

Name: Max Osipov

Majors: Chemistry and Biochemistry

Honors and Awards:

- National Scholars Honor Society
- Brackenridge Research Fellowship
- Dean's List

Experience and Community Outreach:

- Peer Leader, First Experiences in Research Program
- Teaching Assistant, Organic Chemistry I and II
- Vice President, American Chemical Society Student Affiliates
- Volunteer and Program Coordinator, Propel Charter Schools
- Volunteer, YMCA Outreach

Future Plans

"Post graduation, I plan to pursue a doctorate in synthetic organic chemistry at an institution which is yet to be determined. My ultimate career goals are to attain a faculty position at a medium-sized university with an even mix of teaching and research responsibilities."

Voting Information

Bucks County, PA (18th District)

Project Abstract

Molecular recognition, the phenomenon by which two molecules interact in a highly specific manner, is currently being studied using a variety of basket-shaped molecules called calixarenes. We wish to understand the microscopic forces that govern molecular recognition, thereby making possible the design of molecules specifically to recognize and bind to selected targets. Potential applications are in the extraction of biologically active species (or man-made toxins) from the natural environment, or for improving the speed and accuracy of chemical measurements. To study this process, a series of highly inert and environmentally friendly liquids called fluororous liquids are being used as solvents. We are synthesizing calixarenes that can dissolve in fluororous liquids. We will apply these fluororous separations systems to the purification of drugs and their precursors.

Project Faculty Advisors: Dennis P. Curran and Stephen G. Weber Department of Chemistry, School of Arts and Sciences, Pittsburgh Campus

