasing level of functionality from their cell phones. The energy density of today's lithium ion batteries can limit the practical functionality of the phone as consumers expect the battery to last a full day. Dee Strand will join us to share how new materials and designs are providing an opportunity to increase the energy density of cells for these applications.

March 24, 2016

Basking in Energy: a Look into Polymer Solar Cells

<http://acswebinars.org/professional-development/polymer-solar>

Join Terra Range as she gives a small look in to her research completed at the National University of Singapore through the ACS IREU program and her perspective on the benefits of programs such as ACS IREU and Chem Champs to younger chemists with a passion for conduction research in improving science commutation.

March 31, 2016

Modified Release Formulations for Solubility Starved Compounds?

<http://acswebinars.org/drug-discovery/release>

Join us as Mengwei Hu provides an overview of MR formulation strategies for insoluble compounds and the options to overcome the low solubility issue in the lower gastricintestinal tract. A case study on MR feasibility assessment of an insoluble compound is discussed.

April 14, 2016

Creating a Stand Out Professional Development Plan

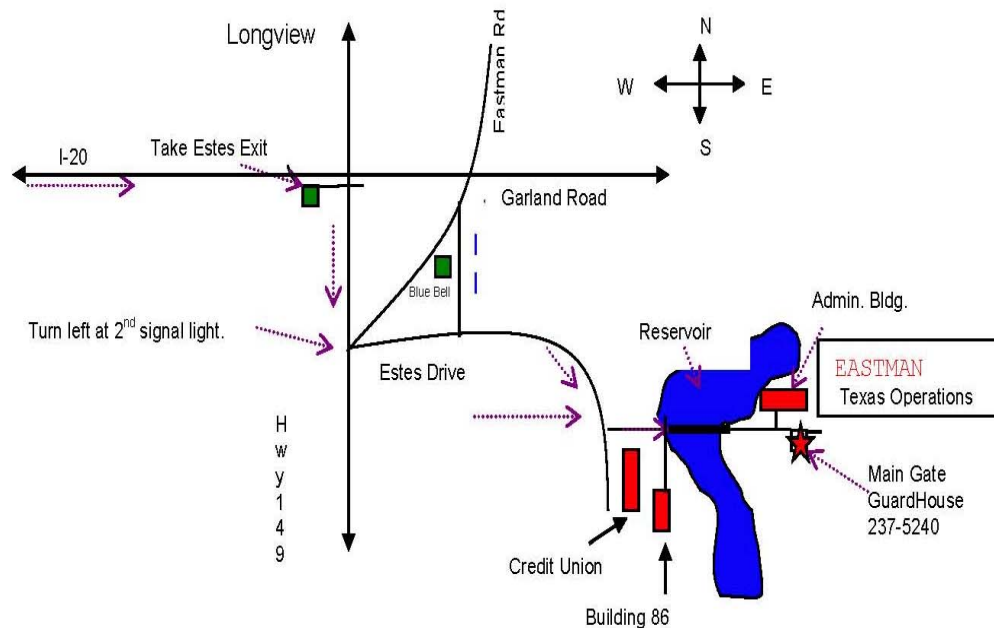
<http://acswebinars.org/professional-development/development>

How can you ensure you, and your direct reports, are more valuable at the end of the year than they were at the beginning? Drawing from her recent *Harvard Business Review* article, Duke University Fuqua School of Business adjunct professor Dorie Clark will show you how to develop professional development plans – for yourself and your employees – that enable you to flourish and take your career to the next level.

About ACS Webinars™

ACS Webinars™ is a free, weekly online event serving to connect ACS members and scientific professionals with subject matter experts and global thought leaders in chemical sciences, management, and business. The ACS Webinars are divided into several series that address topics of interest to the chemical and scientific community; these series include careers, business and innovation, professional growth, joy of science, extreme chemistry, entrepreneurial initiative, green chemistry, and more. Each webinar is 60 minutes in length, comprising a short presentation followed by Q&A with the speaker. The live webinars are held on Thursdays from 2-3pm ET. Recordings of the webinars are available online and upcoming events are posted at <http://acswebinars.org/>.

Map to Eastman Chemical Company, Texas Operations



From Shreveport Airport:

Travel I-20 west towards Dallas approximately 60 miles to Longview. Take the Estes Parkway/Hwy 149 exit. At Estes Parkway/Highway 149, turn left and travel over the interstate, continuing 6/10 mile to the second signal light and turn left onto Estes Drive. Travel 9/10 mile and turn left into plant entrance. Before reservoir turn right and follow road to B-86 parking.

From Gregg County Airport:

From airport entrance turn right (east) on Hwy 322. Travel 1.8 miles until Hwy 322 dead ends into Hwy. 149. Turn left (north) and travel approximately 1.7 miles to railroad tracks. Immediately after railroad tracks, turn right onto Kodak Blvd. Travel 9/10 mile and turn right at entrance to plant. Before reservoir turn right and follow road to B-86 parking.

From Tyler:

From Tyler, travel approximately 40 miles to Longview. Take the Estes Parkway Exit #595A. Turn right (south) onto Hwy. 149. Travel 4/10 mile to second signal light. Turn left onto Estes Drive and travel approximately 9/10 mile and turn left into plant entrance. Before reservoir turn right and follow road to B-86 parking.