



AMERICAN CHEMICAL SOCIETY KENTUCKY LAKE SECTION

SUBJECT: November 2010 Kentucky Lake Section Meeting

DATE: Tuesday, November 16, 2010

PLACE: Sirloin Stockade
932 S 12th St
Murray, KY 42071

SCHEDULE: 6:00 p.m. Dinner
7:00 p.m. Business Meeting
Officer Election Results
Speaker

PROGRAM: Dr. Kevin Miller
Murray State University
Department of Chemistry
“Novel Macromolecular Designs for Adhesives and
Elastomers Using Michael Addition Chemistry”

MENU: Food, Salad and Dessert bar

PRICE: \$10.00 (Students \$5.00)

2011 Officer Election

The election of 2011 KLS-ACS officers will take place at the November meeting. Ballots containing candidates for Chair Elect & Councilor positions are contained with this announcement mailing. Only official ballots will be accepted. Ballots may be returned in person at the meeting or by mail to:

Brent Montgomery
10554 Latham Hwy 190
Palmerstonville, TN 38241

Kevin M. Miller

"Novel Macromolecular Designs for Adhesives and Elastomers Using Michael Addition Chemistry"

Abstract: Michael Addition polymerizations have been employed to produce a variety of useful polymeric materials for adhesive and elastomeric applications. Networks designed for adhesives applications performed similarly to the current polyurethane systems used in industry. Further research in the area has produced a number of interesting networks where secondary hydrogen bonding has been incorporated into the backbone in order to enhance the strength and performance of the materials. Also included will be a discussion of how small molecule kinetics has allowed us to predict both polymerization rates and thermomechanical properties of the resulting networks.

Bio: Professor Miller earned his B.S. in Chemistry from the University of Dayton and his Ph.D. in Organic Chemistry from the University of Notre Dame. While at Notre Dame, he worked under the advisorship of Professor Xavier Creary on the stabilizing and destabilizing effects of aromatic and charged species on free radical intermediates. After graduating from Notre Dame, Professor Miller accepted a position at the Rohm and Haas Company where he worked primarily in the areas of plastics additives and adhesives. After seven years in industry, he decided to change career paths and accepted a brief 6-month position at Virginia Tech as a Research Assistant Professor where he began working in the area of ionomers. This past summer, Professor Miller began his current position as an Assistant Professor of Chemistry at Murray State University. His research and teaching interests include synthetic and physical-organic chemistry as well as polymer chemistry.