

# Physics / Chemistry Seminar

Wednesday 3/27/2013, 4:30 pm  
Science & Engineering Building Auditorium

**Dale E. Moore**

Department of Chemistry  
Mercer University

## Elusive Green: Conducting Polymers and Some Current Research on Polypyrroles

Polypyrrole is an organic polymer that conducts electricity when oxidized. A bipolaron is a double-charged (+2) structural shift in the oxidized polymer that actually moves the charge when the molecule conducts, kind of like a kink moving along a rug. When bipolarons form in polypyrrole, the color of the polymer switches to very dark green. Thus, the conducting state is easy to identify, even though no one's actually measured how big the bipolaron is. This seminar will include a general introduction to conducting polymers and describe three phases of research projects performed by Mercer students aimed at determining the size of the elusive bipolaron in polypyrrole.

*Please join us for light refreshments  
at 4:15pm outside SEB 203.*