

Spring 1996 **Teaching Assistant**, Department of Chemistry, Universidad Simon Bolivar

- Supervision of the quantitative analysis laboratory; Assisted in preparation of samples for the lab.

RESEARCH EXPERIENCE

Spring 2005 –
Fall 2007 **Postdoctoral Research Associate**, Department of Chemistry, University Texas at San Antonio, San Antonio, TX.
Advisor: Dr. Judith Walmsley

Syntheses of Ru(II) and Pd(II) inorganic complexes with antitumor activity

Spring 2004 **Postdoctoral Research Associate**, Department of Chemistry, University of Houston, Houston, TX.
Advisor: Dr. Jay K. Kochi

Syntheses of heteronuclear (Ru(II), Pd(II) and Pt(II)) metallodendrimers; Studied light-harvesting properties of these materials.

2001 – 2004 **Robert A. Welch Foundation Graduate Fellow**, Department of Chemistry & Biochemistry, Baylor University, Waco, TX.
Advisor: Dr. Kevin K. Klausmeyer

Syntheses and characterization of polynuclear group 6 carbonyl complexes obtained by ligand substitution; Application of these novel complexes as building blocks in the synthesis of anionic metallodendrimers.

1999-2001 **Graduate student**, Department of Chemistry & Biochemistry, Baylor University, Waco, TX.
Advisor: Dr. F. G. A. Stone

Synthesis and characterization of novel metallocarboranes

1997-1998 **Undergraduate student, PDVSA-Intevep**, Technical Support Center of Petroleos de Venezuela, Los Teques, Venezuela
Advisor: Dr. Jose Carrazza

Explored the reactivity of various mesoporous materials in catalytic cracking of *n*-alkanes; Syntheses of silica-alumina materials in different Si/Al ratios and characterization of these materials by solid state techniques.

Jul-Oct 1996

Undergraduate student, Instituto Venezolano de Investigaciones Cientificas (IVIC), Altos de Pipe, Venezuela
Advisor: Dr. Veronica Herrera

Syntheses of ruthenium and iridium complexes; Application of these complexes as catalyst for the hydrogenation of imines

PUBLICATIONS

- 1.- Adrian, R. A., Broker, G. A., Tiekink, E. R. T., Walmsley, J. A. "Palladium(II) complexes of 1,10-phenanthroline: Synthesis and X-ray crystal structure determination", *Inorg. Chim. Acta*, **2008**, 1261-1266.
- 2.- Adrian, R. A., Zhu, S., Klausmeyer, K. K., Walmsley, J. A. "Synthesis and X-ray crystal structure determination of monomeric *cis*-Pd(2,2'-bipyridine)(NO₃)₂", *Inorg. Chem. Comm.*, **2007**, 1527-1530.
- 3.- Adrian, R. A., Zhu, S., Powell, D. R., Broker, G. A., Tiekink, E. R. T., Walmsley, J. A. "Dinuclear palladium(II) complexes with bridging amidate ligands", *Dalton Trans.*, **2007**, 4399-4404
- 4.- Adrian, R. A., Zhu, S., Daniels, L. M., Walmsley, J. A. "[1,2-Bis(diphenylphosphino)ethane]dinitratopalladium(II)", *Acta Cryst. Section E*, **2006**, E62, m1422-m1424
- 5.- Adrian, R. A., Benson, R. E., Daniels, L. M., Tiekink, E. R. T., Walmsley, J. A. "Di- μ -hydroxo-bis[(2,2'-bipyridine)palladium(II)] trifluoromethanesulfonate", *Acta Cryst. Section E*, **2006**, E62, m601-m603
- 6.- Klausmeyer, K. K., Adrian, R. A. "Tris(tetraethylammonium) μ -3-hydroxo-propanolato-di- μ -methoxy-bis[tricarbonyl-tungsten(0)]", *Acta Cryst. Section E*, **2005**, E61, m2039-m2041
- 7.- Klausmeyer, K. K., Yaklin, M. M., Adrian, R. A. "Pentakis(tetraethylammonium) diaqua- μ -malonato-tetramalonatodi- μ -3-oxo-di- μ -oxo-tetraoxopotassium tetramolybdenum acetonitrile disolvate", *Acta Cryst. Section E*, **2005**, E61, m1607-m1609
- 8.- Klausmeyer, K. K., Adrian, R. A. "Tris(tetraethylammonium) tris(4-pyridine-methanolato)bis[tricarbonyltungsten(0)] acetonitrile trisolvate", *Acta Cryst. Section E*, **2004**, E60, m1414-m1416
- 9.- Adrian, R. A., Yaklin, M. M., Klausmeyer, K. K. "Synthesis and Characterization of New B- and Tri-nuclear Mo Carbonyl Compounds Obtained by Ligand Exchange Reactions of [Et₄N]₃[Mo₃(CO)₉(OMe)₃]", *Organometallics*, **2004**, 23, 1352-1358
- 10.- Klausmeyer, K. K.; Adrian, R. A.; Khan, M.; Reibenspies, J. H. "Ligand Exchange Reactions of [Et₄N]₃[W₂(CO)₆(OMe)₃]. A Reactive Binuclear Tungsten(0) Carbonyl Center", *Organometallics*, **2003**, 22, 657-662
- 11.- Carrazza, J.; Gonzalez, F.; Adrian, R.; Djaouadi, D.; Moore, J. G.; Shahriari, D. Y.; Landry, C. C.; Lujano, J. "Characterization of the acidity and catalytic activity of MCM-48 and amorphous silica-alumina materials", *Proceedings of the 12th International Zeolite Conference*, **1999**, 801-808

PROFESSIONAL PRESENTATIONS

- October 2006 62nd ACS Southwest Regional Meeting, Houston, TX. "Synthesis and characterization of dinuclear Pd(II) complexes containing bridging acetamide ligands"
- March 2006 231st ACS National Meeting, Atlanta, GA. "Synthesis and characterization of new ruthenium complexes containing bridging ligands"
- October 2003 59th ACS Southwest Regional Meeting, Oklahoma City, OK. "Tungstate and Molybdate Ligands on a Zerovalent Metal; Trapping Carbonate into Group 6 Metal Carbonyl Clusters"
- September 2003 226th ACS National Meeting, New York City, NY. "Bi- and trinuclear Molybdenum(0) and Tungsten(0) carbonyl complexes obtained by ligand substitution, synthesis of first generation anionic metallodendrimers"
- November 2002 58th ACS Southwest Regional Meeting, Austin, TX. "Synthesis, Characterization and Reactivity of Polynuclear Group VI Carbonyl Compounds, Toward the Design of Macromolecules"

PROFESSIONAL AFFILIATIONS

- 1999 – Present American Chemical Society
- 2008 – Present Sigma Xi, The Scientific Research Society
- 2008 – Present Texas Academy of Science