

THOMAS P. VAID

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Professional Preparation

University of Illinois, Urbana-Champaign	Chemistry	B.S., 1992
Cornell University	Chemistry	Ph.D., 1997
California Institute of Technology	Chemistry	Postdoctoral, 1997–2000

Appointments

2000 – 2008 Assistant Professor of Chemistry, Washington University, St. Louis, Missouri
2008 – present Assistant Professor of Chemistry, University of Alabama, Tuscaloosa, Alabama

Honors and Awards

2002 - 2007 NSF CAREER Award
2002 - 2004 Research Corporation, Research Innovation Award
1993 - 1997 NSF Materials Research Fellowship, Cornell University
Fellowship for graduate research in materials chemistry.
1992 Phi Beta Kappa, University of Illinois
1992 American Institute of Chemists Award, University of Illinois

Five Publications Closely Related to This Proposal

- D. L. Turner, T. P. Vaid, P. W. Stephens, K. H. Stone, A. G. DiPasquale, and A. L. Rheingold, "Semiconducting Lead-Sulfur-Organic Network Solids", *J. Am. Chem. Soc.* **130**: 14-15 (2008).
W. W. Porter III, T. P. Vaid, and A. L. Rheingold, "Synthesis and Characterization of a Highly Reducing Neutral 'Extended Viologen' and the Isostructural Hydrocarbon, 4,4''''-Di-*n*-octyl-*p*-quaterphenyl", *J. Am. Chem. Soc.* **127**: 16559-16566 (2005).
J. A. Cissell, T. P. Vaid, and A. L. Rheingold, "An Antiaromatic Porphyrin Complex: Tetraphenyl-porphyrinato(Silicon)(L)₂ (L = THF or Pyridine)", *J. Am. Chem. Soc.* **127**: 12212-12213 (2005).
W. W. Porter, III and T. P. Vaid, "Doping of an Organic Molecular Semiconductor by Substitutional Cocrystallization with a Molecular n-Dopant", *J. Mater. Chem.* **17**: 469-475 (2007).
J. A. Cissell, T. P. Vaid, and G. P. A. Yap, "The Doubly Oxidized, Antiaromatic Tetraphenylporphyrin Complex [Li(TPP)][BF₄]", *Org. Lett.* **8**: 2401-2404 (2006).

Five Other Significant Publications

- J. A. Cissell, T. P. Vaid, and G. P. A. Yap, "Reversible Oxidation State Change in Germanium(tetraphenylporphyrin) Induced by a Dative Ligand: Aromatic Ge^{II}(TPP) and Antiaromatic Ge^{IV}(TPP)(pyridine)₂", *J. Am. Chem. Soc.* **129**: 7841-7847 (2007).
X. Deng, W. W. Porter III, and T. P. Vaid, "Aluminum and Lithium Octa(pentoxy)phthalocyanine Radicals", *Polyhedron* **24**: 3004-3011 (2005).
T. P. Vaid, A. K. Lytton-Jean, and B.C. Barnes, "Investigations of the 9,10-Diphenylacridyl Radical as an Isostructural Dopant for the Molecular Semiconductor 9,10-Diphenylanthracene", *Chem. Mater.* **15**: 4292-4299 (2003).
J. A. Cissell, T. P. Vaid, and A. L. Rheingold, "Aluminum Tetraphenylporphyrin and Aluminum Phthalocyanine Neutral Radicals", *Inorg. Chem.* **45**: 2367-2369 (2006).

H.-E. Song, J. A. Cissell, T. P. Vaid, and D. Holten, "Photophysics of Reduced Silicon Tetraphenylporphyrin", *J. Phys. Chem.* **B111**: 2138-2142 (2007).

Synergistic Activities

1. Developed and taught a new Inorganic Chemistry Laboratory course at Washington University.
2. NSF SBIR Proposal Review Panel, "Advanced Materials: Polymer and Biosystems at the Nanoscale," Washington, D.C.
3. NSF SBIR Proposal Review Panel, "Nanoparticle Materials," Washington, D.C.
4. Various NSF proposal reviews.
5. Reviewed manuscripts for *Inorganic Chemistry*, *Chemistry of Materials*, *Journal of the American Chemical Society*, *Science*, etc.

Collaborators

Prof. Peter Stephens (SUNY Stony Brook, synchrotron X-ray powder diffraction)
Prof. Arnold Rheingold (U. California, San Diego, X-ray diffraction)
Dr. Glenn Yap (U. Delaware, X-ray diffraction)
Prof. Naresh Dalal (Florida State U., magnetism and EPR)
Prof. Dewey Holten (Washington U., photophysics of porphyrin complexes)

Graduate and Postdoctoral Advisors

Prof. Peter T. Wolczanski (Cornell U.)
Prof. Nathan S. Lewis (California Institute of Technology)

Postdoctoral Advisor to

Dr. Xiaobin Deng (July 29, 2002-April 23, 2004)
Dr. Courtney Olmsted (March 7, 2005-Aug., 2005)
Dr. Zhenfu Han (July 17, 2006-present)
Dr. Yanhui Shi (July 9, 2007-present)

Graduate Advisor to

William W. Porter (Ph.D. June 2006, now postdoctoral scholar at U. Michigan)
Julie Cissell (Ph.D. April 2007, now at ATMI)
Dayna Turner (Aug. 2003-present)