

# Kristina M. Knesting

**Graduate Institution:** University of Washington

**Graduate Discipline:** Materials Chemistry and Nanotechnology

**Hometown:** Racine, WI

**Relevant SC Research:** Basic Energy Sciences



## Research Interest:

Organic photodiodes hold promise for use in low-cost applications, most importantly organic photovoltaics (OPVs), because they can be fabricated via solution processing and/or simple printing. Unfortunately, the efficiencies of OPVs are currently too low (~8-9%) to make them commercially viable. One way to improve device performance is through control of the polymer-metal interface. This interface is the site of charge extraction or injection into these devices, but is not well understood. My research involves characterization and control of the polymer-metal interface in addition to measuring corresponding device performance. By learning how to control interface formation, device fabrication can be optimized for higher efficiencies and hopefully lead to better economic viability. I have always been intrigued by the way changes at the molecular level affect bulk properties and hope to continue working on nano and molecular level methods to tune bulk properties of organic photovoltaics.

## About Me:

I am currently a Science Communication Fellow at the Pacific Science Center, where I use hands-on demonstrations to explain my research to the general public. Along with some of my labmates, I also volunteer at events such as the annual Shoreline SolarFest and Husky Research Weekend where we discuss our research with the general public. Upon completion of my PhD, I hope to work in industry in research and development. In my spare time, I enjoy cooking/baking and playing the piano.



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