

# KENTON H. WHITMIRE

## *Curriculum Vitae*

### Education

B.S. (1977) in Chemistry, Roanoke College, Salem, Virginia  
M.S. (1978), PhD (1982) in Chemistry, Northwestern University, Evanston, Illinois  
NATO Postdoctoral Fellow (1981-1982) Cambridge University, Cambridge, England

### Positions

Chair, Department of Chemistry, July 1999 – June 30, 2007  
Professor of Chemistry, 1994 - present  
Alexander von Humboldt Research Fellow, 1987, 1989-1990  
Visiting Professor of Chemistry, Université de Rennes, May 1990, November 2000  
Associate Professor of Chemistry, Rice University, 1988-1994  
Assistant Professor of Chemistry, Rice University, 1982-1988

### Editorial Positions

*Organometallics* Associate Editor, 1996 - 2007

### Academic Honors

Phi Lambda Upsilon  
James Lewis Howe Award, Blue Ridge Section of the American Chemical Society, 1977  
Summa Cum Laude, Valedictorian, Roanoke College, 1977

### Affiliations

Board of Governors, Council of Chemical Research, 2006-2008  
Chair-Elect (2001), Chair (2002), Past Chair (2003) Greater Houston Section of the ACS  
American Chemical Society; member Division of Inorganic Chemistry  
Secretary Southeast Texas Section of the ACS 1989, Southeast Texas Section of the ACS  
Award Committee 1992 - 1997  
Sigma Xi

### University and Other Service Activities

Co-PI on NSF ADVANCE Grant, Member of the ADVANCE Leadership Team  
President's Committee on Faculty Women, 2005 - 2006  
Divisional Advisor for Natural Sciences, 1998 – 2005  
Wiess School of Natural Sciences Curriculum Committee, 1998 - 2006  
University Teaching Committee, 1990 – 1994 (Chair 1991 – 1993)  
Cain Project Faculty Advisory Committee, 2002 – present (Chair, 2003 – 2006)

## Residential College Activities

Faculty Associate of Brown College and Jones College (total of 22 years);  
Outstanding Faculty Associate, Jones College 2003  
Distinguished Faculty Associate (numerous times)  
Various Ad hoc Committees including Division and University-wide Awards and  
Fellowship Committees

## Teaching

General chemistry, Honors General Chemistry, Transition Metal Chemistry, the  
Chemistry of Art, special topics in inorganic chemistry (X-ray diffraction, Instrumental  
Methods of Analysis, Organometallic Chemistry), graduate seminar courses

## Selected Recent Presentations

### *Making Nanoparticles with Unusual Shapes*

Korea University, Jochiwon, South Korea July 5, 2007  
The College of William and Mary, Williamsburg, VA, Oct. 20, 2006

### *Organometallic and Coordination Chemistry of the Heavy Main Group Elements: Lessons for Materials and Biological Applications*

Korea University, Jochiwon, South Korea July 6, 2007  
Chinese University of Hong Kong, Hong Kong, Aug. 14, 2007  
City University of Hong Kong, Hong Kong, Aug. 15, 2007  
Hong Kong University of Science and Technology, Hong Kong, Aug. 16, 2007  
University of Hong Kong, Hong Kong, Aug. 17, 2007  
Nankai University and Tianjin University, PRC (joint seminar), Aug. 21, 2007  
University of Canberra, ACT, Australia, Oct. 2, 2007  
University of Monash, Melbourne, Victoria, Australia, Oct. 3, 2007

### *Factors Affecting the Growth of Metal Oxide Nanoparticles – Unusual Materials from Metal Carboxylate Precursors*

University of Dortmund, Germany, May 30, 2005  
University of Magdeburg, Germany, June 2, 2005  
Technische Universität Chemnitz, Germany, June 7, 2005  
International University Bremen, Germany, June 10, 2005

### *Strategies for the Design of Molecular Single Source Precursors to Advanced Materials*

University of Leipzig, June 1, 2005  
University of Regensburg, June 6, 2005

### *Assembly of Heterometallic Metal Alkoxide and Carboxylate Compounds for Use as Single Source Precursors to Metal Oxides*

National Tsing-Hua University, Hsinchu, Taiwan, May 12, 2004  
Academia Sinica, Taipei, Taiwan, May 13, 2004  
National Taiwan University, Taipei, Taiwan, May 14, 2004  
National Taiwan Normal University, Taipei, Taiwan, May 17, 2004

*Understanding the Effect of Main Group Elements on Transition Metal Clusters:  
Materials and Catalysis Applications*

James Madison University, Harrisonburg, VA, Sept. 16, 2002

VPI, Blacksburg, VA, Sept. 21, 2002

Roanoke College, Salem, VA, Sept. 22, 2002

*Probing the Limits of Lewis Acidity and Hypervalency in Bismuth Alkoxide Complexes*

Université de Bordeaux, Bordeaux, France, Nov. 2, 2000

Université de Lyon, Lyon, France, Nov. 6, 2000

*The Reactivity and Bonding Capabilities of Main Group Elements in Main Group  
Element-Transition Metal Cluster Compounds*

Centre National de Recherche Scientifique, Toulouse, France, Nov. 3, 2000

Université de Paris 6, Paris, France, Nov. 7, 2000

Universität Karlsruhe, Karlsruhe, Germany, Nov. 15, 2000

Université de Strasbourg, Strasbourg, France, Nov. 16, 2000

Université de Rennes 1, Rennes, France, Nov. 21, 2000

Recent Research Projects

*Discrete and Extended Arrays of Main Group Elements and Transition Metals*, National Science Foundation, August 15, 2007 – August 14, 2010, \$363,572.

*Main Group Element Chemistry*, Robert A. Welch Foundation, June 1, 2007 – May 31, 2010, \$180,000.

*Nanomanufacturing: Preparation of Shaped Metal Oxide Nanoparticles*, National Science Foundation, through the Center for Biological and Environmental Nanotechnology (CBEN), August 2005 through present. (Graduate Fellowship)

*New Bismuth-Transition Metal Coordination Compounds as Molecular Precursors to Heterometallic Oxide Materials*, U.S. Civilian Research Development Foundation. Feb 1, 2007 – Jan. 31, 2009, \$12,000.

Electrochemical Processes at Electrode Electrolyte Interface, Assumed supervision of the active Welch grant for Norman Hackerman after his death on June 18, 2007. June 1, 2006 – May 31, 2009, \$156,000.