



Tarun Narayan

Graduate Institution: Stanford University

Graduate Discipline: Inorganic Chemistry

Hometown: Stanford, CA

Relevant SC Research: Basic Energy Sciences

Research Interest:

My current project entails the synthesis of porous, conductive, and ordered materials for a variety of applications including high power density electrodes for energy storage and scaffolds for light harvesting and utilization. This project highlights a number of my research interests including organic and inorganic synthesis, structure elucidation through crystallography, and understanding charge transport phenomena. I also have a number of other interests including understanding excitonic and photonic processes, low dimensional systems, and catalysis that I would like to pursue during my career.

About Me:

I completed my undergraduate studies at Harvey Mudd College with a B.S. in chemistry. I have been a member of six different labs thus far in my career. I am very interested in research as it applies to solutions to energy problems, so I have geared much of my scientific career to that area. I began at a fuel cell startup company called Bloom Energy,

where I was involved in testing fuel cells and fuel cell components' properties as a function of environment and temperature. This position gave me an appreciation of materials characterization and solid state chemistry. I spent the next summer with John Anthony at the University of Kentucky learning how to synthesize organic molecules for applications in electronics. This was my first exposure to synthetic chemistry and it drove me to consider a career in the field. I briefly worked with Hal Van Ryswyk at my undergraduate institution preparing osmium porphyrins to study electron transfer properties. I spent the following summer at IBM through the CPIMA program with Jim Hedrick looking for new catalysts for the ring opening polymerization of lactides. We instead found a new method to perform amidations within minutes at room temperature. I spent my senior year with Adam Johnson at Harvey Mudd preparing and testing new tantalum-based catalysts for the enantioselective hydroamination of aminoallenes. This work introduced me to highly air-sensitive chemistry and

crystallography that I have been using in my current work. I am currently a member of the American Chemical Society, Sigma Xi, and Phi Lambda Upsilon. I have received departmental fellowships at MIT, namely the Davison Fellowship, C. P. Chu and Y. Lai Summer Fellowship, and the Richard Royce Schrock Summer Fellowship as well as other honors including a NSF Graduate Fellowship Honorable Mention and the ACS Division of Inorganic Chemistry Undergraduate Award in Inorganic Chemistry.

In my spare time, I enjoy playing and watching a wide variety of sports including soccer, cricket, football, and volleyball. I consider myself a fan of Arsenal in the Barclays Premier League as well as the Indian national cricket team, and the Jacksonville Jaguars. I also enjoy video games of various genres including sports and role-playing games. I attempt to keep up with current affairs and take a great interest in U.S. politics with an eye towards European politics.



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