



AMERICAN CHEMICAL SOCIETY KENTUCKY LAKE SECTION

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KLS-ACS Web Page

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

February 2012 Kentucky Lake Section Meeting

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Fresh Market Restaurant

Paris, TN

Thursday, February 16, 2012

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

*Fresh Market is located at
2255 East Wood St, Paris, TN 38242*

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

Menu Choice of:

Grilled chicken w/ veggie & potato or fries or rice, & salad
Grilled pork chop w/ veggie & potato or fries or rice, & salad
Pasta primavera w/ salad

Presentation:

Hybrid Semiconductor Nanoparticles

By

Dr. Janet Macdonald

Vanderbilt University

Assistant Professor of Chemistry

See Reverse Side for Abstract & Biographical Sketch

Comments from the Chair

We are seeking volunteers! KLS can't function without you and now the call is out for committee volunteers. We have a variety of committees ranging from Education to Government Affairs to Long Range Planning. Most committees only meet a few times a year or can conduct business via email. Volunteer today to help revitalize this part of our local section. The Leadership Retreat for Undergrads & Grad students is coming up soon, March 30th – April 1st. For an application visit the KLS website. Hope to see you in Paris this month! Also, mark your calendars for the next meeting coming up on April 2nd in Milan, Tn.

Kate Stumpo

Help KLS go green! Send your e-mail address to Rebecca.brown@kctcs.edu
today to receive the newsletter by e-mail.

Abstract

Hybrid Semiconductor Nanoparticles

New hybrid nanoparticle structures resulting from the marriage of two different nanomaterials on the same particle are of interest for their synergistic properties, potentially harnessed for catalysis, photocatalysis and electronic applications. We are particularly interested in hybrid nanoparticles that can absorb light and use that energy to split water molecules into hydrogen and oxygen gas as a clean way to create fuel.

As we work to prepare different hybrid nanoparticles, we are discovering new material combinations, new growth modes, unexpected behaviors and new functionality. Our latest discoveries in this regard will be presented as well as ideas for preparing novel material combinations in hybrid nanoparticles for water splitting.

Brief Biographical Sketch

Janet received her bachelors of science from McGill University in Quebec, Canada and continued her education by earning a Ph.D. from the University of Alberta in 2008. From here Janet traveled abroad to become a post-doctoral fellow for two years at the University of Jerusalem. She now resides in Nashville, TN as an assistant professor of chemistry at Vanderbilt where she oversees an active research group. Janet's interests include nanomaterials, inorganic chemistry, and VINSE.

