David C. Powers

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Education and Appointments

- 2015–present Assistant Professor, Texas A&M University
- 2011-2015 NIH Post-Doctoral Fellow, Massachusetts Institute of Technology and Harvard University
- 2006-2011 Graduate Research Assistant, Harvard University
- 2002-2006 Undergraduate Research Assistant, Franklin and Marshall College

Honors

- 2012 Ruth Kirschstein NIH Postdoctoral Fellowship
- 2011 Christensen Prize for Outstanding Research Achievement from Harvard University
- 2009 Sanofi-Aventis Graduate Fellowship
- 2006 Theodore Alexander Saulnier Chemistry Prize from Franklin and Marshall College
- 2006 Rawnsley Science Prize from Franklin and Marshall College

Interests

- My research group develops novel molecules and materials for application to unsolved problems in chemical catalysis. Specific areas of interest are development of shape-selective chemistry, delineation of strategies for complete O_2 utilization in catalysis, and characterization of the chemistry of highly reactive late-metal–ligand multiple bonds. Critical to our research program is the application of diffraction methods to directly observe metastable reaction intermediates *in situ* and to characterize the behavior of materials *in operando*. Photocrystallography and *in situ* powder diffraction are critical to the success of our program, and in this regard, the APS plays a central role in the progress of our science.

Goals

- As a frequent and established user of the APS (~4 trips per year from 2011–present) and a user of multiple beamlines, I will provide input from the user perspective when considering future developments at the APS.
- As a PI who regularly brings student users to the APS, I can provide suggestions about new programmatic efforts in education and training.

- As a user of other laboratories and DOE-funded facilities, I can provide suggestions for policies and procedures observed at these locations that would enhance the user experience and benefit the APS.