



Brandon Beberwyck

Graduate Institution: University of California-Berkeley

Graduate Discipline: Materials Science and Engineering

Hometown: Bedford, TX

Relevant SC Research: Basic Energy Sciences

Research Interest:

My research interests involve the synthesis and application of nanomaterials, with a focus on colloidal semiconductor nanocrystals. In particular, I am intrigued by the chemical transformations and surface modifications accessible by nanocrystals due to their high surface-area-to-volume ratio that are not feasible in bulk materials. The small volume of nanocrystals allows the entire lattice to be accessible by solid state diffusion within seconds at room temperature and the high surface area allows the electronic structure to be tuned by chemical modification. Furthermore, single nanoparticle studies to deconvolute ensemble behaviors are of interest.

About Me:

I graduated from the University of Texas at Austin in 2009 with a Bachelor of Science in Mechanical Engineering. As an undergraduate, I performed research incorporating ZnO nanowires into a biomedical device and worked part-time at a semiconductor equipment manufacturer startup. Currently, I am starting my fourth year in the Materials Science and Engineering Ph.D. program at UC Berkeley studying nanocrystals in the Alivisatos lab. I am a member

of the Materials Research Society and the American Chemical Society. Upon graduation, my goal is to obtain a staff scientist position at a national laboratory to continue a career immersed in research. When I am not in lab, I enjoy running, hiking, and spending time relaxing in the temperate Bay weather.



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