



AMERICAN CHEMICAL SOCIETY KENTUCKY LAKE SECTION

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KLS-ACS Web Page

<http://kentuckylake.sites.acs.org/>

February 2017 Kentucky Lake Section Meeting

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Big Apple Cafe

1005 Arcadia Circle, Murray KY 42071

Thursday, February 16th, 2017

Social @ 5:30, Dinner @ 6:00 pm, Presentation @ 7:00 pm

Dinner: BBQ Buffet

The price is \$10 (Students \$5)

Program: Adventures with Phosphine Ligands: From Synthesis to Electrocatalysis

Dr. Monte Helm, Professor at Metropolitan Community College
Previously Senior Scientist at Pacific Northwest National Laboratory

Science Center: Bring your kids for fun science lessons!

Comments from the Chair

February....the month of love. Show your love of chemistry by coming to the meeting this month at Murray. Dr. Monte Helm will be coming all the way from Kansas City, and giving a seminar on his experience with phosphine ligands. I have it on good authority that Dr. Helm is a dynamic speaker that will engage any level student of chemistry no matter the age. The national ACS Meeting is also on the horizon, and we'll briefly discuss how our section is still being recognized for its innovation. I look forward to seeing you at the meeting.

~ Dr. Phillip Shelton, Chair

Abstract

Catalysts are used every day, from the solid state platinum in our catalytic converters to molecular catalysts used for the synthesis of pharmaceuticals. This presentation will give an overview of the synthesis of new families of phosphorus containing ligands, and how their discovery lead to the development of some of the best molecular electrocatalysts for H₂ production and oxidation.



Monte received his Bachelor's Degree in Chemistry from Minnesota State University of Moorhead, then completed his Graduate studies in Inorganic Chemistry at the University of Colorado at Boulder. After successive postdocs at the University of Sussex in Brighton, England, and University of Tennessee at Chattanooga, Monte joined the faculty at Fort Lewis College in Durango, Colorado in 2003. In 2012 Monte moved to Pacific Northwest National Laboratory where he spent four years as a Senior Research Scientist and Deputy Director of the Center for Molecular Electrocatalysis, a DOE Energy Research Frontier Center. In 2016, Monte moved to Lee's Summit, MO where he is now a Professor of Chemistry at Metropolitan Community College, Longview with a focus on teaching chemistry for the health sciences.