



# AMERICAN CHEMICAL SOCIETY KENTUCKY LAKE SECTION

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**SUBJECT:** September 2010 Kentucky Lake Section Meeting

**DATE:** Thursday, September 16, 2010

**PLACE:** Union University  
1050 Union University Drive  
Jackson, TN 38305

Directions and maps may be found at the following webpage:

<http://www.uu.edu/about/map/index.htm#Directions>

From U. S. Highway 45 Bypass, take Union University Drive west to Walker Road. Turn left on Walker Road. After passing through the Welcome House gate and travelling past the new student housing on the left, the Carl Grant Events Center will be on your left. You may park in lots to the west (most convenient) or south of the Center.

<b>SCHEDULE:</b>	6:00 p.m.	Social/Mixer	<b>All events are in the Carl Grant Events Center</b>
	6:30 p.m.	Dinner	
	7:30 p.m.	Presentation	

**PROGRAM:** Dr. Phillip Shelton – University of TN Martin  
“Metal-Free Oxidative Carbonylation of Amines to Ureas”

**MENU:** Roast Beef/Chicken  
Vegetables

**PRICE:** \$ 10.00 (students \$ 5.00)

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Dear Members:

September, with the beginning of Fall, is always a busy season for everyone, as it is for the local section. In addition to the regular September meeting, we have a few additional items to address this month.

First is the upcoming election of Section officers. This year we will be selecting a Chair-Elect and a Councilor / alternate Councilor. Nominations are solicited during the months of September and October with the election in November. Nominations may be sent to Dr. Rachel Allenbaugh, Chair of the Nominating Committee, by email at [rallenbaugh@murraystate.edu](mailto:rallenbaugh@murraystate.edu).

Second is the selection of the Howard Huyck Outstanding High School Chemistry Teacher Award recipient. This award is presented to a high school chemistry instructor in the local section region for their contributions to chemical education. Nominations for this award may be sent to Dr. Charles Baldwin, Chair of the Awards Committee at [cbaldwin@uu.edu](mailto:cbaldwin@uu.edu). The award will be presented at the October meeting.

I look forward to seeing you at the next section meeting!

Harry Fannin - Chair

## **Abstract:**

Metal-free oxidative carbonylation of amines to ureas was investigated as an alternative to phosgene, phosgene derivatives and heavy metal-catalyzed oxidative carbonylation. Conditions for this reaction involve addition of sodium periodate as oxidant, NaI as a promoter, dimethylaminopyridine (DMAP) as base and an amine in a vessel charged with CO. After optimization of this reaction for choice of base, amount of oxidant, promoter, solvents, CO pressure and temperature, ureas from simple primary amines and aromatic amines have been isolated in excellent yields (72-96%).

## **Biography:**

Phillip was born in Morgantown, KY in a town of around two thousand people. Upon graduation from high school he went to Western Kentucky University, where he graduated with the ACS accredited bachelors of science in 1997 and a masters from the same institution in 2001 under the direction of Dr. Donald Slocum.

After graduating from WKU Phillip joined Dr. Lisa McElwee-White's group at the University of Florida where he received his Ph.D. in May of 2010. The University of Tennessee at Martin has now become Phillip's home as he has this year started his career in education.