

BIOGRAPHICAL SKETCH KENNETH M. NICHOLAS

Education

B.S. in Chemistry, 1969, State University of New York at Stony Brook
Ph.D. in Chemistry, 1972, University of Texas at Austin (w/ R. Pettit)
Postdoctoral, 1973, Brandeis University (w/ M. Rosenblum)

Professional Positions

Assistant Professor of Chemistry, Boston College, 1973-1979
Associate Professor of Chemistry, Boston College, 1980-1984
Professor of Chemistry, University of Oklahoma, 1984-1992
George Lynn Cross Research Professor, University of Oklahoma (1993-present)

Selected Research Publications: (ca. 160 through 6/10)

- * S. Vkuturi, G. Chapman, I. Ahmad, and K. M. Nicholas, Rhenium-Catalyzed Deoxydehydration of Glycols by Sulfite, *Inorg. Chem.* **2010**, 49, 4744–4746.
- *Arakawa, H.; Nicholas, K. M. et al., “Catalysis Research of Relevance to Carbon Management: Progress, Challenges, and Opportunities”, *Chem. Rev.* **2001**, 101, 953-996.
- *J.-C. Tsai and K.M. Nicholas, "Rhodium-Catalyzed Hydrogenation of Carbon Dioxide to Formic Acid", *J. Am. Chem. Soc.* **1992**, 114, 5117.
- *M. Dunlap and K.M. Nicholas, “Manganese-Promoted, Titanocene-Catalyzed Stereoselective Pinacol Coupling”, *Synth. Commun.* **1999**, 29, 1097.
- K. M. Nicholas, P.W. Wentworth, Jr., C.W. Harwig, A.D. Wentworth, A. Shafton and K.D. Janda, A Cofactor Approach to Copper-dependent Catalytic Antibodies, *Proc. Nat. Acad. Sci.* **2002**, 99, 2648.
- M. Matsumoto and K. M. Nicholas, Synthesis of Cyclic Oligomers from Histidine-Derived Building Blocks Using Dynamic Combinatorial Chemistry, *J. Org. Chem.* **2007**, 72, 9308.
- R.S. Srivastava and K.M. Nicholas, Kinetics of the Allylic Amination of Olefins by Nitroarenes Catalyzed by [CpFe(CO)₂]₂, *Organometallics*, **2005**, 24, 1563.
- L. Zhou and K.M. Nicholas, Imidazole substituent effects on the oxidative reactivity of tripodal (imid)₂(thioether)Cu complexes. *Inorg. Chem.* **2008**, 47, 4356.
- R. S. Srivastava, N. R. Tarver, K. M. Nicholas, Mechanistic Studies of Copper(I)-Catalyzed Allylic Amination, *J. Am. Chem. Soc.* **2007**, 129, 15250.
- A. Penoni and K.M. Nicholas, Indoles via Metal-Catalyzed Annulation of Nitroaromatics with Alkynes, *J. Chem. Soc. Chem. Commun.* **2002**, 484.
- K. L. Salazar, M.A. Khan and K.M. Nicholas, Novel Cobalt-Mediated Regio- and Stereoselective Radical Cyclizations, *J. Am. Chem. Soc.* **1997**, 119, 9053.

*most relevant to EPSCOR biofuels project

Synergistic Activities

Meeting/Conference Organizer: Southwest Organometallic Chemistry Workshops (1986-2000); 3rd Int. Conf. on Carbon Dioxide Utilization (1995); SWACS Mtg. Symposium on Catalysis for the 21st Century (2003).

Editorial Advisory Board of *Organometallics* (2000-2003)

Visiting Professorships at Celanese Res., Nat. Renew. En. Lab. (Col.), U. Paris VI, Scripps R. I.,

U.C.L.A.

Invited research seminars presented at numerous 4-year and Ph. D.-granting institutions and national and international scientific meetings

Organizer and contributor to campus-wide OU Catalysis Group informal seminars

Carnegie Initiative on the Doctorate, Deptl. co-chairman

Teaching/Mentoring: undergraduate organic chemistry, graduate courses in mechanistic and synthetic organic chemistry, organometallic chemistry, asymmetric synthesis; developer of interactivegraduate organic seminar/tutorial, co-organizer of Foundations of Chemistry and Biochemistry- an integrated, cross-disciplinary course for 1st yr graduate students

Established Coop. M.S. Program with ENSCCF (Blaise-Pascal U., France) and Ph. D. exchange program with U. Insubria, Italy

Chairman, Departmental Graduate Committee

Member, Oklahoma Bioenergy Center Steering Committee

Awards and Honors

Alfred P. Sloan Foundation Fellowship (1980-1984)

O.U. Associates Distinguished Lectureship (1987)

Regents Award for Research and Creative Activity (1989)

Regents Award for Teaching Excellence (1990)

Recent Collaborators

A. Penoni (U. d'Insubria, IT), R. Srivastava (U. L. Lafayette), K. Houk (U.C.L.A.); R.L. Halterman (O.U.), P. Cook (O.U.), K.D. Janda (Scripps R.I.), F. Rahman (OSSM).

Advisors and Advisees

Mentors: R. Pettit (Ph.D. U. Texas, deceased), M. Rosenblum (PDF, Brandeis U., retired)

Graduate advisees: (40 Ph.D./M.S. completed through 2010); *current-* D. Barman, G. Chapman, A. Tran, S. Hindennach; *recent:* Drs. M. Matsumoto (PDF, U. N. Carolina), A. Lamar (PDF, Emory U.), J. Volkman (PDF U.C. Berkeley), E. Houghton (PDF Cal. S.U. Los Angeles), L. Zhou (PDF U. Maryland), D. O'Dell (U.S. Patent Office, MD), R. Franks (Assist. Prof. S.F. Austin U. TX).

Postdoctoral advisees: (38 PDFs through 2010); *current:* R. Kannappan, A. John, I. Ahmad; *recent:* S. Vkuturi (Chem. Ind. India), R. Bhuyan (Univ Inst., India), B. Kalita (Pharma. Co., India), Dr. A. Mehmood (Pfizer, Conn.); M. Kolel-Veetel (Res. Sc. Naval Res. Lab., VA), Y.-J. Tong (Thor Techn., NM), Q. C. Liu (PDF, Texas A & M), A. Penoni (Assist. Prof. U. d'Insubria, IT); R. Srivastava (Assoc. Prof. U.L. Lafayette).

Undergrad. Res. Assist.: (approx. 43 total through 2010) *current:* T. Galvin; *recent:* J. Hallren, D. Estes, M. Fenwick, J. Okokon, N. Tarver, M. Lindsay, A. Kadowaki