

Noah Elliott Horwitz



Graduate Institution: Northwestern University

Graduate Discipline: Physical Chemistry

Hometown: Medina, WA

Relevant SC Research: Basic Energy Sciences

Research Interest:

I am interested in exploring the physical chemistry behind modern technologies, especially in the area of renewable energy generation. Molecules that absorb sunlight and undergo electron transfer reactions can serve as the basis for organic photovoltaics that offer lower cost access to solar energy. I am investigating the role of electron spin in these molecules. While often overlooked, spin selection rules control both absorption of light and electron transfer in molecules. To better understand spin dynamics in these molecules, I am synthesizing molecules

in which multiple unpaired electron spins interact, and will study them via electron paramagnetic resonance spectroscopy. It is hoped that these studies will lead to ways to improve the efficiency of organic photovoltaics.

About Me:

I studied chemistry at the University of Washington in Seattle, and hope to continue to a career in the field. An academic career is attractive to me as it offers opportunities for both teaching and research. I became interested in chemistry in large part by doing

experiments at home and in classes, and I want future scientists to have the same opportunities to experience the fun and excitement of chemistry firsthand. I really enjoyed demonstrating solar energy technologies to the public through two events in Seattle and performing science experiments with elementary students. I plan to continue participating in outreach activities that connect young students with science. When not in the lab, I enjoy cooking new foods, hiking, and playing video games.



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